

Model Description

Market timing results from 2002 to 2017 are based on 200 trading day simple moving average of each portfolio asset. The timing portfolio is invested in the selected assets when the adjusted close price of the asset is greater than or equal to the moving average, otherwise the specific portfolio allocation is invested in cash. Timing model trades are executed using the end of month close price each month based on the end of month signals. The time period was constrained by the available data for msci world nr eur [Jan 2001 - Nov 2018].

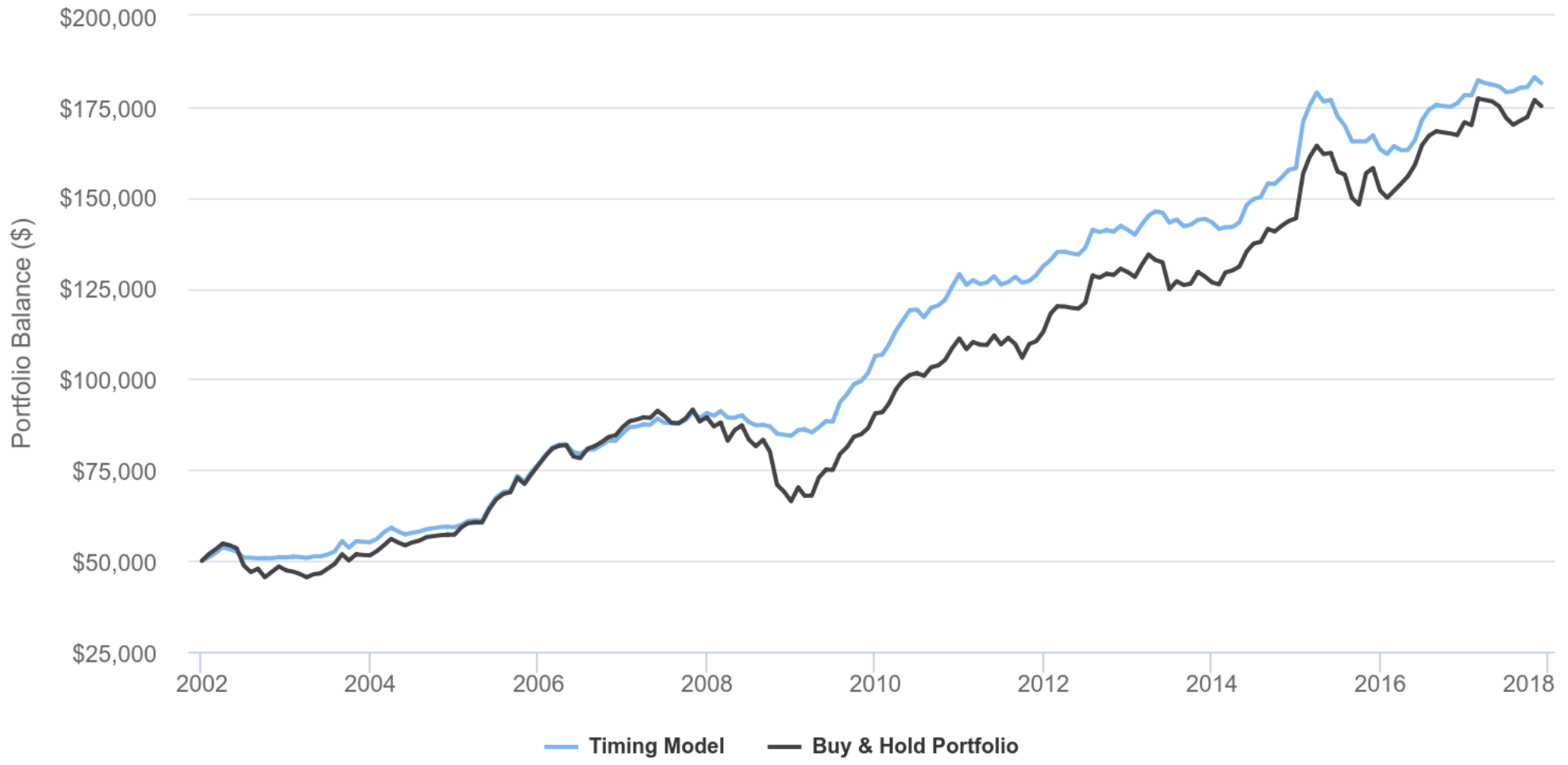
Portfolio Allocation

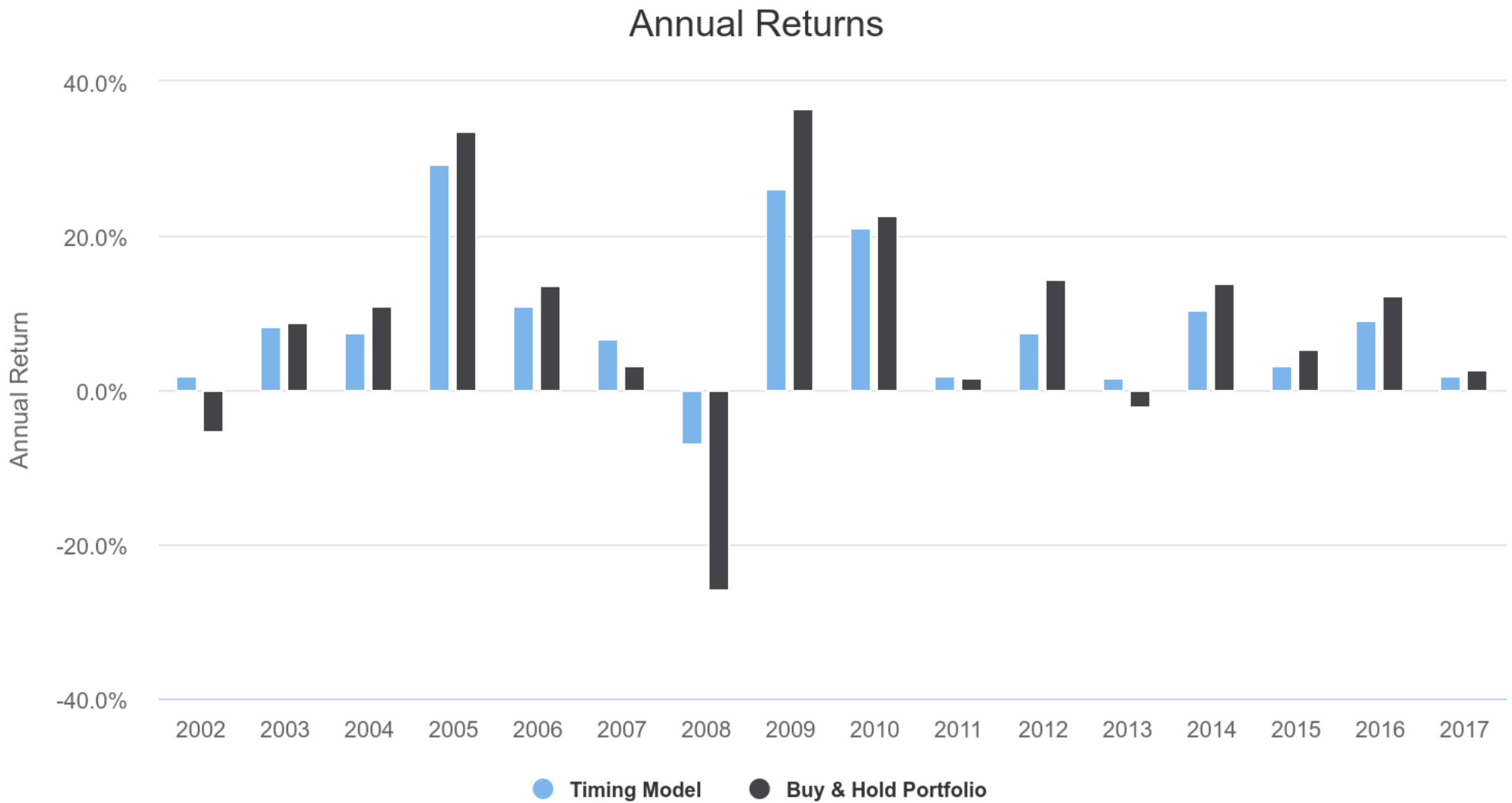
Ticker	Name	Allocation
DMNREUR	msci world nr eur	12.50%
EMNREUR	msci em nr eur	12.50%
EMBEUR	emerging markets bonds	12.50%
GHYBEUR	global high yield euro	12.50%
CSNREUR	msci consumer staples nr eur	12.50%
REEMUEUR	msci emu real estate	12.50%
GOLDEUR	gold	12.50%
ROHEUR	rohstoffe	12.50%

