
Morningstar's European Active/Passive Barometer

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Executive Summary

The Morningstar European Active/Passive Barometer is a semiannual report that measures the performance of European-domiciled active funds against passive peers in their respective Morningstar Categories.

The Active/Passive Barometer uses several unique ways to measure active managers' success:

- ▶ It evaluates active funds not versus a costless index, but against a composite of actual passive funds. In this way, the "benchmark" reflects the actual, net-of-fees performance of passive funds.
- ▶ It assesses active funds based on their beginning-of-period category classification to better simulate the funds an investor would have had to choose from at the time.
- ▶ It considers how the average unit of currency invested in various types of active funds has fared versus the average unit of currency in the passive composite.

The Active/Passive Barometer is also comprehensive, spanning approximately 9,400 unique active and passive European-domiciled funds that account for approximately EUR 2.9 trillion in assets, or about one third of the total European fund market.

All told, the Active/Passive Barometer is a useful measuring stick that can help investors better calibrate the odds of succeeding with active funds in different areas based on recent trends and longer-term history.

Key Takeaways

- ▶ European stock-pickers' long-term success rates are low. A majority of active managers both survived and outperformed their average passive peer in just two of the 49 categories we examined over the decade through June 2018.
- ▶ Over the 10 years through June 2018, active managers' success rate was less than 25% in more than half of the categories surveyed.
- ▶ Active funds' 10-year success rates in the largest equity categories (as measured by assets under management) are amongst the lowest of all the categories we examined. A small percentage (between 11.5% and 23.7%) of managers have achieved long-term success in the Europe large-cap blend, global large-cap blend, and global emerging-markets categories. The same subpar result is echoed across the two largest ex Europe single-country categories--US large-cap blend and Japan large-cap--in which active managers achieved success rates of just 12.4% and 17.8%, respectively.

- ▶ Active managers fared better in some categories than others. For example, those in the UK mid-cap category have consistently outpaced their average passive peer. Three fourths of active funds available to investors in this category 10 years ago both survived and outperformed their average passive peer over the ensuing decade. Beat rates for the Norway equity category are slightly lower but still favor active management. Nearly 60% of active funds in the Norway equity category survived and outperformed their average passive competitor over the past 10 years.

- ▶ Survivorship rates are positively correlated with odds for success. The biggest driver of active funds' failure is their inability to survive, which is often a result of lacklustre performance.

- ▶ Comparing mortality rates between active and passive funds shows that the latter have had better odds of survival over the long term. The contrast is starker over longer lookback periods.

- ▶ Active fixed-income managers' success rates have also been low. Over the past decade, less than a fourth have managed to both live and outsmart their average passive peer in 10 of the 12 categories we studied.

Exhibit 1 Active Funds' Success Rate by Category (%)

