The U.K. conundrum

Update on Economy and Financial Markets

Christian Nolting

Global Chief Investment Officer

June 2016

Marketing Material

The U.K. conundrum – what this presentation aims to do

The Brexit referendum decision poses many questions

Following the June 23 referendum decision, both the United Kingdom (UK) and European Union (EU) now have many decisions to make. What will the future relationship between the two entities look like? What are the implications for investment?

Looking beyond the immediate asset class response to longer-term implications

- We look at risk indicators, both before and after the decision
- How this has been reflected in the foreign exchange markets
- Financial conditions in the Eurozone
- Divergent regional and sectoral trends in European equities
- Where this leaves United State (U.S.) equities
- Possible opportunities in Eurozone peripheral debt and investment grade
- The longer-term economic implications of Brexit
- Whether the European political ideal is now under threat
- The portfolio implications of Brexit
- Its sectoral implications
- And, finally, how the leave process might actually work

Selected Assets under pressure after „leave"-vote

Performance of selected asset classes

	Currency	YTD	Since 06/23/16
Bunds (10y)	EUR	-75bps	-21bps
US Treasuries (10y)	USD	-103bps	-43bps
GILTS (10y)	GBP	-83bps	-30bps
S&P 500	USD	-0,14%	-4,45%
FTSE 100	GBP	-1,33%	-5,08%
Eurostoxx 50	EUR	-13,97%	-10,49%
GBP/USD	-	-10,2%	-11%
EUR/USD	-	1,4%	-3,4%
WTI Oil	USD	11,89%	-6,53%
Gold	USD	24,97%	5,73%

Past performance not indicative of future results on all pages that show performance.
All opinions and claims are based upon data at the time of publication on June 28, 2016 and may not come to pass. This information is subject to change at any time, based upon economic, market and other considerations and should not be construed as a recommendation.

Footnotes: Data as of June 27, 2016.
Source: Bloomberg Finance LP, Deutsche Bank Wealth Management.

Risk monitor – CDS and Credit spreads are widening

U.K. Credit Default Swaps

Financial market stress

- Credit Default Swaps rising as rating agencies put the U.K.'s sovereign rating outlook on "negative", but recent levels have not yet reached the levels seen during the Great Financial Crisis (GFC).
- Risk premium for European Financials is at elevated levels, but not on year-to-date records.

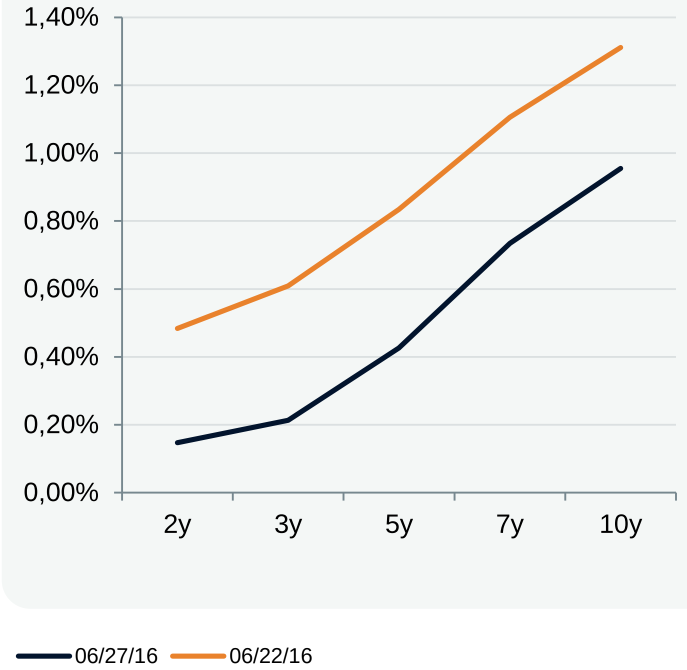
Past performance not indicative of future results on all pages that show performance.
All opinions and claims are based upon data at the time of publication on June 28, 2016 and may not come to pass. This information is subject to change at any time, based upon economic, market and other considerations and should not be construed as a recommendation.

Footnotes: Data as of June 27, 2016. Swaps are available to Eligible Contract Participants only. Not suitable for all investors.
Source: Bloomberg Finance LP, Deutsche Bank Wealth Management.

Risk monitor – fixed Income in “risk off” mode

GILTS 10yr yield

GILTS 2yr/10yr yield curve

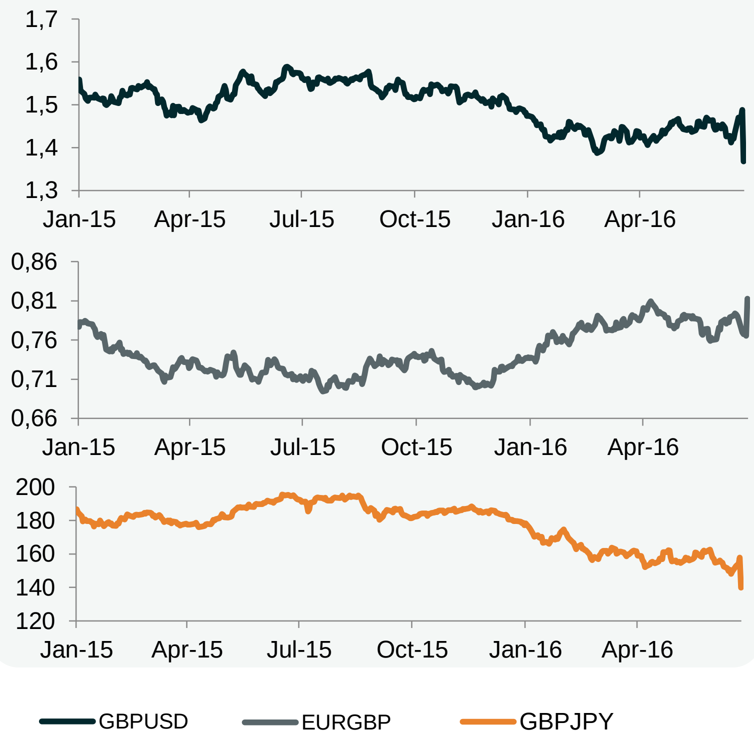


- GILT yield curve dropped significantly after the referendum outcome.
- 10yr GILTS outperforming 2yr resulting in a bull flattening due to market’s “flight to safety”

Footnotes: Data as of June 27, 2016.
Source: Bloomberg Finance LP, Deutsche Bank Wealth Management.

