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# Morningstar's European Active/Passive Barometer

## Year-End 2021

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**Morningstar Manager Research  
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### Executive Summary

The Morningstar Active/Passive Barometer is a semiannual report that measures the performance of active funds against passive peers in their respective Morningstar EAA (Europe/Asia/Africa) Categories<sup>1</sup>.

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

- ▶ It evaluates active funds against a composite of passive funds — not versus a costless index. In this way, the benchmark reflects the actual, net-of-fee performance of the passive funds available to investors.
- ▶ It assesses active funds based on their beginning-of-period category classification to better simulate the funds an investor would have chosen 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 passive funds.

The Active/Passive Barometer is also comprehensive, spanning nearly 30,000 unique active and passive Europe-domiciled funds that account for over EUR 10 trillion in assets, or about three fourths of the total EAA fund market.

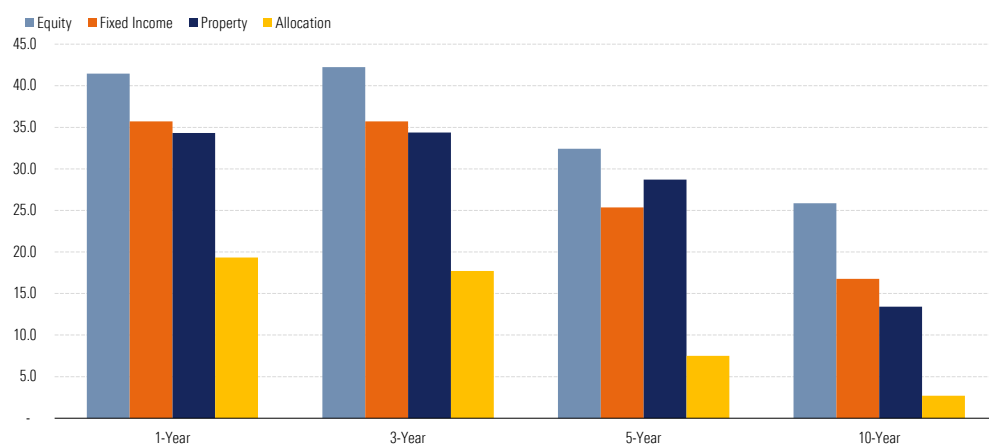
All told, the Active/Passive Barometer is a useful measuring stick that can help investors calibrate the odds of succeeding with active funds in different areas based on recent trends and longer-term history.

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<sup>1</sup> The categories include funds domiciled in European markets, major cross-border Asian markets where material numbers of European UCITS funds are available (principally Hong Kong, Singapore and Taiwan), South Africa, and selected other Asian and African markets where Morningstar believes it is of benefit to investors for the funds to be included in the EAA classification system.

### Key Takeaways

- ▶ Active funds' long-term success rates in Morningstar's EAA categories are low. Over the 10 years through December 2021, active funds' success rates were less than 23% in nearly two thirds of the categories surveyed.
- ▶ The majority of active funds both survived and outperformed their average passive peer in just three of 42 equity categories we examined over the decade through December 2021.
- ▶ Active funds' success rates in fixed income, allocation, and property categories have also been low. Over the past decade, less than a fifth have managed to both live and outsmart their average passive peer in the 21 categories we studied.
- ▶ Active funds' 10-year success rates in the largest multicountry categories remained low to moderate across all core exposures.
- ▶ Over the decade ended December 2021, the percentage of active managers that both survived and outperformed across these major market segments, such as Global Large-Cap Blend and Europe Large-Cap Blend, were 4.5% and 14.6%, respectively. One-fourth of the active funds within the Global Emerging-Markets Equity and nearly a third of the active funds within the Europe ex-UK Morningstar Categories lived and delivered better returns than their average passive counterpart over this same period.
- ▶ The 10-year success rates for single-country core exposures were mixed but still favoured passive funds. Over 40% of UK Large-Cap Equity managers lived and outperformed their typical passive counterparts. Success rates in the US Large-Cap Blend category, as well as Japan Large-Cap, France Large-Cap, Germany Large-Cap, and Switzerland Large-Cap, ranged between 2.9% and 31.7%.
- ▶ Active funds have fared better in some categories than others. For example, those in the Global Equity Income, Hong Kong, Taiwan Large-Cap, UK Equity Income and UK Mid-Cap Equity Morningstar Categories have consistently outpaced their average passive peer. More than half the active funds available to investors in these categories 10 years ago both survived and outperformed their average passive peer over the ensuing decade.
- ▶ 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 surviving over the long term. The contrast is starkest over longer periods.

**Exhibit 1** Success Rates by Asset Class (%)

Source: Morningstar Direct. Data as of 31 December 2021.

**Exhibit 2** Actively Managed Equity Funds' Success Rate by Category (%)

Category	1-Year	3-Year	5-Year	10-Year	15-Year	20-Year
Asia ex-Japan Equity	58.9	47.4	37.3	28.4		
Asia-Pacific Equity	22.4	52.2	43.4	18.3		
Asia-Pacific ex-Japan Equity	35.2	45.5	40.2	20.5	17.1	15.4
Brazil Equity	25.0	25.0	22.2	5.3		
China Equity	63.1	78.7	62.4	38.1	32.7	
Denmark Equity	38.9	36.1	25.0	48.5	40.6	15.4
Europe Equity Income	36.9	45.7	35.6	8.1		
Europe ex-UK Equity	36.6	35.0	24.4	28.7	23.1	30.1
Europe Large-Cap Blend Equity	28.7	30.7	20.5	14.6	11.1	11.6
Europe Large-Cap Value Equity	28.6	36.9	17.3	18.0	20.3	
Europe Small-Cap Equity	61.1	68.0	64.0	36.4		
Eurozone Large-Cap Equity	31.3	32.9	22.8	17.9	17.4	16.4
Eurozone Small-Cap Equity	52.1	52.7	38.0	23.1		
Finland Equity	43.5	69.0	36.4	13.5	7.1	
France Equity	9.6	14.9	7.8	11.3	10.9	13.6
Germany Equity	46.6	44.6	38.3	31.7	22.8	21.3
Global Emerging Markets Equity	32.6	49.1	32.3	25.4	13.7	
Global Equity Income	54.7	57.2	59.6	54.3		
Global Large-Cap Blend Equity	24.8	19.2	13.1	4.5	3.1	5.3
Global Large-Cap Value Equity	26.4	25.7	16.8	1.4		
Hong Kong Equity	16.7	75.0	44.4	54.5		
India Equity	53.5	41.7	31.6	48.6		
Italy Equity	63.5	32.8	24.5	37.7		
Japan Large-Cap Equity	43.9	35.4	30.1	15.8	10.8	10.1
Korea Equity	83.3	10.0	7.1	7.1		
Latin America Equity	21.8	35.3	33.8	27.3		
Nordic Equity	20.4	41.2	23.5	25.4	24.2	20.5
Norway Equity	54.9	78.8	52.9	48.4	50.9	63.8
Pacific ex-Japan Equity	33.3	22.2	18.2	11.1	11.1	
Spain Equity	65.1	33.0	31.8	25.3	13.8	16.5
Sweden Equity	24.2	34.8	30.1	32.1	21.7	24.6
Switzerland Equity	38.0	35.0	28.6	23.4	19.3	11.3
Switzerland Small/Mid-Cap Equity	60.7	49.1	41.2	36.5	45.2	
Taiwan Large-Cap Equity	100.0	50.0	25.0	50.0		
Turkey Equity	57.1	35.7	35.3	20.0		
UK Equity Income	35.9	61.6	61.8	50.5		
UK Large-Cap Equity	44.7	52.2	44.6	41.6	23.3	25.4
UK Mid-Cap Equity	45.5	72.7	50.0	50.0		
US Large-Cap Blend Equity	36.3	23.4	14.7	2.9	5.1	5.2
US Large-Cap Growth Equity	17.1	2.6	2.7	0.7	0.7	
US Large-Cap Value Equity	32.0	35.7	26.7	9.3	11.4	
US Small-Cap Equity	36.4	49.3	46.0	19.6		

Source: Morningstar Direct. Data as of 31 December 2021.

**Exhibit 3** Actively Managed Fixed-Income Funds' Success Rate by Category (%)

Category	1-Year	3-Year	5-Year	10-Year	15-Year	20-Year
CHF Bond	59.5	37.1	27.4	27.0	7.2	
EUR Bond - Long Term	34.6	32.3	18.4	12.8	9.5	
EUR Corporate Bond	54.8	52.5	45.9	41.6	28.4	
EUR Diversified Bond	72.7	26.3	12.5	8.7	6.8	5.4
EUR Government Bond	32.5	32.4	22.1	19.6	7.5	3.2
EUR Government Bond - Short Term	12.5	30.2	27.1	22.2	5.1	
EUR Inflation-Linked Bond	19.6	8.2	8.0	8.6		
EUR Money Market	74.1	73.5	57.0	34.9		
GBP Corporate Bond	73.8	40.2	50.9	32.7		
GBP Government Bond	15.8	47.6	30.4	14.8	17.9	10.5
GBP Inflation-Linked Bond	26.3	43.5	36.4	34.8	46.7	
Global Emerging Markets Bond	23.0	25.5	18.0	0.8		
Global Emerging Markets Bond - Local	48.4	39.1	10.0	7.8		
USD Corporate Bond	46.2	49.2	16.9	9.1		
USD Diversified Bond	49.4	25.5	21.0	11.3	26.9	
USD Government Bond	30.3	12.1	6.9	5.9	9.8	

Source: Morningstar Direct. Data as of 31 December 2021.

**Exhibit 4** Actively Managed Property Funds' Success Rate by Category (%)

Category	1-Year	3-Year	5-Year	10-Year	15-Year	20-Year
Property - Indirect Asia	38.5	31.3	25.0	19.0		
Property - Indirect Europe	66.7	46.9	38.8	25.5	16.1	
Property - Indirect Global	32.1	45.0	38.5	9.2	27.8	
Property - Indirect North America	0.0	14.3	12.5	0.0		

Source: Morningstar Direct. Data as of 31 December 2021.

**Exhibit 5** Actively Managed Cautious Allocation - Global Funds' Success Rate by Category (%)

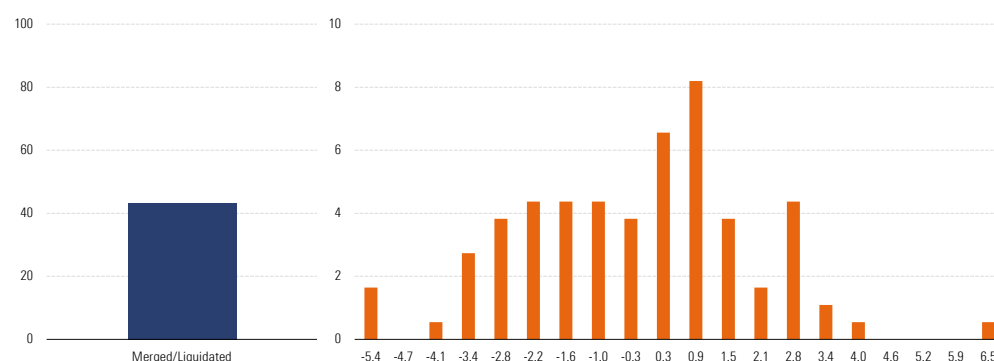
Category	1-Year	3-Year	5-Year	10-Year	15-Year	20-Year
EUR Cautious Allocation - Global	19.3	17.7	7.5	2.7		

Source: Morningstar Direct. Data as of 31 December 2021.

**Exhibit 6 Asia ex-Japan Equity**

	<b>Active Funds</b>		<b>Passive Funds</b>		<b>Asset-Weighted Performance</b>		<b>Equal-Weighted Performance</b>		<b>Active Success Rate (%)</b>
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
<b>Trailing Total Return</b>									
1-Year	175	97.7	17	100.0	-6.2	-6.5	-4.2	-5.8	58.9
3-year	192	84.9	17	82.4	12.9	11.6	13.2	11.4	47.4
5-Year	185	78.9	17	64.7	11.1	10.5	11.0	10.7	37.3
10-Year	183	56.8	14	50.0	7.2	7.1	7.2	7.1	28.4

Source: Morningstar Direct. Data as of 31 December 2021.

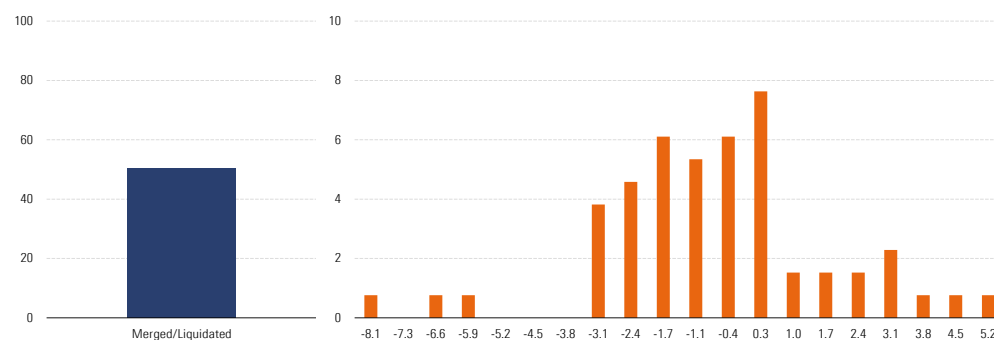
**Exhibit 7 Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Asia ex-Japan Equity Active Funds**

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 8 Asia-Pacific Equity**

	<b>Active Funds</b>		<b>Passive Funds</b>		<b>Asset-Weighted Performance</b>		<b>Equal-Weighted Performance</b>		<b>Active Success Rate (%)</b>
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
<b>Trailing Total Return</b>									
1-Year	85	95.3	16	100.0	-0.4	2.8	-1.4	2.8	22.4
3-year	92	85.9	16	93.8	12.9	9.2	11	9.3	52.2
5-Year	99	70.7	19	73.7	9.5	6.4	8.1	6.8	43.4
10-Year	131	49.6	10	80.0	7.1	5.8	6.4	6.6	18.3

Source: Morningstar Direct. Data as of 31 December 2021.

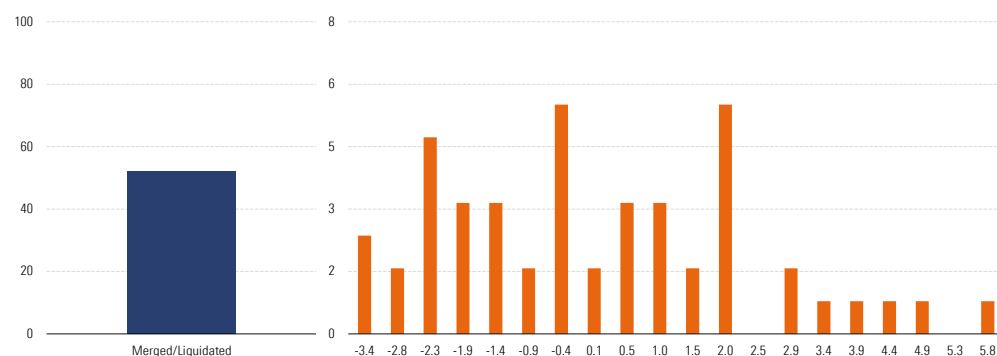
**Exhibit 9 Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Asia-Pacific Equity Active Funds**

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 10 Asia-Pacific ex-Japan Equity**

	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 (%)	
Trailing Total Return									
1-Year	91	95.6	12	100.0	2.6	2.3	-0.3	0.8	35.2
3-year	101	82.2	9	88.9	14.2	12.3	13.2	11.6	45.5
5-Year	102	73.5	10	60.0	11.9	9.5	11	10.1	40.2
10-Year	127	48.0	12	33.3	8	6.5	7.6	7.1	20.5
15-Year	175	29.7	8	75.0	5.9	3.7	5.3	4.3	17.1
20-Year	117	29.9	3	100.0	8.5	4.9	8.5	8.2	15.4

Source: Morningstar Direct. Data as of 31 December 2021.

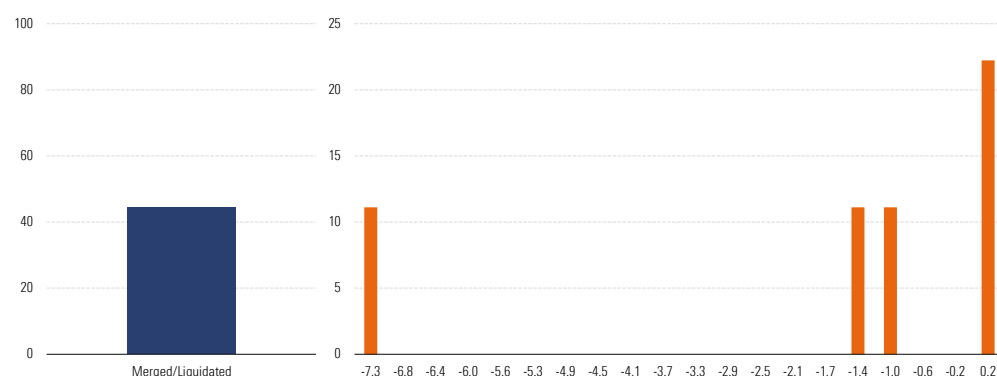
**Exhibit 11 Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Asia-Pacific ex-Japan Equity Active Funds**

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 12 Australia and New Zealand Equity**

	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 (%)	
Trailing Total Return									
1-Year	5	100.0	5	100.0	14.3	9.3	15	9.6	100.0
3-year	6	100.0	6	83.3	16.5	13.2	18.4	12.7	83.3
5-Year	11	54.5	6	83.3	9.6	8.7	10.6	8.5	45.5
10-Year	9	55.6	5	60.0	5.3	5.7	4.3	5.7	22.2

Source: Morningstar Direct. Data as of 31 December 2021.

