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British Roulette: How to Place Your Bets!

Many investors are fed up with the Brexit spectacle, but it's still ongoing. Markets have already priced in that it's very hard to envision scenarios leading to "No Deal", but market reactions in all directions are still possible. We therefore show how to identify favourable investments for each Brexit scenario.

Since the publication of our recent Investment Insights Flash **Brexit – Prepare for the worst hope for the best** the Brexit saga has gone through another series of twists and turns. Most importantly, it is Boris Johnson's "do or die" pledge to leave the EU by the end of October that is now "dead in a ditch", rather than the UK prime minister himself[1], and the UK is holding a snap election on December 12.

For investors the most essential takeaway from these developments is dwindling No-Deal odds, and markets have already responded accordingly. Sterling has surged against the euro from 1.11 to 1.16 and 10-year gilt yields have rallied from 0.47 to 0.81[2].

With those common Brexit indicators now at elevated levels, at least compared to recent months, Britain's divorce from the EU without an agreement fulfills two essential criteria of a tail event: A low probability implied by financial markets and the potential for significant losses if the risk materializes. But it's not only the threat of a No-Deal that provides potential for markets to move substantially; calling Brexit off would also do so. Therefore Brexit is still much too big to ignore.

This paper takes up the cliffhanger question with which we ended the Investment Insights Note about how much Brexit exposure investors really have in their portfolio. We explore the concept of uncovering true Brexit exposure regardless of the investment's name or label and apply it to a set of commonly used indices.

If investors know the true UK sensitivity of an investment they can use the information to position their portfolio according to their view as to how the Brexit saga will end.

[1] Referring to Mr. Johnson who said in the beginning of September he would "rather be dead in a ditch" than agree to extend Brexit beyond 31 October

[2] Period: 10.10.2019 – 11.11.2019. Source: Bloomberg.

No-Deal Exit – A Faded Fantasy?

Our DWS Brexit scenario probabilities remain unchanged[3]. We expect another hung parliament, with third parties strengthened, keeping Labour in check on domestic policy changes. However, it is still early days. We would caution that the British electorate has become extremely volatile in recent cycles and that polling has been highly ambiguous for much of the year-to-date.

No Deal 15%: It has become hard to envision scenarios leading to "No Deal" on January 31, 2020, the latest Brexit deadline. More subtly, both Boris Johnson and other Tory Brexiteers are now on record as preferring "their deal" to "No Deal". That said, there remains the risk that even after the passage of a withdrawal agreement, the U.K. will fail to negotiate a free trade agreement with its EU partners during the transition period.

Hard Deal 25%: Effectively, this means the Johnson deal passes without too many further changes. It probably requires the Conservatives to win a comfortable outright majority at the snap election on December 12. Events during the first few days of campaigning have probably hurt Johnson's cause. However, we would caution that the British electorate has become extremely volatile in recent cycles and that polling has been highly ambiguous for much of the year-to-date.

Soft Deal 15%: At the end of what is likely to be a long, bitter and ugly campaign, we still think that the most likely outcome is another hung parliament. Except for Johnson's Conservatives, all other parties look firmly opposed to the Johnson deal. Take, for example, the Democratic Unionist Party, which previously propped up the Conservative government. From the DUP perspective, the Johnson deal is much worse than any softer Brexit, precisely because a customs union that includes Great Britain would avoid a customs border down the Irish Sea. A "Soft Deal" could yet become the compromise the UK ends up with after a snap election in which Labour does unexpectedly well.

No Brexit 45%: If, after December 12, parliament remains split, passing any withdrawal deal in the Commons may well require a confirmatory second referendum. In such a case, we would expect "Vote Leave" to start with a severe disadvantage compared to "Remain", because any precisely defined Brexit Deal will have some obvious drawbacks for certain voters. This could well prompt more ardent Brexit supporters to sit out the vote. Other paths towards "No Brexit" include the EU27 running out of patience and refusing further extensions. Depending on the new composition of the House of Commons, this could yet prompt the U.K. to revoke Article 50 altogether as the only way to stop "No Deal".

We cannot rule anything out at this stage, which makes positioning portfolios difficult but not impossible. What is clearly required for effective positioning, however, is an appropriate mapping of "Brexit exposure" to financial assets.

True Brexit Exposure

UK stocks: Same same but different?