Portfolio Performance

Metric	Timing Model	Buy & Hold Portfolio
Start Balance	\$50,000	\$50,000
End Balance	\$181,436	\$175,140
CAGR	8.43%	8.19%
Stdev	6.08%	9.32%
Best Year	29.45%	36.44%
Worst Year	-6.91%	-25.82%
Max. Drawdown	-9.46%	-27.55%
Sharpe Ratio	1.17	0.77
Sortino Ratio	2.53	1.18
US Stock Market Correlation	0.30	0.56

Portfolio Growth





Risk and Return Metrics

Metric	Timing Model	Buy & Hold Portfolio
Arithmetic Mean (monthly)	0.69%	0.69%
Arithmetic Mean (annualized)	8.63%	8.66%
Geometric Mean (monthly)	0.68%	0.66%
Geometric Mean (annualized)	8.43%	8.19%
Volatility (monthly)	1.76%	2.69%
Volatility (annualized)	6.08%	9.32%
Downside Deviation (monthly)	0.76%	1.70%
Max. Drawdown	-9.46%	-27.55%
US Market Correlation	0.30	0.56
Beta (*)	0.27	0.57
Alpha (annualized)	6.81%	5.16%
R Squared	33.82%	65.45%
Sharpe Ratio	1.17	0.77
Sortino Ratio	2.53	1.18
Treynor Ratio (%)	26.69	12.58
Calmar Ratio	0.51	0.70
Active Return	3.63%	3.39%
Tracking Error	10.90%	7.91%
Information Ratio	0.33	0.43
Skewness	0.77	-0.63
Excess Kurtosis	1.84	2.42
Historical Value-at-Risk (5%)	-2.09%	-3.88%
Analytical Value-at-Risk (5%)	-2.20%	-3.73%
Conditional Value-at-Risk (5%)	-2.59%	-5.86%
Upside Capture Ratio (%)	46.60	67.86
Downside Capture Ratio (%)	11.78	41.65
Safe Withdrawal Rate	10.76%	9.90%
Perpetual Withdrawal Rate	6.17%	5.95%
Positive Periods	121 out of 191 (63.35%)	118 out of 191 (61.78%)
Gain/Loss Ratio	1.72	1.23

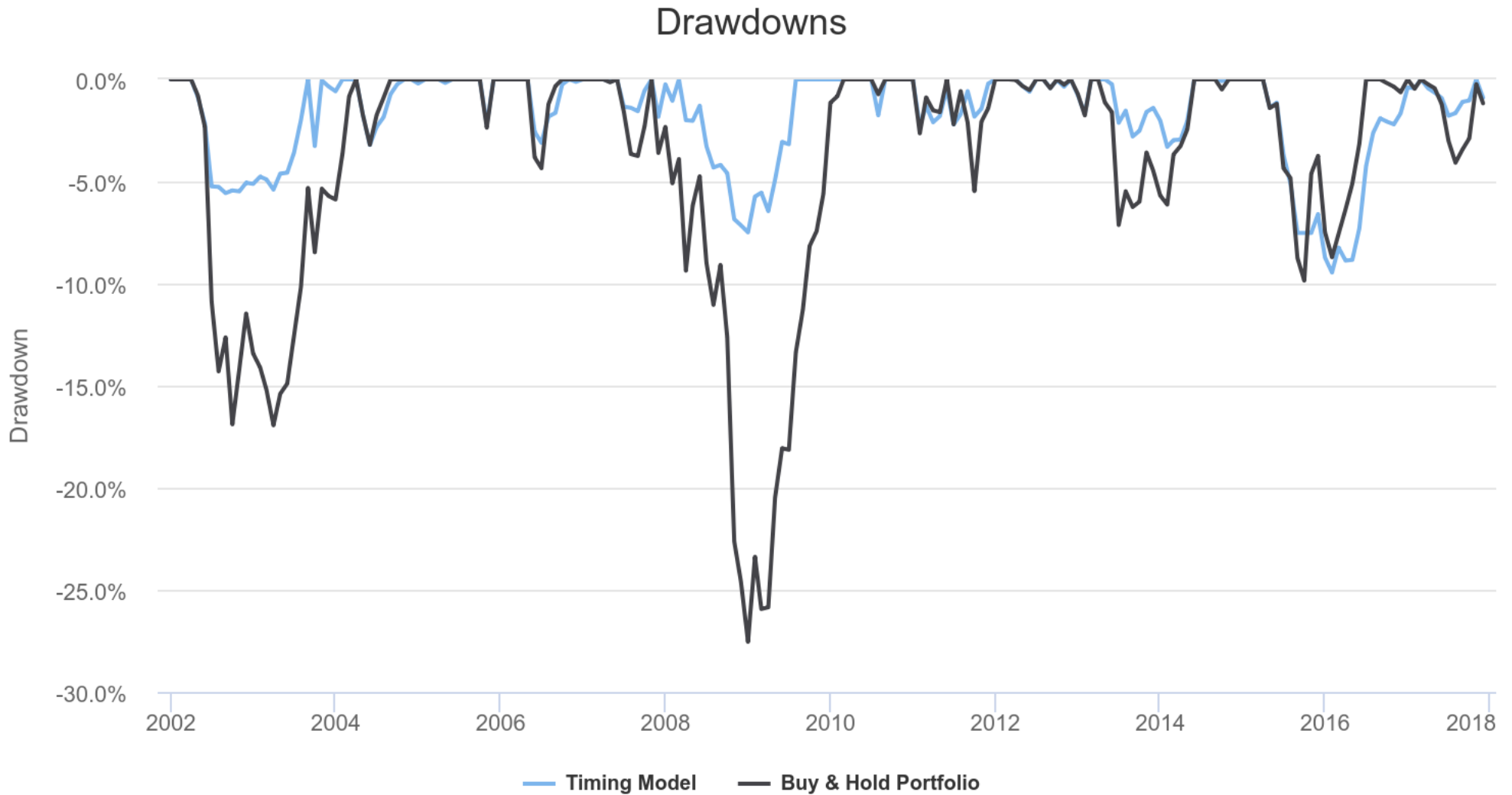
(*) msci world nr eur is used as the benchmark for calculations. Value-at-risk metrics are based on monthly values.