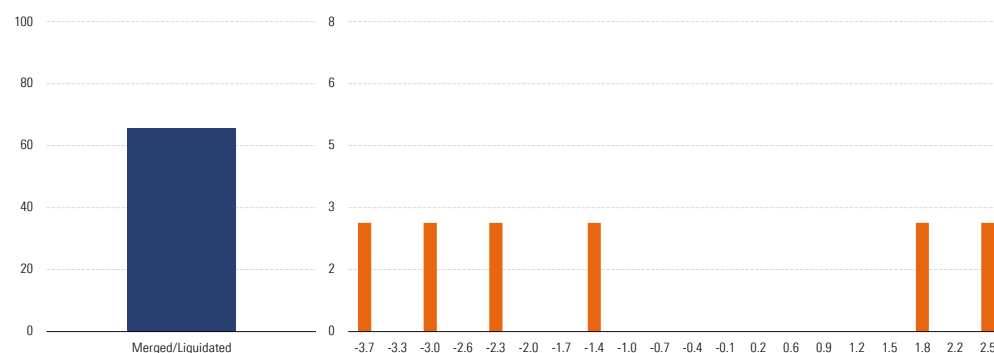
**Exhibit 13 Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Australia and New Zealand Equity Active Funds**

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 14** Brazil Equity

	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 (%)	
<b>Trailing Total Return</b>									
1-Year	12	75.0	8	87.5	-23.6	-18.2	-22.1	-18	25.0
3-year	16	62.5	8	62.5	-7.8	-6.3	-6.2	-6.5	25.0
5-Year	18	61.1	8	50.0	-1.5	-0.3	1.1	-0.3	22.2
10-Year	38	34.2	13	23.1	-5.8	-4.7	-4.6	-3.9	5.3

Source: Morningstar Direct. Data as of 31 December 2021.

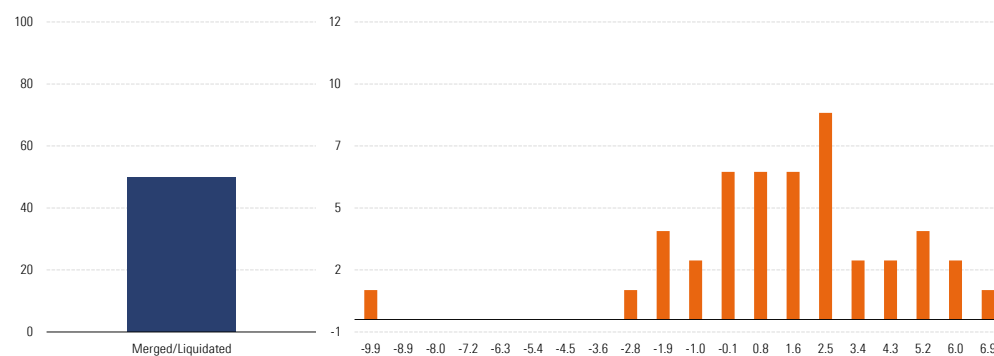
**Exhibit 15** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Brazil Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 16** China Equity

	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 (%)	
<b>Trailing Total Return</b>									
1-Year	103	98.1	20	95.0	-18.8	-21.8	-15.4	-19.4	63.1
3-year	89	88.8	15	86.7	11.8	4.9	14.1	5.4	78.7
5-Year	85	74.1	14	78.6	11.2	5.8	11.3	6.8	62.4
10-Year	84	50.0	16	43.8	8.2	4.1	7.4	5.3	38.1
15-Year	55	47.3	3	66.7	6.1	2.4	5.6	3.4	32.7

Source: Morningstar Direct. Data as of 31 December 2021.

**Exhibit 17** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving China Equity Active Funds

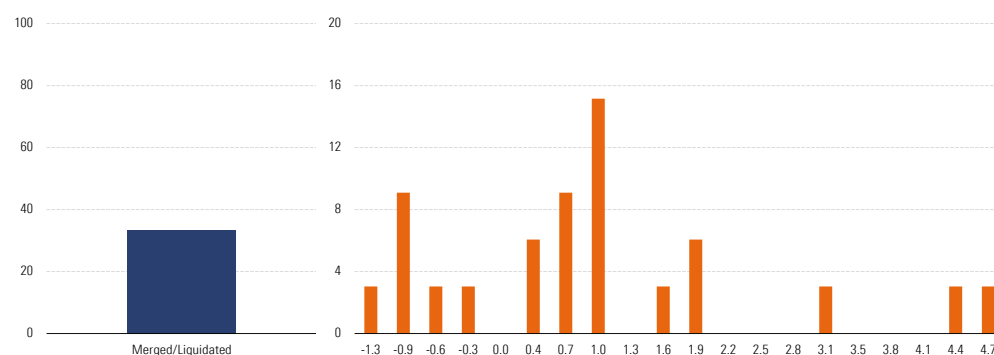
Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.



**Exhibit 18** Denmark Equity

	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 (%)	
Trailing Total Return									
1-Year	36	91.7	5	100.0	20.3	18.5	19.9	19.4	38.9
3-year	36	80.6	4	100.0	25.6	25.7	26	24.8	36.1
5-Year	32	78.1	4	100.0	14.5	15.5	14.6	15.5	25.0
10-Year	33	66.7	5	40.0	18.7	18.3	19	17.9	48.5
15-Year	32	46.9	5	40.0	10.4	10.1	10.4	9.3	40.6
20-Year	26	30.8	4	50.0	12.9	12.9	13.1	13.2	15.4

Source: Morningstar Direct. Data as of 31 December 2021.

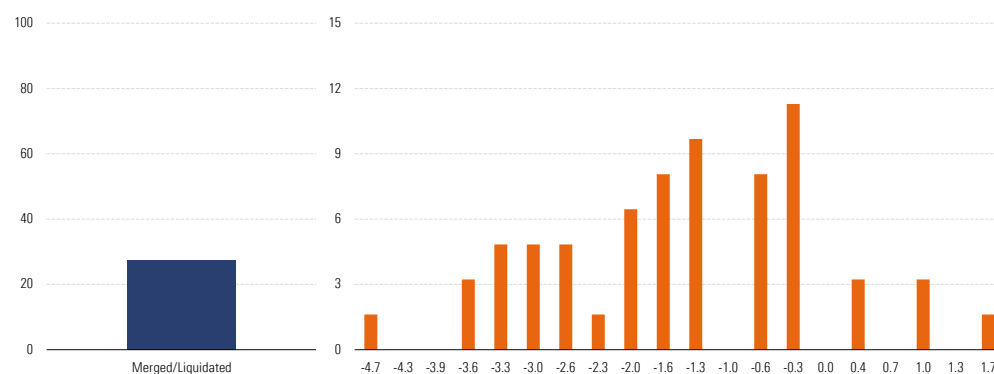
**Exhibit 19** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Denmark Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 20** Europe Equity-Income

	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 (%)	
Trailing Total Return									
1-Year	84	96.4	9	100.0	21	23.0	21	22.2	36.9
3-year	94	81.9	9	100.0	9.8	11.5	11.2	10.6	45.7
5-Year	87	75.9	7	57.1	4.6	6.7	5.4	5.3	35.6
10-Year	62	72.6	3	33.3	6.9	8.7	7.5	8.7	8.1

Source: Morningstar Direct. Data as of 31 December 2021.

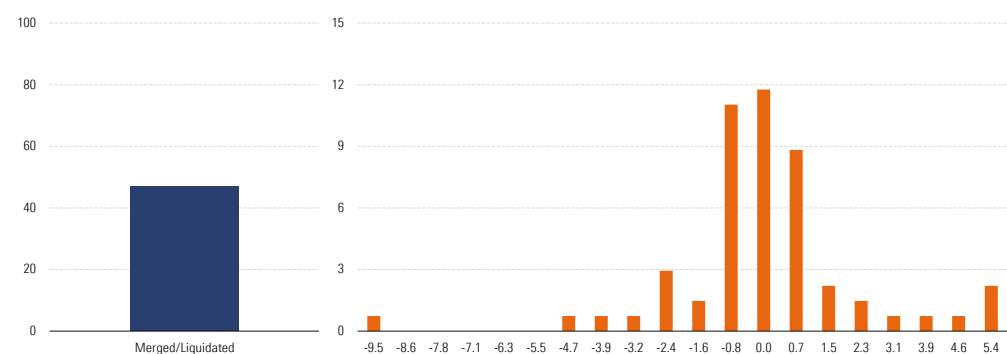
**Exhibit 21** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Europe Equity-Income Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 22** Europe ex-UK Equity

	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 (%)	
	Trailing Total Return								
1-Year	123	93.5	22	95.5	23.8	24.3	23.2	24.2	36.6
3-year	123	80.5	23	87.0	19.1	17.3	17.2	17.3	35.0
5-Year	123	71.5	18	77.8	11.4	10.1	9.7	10	24.4
10-Year	136	52.9	11	81.8	12.2	11.1	11.6	11.1	28.7
15-Year	121	42.1	8	87.5	6.1	4.9	5.9	5.2	23.1
20-Year	93	47.3	4	100.0	5.8	5.6	6.3	5.4	30.1

Source: Morningstar Direct. Data as of 31 December 2021.

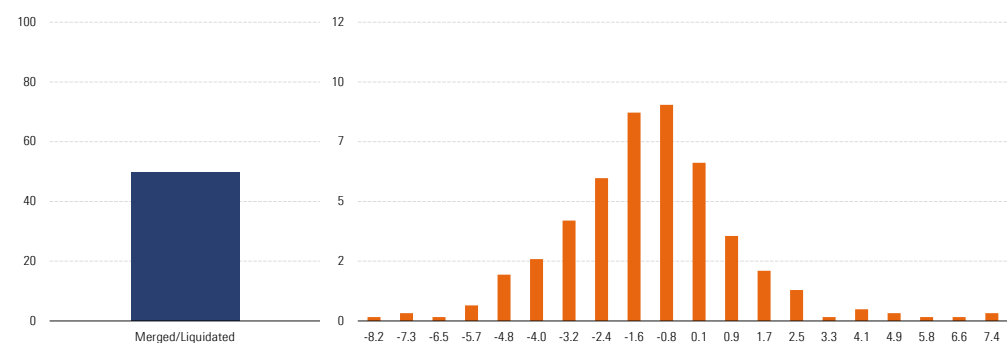
**Exhibit 23** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Europe ex-UK Active Equity Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 24** Europe Large-Cap Blend Equity

	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 (%)	
Trailing Total Return									
1-Year	541	95.7	129	96.9	23.6	25.5	22.7	25.1	28.7
3-year	612	81.9	121	88.4	15	15.6	14.8	15.6	30.7
5-Year	580	73.1	119	72.3	8	8.8	7.7	8.8	20.5
10-Year	645	50.4	84	59.5	9.1	9.7	9	9.7	14.6
15-Year	746	33.0	62	54.8	4	4.4	3.7	4.1	11.1
20-Year	502	31.5	35	62.9	3.5	4.4	4	4.2	11.6

Source: Morningstar Direct. Data as of 31 December 2021.

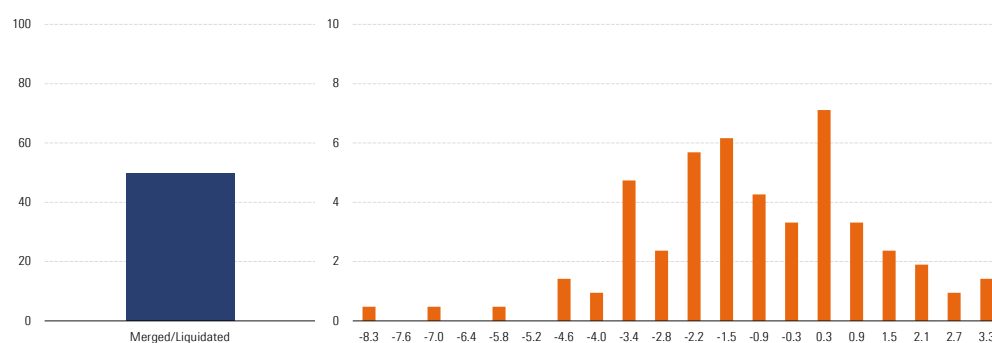
**Exhibit 25** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Europe Large-Cap Blend Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 26** Europe Large-Cap Value Equity

	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 (%)	
	Trailing Total Return								
1-Year	77	92.2	11	100.0	23.3	25.7	22.7	25	28.6
3-year	103	82.5	13	92.3	10.6	11.6	11.2	11.3	36.9
5-Year	110	74.5	15	73.3	4.4	6.5	5.1	6.5	17.3
10-Year	211	50.2	16	56.3	8.6	9.1	8.4	9	18.0
15-Year	138	32.6	4	50.0	3.3	3.7	3.3	2.7	20.3

Source: Morningstar Direct. Data as of 31 December 2021.

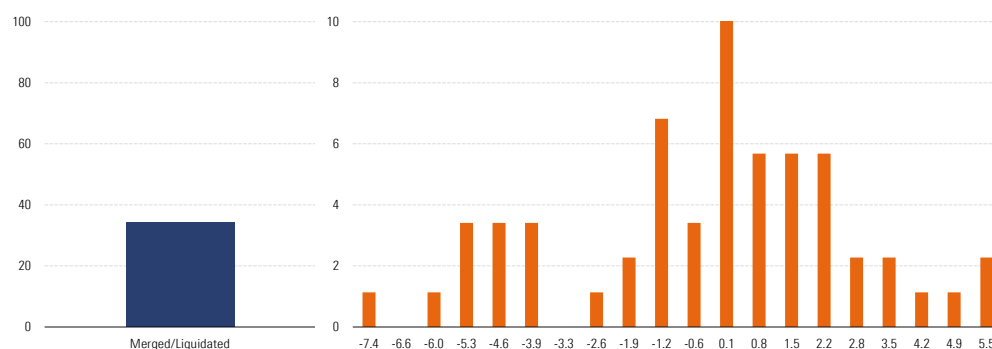
**Exhibit 27** Mortality and Distribution of 10-Year Annualised Excess Returns for Europe Large-Cap Value Active Equity Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 28** Europe Small-Cap Blend Equity

	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 (%)	
Trailing Total Return									
1-Year	149	99.3	7	100.0	24.6	24.0	26.1	24.2	61.1
3-year	150	92.7	7	100.0	21.9	19.8	22	18.4	68.0
5-Year	125	88.8	8	87.5	12.8	11.3	13	10.3	64.0
10-Year	88	65.9	7	71.4	13.3	14.0	13.9	13.6	36.4

Source: Morningstar Direct. Data as of 31 December 2021.

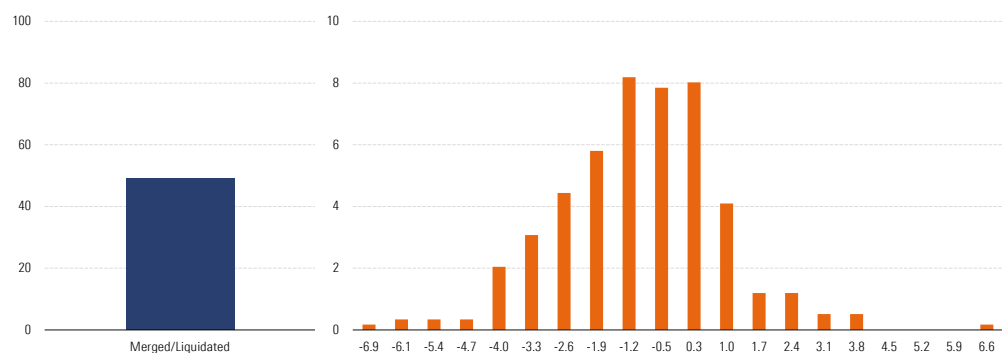
**Exhibit 29** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Europe Small-Cap Blend Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 30** Eurozone Large-Cap Equity

	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 (%)	
Trailing Total Return									
1-Year	402	94.8	92	96.7	22.4	23.4	21.8	23.5	31.3
3-year	422	88.4	101	84.2	15.1	15.2	14	14.9	32.9
5-Year	408	81.6	92	78.3	7.8	8.2	7.1	8.1	22.8
10-Year	586	51.0	96	55.2	9.6	9.9	9.1	9.6	17.9
15-Year	648	37.5	88	37.5	3.2	3.5	3.4	3.3	17.4
20-Year	450	29.8	56	32.1	3.6	3.6	3.8	3.4	16.4

Source: Morningstar Direct. Data as of 31 December 2021.