Category Name	1-Year	3-Year	5-Year	10-Year
Asia-Pacific ex-Japan Equity	71.8	40.1	35.1	8.7
Asia-Pacific incl Japan Equity	36.8	24.1	31.9	16.3
Canada Equity	12.5	44.4	18.2	11.1
China Equity	64.4	52.5	46.5	40.5
Emerging Europe ex-Russia Equity	56.3	35.3	37.5	15.0
Europe ex-UK Large-Cap Equity	61.9	56.6	36.9	38.9
Europe Large-Cap Blend Equity	28.4	23.1	19.8	16.3
Europe Large-Cap Value Equity	32.4	23.5	25.2	25.1
Europe Small-Cap Equity	42.0	70.8	55.6	26.9
France Large-Cap Equity	17.6	27.4	27.0	38.0
Germany Large-Cap Equity	61.3	55.7	46.0	26.7
Global Emerging Markets Equity	29.2	30.5	30.0	23.7
Global Large-Cap Blend Equity	21.9	18.3	12.7	11.5
Hong Kong Equity	36.8	15.8	38.9	7.1
India Equity	42.4	74.1	75.6	43.1
Italy Equity	27.3	59.6	53.2	34.3
Japan Large-Cap Equity	41.4	38.6	27.0	17.8
Japan Small/Mid-Cap Equity	82.4	66.7	77.8	35.5
Korea Equity	35.3	13.3	26.7	7.7
Latin America Equity	44.4	45.2	34.4	27.8
Netherlands Equity	12.5	30.0	38.5	9.5
Nordic Equity	69.4	66.7	46.9	35.8
Norway Equity	16.7	65.4	57.6	59.6
Property - Indirect Asia	4.2	17.4	11.1	15.4
Property - Indirect Europe	48.3	41.8	41.4	19.4
Russia Equity	6.5	61.4	42.0	34.0
Spain Equity	76.5	54.3	40.5	31.4
Sweden Equity	58.9	61.3	58.2	30.9
Switzerland Large-Cap Equity	44.4	59.4	52.5	26.0
Switzerland Small/Mid-Cap Equity	38.6	53.2	50.0	46.9
Taiwan Large-Cap Equity	73.9	54.2	45.2	21.9
UK Large-Cap Blend Equity	41.9	36.4	44.1	26.2
UK Mid-Cap Equity	71.4	76.9	72.7	75.0
US Large-Cap Blend Equity	22.7	17.4	15.8	12.4
US Large-Cap Growth Equity	15.7	8.8	1.7	0.7
US Large-Cap Value Equity	46.8	16.3	24.7	9.3
US Small-Cap Equity	39.4	40.0	42.3	14.3
CHF Bond	25.7	37.9	23.3	15.8
EUR Bond - Long Term	42.9	26.7	18.4	16.3
EUR Corporate Bond	31.8	56.6	53.3	44.4
EUR Diversified Bond	1.5	13.1	21.8	15.0
EUR Government Bond	18.0	28.3	30.4	14.0
EUR Inflation-Linked Bond	19.0	11.1	18.1	20.4
GBP Corporate Bond	18.2	52.2	45.2	15.9
GBP Government Bond	45.7	37.8	20.5	11.8
JPY Bond	27.3	50.0	20.0	9.5
USD Corporate Bond	27.3	32.8	25.5	35.0
USD Diversified Bond	4.2	11.2	13.5	3.4
USD Government Bond	27.3	13.9	28.6	17.6

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 2 Asia-Pacific Ex Japan

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	117	94.9	10	80.0	8.4	6.1	8.4	5.4	71.8
3-Year	137	75.9	14	50.0	7.3	8.4	7.7	6.6	40.1
5-Year	131	61.8	11	36.4	6.9	8.9	8.0	7.4	35.1
10-Year	173	37.0	6	50.0	5.3	8.8	6.0	8.2	8.7

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 3 Asia-Pacific Incl Japan

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	125	96.0	20	85.0	9.6	7.4	7.0	7.4	36.8
3-Year	137	79.6	15	80.0	3.2	3.5	4.1	5.1	24.1
5-Year	138	71.0	13	84.6	7.7	9.0	7.2	7.9	31.9
10-Year	160	43.1	3	100.0	3.3	6.0	4.5	5.8	16.3

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 4 Canada

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	8	87.5	14	92.9	6.2	10.3	6.1	9.9	12.5
3-Year	9	77.8	13	84.6	5.9	6.0	4.3	5.6	44.4
5-Year	11	45.5	14	78.6	6.4	7.1	4.8	6.9	18.2
10-Year	9	33.3	3	66.7	1.8	2.8	0.4	2.7	11.1

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 5 China

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	118	91.5	21	85.7	16.6	18.0	16.6	13.2	64.4
3-Year	122	81.1	19	78.9	3.5	4.6	3.8	2.5	52.5
5-Year	114	71.9	20	60.0	10.7	10.9	10.8	9.6	46.5
10-Year	74	51.4	5	80.0	4.9	2.4	5.8	3.6	40.5

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 6 Emerging Europe Ex Russia

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	32	90.6	4	75.0	1.5	-4.3	-2.9	-4.6	56.3
3-Year	34	76.5	4	50.0	6.7	1.3	3.5	2.6	35.3
5-Year	40	57.5	3	33.3	6.2	3.5	4.5	4.3	37.5
10-Year	40	30.0	4	25.0	-2.0	-1.0	-1.5	-1.0	15.0

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 7 Europe Ex UK Large Cap

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	105	94.3	19	94.7	5.1	1.7	3.4	1.5	61.9
3-Year	113	76.1	16	75.0	9.8	6.2	8.9	6.7	56.6
5-Year	111	64.0	10	80.0	10.4	9.8	10.1	9.8	36.9
10-Year	108	44.4	7	71.4	6.9	5.6	6.6	4.7	38.9

