Applied philosophy
Following the cash within equities

Global equities have almost returned to their pre-pandemic peaks and "animal spirits" seem to have returned to the asset class. We feel this may be the right time to think about risk-mitigation strategies. However, traditional defensive strategies within equity markets either look expensive or are dominated by this year's best performers. An alternative may be to find stocks with conservative financial management but that does not necessarily give us an edge even in market downturns. We think that our low volatility factor may still be the best available defensive strategy.

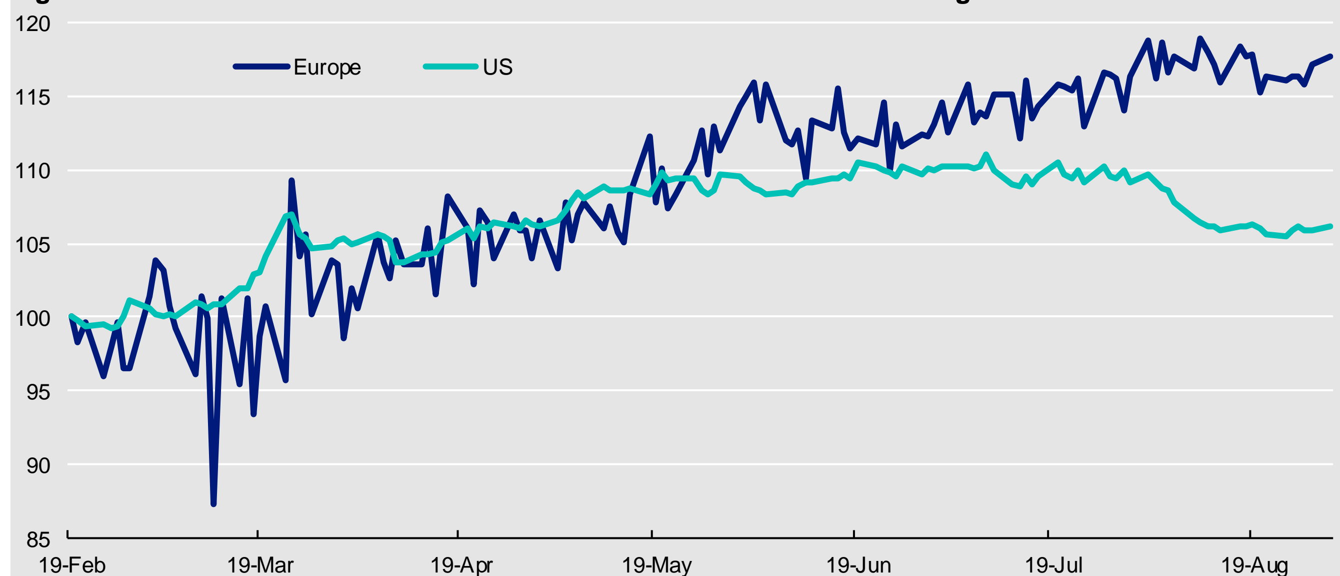
Recent headlines about the record highs reached by the US stock indices suggest to us that investors are confident that either the worst of the pandemic is over and the discovery of an effective vaccine or treatment is near, or that monetary and fiscal policy will remain supportive enough to keep markets afloat. Even if stock markets are not created equal and some are "more equal" than others, the general mood has been positive since the depths of the market crash in March. The MSCI World and All-Country World indices are close to their pre-pandemic peaks.

Although we do not foresee an imminent repeat of the market crash earlier this year (despite the recent tech-driven pull-back), we are slightly worried about the exuberance and FOMO (fear of missing out) attitude in equity markets. Therefore, we have been trying to find ways of hedging against potential risks within the asset class. The problem investors are facing is that risk mitigation strategies are either expensive (e.g. defensive sectors, such as healthcare or consumer staples) or they have rebalanced towards stocks and sectors that may be most at risk of downside (e.g. our low volatility factor index, which is dominated by technology and healthcare).

An alternative strategy may be to look for cash within equities, which has represented our idea of the ultimate defensive asset, because it keeps its value even when the economy slows down – at least in nominal terms – and has no volatility (in local currency). The COVID-19 crisis has highlighted the importance of this kind of resilience and of being able to cope with significantly lower or no revenues when many economic activities stop. Cash itself is, of course, a fixed income asset, so equity investors cannot really keep a large proportion of their portfolios in it. How can we access this kind of resilience in equity markets?