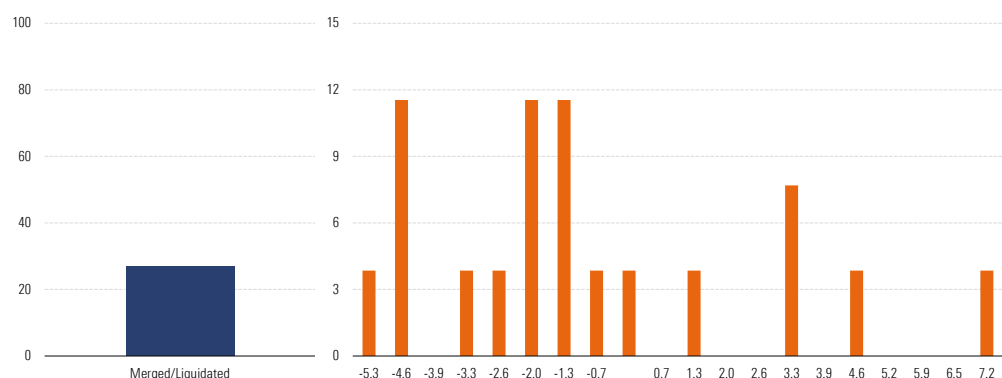
**Exhibit 31** Mortality and Distribution of 10-Year Annualised Excess Returns for Eurozone Large-Cap Active Equity Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 32** Eurozone Small-Cap Equity

	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 (%)	
Trailing Total Return									
1-Year	48	100.0	4	100.0	23	23.4	24.8	23.4	52.1
3-year	55	92.7	4	100.0	17.6	18.6	19.4	18.6	52.7
5-Year	50	94.0	4	50.0	9.3	11.4	10.5	11.4	38.0
10-Year	26	73.1	6	50.0	12.3	12.9	13.1	13.5	23.1

Source: Morningstar Direct. Data as of 31 December 2021.

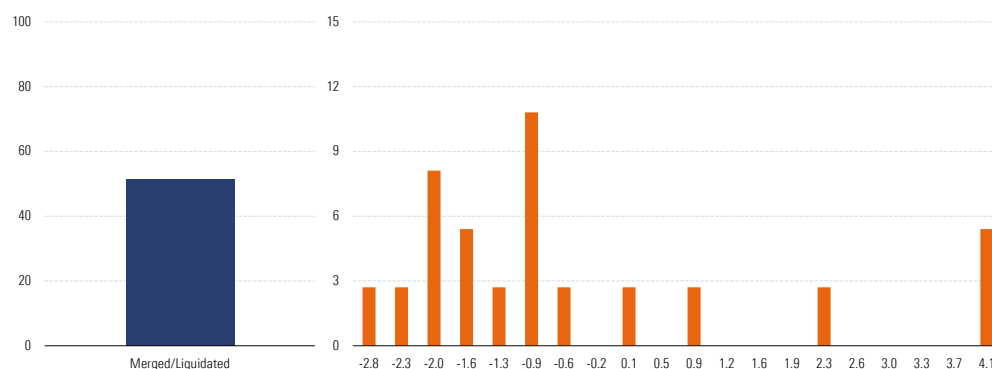
**Exhibit 33** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Eurozone Small-Cap Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 34** Finland Equity

	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 (%)	
Trailing Total Return									
1-Year	23	91.3	5	100.0	23.9	24.5	25.2	24.2	43.5
3-year	29	72.4	5	100.0	23.1	18.7	25.7	18.7	69.0
5-Year	33	60.6	4	100.0	12.6	12.3	13.8	12.3	36.4
10-Year	37	48.6	3	100.0	13.8	15.1	14.7	14.9	13.5
15-Year	28	53.6	3	66.7	7.3	8.4	7.8	8.2	7.1

Source: Morningstar Direct. Data as of 31 December 2021.

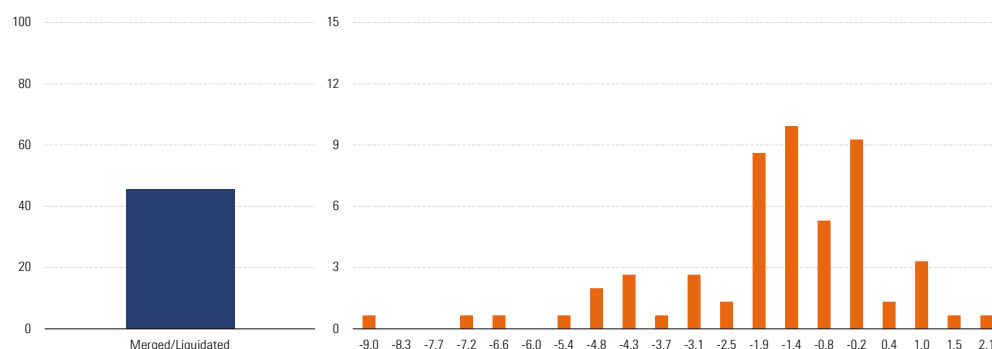
**Exhibit 35** Mortality and Distribution of 10-Year Annualised Excess Returns for Finland Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 36** France Equity

	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 (%)	
Trailing Total Return									
1-Year	115	93.0	18	100.0	25	31.0	25.3	30.3	9.6
3-year	121	84.3	19	89.5	14.3	17.4	14.4	16.9	14.9
5-Year	116	75.9	20	80.0	7.5	10.6	7.4	10.2	7.8
10-Year	151	54.3	28	53.6	9.7	11.4	9.7	11	11.3
15-Year	174	34.5	28	25.0	3.7	4.9	4	4.3	10.9
20-Year	140	32.1	21	19.0	3.8	5.0	4.5	4.4	13.6

Source: Morningstar Direct. Data as of 31 December 2021.

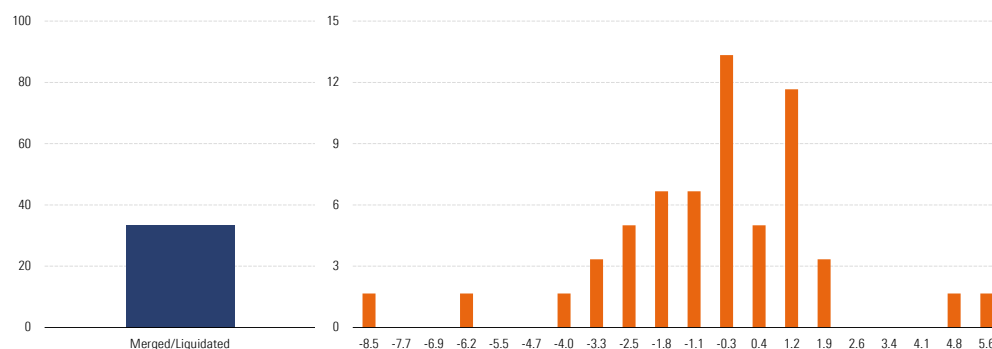
**Exhibit 37** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving France Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 38** Germany Equity

	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 (%)	
Trailing Total Return									
1-Year	58	96.6	24	95.8	15.1	15.1	14.4	14.2	46.6
3-year	65	83.1	24	83.3	14.6	13.7	13.4	13.1	44.6
5-Year	60	80.0	21	85.7	6.6	6.1	5.9	5.9	38.3
10-Year	60	66.7	20	60.0	10.5	9.9	9.6	9.7	31.7
15-Year	79	43.0	12	41.7	5.8	5.7	5.4	5.2	22.8
20-Year	75	44.0	7	28.6	5.5	6.9	5.5	5.2	21.3

Source: Morningstar Direct. Data as of 31 December 2021.

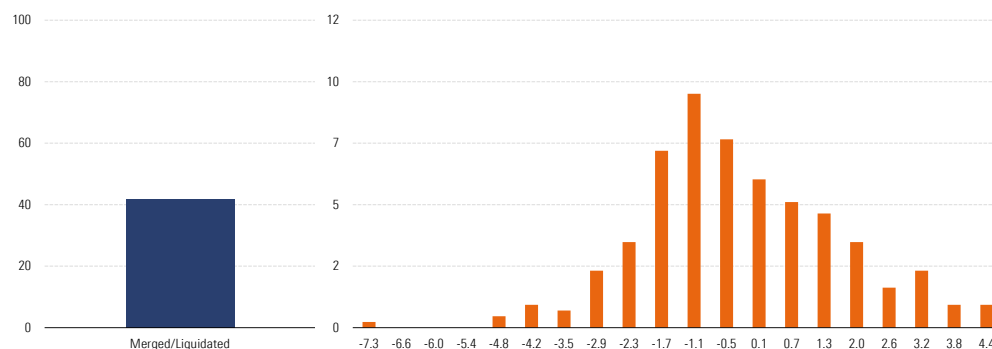
**Exhibit 39** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Germany Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 40** Global Emerging Markets Equity

					Asset-Weighted		Equal-Weighted		Active Success Rate (%)
	Active Funds		Passive Funds		Performance		Performance		
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Trailing Total Return									
1-Year	549	96.9	106	98.1	-4	-2.6	-3	-1.1	32.6
3-year	546	84.8	98	89.8	10.9	10.2	10.6	9.5	49.1
5-Year	523	77.6	83	85.5	8.8	9.2	8.7	8.8	32.3
10-Year	449	58.4	43	81.4	4.9	4.7	4.3	4.2	25.4
15-Year	306	48.7	6	83.3	3.3	3.7	2.5	3.5	13.7

Source: Morningstar Direct. Data as of 31 December 2021.

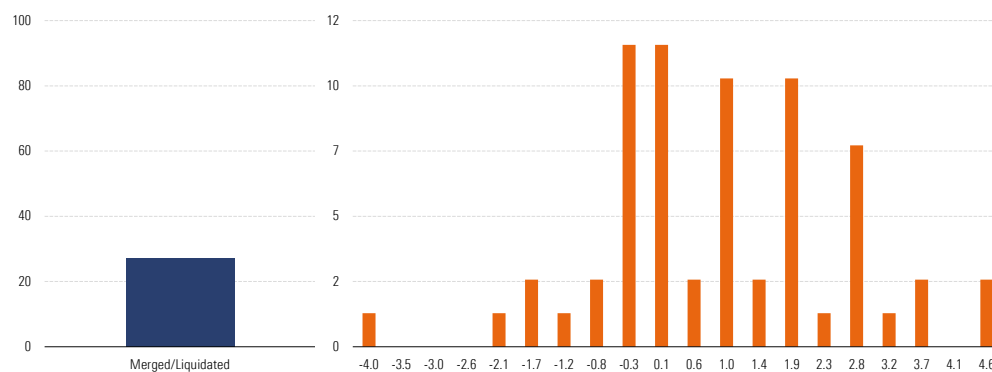
**Exhibit 41** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Global Emerging Markets Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 42** Global Equity-Income

	<b>Active Funds</b>		<b>Passive Funds</b>		<b>Asset-Weighted Performance</b>		<b>Equal-Weighted Performance</b>		<b>Active Success Rate (%)</b>
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
<b>Trailing Total Return</b>									
1-Year	179	95.5	14	100.0	15.1	15.5	16.8	16	54.7
3-year	173	79.8	12	100.0	12.5	10.5	14	11.5	57.2
5-Year	151	74.8	7	100.0	8.4	6.7	9.2	6.7	59.6
10-Year	81	72.8	3	66.7	7.1	6.8	8	6.8	54.3

Source: Morningstar Direct. Data as of 31 December 2021.

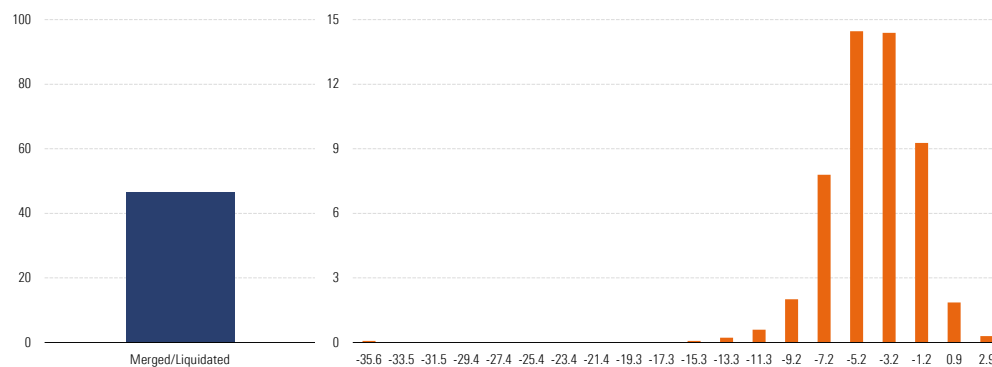
**Exhibit 43** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Global Equity-Income Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 44** Global Large-Cap Blend Equity

	<b>Active Funds</b>		<b>Passive Funds</b>		<b>Asset-Weighted Performance</b>		<b>Equal-Weighted Performance</b>		<b>Active Success Rate (%)</b>
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
<b>Trailing Total Return</b>									
1-Year	1463	96.6	220	99.1	18.7	20.9	15.8	20.3	24.8
3-year	1626	87.0	194	91.2	19.3	20.6	17.4	20.7	19.2
5-Year	1521	76.2	153	83.0	13.5	14.5	11.6	14.5	13.1
10-Year	1348	53.3	87	67.8	11	12.3	9	12.1	4.5
15-Year	1505	37.3	41	56.1	4.6	6.6	3.9	6.4	3.1
20-Year	1019	36.0	20	45.0	6	7.4	5.5	6.9	5.3

Source: Morningstar Direct. Data as of 31 December 2021.

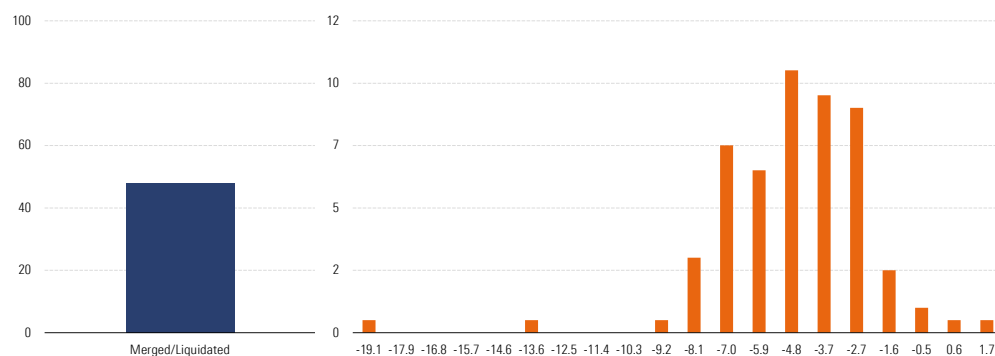
**Exhibit 45** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Global Large-Cap Blend Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 46** Global Large-Cap Value Equity

	<b>Active Funds</b>		<b>Passive Funds</b>		<b>Asset-Weighted Performance</b>		<b>Equal-Weighted Performance</b>		<b>Active Success Rate (%)</b>
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
<b>Trailing Total Return</b>									
1-Year	121	96.7	9	88.9	15.8	20.2	17.1	20.6	26.4
3-year	187	85.0	8	87.5	12.9	18.0	13.8	15.9	25.7
5-Year	185	74.6	9	77.8	9	12.6	8.9	10.9	16.8
10-Year	208	51.9	4	50.0	8.3	12.9	8.5	12.6	1.4

Source: Morningstar Direct. Data as of 31 December 2021.

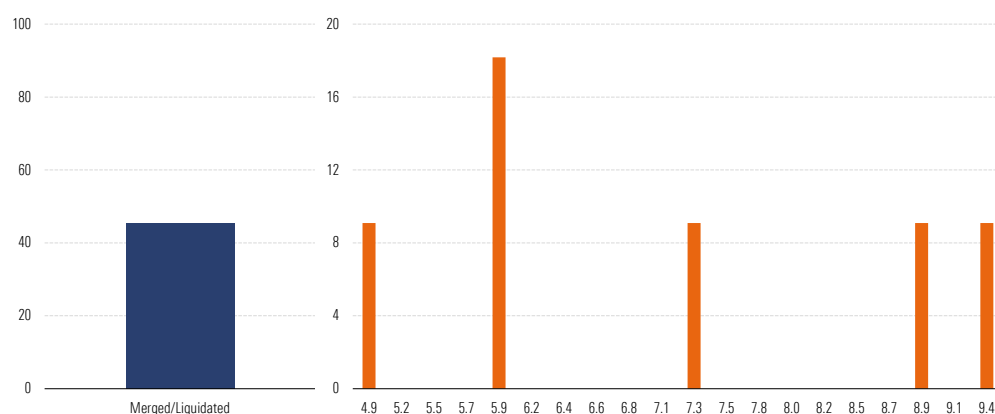
**Exhibit 47** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Global Large-Cap Value Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 48** Hong Kong Equity

	<b>Active Funds</b>		<b>Passive Funds</b>		<b>Asset-Weighted Performance</b>		<b>Equal-Weighted Performance</b>		<b>Active Success Rate (%)</b>
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
<b>Trailing Total Return</b>									
1-Year	6	100.0	3	66.7	-12.9	-11.3	-14.6	-8.4	16.7
3-year	8	87.5	4	25.0	8.3	2.7	6.6	3.3	75.0
5-Year	9	77.8	4	25.0	9.4	5.8	8.4	6.7	44.4
10-Year	11	54.5	4	0.0	6.8	6.5	7.3	0	54.5

Source: Morningstar Direct. Data as of 31 December 2021.