Timing Model Returns

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Inflation	Balance
2002	1.98%	2.18%	3.00%	-0.87%	-1.29%	-3.16%	-0.02%	-0.32%	0.14%	-0.05%	0.45%	-0.06%	1.83%	2.38%	\$50,917
2003	0.37%	-0.14%	-0.52%	0.83%	0.05%	1.03%	1.68%	5.33%	-3.26%	3.33%	-0.30%	-0.24%	8.18%	1.88%	\$55,084
2004	1.79%	3.14%	2.19%	-1.74%	-1.50%	0.92%	0.49%	1.15%	0.49%	0.50%	0.14%	-0.20%	7.51%	3.26%	\$59,221
2005	1.17%	1.70%	0.33%	-0.17%	6.06%	4.16%	2.21%	0.57%	5.85%	-2.21%	3.73%	3.02%	29.45%	3.42%	\$76,662
2006	3.31%	2.47%	0.96%	0.08%	-2.57%	-0.55%	1.32%	0.19%	1.42%	1.54%	-0.12%	2.52%	10.96%	2.54%	\$85,067
2007	2.03%	0.14%	0.73%	-0.11%	1.94%	-1.34%	-0.05%	-0.17%	1.03%	2.48%	-1.83%	1.61%	6.54%	4.08%	\$90,628
2008	-0.80%	1.44%	-2.00%	-0.03%	0.75%	-2.01%	-1.08%	0.13%	-0.42%	-2.36%	-0.33%	-0.37%	-6.91%	0.09%	\$84,367
2009	1.90%	0.20%	-0.96%	1.65%	1.94%	-0.11%	5.98%	2.43%	2.87%	0.86%	2.22%	4.62%	26.06%	2.72%	\$106,357
2010	0.32%	2.57%	3.53%	2.51%	2.43%	0.11%	-1.76%	2.24%	0.49%	1.36%	2.99%	2.68%	21.17%	1.50%	\$128,874
2011	-2.30%	1.02%	-0.81%	0.31%	1.37%	-1.77%	0.51%	1.15%	-1.25%	0.39%	1.25%	1.99%	1.77%	2.96%	\$131,161
2012	1.19%	1.70%	0.05%	-0.33%	-0.28%	1.45%	3.59%	-0.43%	0.39%	-0.32%	1.15%	-0.77%	7.55%	1.74%	\$141,070
2013	-0.93%	1.88%	1.79%	0.84%	-0.24%	-1.89%	0.61%	-1.28%	0.29%	0.95%	0.20%	-0.63%	1.51%	1.50%	\$143,195
2014	-1.32%	0.34%	0.02%	0.95%	3.34%	1.06%	0.37%	2.50%	-0.08%	1.21%	1.29%	0.29%	10.35%	0.76%	\$158,023
2015	8.08%	2.59%	2.08%	-1.38%	0.25%	-2.59%	-1.47%	-2.54%	0.00%	0.00%	1.00%	-2.28%	3.30%	0.73%	\$163,242
2016	-0.80%	1.35%	-0.69%	0.04%	1.69%	3.31%	1.68%	0.74%	-0.16%	-0.14%	0.55%	1.29%	9.13%	2.07%	\$178,148
2017	-0.03%	2.32%	-0.43%	-0.22%	-0.27%	-0.87%	0.13%	0.56%	0.07%	1.52%	-0.89%		1.85%	2.11%	\$181,436

