Trump effect – black swan or bull market signal?

February 3, 2017

From Donald Trump's unexpected election through his inauguration, US equity markets followed a path for their third straight positive month. The media has frequently associated the election with black swan events, taken from Nassim Taleb's 2007 book describing the implications from events which are impossible to predict. We study 'the impact of the highly improbable' election, in the spirit of Taleb's duly chosen subtitle.

- ETF investors fed the Trump rally that favoured small caps and financials, along with high beta and value stocks
- IHS Markit has nudged up the average oil price forecast for 2017 and, as expected, stocks positively exposed to changes in oil prices outperformed since the election
- IHS Markit Global Trade Atlas posts a 2016 US trade imbalance with China that captures 47% of the total, while the fourth highest deficit is with Mexico, and trade rhetoric certainly affected positive election-month performance for stocks with the highest exposure to domestic sales
- Given higher political risk and an outlook for higher commodity prices and interest rates, we find that stocks with low costs to borrow and industry relative value outperform at the expense of small caps during periods of high inflation and market volatility

Introduction

In his famous 2007 book with the corresponding title, Nassim Taleb defines a Black Swan as an event with the following three attributes:

> "First, it is an outlier, as it lies outside the realm of regular expectations, because nothing in the past can convincingly point to its possibility. Second, it carries an extreme impact. Third, in spite of its outlier status, human nature makes us concoct explanations for its occurrence after the fact, making it explainable and predictable."

With this definition, one can certainly see the connection to the US election, and 2016 will mostly be remembered for unpredicted election results. To be sure, polling data before the Brexit vote was close and the general consensus was that the "remain" vote had the advantage; however, to the surprise of many, the "leave" vote ultimately won out. Likewise, prior to the US election, President-elect Trump was not favoured, though some suggested a similar electorate sentiment could potentially prove polls to be incorrect, and ultimately did[1].

While the Brexit vote, the first big surprise in 2016, had the anticipated initial market reaction, stocks recovered handsomely in July with value outpacing other strategies. Investors seemed to become more immune to two additional surprise political referendums in the US and Italy, and US equity markets ended the year on a strong note, outpacing Europe, Japan and China.

We study this period spanning from the Trump election to the inauguration, with focus on factor performance and investor sentiment in light of the IHS Markit Economics January 2017 US economic outlook. We also present attributes for key sectors in the Trump rally. Our analysis focuses on the US Total Cap universe which represents 98% of cumulative market cap subject to a minimum market cap of USD 250 Mn, or approximately 3,000 names.

Market analysis

Before we take a closer look at factor performance and attributes, we provide a brief overview of market activity between the election and inauguration. The expectation that the incoming Trump administration will enact sizeable fiscal stimulus increased optimism about US and global growth. This, in turn, pushed US stock indexes to record highs, while pushing up interest rates (with a resulting rout in the bond market) and the dollar. Investors placed their bets on business-friendly policies (including lower corporate taxes and a roll-back of regulation) that could boost both short-term and long-term growth.

To capture market movement, we display large cap and small cap performance (Figure 1) measured respectively by:

- SPDR S&P 500 ETF (SPY)
- SPDR S&P 600 ETF (SLY)

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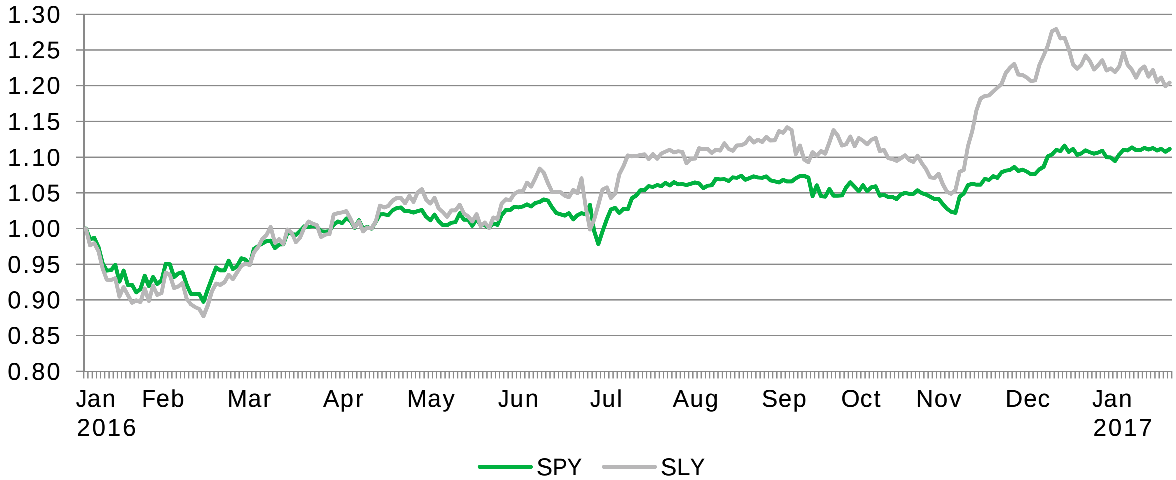
[1] See Trading Brexit – Follow up note and Brexit and the US election – The factor results are in