**Exhibit 49** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Hong Kong Active Equity Funds

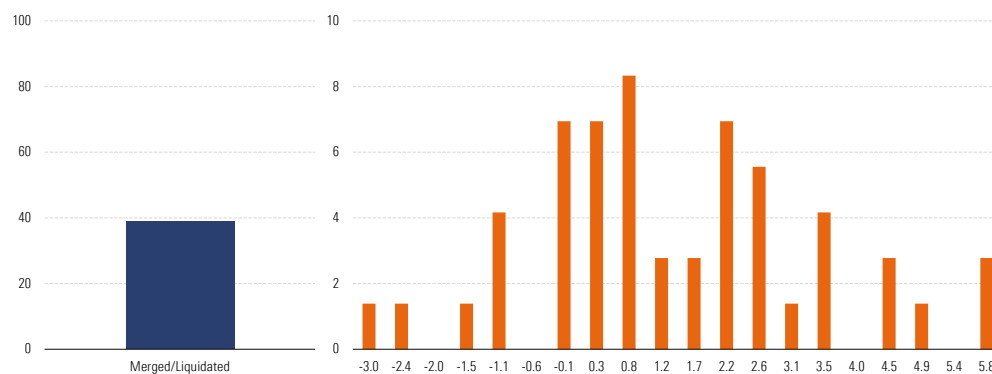
Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.



**Exhibit 50** India Equity

	<b>Active Funds</b>		<b>Passive Funds</b>		<b>Asset-Weighted Performance</b>		<b>Equal-Weighted Performance</b>		<b>Active Success Rate (%)</b>
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
<b>Trailing Total Return</b>									
1-Year	71	98.6	9	88.9	27.7	24.3	26.4	24.1	53.5
3-year	72	87.5	9	77.8	15.1	14.4	14.9	14.3	41.7
5-Year	76	78.9	8	62.5	13.1	13.0	13.1	13.2	31.6
10-Year	72	61.1	13	30.8	11.1	8.9	11.1	9.4	48.6

Source: Morningstar Direct. Data as of 31 December 2021.

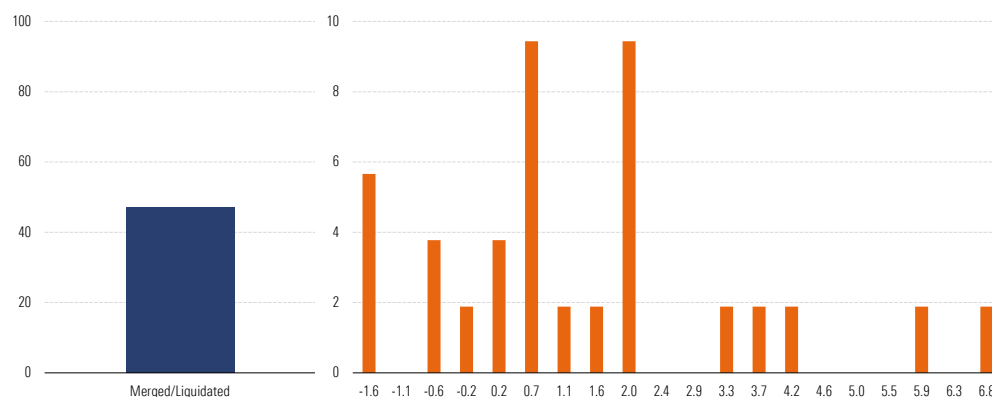
**Exhibit 51** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving India Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 52** Italy Equity

	<b>Active Funds</b>		<b>Passive Funds</b>		<b>Asset-Weighted Performance</b>		<b>Equal-Weighted Performance</b>		<b>Active Success Rate (%)</b>
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
<b>Trailing Total Return</b>									
1-Year	52	98.1	10	90.0	29.5	28.0	32.2	28.9	63.5
3-year	58	84.5	12	75.0	15.8	16.6	17.1	16.9	32.8
5-Year	53	73.6	9	66.7	8.9	9.7	10.3	10.1	24.5
10-Year	53	52.8	9	55.6	9.2	8.9	10.3	8.6	37.7

Source: Morningstar Direct. Data as of 31 December 2021.

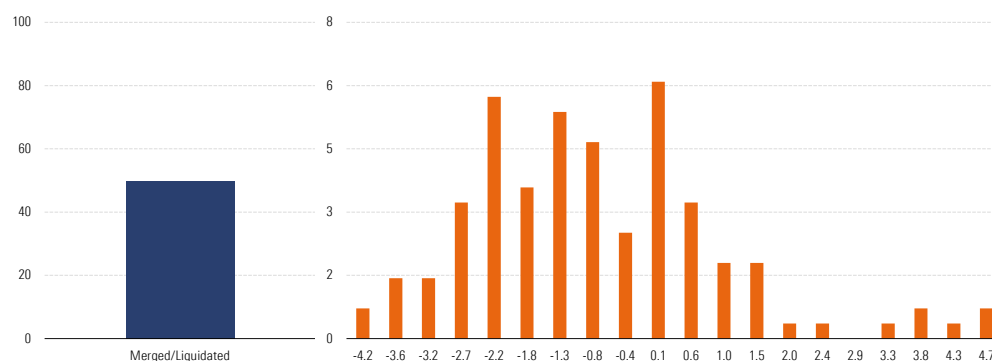
**Exhibit 53** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Italy Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 54** Japan Large-Cap Equity

	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 (%)	
Trailing Total Return									
1-Year	196	93.9	85	98.8	12.5	12.7	13.9	13.6	43.9
3-year	226	81.9	82	92.7	13.9	13.0	13.5	13.1	35.4
5-Year	216	76.4	70	82.9	8.2	7.7	7.8	7.8	30.1
10-Year	279	50.2	57	75.4	11.9	12.2	11.9	12.3	15.8
15-Year	388	28.1	45	62.2	1.6	2.2	1.5	1.7	10.8
20-Year	268	28.7	30	56.7	3.2	4.3	3.4	3.6	10.1

Source: Morningstar Direct. Data as of 31 December 2021.

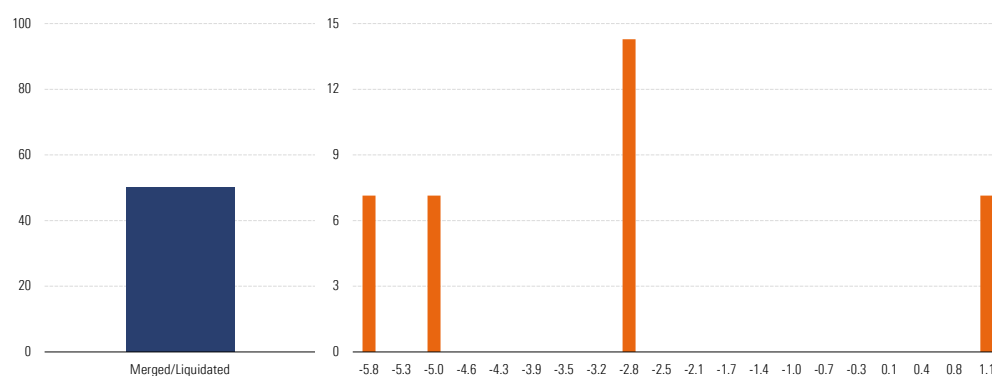
**Exhibit 55** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Japan Large-Cap Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 56** Korea Equity

	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 (%)	
Trailing Total Return									
1-Year	6	100.0	7	100.0	5.3	-7.8	-0.1	-8	83.3
3-year	10	70.0	7	85.7	15.4	13.6	11.5	13.5	10.0
5-Year	14	50.0	7	85.7	10.9	11.0	9.1	10.9	7.1
10-Year	14	50.0	6	66.7	5.2	6.3	3.6	6.4	7.1

Source: Morningstar Direct. Data as of 31 December 2021.

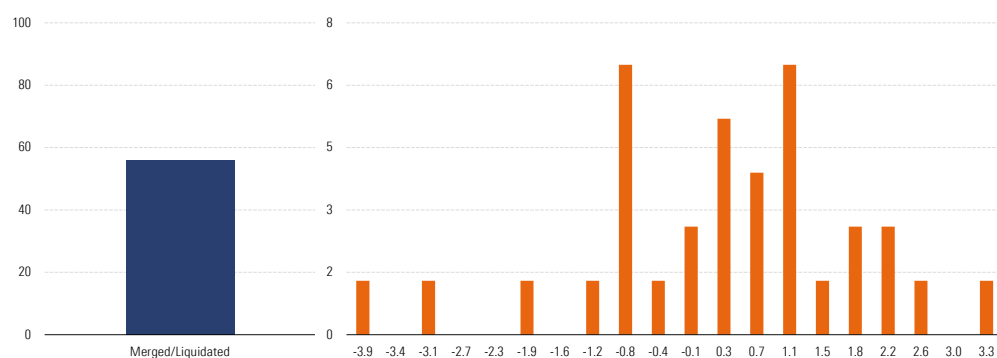
**Exhibit 57** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Korea Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 58** Latin America Equity

	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	Active Success Rate (%)
<b>Trailing Total Return</b>									
1-Year	55	87.3	7	100.0	-15.4	-9.7	-13.3	-10.4	21.8
3-year	68	72.1	7	71.4	-4	-3.8	-3.7	-4.2	35.3
5-Year	74	63.5	8	50.0	0.2	0.2	0.5	-0.3	33.8
10-Year	77	44.2	12	33.3	-3.3	-3.4	-3.1	-3.7	27.3

Source: Morningstar Direct. Data as of 31 December 2021.

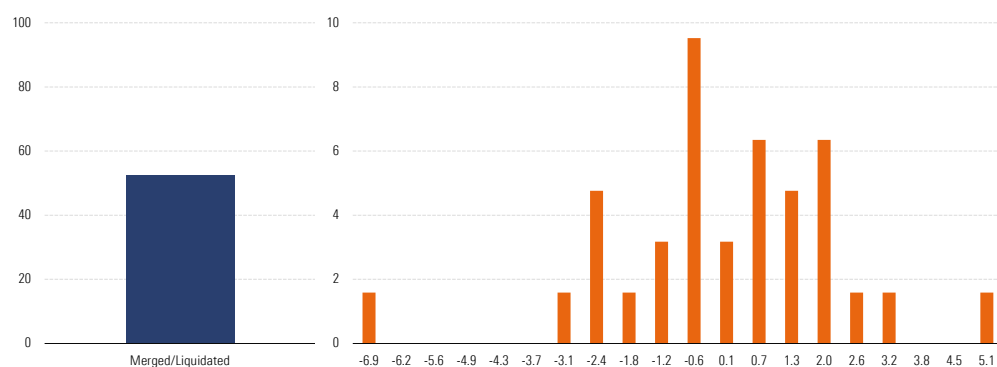
**Exhibit 59** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Latin America Active Equity Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 60** Nordic Equity

	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 (%)	
Trailing Total Return									
1-Year	54	98.1	9	100.0	27	33.7	25.7	32.4	20.4
3-year	51	86.3	9	100.0	22.6	22.6	22.8	22.8	41.2
5-Year	51	74.5	7	71.4	13.8	15.7	14	15.3	23.5
10-Year	63	47.6	9	44.4	14.5	14.8	15	14.6	25.4
15-Year	62	41.9	6	33.3	7.7	8.5	8.6	8.5	24.2
20-Year	44	38.6	5	20.0	10.1	8.5	9.7	9.2	20.5

Source: Morningstar Direct. Data as of 31 December 2021.

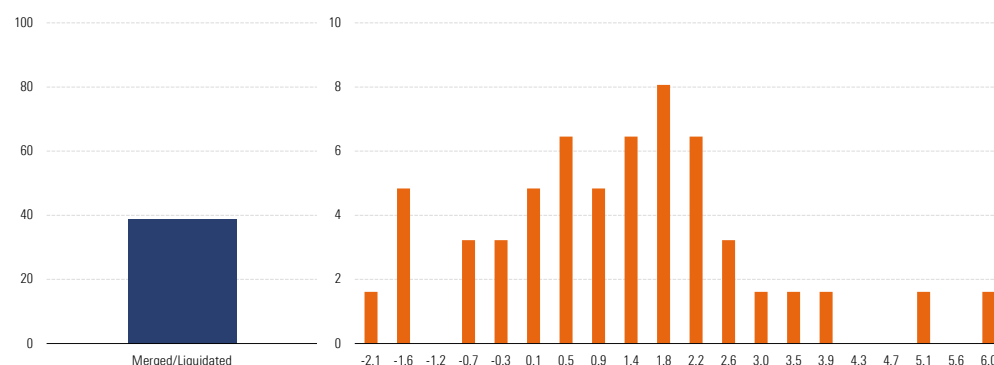
**Exhibit 61** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Nordic Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 62 Norway Equity**

	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 (%)	
	Trailing Total Return								
1-Year	51	100.0	11	81.8	21.8	23.1	21.7	22.4	54.9
3-year	52	92.3	11	81.8	16.1	14.3	17	14	78.8
5-Year	51	86.3	10	80.0	11.6	11.8	12.1	11.7	52.9
10-Year	62	61.3	9	55.6	12.4	11.7	13.4	11.8	48.4
15-Year	57	61.4	7	42.9	7	7.0	8	6.9	50.9
20-Year	47	63.8	3	0.0	10.5	9.1	11.4	0	63.8

Source: Morningstar Direct. Data as of 31 December 2021.

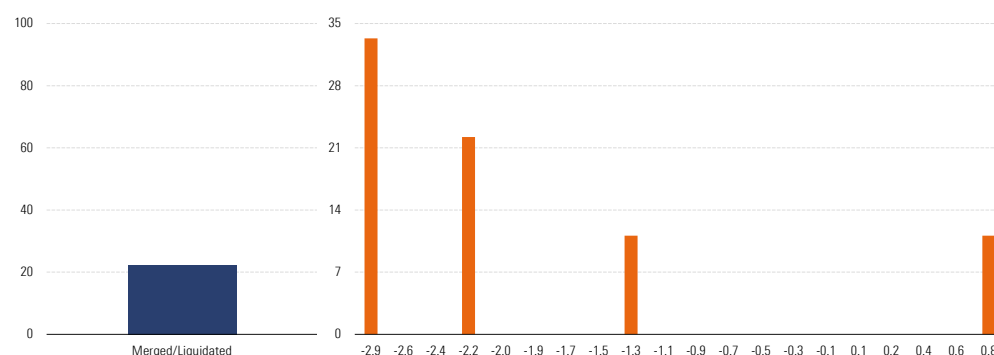
**Exhibit 63 Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Norway Equity Active Funds**

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 64 Pacific ex-Japan Equity**

	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 (%)	
Trailing Total Return									
1-Year	9	88.9	26	100.0	4.2	4.4	3.4	4.7	33.3
3-year	9	77.8	26	96.2	8.9	9.2	7.9	9.3	22.2
5-Year	11	72.7	23	95.7	7.3	7.9	6.6	7.9	18.2
10-Year	9	77.8	14	92.9	5.6	6.4	4.5	6.3	11.1
15-Year	9	66.7	5	100.0	4.6	5.2	2.9	4.7	11.1

Source: Morningstar Direct. Data as of 31 December 2021.

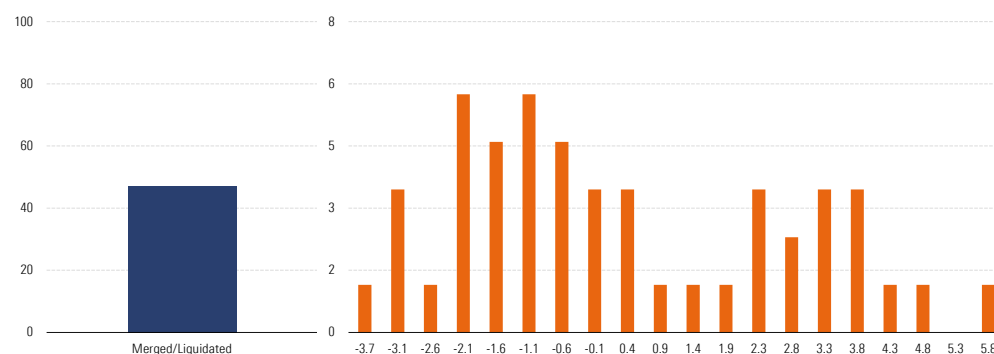
**Exhibit 65 Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Pacific ex-Japan Active Equity Funds**

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 66** Spain Equity

	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 (%)	
	Trailing Total Return								
1-Year	86	90.7	11	90.9	12.2	10.1	12.4	9.9	65.1
3-year	91	80.2	11	90.9	2.8	3.5	2.5	3.4	33.0
5-Year	85	77.6	13	76.9	1.5	1.5	1.2	1.4	31.8
10-Year	87	52.9	16	56.3	4.8	3.8	4.3	3.6	25.3
15-Year	109	33.9	21	33.3	0.7	0.5	0.4	0.3	13.8
20-Year	79	34.2	6	33.3	3.2	3.2	3.6	3.1	16.5

Source: Morningstar Direct. Data as of 31 December 2021.