Risk monitor – FX markets' "flight to safety"

FX markets in "risk off" mode



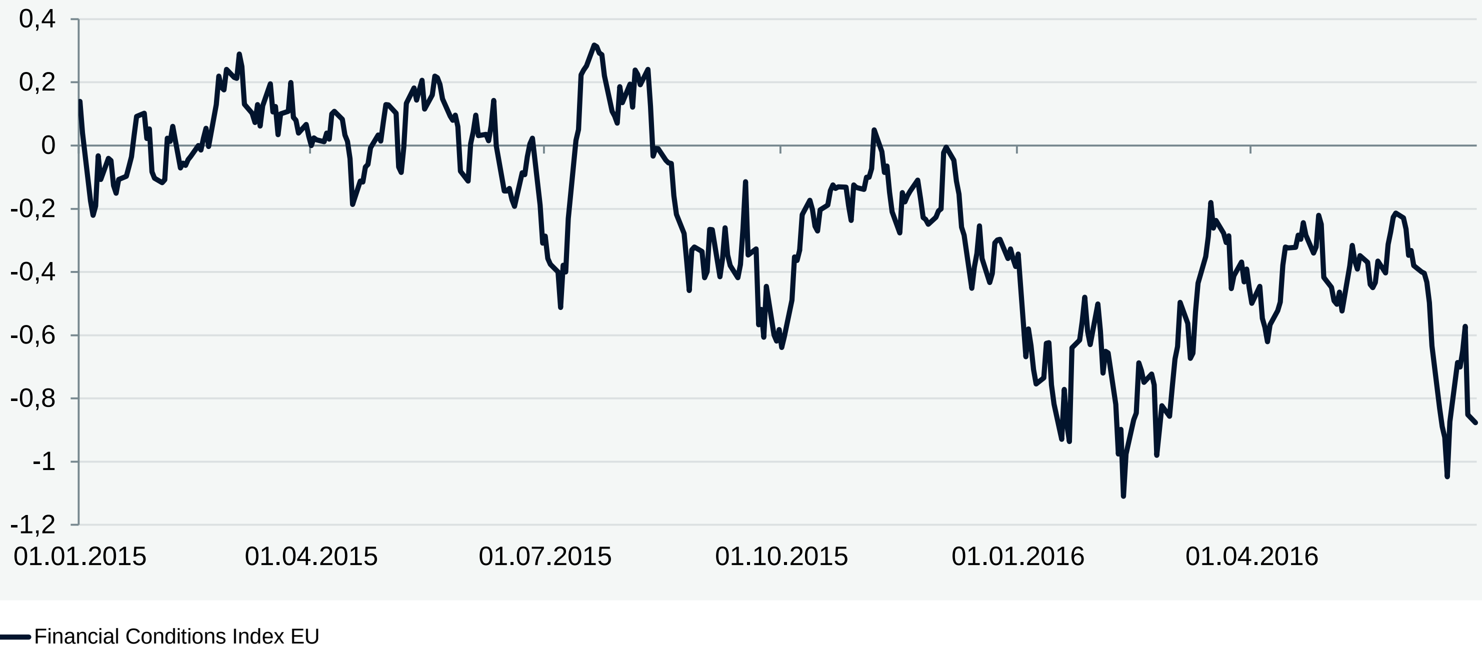
GBP Volatility exceeding 2008 levels

- FX has been the main reaction channel to the referendum decision. The flight to "safe haven" currencies as USD and JPY has been the most obvious response. GBP weakest vs. USD since 1985.
- FX volatility as an indicator of uncertainty is now reaching GFC-levels.

Footnotes: Data as of June 27, 2016.
Source: Bloomberg Finance LP, Deutsche Bank Wealth Management.

Financial conditions – on a continued downward trend

Financial Conditions in EU deteriorating



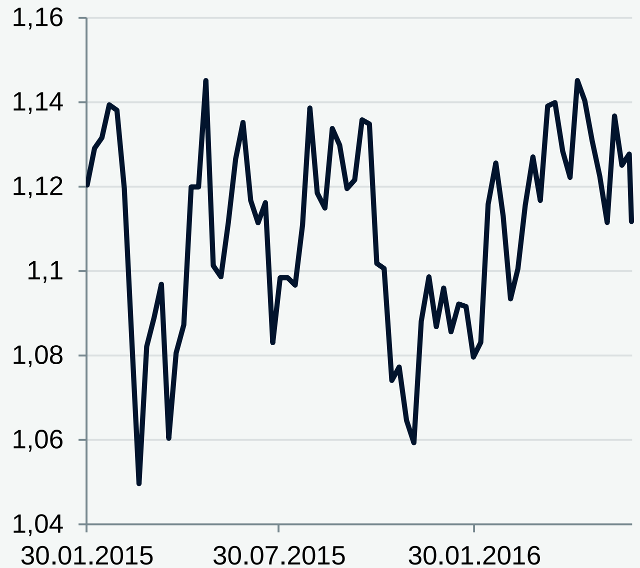
- The Financial Conditions Index tracks the overall level of stress in Europe incl. money markets, bonds, equity markets and the availability and cost of credit.
- Driven by a significant credit spread widening, the index dropped after the UK referendum but has not reached previous year-to-date lows.