One way to define this kind of resilience, in our view, is to find stocks whose cash balances cover their operating and interest costs for long enough to weather difficult periods, such as the current environment. Whether that gives them an edge in this crisis or past recessions and bear markets is another question. Thus, we created indices for the US and Europe, using our proprietary factor indices as a template, to analyse their performance through market cycles. We excluded financials and selected stocks in both regions whose cash and short-term investments covered their pre-tax costs (revenues minus pre-tax income) for at least six months. We rebalanced this index at the end of each calendar year, which we think is sufficient given that

Figure 1 – "Resilience" index total return relative to local benchmark during the COVID-19 crisis



Notes: Showing total returns from 19th February 2020 to 31st August 2020 using our proprietary "resilience" indices. See the appendix for methodology and definitions. The local benchmark is the S&P 500 for the US and the Stoxx 600 in Europe. Past performance is no guarantee of future returns. Source: Datastream and Invesco

these indicators tend to be relatively stable within calendar and fiscal years, in our view.

As compelling as this kind of resilience sounds in our current predicament, the returns paint a mixed picture both during this year's bear market and the subsequent recovery. Somewhat unexpectedly, the European index would have underperformed its benchmark, the Stoxx 600 index, by 2% during the downward phase of the market between 19 February and 18 March (**Figure 1**).

It did better in the recovery period, outperforming by about 21% as of 31 August. The US index performed more in line with our expectations, outperforming the S&P 500 by 7% during the market downturn between 19 February and 23 March, while it has performed in line with it since the end of that period. However, the indices would have outperformed their respective local benchmarks if held through the ups and downs since the February market peak.

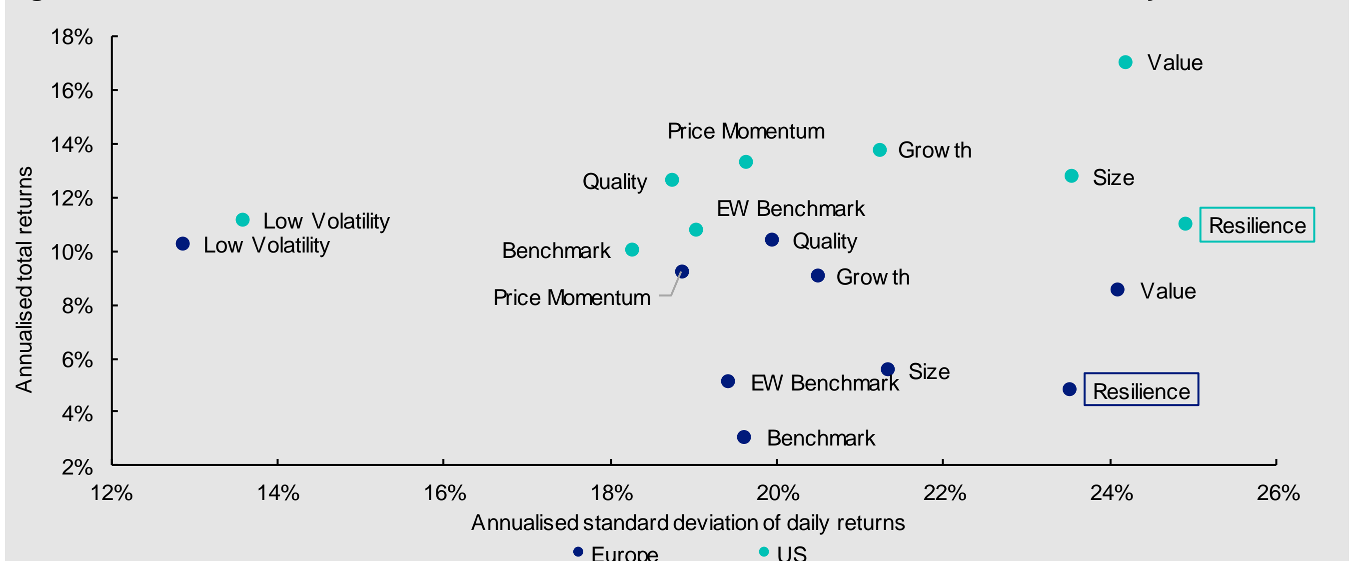
The picture is no less confusing if we analyse returns in previous periods of market stress and recovery. Although the European "resilience" index would have outperformed in all bear markets, except the one after the tech bubble, the US index would have underperformed in all of them, except the one following the Global Financial Crisis. What we find counterintuitive is that our indices would have outperformed during recoveries in both regions. The only exception is the 2011-2015 period in Europe.