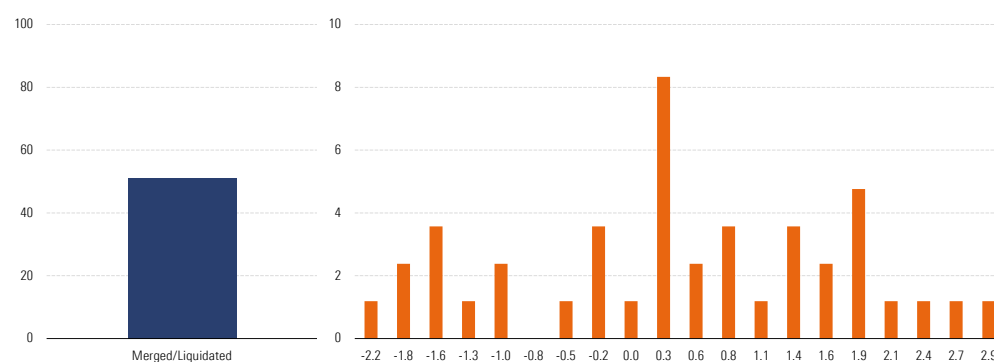
**Exhibit 67** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Spain Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 68** Sweden Equity

	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 (%)	
Trailing Total Return									
1-Year	62	98.4	24	100.0	31.7	35.9	32	36.2	24.2
3-year	69	84.1	25	92.0	25	25.9	25.6	25.6	34.8
5-Year	73	72.6	24	87.5	14.6	15.6	15.4	15.6	30.1
10-Year	84	48.8	22	63.6	15	14.9	15.4	14.8	32.1
15-Year	69	39.1	16	56.3	9.5	9.4	9.6	9.4	21.7
20-Year	57	36.8	9	44.4	10.1	9.7	9.7	9.4	24.6

Source: Morningstar Direct. Data as of 31 December 2021.

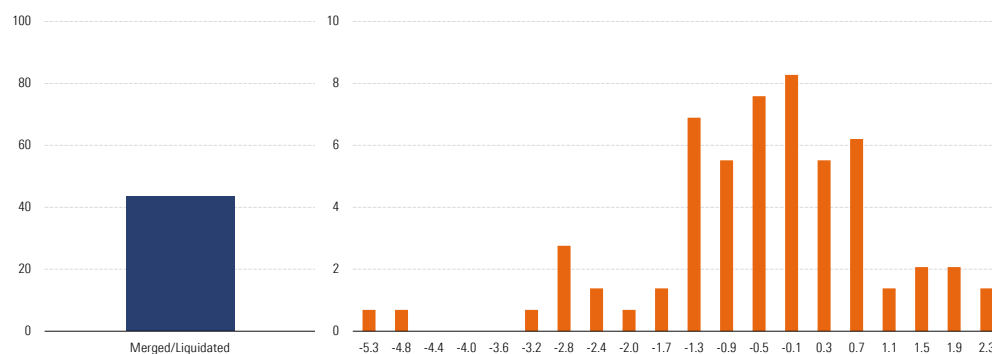
**Exhibit 69** Mortality and Distribution of 10-Year Annualised Excess Returns for Sweden Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 70** Switzerland Equity

	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 (%)	
Trailing Total Return									
1-Year	163	96.9	48	100.0	22.7	23.4	22.4	23.4	38.0
3-year	157	86.0	48	97.9	18.4	18.6	18.1	18.6	35.0
5-Year	140	77.1	47	83.0	12.4	12.8	11.9	12.6	28.6
10-Year	145	56.6	33	81.8	11.5	11.7	11.3	11.5	23.4
15-Year	109	51.4	19	73.7	5.2	5.6	5.3	5.6	19.3
20-Year	80	38.8	10	60.0	5.5	6.1	5.8	6.2	11.3

Source: Morningstar Direct. Data as of 31 December 2021.

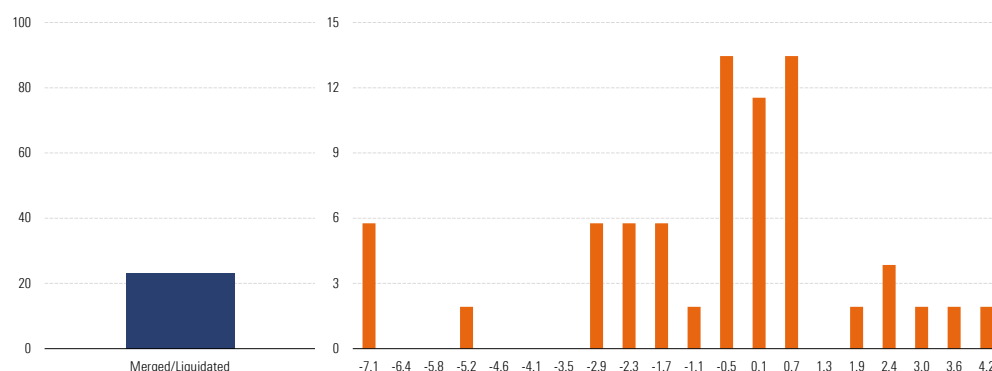
**Exhibit 71** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Switzerland Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 72** Switzerland Small/Mid-Cap Equity

	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 (%)	
Trailing Total Return									
1-Year	61	98.4	7	100.0	24	21.9	23.6	21.8	60.7
3-year	57	94.7	9	77.8	21	19.7	19.6	19.8	49.1
5-Year	51	88.2	8	75.0	13.8	13.3	12.5	13.2	41.2
10-Year	52	76.9	7	71.4	14.6	14.0	13.5	13.9	36.5
15-Year	42	61.9	4	50.0	7.3	6.6	7.4	6.4	45.2

Source: Morningstar Direct. Data as of 31 December 2021.

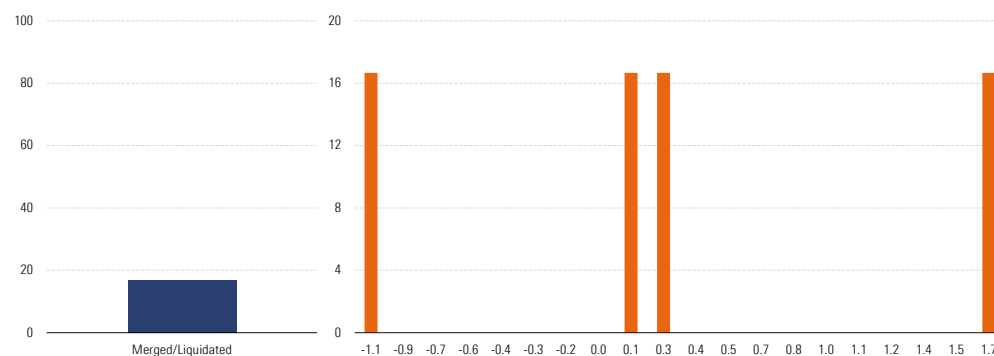
**Exhibit 73** Mortality and Distribution of 10-Year Annualised Excess Returns for Switzerland Small/Mid-Cap Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 74** Taiwan Large-Cap Equity

					Asset-Weighted		Equal-Weighted		Active Success Rate (%)
	Active Funds		Passive Funds		Performance		Performance		
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
Trailing Total Return									
1-Year	4	100.0	3	100.0	30.1	25.7	33.4	25.7	100.0
3-year	4	100.0	5	60.0	27.4	28.9	28.3	29	50.0
5-Year	4	100.0	5	60.0	16.9	18.7	17.8	18.8	25.0
10-Year	6	83.3	7	42.9	13.8	13.6	14.2	13.7	50.0

Source: Morningstar Direct. Data as of 31 December 2021.

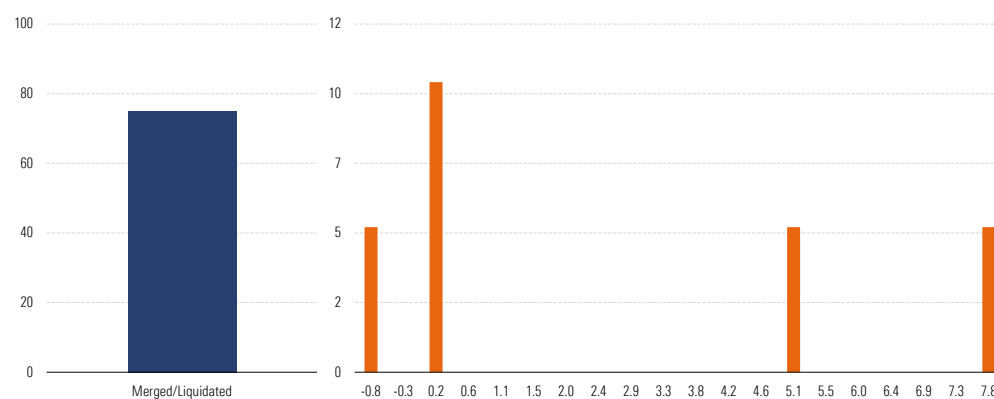
**Exhibit 75** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Taiwan Large-Cap Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 76** Turkey Equity

	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 (%)	
Trailing Total Return									
1-Year	7	71.4	4	75.0	-19.3	-22.2	-18.3	-22.2	57.1
3-year	14	42.9	4	50.0	-2.3	-10.0	-1.9	-9.9	35.7
5-Year	17	35.3	4	50.0	-7.3	-12.0	-6	-11.2	35.3
10-Year	20	25.0	6	33.3	-2.1	-5.5	-1.3	-4.7	20.0

Source: Morningstar Direct. Data as of 31 December 2021.

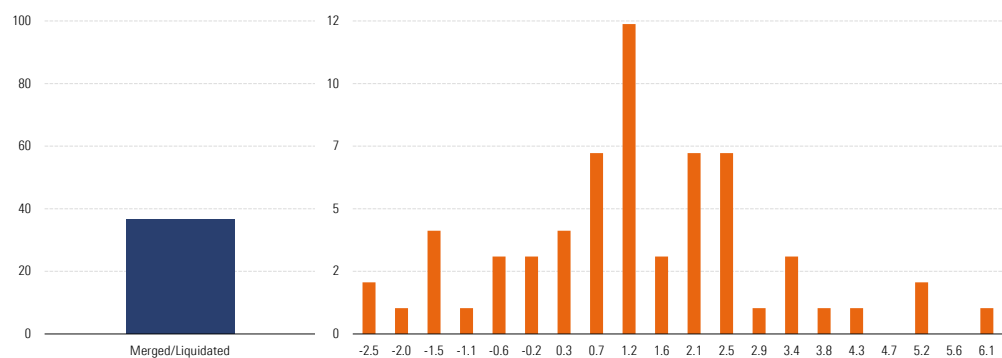
**Exhibit 77** Mortality and Distribution of 10-Year Annualised Excess Returns for Turkey Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 78 UK Equity-Income**

	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 (%)	
Trailing Total Return									
1-Year	103	94.2	4	100.0	18	20.3	17.8	18.1	35.9
3-year	112	87.5	6	66.7	7	6.4	7.8	6.2	61.6
5-Year	110	81.8	7	57.1	3.5	2.7	4.5	2.3	61.8
10-Year	101	63.4	3	66.7	7.6	6.7	8.1	6.6	50.5

Source: Morningstar Direct. Data as of 31 December 2021.

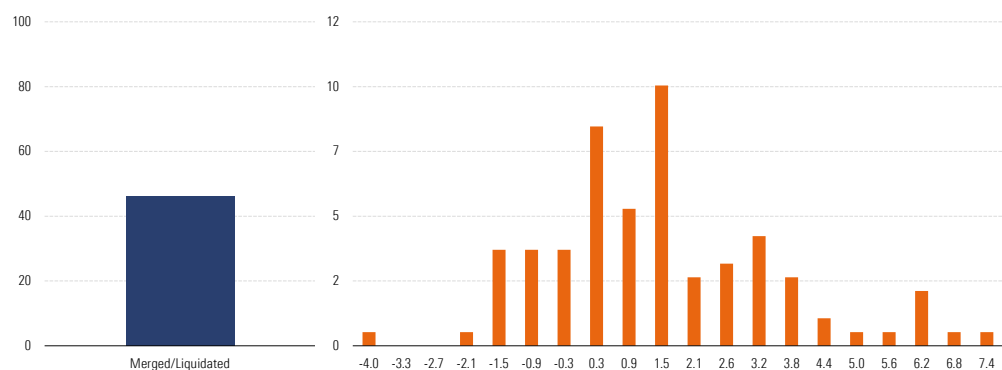
**Exhibit 79 Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving UK Equity-Income Active Funds**

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 80 UK Large-Cap Equity**

	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 (%)	
Trailing Total Return									
1-Year	132	93.2	65	100.0	16.6	17.8	18.7	17.3	44.7
3-year	138	79.7	69	88.4	8.2	7.8	9.9	7.2	52.2
5-Year	139	73.4	70	75.7	4.7	4.9	5.3	4.6	44.6
10-Year	197	53.8	67	61.2	7.9	7.1	8.7	6.9	41.6
15-Year	245	35.1	50	60.0	5.4	4.8	6	4.8	23.3
20-Year	177	36.2	45	55.6	5.6	5.4	6.6	5.2	25.4

Source: Morningstar Direct. Data as of 31 December 2021.

**Exhibit 81 Mortality and Distribution of 10-Year Annualised Excess Returns for UK Large-Cap Equity Active Funds**

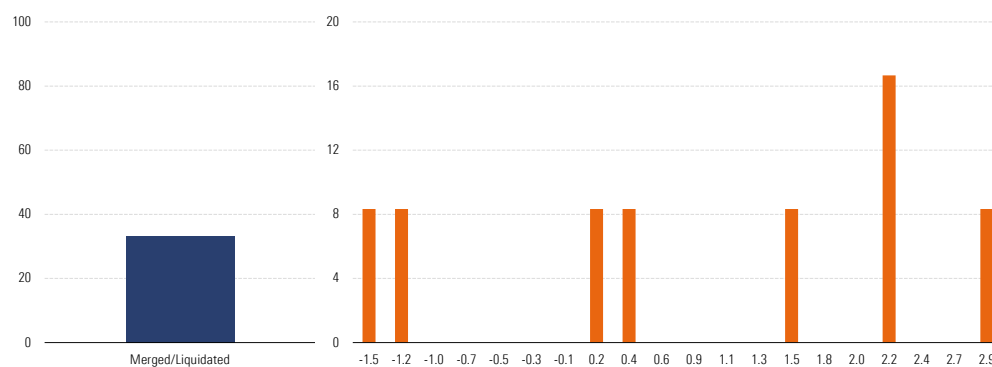
Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.



**Exhibit 82 UK Mid-Cap Equity**

	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 (%)	
Trailing Total Return									
1-Year	11	90.9	8	100.0	14.2	16.6	15.3	16.5	45.5
3-year	11	90.9	7	100.0	14.7	12.6	14.9	12.5	72.7
5-Year	12	75.0	7	85.7	9.6	7.7	8.8	7.7	50.0
10-Year	12	66.7	9	55.6	12.7	11.2	12.3	11.2	50.0

Source: Morningstar Direct. Data as of 31 December 2021.

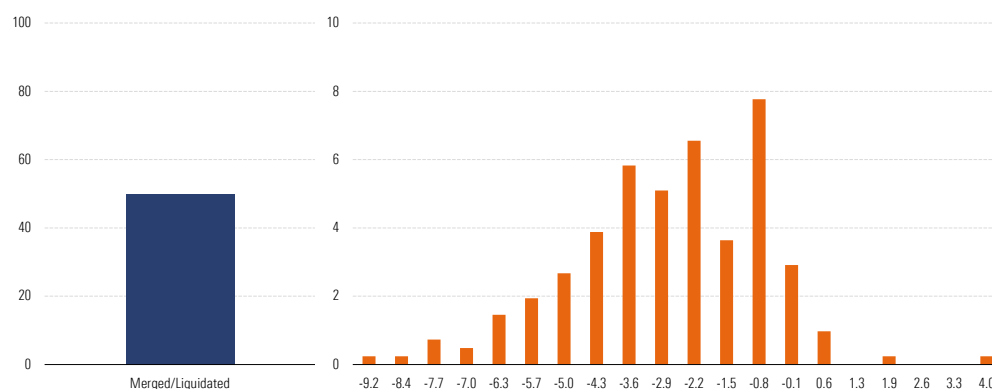
**Exhibit 83 Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving UK Mid-Cap Equity Active Funds**

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 84 US Large-Cap Blend Equity**

	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 (%)	
Trailing Total Return									
1-Year	369	94.6	179	95.5	24.4	27.6	23.4	25.9	36.3
3-year	380	80.3	164	84.8	23.6	25.5	22.7	24.3	23.4
5-Year	360	73.1	153	75.8	15.9	17.9	15.4	17.3	14.7
10-Year	412	50.2	108	63.9	13.4	15.7	12.9	15.2	2.9
15-Year	493	32.7	73	49.3	7.4	9.8	7.2	8.8	5.1
20-Year	344	33.4	47	42.6	6.6	8.4	6.5	7.7	5.2

Source: Morningstar Direct. Data as of 31 December 2021.

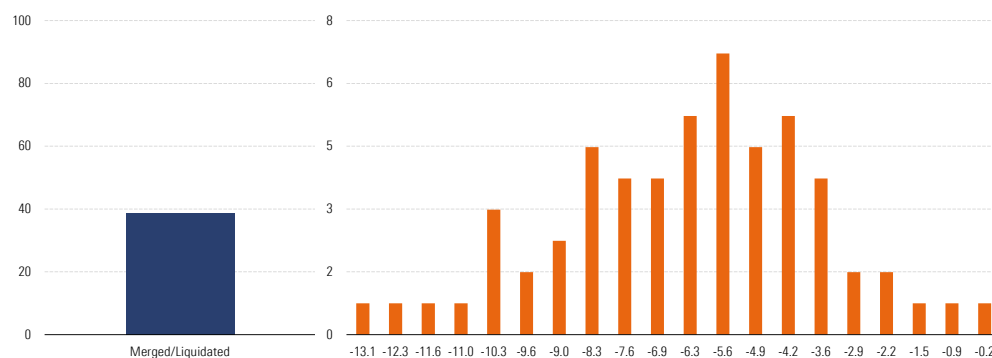
**Exhibit 85 Mortality and Distribution of 10-Year Annualised Excess Returns for US Large-Cap Blend Equity Active Funds**

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 86** US Large-Cap Growth Equity

	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 (%)	
Trailing Total Return									
1-Year	117	98.3	9	100.0	14.5	26.7	18.8	25.7	17.1
3-year	116	94.8	8	87.5	28.3	37.5	27.4	36	2.6
5-Year	113	85.0	9	66.7	21.6	28.0	20.5	26.9	2.7
10-Year	134	61.2	9	55.6	16.3	22.3	15.3	21.1	0.7
15-Year	142	37.3	3	66.7	9.9	15.6	9.1	14.3	0.7

Source: Morningstar Direct. Data as of 31 December 2021.