Past performance not indicative of future results on all pages that show performance.
All opinions and claims are based upon data at the time of publication on June 28, 2016 and may not come to pass. This information is subject to change at any time, based upon economic, market and other considerations and should not be construed as a recommendation.

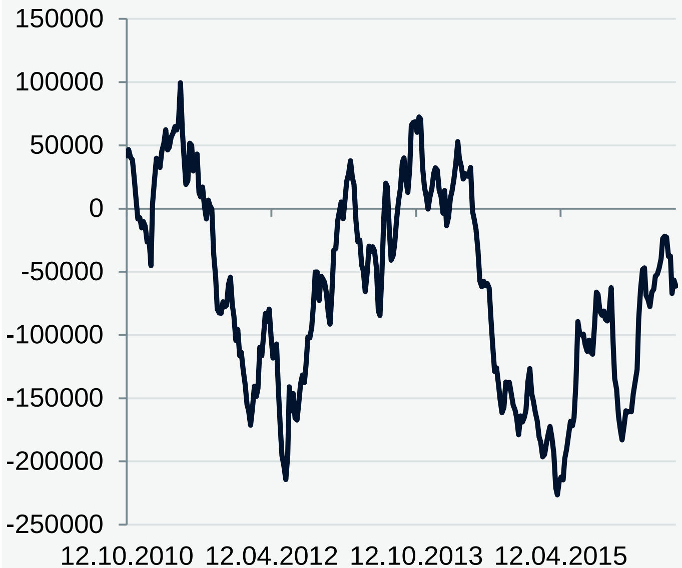
Footnotes: Data as of June 27, 2016.
Source: Bloomberg Finance LP, Deutsche Bank Wealth Management.

EURUSD weakness – more to come

EURUSD not yet in lower half of recent range



EUR speculative positioning elevated

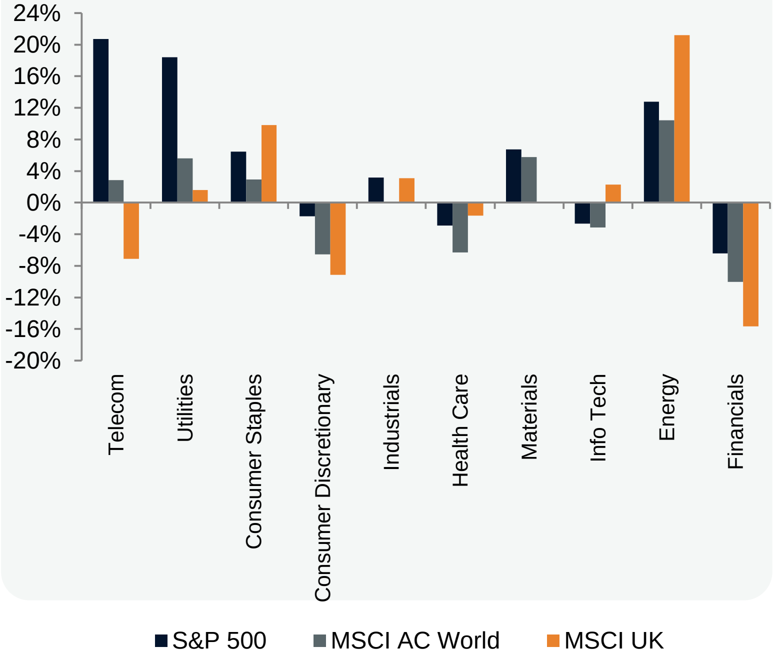


- If political and economic uncertainty increases in Europe – due, for example, to fears of more referendums to come or of worsening economic data, the EUR could look more vulnerable vs. the USD – especially as EUR speculator positioning is relatively high.
- EURUSD could well fall back into the lower half of its established range.

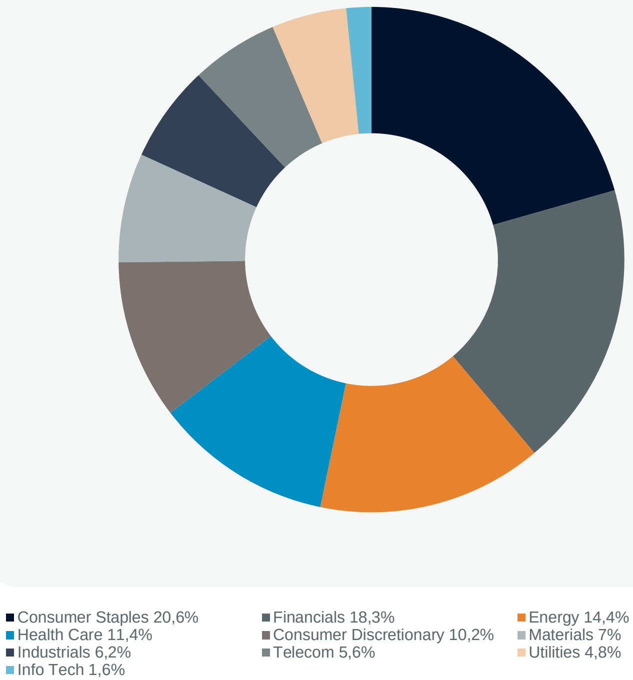
Footnotes: Data as of June 27, 2016.
Source: Bloomberg Finance LP, Deutsche Bank Wealth Management.