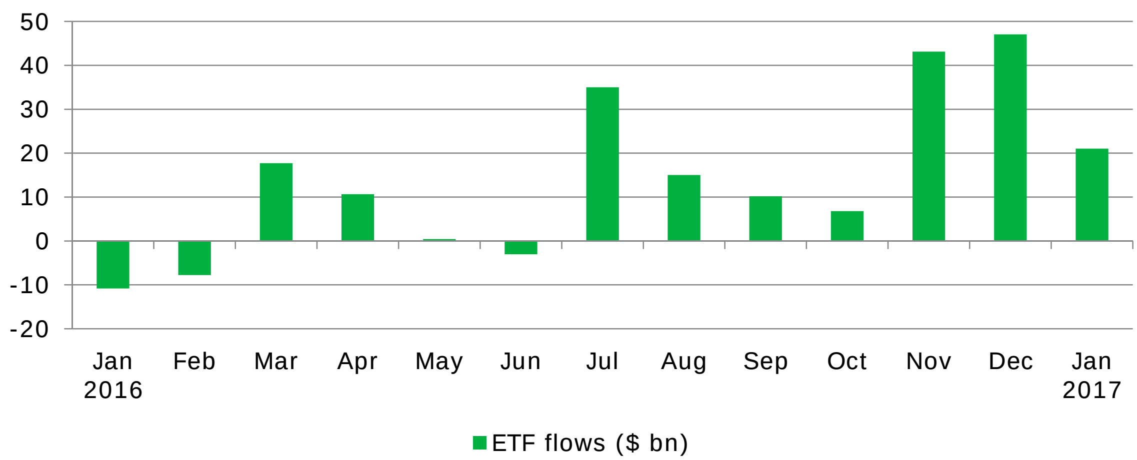
After a brief pause leading up to the election, stocks rocketed higher, with small caps the clear winner. While remaining strong, prices levelled off by the end of year and remained in more of a trading range through the inauguration, with small caps coming off somewhat more than large caps.

Figure 1: SPY growth-of-a-dollar price return, Jan 1 2016 – Jan 20 2017



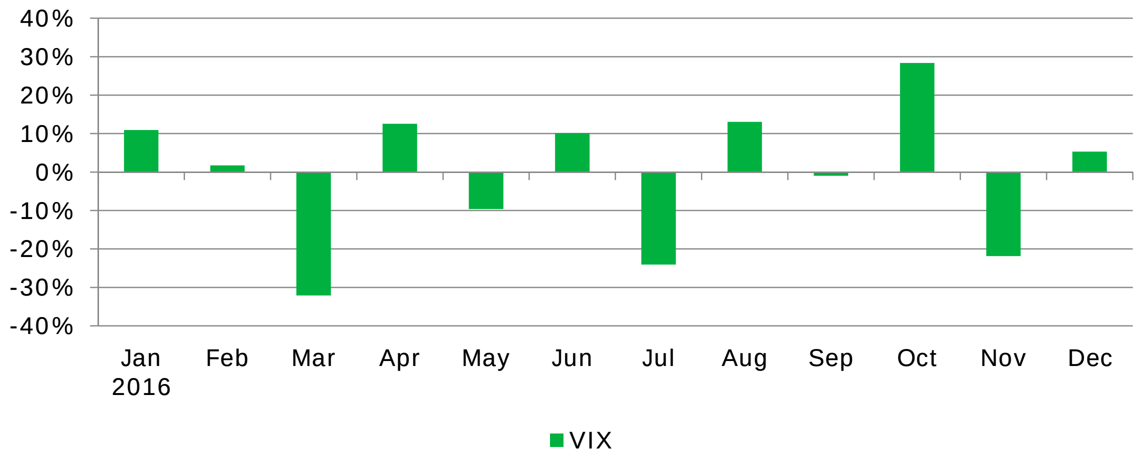
Investors were eager to ride the Trump rally as demonstrated by the fact that the 1000+ US equity ETFs tracked by the IHS Markit ETF Analytics database recorded three strong months of inflows since the election. More specifically, after levelling off through October from the USD 35 Bn post-Brexit inflow, investors subsequently added over USD 100 Bn into US equity ETFs.

Figure 2: Monthly ETF flows (USD Bn), Jan 1 2016 – Jan 20 2017



Next we look at volatility as measured by monthly changes in the VIX (Figure 3). Volatility picked up at the end of October, peaking just prior to Election Day to levels close to Brexit, before settling down over the course of the month as stocks rose on a steady trajectory. Consequently, volatility for the full month of November declined while picking slightly in December as markets dipped on the last few trading days of the year.

Figure 3: VIX monthly percent changes, Jan 2016 – Dec 2016

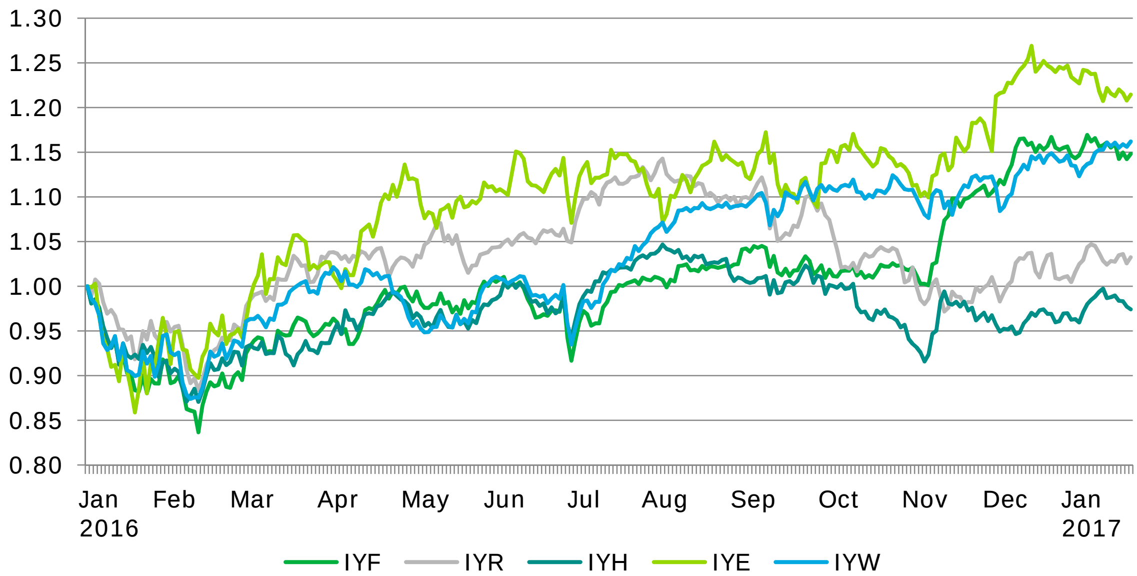


Digging deeper into stock price performance, we find that not all sectors were viewed in the same light by investors (or by Trump tweets). For this analysis, we look at sector performance measured by the following ETFs, with focus on those sectors widely discussed in the media:

- iShares US Financials ETF (IYF)
- iShares US Real Estate ETF (IYR)
- iShares US Healthcare ETF (IYH)
- iShares US Energy ETF (IYE)
- iShares US Technology ETF (IYW)

Financials (IYF) experienced the largest bump in post-election performance, followed by energy (IYE) which extended its positive run for 2016 as the price of oil recovered. Silicon valley (IYW), which was and continues to be a vocal opponent of Trump, did not participate for the most part in the rally. We also see that real estate (IYR), which was reclassified as its own GICS sector after the close on August 31st 2016, along with healthcare (IYH), were laggards.