It seems that the returns of "resilient" stocks are more pro-cyclical than their conservative financial management would suggest. Perhaps that is fair, since the main thesis behind the outperformance of defensive stocks and sectors is that their underlying businesses are expected to generate revenues even in times of stress. In our view, this means that being able to survive for a relatively long period without any revenues holds little advantage, especially not over companies whose business model is resilient. A case in point is that certain stocks and sectors continued to thrive even in our current crisis, even while some parts of the economy were completely shut down. Perhaps relatively large cash balances offer opportunities for extra investment both through acquisitions and research & development, which may be a reason for outperformance. Equity markets are driven by hope and expectation to a large extent, after all.

Thus, on the surface, it seems that it may be worth holding these kinds of stocks through market cycles. In theory, the outperformance in bull markets could make up for the underperformance during bear markets. A buy-and-hold strategy would have returned 4.8% annualised for the European index in euros since 1 January 2000 versus 3.1% for the Stoxx 600. The same applies to the US index, which would have returned 11% annualised in US dollars compared to 10% for the S&P 500. However, most of that can be explained by the fact that we constructed equal-weighted indices. Taking that into account eliminates any outperformance, but with much higher volatility.

We think the key may lie in the sectors that make up these indices. Our European index has not really had a dominant sector throughout its history since 2000.

Figure 2 – Return versus risk for factor indices and our "resilience index" since 3rd January 2000



Notes: See appendices for factor index definitions. We use the Stoxx 600 index as our European market benchmark and the S&P 500 as our US market benchmark. EW = equal-weighted. All total returns are based on returns in euros for Europe and US dollars for the US. Past performance is no guarantee of future returns. Data as at 31st August 2020 close. Source: Refinitiv Datastream and Invesco

Interestingly, certain sectors have only occasionally featured in the index, such as automobiles & parts, retailers and consumer staples. Apart from that, it seems to us a more concentrated version of the European stock market, which explains why its performance has been so similar to an equal-weighted market benchmark.

Our US index, by contrast, has been dominated by two sectors – technology and healthcare – through its history since 1990. In our view, this explains why it outperformed this year in the drawdown phase of the market and why it performed in line with the market during the recovery. Perhaps this is also behind its lack of defensive nature in most bear markets and the driving force behind its outperformance in recoveries.

The sad fact is that none of this helps us in our quest of finding new ways of reducing our risk exposure. We cannot help but think that traditional factors may still be the most useful at hedging risk, if historical trends continue. Low volatility has been well-established as a defensive factor and has had the highest risk-adjusted returns in the past. Although its current bias towards tech is a risk, by way of its design, it rebalances quicker than most of our other factor indices when market regimes change (see Factors in two flavours for more).

Figure 3 – Asset class total returns (%, annualised)