Global equities under pressure – but with high sector divergence

Equities returns year to date



FSTE 100 sector breakdown

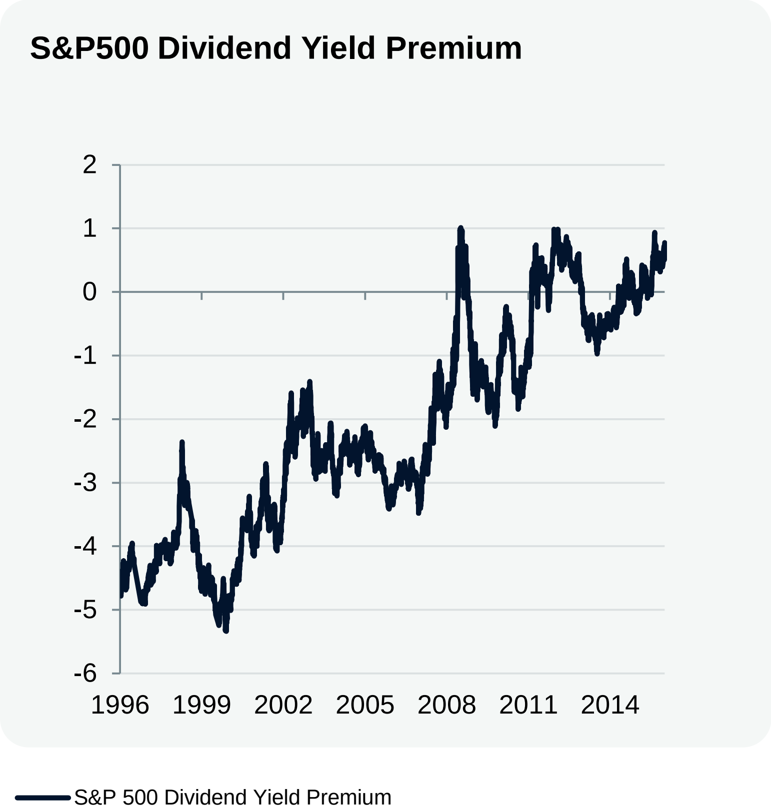


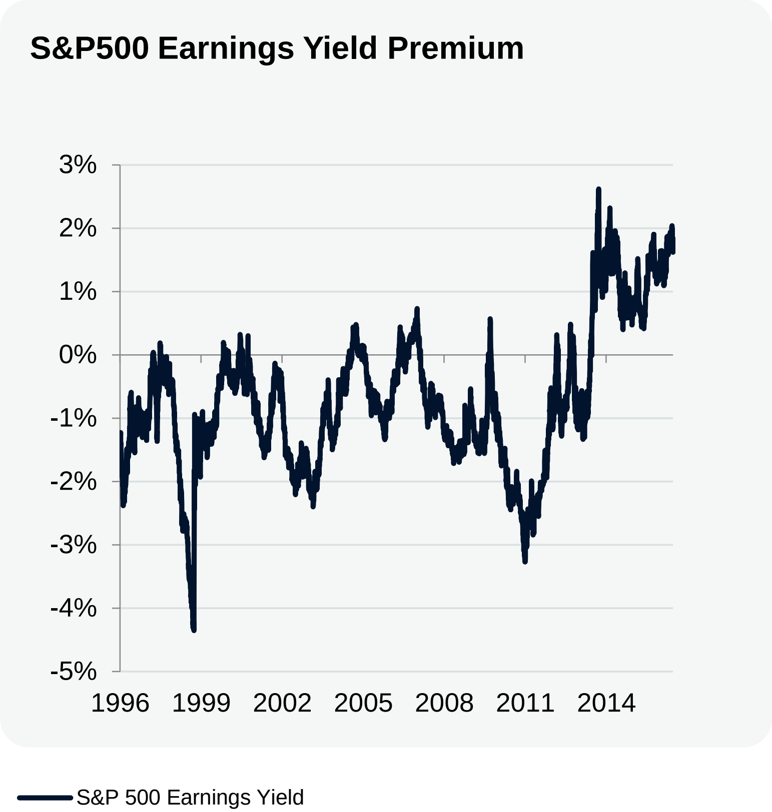
- UK equities are underperforming the rest of the world. At a sector level, UK financials have been hit most.
- FSTE100 outperformed broader FSTE250 recently, benefiting from being export-oriented.

Past performance not indicative of future results on all pages that show performance.
All opinions and claims are based upon data at the time of publication on June 28, 2016 and may not come to pass. This information is subject to change at any time, based upon economic, market and other considerations and should not be construed as a recommendation.

Footnotes: Data as of June 27, 2016.
Source: Bloomberg Finance LP, Deutsche Bank Wealth Management.

US equities – supported by dividend yields





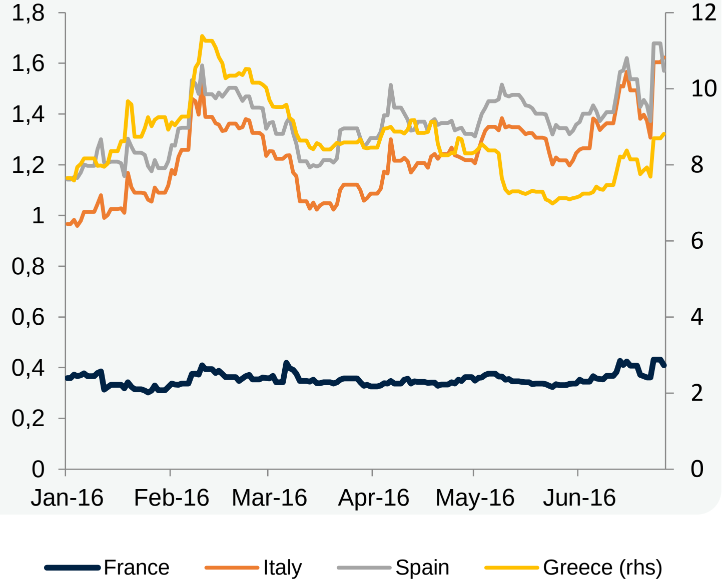
- High valuations and complacency going into the Brexit vote left many equity markets vulnerable to at least a small pullback.
- Despite the referendum decision, equities could remain supported by relative attractiveness versus bonds, healthy dividend yields, near-record corporate buyouts, high cash balances and not overly optimistic sentiment.