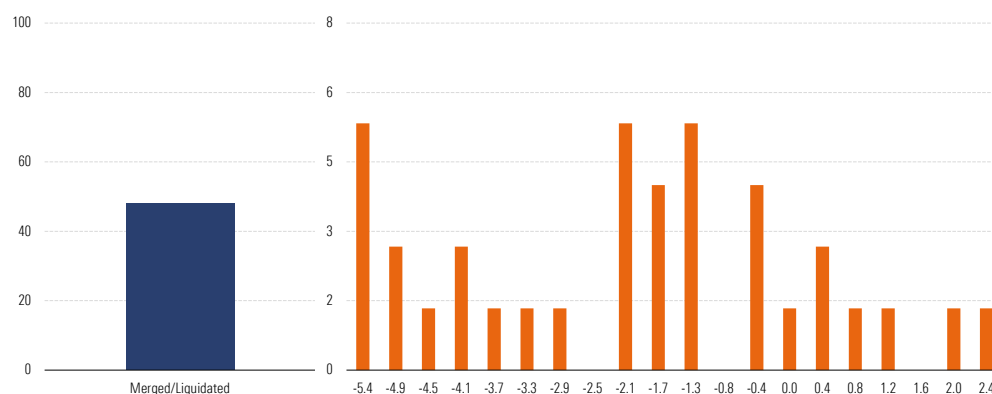
**Exhibit 87** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving US Large-Cap Growth Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 88** US Large-Cap Value Equity

	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 (%)	
Trailing Total Return									
1-Year	97	92.8	19	94.7	24.8	25.7	23.7	25.5	32.0
3-year	98	79.6	23	82.6	16.3	16.9	16.9	16.8	35.7
5-Year	90	71.1	21	81.0	10	11.4	10.9	11.2	26.7
10-Year	75	52.0	9	66.7	11.1	12.7	10.8	12.5	9.3
15-Year	88	37.5	4	75.0	6.1	7.1	6.3	6.8	11.4

Source: Morningstar Direct. Data as of 31 December 2021.

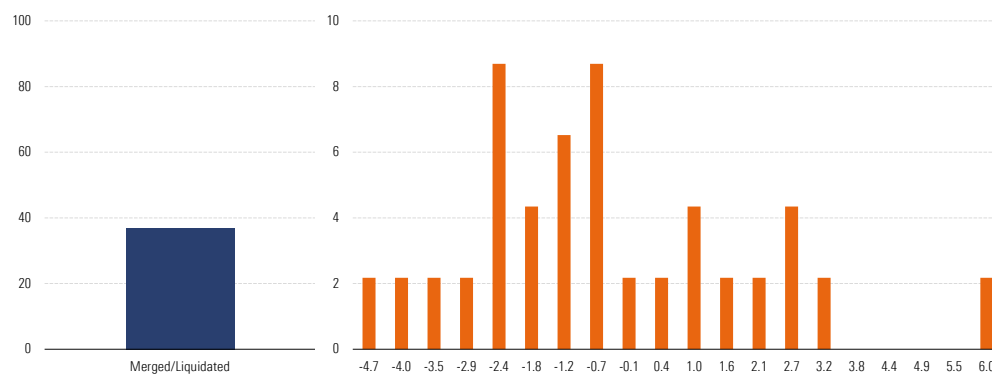
**Exhibit 89** Mortality and Distribution of 10-Year Annualised Excess Returns for US Large-Cap Value Equity Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 90 US Small-Cap Equity**

	<b>Active Funds</b>		<b>Passive Funds</b>		<b>Asset-Weighted Performance</b>		<b>Equal-Weighted Performance</b>		<b>Active Success Rate (%)</b>
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
<b>Trailing Total Return</b>									
1-Year	66	98.5	12	100.0	13.9	18.4	15.6	20.6	36.4
3-year	67	86.6	12	83.3	22.6	19.6	23.5	20.1	49.3
5-Year	63	79.4	12	75.0	13.5	11.7	15.2	12	46.0
10-Year	46	63.0	8	75.0	12.5	13.5	13.3	13.4	19.6

Source: Morningstar Direct. Data as of 31 December 2021.

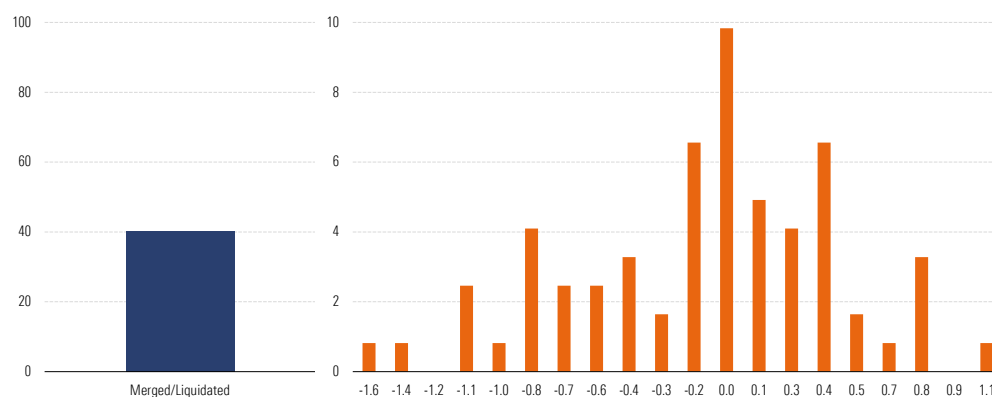
**Exhibit 91 Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving US Small-Cap Equity Active Funds**

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 92 CHF Bond**

	<b>Active Funds</b>		<b>Passive Funds</b>		<b>Asset-Weighted Performance</b>		<b>Equal-Weighted Performance</b>		<b>Active Success Rate (%)</b>
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
<b>Trailing Total Return</b>									
1-Year	116	96.6	34	100.0	-1.5	-1.7	-1.3	-1.7	59.5
3-year	124	87.1	36	94.4	0.7	0.7	0.5	0.5	37.1
5-Year	124	78.2	38	86.8	0.4	0.4	0.2	0.3	27.4
10-Year	122	59.8	28	67.9	1.2	1.4	1.2	1.2	27.0
15-Year	111	43.2	9	66.7	1.8	2.4	1.7	2.2	7.2

Source: Morningstar Direct. Data as of 31 December 2021.

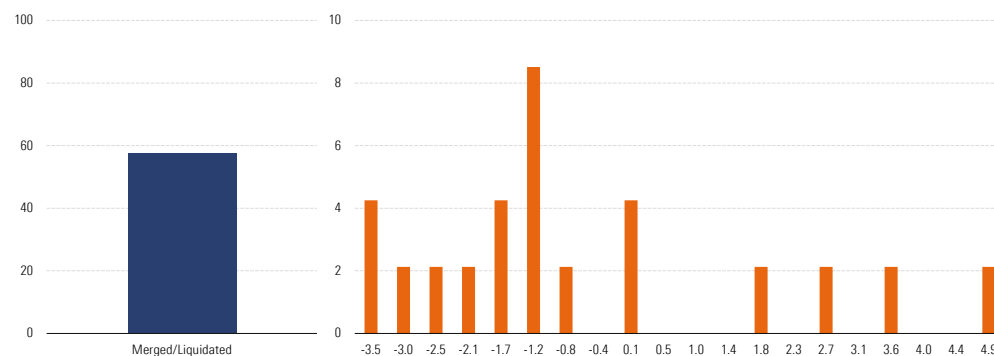
**Exhibit 93 Mortality and Distribution of 10-Year Annualised Excess Returns for CHF Bond Active Funds**

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 94** 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 (%)	
Trailing Total Return									
1-Year	26	96.2	19	89.5	-7.3	-8.1	-10	-7.7	34.6
3-year	31	77.4	22	68.2	4.9	5.8	7.4	5.9	32.3
5-Year	38	57.9	22	54.5	3.3	4.1	3.9	4	18.4
10-Year	47	42.6	19	47.4	6.1	7.2	6.9	7	12.8
15-Year	63	33.3	5	40.0	6.9	5.9	6.8	6.2	9.5

Source: Morningstar Direct. Data as of 31 December 2021.

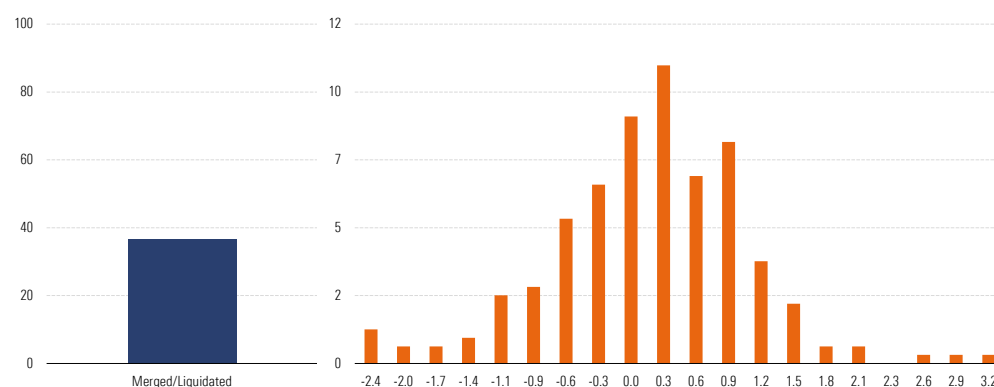
**Exhibit 95** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving EUR Bond - Long-Term Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 96** 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 (%)	
Trailing Total Return									
1-Year	361	96.7	59	93.2	-0.9	-1.2	-0.7	-1.2	54.8
3-year	343	88.3	55	85.5	2.8	2.3	2.4	2.1	52.5
5-Year	329	80.2	52	67.3	1.8	1.5	1.4	1.3	45.9
10-Year	332	63.3	37	59.5	3.5	3.0	3.2	2.9	41.6
15-Year	141	58.2	3	100.0	3	3.2	3.2	3.1	28.4

Source: Morningstar Direct. Data as of 31 December 2021.

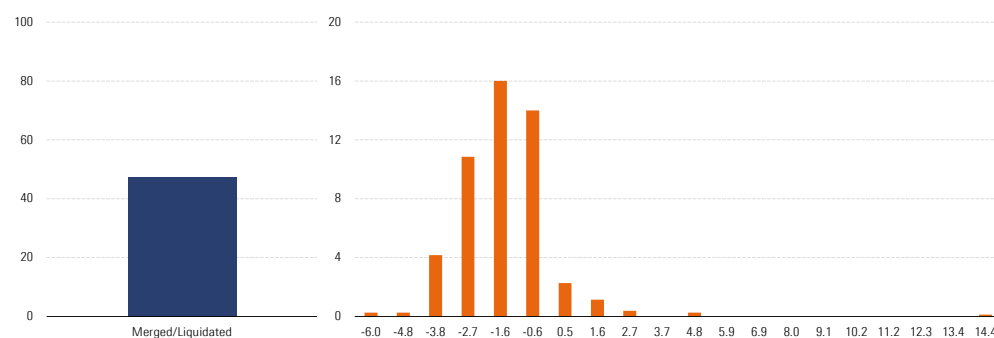
**Exhibit 97** Mortality and Distribution of 10-Year Annualised Excess Returns for EUR Corporate Bond Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 98** 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 (%)	
Trailing Total Return									
1-Year	538	96.1	9	100.0	-2.2	-3.0	-1.5	-2.9	72.7
3-year	586	85.5	9	88.9	1.8	2.2	1.7	2.1	26.3
5-Year	630	74.8	5	100.0	0.9	1.6	0.8	1.5	12.5
10-Year	793	52.7	6	50.0	2.6	3.5	2.5	3.5	8.7
15-Year	923	34.7	9	22.2	2.5	3.4	2.6	3.3	6.8
20-Year	679	33.0	10	10.0	2.9	3.7	3	3.7	5.4

Source: Morningstar Direct. Data as of 31 December 2021.

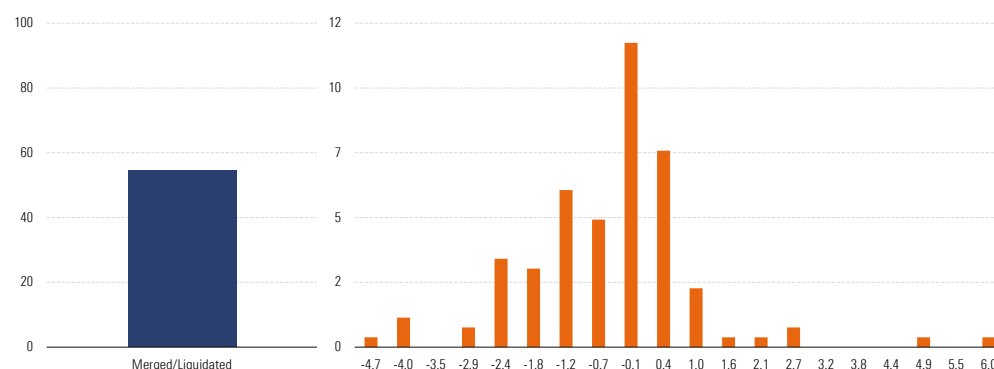
**Exhibit 99** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving EUR Diversified Bond Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 100** 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 (%)	
Trailing Total Return									
1-Year	197	92.4	104	93.3	-2.8	-3.1	-2.9	-2.8	32.5
3-year	210	78.6	104	85.6	1.7	2.1	1.7	2	32.4
5-Year	226	67.7	111	70.3	0.9	1.4	1	1.3	22.1
10-Year	275	45.5	84	51.2	3	3.2	3	3.2	19.6
15-Year	318	30.8	25	52.0	3	3.4	3.3	3.5	7.5
20-Year	219	33.8	3	33.3	3.3	3.3	3.6	4	3.2

Source: Morningstar Direct. Data as of 31 December 2021.

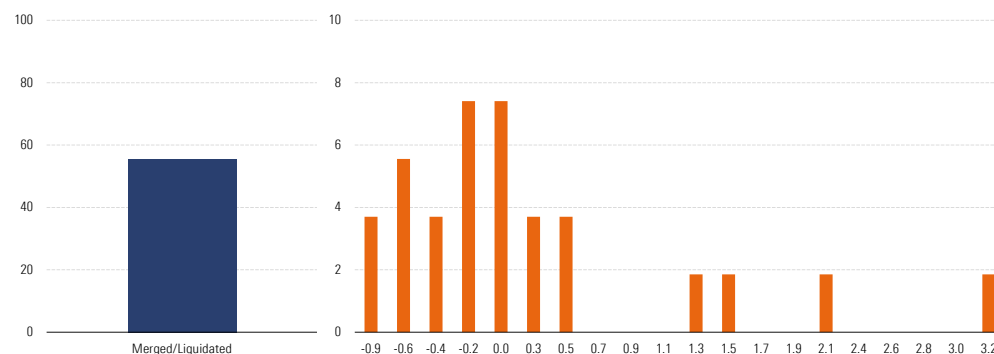
**Exhibit 101** Mortality and Distribution of 10-Year Annualised Excess Returns for EUR Government-Bond Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 102** EUR Government Bond - Short Term

	<b>Active Funds</b>		<b>Passive Funds</b>		<b>Asset-Weighted Performance</b>		<b>Equal-Weighted Performance</b>		<b>Active Success Rate (%)</b>
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
<b>Trailing Total Return</b>									
1-Year	40	90.0	22	81.8	-5.3	-0.9	-1.8	-0.6	12.5
3-year	43	76.7	21	76.2	2.6	-0.3	0.5	-0.3	30.2
5-Year	48	64.6	20	50.0	1.4	-0.3	0.1	-0.4	27.1
10-Year	54	44.4	15	60.0	0.5	0.4	0.7	0.4	22.2
15-Year	39	35.9	4	50.0	1	1.4	1.2	1.4	5.1

Source: Morningstar Direct. Data as of 31 December 2021.

