Empirical Research Partners

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Global Portfolio Strategy September 2017

September 20, 2017

A Strengthening Euro: Threat or Endorsement?
Down to a Momentum Market in Europe: Will Good Turn Out Bad?

It Might be Different this Time, an Analogy to the Dollar and the Earnings Revision Signal

- There's some concern that a rising Euro will put pressure on Europe's P/E multiple, a legitimate worry because the latter has usually moved in the opposite direction to the former. In the last six months the trade-weighted Euro has appreciated by more than +8%, a move in the top-three percent of changes going back to the mid-1980s, based on a pre-1999 proxy comprised of European legacy currencies. Moves of that magnitude have typically coincided with European stocks lagging the developed world, not the case this time. What's happened is that the Euro's appreciation has been met with a commensurate rise in economic sentiment, and usually that's been a constructive combination.
- One question facing investors is whether the Euro's recent behavior is analogous to the Dollar's between late-2014 and early-2016, when the trade-weighted measure appreciated by +23%. We don't think that's the case because the forces at play are different. While the Dollar's rise was mostly driven by expectations of U.S. monetary policy, in Europe it's been more about improving fundamentals. The state of the business cycle matters too, and in late-2014 the U.S. economy was further along its course than Europe's is today. That's reflected in the (back then) higher multiples of U.S. stocks with performance most anti-correlated to the moves in the Dollar when compared to those of their European counterparts today.
- Over the last few months European stocks with relative returns most anti-correlated to the Euro's moves have seen cuts in earnings estimates. That's worth keeping track of because during episodes of Euro appreciation stocks in the worst quintile of earnings revisions tend to lag by abnormal amounts. We ran the same analysis in the U.S. and found similar results. Today about a quarter of European stocks with the worst earnings revisions have relative returns that're highly anti-correlated to the Euro's moves. That's a bit higher than normal but lower than what was seen in the U.S. from 2014 through 2016, when the equivalent share reached 50% at the peak. Appendix 1 on page 12 lists the non-financial European stocks with relative returns most anti-correlated with the moves in the Euro sorted by their earnings revisions rank. Siemens, thyssenkrupp, Yara International, Total and Tenaris score in the worst quintile.

Optimism is in the Air, Good is (Still) Good

- Over the last year confidence in Europe has seen a big jump, particularly among the manufacturers, and it now stands at historically-high levels. Those settings have typically been good for momentum strategies because the elation is infectious. That's been true this year and following price trends has been a good use of time because the winners have, in part, been identified. Our regime indicator in Europe shifted its stance from neutral to growth-tilted at the end-of-February, a move that proved correct as investors have rewarded those issues with the most favorable free cash flow dynamics.
- At this stage of the cycle good is good and with plenty of slack to be absorbed in Europe, and an improving political landscape, we remain in the optimists' camp. Appendix 2 on page 13 lists attractive issues with good free cash flow production where the market is acknowledging that the trend is good. Transports, health care, IT services and software are well represented. Abertis Infaestructuras, Wirecard, Amadeus IT Group and Vestas Wind Systems stand out.

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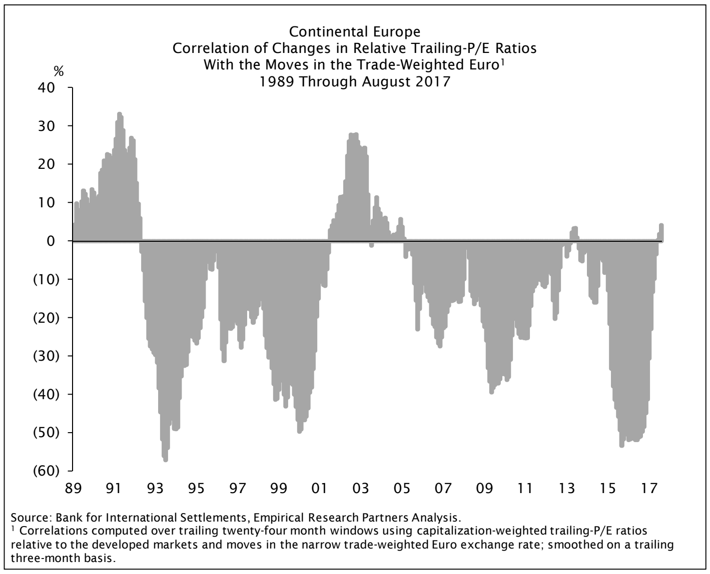
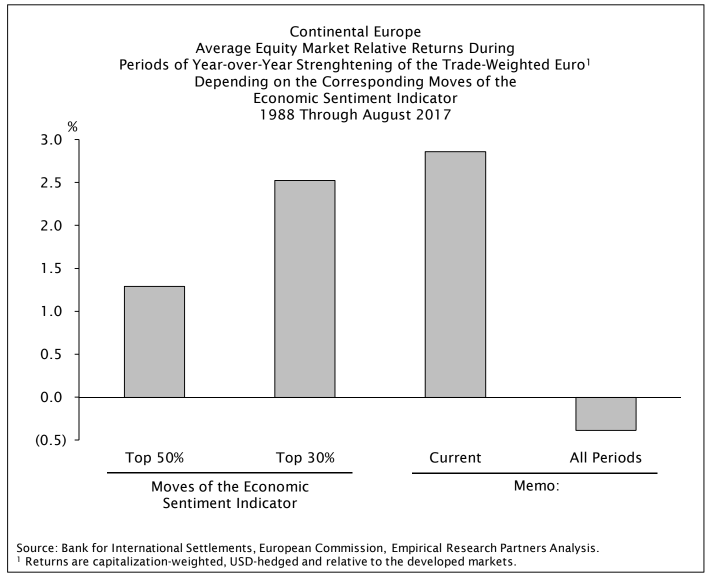
Conclusions in Brief

- A rising Euro has usually spelled trouble for Europe's multiple…



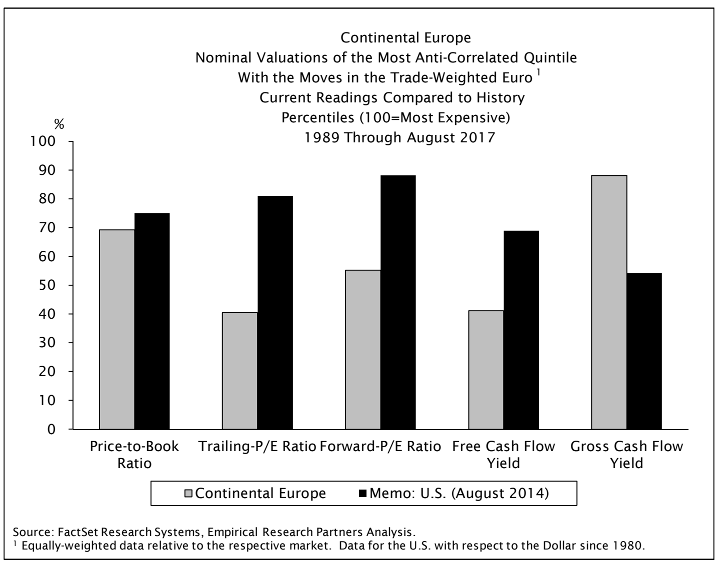
Source: Bank for International Settlements, Empirical Research Partners Analysis.
[1] Correlations computed over trailing twenty-four month windows using capitalization-weighted trailing-P/E ratios relative to the developed markets and moves in the narrow trade-weighted Euro exchange rate; smoothed on a trailing three-month basis.

- …The outcome will depend on the business cycle:



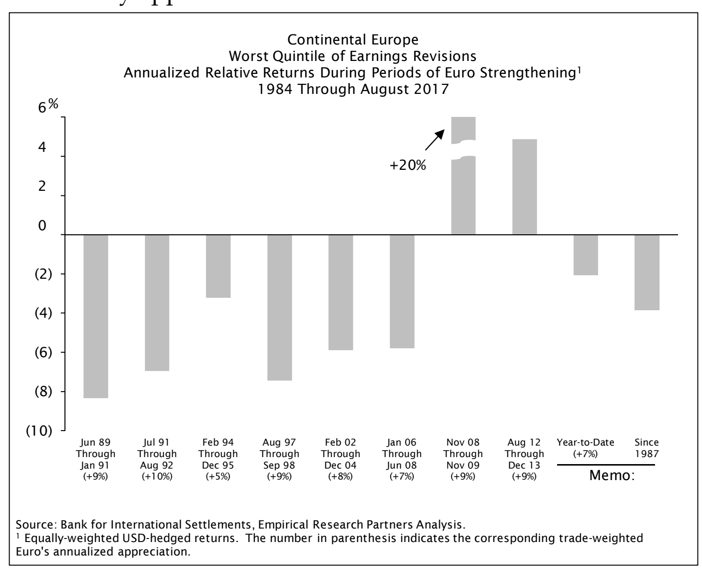
Source: Bank for International Settlements, European Commission, Empirical Research Partners Analysis.
[1] Returns are capitalization-weighted, USD-hedged and relative to the developed markets.