Past performance not indicative of future results on all pages that show performance.
All opinions and claims are based upon data at the time of publication on June 28, 2016 and may not come to pass. This information is subject to change at any time, based upon economic, market and other considerations and should not be construed as a recommendation.

Footnotes: Data as of June 27, 2016.
Source: Bloomberg Finance LP, Deutsche Bank Wealth Management.

European Periphery Debt – where do we stand after the referendum?

Selected European Periphery Debt. vs. German Bunds



- Quantitative Easing purchases by central banks should keep sovereign rates lower for even longer.
- However, as we near/reach record lows in yields, "core" sovereign bonds are expensive. The widening in periphery spreads may make certain markets (e.g. Italy and Spain) more attractive.

ECB buying pushes yields lower

Country	*Cap Key (%)*	*Implied Buying*	*Net Issuance*
Germany	25.6	308.9	-19.3
France	20.1	262.3	89.0
Italy	17.5	250.5	220.6
Spain	12.6	177.4	104.1
Netherlands	5.7	70.1	5.5
Belgium	3.5	50.4	4.3
Austria	2.8	40.3	0.8
Portugal	2.5	36	13.8
Finland	1.8	25	13.5
Ireland	1.6	23	18.8
Slovakia	1.1	15.8	0.9
Slovenia	0.5	7.1	3.1
Others	4.7	67.7	
Total	100	1334.7	455.1

- Credit spreads have become more attractive for Investment Grade
- Currently cautious high yield and emerging market debt until credit, currency and commodity risk subside.
- Quantitative Easing purchases by central banks should keep sovereign rates lower for longer. However, as we near/reach record lows in yields, "core" sovereign bonds are expensive. Widening in select (e.g. Italy and Spain) periphery spreads selectively makes them more attractive.

Footnotes: Data as of June 27, 2016.
Source: Bloomberg Finance LP, FactSet, Deutsche Bank Wealth Management.

Portfolio Considerations – impact of Brexit

Risk-off Leads to Opportunity

- We believe a cautious approach remains appropriate even though markets have historically overreacted to the downside during political shocks.
- For long term investors, focus on attractive valuations that are fundamentally sound.

Portfolio Opportunities – Biased to Patiently Buy Equities…Selectively

- Extended valuations and complacency going into the Brexit vote left many equity markets vulnerable to at least a small pullback.
- While some index targets will be subject to revision as growth forecasts are adjusted and risk-premia reevaluated by investors, double-digit declines in many indices may now have priced some of the risks.
- Overall, equities supported by relative attractiveness versus bonds, healthy dividend yields, near-record corporate buyouts and high cash balances.
- European and Japanese equities attractive. Potential catalyst: central bank action.
- “Safe haven” flows and a slower Fed may favor US equities .
- Weaker global growth, falling oil prices, and a rallying dollar may not be as beneficial to emerging markets.

Implications for various sectors

Vulnerable sectors

Sector	% of exports to EU	Trade balance with the EU (GBP bn)
Machinery & transport equipment	41.1%	-25.5
Equities	57.2%	-9.3
Mineral fuels	77.3%	15.1
Insurance and financial services	33.8%	19.8
Manufactured goods	53.1%	-10.4

"Passporting rights" as a key for the City

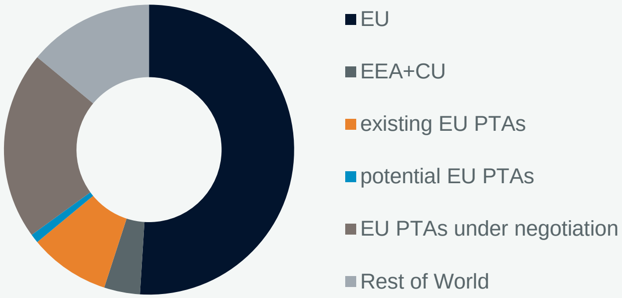
- In the chemicals, mineral fuels and manufactured goods industries over half of the exports go to the EU. Brexit has an immediate impact.
- This would especially apply to oil and gas companies as 77% of their exports go to Europe
- The UK's automotive industry will further lose benefits from EU funds for manufacturing research and development
- For UK's most important sector, the service sector, trade negotiations will be particularly difficult
- EU regulations would especially be an obstacle for retail banking and euro traders
- Main problem for financial sectors would be the loss of "passporting rights". These allow any British based bank of investment firm to trade across Europe. Without them, firms would have to set up separately-capitalized subsidiaries inside the EU
- General consensus is that banks would move part of their business to other European financial centers as Dublin, Paris and Frankfurt – London would stay, however, Europe's financial capital

- Impact of Brexit differs between sectors. Most affected would be those sectors with a large share of imports from the EU as GBP weakness increases the prices of imports
- The financial sector would especially be harmed by the loss of "passporting rights".