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 8 Europe Large-Cap Blend

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	605	95.5	140	86.4	4.4	5.9	2.7	4.2	28.4
3-Year	577	84.2	110	79.1	3.2	4.3	2.2	3.4	23.1
5-Year	565	72.7	93	71.0	8.2	9.5	7.6	8.6	19.8
10-Year	645	44.0	59	62.7	4.3	5.1	4.1	4.9	16.3

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 9 Europe Large-Cap Value

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	111	95.5	13	76.9	1.7	2.7	1.1	2.4	32.4
3-Year	115	80.9	11	81.8	2.2	2.6	1.6	2.6	23.5
5-Year	135	65.9	10	70.0	8.0	8.5	7.0	7.9	25.2
10-Year	211	42.2	14	42.9	4.2	3.1	4.0	3.8	25.1

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 10 Europe Small Cap

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	138	97.1	9	88.9	12.1	9.8	7.1	8.7	42.0
3-Year	106	92.5	10	80.0	9.8	7.8	10.6	7.3	70.8
5-Year	81	79.0	7	71.4	15.6	12.5	14.6	13.0	55.6
10-Year	93	48.4	4	75.0	8.7	7.9	8.2	9.0	26.9

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 11 France Large Cap

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	119	94.1	22	90.9	2.6	6.3	4.1	6.2	17.6
3-Year	124	84.7	25	80.0	5.0	6.2	5.0	5.8	27.4
5-Year	148	75.0	26	69.2	9.5	10.2	9.2	9.8	27.0
10-Year	142	59.9	23	34.8	4.8	5.3	4.7	4.6	38.0

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 12 Germany Large Cap

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	62	98.4	29	100.0	0.9	-0.8	1.3	-0.3	61.3
3-Year	61	88.5	25	92.0	4.9	3.5	3.9	3.1	55.7
5-Year	63	81.0	17	88.2	9.9	8.7	8.9	8.5	46.0
10-Year	75	53.3	12	58.3	7.1	6.5	6.3	6.3	26.7

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 13 Global Emerging Markets

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	537	95.0	83	96.4	4.7	8.7	4.7	7.0	29.2
3-Year	532	82.0	73	90.4	3.6	6.4	4.6	5.2	30.5
5-Year	486	70.6	52	90.4	5.7	7.0	5.4	5.7	30.0
10-Year	359	52.6	14	71.4	2.6	2.2	2.5	2.9	23.7

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 14 Global Large-Cap Blend

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	1632	93.6	162	93.2	12.7	10.6	7.4	10.3	21.9
3-Year	1469	81.0	133	84.2	9.2	9.3	6.1	8.9	18.3
5-Year	1335	67.7	93	76.3	14.3	13.2	9.3	11.5	12.7
10-Year	1351	42.9	50	50.0	7.5	8.8	5.5	7.3	11.5

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 15 Hong Kong

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	19	94.7	14	85.7	16.8	15.8	15.0	16.0	36.8
3-Year	19	89.5	15	60.0	7.0	6.6	5.6	7.5	15.8
5-Year	18	83.3	15	40.0	9.7	10.2	8.9	9.0	38.9
10-Year	14	57.1	3	66.7	7.0	6.1	5.8	6.8	7.1

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 16 India

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	99	94.9	13	84.6	4.9	3.9	3.3	4.2	42.4
3-Year	81	87.7	12	66.7	5.3	2.9	7.1	3.5	74.1
5-Year	82	80.5	13	53.8	14.2	8.5	13.9	8.9	75.6
10-Year	58	56.9	4	75.0	5.6	5.5	7.5	5.8	43.1

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 17 Italy

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	55	94.5	10	90.0	5.7	7.5	5.2	7.3	27.3
3-Year	47	89.4	11	72.7	1.9	1.6	3.0	1.6	59.6
5-Year	47	76.6	9	66.7	10.1	9.9	10.2	9.7	53.2
10-Year	67	40.3	7	42.9	1.7	0.0	1.9	0.4	34.3

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 18 Japan Large Cap

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	222	95.0	99	88.9	10.0	9.5	10.1	9.9	41.4
3-Year	223	78.0	85	82.4	3.5	3.1	5.6	4.5	38.6
5-Year	226	64.6	63	77.8	9.7	9.9	9.5	9.6	27.0
10-Year	337	34.7	43	55.8	3.5	4.1	4.8	4.8	17.8

