The value rally that never was

Many value stocks stayed flat on November 9 vaccine news, says LFIS' factor investing expert, Luc Dumontier

The announcement of promising results for a Covid-19 vaccine on November 9 caused stocks that had benefited during pandemic-related lockdowns to tumble. The correlation of returns for S&P 500 stocks over this day with the returns of the same stocks between February 20 and October 30 was -66%.

At face value, this looked like a rotation between factors. Long/short momentum and value equity premia made headlines in the financial press, with daily returns that represented more than 10 times their historical daily standard deviations. However, while some equity value bank indexes have rebounded, others have seen only a small rebound or none at all. Was the hoped-for rebound in the value investment just an illusion?

Our analysis suggests it was, at least in part. Only value stocks that had seen their prices tumble did well, whereas momentum stocks sold off across all sectors.

We looked at the stocks in the S&P 500 index universe as at October 30, 2020. For each stock, we calculated a momentum score (one-year return, skipping the most recent month) and a value score (price-to-book value) as at October 30. This method and an end-of-the-month rebalancing approach are the norm in academic research. Using the momentum and value scores, we compiled a range of equal-weighted portfolios combining long positions in the best scoring stocks and short in the worst. The portfolios ranged from highly concentrated – comprising the top 10% best and bottom 10% worst stocks – to portfolios that were long the best 50% and short the worst 50%.

The returns of these portfolios[1] on November 9, as well as the difference between the long and short legs, are shown on the y-axes of exhibits 1 and 2. The percentage of stocks held in the long and the short legs – essentially, the factor concentration – is shown on the x-axes.

Momentum long/short portfolios saw a historic plunge. A sample portfolio of the best/worst scoring 10% of stocks in the universe dropped by -23.8%. A portfolio of the best/worst 50% of stocks in the universe fell by -10.5%.

Value portfolios, constructed in the same way, recorded big gains, from 12.7% for a portfolio of the best/worst scoring 10% of stocks to 7.3% for a portfolio of the best/worst 50%. It is clear, though, the intensity of the momentum plunge exceeded the value rebound.

Exhibit 1: Performance of momentum portfolios (y-axis) by percentage of stocks held in the long and short legs (x-axis)

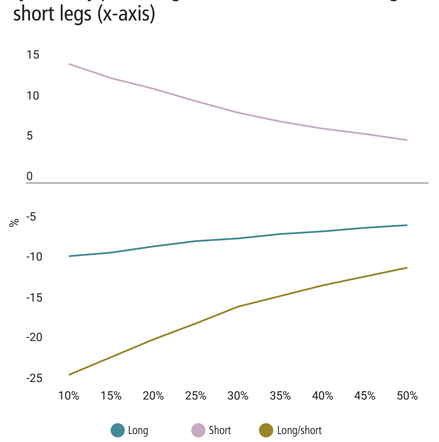
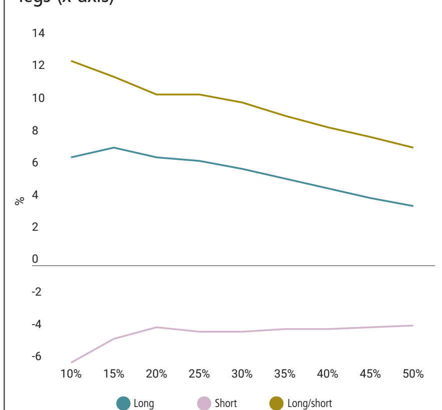


Exhibit 2: Performance of value portfolios (y-axis) by percentage of stocks held in the long and short legs (x-axis)



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Financial and energy stocks were up versus technology stocks. So, was sector rotation the driving factor?

For momentum, it seems not. We applied the same methodology to individual sectors.[2] Exhibit 3 shows the long/short, intra-sector momentum portfolios.

The dip is clear wherever you look. For consumer cyclicals, financials and energy, the magnitude is of the same order as for the market as a whole.

For all sectors, the return of the long leg is lower than the short leg regardless of the number of stocks considered (see exhibit 4). What's more, the performance of the two legs converges in more or less a straight line as the number of stocks in the portfolio increases, and so the factor concentration falls.