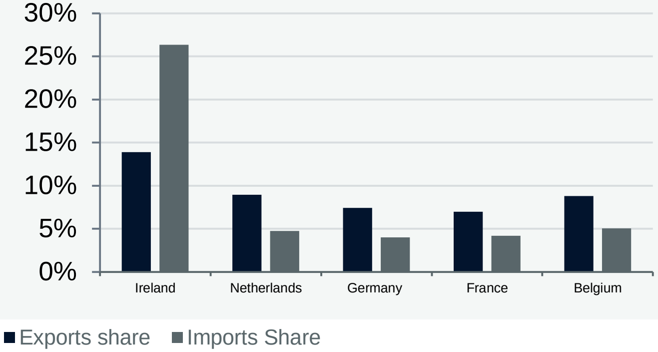
Source: HM Revenue & Customs, ONS, Atradius Economic Research, Deutsche Bank Wealth Management. As of June 16, 2016.

British trade – highly dependent on EU

Share of British trade



Importance of trade with UK



Affected trade agreements

- 85% of UK total trade (~ 900bn €) is covered by trade agreements between UK and EU, with the top trading partner being Germany
- In total 124 trade agreements would have to be renegotiated plus one additional one redefining the trade status between UK and EU.
- To give a rough idea of costs associated with losing the current trade status: At an estimated average tariff on UK exports to the EU of 3.2% this would result in 5.84bn € direct tariff costs.

Most affected trade partners

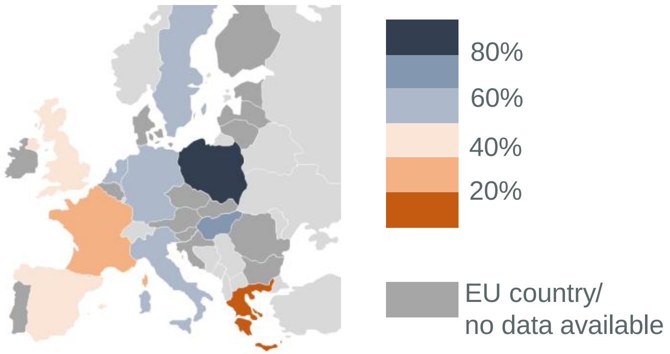
- All but 2 of the top-10 trading partners of the UK belong to the EU.
- Main trading partners are Ireland, the Netherlands and Germany (~12%).
- While the largest trade deficit is recorded with Germany (36.3bn €) the biggest surplus is recorded with Switzerland (16.5 bn €).

- After Brexit over 120 trade agreements have to be renegotiated.
- Main trading partners e.g. Netherlands, Germany and France potentially affected most.

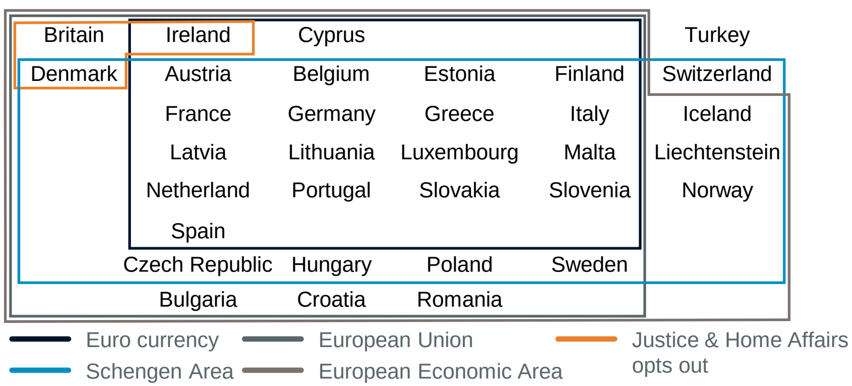
Source: Eurostat Comext, European Commission, Bruegel, Deutsche Bank Wealth Management

What are the potential political implications for the EU?

Political support for Europe



Relationship to European organisations



Monetary institutions with prompt reaction

- Contingency plans by the BoE and ECB to provide liquidity to financial markets
- SNB intervention in FX markets to limit CHF appreciation.

Brexit: High risk of political damage for EU

- Spain: Danger of further boost to anti established parties at June 26 general election did not materialized as shock waves from Brexit vote probably irritated voters.
- Scotland: Fresh calls for independence from the UK in order to remain in EU
- France: Urge to push ahead with euro-area integration as National Front buoyed going into presidential elections
- Italy & Greece: Anti-EU parties may seize on Britain's choice to further their cause.
- Germany: Need to emphasize relevance of EU doubts about benefits grow
- EU leaders will have to defend integrity of the bloc

- European (monetary) policy makers will have to come up with a strong response in order to ring-fence potential contagion effects and financial market stress.

Past performance not indicative of future results on all pages that show performance.
All opinions and claims are based upon data at the time of publication on June 28, 2016 and may not come to pass. This information is subject to change at any time, based upon economic, market and other considerations and should not be construed as a recommendation.

Source: Bloomberg, Pew Research Center, Independent, The Economist. Deutsche Bank Wealth Management. As of June 2016

How would the actual leave process work?