- A comparison with the U.S. episode illustrates dissimilar starting points:



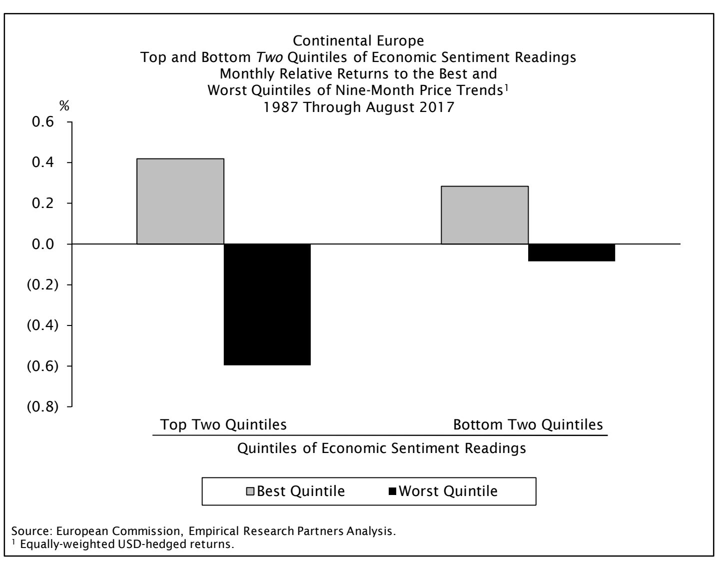
Source: FactSet Research Systems, Empirical Research Partners Analysis.
[1] Equally-weighted data relative to the respective market. Data for the U.S. with respect to the Dollar since 1980.

- Revisions to earnings estimates are informative when the currency appreciates:



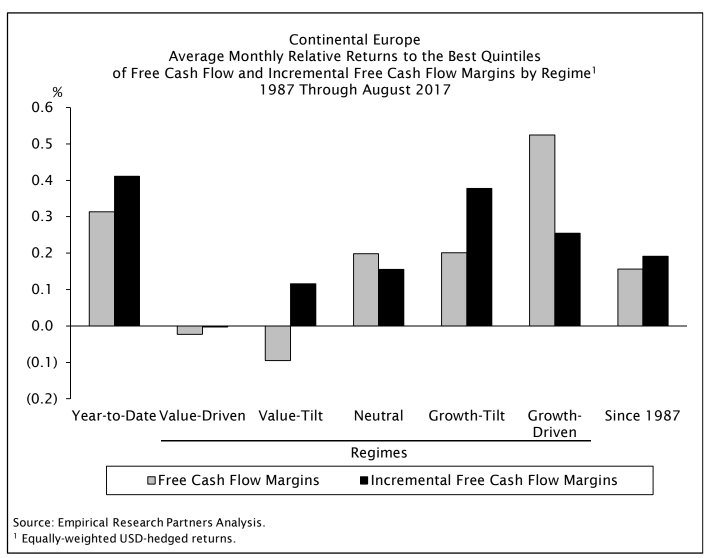
Source: Bank for International Settlements, Empirical Research Partners Analysis.
[1] Equally-weighted USD-hedged returns. The number in parenthesis indicates the corresponding trade-weighted Euro's annualized appreciation.

- Momentum strategies thrive when confidence is high:



Source: European Commission, Empirical Research Partners Analysis.
[1] Equally-weighted USD-hedged returns.

- There's still operating leverage left to exploit:



Source: Empirical Research Partners Analysis.
[1] Equally-weighted USD-hedged returns.

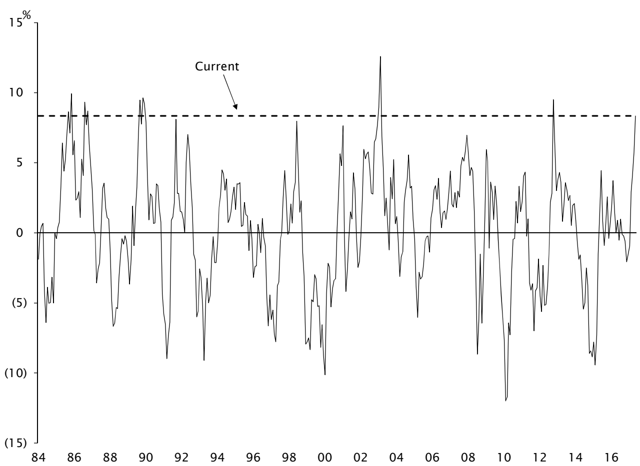
A Strengthening Euro: Threat or Endorsement?

Euro Appreciation, Usually a Negative for Equities…

In the six months through August the trade-weighted Euro has strengthened by more than +8%, a move that ranks in the top three percent of six-month changes going back to the mid-1980s (see Exhibit 1). To proxy for the Euro's behavior prior to its launch in 1999 we've used a construct from the Bank for International Settlements comprised of a weighted-average of European legacy currencies.

The concern is that a stronger Euro may become a source of pressure for the multiples of the European public companies, that when excluding financials, utilities and commodity-related businesses, generate more than 50% of their revenues outside the region (see Exhibit 2). That concern isn't misbegotten because most of the time the relative multiple of the European market moves in the opposite direction to the Euro (see Exhibit 3).

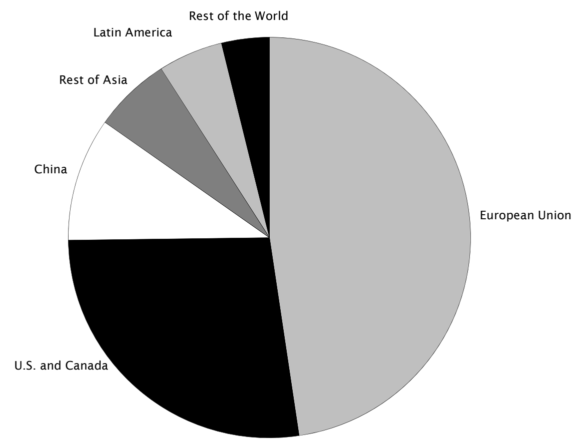
Exhibit 1: The Trade-Weighted Euro[1]
Trailing Six-Month Changes
1984 Through August 2017



Source: Bank for International Settlements, Empirical Research Partners Analysis.

[1] Narrow trade-weighted effective exchange rate. A theoretical Euro exchange rate based on a weighted average of legacy currencies is used as a proxy prior to 1999.

Exhibit 2: Continental Europe
The Core of the Market
Publicly-Held Company Revenues by Region[1]
2016



Source: Corporate Reports, Empirical Research Partners Analysis and Estimates.

[1] Excluding financials, energy, industrial commodities and utilities.

Moves in real exchange rates not only impact the revenues and profits of the companies but also their long-run growth rates. We came across recent work by the IMF that analyzed the impact of moves in real exchange rates on assets, capital spending and stock market returns across more than 30,000 firms in 66 developed and emerging countries between 2000 and 2011, excluding periods of large depreciations and financial crises (see Exhibit 4).[1] The authors concluded that part of the benefit from depreciations came as a result of improvements in internal financing, whereby the profits generated from improvements in competitiveness were used to finance capital spending and productivity growth. That was particularly true for companies that were financially-constrained and where labor accounted for a large share of the total cost.

…But This Time Could Be Different

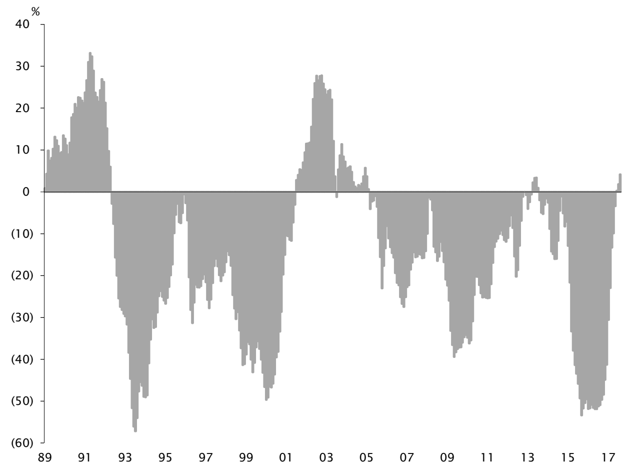
Despite the substantial appreciation of the Euro over the last few months European stocks have performed right on par with the developed world (see Exhibit 5). That's unusual because moves of similar magnitudes have typically coincided with underperformance, as seen by the dots in the southeast quadrant of the exhibit. The euphoria surrounding the re-unification of East and West Germany in late-1989/early-1990 proved a notable exception, as shown by the dots in the northeast quadrant.

What's happened recently is that the Euro's appreciation has coincided with a commensurate rise in the region's Economic Sentiment Indicator, a composite of manufacturing, services, consumer, retail and construction confi-

[1] Dao, M. C., Minoiu C. and Jonathan D. Ostry, 2017. "Corporate Investment and the Real Exchange Rate." IMF Working Paper WP/17/183.

dence indicators (see Exhibit 6). Over the last 30 years or so, episodes when the Euro has appreciated over a 12-month period have typically coincided with a slight underperformance of European equities vis-à-vis the developed world, as shown by the bar at the far-right in Exhibit 7. However, when the currency's appreciation occurred in tandem with a pick-up in sentiment, say in the top 50% or 30% of historical moves, European stocks usually ended up outperforming to the tune of +1.3 and +2.5 percentage points, respectively, as shown by the two bars on the left side of the exhibit. What's happened lately, captured by the second-to-last bar from the right, fits the historical precedent.

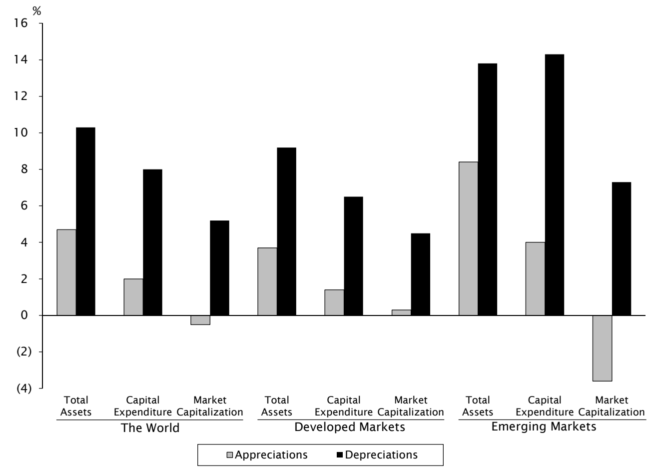
Exhibit 3: Continental Europe
Correlation of Changes in Relative Trailing-P/E Ratios With the Moves in the Trade-Weighted Euro[1]
1989 Through August 2017



Source: Bank for International Settlements, Empirical Research Partners Analysis.