Investors' reaction to the UK's "Leave" vote more than 3 years ago was ditching UK equity funds from their portfolios. Since end-June 2016 more than EUR 21 bn have been pulled out of mutual funds and ETFs investing predominantly in UK equities, according to Morningstar data.[4]

At DWS we have raised the question of whether such general punishment of UK stocks is justified or not. The answer might be less obvious then you would think. Once you look beyond a company´s headquarters location and consider the true exposures along its supply chain, it becomes clear that a more detailed approach is necessary.

For example, consider a globally operating oil and gas company with its headquarters in London. Even though the company is listed on the London Stock Exchange and thus a constituent of the FTSE 100 Index, which represents the UK's 100 largest corporations, its link to the UK economy may still be weak. In fact, such a company's share price can even correlate negatively with figures that express the health of the UK economy, such as the strength of its currency. Each pound depreciation increases the turnover achieved abroad when converted into pounds, which is reflected accordingly in a higher share price (in pounds).

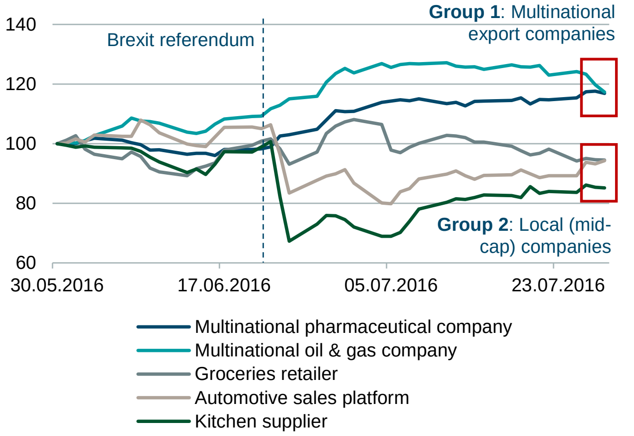
By contrast, British companies with a focus on the domestic market are on the flipside. After all, in the UK these are considered to be the main victims of Brexit. An economic slowdown and correspondent lower domestic demand translates into decreasing revenues, even more so if the costs of importing materials rise due to sterling weakness.

Figure 1 compares the share price performance after the Brexit referendum of five companies we assign to the two categories described above. The two globally operating large caps (group 1) show remarkable Brexit resilience (average +17%), mainly driven by sterling depreciation against all major currencies.

[3] Compared to our recent CIO flash **With "victories like this…**

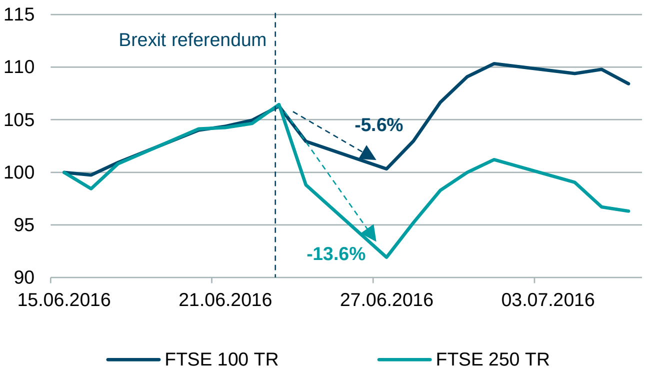
[4] As of end of August 2019.

FIGURE 1. POST-REFERENDUM PERFORMANCE OF TWO EXEMPLARY GROUPS OF FTSE 100/250 STOCKS



100 = 30.05.2016. Period: 30.05.2016 – 28.07.2016.
Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect. Past performance is not an inactive of future returns.
Source: DWS International GmbH, Bloomberg. As of: end of October 2019.

FIGURE 2. POST REFERENDUM PERFORMANCE FTSE 100 VS. FTSE 250



100 = 15.06.2016. Period: 15.06.2016 – 06.07.2016.
Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect. Past performance is not an inactive of future returns.
Source: DWS International GmbH, Bloomberg. As of: end of October 2019.

On the other hand, the share price of the three domestically operating companies (group 2) suffered notably (average -9%), either driven by fear of decreasing demand (kitchen supplier & automotive sales platform) or by the rising cost of importing goods (groceries retailer).

From Single Stock to Index Level

Asset allocation is one of the most important decisions that you make as an investor, not only in the long run by defining an efficient strategic asset allocation, but also short term for tactical positioning – and it's often implemented with highly diversified indices[5]. The exposures of an index are the aggregate of each constituent's single exposures. The idea derived above from single stocks can thus promptly be transferred at index level.