Figure 4: Sector ETF growth-of-a-dollar price return, Jan 1 2016 – Jan 20 2017



Lastly, we review the best and worst factor performers (Table 1) based on the spread between top decile (D1) and bottom decile (D10) average returns. Value was the clear winner on average over the approximate three-month period, though we remark that active (D1-D10) exposures to financials benefitted several factors. However, the one exception, TTM Sales-to-Price (4.51%), which has a negative exposure to Financials, confirms that the value bias was indeed a broader trend.

At the other end of the spectrum, the steepest negative spread was posted by Credit Risk (-4.80%). We remark that Credit Risk requires a CDS to be traded on the underlying stock, thus coverage is lower than traditional factors. However, we retain it in our list as it demonstrates not only negative performance due to a negative active exposure to energy, but also indicates a risk-on trade, similarly captured by 60-Month Beta (-3.00%). As a final point, 24-Month Active Return with 1-Month Lag (-3.10%) confirms investors' bias to value rather than chasing returns, a trend that was in place for most of 2016.

Table 1: Top and bottom factor average monthly decile spreads – Nov 1 2016 to Jan 20 2017

Factor	Average decile spread	Factor group
Top performance		
Net Asset Value to Price	5.12	Deep Value
Price-to-Total Assets	5.07	Deep Value
Tobin q	4.87	Liquidity, Risk & Size
TTM Sales-to-Price	4.51	Deep Value
Price-to-Book Return-on-Equity Combination	4.32	Deep Value
Bottom performance		
Credit Risk	-4.80	Liquidity, Risk & Size
CDS Slope - 5 year minus 1 year	-4.25	Liquidity, Risk & Size
6-Month Nominal Change in 36-Month Alpha	-3.13	Price Momentum
24-Month Active Return with 1-Month Lag	-3.10	Price Momentum
60-Month Beta	-3.00	Liquidity, Risk & Size

Macroeconomic outlook

We turn next to factor performance associated with projections outlined in the recent IHS Markit Economics January 2017 US economic outlook, as the initial impact of the Trump presidency is factored in on global risks[2]. First, in terms of commodities which have been impactful on markets since the initial oil price rout in mid-2014 through the 2016 recovery, IHS Markit expects commodity prices to continue to move up.

Specific to oil prices, IHS Markit has nudged up the average oil price forecast for 2017 by a few dollars, to USD 54/barrel for dated Brent, particularly given the recent OPEC agreement to cut output by about 2% of world liquids production. However, risks include OPEC members' lack of compliance with output cuts historically and, more importantly, the encouragement rising oil prices may have on US production (the closely watched rig count is already moving up).

Turning to the Oil Prices Sensitivity factor (Figure 5), we find, as expected, that stocks positively exposed to changes in oil prices outperformed since the election, though the early 2016 rebound in oil prices off of the cycle low was more impactful on factor

[2] IHS Markit has developed a unique country risk scoring system that enables users to compare and contrast the investment climates of 211 countries worldwide. The system comprises 22 discrete factors that encompass the full spectrum of risks encountered by operators.

performance. We also evaluate Inflation Sensitivity performance (Figure 6) given the boost commodity prices would have on inflation. In this case, we find little co-movement between the two factors and, interestingly, October marked the highest spread in just over six year, followed by an 11.5% percentage point month-on-month drop in November.

Figure 5: Oil Prices Sensitivity decile return spreads, Jan 1 2016 – Jan 20 2017

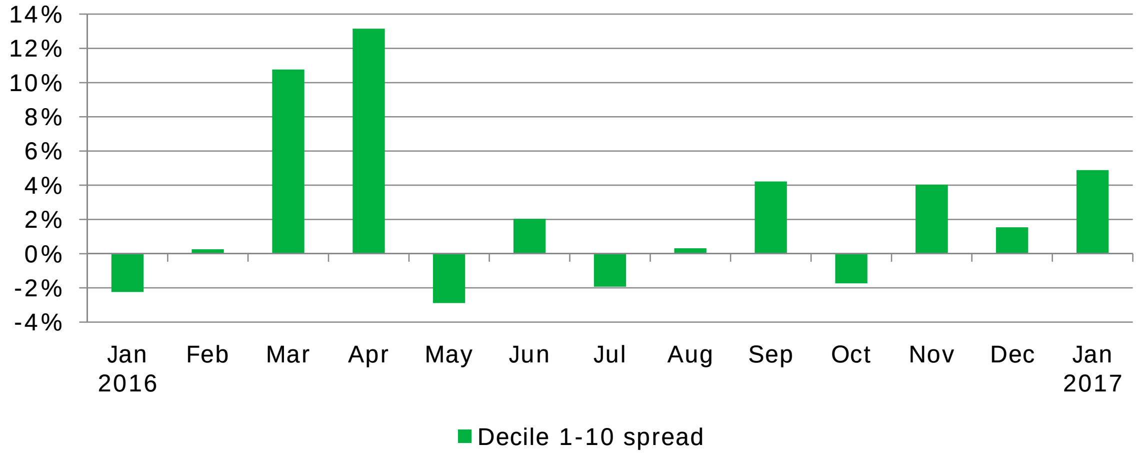
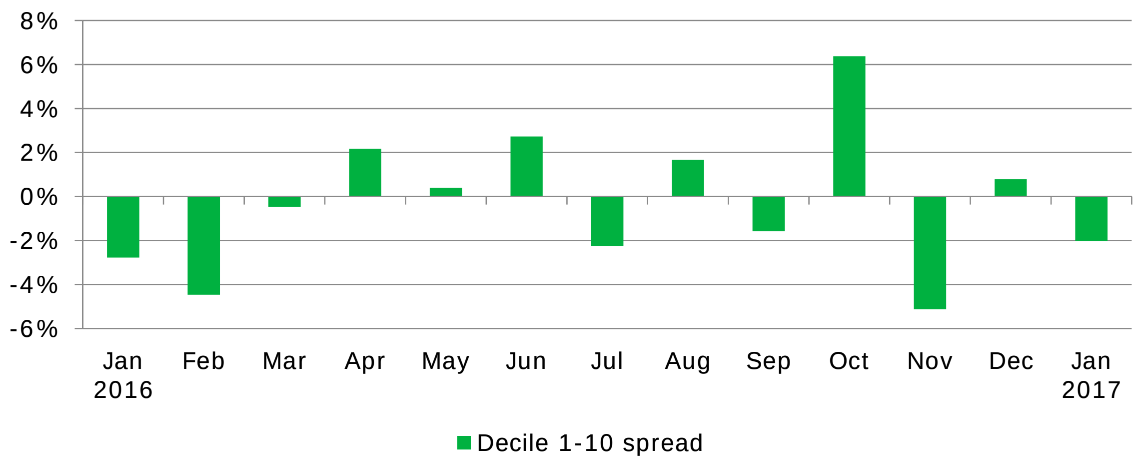