[1] Correlations computed over trailing twenty-four month windows using capitalization-weighted trailing-P/E ratios relative to the developed markets and moves in the narrow trade-weighted Euro exchange rate; smoothed on a trailing three-month basis.

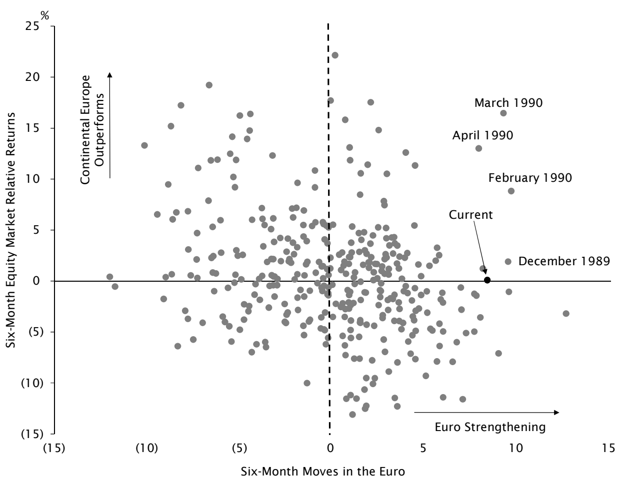
Exhibit 4: The World
Changes in Total Assets, Capital Expenditure and Market Capitalization Contingent on Appreciations or Depreciations in Real Effective Exchange Rates[1]
2000 Through 2011



Source: Dao, M. C., Minoiu C. and Jonathan D. Ostry, 2017. "Corporate Investment and the Real Exchange Rate." IMF Working Paper WP/17/183.

[1] Excludes episodes of large depreciations and financial crises. Based on median values.

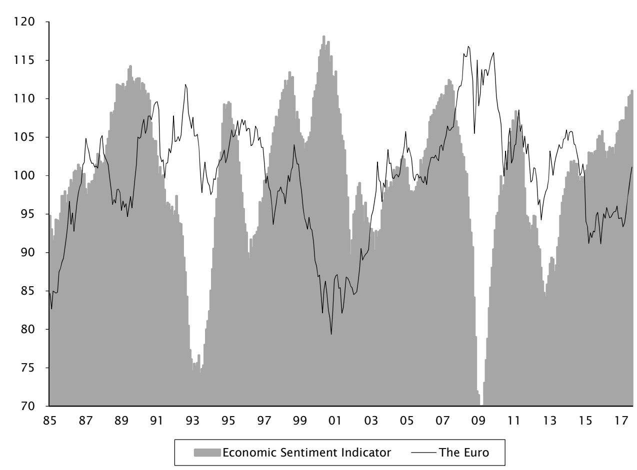
Exhibit 5: Continental Europe
Six-Month Moves in the Trade-Weighted Euro and the Corresponding Equity Market Relative Returns[1]
1988 Through August 2017



Source: Bank for International Settlements, Empirical Research Partners Analysis.

[1] Returns are capitalization-weighted, USD-hedged and relative to the developed markets.

Exhibit 6: The Trade-Weighted Euro and the Economic Sentiment Indicator[1]
(Average=100)
1985 Through August 2017

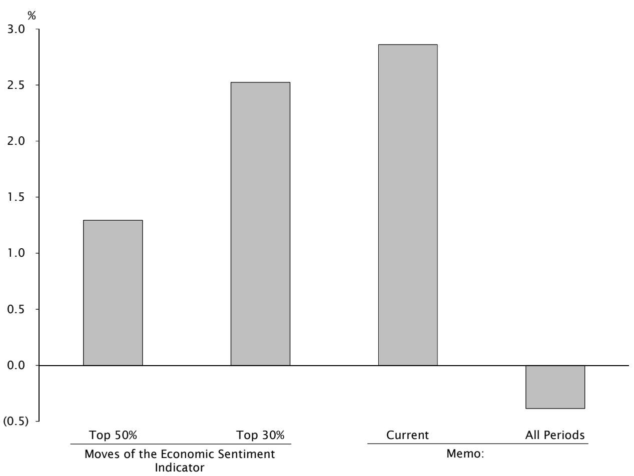


Source: Bank for International Settlements, European Commission, Empirical Research Partners Analysis.

[1] The economic sentiment indicator is derived from surveys gathering the assessments of economic operators in the Euro Area of the current economic situation and their expectations about future economic development.

With today's level of sentiment elevated we wondered whether a strengthening of the Euro would hurt the stocks or whether it'd serve as validation of strong fundamentals in Europe. Exhibit 8 shows the distribution of 12-month forward relative returns of European stocks following high readings in sentiment going back to the late-1980s, depending on the corresponding direction of the move in the Euro. When sentiment stood in the top-third of observations, as is the case today, we found that about 70% of the time the Euro ended up strengthening over the following year, as shown by the grey bars. In those episodes European stocks, on average, outperformed the developed world by +1.4 percentage points over the year. In periods when the Euro subsequently weakened European stocks underperformed by an average of (3) percentage points over those 12 months, as shown by the black bars.

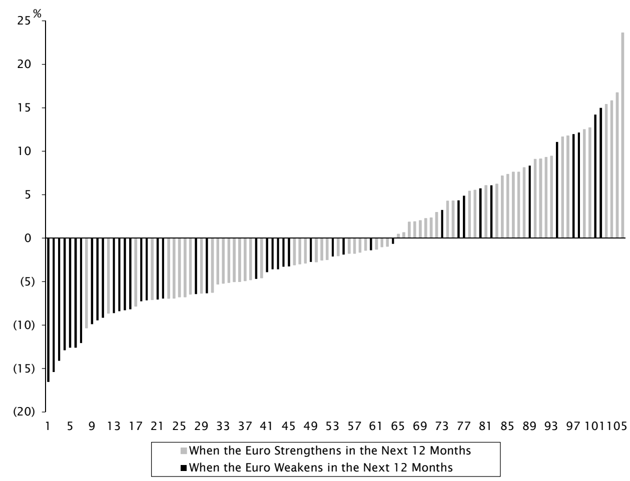
Exhibit 7: Continental Europe
Average Equity Market Relative Returns During Periods of Year-over-Year Strengthening of the Trade-Weighted Euro[1]
Depending on the Corresponding Moves of the Economic Sentiment Indicator
1988 Through August 2017



Source: Bank for International Settlements, European Commission, Empirical Research Partners Analysis.

[1] Returns are capitalization-weighted, USD-hedged and relative to the developed markets.

Exhibit 8: Continental Europe
Forward 12-Month Relative Returns Following Top Tercile Economic Sentiment Indicator Readings[1]
Contingent on the Euro's Forward 12-Month Move
Sorted Worst-to-Best
1988 Through August 2017



Source: Bank for International Settlements, European Commission, Empirical Research Partners Analysis.

[1] Capitalization-weighted USD-hedged returns relative to the developed markets.

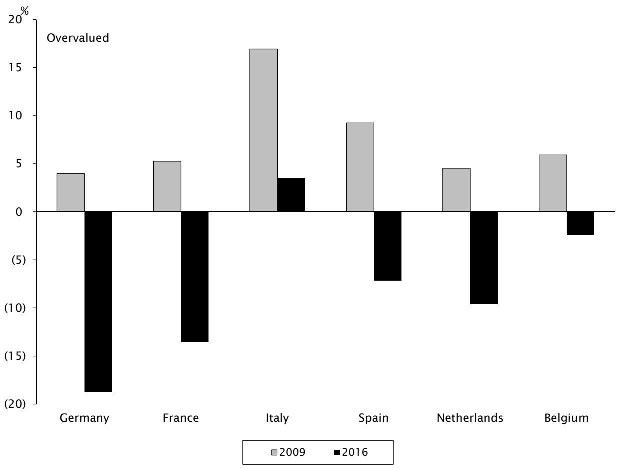
We came across a new database from CEPII containing nominal, real and equilibrium effective exchange rates for more than 180 countries going back to the early 1970s. The database also includes measures of currency misalignments at the country level. As of last year the exchange rates of major European economies appeared undervalued. Those of Germany and France were estimated to have been between (19)% and (14)% below equilibrium, in contrast to what was the case at the onset of the European Debt Crisis (see Exhibit 9). During that crisis current account deficits were reversed, and as of the first quarter the Euro Area's current account balance stood at 3.5% of GDP, the highest level since 1999.

A Comparison With the Dollar's 2014-2016 Episode: Different Drivers

One of the questions facing investors is whether what's happening with the Euro is in any shape or form analogous to the Dollar's behavior from late-2014 through early-2016, when it appreciated by about +15% per year on a trade-weighted basis. We think there are a couple of distinctions worth pointing out. First, while the Dollar's rise over those years was driven mostly by expectations of higher interest rates, that doesn't seem to explain the Euro's behavior this year (see Exhibit 10).

Moreover, in late-2014 the U.S. economy was further along its cycle than Europe's is today, with the level of U.S. industrial production having already surpassed the pre-Crisis peak, a much different set of circumstances than those in Europe today (see Exhibit 11). Comparing the valuations of U.S. stocks with relative returns most anti-correlated to Dollar moves (i.e., tend to underperform when the Dollar strengthens) at the onset of that currency's rise with those of their European counterparts today tells a similar tale, with the latter group appearing less vulnerable (see Exhibit 12).