Figure 2 illustrates the different "true" UK exposures of the FTSE 100 and FTSE 250 index. The FTSE 100 index represents the 100 largest companies listed on the London Stock Exchange, the FTSE 250 index the 101st to the 350th largest. In other words, the FTSE 100 index mainly comprises companies we previously classified as multinational companies (group 1) while FTSE 250 companies act as an approximation of locally operating companies (group 2).

The picture is similar to Figure 1. Domestically operating UK companies show higher sensitivity to Brexit-related fears than their internationally operating counterparts.

UK equity indices, however, represent a small fraction of most European investors' portfolios. It's therefore of at least equal importance, and perhaps more than that, to identify the Brexit exposure of the indices most present in those portfolios.

Not only UK Indices Exhibit Brexit Exposure

It's a common misunderstanding that only UK equities and bonds exhibit UK or Brexit exposure. Getting back to our thoughts from Figure 1, compare the UK exposure of globally operating UK large caps with other European companies residing outside the UK but with a significant share of their business on the British side of the English Channel.

To investigate whether or not the previously applied approach can also be used for non-UK equities – and in a next step non-UK equity indices – we sort the constituents of the DAX, a German blue chip stock market index, by its share of revenue made in the UK.

The top companies in this ranking report an average UK revenue share of 27% and suffered an average share price decline of -12.5% in the days following the Brexit referendum. On the other hand, the bottom companies (average UK revenue share 1%) showed a performance of -3.2%, considerably above the overall DAX performance during the same period (-9.6%)[6].[7]

[5] DWS offers a wide range of active and passive products for investment implementation of an index.
[6] Observation period: 23.06.2016 – 27.06.2016. All data in Euro. Source: Bloomberg, Factset. As of end of September 2019.
[7] We would like to highlight that the sole analysis of a company's revenue share in the UK does not lead to an overall satisfying result for identifying true Brexit exposure and provides a simplified approach only. Individual Brexit exposure is complex and can depend on several aspects, such as the range of production in the UK, level of services provided out of the UK or any kind of disruption along the supply chain.

Takeaways

We conclude the following about identifying true Brexit exposure:

_The interplay of pound-dependency and UK single market exposure is key, not the headquarters location

_The idea derived from single stocks can be transferred to index level

_Brexit sensitivity is not only relevant for UK stocks or indices, it can also have a crucial impact on non-UK stocks and indices.

A Glimpse into our Methodology

In general, the best possible results for mapping indices to the outcome of a political event can be achieved if market reactions for each outcome are expected to diverge and the indices show significant sensitivity to those market reactions. In this section we demonstrate how we identify these sensitivities and define the different market outcomes for each scenario.

Expected Market Reactions

The best sensitivity analysis is worthless without determining the market reaction in each scenario, i.e. how to interpret the sign of the betas. Figure 3 summarizes our expected market scenarios.

FIGURE 3. EXPECTED MARKET REACTIONS

Red signs indicate a negative total return of the asset class, green signs a positive one. Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.
Source: DWS International GmbH, Bloomberg. As of: end of October 2019.

For any kind of the other three scenarios, the four factors are expected to move in the opposite direction, for each scenario by a different magnitude. A Hard-Deal exit provides the lowest upside potential as the reduced risk of a No-Deal exit has already been priced in over the recent weeks. However, a Soft(er) Deal or even Remain are expected to further boost the four factors because of their positive economic impact.

Econometric Analysis Backed Up by Economic Data

For the purpose of this research we apply a combination of economic and econometric top-down analysis. We apply a three step process on a set of liquid indices as follows:

1. Identification of overall market exposure

Brexit causes spillover effects on the entire European stock market. Each index (Y) sensitivity to the MSCI Europe has to be identified:

$Y = \beta_0 + \beta_1 * \mathit{MSCI\ Europe} + e$

2. Identification of UK specific exposure

Market (Europe) independent UK sensitivity; identification of the exposure not driven by disruption in the broad European equity market, but by the UK one:

$(Y - \mathit{MSCI\ Europe}) = \beta_0 + \beta_1 * (\mathit{MSCI\ UK} - \mathit{MSCI\ Europe}) + e$

3. Validation with aggregated fundamental data

Cross-checking the results with aggregated fundamental data such as UK (net) revenue share on index level.

In our sensitivity analysis we omit gilt yields for two reasons. First, the improvement in R-Squared was negligible. Second, gilt yields recently moved in line with other government bond yields, i.e. they were less driven by Brexit fears than the other three factors. We also convert all pound-denominated indices into euro. By this the sterling effect enters our analysis through the backdoor and does not require extra addition.