Data as at 04/09/2020	Index	Current Level/RY	Total Return (USD, %) 1w	1m	QTD	YTD	12m	Total Return (Local Currency, %) 1w	1m	QTD	YTD	12m
Equities												
World	MSCI	573	-2.2	2.7	9.6	3.0	14.2	-2.0	2.5	8.2	2.7	12.7
Emerging Markets	MSCI	1099	-2.0	1.1	11.3	0.5	13.9	-2.0	0.5	10.2	4.3	15.5
US	MSCI	3306	-2.3	3.8	11.2	8.8	20.4	-2.3	3.8	11.2	8.8	20.4
Europe	MSCI	1611	-2.6	0.1	5.5	-7.6	2.1	-1.6	-0.3	0.2	-11.0	-4.9
Europe ex-UK	MSCI	2033	-2.3	0.8	6.8	-2.4	7.2	-1.4	0.5	1.9	-7.3	0.0
UK	MSCI	898	-3.4	-2.1	1.0	-22.5	-12.6	-2.5	-3.3	-5.6	-22.3	-19.3
Japan	MSCI	3329	-0.2	3.5	5.6	-1.8	10.4	0.7	3.9	4.0	-3.9	10.6
Government Bonds												
World	BofA-ML	0.26	-0.3	-0.8	2.3	6.4	4.0	0.3	-1.0	0.0	4.4	1.6
Emerging Markets	BBloom	4.63	1.0	0.4	6.2	3.4	4.7	1.0	0.4	6.2	3.4	4.7
US (10y)	Datastream	0.72	0.1	-1.8	-0.3	14.2	10.2	0.1	-1.8	-0.3	14.2	10.2
Europe	Bofa-ML	-0.03	-0.4	-0.2	6.0	8.2	7.7	0.5	-0.5	0.9	3.0	0.7
Europe ex-UK (EMU, 10y)	Datastream	-0.48	-0.2	-0.3	5.1	8.5	5.0	0.7	-0.7	0.1	3.2	-1.8
UK (10y)	Datastream	0.22	-0.5	-0.4	6.0	5.7	11.6	0.4	-1.6	-0.9	6.0	3.0
Japan (10y)	Datastream	0.04	-0.8	-0.6	1.5	1.9	-2.9	0.2	-0.2	0.0	-0.3	-2.8
IG Corporate Bonds												
Global	BofA-ML	1.67	0.1	-0.6	3.6	6.4	7.2	0.4	-0.8	1.9	5.1	5.1
Emerging Markets	BBloom	4.20	0.4	1.1	5.3	6.6	11.2	0.4	1.1	5.3	6.6	11.2
US	BofA-ML	2.05	0.4	-1.5	1.9	6.9	7.2	0.4	-1.5	1.9	6.9	7.2
Europe	BofA-ML	0.58	-0.5	0.8	7.2	5.9	6.7	0.3	0.4	2.0	0.7	-0.2
UK	BofA-ML	1.80	-0.3	0.7	8.5	4.4	13.3	0.6	-0.6	1.5	4.8	4.6
Japan	BofA-ML	0.50	-0.8	-0.4	1.6	2.0	-1.1	0.1	-0.1	0.2	-0.2	-0.9
HY Corporate Bonds												
Global	BofA-ML	5.71	0.0	1.2	6.2	1.7	5.5	0.1	1.1	5.2	0.9	4.1
US	BofA-ML	5.89	-0.1	0.6	5.6	0.6	3.5	-0.1	0.6	5.6	0.6	3.5
Europe	BofA-ML	3.98	-0.5	2.0	8.9	3.5	7.1	0.4	1.7	3.7	-1.5	0.1
Cash (Overnight LIBOR)												
US		0.08	0.0	0.0	0.0	0.3	0.9	0.0	0.0	0.0	0.3	0.9
Euro Area		-0.58	-0.6	0.3	5.3	5.2	6.7	0.0	-0.1	-0.1	-0.4	-0.6
UK		0.05	-0.5	1.7	7.1	0.3	8.8	0.0	0.0	0.0	0.2	0.4
Japan		-0.10	-0.8	-0.5	1.6	2.2	0.0	0.0	0.0	0.0	-0.1	-0.1
Real Estate (REITs)												
Global	FTSE	1639	-1.0	1.3	4.8	-17.3	-13.5	-0.2	1.0	-0.2	-21.3	-19.2
Emerging Markets	FTSE	1908	-2.1	-0.8	2.2	-20.5	-6.7	-1.3	-1.1	-2.7	-24.3	-12.7
US	FTSE	2636	-0.1	1.5	5.3	-16.5	-16.4	-0.1	1.5	5.3	-16.5	-16.4
Europe ex-UK	FTSE	3215	-3.0	0.1	6.5	-12.5	-2.4	-2.2	-0.2	1.4	-16.7	-8.8
UK	FTSE	1191	-3.4	-1.1	7.4	-24.0	-1.3	-2.5	-2.3	0.5	-23.8	-8.9
Japan	FTSE	2452	-0.5	4.5	6.2	-16.5	-15.0	0.5	4.8	4.7	-18.3	-14.9
Commodities												
All	GSCI	1737	-3.6	-0.7	5.2	-33.0	-27.4	-	-	-	-	-
Energy	GSCI	234	-6.8	-4.3	2.0	-52.9	-48.3	-	-	-	-	-
Industrial Metals	GSCI	1255	-0.2	3.3	12.1	2.9	3.9	-	-	-	-	-
Precious Metals	GSCI	2250	-2.3	-3.7	8.7	25.8	22.1	-	-	-	-	-
Agricultural Goods	GSCI	322	0.1	7.1	6.7	-7.5	4.3	-	-	-	-	-
Currencies (vs USD)*												
EUR		1.18	-0.5	0.3	5.4	5.6	7.3	-	-	-	-	-
JPY		106.25	-0.8	-0.5	1.6	2.2	0.1	-	-	-	-	-
GBP		1.32	-0.9	1.3	6.9	-0.3	8.3	-	-	-	-	-
CHF		1.09	-1.0	0.0	3.7	6.0	7.4	-	-	-	-	-
CNY		6.84	0.3	1.9	3.3	1.8	4.4	-	-	-	-	-