Buy & Hold Portfolio Returns

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Inflation	Balance
2002	3.74%	2.42%	2.98%	-0.78%	-1.55%	-8.77%	-3.83%	1.94%	-4.87%	3.28%	3.14%	-2.21%	-5.28%	2.38%	\$47,359
2003	-0.79%	-1.27%	-2.05%	1.85%	0.59%	2.76%	2.76%	5.37%	-3.32%	3.40%	-0.38%	-0.18%	8.72%	1.88%	\$51,489
2004	2.40%	2.89%	3.25%	-1.74%	-1.49%	1.51%	0.87%	1.76%	0.50%	0.44%	0.27%	-0.02%	11.03%	3.26%	\$57,166
2005	3.66%	1.84%	0.32%	-0.02%	6.06%	4.17%	2.27%	0.65%	5.84%	-2.36%	3.79%	3.43%	33.57%	3.42%	\$76,357
2006	3.31%	2.45%	1.05%	0.15%	-3.82%	-0.55%	3.27%	0.91%	1.35%	1.75%	0.49%	2.72%	13.67%	2.54%	\$86,791
2007	1.90%	0.42%	0.71%	-0.14%	2.18%	-1.59%	-2.10%	-0.10%	1.52%	2.74%	-3.60%	1.32%	3.10%	4.08%	\$89,485
2008	-2.82%	1.25%	-5.69%	3.51%	1.53%	-4.45%	-2.25%	2.19%	-3.88%	-11.44%	-2.58%	-3.88%	-25.82%	0.09%	\$66,382
2009	5.75%	-3.34%	0.12%	7.25%	3.03%	-0.09%	5.83%	2.41%	3.52%	0.80%	1.98%	4.72%	36.44%	2.72%	\$90,573
2010	0.32%	2.56%	4.29%	2.52%	1.51%	0.47%	-0.73%	2.35%	0.44%	1.53%	3.05%	2.44%	22.73%	1.50%	\$111,161
2011	-2.64%	1.80%	-0.64%	-0.08%	2.39%	-2.20%	1.66%	-1.55%	-3.43%	3.60%	0.67%	2.40%	1.71%	2.96%	\$113,057
2012	4.37%	1.70%	-0.03%	-0.30%	-0.20%	1.36%	6.17%	-0.43%	0.83%	-0.26%	1.34%	-0.71%	14.50%	1.74%	\$129,451
2013	-1.06%	2.45%	2.33%	-1.13%	-0.48%	-5.62%	1.77%	-0.81%	0.28%	2.56%	-0.92%	-1.27%	-2.17%	1.50%	\$126,641
2014	-0.47%	2.62%	0.42%	0.84%	3.14%	1.61%	0.34%	2.58%	-0.49%	1.15%	0.89%	0.52%	13.89%	0.76%	\$144,237
2015	8.53%	2.88%	1.96%	-1.40%	0.21%	-3.19%	-0.50%	-4.12%	-1.21%	5.81%	0.91%	-3.89%	5.32%	0.73%	\$151,908
2016	-1.31%	1.25%	1.31%	1.34%	2.05%	3.37%	1.59%	0.71%	-0.18%	-0.17%	-0.28%	2.12%	12.35%	2.07%	\$170,662
2017	-0.46%	4.32%	-0.24%	-0.20%	-0.79%	-1.81%	-1.10%	0.68%	0.56%	2.73%	-0.93%		2.62%	2.11%	\$175,140



Drawdowns for Historical Market Stress Periods

Stress Period	Start	End	Timing Model	Buy & Hold Portfolio
Subprime Crisis	Nov 2007	Mar 2009	-7.49%	-27.55%

Drawdowns for Timing Model (worst 10)

Rank	Start	End	Length	Recovery By	Recovery Time	Underwater Period	Drawdown
1	Apr 2015	Jan 2016	10 months	Feb 2017	1 year 1 month	1 year 11 months	-9.46%
2	Mar 2008	Dec 2008	10 months	Jul 2009	7 months	1 year 5 months	-7.49%
3	Apr 2002	Aug 2002	5 months	Aug 2003	1 year	1 year 5 months	-5.57%
4	May 2013	Jan 2014	9 months	May 2014	4 months	1 year 1 month	-3.30%
5	Sep 2003	Sep 2003	1 month	Jan 2004	4 months	5 months	-3.26%
6	Apr 2004	May 2004	2 months	Oct 2004	5 months	7 months	-3.21%
7	May 2006	Jun 2006	2 months	Oct 2006	4 months	6 months	-3.11%
8	Jan 2011	Jan 2011	1 month	Dec 2011	11 months	1 year	-2.30%
9	Oct 2005	Oct 2005	1 month	Nov 2005	1 month	2 months	-2.21%
10	Nov 2007	Nov 2007	1 month	Feb 2008	3 months	4 months	-1.83%

Drawdowns for Buy & Hold Portfolio (worst 10)

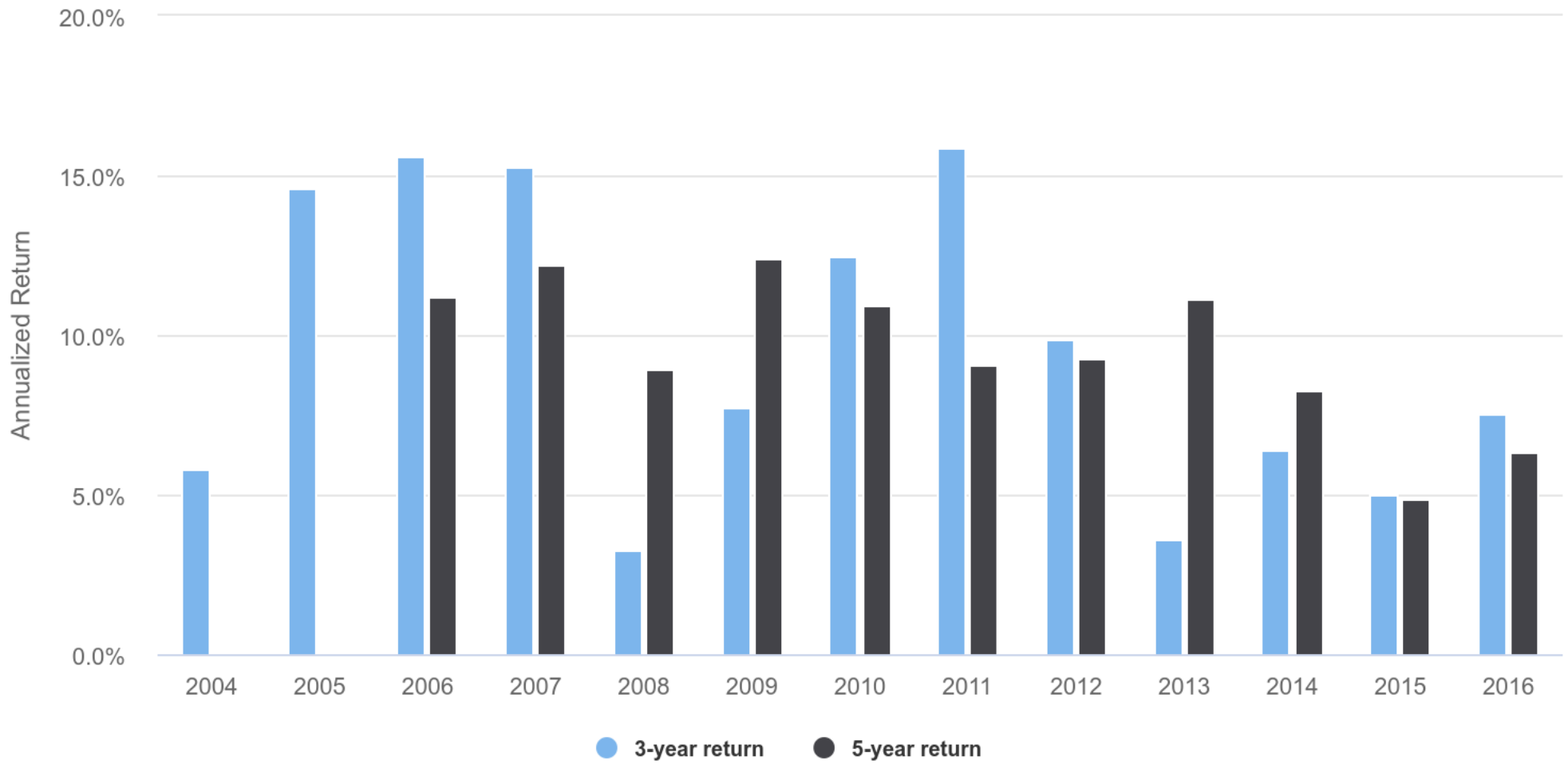
Rank	Start	End	Length	Recovery By	Recovery Time	Underwater Period	Drawdown
1	Nov 2007	Dec 2008	1 year 2 months	Feb 2010	1 year 2 months	2 years 4 months	-27.55%
2	Apr 2002	Mar 2003	1 year	Mar 2004	1 year	2 years	-16.94%
3	Apr 2015	Sep 2015	6 months	Jun 2016	9 months	1 year 3 months	-9.85%
4	Apr 2013	Jun 2013	3 months	May 2014	11 months	1 year 2 months	-7.13%
5	Jun 2011	Sep 2011	4 months	Dec 2011	3 months	7 months	-5.47%
6	May 2006	Jun 2006	2 months	Sep 2006	3 months	5 months	-4.35%
7	Mar 2017	Jul 2017	5 months				-4.08%
8	Jun 2007	Aug 2007	3 months	Oct 2007	2 months	5 months	-3.75%
9	Apr 2004	May 2004	2 months	Aug 2004	3 months	5 months	-3.20%
10	Jan 2011	Jan 2011	1 month	May 2011	4 months	5 months	-2.64%