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 19 Japan Small/Mid-Cap

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	34	100.0	3	100.0	16.3	12.3	21.1	10.8	82.4
3-Year	36	86.1	3	100.0	10.4	4.5	14.4	8.1	66.7
5-Year	36	77.8	4	75.0	15.1	10.1	17.1	12.1	77.8
10-Year	62	35.5	5	40.0	7.4	1.3	9.9	6.1	35.5

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 20 South Korea

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	17	82.4	11	90.9	3.1	-7.6	0.8	0.9	35.3
3-Year	15	73.3	10	70.0	2.3	1.4	2.0	7.9	13.3
5-Year	15	66.7	8	62.5	4.0	3.4	3.9	6.7	26.7
10-Year	13	38.5	19	89.5	-0.8	4.9	0.9	4.4	7.7

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 21 Latin America

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	72	93.1	8	75.0	-2.4	-2.0	-2.8	-2.3	44.4
3-Year	84	76.2	11	54.5	1.2	0.8	1.2	0.4	45.2
5-Year	90	64.4	10	50.0	-0.8	-2.7	-2.2	-2.6	34.4
10-Year	79	44.3	12	50.0	-4.6	-5.3	-2.8	-4.1	27.8

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 22 Netherlands

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	8	75.0	8	75.0	5.3	10.9	6.9	8.4	12.5
3-Year	10	60.0	9	66.7	9.6	8.2	9.8	7.4	30.0
5-Year	13	46.2	8	62.5	13.9	12.7	14.5	12.3	38.5
10-Year	21	28.6	6	50.0	6.3	6.0	6.3	5.9	9.5

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 23 Nordic

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	49	95.9	7	85.7	5.0	1.8	3.7	0.2	69.4
3-Year	57	75.4	7	71.4	9.1	5.3	6.6	2.9	66.7
5-Year	64	59.4	8	37.5	15.2	12.9	12.8	9.8	46.9
10-Year	53	50.9	7	42.9	8.0	8.7	8.0	7.2	35.8

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 24 Norway

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	54	98.1	10	90.0	21.3	26.2	21.9	26.8	16.7
3-Year	52	88.5	11	72.7	12.6	11.7	13.6	11.8	65.4
5-Year	66	71.2	9	66.7	13.6	13.0	14.7	12.7	57.6
10-Year	57	71.9	7	57.1	6.9	6.5	7.7	6.2	59.6

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 25 Property - Indirect Asia

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	24	95.8	9	100.0	5.8	10.9	5.7	10.4	4.2
3-Year	23	91.3	8	75.0	6.7	6.8	4.4	6.9	17.4
5-Year	27	77.8	8	62.5	8.0	6.0	5.1	8.6	11.1
10-Year	26	46.2	4	75.0	-1.5	4.1	4.3	4.9	15.4

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 26 Property - Indirect Europe

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	58	96.6	15	93.3	11.0	9.7	10.0	9.8	48.3
3-Year	55	87.3	16	68.8	7.1	8.4	6.4	6.3	41.8
5-Year	58	75.9	12	58.3	12.3	12.3	11.6	11.5	41.4
10-Year	67	49.3	8	37.5	6.7	7.2	5.7	6.8	19.4

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 27 Russia

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	46	93.5	11	100.0	20.1	24.3	14.9	23.5	6.5
3-Year	57	75.4	11	90.9	13.9	9.7	13.3	9.7	61.4
5-Year	69	56.5	11	81.8	4.7	1.2	3.5	1.5	42.0
10-Year	50	50.0	3	100.0	-1.9	-4.4	-3.3	-4.1	34.0

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 28 Spain

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	85	95.3	15	93.3	1.4	-4.8	0.1	-5.4	76.5
3-Year	81	86.4	14	85.7	2.8	-0.3	1.8	-0.7	54.3
5-Year	74	82.4	15	73.3	9.0	8.3	8.1	7.8	40.5
10-Year	118	47.5	25	36.0	2.8	2.0	2.0	1.2	31.4

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 29 Sweden

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	73	94.5	23	95.7	2.6	2.0	3.2	2.0	58.9
3-Year	75	80.0	24	79.2	7.5	6.0	7.5	5.8	61.3
5-Year	79	67.1	22	77.3	12.9	11.7	13.1	11.4	58.2
10-Year	68	42.6	17	58.8	10.9	10.3	10.4	10.2	30.9