Our (No-)Brexit Favorites

Positioning for a No-Deal Brexit

As illustrated in Figure 4, our No-Deal favorites are characterized by a large negative exposure to the pound, exhibit a reduced equity beta or can be classified as a safe haven investment.

The FTSE 100 is the only equity index we identify as a winner in a No-Deal scenario as a result of its loose ties with the British economy and the benefits from pound weakness for many of its constituents. Continental European investors, however, need to hedge the FX exposure as the pound depreciation would lead to losses when the performance is converted back into their base currency.

All other No-Deal favorites can be classified as having low sensitivity to our four factors, meaning Brexit-related disruptions should affect them in a milder way. The reduced sensitivity can either be achieved by portfolio construction (MSCI EMU Minimum Volatility Index) or via industry focus, specifically by focusing on non-cyclicals (European Food & Beverages and Health Care companies). The industry focus is also reflected in the MSCI Switzerland, which is, in terms of market cap, dominated by three companies of those two sectors. In addition, the Swiss franc provides safe haven features. When talking about safe havens in times of market stress, Gold is a must.

FIGURE 4. NO-DEAL BREXIT FAVORITES

POUND DEPRECIATION WINNERS	
FTSE 100 (currency hedged)	
DEFENSIVE INDICES	
Stoxx Europe 600 Health Care	Stoxx Europe 600 Food & Beverages
MSCI Switzerland	MSCI EMU Minimum Volatility
LIQUID REAL ASSETS	
Dow Jones Brookfield Global Infrastructure Index	FTSE Developed Europe ex UK Real Estate Index
SAFE HAVEN ASSETS	
Gold	

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Source: DWS International GmbH. As of: end of October 2019.

The last group of No-Deal favorites are liquid real assets. Their cash flows are generated at the assets' locations, whether it's an infrastructure asset or real estate. Thus, sensitivity to our four factors is low, as long as liquid real assets in the UK are avoided or only comprise a minor fraction of the universe.

Positioning for an Orderly Brexit – Or None

For those who have kept our index comparison in Figure 2 at the back of their mind, it won't come as a big surprise that we favor the FTSE 250 index in the event of a positive outcome to the Brexit saga. Market relief is likely to stimulate those stocks with a close tie to the UK economy, and currency effects may also improve the index's performance.

Favorable, too, are those indices which exhibit a high market beta to profit from positive market sentiment, such as the DAX, MSCI EMU or MSCI Italy. Reasons for that are either concentration in export-oriented industries or high sensitivity to EU-related tensions. Lastly, an industry that suffered severely from looming Brexit disruptions is expected to react positively as remaining uncertainty disappears – banks. The absence of an urgent need for the Bank of England to lower interest rates adds to the positive environment.

Some readers might miss European small caps in our list. From an econometric point of view the results are ambiguous. For example, we do not recently find a lower equity beta than for equivalent large caps. Economically there are also reasons for lower sensitivity to Brexit, such as their mainly domestic business focus.

FIGURE 5. DEAL BREXIT & REMAIN FAVORITES

HIGH EQUITY BETA	
DAX	MSCI Italy
MSCI EMU	
HIGH EXPOSURE TO UK SINGLE MARKET	
FTSE 250	
HIGH UK CROSS BORDER ACTIVITY	
Stoxx Europe 600 Banks	

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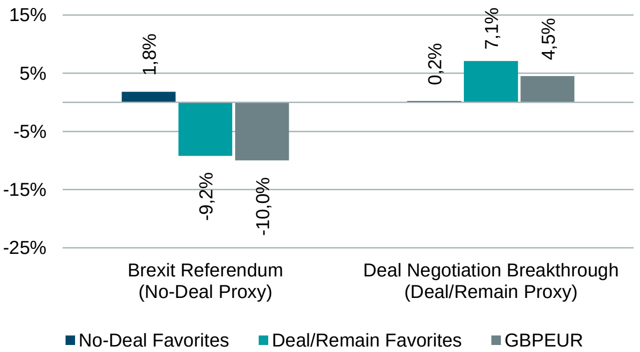
Source: DWS International GmbH. As of: end of October 2019.

Reality Check

The Brexit drama has been on stage for more than three years. This gives us the opportunity to backtest the performance of our favorites under real conditions. As a proxy for a No-Deal event we use the aftermath of the Brexit referendum (22.06.2016 – 08.07.2016). To test the performance in a Deal/Remain-like environment, we choose the time starting in calendar week 41 2019 when Boris Johnson and the EU signaled a breakthrough in deal negotiations for the first time and No-Deal fantasies faded. We abbreviate the later one as DNB (Deal Negotiations Breakthrough).