Rolling Returns

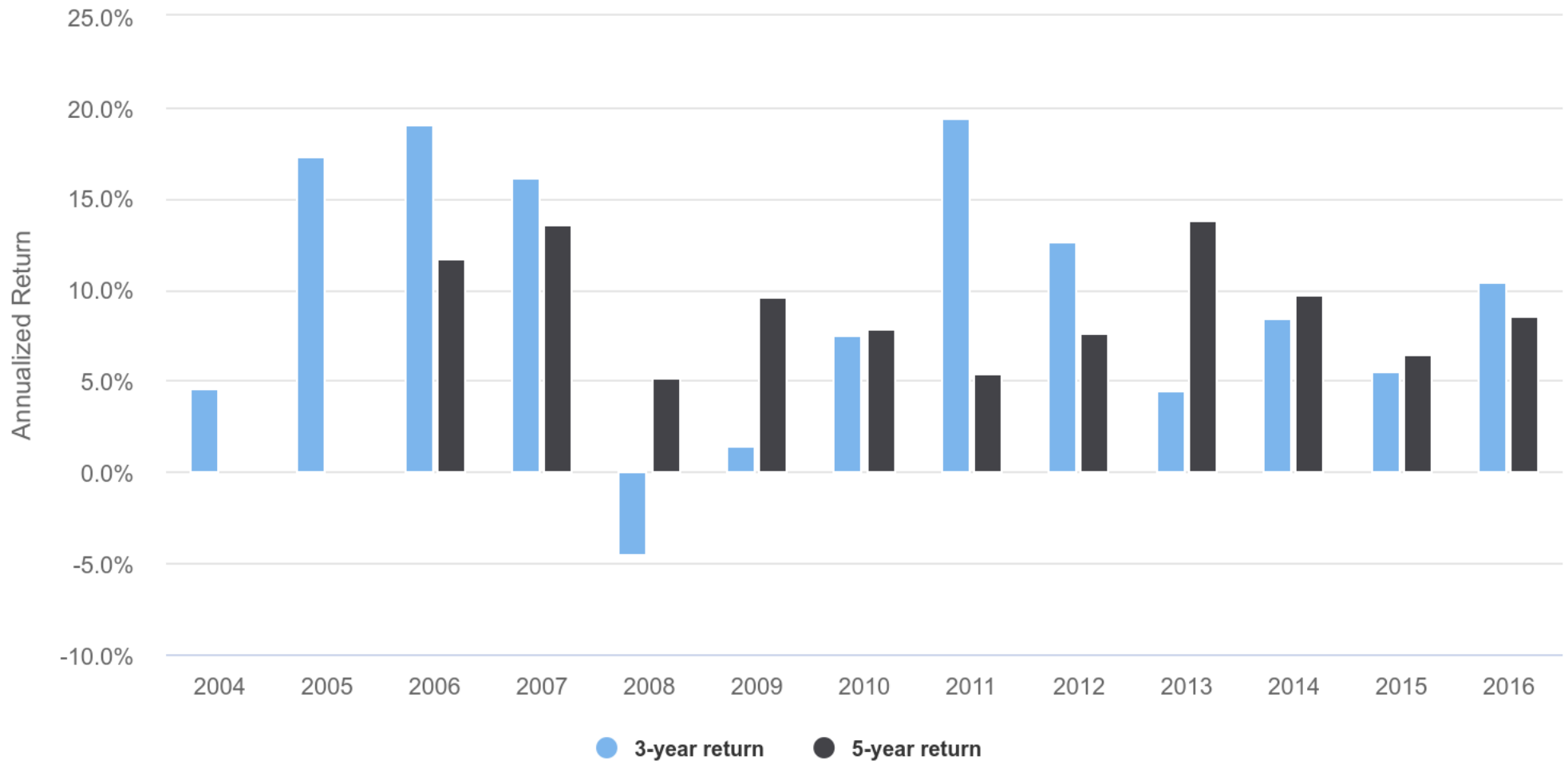
Roll Period	Timing Model			Buy & Hold Portfolio		
	Average	High	Low	Average	High	Low
1 year	9.23%	29.45%	-6.91%	9.58%	36.44%	-25.82%
3 years	9.45%	15.85%	3.24%	9.40%	19.42%	-4.56%
5 years	9.51%	12.42%	4.84%	9.05%	13.79%	5.21%
7 years	9.60%	12.91%	7.65%	8.68%	12.55%	4.13%
10 years	9.45%	10.73%	7.67%	8.72%	10.58%	7.00%
15 years	8.84%	8.84%	8.84%	8.53%	8.53%	8.53%

Result statistics are based on annualized rolling returns over full calendar year periods