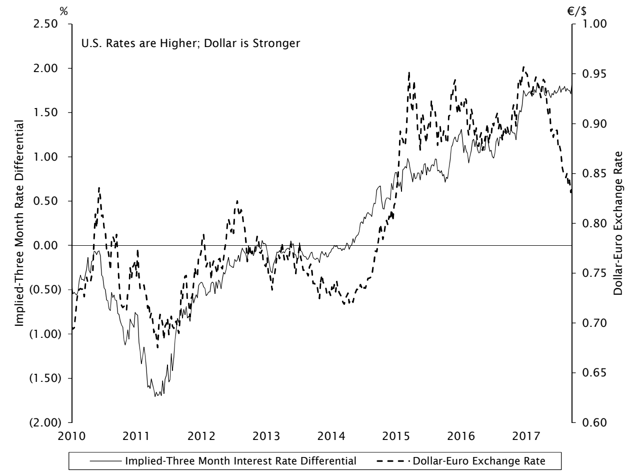
Exhibit 9: Select Euro Area Countries Currency Misalignments[1] 2009 and 2016



Source: Couharde, C., Delatte, A. L., Grekou, C., Mignon V. and Florian Morvillier, 2017. "EQCHANGE: A World Database on Actual and Equilibrium Effective Exchange Rates," CEPII Working Paper 2017-14.

[1] Based on equilibrium real effective exchange rates, consistent with internal and external macroeconomic balances over the medium and long-term.

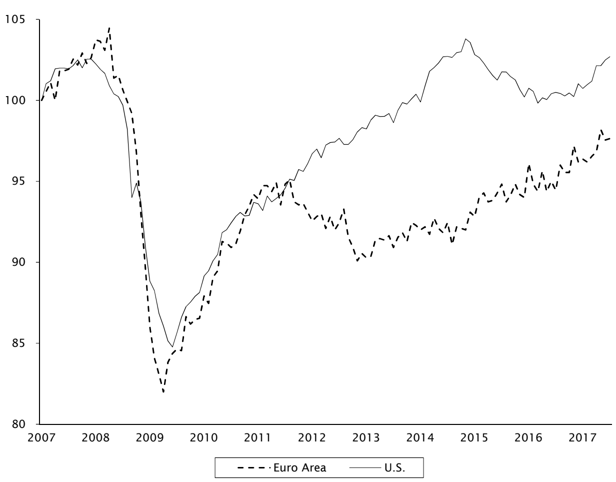
Exhibit 10: Implied Three-Month Euro Area Interest Rate Differential Vis-a-Vis the U.S. and the Dollar-Euro Exchange Rate[1] 2012 Through Mid-September 2017



Source: Bloomberg L.P., Empirical Research Partners Analysis.

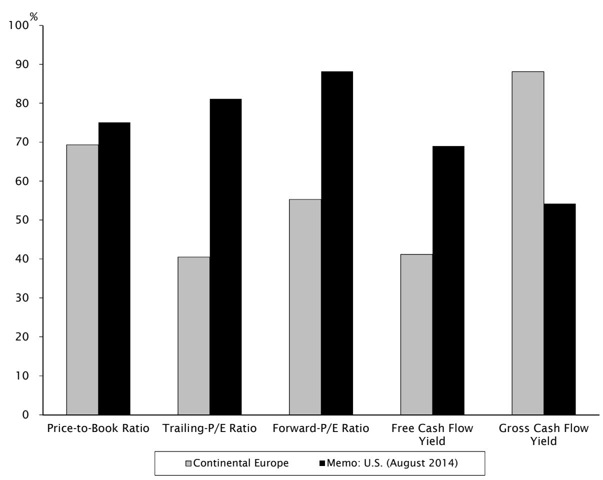
[1] One-year forward differential, as derived from the swaps market.

Exhibit 11: The Euro Area and the U.S. Industrial Production Levels (Jan. 2007=100) 2007 Through July 2017



Source: Eurostat, Federal Reserve Board.

Exhibit 12: Continental Europe Nominal Valuations of the Most Anti-Correlated Quintile With the Moves in the Trade-Weighted Euro[1] Current Readings Compared to History Percentiles (100=Most Expensive) 1989 Through August 2017



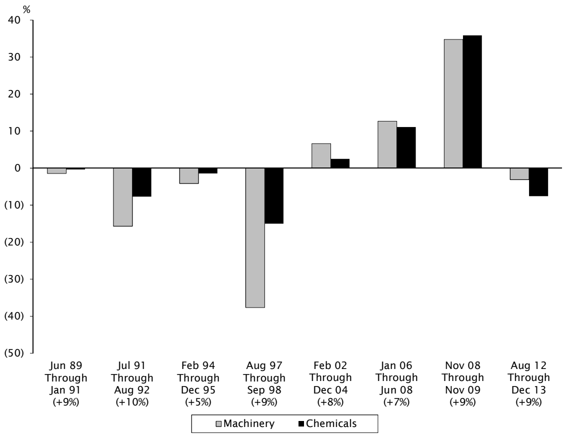
Source: FactSet Research Systems, Empirical Research Partners Analysis.

[1] Equally-weighted data relative to the respective market. Data for the U.S. with respect to the Dollar since 1980.

Conclusion: Earnings Revisions, Worth Keeping an Eye On This Time

We examined the behavior of European industries with high foreign revenue exposure during episodes of Euro appreciation. Since the late-1980s there have been eight episodes, with the Euro appreciating by an average of +8% per annum over spans lasting, on average, about two years. Exhibit 13 shows the results for machinery and chemical stocks, while Exhibit 14 shows it for the autos, auto parts, luxury goods and apparel. After studying the results across a dozen or so industries we found it difficult to identify any investable patterns. Disentangling the effects of exchange rates from the returns of most stocks is difficult because the currency is only one part of a mosaic of economic variables, where the business cycle ends up overwhelming everything else.

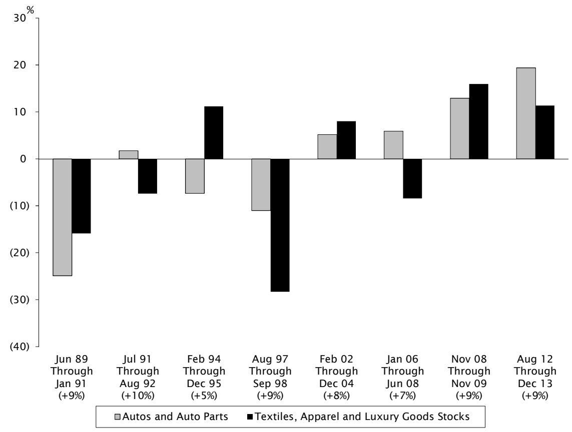
Exhibit 13: Continental Europe
Machinery and Chemicals Stocks
Annualized Relative Returns During Periods of Euro Strengthening[1]
1989 Through August 2017



Source: Bank for International Settlements, Empirical Research Partners Analysis.

[1] Equally-weighted USD-hedged returns relative to the market's cap-weighted one. The number in parenthesis indicates the corresponding trade-weighted Euro's annualized appreciation.

Exhibit 14: Continental Europe
Autos, Auto Parts, Textiles, Apparel & Luxury Goods Stocks
Annualized Relative Returns During Periods of Euro Strengthening[1]
1989 Through August 2017

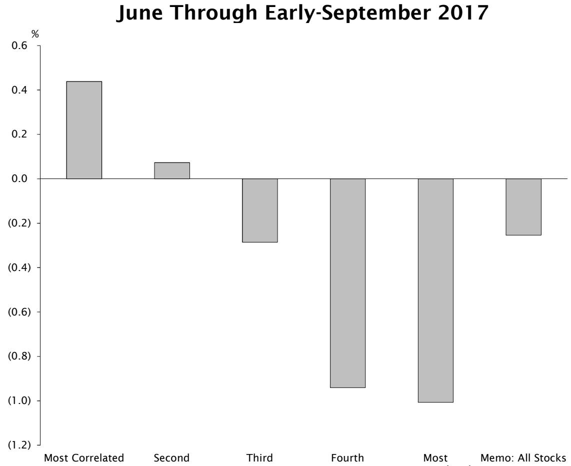


Source: Bank for International Settlements, Empirical Research Partners Analysis.

[1] Equally-weighted USD-hedged returns relative to the market's cap-weighted one. The number in parenthesis indicates the corresponding trade-weighted Euro's annualized appreciation.

What's noteworthy is that over the last few months stocks with relative returns most anti-correlated to the moves in the Euro have seen earnings estimates cuts (see Exhibit 15). Exhibit 16 shows the composition of stocks with performance most anti-correlated to moves in the currency, and as we'd expect, a lot of it is comprised of companies with exposure to foreign markets.

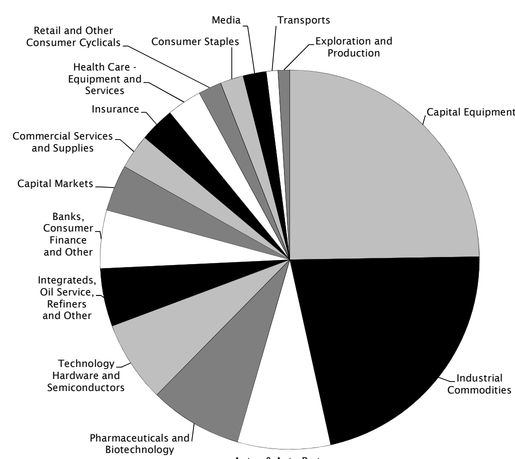
Exhibit 15: Continental Europe
Revisions to Earnings Estimates by Quintile of Correlation of Relative Returns With the Moves in the Trade-Weighted Euro[1]
Measured in Medians
June Through Early-September 2017



Source: Bank for International Settlements, FactSet Research Systems, Empirical Research Partners Analysis.