Figure 6: Inflation Sensitivity decile return spreads, Jan 1 2016 – Jan 20 2017

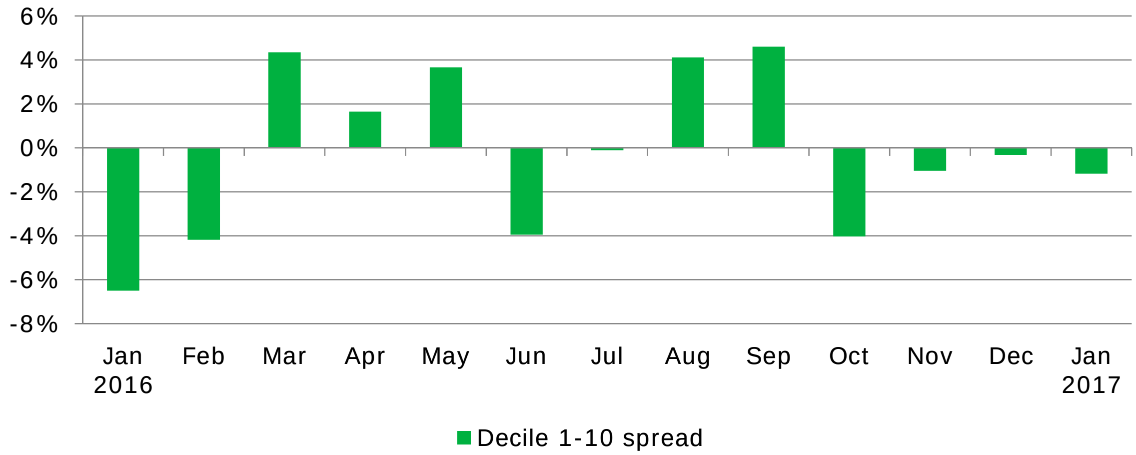


From commodities, we move to the US dollar, which had a noticeable appreciation post-Brexit, before climbing even higher post-US election, though the Italian referendum was also a factor in the latter period. By the end of November, the dollar had risen to an 8-month high against the yen and a 20-month high against the euro. IHS Markit expects the US dollar will appreciate more.

Focusing on stocks with positive exposure to changes in the US dollar (Figure 7), we observe that October (-4.03%) was a tough month for this cohort, closely matching results in June (-3.95%). While US Dollar Value Sensitivity recovered some ground in

November, perhaps reaping some benefits from the currency's run, it has yet to breach into positive territory.

Figure 7: US Dollar Value Sensitivity decile return spreads, Jan 1 2016 – Jan 20 2017



While also impacting currency markets, the rise of anti-globalization movements in Europe and the US has brought the idea of trade wars front and center. In fact, the Trump administration has already addressed plans to renegotiate NAFTA and withdraw from the Trans-Pacific Partnership (TPP).

Given the trade rhetoric, we take a look trade (im)balance, import and export statistics across the world and for the top five countries at the aggregate level (Table 2). We also break out some key categories – oil, cars, apparel and steel – that were widely debated during the campaign to provide a view of sectors that may be impacted by the new administration's policies (see Tables A1 and A2 in the Appendix).

For this we turn to the IHS Markit Global Trade Atlas which aggregates monthly data on international merchandise trade, tracking imports and exports of commodities at the most detailed level from each reporting country. Measurements include officially reported quantities and values, covering 88 countries accounting for 92% of world trade, with coverage expanding.

As President Trump would quip, the US has a 'huge' trade deficit with China (USD 319.3 Bn), capturing 47% of the world total. China sits at the top of the import list (USD 423.4 Bn) and takes the third spot for exports (USD 104.1 Bn). The US exports the most to its NAFTA partners, Canada (USD 244.8 Bn) and Mexico (USD 211.8 Bn), representing one third of the world total, though the trade deficit with Mexico is larger at USD 58.8 Bn.