Timing Model Rolling Returns



Buy & Hold Portfolio Rolling Returns



Timing Periods

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
1	Jan 2002	Jan 2002	62.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci em nr eur 12.50% gold	1.98%	3.74%
2	Feb 2002	Feb 2002	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate	2.18%	2.42%
3	Mar 2002	Apr 2002	12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	2.10%	2.17%
4	May 2002	May 2002	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	-1.29%	-1.55%
5	Jun 2002	Jun 2002	50.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	-3.16%	-8.77%
6	Jul 2002	Aug 2002	87.50% Cash (CASHX) 12.50% msci emu real estate	-0.35%	-1.97%
7	Sep 2002	Oct 2002	87.50% Cash (CASHX) 12.50% rohstoffe	0.09%	-1.75%
8	Nov 2002	Nov 2002	87.50% Cash (CASHX) 12.50% emerging markets bonds	0.45%	3.14%
9	Dec 2002	Dec 2002	62.50% Cash (CASHX) 12.50% emerging markets bonds 12.50% global high yield euro 12.50% msci emu real estate	-0.06%	-2.21%
10	Jan 2003	Jan 2003	50.00% Cash (CASHX)	0.37%	-0.79%

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
			12.50% emerging markets bonds 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate		
11	Feb 2003	Feb 2003	37.50% Cash (CASHX) 12.50% emerging markets bonds 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	-0.14%	-1.27%
12	Mar 2003	Mar 2003	50.00% Cash (CASHX) 12.50% emerging markets bonds 12.50% global high yield euro 12.50% msci emu real estate 12.50% rohstoffe	-0.52%	-2.05%
13	Apr 2003	Jun 2003	62.50% Cash (CASHX) 12.50% emerging markets bonds 12.50% global high yield euro 12.50% msci emu real estate	1.91%	5.28%
14	Jul 2003	Jul 2003	25.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% msci emu real estate	1.68%	2.76%
15	Aug 2003	Dec 2003	12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	4.71%	4.74%
16	Jan 2004	Jan 2004	25.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% msci em nr eur 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	1.79%	2.40%
17	Feb 2004	Mar 2004	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro	5.41%	6.24%

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
18	Apr 2004	Apr 2004	12.50% msci emu real estate 12.50% rohstoffe 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	-1.74%	-1.74%
19	May 2004	May 2004	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% msci emu real estate 12.50% rohstoffe	-1.50%	-1.49%
20	Jun 2004	Jun 2004	50.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% msci emu real estate 12.50% rohstoffe	0.92%	1.51%
21	Jul 2004	Jul 2004	37.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% global high yield euro 12.50% msci emu real estate 12.50% rohstoffe	0.49%	0.87%
22	Aug 2004	Aug 2004	50.00% Cash (CASHX) 12.50% emerging markets bonds 12.50% global high yield euro 12.50% msci emu real estate 12.50% rohstoffe	1.15%	1.76%
23	Sep 2004	Sep 2004	37.50% Cash (CASHX) 12.50% emerging markets bonds 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	0.49%	0.50%
24	Oct 2004	Nov 2004	25.00% Cash (CASHX) 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	0.64%	0.71%

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
25	Dec 2004	Dec 2004	37.50% Cash (CASHX) 12.50% msci world nr eur 12.50% msci em nr eur 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	-0.20%	-0.02%
26	Jan 2005	Jan 2005	62.50% Cash (CASHX) 12.50% msci world nr eur 12.50% msci em nr eur 12.50% msci emu real estate	1.17%	3.66%
27	Feb 2005	Mar 2005	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% msci emu real estate 12.50% rohstoffe	2.03%	2.17%
28	Apr 2005	Apr 2005	25.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% msci emu real estate 12.50% rohstoffe	-0.17%	-0.02%
29	May 2005	Nov 2005	12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	21.94%	21.97%
30	Dec 2005	Dec 2005	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% rohstoffe	3.02%	3.43%
31	Jan 2006	Apr 2006	12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate	6.97%	7.12%

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
			12.50% rohstoffe		
32	May 2006	May 2006	37.50% Cash (CASHX) 12.50% msci world nr eur 12.50% msci em nr eur 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	-2.57%	-3.82%
33	Jun 2006	Jun 2006	62.50% Cash (CASHX) 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	-0.55%	-0.55%
34	Jul 2006	Jul 2006	75.00% Cash (CASHX) 12.50% msci emu real estate 12.50% rohstoffe	1.32%	3.27%
35	Aug 2006	Aug 2006	50.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	0.19%	0.91%
36	Sep 2006	Sep 2006	25.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% global high yield euro 12.50% msci emu real estate 12.50% rohstoffe	1.42%	1.35%
37	Oct 2006	Nov 2006	25.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% msci emu real estate	1.42%	2.25%
38	Dec 2006	Dec 2006	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% msci emu real estate 12.50% rohstoffe	2.52%	2.72%
39	Jan 2007	Feb 2007	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro	2.17%	2.33%

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
40	Mar 2007	Apr 2007	12.50% gold 12.50% msci emu real estate 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	0.61%	0.57%
41	May 2007	May 2007	25.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% msci em nr eur 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	1.94%	2.18%
42	Jun 2007	Jun 2007	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% msci emu real estate 12.50% rohstoffe	-1.34%	-1.59%
43	Jul 2007	Jul 2007	50.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% msci em nr eur 12.50% rohstoffe	-0.05%	-2.10%
44	Aug 2007	Aug 2007	75.00% Cash (CASHX) 12.50% msci em nr eur 12.50% rohstoffe	-0.17%	-0.10%
45	Sep 2007	Sep 2007	75.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci em nr eur	1.03%	1.52%
46	Oct 2007	Oct 2007	50.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci em nr eur 12.50% gold 12.50% rohstoffe	2.48%	2.74%
47	Nov 2007	Nov 2007	37.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% msci em nr eur 12.50% gold 12.50% rohstoffe	-1.83%	-3.60%