[1] Correlations computed over the trailing twenty-four months.

Exhibit 16: Continental Europe
The Most Anti-Correlated Quintile With the Moves in the Trade-Weighted Euro[1]
Sector Makeup
As of Late-August 2017

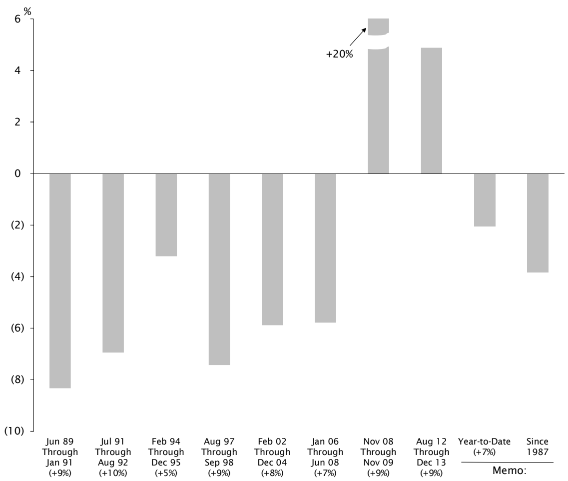


Source: Empirical Research Partners Analysis.

[1] Equally-weighted data. Correlations computed over the trailing twenty-four months.

We also found that during episodes of Euro appreciation negative revisions to earnings estimates carried greater consideration than normal (see Exhibit 17). That was true across most of the episodes, with the exception of 2009, 2012 and 2013, years when sentiment picked up significantly. We found a similar outcome across episodes of Dollar appreciation in the U.S. (see Exhibit 18). Most of the time following the advice of sell-side analysts has been fruitless because the information game has become a more level playing field. However, during periods of currency appreciation, their bottom-up work in assessing the impact on earnings stands a better chance in identifying vulnerabilities.

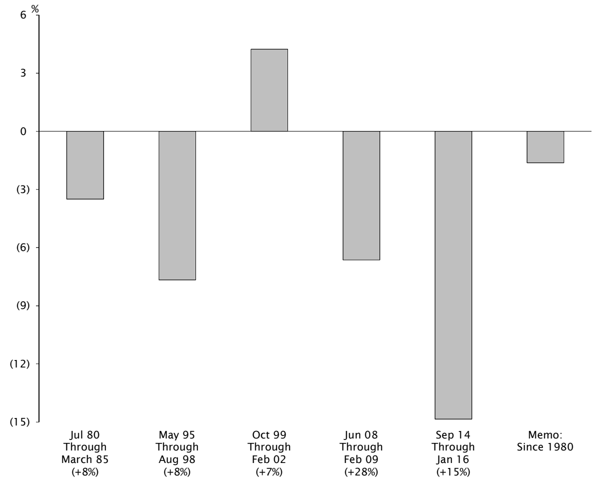
Exhibit 17: Continental Europe
Worst Quintile of Earnings Revisions
Annualized Relative Returns During Periods of Euro Strengthening[1]
1987 Through August 2017



Source: Bank for International Settlements, Empirical Research Partners Analysis.

[1] Equally-weighted USD-hedged returns. The number in parenthesis indicates the corresponding trade-weighted Euro's annualized appreciation.

Exhibit 18: U.S. Large-Capitalization Stocks
Worst Quintile of Earnings Revisions
Annualized Relative Returns During Periods of Dollar Strengthening[1]
1973 Through August 2017

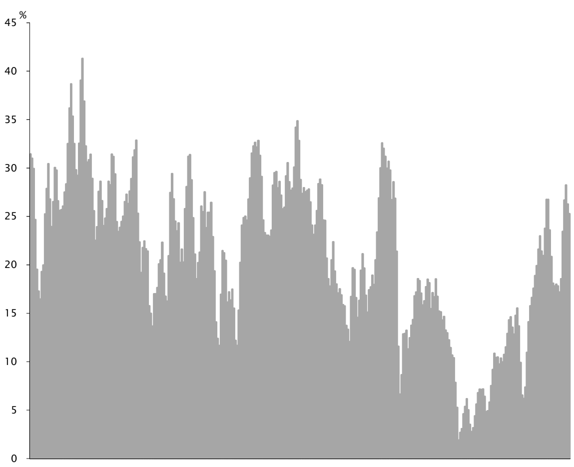


Source: Federal Reserve Board, Empirical Research Partners Analysis.

[1] Equally-weighted returns. The number in parenthesis indicates the corresponding trade-weighted Dollar's annualized appreciation.

Today about a quarter of European stocks with the worst revisions are drawn from issues with relative returns most anti-correlated to the moves in the Euro (see Exhibit 19). That's a bit higher than average, but much lower than what was seen in the U.S. during the 2014-2016 period of Dollar appreciation, when at the peak the share reached about 50% (see Exhibit 20).

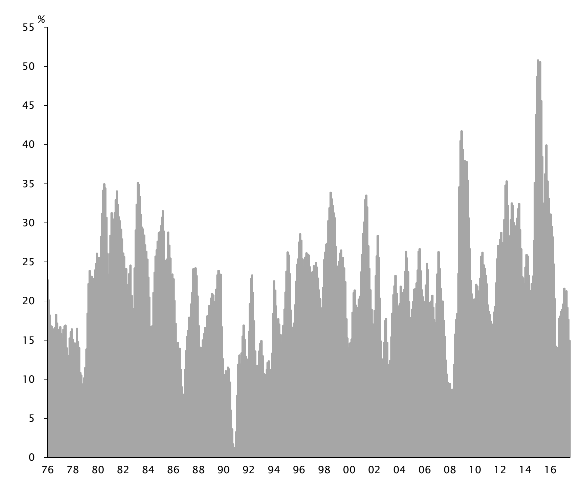
Exhibit 19: Continental Europe
The Worst Quintile of Earnings Revisions
Share Comprised by the Most Anti-Correlated Quintile of Relative Returns with the Moves in the Trade-Weighted Euro[1]
1990 Through August 2017



Source: Empirical Research Partners Analysis.

[1] Equally-weighted data smoothed on a trailing three-month basis. Correlations are computed over trailing twenty-four month windows.

Exhibit 20: U.S. Large-Capitalization Stocks
The Worst Quintile of Earnings Revisions
Share Comprised by the Most Anti-Correlated Quintile With the Moves in the Trade-Weighted Dollar[1]
1976 Through August 2017



Source: Empirical Research Partners Analysis.

[1] Equally-weighted data; smoothed on a trailing three-month basis. Correlations computed over trailing twenty-four month windows.

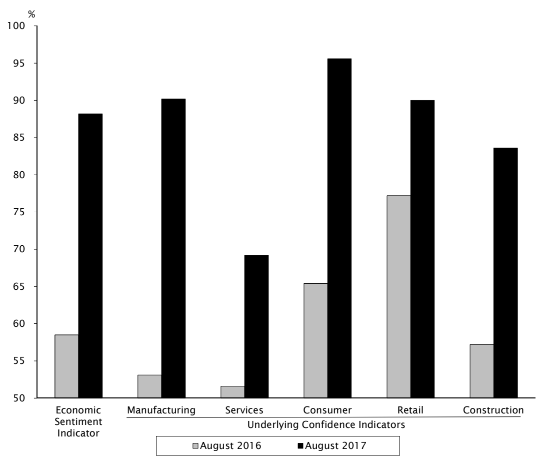
Appendix 1 on page 12 presents the list of non-financial European stocks with capitalizations above $5bn in the most anti-correlated quintile of relative returns with the moves in the Euro, sorted by their earnings revision score. Siemens, thyssenkrupp, Yara International, Total and Tenaris score in the worst quintile, while Renault, Daimler, BMW, Solvay, Norsk Hydro and Repsol rank in the best quintile.

Down to a Momentum Market in Europe: Will Good Turn Out Bad?

An Air of Optimism

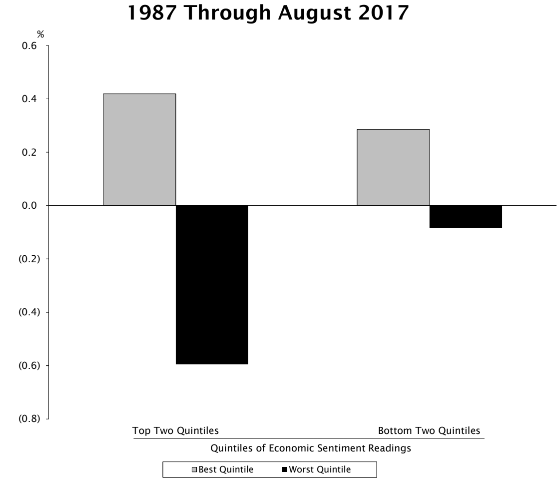
Over the last year European consumers and businesses have turned optimistic, with manufacturers seeing the biggest jump (see Exhibit 21). Typically, periods when confidence runs high have been constructive for momentum strategies because elation is infectious (see Exhibit 22). That's also proven true this year, as the winners have, in part, been identified (see Exhibit 23). The leadership is shown in Exhibit 24, with financials, machinery, transports, technology, health care, chemicals and paper manufacturers making up about ¾ of it.

Exhibit 21: Euro Area
Confidence Indicators
Current Readings Compared to History
Percentiles (100=Highest Confidence)
1985 Through August 2017



Source: European Commission, Empirical Research Partners Analysis.