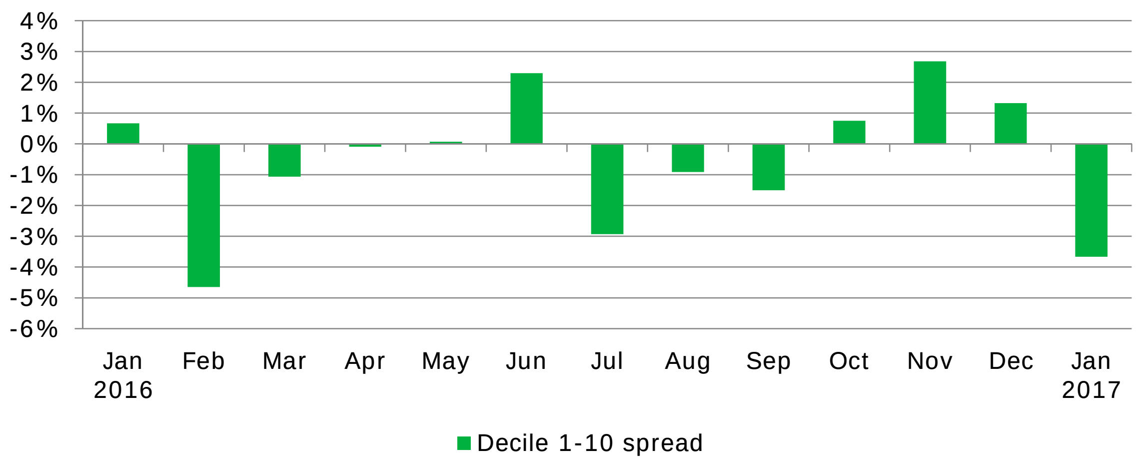
Table 2: World and top five countries by trade statistics (USD Bn), Jan 2016 – Nov 2016

Country	Trade balance	Country	Imports	Country	Exports
World	(678.2)	World	2,005.2	World	1,327.0
China	(319.3)	China	423.4	Canada	244.8
Japan	(62.4)	Mexico	270.6	Mexico	211.8
Germany	(59.6)	Canada	254.8	China	104.1
Mexico	(58.8)	Japan	120.0	Japan	57.6
Ireland	(32.7)	Germany	104.6	United Kingdom	51.1

With this trade data and the rhetoric around it in mind, we gauge investor sentiment toward stocks which rank highly according to North America Sales Exposure (Figure 8). November (2.68%) saw a spike in factor performance which halved in December. By January, investors sold off names positively exposed to North America sales, with a six percentage point swing in spread from the vote to the swearing in.

Conversely, large decile spread drawdowns were associated with Asia-Pacific (-3.1%), EMEA (-2.1%) and Latin America (-10.8%) Sales Exposure in November (see Figures A1- A3, respectively, in the Appendix), with Latin America the worst of the pack as the peso was especially impacted by the Trump election. Likewise, January spreads through the day of the inauguration saw reversals in each region.

Figure 8: North America Sales Exposure decile return spreads, Jan 1 2016 – Jan 20 2017

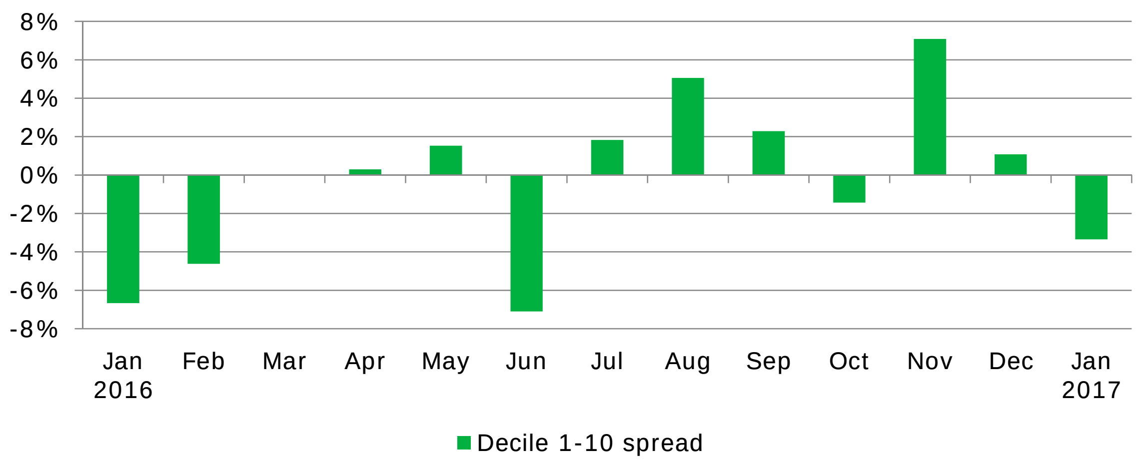


US interest rates are also expected to keep rising. Pre-election, financial markets expected the Federal Reserve to raise interest rates in December 2016 and twice in 2017. Post-election, IHS Markit predicts the Fed will raise interest rates even more in

2017 (at least three times) with expectations of a larger budget deficit and higher growth and inflation.

The combination of these conditions should potentially lead to a steeper yield curve, thus we look next at the impact on Yield Curve Slope Sensitivity (Figure 9). November (7.09%) indeed marked a robust recovery in factor performance, the highest level since the period when markets were coming out of the financial crisis. However, this prominent value did not persist, falling by 10 percentage points by January.

Figure 9: Yield Curve Slope Sensitivity decile return spreads, Jan 1 2016 – Jan 20 2017



Lastly, we remark that IHS Markit expects that the risks of recession remain low; however, the level of uncertainty has risen. Political and policy uncertainties and risks are higher now than they were a year ago. Combining this with the potential inflationary environment driven by increasing commodity prices and interest rates (which in turn would support the US dollar), capped by an isolated trade policy, we present factors which have historically benefitted in months following increases in inflation and the VIX (Table 3).

Our analysis is based on the monthly information coefficient (IC) which is the rank correlation between the factor scores and monthly returns. For a robustness check, we consider the information ratio of ICs which scales the average by the standard deviation.

Over the past 10 years, factors which outperformed in our scenario were led by Implied Loan Rate, a Short Sentiment indicator measuring the cost to borrow, an indication of the strength of demand to short a stock. Industry relative value was also a prominent signal, represented by Industry Relative TTM Free Cash Flow-to-Price.

At the opposite extreme, the weakest result was posted by Implied Volatility, suggesting investor preference for names with the lowest volatility priced by the options market. Natural Logarithm of Market Capitalization was also a weak performer, indicating a large cap bias.