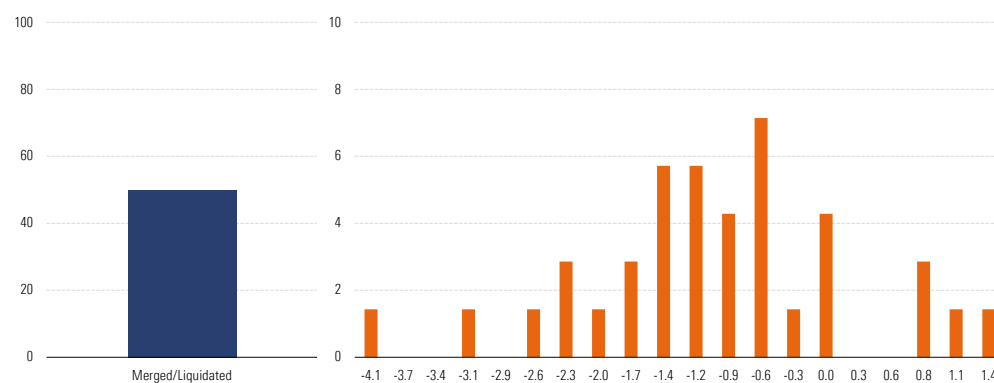
**Exhibit 103** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving EUR Government-Bond - Short-Term Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 104** EUR Inflation-Linked Bond

	<b>Active Funds</b>		<b>Passive Funds</b>		<b>Asset-Weighted Performance</b>		<b>Equal-Weighted Performance</b>		<b>Active Success Rate (%)</b>
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
<b>Trailing Total Return</b>									
1-Year	46	95.7	13	100.0	6.1	6.1	5.3	6	19.6
3-year	49	83.7	15	86.7	4	5.2	3.5	5	8.2
5-Year	50	74.0	13	69.2	2.2	3.0	1.7	2.7	8.0
10-Year	70	50.0	15	46.7	2.7	3.7	2.9	3.7	8.6

Source: Morningstar Direct. Data as of 31 December 2021.

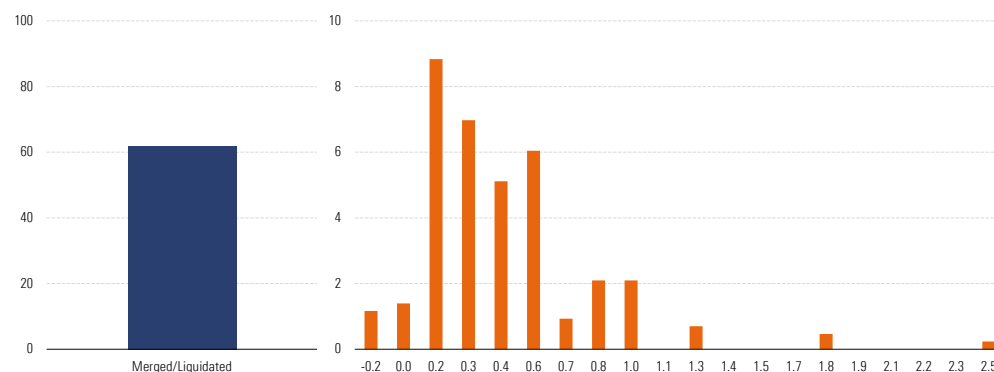
**Exhibit 105** Mortality and Distribution of 10-Year Annualised Excess Returns for EUR Inflation-Linked Bond Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 106** EUR Money Market

	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 (%)	
Trailing Total Return									
1-Year	189	97.4	3	100.0	-0.5	-0.8	-0.5	-0.8	74.1
3-year	211	85.3	3	100.0	-0.4	-0.8	-0.4	-0.8	73.5
5-Year	284	67.3	3	100.0	-0.3	-0.8	-0.4	-0.8	57.0
10-Year	430	38.1	4	75.0	0	-0.5	0	-0.5	34.9

Source: Morningstar Direct. Data as of 31 December 2021.

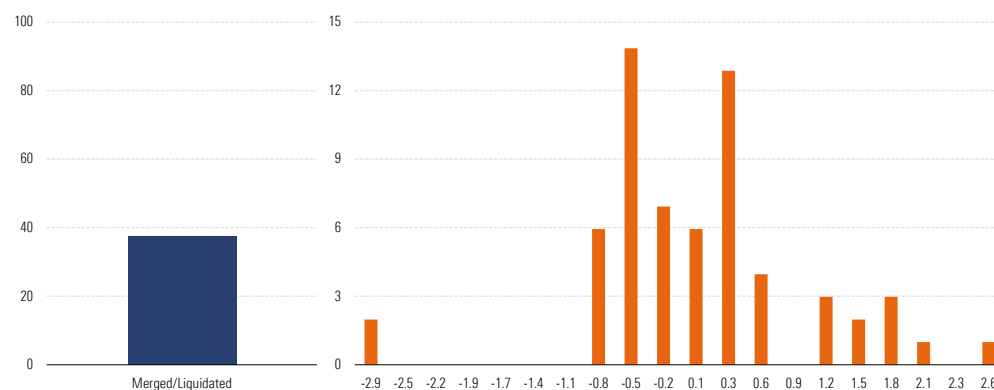
**Exhibit 107** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving EUR Money Market Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 108** 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 (%)	
Trailing Total Return									
1-Year	103	97.1	19	100.0	-2.1	-3.5	-2.5	-3.5	73.8
3-year	112	87.5	13	100.0	5.4	4.7	5.4	5.1	40.2
5-Year	110	80.9	11	100.0	3.7	3.2	3.7	3.3	50.9
10-Year	101	62.4	6	83.3	5.6	5.3	5.6	5.4	32.7

Source: Morningstar Direct. Data as of 31 December 2021.

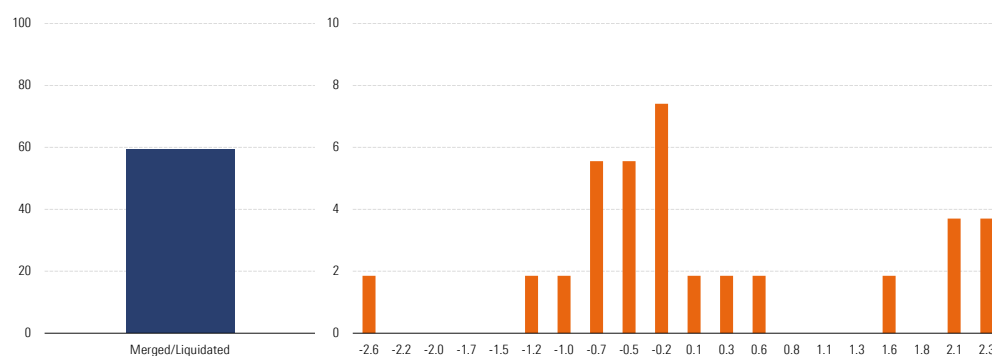
**Exhibit 109** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving GBP Corporate Bond Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 110** 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 (%)	
Trailing Total Return									
1-Year	38	100.0	27	100.0	-4	-4.8	-5.2	-4.5	15.8
3-year	42	81.0	22	100.0	2	2.9	3.4	3	47.6
5-Year	46	65.2	19	89.5	1.5	2.0	2.4	2.2	30.4
10-Year	54	40.7	16	56.3	2.8	2.8	3.5	3.3	14.8
15-Year	56	44.6	7	28.6	4.7	4.6	4.9	4.5	17.9
20-Year	38	42.1	5	20.0	3.5	3.4	4.7	4.7	10.5

Source: Morningstar Direct. Data as of 31 December 2021.

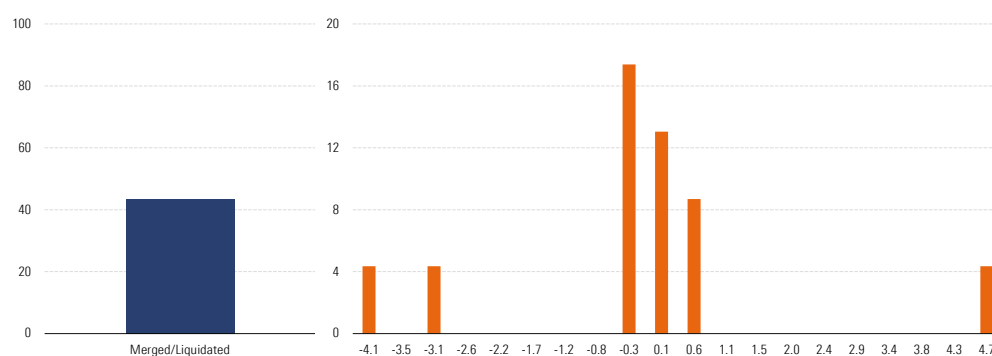
**Exhibit 111** Mortality and Distribution of 10-Year Annualised Excess Returns for GBP Government-Bond Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 112** GBP 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 (%)	
Trailing Total Return									
1-Year	19	94.7	6	100.0	3.4	3.9	4	4.2	26.3
3-year	23	78.3	8	75.0	6.6	7.1	7.2	7.1	43.5
5-Year	22	72.7	8	62.5	4.2	4.5	4.6	4.5	36.4
10-Year	23	56.5	9	33.3	5.6	6.3	6.5	6.3	34.8
15-Year	15	46.7	6	33.3	7.2	7.4	7.6	7.2	46.7

Source: Morningstar Direct. Data as of 31 December 2021.

**Exhibit 113** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving GBP Inflation-Linked Bond Active Funds

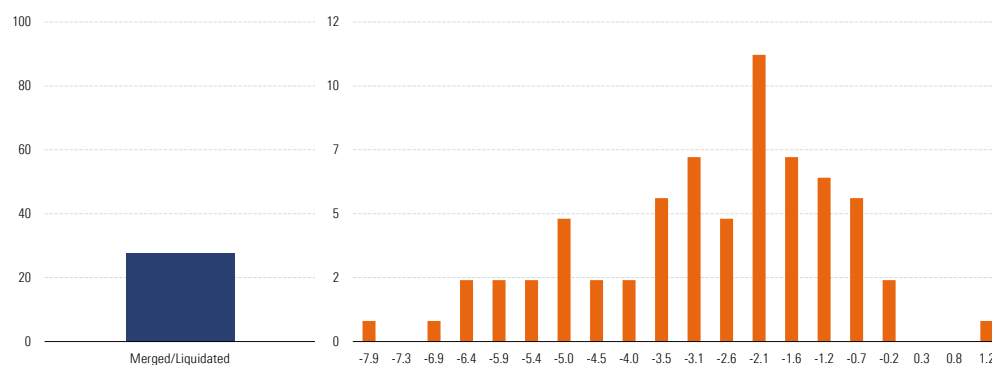
Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.



**Exhibit 114** Global Emerging-Markets 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 (%)	
<b>Trailing Total Return</b>									
1-Year	239	99.2	24	100.0	-6.5	-4.6	-6.4	-4.6	23.0
3-year	220	92.7	22	100.0	2.7	5.1	3.5	4.6	25.5
5-Year	194	85.1	11	81.8	2.5	3.9	2.8	3.8	18.0
10-Year	130	72.3	4	25.0	2.2	4.7	2.2	4.7	0.8

Source: Morningstar Direct. Data as of 31 December 2021.

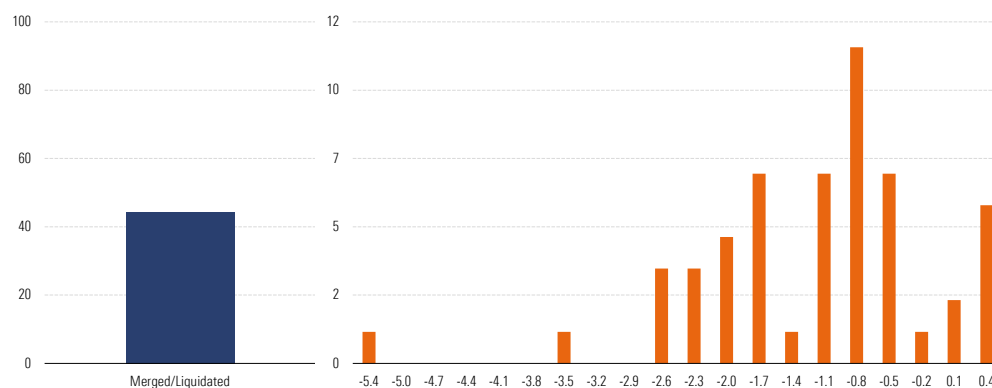
**Exhibit 115** Mortality and Distribution of 10-Year Annualised Excess Returns for Global Emerging-Markets Bond Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 116** Global Emerging-Markets Bond - Local Currency

	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 (%)	
<b>Trailing Total Return</b>									
1-Year	126	98.4	13	100.0	-8.4	-9.7	-9.2	-9.3	48.4
3-year	133	85.7	11	90.9	1.8	1.1	1.2	1.4	39.1
5-Year	130	78.5	8	75.0	2	1.9	1.7	2.7	10.0
10-Year	90	55.6	4	75.0	-0.3	0.1	-0.7	0.4	7.8

Source: Morningstar Direct. Data as of 31 December 2021.

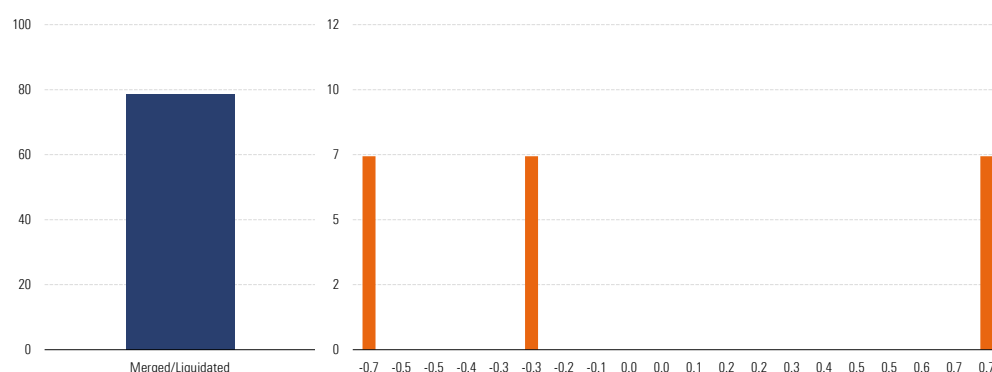
**Exhibit 117** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Global Emerging-Markets Bond - Local-Currency Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 118 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 (%)	
Trailing Total Return									
1-Year	239	99.2	24	100.0	-6.5	-4.6	-6.4	-4.6	23.0
3-year	220	92.7	22	100.0	2.7	5.1	3.5	4.6	25.5
5-Year	194	85.1	11	81.8	2.5	3.9	2.8	3.8	18.0
10-Year	130	72.3	4	25.0	2.2	4.7	2.2	4.7	0.8

Source: Morningstar Direct. Data as of 31 December 2021.

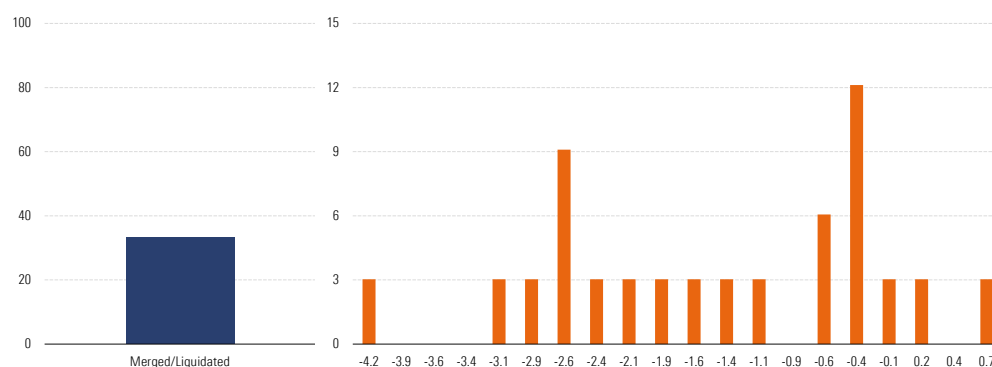
**Exhibit 119 Mortality and Distribution of 10-Year Annualised Excess Returns for JPY Bond Active Fund**

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 120 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 (%)	
Trailing Total Return									
1-Year	4	75.0	7	100.0	0.6	0.6	-0.2	0.8	25.0
3-year	7	42.9	6	100.0	0.2	0.5	-0.4	0.6	0.0
5-Year	9	33.3	6	100.0	0.4	0.4	-0.3	0.4	0.0
10-Year	14	21.4	4	100.0	2.1	1.4	1.4	1.4	7.1

Source: Morningstar Direct. Data as of 31 December 2021.

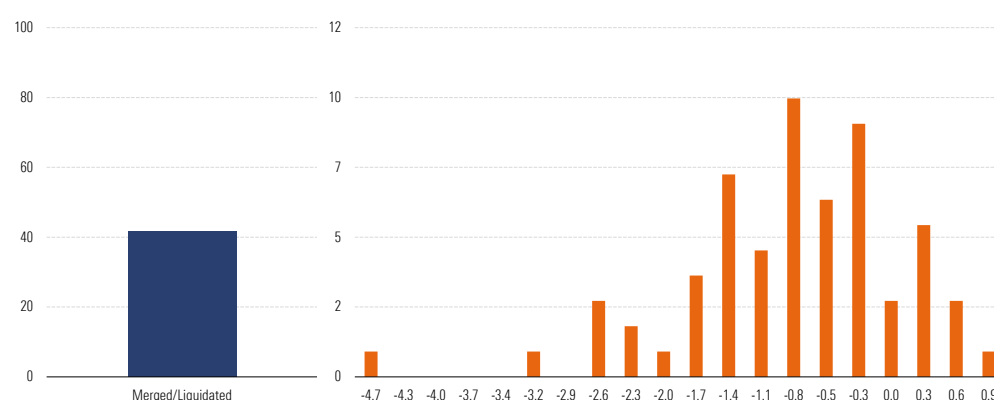
**Exhibit 121 Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving USD Corporate Bond Active Funds**

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 122 USD Diversified Bond**

	<b>Active Funds</b>		<b>Passive Funds</b>		<b>Asset-Weighted Performance</b>		<b>Equal-Weighted Performance</b>		<b>Active Success Rate (%)</b>
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
<b>Trailing Total Return</b>									
1-Year	239	99.2	24	100.0	-6.5	-4.6	-6.4	-4.6	23.0
3-year	220	92.7	22	100.0	2.7	5.1	3.5	4.6	25.5
5-Year	194	85.1	11	81.8	2.5	3.9	2.8	3.8	18.0
10-Year	130	72.3	4	25.0	2.2	4.7	2.2	4.7	0.8

Source: Morningstar Direct. Data as of 31 December 2021.