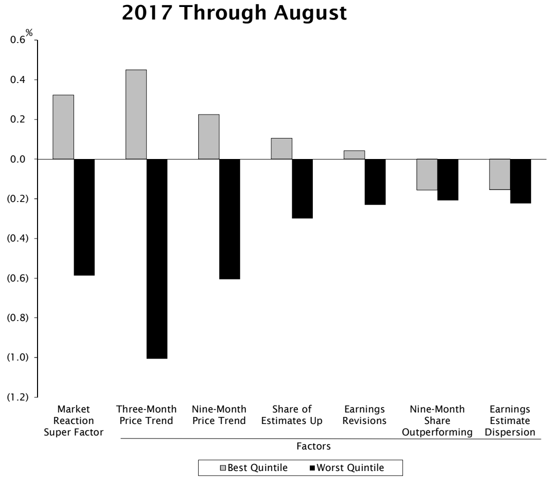
Exhibit 22: Continental Europe
Top and Bottom *Two* Quintiles of Economic Sentiment Readings
Monthly Relative Returns to the Best and Worst Quintiles of Nine-Month Price Trends[1]
1987 Through August 2017



Source: European Commission, Empirical Research Partners Analysis.

[1] Equally-weighted USD-hedged returns.

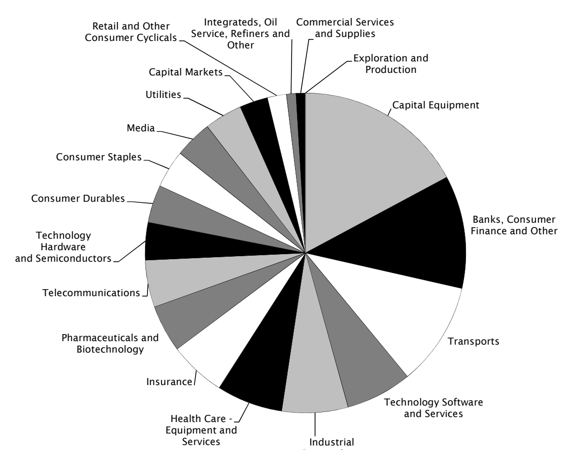
Exhibit 23: Continental Europe
Average Monthly Relative Returns to the Best and Worst Quintiles of Market Reaction Factors[1]
2017 Through August



Source: Empirical Research Partners Analysis.

[1] Equally-weighted USD-hedged returns.

Exhibit 24: Continental Europe
The Best Quintile of Nine-Month Price Trends
Sector Makeup[1]
As of Mid-September 2017

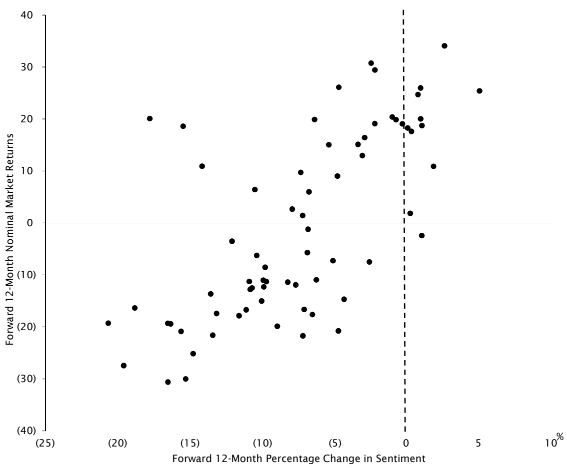


Source: Empirical Research Partners Analysis.

[1] Equally-weighted data.

With the bar now set much higher disappointment may be lurking just around the corner. We took a look at what usually happened in the 12 months following high readings of sentiment over the last 30 years or so. We found that 84% of the time sentiment ended up falling, not entirely a surprise considering the provocative starting point. When it fell by more than (10)% that usually spelled bad news for the stocks, while if it stayed strong the stocks did well (see Exhibit 25). Usually the leadership came out unscathed, but big declines in sentiment undermined those odds (see Exhibit 26).

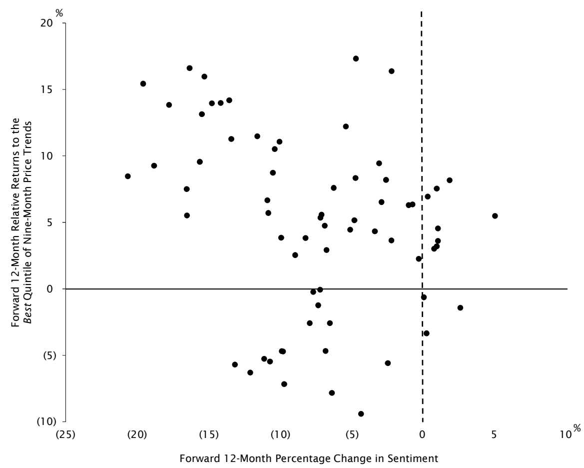
Exhibit 25: Continental Europe
Top Quintile of Economic Sentiment Readings
Forward 12-Month Changes in
Sentiment and Nominal Market Returns[1]
1987 Through August 2017



Source: European Commission, Empirical Research Partners Analysis.

[1] Capitalization-weighted USD-hedged returns.

Exhibit 26: Continental Europe
Top Quintile of Economic Sentiment Readings
Forward 12-Month Changes in Sentiment and
Relative Returns to the Best Quintile of
Nine-Month Price Trends[1]
1987 Through August 2017

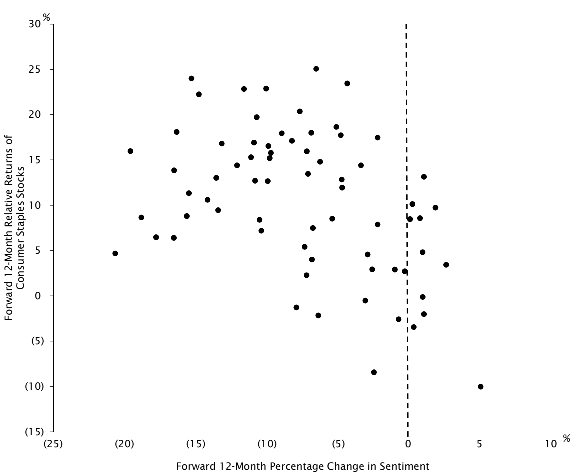


Source: European Commission, Empirical Research Partners Analysis.

[1] Equally-weighted USD-hedged returns.

On a sector basis the consumer staples benefited if sentiment dropped, while the financials usually lagged (see Exhibits 27 and 28). What's different this time around is that the consumer staples are priced at a P/E multiple that's two-times that of the financials, an anomaly (see Exhibit 29).

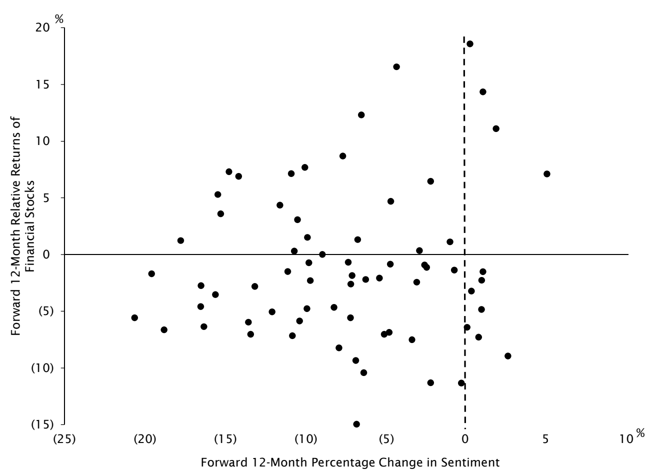
Exhibit 27: Continental Europe
Top Quintile of Economic Sentiment Readings
Forward 12-Month Changes in Sentiment and
Relative Returns of Consumer Staples Stocks[1]
1987 Through August 2017



Source: European Commission, Empirical Research Partners Analysis.

[1] Capitalization-weighted USD-hedged returns.

Exhibit 28: Continental Europe
Top Quintile of Economic Sentiment Readings
Forward 12-Month Changes in Sentiment and
Relative Returns of Financial Stocks[1]
1987 Through August 2017



Source: European Commission, Empirical Research Partners Analysis.

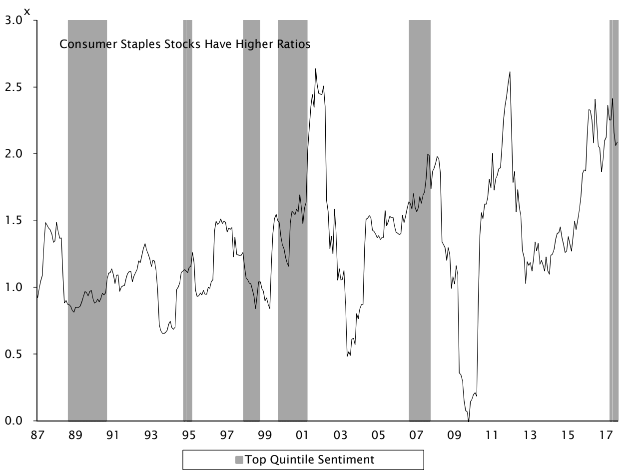
[1] Capitalization-weighted USD-hedged returns.

Conclusion: Good is (Still) Good

At the end-of-February our regime indicator in Continental Europe moved from neutral to a growth-tilted stance. That's been the correct read and investors have rewarded stocks with the best free cash flow production dynamics (see Exhibit 30). In Europe we continue to look for situations where operating leverage is exploitable.[2] Issues with the highest incremental free cash flow margins comprise a diverse group of businesses (see Exhibit 31).

[2] *Global Portfolio Strategy*, June 2016. "Where We Stand: Europe, A Cycle Worth Pedaling?"