Table 3: Top factor information ratio of monthly IC following positive inflation and VIX changes, Jan 2007 – Jan 2017

Factor	Factor group
Top performance	
Implied Loan Rate	Short Sentiment
Industry Relative TTM Free Cash Flow-to-Price	Relative Value
Industry Relative TTM Core Earnings-to-Price	Relative Value
ATM Put Volatility - ATM Call Volatility	Liquidity, Risk & Size
TTM Free Cash Flow to Equity	Historical Growth
TTM Free Cash Flow-to-Enterprise Value	Deep Value
Free Cash Flow Return on Invested Capital	Management Quality
TTM Free Cash Flow-to-Price	Deep Value
Bottom performance	
Implied Volatility	Liquidity, Risk & Size
Unexpected Change in Accounts Receivable	Earnings Quality
Average Payable Period	Management Quality
Acquisition Multiple	Deep Value
Change in TTM Sales vs. Accounts Receivable	Earnings Quality
1-yr Chg in Acct Receivable as % of Sales	Historical Growth
Natural Logarithm of Market Capitalization	Liquidity, Risk & Size
1-week Chg in Implied Loan Rate	Short Sentiment
Put/Call Ratio	Price Momentum

Sector analysis

As President Trump's name shows up in more and more corporate earnings conference calls, we round out our review with a study of sector sentiment for the key sectors highlighted above, with the exception of real estate which we currently do not break out under its own classification. We measure sentiment by active (D1-D10) sector exposure for the following factors:

- 3-M Revision in FY2 EPS Forecasts Dispersion (ranked to favour positive revisions)
- Active Utilization (ranked to favour low utilization)
- Implied Volatility (ranked to favour high volatility)
- Credit Risk (ranked to favour low risk)

These factors capture the reaction of equity analysts, short sellers, the options market and the credit market (Figures 10 – 13, respectively).

After bottoming at the end of July (-8.3%), analyst outlook for Financials turned much stronger, with an active exposure of 22.7% by the end of the year. Financials also saw some positive movement with an uptick in active exposure to Active Utilization, indicating less demand to sell shares short based on a lower proportion of inventories in lending programs out on loan.

Energy's active exposure to 3-M Revision in FY2 EPS Forecasts Dispersion resided in negative territory at the start of 2016, sitting at -7.8% at the end of January. Analysts adjusted their outlook upward as oil prices increased, with a near neutral number of companies in the top versus bottom deciles. Energy also saw improving sentiment priced in the options and credit markets as implied volatility and, more notably, credit risk relative rankings moved toward lower risk profiles. However, the securities lending market was less sanguine, even with the high number of short squeezes identified by our short squeeze definition[3] in early 2016.

Healthcare and technology were less favoured by the analyst community since the election, with revisions trending down, while patterns are too early to discern for Active Utilization, with mostly negligible moves down since the election. On the other hand, healthcare saw a large increase in active exposure to implied volatility as October wound down, followed by weakening credit risk the following month, while technology drifted in the opposite direction.

[3] See The long and short of short squeezes

Figure 10: 3-M Revision in FY2 EPS Forecasts Dispersion active (D1-D10) sector exposure, Jan 2016 – Dec 2016

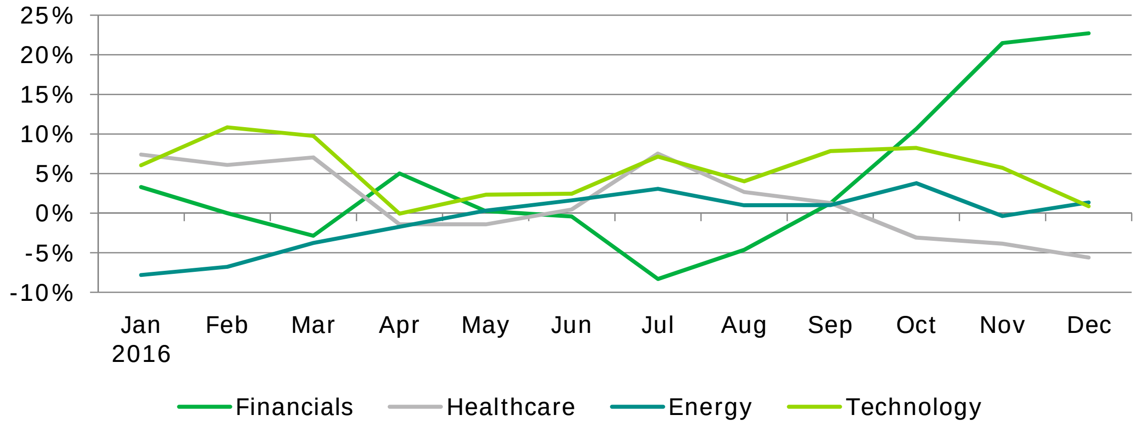


Figure 11: Active Utilization active (D1-D10) sector exposure, Jan 2016 – Dec 2016

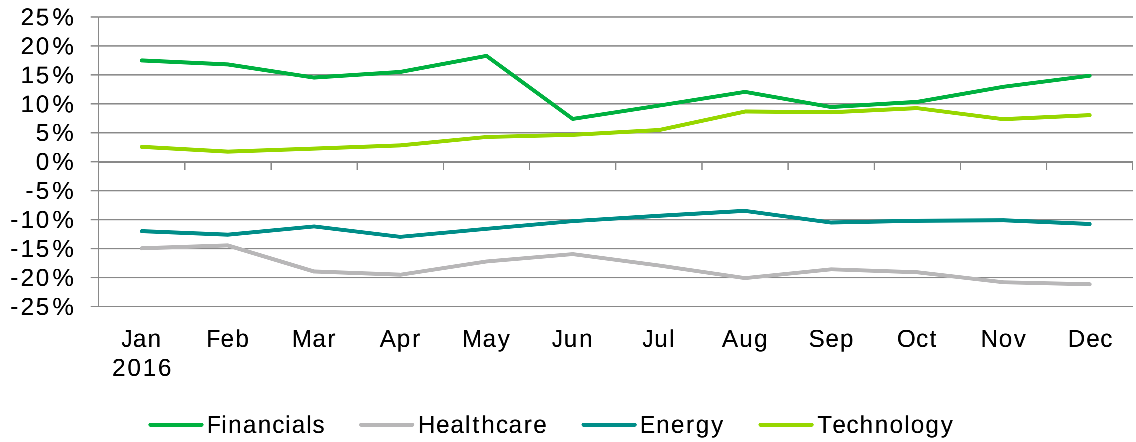


Figure 12: Implied Volatility active (D1-D10) sector exposure, Jan 2016 – Dec 2016