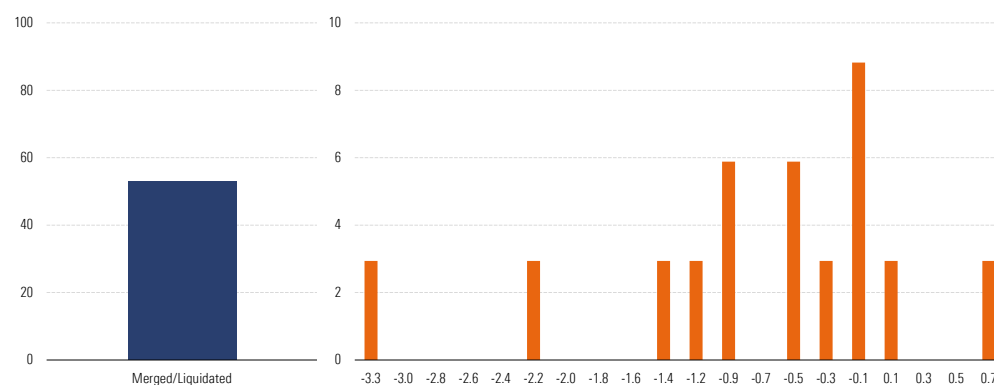
**Exhibit 123 Mortality and Distribution of 10-Year Annualised Excess Returns for USD Diversified Bond Active Funds**

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 124 USD Government Bond**

	<b>Active Funds</b>		<b>Passive Funds</b>		<b>Asset-Weighted Performance</b>		<b>Equal-Weighted Performance</b>		<b>Active Success Rate (%)</b>
	# at Beginning of Period	Survivorship Rate (%)	# at Beginning of Period	Survivorship Rate (%)	Active (%)	Passive (%)	Active (%)	Passive (%)	
<b>Trailing Total Return</b>									
1-Year	33	100.0	49	100.0	-4.3	-2.9	-3.9	-2.9	30.3
3-year	33	81.8	35	85.7	2.6	3.3	3	3.8	12.1
5-Year	29	72.4	31	77.4	2	2.6	2.1	2.9	6.9
10-Year	34	47.1	20	60.0	1.2	1.7	1.3	1.9	5.9
15-Year	51	27.5	5	60.0	3.3	3.0	2.9	3.3	9.8

Source: Morningstar Direct. Data as of 31 December 2021.

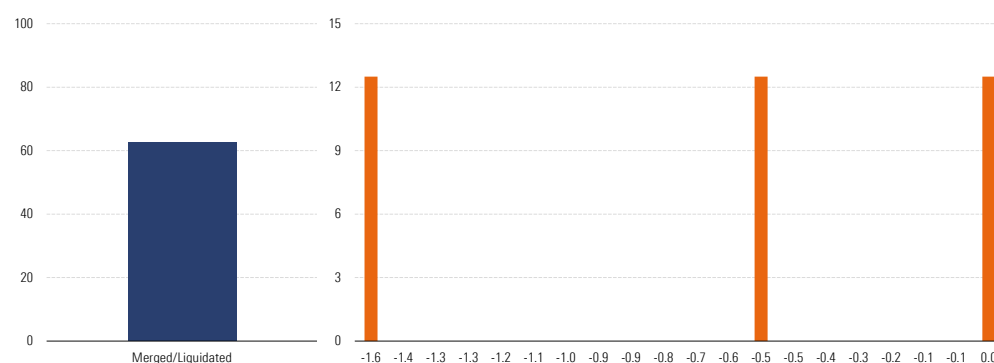
**Exhibit 125 Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving USD Government-Bond Active Funds**

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 126** USD 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 (%)	
<b>Trailing Total Return</b>									
1-Year	3	100.0	11	100.0	4.3	3.8	4.7	4.4	66.7
3-year	3	66.7	10	90.0	9.2	7.7	7.9	8.5	33.3
5-Year	5	60.0	9	88.9	5.5	4.6	4.5	5.6	0.0
10-Year	8	37.5	3	33.3	2.6	3.0	2.4	3	12.5

Source: Morningstar Direct. Data as of 31 December 2021.

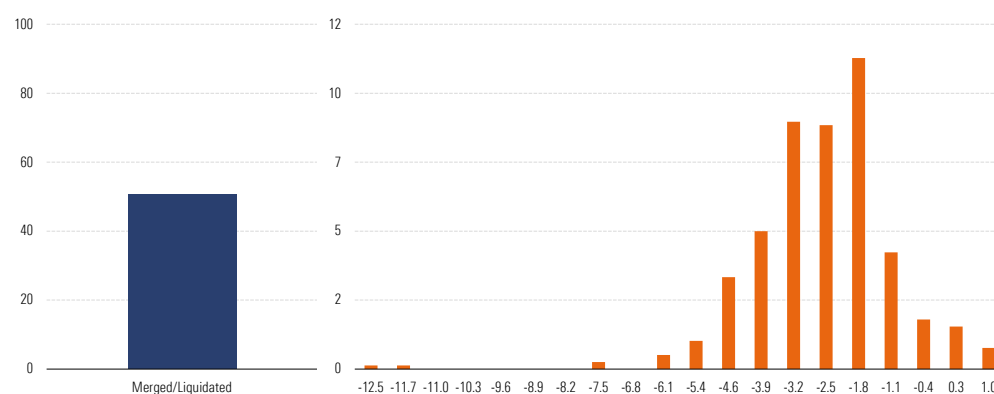
**Exhibit 127** Mortality and Distribution of 10-Year Annualised Excess Returns for USD Inflation-Linked Bond Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 128** EUR Cautious Allocation - Global

	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 (%)	
<b>Trailing Total Return</b>									
1-Year	1081	95.5	4	100.0	4.1	6.4	4.3	6.5	19.3
3-year	1028	85.5	4	100.0	4.3	5.3	4.5	6	17.7
5-Year	932	74.6	4	75.0	1.9	3.0	2	3.6	7.5
10-Year	813	49.4	4	50.0	3	4.6	3	5.2	2.7

Source: Morningstar Direct. Data as of 31 December 2021.

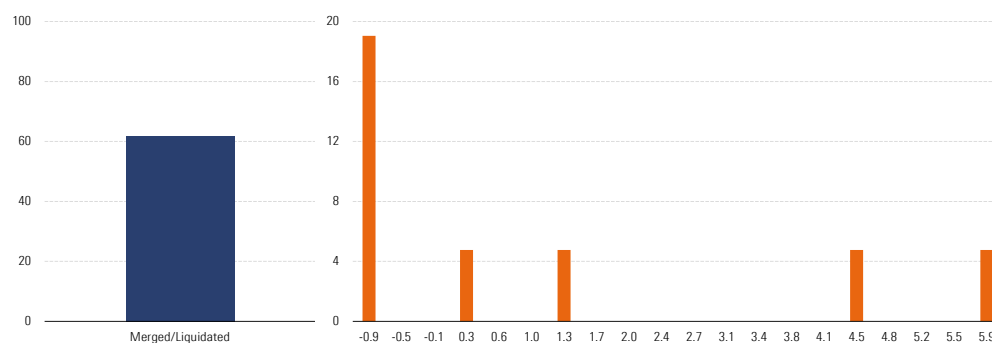
**Exhibit 129** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving EUR Cautious Allocation - Global Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 130** 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 (%)	
Trailing Total Return									
1-Year	13	92.3	4	100.0	0.8	4.7	1.9	4	38.5
3-year	16	68.8	4	100.0	3.8	3.5	3.5	3.2	31.3
5-Year	16	62.5	6	66.7	5.8	4.9	4.8	4.3	25.0
10-Year	21	38.1	7	42.9	6.7	6.2	7.3	5.9	19.0

Source: Morningstar Direct. Data as of 31 December 2021.

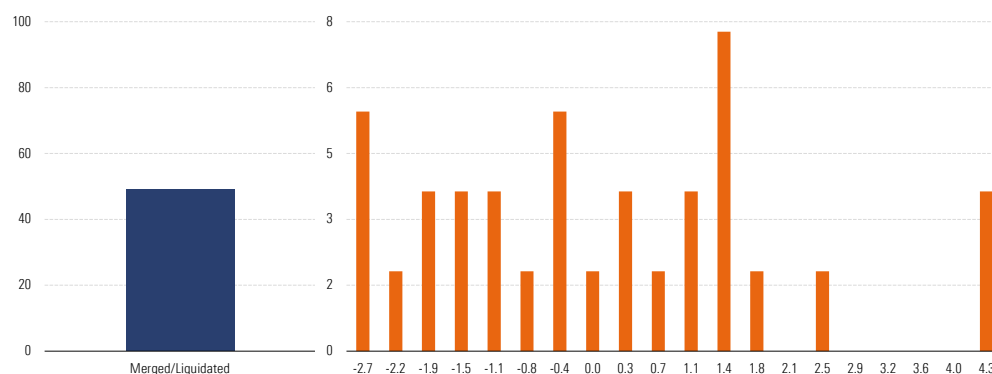
**Exhibit 131** Mortality and Distribution of 10-Year Annualised Excess Returns for Property - Indirect Asia Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 132** 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 (%)	
Trailing Total Return									
1-Year	48	89.6	14	100.0	21.5	12.6	18.6	16.2	66.7
3-year	49	79.6	14	92.9	11.7	8.9	11.6	10.2	46.9
5-Year	49	71.4	16	68.8	8	6.4	7.5	6.8	38.8
10-Year	55	50.9	12	41.7	10.2	10.1	10.8	10.5	25.5
15-Year	56	41.1	5	20.0	2	2.5	2.3	2.3	16.1

Source: Morningstar Direct. Data as of 31 December 2021.

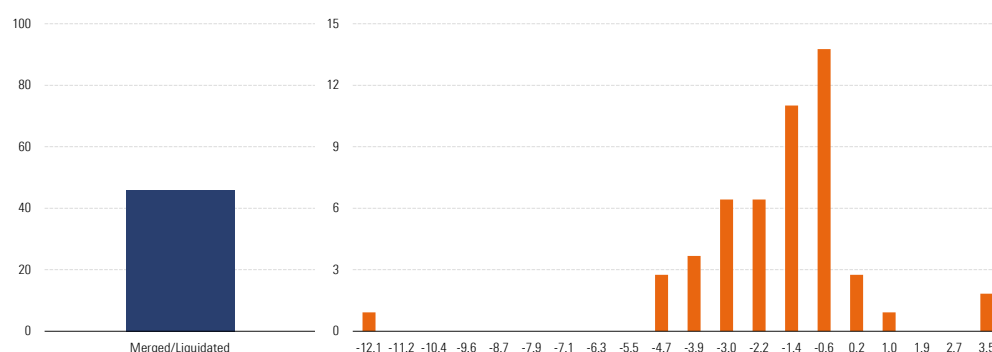
**Exhibit 133** Mortality and Distribution of 10-Year Annualised Excess Returns for Surviving Property - Indirect Europe Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 134** Property - Indirect Global

	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 (%)	
Trailing Total Return									
1-Year	109	96.3	16	100.0	25.3	27.0	22.8	26	32.1
3-year	111	85.6	13	100.0	13.5	11.8	12.3	11.6	45.0
5-Year	122	73.0	13	84.6	8.8	7.9	8.2	7.7	38.5
10-Year	109	54.1	7	42.9	8.1	8.4	7.5	8.7	9.2
15-Year	90	32.2	7	42.9	2.5	2.0	2.2	0.9	27.8

Source: Morningstar Direct. Data as of 31 December 2021.

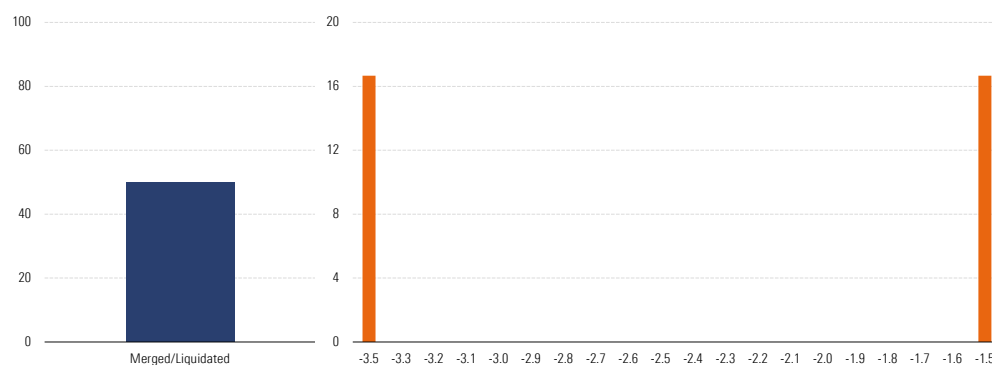
**Exhibit 135** Mortality and Distribution of 10-Year Annualised Excess Returns for Property - Indirect Global Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

**Exhibit 136** Property - Indirect North 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 (%)	
Trailing Total Return									
1-Year	5	100.0	5	80.0	39.3	43.6	36.3	44.6	0.0
3-year	7	71.4	6	66.7	14.6	15.9	13.4	17.6	14.3
5-Year	8	62.5	7	71.4	7.4	9.0	6.9	10.5	12.5
10-Year	6	50.0	4	50.0	7.4	9.6	7.3	9.6	0.0

Source: Morningstar Direct. Data as of 31 December 2021.

**Exhibit 137** Mortality and Distribution of 10-Year Annualised Excess Returns for Property - Indirect North America Active Funds

Source: Morningstar Direct. Data as of 31 December 2021. Excess returns are calculated as percentages.

## Appendix - Morningstar Categories Base Currencies

### Exhibit 138 Morningstar Equity Categories' Base Currencies

Category	Base Currency
Asia ex-Japan Equity	USD
Asia-Pacific Equity	USD
Asia-Pacific ex-Japan Equity	USD
Australia & New Zealand Equity	USD
Austria Equity	EUR
Brazil Equity	USD
China Equity	USD
Denmark Equity	DKK
Europe Equity Income	EUR
Europe ex-UK Equity	EUR
Europe Flex-Cap Equity	EUR
Europe Large-Cap Blend Equity	EUR
Europe Large-Cap Growth Equity	EUR
Europe Large-Cap Value Equity	EUR
Europe Mid-Cap Equity	EUR
Europe Small-Cap Equity	EUR
Eurozone Mid-Cap Equity	EUR
Eurozone Small-Cap Equity	EUR
Finland Equity	EUR
France Equity	EUR
Germany Equity	EUR
Global Emerging Markets	USD
Global Equity Income	USD
Global Large-Cap Blend Equity	USD
Global Large-Cap Value Equity	USD
Hong Kong Equity	HKD
India Equity	USD
Italy Equity	EUR
Japan Large-Cap Equity	JPY
Korea Equity	USD
Latin America Equity	USD
Netherlands Equity	EUR
Nordic Equity	SEK
Norway Equity	NOK
Pacific ex-Japan Equity	USD
Russia Equity	USD
Spain Equity	EUR
Sweden Equity	SEK
Switzerland Equity	CHF
Switzerland Small/Mid-Cap Equity	CHF
Taiwan Large-Cap Equity	TWD
Turkey Equity	EUR
UK Equity Income	GBP
UK Large-Cap Equity	GBP
UK Mid-Cap Equity	GBP
US Large-Cap Blend Equity	USD
US Large-Cap Growth Equity	USD
US Large-Cap Value Equity	USD
US Small-Cap Equity	USD

Source: Morningstar Direct. Data as of 31 December 2021.

**Exhibit 139** Morningstar Fixed Income, Allocation, and Property Categories' Base Currencies

CHF Bond	CHF
EUR Bond - Long Term	EUR
EUR Corporate Bond	EUR
EUR Diversified Bond	EUR
EUR Government Bond	EUR
EUR Government Bond - Short Term	EUR
EUR Inflation-Linked Bond	EUR
EUR Money Market	EUR
EUR Ultra Short-Term Bond	EUR
GBP Corporate Bond	GBP
GBP Government Bond	GBP
GBP Inflation-Linked Bond	GBP
Global Emerging Markets Bond	USD
Global Emerging Markets Bond - Local Currency	USD
JPY Bond	JPY
USD Corporate Bond	USD
USD Diversified Bond	USD
USD Government Bond	USD
USD Inflation-Linked Bond	USD
EUR Cautious Allocation - Global	EUR
Property - Indirect Asia	USD
Property - Indirect Europe	EUR
Property - Indirect Global	USD
Property - Indirect North America	USD

Source: Morningstar Direct. Data as of 31 December 2021.



## Appendix - Methodology

### Data Source

EAA (Europe/Asia/Africa) open-end and exchange-traded funds in the Morningstar Direct 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 periods) 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 periods).

### 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 inception 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 inception 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 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 the denominator of the survivorship calculation).

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