Exhibit 3: Performance of momentum long/short portfolios (y-axis) by sectors (curves)

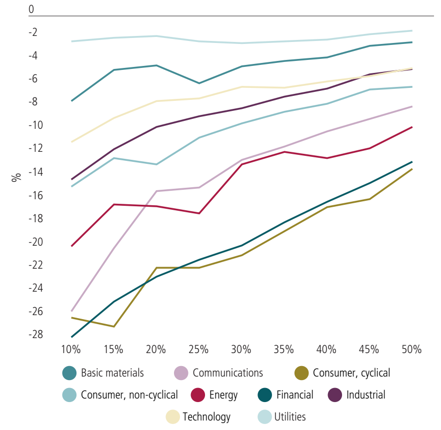
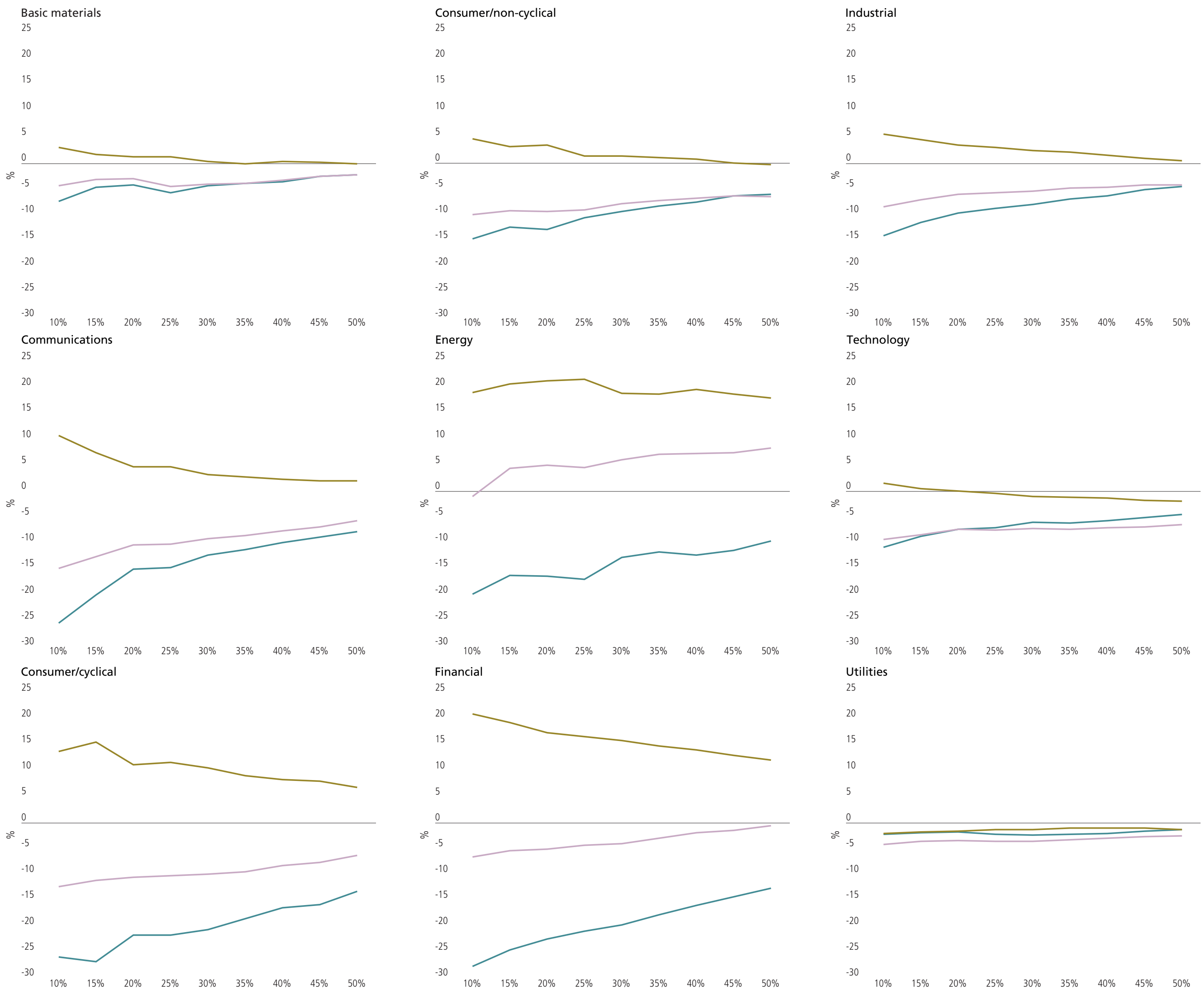


Exhibit 4: Performance of momentum portfolios (y-axis). Long/short Long Short



For value, though, the picture is more nuanced. Exhibit 5 shows the performance of long/short value portfolios sector by sector. The value rebound is more moderate and heterogenous. The effect is quite strong for financials and energy but weak in basic materials. And exhibit 6 shows the returns don't seem to depend on the factor concentration of the portfolios.

Going further, we constructed double-sorted portfolios of S&P 500 stocks to create as far as possible pure versions of momentum and value investment styles. The idea is to see how the two factors in purified form interact.