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
48	Dec 2007	Jan 2008	50.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci em nr eur 12.50% gold 12.50% rohstoffe	0.80%	-1.54%
49	Feb 2008	Apr 2008	75.00% Cash (CASHX) 12.50% gold 12.50% rohstoffe	-0.61%	-1.16%
50	May 2008	May 2008	75.00% Cash (CASHX) 12.50% msci emu real estate 12.50% rohstoffe	0.75%	1.53%
51	Jun 2008	Jun 2008	62.50% Cash (CASHX) 12.50% msci em nr eur 12.50% msci emu real estate 12.50% rohstoffe	-2.01%	-4.45%
52	Jul 2008	Jul 2008	75.00% Cash (CASHX) 12.50% gold 12.50% rohstoffe	-1.08%	-2.25%
53	Aug 2008	Aug 2008	100.00% Cash (CASHX)	0.13%	2.19%
54	Sep 2008	Sep 2008	62.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% emerging markets bonds 12.50% global high yield euro	-0.42%	-3.88%
55	Oct 2008	Oct 2008	62.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% emerging markets bonds 12.50% gold	-2.36%	-11.44%
56	Nov 2008	Nov 2008	87.50% Cash (CASHX) 12.50% msci consumer staples nr eur	-0.33%	-2.58%
57	Dec 2008	Jan 2009	87.50% Cash (CASHX) 12.50% gold	1.52%	1.64%
58	Feb 2009	Feb 2009	62.50% Cash (CASHX) 12.50% emerging markets bonds 12.50% global high yield euro 12.50% gold	0.20%	-3.34%
59	Mar 2009	Mar 2009	75.00% Cash (CASHX) 12.50% emerging markets bonds 12.50% gold	-0.96%	0.12%
60	Apr 2009	Apr 2009	62.50% Cash (CASHX) 12.50% emerging markets bonds 12.50% global high yield euro 12.50% gold	1.65%	7.25%
61	May 2009	May 2009	25.00% Cash (CASHX) 12.50% msci world nr eur 12.50% emerging markets bonds	1.94%	3.03%

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio		
62	Jun 2009	Jun 2009	12.50% msci em nr eur				
			12.50% global high yield euro				
63	Jul 2009	Sep 2009	12.50% gold				
			12.50% msci emu real estate				
			12.50% msci consumer staples nr eur				
			12.50% msci world nr eur				
			12.50% emerging markets bonds				
			12.50% msci em nr eur				
			12.50% global high yield euro				
			12.50% gold				
			12.50% msci emu real estate				
			12.50% rohstoffe				
64	Oct 2009	Feb 2010	12.50% Cash (CASHX)		11.67%		
			12.50% msci consumer staples nr eur				
			12.50% msci world nr eur				
			12.50% emerging markets bonds				
			12.50% msci em nr eur				
			12.50% global high yield euro				
			12.50% msci emu real estate				
			12.50% rohstoffe				
			12.50% msci consumer staples nr eur				10.98%
			12.50% msci world nr eur				
12.50% emerging markets bonds							
12.50% msci em nr eur							
12.50% global high yield euro							
12.50% gold							
12.50% msci emu real estate							
12.50% rohstoffe							
65	Mar 2010	Mar 2010	12.50% Cash (CASHX)		3.53%		
			12.50% msci consumer staples nr eur				
			12.50% msci world nr eur				
			12.50% emerging markets bonds				
			12.50% msci em nr eur				
			12.50% global high yield euro				
			12.50% gold				
			12.50% rohstoffe				
66	Apr 2010	Apr 2010	12.50% msci consumer staples nr eur		2.51%		
			12.50% msci world nr eur				
			12.50% emerging markets bonds				
			12.50% msci em nr eur				
			12.50% global high yield euro				
			12.50% gold				
			12.50% msci emu real estate				
			12.50% rohstoffe				
67	May 2010	Jun 2010	12.50% Cash (CASHX)		2.55%		
			12.50% msci consumer staples nr eur				
			12.50% msci world nr eur				
			12.50% emerging markets bonds				

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
68	Jul 2010	Jul 2010	12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% rohstoffe 25.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% rohstoffe	-1.76%	-0.73%
69	Aug 2010	Aug 2010	12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	2.24%	2.35%
70	Sep 2010	Oct 2010	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	1.86%	1.98%
71	Nov 2010	Dec 2010	12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	5.75%	5.56%
72	Jan 2011	Jan 2011	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	-2.30%	-2.64%
73	Feb 2011	Feb 2011	37.50% Cash (CASHX) 12.50% msci world nr eur 12.50% msci em nr eur 12.50% global high yield euro 12.50% msci emu real estate	1.02%	1.80%

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
			12.50% rohstoffe		
74	Mar 2011	Mar 2011	25.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	-0.81%	-0.64%
75	Apr 2011	Apr 2011	37.50% Cash (CASHX) 12.50% msci world nr eur 12.50% msci em nr eur 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	0.31%	-0.08%
76	May 2011	Jun 2011	37.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	-0.42%	0.14%
77	Jul 2011	Jul 2011	62.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% gold 12.50% msci emu real estate	0.51%	1.66%
78	Aug 2011	Aug 2011	37.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% emerging markets bonds 12.50% global high yield euro 12.50% gold 12.50% rohstoffe	1.15%	-1.55%
79	Sep 2011	Sep 2011	62.50% Cash (CASHX) 12.50% emerging markets bonds 12.50% gold 12.50% rohstoffe	-1.25%	-3.43%
80	Oct 2011	Oct 2011	62.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% emerging markets bonds 12.50% gold	0.39%	3.60%
81	Nov 2011	Nov 2011	50.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% emerging markets bonds 12.50% global high yield euro 12.50% gold	1.25%	0.67%
82	Dec 2011	Dec 2011	37.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds	1.99%	2.40%

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
83	Jan 2012	Jan 2012	12.50% global high yield euro 12.50% gold 37.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% global high yield euro 12.50% rohstoffe	1.19%	4.37%
84	Feb 2012	Mar 2012	12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	1.75%	1.67%
85	Apr 2012	May 2012	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% msci emu real estate 12.50% rohstoffe	-0.60%	-0.50%
86	Jun 2012	Jul 2012	37.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% global high yield euro 12.50% msci emu real estate	5.09%	7.62%
87	Aug 2012	Aug 2012	12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	-0.43%	-0.43%
88	Sep 2012	Sep 2012	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	0.39%	0.83%
89	Oct 2012	Oct 2012	12.50% msci consumer staples nr eur	-0.32%	-0.26%