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 30 Switzerland Large Cap

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	135	96.3	52	98.1	2.8	1.5	2.7	2.1	44.4
3-Year	128	86.7	55	76.4	6.0	4.4	6.0	4.8	59.4
5-Year	120	75.0	35	82.9	8.1	6.8	7.8	6.7	52.5
10-Year	96	61.5	28	75.0	5.6	5.5	4.9	5.5	26.0

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 31 Switzerland Small/Mid-Cap

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	57	98.2	8	100.0	10.1	12.7	8.6	10.9	38.6
3-Year	47	93.6	7	100.0	17.0	16.8	15.7	15.5	53.2
5-Year	46	84.8	7	100.0	16.2	15.6	14.9	14.8	50.0
10-Year	49	65.3	3	100.0	7.5	8.4	7.2	6.9	46.9

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 32 Taiwan Large Cap

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	23	91.3	19	100.0	16.8	4.3	14.3	5.0	73.9
3-Year	24	83.3	21	76.2	8.8	8.3	7.8	6.9	54.2
5-Year	31	64.5	23	69.6	9.9	10.4	9.5	8.5	45.2
10-Year	32	50.0	8	100.0	6.0	7.2	6.6	6.5	21.9

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 33 UK Large-Cap Blend

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	136	94.9	56	94.6	8.0	8.8	7.8	8.3	41.9
3-Year	143	82.5	62	75.8	8.0	9.3	7.9	8.3	36.4
5-Year	136	74.3	55	74.5	8.5	8.4	8.5	8.0	44.1
10-Year	172	41.9	45	53.3	7.6	7.3	7.6	7.0	26.2

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 34 UK Mid-Cap

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	14	92.9	7	100.0	12.9	10.1	12.4	10.2	71.4
3-Year	13	100.0	7	100.0	10.8	8.4	9.7	8.4	76.9
5-Year	11	100.0	7	85.7	13.3	11.1	12.7	11.1	72.7
10-Year	8	87.5	4	100.0	12.4	11.2	12.5	11.2	75.0

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 35 US Large-Cap Blend

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	392	93.6	194	92.8	12.8	14.9	10.7	13.3	22.7
3-Year	384	83.9	148	83.1	9.4	12.0	8.6	10.9	17.4
5-Year	355	70.1	131	76.3	12.8	14.5	11.6	13.4	15.8
10-Year	396	43.2	66	54.5	10.0	10.6	8.5	10.2	12.4

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 36 US Large-Cap Growth

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	108	96.3	15	93.3	21.4	24.5	17.7	24.2	15.7
3-Year	114	78.1	11	81.8	12.3	16.7	10.7	16.1	8.8
5-Year	117	66.7	10	70.0	17.1	19.9	13.3	19.9	1.7
10-Year	135	38.5	8	62.5	9.3	14.9	8.8	14.4	0.7

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 37 US Large-Cap Value

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	94	93.6	19	100.0	6.7	9.1	8.5	8.9	46.8
3-Year	92	80.4	15	80.0	5.8	10.2	7.9	9.7	16.3
5-Year	77	74.0	9	66.7	10.7	11.2	10.3	11.5	24.7
10-Year	75	42.7	5	80.0	7.1	10.0	8.3	10.0	9.3

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 38 US Small Cap

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	66	95.5	16	93.8	17.4	17.2	18.1	16.7	39.4
3-Year	65	75.4	14	92.9	8.7	10.7	10.5	10.0	40.0
5-Year	52	73.1	9	88.9	13.4	13.0	12.4	12.6	42.3
10-Year	56	46.4	3	66.7	10.0	12.4	9.5	11.7	14.3

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 39 CHF Bond

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	113	93.8	44	95.5	-0.3	-0.1	-0.5	-0.1	25.7
3-Year	116	84.5	40	95.0	0.3	0.5	0.2	0.4	37.9
5-Year	103	74.8	35	88.6	1.6	1.9	1.3	1.8	23.3
10-Year	95	52.6	19	73.7	2.7	3.2	2.2	3.1	15.8

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 40 EUR Bond - Long Term

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	35	85.7	23	91.3	5.6	3.7	4.8	4.9	42.9
3-Year	30	80.0	22	81.8	5.1	4.1	4.2	5.0	26.7
5-Year	38	60.5	20	80.0	7.5	6.7	7.4	7.4	18.4
10-Year	49	40.8	10	70.0	9.6	6.9	8.4	7.7	16.3