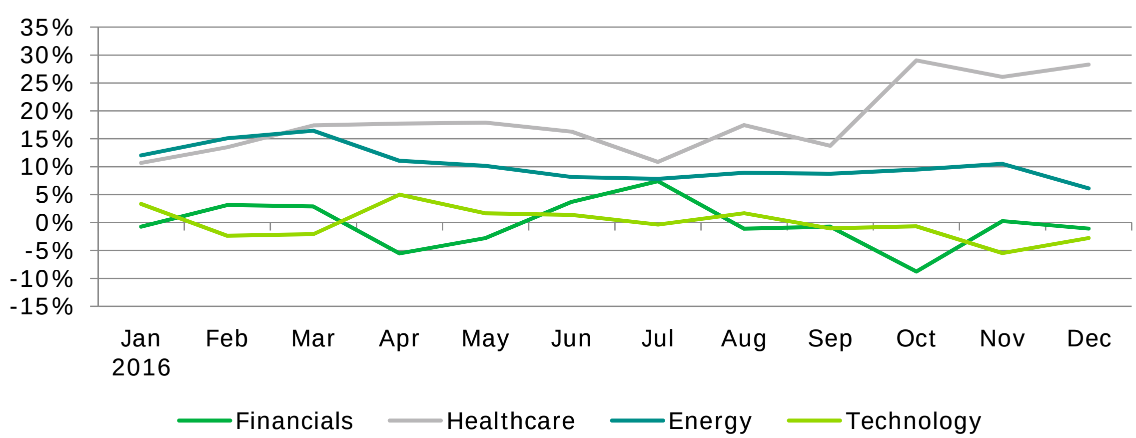
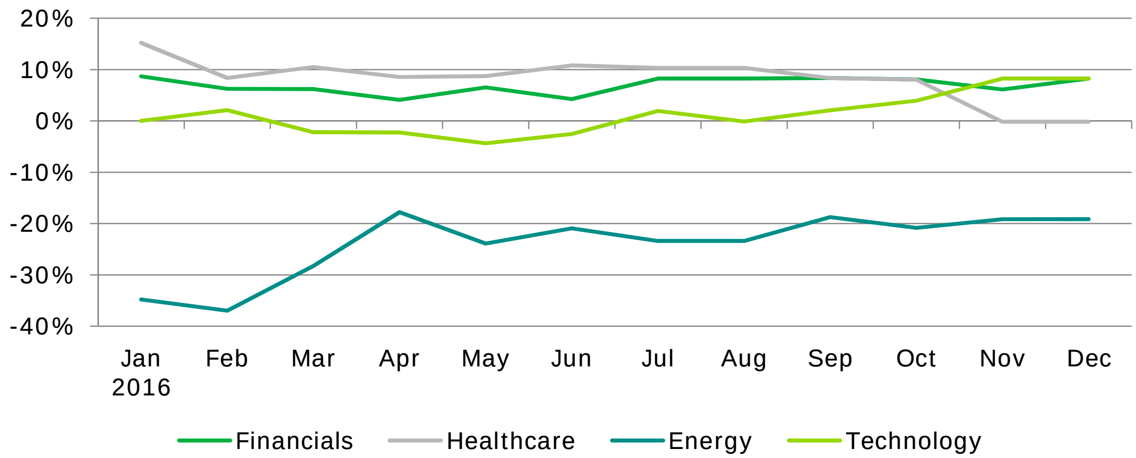


Figure 12: Credit Risk active (D1-D10) sector exposure, Jan 2016 – Dec 2016



Conclusion

Donald Trump's unexpected election, matching similar results and electorate sentiment in the UK and Italy, led some in the media to associate the election with a black swan event. We study the impact of the highly improbable election, covering the period spanning from the Trump election to the inauguration, with focus on factor performance and investor sentiment in light of the IHS Markit Economics January 2017 US economic outlook.

The equity market stage was set by a Trump rally, particularly for small caps, financials and to a lesser extent energy stocks, with a risk-on stance favouring value over momentum. The upward path was smooth, with low volatility and robust ETF inflows.

As the initial impact of the Trump presidency is factored in on global risks, IHS Markit has nudged up the average oil price forecast for 2017. Based on our Oil Prices Sensitivity factor, we find, as expected, that stocks positively exposed to changes in oil prices outperformed since the election; however, Inflation Sensitivity performance did not follow a similar trend.

The US dollar and interest rates climbed higher post-US election and IHS Markit expects the dollar will appreciate more and that the Fed will raise interest rates even more in 2017 (at least three times). While US Dollar Value Sensitivity recovered some ground in November, perhaps reaping some benefits from the currency's run, it has yet to breach into positive territory. November (7.09%) indeed marked a robust recovery in Yield Curve Slope performance before falling by 10 percentage points by January.

Trade rhetoric was a prominent theme during the campaign, particularly given trade imbalances with China and Mexico, posted at USD 319.3 Bn and USD 58.8 Bn, respectively, by IHS Markit Global Trade Atlas for 2016. After the election results were in, North America Sales Exposure recorded a positive spread (2.68%), before reversing by the inauguration (-3.66%). Asia-Pacific, EMEA and Latin America Sales Exposure experienced the reverse trades.