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
90	Nov 2012	Nov 2012	12.50% msci world nr eur		
			12.50% emerging markets bonds		
			12.50% msci em nr eur		
			12.50% global high yield euro		
			12.50% gold		
			12.50% msci emu real estate		
			12.50% rohstoffe		
			12.50% Cash (CASHX)		
			12.50% msci consumer staples nr eur	1.15%	1.34%
			12.50% msci world nr eur		
			12.50% emerging markets bonds		
			12.50% msci em nr eur		
			12.50% global high yield euro		
			12.50% gold		
			12.50% msci emu real estate		
			12.50% msci consumer staples nr eur		
91	Dec 2012	Dec 2012	12.50% msci world nr eur		
			12.50% emerging markets bonds		
			12.50% msci em nr eur		
			12.50% global high yield euro		
			12.50% gold		
			12.50% msci emu real estate		
			12.50% rohstoffe	-0.77%	-0.71%
			12.50% msci consumer staples nr eur		
92	Jan 2013	Jan 2013	37.50% Cash (CASHX)		
			12.50% msci world nr eur		
			12.50% emerging markets bonds		
			12.50% msci em nr eur		
			12.50% global high yield euro		
			12.50% msci emu real estate		
			12.50% rohstoffe	-0.93%	-1.06%
			12.50% msci world nr eur		
93	Feb 2013	Feb 2013	50.00% Cash (CASHX)		
			12.50% msci consumer staples nr eur		
			12.50% msci world nr eur		
			12.50% msci em nr eur		
			12.50% msci emu real estate	1.88%	2.45%
			12.50% msci world nr eur		
94	Mar 2013	May 2013	25.00% Cash (CASHX)		
			12.50% msci consumer staples nr eur		
			12.50% msci world nr eur		
			12.50% emerging markets bonds		
			12.50% msci em nr eur		
			12.50% global high yield euro		
			12.50% msci emu real estate	2.39%	0.69%
			12.50% msci world nr eur		
95	Jun 2013	Jun 2013	50.00% Cash (CASHX)		
			12.50% msci consumer staples nr eur		
			12.50% msci world nr eur		
			12.50% global high yield euro		
			12.50% msci emu real estate	-1.89%	-5.62%
			12.50% msci world nr eur		
96	Jul 2013	Jul 2013	75.00% Cash (CASHX)		

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
			12.50% msci consumer staples nr eur 12.50% msci world nr eur		
97	Aug 2013	Aug 2013	62.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% msci emu real estate	-1.28%	-0.81%
98	Sep 2013	Sep 2013	87.50% Cash (CASHX) 12.50% msci world nr eur	0.29%	0.28%
99	Oct 2013	Oct 2013	75.00% Cash (CASHX) 12.50% msci world nr eur 12.50% msci emu real estate	0.95%	2.56%
100	Nov 2013	Jan 2014	37.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% msci em nr eur 12.50% global high yield euro 12.50% msci emu real estate	-1.74%	-2.64%
101	Feb 2014	Feb 2014	75.00% Cash (CASHX) 12.50% msci world nr eur 12.50% global high yield euro	0.34%	2.62%
102	Mar 2014	Mar 2014	25.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate	0.02%	0.42%
103	Apr 2014	Jun 2014	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% msci emu real estate 12.50% rohstoffe	5.43%	5.69%
104	Jul 2014	Jul 2014	12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	0.37%	0.34%
105	Aug 2014	Oct 2014	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds	3.66%	3.25%

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
106	Nov 2014	Dec 2014	12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 25.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% msci emu real estate	1.58%	1.41%
107	Jan 2015	Mar 2015	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate	13.19%	13.85%
108	Apr 2015	May 2015	12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	-1.14%	-1.20%
109	Jun 2015	Jun 2015	25.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold	-2.59%	-3.19%
110	Jul 2015	Jul 2015	37.50% Cash (CASHX) 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% rohstoffe	-1.47%	-0.50%
111	Aug 2015	Aug 2015	50.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% global high yield euro	-2.54%	-4.12%
112	Sep 2015	Oct 2015	100.00% Cash (CASHX)	0.00%	4.53%
113	Nov 2015	Nov 2015	25.00% Cash (CASHX)	1.00%	0.91%

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
114	Dec 2015	Dec 2015	12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate	-2.28%	-3.89%
115	Jan 2016	Jan 2016	37.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% global high yield euro 12.50% msci emu real estate	-0.80%	-1.31%
116	Feb 2016	Mar 2016	50.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci emu real estate	0.65%	2.57%
117	Apr 2016	Apr 2016	62.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% emerging markets bonds 12.50% gold	0.04%	1.34%
118	May 2016	May 2016	37.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% gold 12.50% msci emu real estate	1.69%	2.05%
119	Jun 2016	Oct 2016	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	5.50%	5.38%
120	Nov 2016	Nov 2016	12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% rohstoffe	0.55%	-0.28%
			25.00% Cash (CASHX) 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur		

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
			12.50% global high yield euro 12.50% gold 12.50% rohstoffe		
121	Dec 2016	Dec 2016	37.50% Cash (CASHX) 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% rohstoffe	1.29%	2.12%
122	Jan 2017	Jan 2017	25.00% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% rohstoffe	-0.03%	-0.46%
123	Feb 2017	Feb 2017	37.50% Cash (CASHX) 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% rohstoffe	2.32%	4.32%
124	Mar 2017	Mar 2017	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% rohstoffe	-0.43%	-0.24%
125	Apr 2017	Apr 2017	12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate 12.50% rohstoffe	-0.22%	-0.20%
126	May 2017	May 2017	12.50% Cash (CASHX) 12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% gold 12.50% msci emu real estate	-0.27%	-0.79%
127	Jun 2017	Jun 2017	50.00% Cash (CASHX)	-0.87%	-1.81%

#	Start	End	Assets	Timing Portfolio	Buy & Hold Portfolio
128	Jul 2017	Sep 2017	12.50% msci consumer staples nr eur 12.50% msci world nr eur 12.50% msci em nr eur 12.50% msci emu real estate 75.00% Cash (CASHX) 12.50% msci em nr eur 12.50% msci emu real estate	0.76%	0.13%
129	Oct 2017	Oct 2017	62.50% Cash (CASHX) 12.50% msci world nr eur 12.50% msci em nr eur 12.50% msci emu real estate	1.52%	2.73%
130	Nov 2017	Nov 2017	25.00% Cash (CASHX) 12.50% msci world nr eur 12.50% emerging markets bonds 12.50% msci em nr eur 12.50% global high yield euro 12.50% msci emu real estate 12.50% rohstoffe	-0.89%	-0.93%
131	Dec 2017	Dec 2017	50.00% Cash (CASHX) 12.50% msci world nr eur 12.50% msci em nr eur 12.50% msci emu real estate 12.50% rohstoffe	-	-

Disclosures:

• Fairvalue ist ein unabhängiges Onlinemagazin für Geldanleger, die langfristig Vermögen aufbauen, erhalten und vermehren wollen. Im Mittelpunkt stehen diversifizierte Anlagestrategien und deren praktische Umsetzung. Unsere Beiträge stützen sich auf eigene quantitative Analysen und andere aktuelle Erkenntnisse der Finanzmarktforschung. Gründer und Herausgeber von Fairvalue ist der Finanzjournalist und Sachbuchautor Markus Neumann. Er war zuvor u. a. für die Stiftung Warentest / Finanztest und das Verbraucherportal Finanztip tätig.