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 41 EUR Corporate Bond

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	340	95.6	54	85.2	0.5	0.8	0.2	0.7	31.8
3-Year	350	86.0	44	84.1	2.1	1.9	1.7	1.6	56.6
5-Year	336	76.5	39	76.9	3.1	2.7	2.6	2.4	53.3
10-Year	142	63.4	5	100.0	4.0	4.3	3.9	3.9	44.4

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 42 EUR Diversified Bond

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	653	93.4	8	100.0	-0.1	2.6	-0.2	2.5	1.5
3-Year	697	81.2	7	85.7	1.2	2.1	1.1	2.0	13.1
5-Year	734	69.9	7	85.7	2.5	3.3	2.2	3.0	21.8
10-Year	707	46.0	11	45.5	3.4	4.1	3.2	4.1	15.0

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 43 EUR Government Bond

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	228	90.8	104	90.4	0.6	1.3	0.4	1.4	18.0
3-Year	247	79.4	107	75.7	1.6	1.9	1.3	1.9	28.3
5-Year	257	68.9	98	67.3	3.2	3.4	2.7	3.3	30.4
10-Year	235	46.0	31	51.6	4.1	4.5	3.8	4.6	14.0

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 44 EUR Inflation-Linked Bond

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	58	94.8	12	91.7	2.7	3.7	2.3	3.7	19.0
3-Year	63	82.5	11	81.8	1.4	2.1	1.4	2.1	11.1
5-Year	72	66.7	13	61.5	1.9	2.8	1.9	2.8	18.1
10-Year	49	42.9	4	50.0	2.2	2.8	2.6	2.8	20.4

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 45 GBP Corporate Bond

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	99	96.0	12	100.0	0.5	0.7	0.6	1.1	18.2
3-Year	92	78.3	13	76.9	4.8	4.5	4.8	4.3	52.2
5-Year	84	73.8	10	80.0	5.4	4.9	5.4	5.1	45.2
10-Year	69	44.9	2	100.0	6.4	6.4	6.4	6.5	15.9

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 46 GBP Government Bond

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	35	91.4	17	100.0	2.0	1.4	2.2	1.8	45.7
3-Year	37	64.9	20	70.0	4.6	3.8	5.1	4.3	37.8
5-Year	39	51.3	19	68.4	4.9	4.0	5.5	4.7	20.5
10-Year	34	32.4	5	60.0	5.8	5.7	5.6	5.7	11.8

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 47 JPY Bond

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	11	90.9	6	100.0	-0.4	1.1	0.0	1.1	27.3
3-Year	12	83.3	6	100.0	0.4	2.0	2.6	1.9	50.0
5-Year	15	66.7	4	100.0	2.8	2.2	1.9	2.2	20.0
10-Year	21	28.6	3	100.0	3.4	2.2	2.4	2.1	9.5

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 48 USD Corporate Bond

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	88	87.5	25	96.0	-2.2	-1.1	-1.1	-0.8	27.3
3-Year	67	88.1	17	88.2	0.9	2.5	1.5	1.9	32.8
5-Year	47	76.6	6	66.7	2.1	3.3	2.7	3.3	25.5
10-Year	20	75.0	4	75.0	5.2	4.9	4.7	5.0	35.0

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 49 USD Diversified Bond

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	143	91.6	6	100.0	-1.8	0.6	-0.8	3.5	4.2
3-Year	134	83.6	7	85.7	0.9	1.8	0.9	2.0	11.2
5-Year	126	77.8	7	85.7	1.8	2.3	1.5	2.5	13.5
10-Year	145	37.9	4	75.0	2.5	3.5	3.0	4.1	3.4

Source: Morningstar Direct. Data as of 30 June 2018.

Exhibit 50 USD Government Bond

	Active Funds		Passive Funds		Asset-Weighted Performance		Equal-Weighted Performance		Active Success Rate (%)
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Period									
1-Year	33	93.9	40	92.5	-1.8	-0.1	-1.4	-0.9	27.3
3-Year	36	77.8	25	72.0	-0.2	0.6	-0.1	0.8	13.9
5-Year	42	52.4	24	66.7	1.3	1.0	1.3	1.3	28.6
10-Year	34	32.4	6	66.7	2.8	3.3	3.0	3.3	17.6

Source: Morningstar Direct. Data as of 30 June 2018.