We created five value and five momentum clusters, each comprising a hundred stocks. Within each cluster we then created momentum or value long/short portfolios as before.

Exhibits 7 and 8 show the returns of these portfolios.

The purified momentum portfolios, partially neutralised of any short value bias, continue to lose sharply within each cluster, and especially in the fifth cluster of the cheapest stocks.

But purified value delivered only modest to negative returns. The exception was the fifth cluster of stocks with the strongest negative momentum.

In this 5th cluster of momentum, the value style seems to pay off.

As exhibit 9 illustrates, this could be due to the over-representation of financials, energy and consumer cyclicals in that cluster.

Exhibit 6: Performance of value portfolios (y-axis).

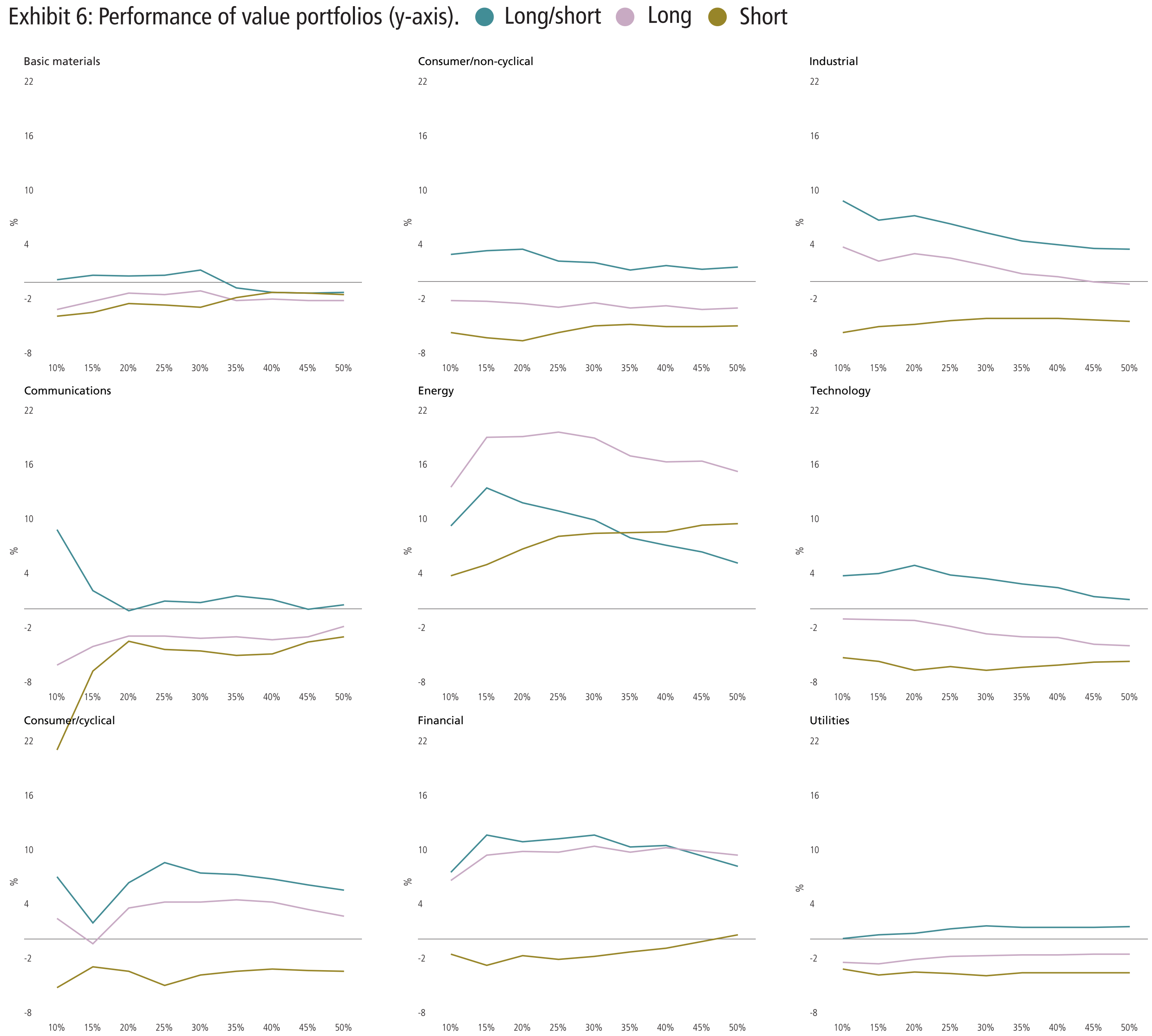


Exhibit 5: Performance of value long/short portfolios (y-axis) by sectors (curves)