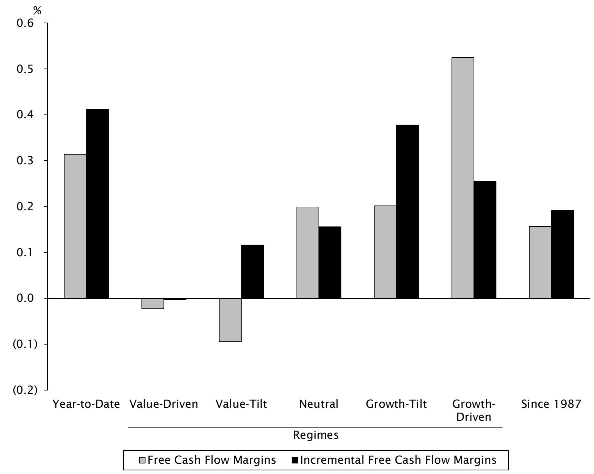
Exhibit 29: Continental Europe
Consumer Staples and Financial Stocks
Ratio of Trailing-P/E Ratios[1]
1987 Through August 2017



Source: Empirical Research Partners Analysis.

[1] Capitalization-weighted data.

Exhibit 30: Continental Europe
Average Monthly Relative Returns to the
Best Quintiles of Free Cash Flow and
Incremental Free Cash Flow Margins by Regime[1]
1987 Through August 2017

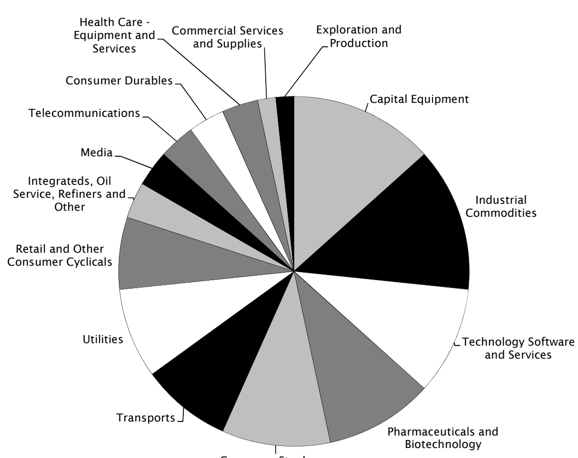


Source: Empirical Research Partners Analysis.

[1] Equally-weighted USD-hedged returns.

At this stage of the cycle the market wants to see evidence that the companies can keep a good thing going, and so far the latter have delivered on that front (see Exhibit 32). We're betting that the status quo will continue because there's still plenty of slack left to be absorbed and the windfalls from an improving political outlook in Europe could be large, supporting the optimists' case. Inevitably good will turn out bad and the bears will have their day, but the evidence has yet to lead us towards that camp.

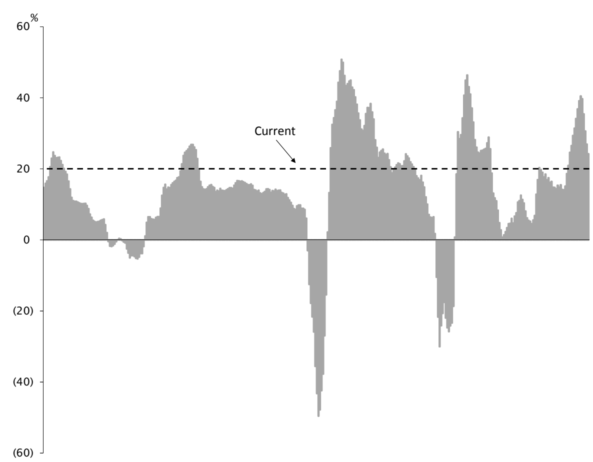
Exhibit 31: Continental Europe
The Best Quintile of Incremental Free Cash Flow Margins
Sector Makeup[1]
As of Mid-September 2017



Source: Empirical Research Partners Analysis.

[1] Equally-weighted data.

Exhibit 32: Continental Europe
The Core of the Market
Incremental Pre-Tax Margins[1]
1988 Through August 2017



Source: Corporate Reports, Empirical Research Partners Analysis.

[1] Equally-weighted data excluding companies with declining sales. The core excludes financials, energy, industrial commodities and utilities; data smoothed on a trailing three-month basis.

Appendix 2 on page 13 lists attractive stocks with good free cash flow production dynamics where investors are acknowledging that the trend is good. Transports, pharmaceuticals, health care equipment and supplies, IT services and software are well represented. Abertis Infraestructuras, Wirecard, Amadeus IT Group and Vestas Wind Systems stand out.

Appendix 1: Continental Europe: Large- and Mid-Capitalization Stocks (ex-Financials)
Most Anti-Correlated Quintile With Moves in the Trade-Weighted Euro
Sorted by Sector, Earnings Revision Rank and Market Capitalization Greater Than $5bn
As of Mid-September 2017

				Quintiles (1=Best; 5=Worst)										
					Super Factors					Memo:				
Symbol	Company	Price (Local)	Local Currency Code	Earnings Revisions	Valuation	Capital Deployment	Earnings Quality and Trend	Market Reaction	Core Model	Anti-Correlation[1]	Non-European Revenue Exposure	Forward P/E Ratio	YTD Return (Local)	Market Capitalization ($ Million)
Consumer Cyclicals:														
Consumer Durables														
RNO FP	Renault SA	78.60	EUR	1	1	1	2	5	1	(40) %	38 %	5.1 x	(3.3) %	$27,893
DAI GY	Daimler AG	65.26	EUR	1	2	4	4	3	3	(46)	63	7.3	(3.4)	84,233
BMW GY	Bayerische Motoren Werke AG	83.60	EUR	1	2	5	4	4	4	(41)	59	7.6	(2.0)	65,845
UG FP	Peugeot SA	18.76	EUR	1	1	1	4	2	1	(29)	36	7.6	24.1	20,800
FR FP	Valeo SA	60.00	EUR	3	3	2	2	5	3	(32)	61	13.1	12.0	17,433
NRE1V FH	Nokian Renkaat Oyj	37.18	EUR	3	5	5	1	4	5	(53)	19	17.5	9.2	6,141
ML FP	Michelin (CGdE)	119.60	EUR	4	4	4	3	4	5	(25)	66	12.1	16.3	26,014
Retail and Other Consumer Cyclicals														
SW FP	Sodexo SA	102.75	EUR	4	3	2	5	5	5	(29) %	72 %	18.4 x	(3.7) %	$18,675
Capital Equipment														
KSP ID	Kingspan Group Plc	34.10	EUR	1	5	5	4	2	4	(27) %	55 %	20.3 x	33.7 %	$7,431
VOLVB SS	Volvo AB Class B	148.10	SEK	2	3	5	1	2	2	(29)	62	15.1	42.8	42,419
ACS SM	Actividades de Construccion y Servicios SA	31.78	EUR	2	1	1	4	4	2	(30)	78	12.7	9.0	12,014
MTX GY	MTU Aero Engines AG	124.20	EUR	2	4	5	3	3	4	(53)	83	16.6	14.7	7,832
KU2 GY	KUKA AG	125.50	EUR	2	5	3	5	1	4	(38)	60	37.0	42.4	5,941
AIR FP	Airbus SE	70.67	EUR	3	5	4	5	4	5	(68)	72	18.5	14.6	66,063
HOT GY	Hochtief AG	147.30	EUR	3	1	1	1	3	1	(39)	92	21.0	12.4	11,463
SU FP	Schneider Electric SE	71.60	EUR	4	3	2	2	4	4	(51)	73	17.5	11.4	51,692
ATCOA SS	Atlas Copco AB Class A	324.90	SEK	4	4	4	1	4	4	(58)	70	22.0	18.3	49,025
ASSAB SS	ASSA ABLOY AB Class B	180.00	SEK	4	5	3	1	5	5	(35)	67	22.1	8.1	25,434
SAND SS	Sandvik AB	135.70	SEK	4	4	3	1	3	3	(48)	67	18.2	22.7	21,671
TRELB SS	Trelleborg AB Class B	199.10	SEK	4	3	3	3	4	4	(38)	51	17.2	13.3	6,811
METSO FH	Metso Oyj	29.66	EUR	4	3	4	3	5	5	(45)	78	22.5	13.5	5,396
SIE GY	Siemens AG	115.55	EUR	5	2	2	3	5	4	(42)	63	14.3	1.9	118,420
TKA GY	thyssenkrupp AG	26.70	EUR	5	4	5	4	4	5	(38)	51	15.9	18.7	18,209
ALFA SS	Alfa Laval AB	190.00	SEK	5	4	5	2	2	4	(22)	70	23.0	29.0	10,155
SGRE SM	Siemens Gamesa Renewable Energy S.A.	12.23	EUR	5	3	4	3	5	5	(30)	81	12.9	(23.6)	9,827
SKAB SS	Skanska AB Class B	182.20	SEK	5	3	5	5	5	5	(26)	61	14.7	(11.8)	9,592
ANDR AV	ANDRITZ AG	47.70	EUR	5	3	4	5	5	5	(29)	69	15.7	3.1	5,981
Commercial Services and Supplies														
EDEN FP	Edenred SA	23.43	EUR	3	3	3	1	3	3	(30) %	56 %	22.5 x	27.7 %	$6,600
WKL NA	Wolters Kluwer NV	38.38	EUR	4	3	5	1	4	3	(28)	73	16.5	13.9	13,937
SECUB SS	Securitas AB Class B	130.10	SEK	4	2	4	4	5	5	(35)	64	16.1	(6.8)	5,951
Industrial Commodities														
SOLB BB	Solvay SA	126.05	EUR	1	3	3	2	2	2	(44) %	67 %	14.7 x	15.6 %	$16,090
NHY NO	Norsk Hydro ASA	58.40	NOK	1	3	4	4	2	3	(28)	48	15.6	45.2	15,676
STERV FH	Stora Enso Oyj Class R	11.48	EUR	1	2	3	3	2	2	(44)	29	13.6	16.2	10,910
AKE FP	Arkema SA	96.40	EUR	1	3	2	4	3	3	(24)	68	13.6	6.0	8,849
WCH GY	Wacker Chemie AG	112.80	EUR	1	4	2	4	3	4	(33)	69	27.3	16.5	7,117
BAS GY	BASF SE	86.04	EUR	2	3	2	2	5	4	(40)	60	14.9	0.7	95,706
BOL SS	Boliden AB	283.40	SEK	2	3	1	1	3	2	(55)	26	12.3	21.6	9,874
NZYMB DC	Novozymes A/S Class B	318.50	DKK	3	5	1	1	2	3	(31)	76	29.3	32.8	15,666
AI FP	Air Liquide SA	107.10	EUR	4	4	5	3	5	5	(34)	65	19.8	3.7	49,896
SYNN SW	Syngenta AG	441.75	CHF	4	5	2	4	3	5	(31)	80	24.4	10.9	42,664
LIN GY	Linde AG	163.40	EUR	4	4	3	4	5	5	(37)	71	20.5	7.0	36,120
UPM FH	UPM-Kymmene Oyj	23.11	EUR	4	2	2	1	5	3	(47)	44	13.8	3.2	14,899
NK FP	Imerys SA	75.07	EUR	4	3	4	3	4	4	(27)	58	14.3	6.7	7,218
YAR NO	Yara International ASA	350.20	NOK	5	4	5	5	5	5	(30)	70	18.8	6.3	12,675
SKG ID	Smurfit Kappa Group Plc	26.48	EUR	5	2	4	4	3	4	(22)	34	12.5	24.5	7,592
Transports														
DPW GY	Deutsche Post AG	36.07	EUR	2	3	3	1	2	2	(34) %	44 %	15.6 x	19.2 %	$52,756
Technology:														
Technology Hardware and Semiconductors														
HEXAB SS	Hexagon AB Class B	393.00	SEK	3	4	5	1	3	4	(22) %	74 %	22.5 x	22.2 %	$17,905
IFX GY	Infineon Technologies AG	20.55	EUR	4	4	1	3	4	3	(29)	72	21.6	26.1	28,556
STM FP	STMicroelectronics NV	15.73	EUR	4	4	3	2	3	3	(24)	72	20.5	47.2	17,343
Health Care:														
Pharmaceuticals and Biotechnology														
GRF SM	Grifols S.A. Class A	24.43	EUR	3	3	5	3	3	3	(44) $	85 $	23.1 x	30.0 $	$18,314
SAZ GY	STADA Arzneimittel AG	80.85	EUR	3	4	3	4	2	4	(25)	43	24.0	65.9	6,096
MRK GY	Merck KGaA	96.10	EUR	4	2	4	2	5	4	(61)	69	15.3	(2.0)	49,874
GEN DC	Genmab A/S	1,438.00	DKK	4	5	2	1	4	3	(44)	0	58.5	22.6	14,144
ERF FP	Eurofins Scientific Societe Europeenne	503.50	EUR	4	5	5	4	3	5	(25)	47	39.2	24.8	10,313
Health Care - Equipment and Services														
DIM FP	Sartorius Stedim Biotech SA	62.78	EUR	2	5	5	3	4	5	(22) %	68 %	29.1 x	5.4 %	$6,972
Consumer Staples														
ABI BB	Anheuser-Busch InBev SA/NV	101.70	EUR	4	5	5	5	4	5	(23) %	90 %	26.5 x	2.5 %	$246,386
HEN3 GY	Henkel AG & Co. KGaA Pref	117.30	EUR	4	4	1	1	5	2	(26)	58	17.6	5.0	58,266
Energy:														
Integrateds, Oil Service, Refiners and Other														
REP SM	Repsol SA	14.86	EUR	1	1	1	3	2	1	(40) %	44 %	10.7 x	13.3 %	$27,310
FP FP	Total SA	44.51	EUR	5	2	3	2	5	3	(43)	38	13.2	(6.2)	134,200
TEN IM	Tenaris S.A.	11.70	EUR	5	5	2	5	5	5	(40)	87	40.3	(29.9)	16,437
VPK NA	Royal Vopak NV	35.57	EUR	5	2	3	2	5	4	(23)	52	15.2	(18.7)	5,491
Exploration and Production														
LUPE SS	Lundin Petroleum AB	173.00	SEK	1	4	4	3	3	4	(39) %	13 %	25.9 x	(7.2) %	$7,454