Appendix — Morningstar Categories Base Currencies

Exhibit 51 Morningstar Categories Base Currencies

Morningstar Category	Base Currency
Asia-Pacific ex-Japan Equity	US Dollar
Asia-Pacific inc. Japan Equity	US Dollar
Canada Equity	US Dollar
CHF Bond	Swiss Franc
China Equity	US Dollar
Emerging Europe ex-Russia Equity	Euro
EUR Bond - Long Term	Euro
EUR Corporate Bond	Euro
EUR Diversified Bond	Euro
EUR Government Bond	Euro
EUR Inflation-Linked Bond	Euro
Europe ex-UK Large-Cap Equity	Euro
Europe Large-Cap Blend Equity	Euro
Europe Large-Cap Value Equity	Euro
Europe Small-Cap Equity	Euro
France Large-Cap Equity	Euro
GBP Corporate Bond	Pound Sterling
GBP Government Bond	Pound Sterling
Germany Large-Cap Equity	Euro
Global Emerging Markets Equity	US Dollar
Global Large-Cap Blend Equity	US Dollar
Hong Kong Equity	Hong Kong Dollar
India Equity	US Dollar
Italy Equity	Euro
Japan Large-Cap Equity	Japanese Yen
Japan Small/Mid-Cap Equity	Japanese Yen
JPY Bond	Japanese Yen
Korea Equity	US Dollar
Latin America Equity	US Dollar
Netherlands Equity	Euro
Nordic Equity	Swedish Krona
Norway Equity	Norwegian Krone
Property - Indirect Asia	US Dollar
Property - Indirect Europe	Euro
Russia Equity	US Dollar
Spain Equity	Euro
Sweden Equity	Swedish Krona
Switzerland Large-Cap Equity	Swiss Franc
Switzerland Small/Mid-Cap Equity	Swiss Franc
Taiwan Large-Cap Equity	New Taiwan Dollar
UK Large-Cap Blend Equity	Pound Sterling
UK Mid-Cap Equity	Pound Sterling
US Large-Cap Blend Equity	US Dollar
US Large-Cap Growth Equity	US Dollar
US Large-Cap Value Equity	US Dollar
US Small-Cap Equity	US Dollar
USD Corporate Bond	US Dollar
USD Diversified Bond	US Dollar
USD Government Bond	US Dollar

Source: Morningstar Direct. Data as of 30 June 2018.

Appendix — Methodology

Data Source

Morningstar's European open-end and exchange-traded funds database.

Universe

All ETFs and open-end mutual funds (excluding funds of funds and money market funds) in each Morningstar Category that existed in the beginning of the relevant periods (including funds that did not survive to the end of the period) defined the eligible universe. To be included, the fund's inception date must precede the start of the period and the obsolete data cannot predate the start of the period. In addition, each must have asset data for at least one share class in the month prior to the start of the sample period (the beginning of the trailing one-, three-, five- and 10-year period) to facilitate asset-weighting.

Survivorship

To calculate survivorship, we divide the number of distinct funds (based on unique Fund ID at the beginning of the period) that started and ended up the period in question by the total number of funds that existed at the onset of the period in question (the beginning of the trailing one-, three-, five- and 10-year period).

Asset-Weighted Returns

We calculate the asset-weighted returns for each cohort using each share class' monthly asset and returns. When a fund becomes obsolete, its historical remains in the sample. Funds that incept or migrate into the category after the start of the period are not included. The return calculations are made in each category's base currency.

Equal-Weighted Returns

To come up with a single return figure for funds with multiple share classes, we first calculate the asset-weighted average of all the fund's share classes. We then take the simple equal-weighted average of the monthly returns for each fund in the group and compound those returns over the same period. As before, when a fund becomes obsolete, its historical data remains in the sample. Funds that incept or are moved into the category after the start of the period are not included. The return calculations are made in each category's base currency.

Success Rate

The success rate indicates what percentage of funds that started the sample period went on to survive and generate a return in excess of the equal-weighted average passive fund return over the period. This approach differs from the convention of using a single representative index to gauge success. We do not consider magnitude of outperformance in defining success - a fund that just barely beat the benchmark alternative counts as much as a fund that significantly outperformed.