Article 50 of the Lisbon Treaty:

- The only legal way to leave the European Union
- Defines the process of leaving in a two-year timetable to agree on the terms of departure
- The leaving member state would notify the European Council of its intention to exit the Union
- The European council then decides by majority vote (without the leaving member state) on behalf of the Union the offer it wants the leaving country to make, i.e. the arrangements for withdrawal and the framework of negotiations on a new deal with the EU
- Parallel negotiations on a new trade deal would be negotiated by the European Commission need unanimous approval by all 27 countries and their national parliaments
- The European parliament would have to endorse both deals
- If no agreement is struck within two years, the timetable can extended if and only if all 27 EU-countries approve the extension. A rule that was made to give the EU more power in the negotiations
- During the leaving negotiations, EU law would still apply to leaving member but it would not participate in internal EU discussions or decision on its own withdrawals

"Brexit" and the process of leaving:

- In spite of Article 50, it is not totally clear what happens next due to a lack of precedent
- Cameron will not invoke Article 50 and will leave this issue to his successor.
- Due to the strong negotiation power the EU has, some Brexiteers have proposed other ways:
    - Not to immediately invoke article 50 but to negotiate the new relationship informally.
    - Not to use the article at all but instead repeal the 1972 European Communities Acts that gives effect to EU laws, or pass a new act taking Britain out of the jurisdiction of the European Court of Justice
    - Many also hope that a vote for Brexit could produce a new offer of better membership terms, including the ending of free movement of people, that could lead to a second referendum. Many point to Denmark and Ireland, which each had to vote twice before ratifying EU treaties.
      Cameron has ruled out a second referendum, however
    - *All deals that would not use article 50 would be extremely courteous and is reckoned to be very unrealistic to most diplomats. Giving Britain once again better conditions for a new referendum seems also very unlikely.*

Source: Deutsche Bank Wealth Management. As of June 2016

The U.K. conundrum – market implications

Asset classes

Short-term

- Given the political uncertainty, we think that continued volatility is certain and an upturn unlikely.
- Markets could be put under pressure further by a number of market participants being forced by further losses to reduce risk.
- Less risky assets (e.g. core government bonds, the USD) may continue to be in demand.
- Within risky assets, investment grade bonds could be relatively resilient.

Medium-term

- Greater clarity on the withdrawal process is unlikely to provide much support for risky assets, given deteriorating global growth and other weak fundamentals.
- EUR could be vulnerable to political or economic data concerns.

Longer-term

- The withdrawal negotiations will take at least two years, meaning that volatility may continue.
- The hit to underlying fundamentals may also limit the extent of any possible rally in risky assets.
- USD strength likely to continue.

Source: Bloomberg, Pew Research Center, Independent, The Economist. Deutsche Bank Wealth Management. As of June 2016

The U.K. conundrum – market implications

Possible market pressure points

Short-term

- European Banks have already come under great pressure with Italy and Spain particularly in focus.
- A number of specific UK sectors (e.g. builders) may remain under stress.

Medium-term

- Emerging Markets sold off immediately after the Brexit result and are likely to remain vulnerable to concerns over global growth with its implications for commodity prices and so on. However, emerging markets did not sell off evenly and the situation here is complex: some markets may benefit from a market belief that a Fed rate hike is unlikely.
- At a country level, Ireland, Portugal and Spain look vulnerable – Ireland because of its close economic links to the UK, Portugal given its uncertain political and economic outlook and Italy because of its banking problems and upcoming referendum.

Longer-term

- Corporate earnings, particularly in Europe, look vulnerable to downward revision given deteriorating fundamentals.

Source: Deutsche Bank Wealth Management. As of June 2016

Glossary (1/3)

Article 50 of the Lisbon Treaty governs the withdrawal of a member state from the European Union.

The **Bank of England (BoE)** is the central bank of England.

Brexit is a combination of the words "Britain" and "Exit" and describes the possible exit of the United Kingdom of the European Union.

Bunds are bonds issued by the German government.

The **Chief Counting Officer**, Jenny Watson, will formally announce the national result in front of the television cameras in Manchester.

Citizens party – Founded in 2006 in Barcelona, but now in the whole of Spain politically active liberal- middle/right-wing party. Has also characteristics of a middle/left-wing party.

A Credit Default Swap **(CDS)** is a financial swap agreement that the seller of the CDS will compensate the buyer (usually the creditor of the reference loan) in the event of a loan default (by the debtor) or other credit event.

The **Conservative Party** (Conservatives) party is a centre-right political party in the United Kingdom.

CU Customs Union is a type of trade bloc which is composed of a free trade area.

EUR is the currency code for the euro, the currency of the Eurozone.

The **European Central Bank (ECB)** is the central bank of the European Monetary Union.

The **European Council** is a council of European Union Ministers, whose membership varies according to the topic under discussion.

The **European Economic Area** is the area in which the free movement of persons, goods, services and capital within the internal market of the EU are provided. Participation is not restricted to EU members.

The **European Union (EU)** is a political and economic union of 28 member states located primarily in Europe.

The **Eurozone** is formed of 19 European Union member states that have adopted the euro as their common currency and sole legal tender.

The **Eurozone periphery** is usually understood as comprising Italy, Spain, Portugal, Greece and Ireland.

The **Federal Reserve** is the central bank of the United States.

In the **Foreign Exchange** market investors exchange one currency for another.

The **FTSE100** is a share index of the 100 companies listed on the London Stock Exchange with the highest market capitalization.

The **FTSE250** index includes from the 101st to the 350th largest companies listed.

GBP is the currency code for the pound sterling (see below).

Gilts are bonds that are issued by the British Government.

Glossary (2/3)

High Yield bonds are high paying bonds with a lower credit rating than investment-grade bonds. Due to the higher risk of default, these bonds pay a higher yield than investment grade bonds.

The **House of Commons** is the lower house of the parliament of Britain. It includes representatives from England, Northern Ireland, Scotland, and Wales.

Italy's constitutional referendum will be held not later than October 2016 on the question whether voters approve of amending the Italian Constitution to transform the Senate of the Republic into a "Senate of Regions". The bill was proposed by prime minister Matteo Renzi and his party.

JPY is the currency code for the Japanese yen, the Japanese currency.