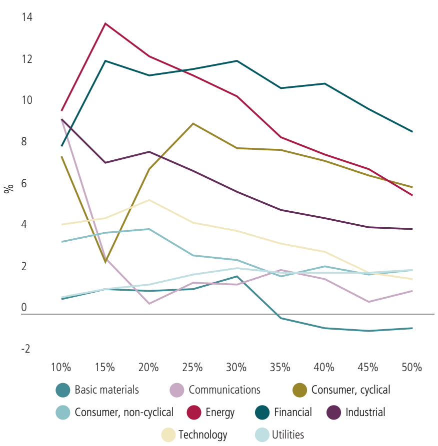


Exhibit 7: Performance of momentum long/short portfolios (y-axis) by value clusters (curves)

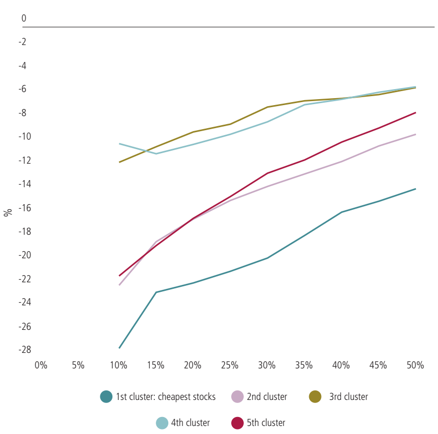


Exhibit 8: Performance of value long/short portfolios (y-axis) by momentum clusters (curves)

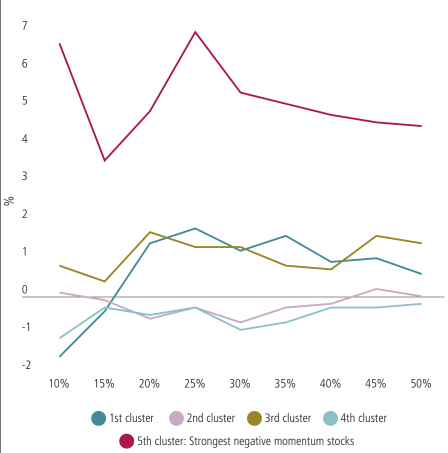


Exhibit 9: Sectorial representativeness of extreme clusters

	S&P 500 equal-weighted	1st cluster of value	5th cluster of momentum	5th cluster of value	1st cluster of momentum
Utilities	6%	0%	2%	0%	0%
Technology	11%	5%	4%	23%	27%
Industrial	14%	4%	7%	9%	11%
Financial	19%	40%	41%	8%	3%
Energy	5%	16%	22%	0%	0%
Consumer, non-cyclical	21%	8%	3%	36%	32%
Consumer, cyclical	14%	15%	18%	15%	14%
Communications	7%	10%	2%	7%	9%
Basic materials	4%	2%	1%	2%	4%

But another hypothesis is that the rebound of value within negative momentum stocks is linked to their plunging prices as much as their sector mix.

We looked at the fifth momentum cluster – essentially, stocks that have been falling hard – and the first value cluster side by side.

These are all stocks that did well on November 9. The negative momentum cluster delivered performance of 11.6%, the high-value cluster 6.8% (exhibit 10).

The two have 51 stocks in common out of 100. And those 51 stocks had an average return of 13.6%.

The average return of the 49 remaining stocks, though, is markedly different within the clusters: 9.6% for the anti-momentum stocks and -0.2% for other value stocks.

In other words, the top value stocks have rebounded only thanks to their negative momentum. The "pure" value return was close to zero.

Reversing the exercise produces the same picture. High-momentum and low-value stocks delivered respective performance of -7.9% and -3.8%. These clusters have 43 stocks in common, which lost -8.4% on average on November 9. The remaining 57 stocks in the high-momentum cluster registered a -7.5% average return. But returns for the remaining 57 stocks in the low-value cluster were almost flat (-0.4%). Again, the pure value effect is desperately weak.

November 9, 2020 saw a historical plunge of the momentum factor, but without the value factor really rebounding. In most cases, the value strategies that performed did so thanks to a short momentum bias. When that bias is eliminated, performance is actually very low. It seems investors bought cheap stocks only if their price had fallen sharply. ■

Luc Dumontier is head of factor investing at LFIS. All exhibits in this article are LFIS's own.

1 *In excess of the return of the S&P 500 equal weighted index, which rose 4.2% that day*
2 *Bloomberg industry sectors*

Exhibit 10: Joint performances of the extreme clusters