As in the equal-weighted return calculation, we calculate the asset-weighted average of all the fund's share classes to come up with a single return figure for funds with multiple share classes. We then rank the fund by their composite returns, count the number that rank higher than the equal-weighted average than the equal-weighted average return for the passive funds in the category, and divide that

number by the funds at the beginning of the period (using the same number from denominator of the survivorship calculation).

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The Five Pillars

Morningstar has identified five key areas that we believe are crucial to predicting the future success of funds: People, Parent, Process, Performance, and Price. Each pillar is evaluated when assessing a fund as well as the interaction between the pillars, which we believe is crucial to understanding a fund's overall merit.

People

The overall quality of a fund's investment team is a significant key to its ability to deliver superior performance relative to its benchmark and/or peers. Evaluating a fund's investment team requires that analysts assess several relevant items including how key decisions are made.

Parent

We believe the parent organization is of utmost importance in evaluating funds. The fund's management set the tone for key elements of our evaluation, including capacity management, risk management, recruitment and retention of talent, and incentive pay. Beyond these operational areas, we prefer firms that have a culture of stewardship and put investors first to those that are too heavily weighted to salesmanship.

Process

We look for funds with a performance objective and investment process (for both security selection and portfolio construction) that is sensible, clearly defined, and repeatable. In addition, the portfolio should be constructed in a manner that is consistent with the investment process and performance objective.

Performance

We do not believe past performance is necessarily predictive of future results, and this factor accordingly receives a relatively small weighting in our evaluation process. In particular, we strive not to anchor on short-term performance. However, we do believe that the evaluation of long-term return and risk patterns is vital to determining if a fund is delivering to our expectations.

Price

To reflect actual investor experience, price is evaluated within the context of the relevant market or cross-border region—for example, the United States, Australia, Canada, or Europe. In recognition of differences in scale and distribution costs in various markets, the level at which a fund is penalised for high fees or rewarded for low fees can vary with region. In Europe, for example, funds are penalised if they land in the most expensive quintile of their Morningstar category and are rewarded if they land in the cheapest quintile. The assessment is made using annual expense ratios, but in the case of funds with performance fees, expenses are evaluated excluding any performance fees and then the structure of the performance fee is evaluated separately.

Morningstar Analyst Ratings

Morningstar Analyst Ratings are assigned on a five-tier scale running from Gold to Negative. The top three ratings, Gold, Silver, and Bronze, all indicate that our analysts think highly of a fund; the difference between them corresponds to differences in the level of analyst conviction in a fund's ability to outperform its benchmark and peers through time, within the context of the level of risk taken.

Gold

Represents funds that our analyst has the highest-conviction in for that given investment mandate. By giving a fund a Gold rating, we are expressing an expectation that it will outperform its relevant performance benchmark and/or peer group within the context of the level of risk taken over the long term (defined as a full market cycle or at least five years). To earn a Gold rating, a fund must distinguish itself across the five pillars that are the basis for our analysis.

Silver

Represents funds our analyst has high-conviction in, but not in all of the five pillars. With those fundamental strengths, we expect these funds will outperform their relevant performance benchmark and/or peer group within the context of the level of risk taken over the long term (defined as a full market cycle or at least five years).

Bronze

Represents funds that have advantages that clearly outweigh any disadvantages across the pillars, giving analyst the conviction to award them a positive rating. We expect these funds to beat their relevant performance benchmark and/or peer group within the context of the level of risk taken over a full market cycle (or at least five years).

Neutral

Represents funds in which our analysts don't have a strong positive or negative conviction. In our judgment, these funds are not likely to deliver standout returns, but they aren't likely to seriously underperform their relevant performance benchmark and/or peer group either.

Negative

Represents funds that possess at least one flaw that our analysts believe is likely to significantly hamper future performance, such as high fees or an unstable management team. Because of these faults, we believe these funds are inferior to most competitors and will likely underperform their relevant performance benchmark and/or peer group, within the context of the level of risk taken, over a full market cycle.

Morningstar may also use two other designations in place of a rating:

Under Review

This designation means that a change that occurred with the fund or at the fund company requires further review to determine the impact on the rating.

Not Ratable

This designation is used only where we are providing a report on a new strategy or on a strategy where there are no relevant comparators, but where investors require information as to suitability.

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Morningstar Rating

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