Figure 6 shows the average performance of our No-Deal and Deal/Remain favorites for the two time periods, using the EUR/GBP spot rate as a reference indicator. The No-Deal favorites show a striking resilience in the aftermath of the Brexit referendum shock and remain almost flat in the DNB period.

FIGURE 6. FAVORITES' AVERAGE PERFORMANCE IN NO-DEAL AND DEAL/REMAIN PROXY SCENARIOS



Returns in EUR, only FTSE 100 Index currency hedged in EUR.
Brexit referendum: 22.06.2016 – 08.07.2016.
Deal negotiation breakthrough: 09.10.2019 – 21.10.2019.
Forecasts are not a reliable indicator of future performance. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect.
Source: DWS International GmbH, Bloomberg. As of end of October 2019.

On the other hand, the group of Deal/Remain favorites got hammered after the Brexit referendum, plummeting by almost double-digit percentages. By contrast, performance in the DNB period is remarkably positive, surging by more than 7%.

The biggest winners in the aftermath of the Brexit referendum are Gold (+10.3%) and FTSE 100 EUR-hedged (+5.3%), while the Stoxx Europe 600 Banks in EUR (-15.9%) and the FTSE 250 in EUR (-14.4%) suffered the largest losses.

In the DNB period the only negative performer was Gold (-3.0% vs. Euro). Best DNB performers are the biggest losers of the other scenario, namely Stoxx Europe 600 Banks EUR (+11.5%) and the FTSE 250 EUR (+10.8%).

Conclusion

It is no wonder that many people, including investors, are tired of the back and forth of the seemingly never-ending Brexit story. But its impact on financial markets is too big to ignore, and with the benefit of hindsight investors will know which outcome they should have positioned for. No matter how each investor decides to position, we discuss a set of investment ideas to make your bets in the “British Roulette” game.

This Investment Insights Note raises fundamental questions for many investors. First and foremost, names and labels don’t tell the whole truth. Being a constituent of a single country index, for example, doesn’t necessarily imply interdependence between the company’s share price and the country’s political and economic development. The same applies to indices. A look under the hood is required.

Another related aspect is the granularity of the investment universe. Often strategic asset allocations are based on broad indices, such as the MSCI Europe for European equities. Such an approach may suit long-term investors maintaining a constant allocation over an entire business cycle. Investors aiming to exploit short-term opportunities and engaging in tactical decisions, however, require a deeper level of granularity, such as a breakup into EMU, UK, Switzerland and Nordics. In the context of this paper another example is the separation of the FTSE All-Share Index into FTSE 100 and FTSE 250.

Related Readings

DWS Investment Insights: Brexit – Prepare for the worst hope for the best

DWS CIO View: With “victories” like this…

DWS CIO View: Investors know which Brexit they favor

DWS CIO View: A new Brexit deal? That was the easy bit!

Trailing 12-month performance	10/2014 – 10/2015	10/2015 – 10/2016	10/2016 – 10/2017	10/2017 – 10/2018	10/2018 – 10/2019
FTSE 100 TR Index GBP	0.82%	13.72%	12.06%	-0.86%	6.47%
FTSE 250 TR Index GBP	13.34%	5.32%	18.52%	-3.98%	9.08%
Dow Jones Brookfield Global Infrastructure Index EUR	17.86%	-6.29%	10.22%	-4.25%	24.96%
STOXX Europe 600 Health Care Net Return EUR	18.87%	-13.28%	12.21%	2.30%	18.90%
STOXX Europe 600 Banks Net Return EUR	1.58%	-17.45%	26.76%	-19.87%	-2.26%
STOXX Europe 600 Food & Beverages Net Return EUR	23.46%	-4.33%	14.33%	-4.10%	20.92%
MSCI Switzerland Net Return CHF	3.70%	-8.27%	21.26%	0.19%	16.43%
DAX Index EUR	16.33%	-1.71%	24.05%	-13.47%	12.40%
MSCI Italy Net Return EUR	14.15%	-22.55%	32.85%	-13.89%	21.75%
MSCI EMU Net Return EUR	15.86%	-4.99%	23.52%	-9.15%	12.76%
MSCI EMU Minimum Volatility Net Return EUR	21.38%	-3.04%	17.65%	-2.58%	13.01%
FTSE Developed Europe ex UK Real Estate Index EUR	28.45%	1.43%	12.68%	3.34%	15.66%

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