Notes: *The currency section is organised so that in all cases the numbers show the movement in the mentioned currency versus USD (+ve indicates appreciation, -ve indicates depreciation). Past performance is no guarantee of future results. Please see appendix for definitions, methodology and disclaimers.
Source: Refinitiv Datastream and Invesco

Figure 4 – Global equity sector total returns relative to market (%)

Data as at 04/09/2020	Global				
	1w	**1m**	**QTD**	**YTD**	**12m**
Energy	**1.1**	**-0.6**	**-5.8**	**-29.7**	**-31.3**
Basic Materials	**1.3**	**0.4**	**3.4**	**2.6**	**4.2**
Basic Resources	0.6	-1.2	4.0	3.7	8.8
Chemicals	2.2	2.5	2.8	1.3	-0.7
Industrials	**0.1**	**2.2**	**0.7**	**-3.4**	**-3.9**
Construction & Materials	0.4	1.1	0.7	-5.3	-5.3
Industrial Goods & Services	0.0	2.3	0.7	-3.2	-3.7
Consumer Discretionary	**0.3**	**3.9**	**5.2**	**9.3**	**8.0**
Automobiles & Parts	0.8	11.4	15.1	13.2	13.4
Media	-0.6	1.4	3.3	-1.6	-0.3
Retailers	-0.2	2.4	5.6	28.9	26.9
Travel & Leisure	1.2	8.6	4.2	-17.6	-19.3
Consumer Products & Services	0.9	1.2	0.9	5.7	4.3
Consumer Staples	**0.7**	**-2.1**	**-2.2**	**-2.0**	**-6.0**
Food, Beverage & Tobacco	1.1	-1.0	-1.8	-4.9	-11.3
Personal Care, Drug & Grocery Stores	0.0	-4.0	-2.9	3.6	-2.2
Healthcare	**-0.3**	**-4.0**	**-5.2**	**6.4**	**11.2**
Financials	**0.1**	**0.2**	**-2.4**	**-18.4**	**-18.1**
Banks	0.3	0.4	-4.6	-25.7	-25.4
Financial Services	-0.3	-0.6	-1.6	-9.4	-7.6
Insurance	0.3	1.0	1.0	-13.4	-15.0
Real Estate	**0.7**	**-1.4**	**-3.7**	**-12.6**	**-15.4**
Technology	**-1.4**	**0.3**	**4.3**	**27.9**	**34.6**
Telecommunications	**-0.1**	**-3.4**	**-3.8**	**-1.7**	**-6.4**
Utilities	**1.2**	**-4.2**	**-3.5**	**-5.8**	**-10.5**

Notes: Returns shown are for Datastream sector indices versus the total market index. Past performance is no guarantee of future results.
Source: Refinitiv Datastream and Invesco

Figure 5 – Model asset allocation

	Neutral	Policy Range	Allocation	Position vs Neutral	Hedged	Currency
Cash	**5%**	**0-10%**	↑ **10%**			
Cash	2.5%		10%			
Gold	2.5%		↓ 0%			
Bonds	**45%**	**10-80%**	↑ **51%**			
Government	30%	10-50%	↑ 25%			
US	10%		↑ 12%			
Europe ex-UK (Eurozone)	8%		0%			
UK	2%		↑ 4%			
Japan	8%		↑ 5%			
Emerging Markets	2%		4%			
Corporate IG	10%	0-20%	20%			
US Dollar	5%		10%			
Euro	2%		2%			
Sterling	1%		4%			
Japanese Yen	1%		1%			
Emerging Markets	1%		3%			
Corporate HY	5%	0-10%	↑ 6%			
US Dollar	4%		↑ 6%			
Euro	1%		0%			
Equities	**40%**	**20-60%**	↓ **25%**			
US	24%		14%			
Europe ex-UK	6%		↓ 0%			
UK	3%		↓ 3%			
Japan	3%		↓ 5%			
Emerging Markets	4%		↑ 4%			
Real Estate	**8%**	**0-16%**	↓ **12%**			
US	2%		↓ 2%			
Europe ex-UK	2%		2%			
UK	1%		↓ 0%			
Japan	2%		5%			
Emerging Markets	1%		3%			
Commodities	**2%**	**0-4%**	↓ **2%**			
Energy	1%		↓ 1%			
Industrial Metals	0.3%		↓ 0%			
Precious Metals	0.3%		0%			
Agriculture	0.3%		1%			
Total	**100%**		**100%**			