Source: Empirical Research Partners Analysis.

[1] Correlations computed over the trailing twenty-four months based on USD-hedged relative returns and the moves of the narrow trade-weighted Euro.

Appendix 2: Continental Europe: Large- and Mid-Capitalization Stocks (ex-Financials)
Top Two Quintiles of the Core Model
Good Combination of Free Cash Flow Production and Nine-Month Price Trends
Sorted by Composite Score and Market Capitalization in USD
As of Mid-September 2017

				Quintiles (1=Best; 5=Worst)							
				Free Cash Flow Production					Memo:		
Symbol	Company	Price (Local)	Local Currency Code	Free Cash Flow Margin	Incremental Free Cash Flow Margin	Nine-Month Price Trend	Composite Score[1]	Core Model	Forward P/E-Ratio	YTD Return (Local)	Market Capitalization ($ Million)
ABE SM	Abertis Infraestructuras SA	17.12	EUR	1	1	1	1.0	2	17.2 x	31.3 %	$20,232
WDI GY	Wirecard AG	72.50	EUR	1	1	1	1.0	1	29.6	77.8	10,753
UBI FP	Ubisoft Entertainment SA	58.97	EUR	1	1	1	1.0	1	23.4	74.5	8,111
FIE GY	Fielmann AG	72.89	EUR	1	1	1	1.0	1	33.6	19.1	7,301
FHZN SW	Flughafen Zurich AG	223.00	CHF	1	1	1	1.0	2	26.6	21.6	7,043
ICLR US	ICON Plc	114.71	USD	1	1	1	1.0	2	NM	52.5	6,260
GN DC	GN Store Nord A/S	215.80	DKK	1	1	1	1.0	1	23.3	48.5	5,131
AMS SM	Amadeus IT Group SA Class A	53.30	EUR	1	2	1	1.3	1	22.8	25.4	28,173
VWS DC	Vestas Wind Systems A/S	568.50	DKK	1	2	1	1.3	1	15.6	26.0	19,890
UTDI GY	United Internet AG	51.83	EUR	2	1	1	1.3	2	21.2	42.1	12,843
REC IM	Recordati S.p.A.	37.17	EUR	1	2	1	1.3	1	25.6	39.5	9,387
FRA GY	Fraport AG	82.95	EUR	1	2	1	1.3	1	22.8	50.8	9,126
TKA AV	Telekom Austria AG	8.06	EUR	2	1	1	1.3	1	15.5	47.8	6,446
DIA IM	DiaSorin S.p.A.	73.00	EUR	1	2	1	1.3	1	28.5	31.3	4,885
FLU AV	Flughafen Wien AG	31.81	EUR	1	2	1	1.3	2	19.8	38.4	3,232
KER FP	Kering SA	327.10	EUR	2	2	1	1.5	2	21.9	56.0	50,080
ATL IM	Atlantia S.p.A	27.35	EUR	1	1	2	1.5	2	18.4	25.5	27,017
OMV AV	OMV AG	47.67	EUR	3	1	1	1.5	1	11.9	45.7	18,722
SFR FP	SFR Group SA	34.40	EUR	2	2	1	1.5	2	37.1	28.2	18,270
LHA GY	Deutsche Lufthansa AG	22.98	EUR	3	1	1	1.5	1	6.3	92.9	13,338
LUN DC	H. Lundbeck A/S	344.80	DKK	1	1	2	1.5	1	20.7	20.9	11,197
TEMN SW	Temenos Group AG	99.10	CHF	1	3	1	1.5	1	40.1	40.6	7,347
MONC IM	Moncler SpA	24.70	EUR	1	2	2	1.8	1	24.6	50.7	7,618
WDH DC	William Demant Holding A/S	169.90	DKK	2	3	1	1.8	1	22.8	38.4	7,116
LOGN SW	Logitech International S.A.	35.30	CHF	2	3	1	1.8	2	21.6	39.0	6,312
TEL2B SS	Tele2 AB Class B	94.60	SEK	3	2	1	1.8	2	23.7	37.2	6,021
WLN FP	Worldline SA	34.43	EUR	2	3	1	1.8	2	27.9	28.5	5,447
WWG GF	GELSENWASSER AG	925.01	EUR	2	1	2	1.8	2	NM	26.1	3,902
ROG VX	Roche Holding Ltd Genusssch.	242.30	CHF	1	1	3	2.0	2	15.5	7.6	218,877
NOVOB DC	Novo Nordisk A/S Class B	301.60	DKK	1	1	3	2.0	2	19.0	22.0	121,299
CAP FP	Capgemini SE	98.03	EUR	3	1	2	2.0	2	NM	24.4	19,889
SIK VX	Sika AG	7,100.00	CHF	3	3	1	2.0	2	NM	47.4	19,001
TRN IM	Terna S.p.A.	5.00	EUR	1	1	3	2.0	2	14.7	18.0	12,047
ZOT SM	Zardoya Otis S.A.	9.19	EUR	1	1	3	2.0	2	26.2	17.3	5,180
AALB NA	Aalberts Industries N.V.	38.82	EUR	3	3	1	2.0	2	18.0	28.0	5,156
LNZ AV	Lenzing AG	132.90	EUR	1	1	3	2.0	2	12.6	18.4	4,302

Source: Empirical Research Partners Analysis.

[1] The composite score is a weighted average with 50% of the weight on free cash flow production metrics and the rest on nine-month price trends.