Combining higher political and policy uncertainties and risk with an outlook for higher commodity prices and interest rates, capped by an isolated trade policy, we find that stocks with low Implied Loan Rate and industry relative value outperform at the expense of small caps and low Implied Volatility during periods of high inflation and market volatility.

Lastly, we take a look at sentiment toward key sectors in the Trump rally. Analyst outlook for financials turned much stronger and recovered for energy, while healthcare and technology were less favoured. Energy also saw improving credit risk, though the securities lending market was less sanguine. The options market priced in much higher risk for healthcare, however, technology drifted in the opposite direction.

Appendix

Table A1: Crude Oil Daily Report world and top ten countries by trade statistics, Jan 2016 – Nov 2016

US import partners	Barrels (Mn)	US export partners	Barrels (Mn)
World	2,533.6	World	189.2
Canada	985.1	Canada	144.1
Saudi Arabia	371.5	Germany	6.6
Venezuela	235.3	United Kingdom	4.5
Mexico	190.8	France	4.4
Columbia	146.4	Italy	4.3
Iraq	137.3	Switzerland	4.0
Ecuador	78.7	Spain	3.8
Nigeria	72.7	China	3.6
Kuwait	72.2	Japan	3.3
Angola	56.0	South Korea	2.2

Table A2: World and top and bottom five countries by trade imbalance, Jan 2016 – Nov 2016

Country	Cars[1] quantity (000)	Country	Apparel[2] value (USD Mn)	Country	Steel[3] value (USD Mn)
World	(4,823)	World	(32,612)	World	(7,634)
top					
Japan	(1,514)	China	(13,653)	Brazil	(1,849)
Canada	(1,258)	Vietnam	(3,999)	South Korea	(1,283)
Mexico	(1,117)	Bangladesh	(3,529)	Russia	(1,143)
South Korea	(862)	Indonesia	(2,148)	Japan	(1,013)
Germany	(311)	India	(1,945)	Germany	(841)
Bottom					
United Arab Emirates	109.6	Canada	504	Mexico	2,211
Saudi Arabia	86.2	United Arab Emirates	72	China	169
Australia	55.7	United Kingdom	54	India	159
Dominican Republic	33.7	Japan	41	Pakistan	151
Nigeria	32.5	Netherlands	36	Canada	121

[1] HS code 8703 – Motor cars and other motor vehicles designed to transport people (other than public-transport type), including station wagons and racing cars
[2] HS code 62 – Articles of apparel and clothing accessories, not knitted or crocheted
[3] HS code 72 – Iron and steel

Figure A1: Asia-Pacific Sales Exposure decile return spreads, Jan 1 2016 – Jan 20 2017

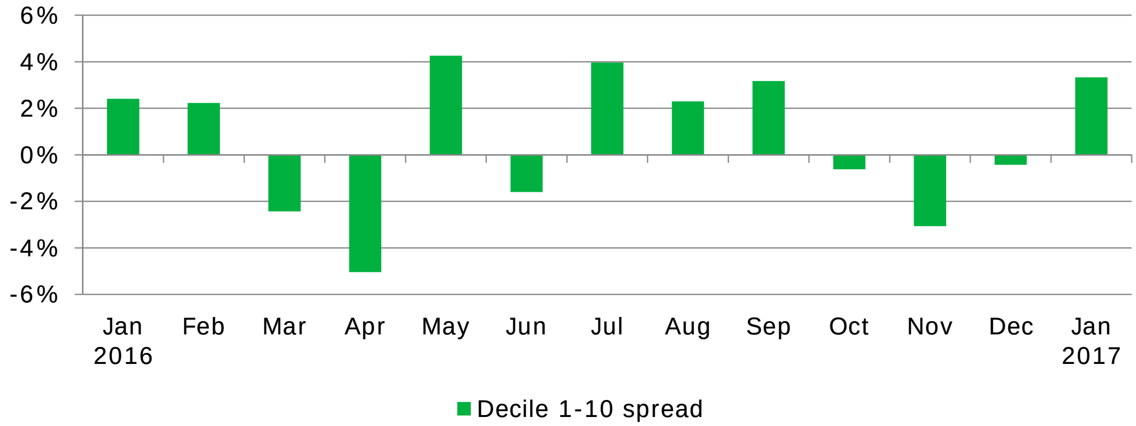


Figure A2: EMEA Sales Exposure decile return spreads, Jan 1 2016 – Jan 20 2017

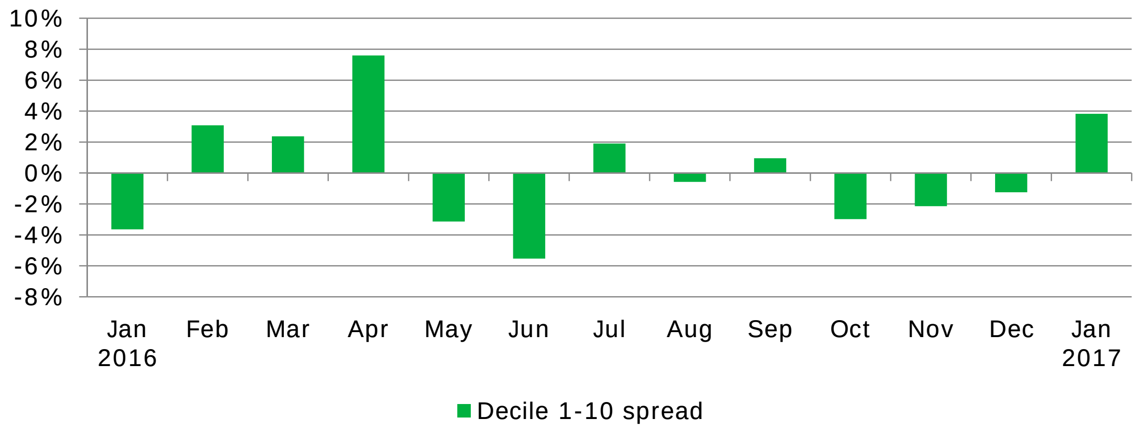


Figure A3: Latin America Sales Exposure decile return spreads, Jan 1 2016 – Jan 20 2017