Currency Exposure (including effect of hedging)			
USD	49%	↑ 51%	
EUR	20%	↓ 4%	
GBP	7%	↓ 12%	
JPY	15%	18%	
EM	8%	↑ 14%	
Total	**100%**	**100%**	

Notes: This is a theoretical portfolio and is for illustrative purposes only. See the latest The Big Picture document for more details. It does not represent an actual portfolio and is not a recommendation of any investment or trading strategy. Arrows indicate the direction of the most recent changes.
Source: Invesco

Figure 6 – Model allocations for Global sectors

	Neutral	Invesco
Energy	**4.2%**	**Neutral**
Basic Materials	**4.2%**	**Neutral**
Basic Resources	2.3%	Underweight
Chemicals	2.0%	Overweight
Industrials	**12.4%**	**Underweight**
Construction & Materials	1.5%	Underweight
Industrial Goods & Services	10.9%	Underweight
Consumer Discretionary	**14.5%**	**Underweight**
Automobiles & Parts	2.1%	Underweight
Media	1.3%	Underweight
Retailers	5.4%	Neutral
Travel & Leisure	1.9%	Underweight
Consumer Products & Services	3.9%	Neutral
Consumer Staples	**7.4%**	**Overweight**
Food, Beverage & Tobacco	4.7%	Overweight
Personal Care, Drug & Grocery Stores	2.7%	Overweight
Healthcare	**11.0%**	**Neutral**
Financials	**14.7%**	**Neutral**
Banks	6.7%	Overweight
Financial Services	4.4%	Neutral
Insurance	3.6%	Underweight
Real Estate	**3.9%**	**Overweight**
Technology	**19.2%**	**Overweight**
Telecommunications	**4.9%**	**Neutral**
Utilities	**3.6%**	**Neutral**

Notes: These are theoretical allocations which are for illustrative purposes only. They do not represent an actual portfolio and are not a recommendation of any investment or trading strategy. See the latest Strategic Sector Selector for more details.
Source: Refinitiv Datastream and Invesco

Appendix

Definitions of data and benchmarks for Figure 3

Sources: we source data from Datastream unless otherwise indicated.

Cash: returns are based on a proprietary index calculated using the Intercontinental Exchange Benchmark Administration overnight LIBOR (London Interbank Offer Rate). The global rate is the average of the euro, British pound, US dollar and Japanese yen rates. The series started on 1st January 2001 with a value of 100.

Gold: London bullion market spot price in USD/troy ounce.

Government bonds: Current levels, yields and total returns use Datastream benchmark 10-year yields for the US, Eurozone, Japan and the UK, and the Bank of America Merrill Lynch government bond total return index for the World and Europe. The emerging markets yields and returns are based on the JP Morgan emerging markets global composite government bond index.

Corporate investment grade (IG) bonds: Bank of America Merrill Lynch investment grade corporate bond total return indices.

Corporate high yield (HY) bonds: Bank of America Merrill Lynch high yield total return indices

Equities: We use MSCI benchmark gross total return indices for all regions.

Commodities: Goldman Sachs Commodity total return indices

Real estate: FTSE EPRA/NAREIT total return indices

Currencies: Global Trade Information Services spot rates

Factor index definitions

We focus on relatively large-cap stocks, as we suspect that most investors will be conscious of liquidity constraints when implementing such strategies. We have chosen six factors, that we think cover the classic definitions used by most investors. We aim to capture roughly a fifth of the market in each of our factor indices using the historical constituents of the STOXX 600 since August 1999 and the S&P 500 since September 1989, with monthly rebalancing. All our rankings are based on data in euros for Europe and in US dollars for the US. All factor indices are equal-weighted. We use the following definitions:

Growth: stocks in both the top third based on their 5-year sales per share trend and the top-third based on their internal growth rate (the product of the 5-year average return on equity and the retention ratio).

Low volatility: stocks in the bottom quintile based on the standard deviation of their daily returns in the previous three months.

Price momentum: stocks in the top quintile based on their performance in the previous 12 months.

Quality: stocks in both the top third based on their return on invested capital and the top third based on their EBIT to EV ratio (earnings before interest and taxes to enterprise value). This follows Joel Greenblatt's "magic formula" from his 2005 book: The little book that beats the market.

Size: stocks in the bottom quintile based on their market value.

Value: stocks in the bottom quintile based on their price to book value ratios.

Resilience: excluding financials, stocks whose cash and short-term investments would cover their pre-tax costs (revenues minus pre-tax income) for at least six months. We rebalance this index at the end of each calendar year

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Data as of 31st August 2020 unless stated otherwise.

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