The **Labour Party** is the main opposition party in the UK House of Commons.

A **Lehman Event** is a event that causes comparable damages to capital markets as the default of the US investment bank Lehman Brothers in October 2008.

The **MSCI Japan Index** is designed to measure the performance of the large- and mid-cap segments of the Japanese market.

PTA is a preferential trade agreement that gives preferential access to certain products from the participating countries.

Podemos is a since 2014 operating party in Spain, developed from a movement representing left-wing populism.

The PP is a conservative, liberal and christian-democratic party in Spain considering itself being christian-conservative and economically liberal. Often seen as national/right-wing party or national-conservative.

A rating agency is a private agency evaluating the credit rating of corporates and states.

Risk premia refer to the return in excess of the risk-free rate of return that an investment is expected to yield. It is a form of compensation for investors who tolerate the extra risk.

S&P500 refers to the Standard and Poor's index: an American stock market index based on the market capitalizations of 500 largest companies.

SNB is the central bank of Switzerland, Swiss National Bank.

Socialist Party (PSOE) is a since 1879 existing centre-left party in Spain.

Sterling refers to the pound sterling, the official currency of the UK.

In a **swap** transaction, two parties exchange the cash-flow streams of the different securities they keep on their books.

Treasuries are bonds issued by the U.S. government.

USD is the currency code for the U.S. Dollar.

Glossary (3/3)

In finance, **Volatility** is the degree of variation of a trading price series over time as measured by the standard deviation of returns.

WTI Oil refers to West Texas Intermediate oil.

Important note

Deutsche Bank Wealth Management offers wealth management solutions for wealthy individuals, their families and select institutions worldwide. Deutsche Bank Wealth Management, through Deutsche Bank AG, its affiliated companies and its officers and employees (collectively "Deutsche Bank") are communicating this document in good faith and on the following basis.

This document has been prepared without consideration of the investment needs, objectives or financial circumstances of any investor. Before making an investment decision, investors need to consider, with or without the assistance of an investment adviser, whether the investments and strategies described or provided by Deutsche Bank, are appropriate, in light of their particular investment needs, objectives and financial circumstances. Furthermore, this document is for information/discussion purposes only and does not constitute an offer, recommendation or solicitation to conclude a transaction and should not be treated as giving investment advice.

Deutsche Bank does not give tax or legal advice. Investors should seek advice from their own tax experts and lawyers, in considering investments and strategies suggested by Deutsche Bank. Investments with Deutsche Bank are not guaranteed, unless specified. Unless notified to the contrary in a particular case, investment instruments are not insured by the Federal Deposit Insurance Corporation ("FDIC") or any other governmental entity, and are not guaranteed by or obligations of Deutsche Bank AG or its affiliates.

Although information in this document has been obtained from sources believed to be reliable, we do not guarantee its accuracy, completeness or fairness, and it should not be relied upon as such. All opinions and estimates herein, including forecast returns, reflect our judgment on the date of this report and are subject to change without notice and involve a number of assumptions which may not prove valid.

Investments are subject to various risks, including market fluctuations, regulatory change, counterparty risk, possible delays in repayment and loss of income and principal invested. The value of investments can fall as well as rise and you may not recover the amount originally invested at any point in time. Furthermore, substantial fluctuations of the value of the investment are possible even over short periods of time.

This publication contains forward looking statements. Forward looking statements include, but are not limited to assumptions, estimates, projections, opinions, models and hypothetical performance analysis. The forward looking statements expressed constitute the author's judgment as of the date of this material. Forward looking statements involve significant elements of subjective judgments and analyses and changes thereto and/or consideration of different or additional factors could have a material impact on the results indicated. Therefore, actual results may vary, perhaps materially, from the results contained herein. No representation or warranty is made by Deutsche Bank as to the reasonableness or completeness of such forward looking statements or to any other financial information contained herein. The terms of any investment will be exclusively subject to the detailed provisions, including risk considerations, contained in the Offering Documents. When making an investment decision, you should rely on the final documentation relating to the transaction and not the summary contained herein.

This document may not be reproduced or circulated without our written authority. The manner of circulation and distribution of this document may be restricted by law or regulation in certain countries, including the United States. This document is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, including the United States, where such distribution, publication, availability or use would be contrary to law or regulation or which would subject Deutsche Bank to any registration or licensing requirement within such jurisdiction not currently met within such jurisdiction. Persons into whose possession this document may come are required to inform themselves of, and to observe, such restrictions.

Past performance is no guarantee of future results; nothing contained herein shall constitute any representation or warranty as to future performance. Further information is available upon investor's request.

This document may not be distributed in Canada, Japan, the United States of America, or to any U.S. person.

Important note

Kingdom of Bahrain

For Residents of the Kingdom of Bahrain: This document does not constitute an offer for sale of, or participation in, securities, derivatives or funds marketed in Bahrain within the meaning of Bahrain Monetary Agency Regulations. All applications for investment should be received and any allotments should be made, in each case from outside of Bahrain. This document has been prepared for private information purposes of intended investors only who will be institutions. No invitation shall be made to the public in the Kingdom of Bahrain and this document will not be issued, passed to, or made available to the public generally. The Central Bank (CBB) has not reviewed, nor has it approved, this document or the marketing of such securities, derivatives or funds in the Kingdom of Bahrain. Accordingly, the securities, derivatives or funds may not be offered or sold in Bahrain or to residents thereof except as permitted by Bahrain law. The CBB is not responsible for performance of the securities, derivatives or funds.

State of Kuwait

This document has been sent to you at your own request. This presentation is not for general circulation to the public in Kuwait. The Interests have not been licensed for offering in Kuwait by the Kuwait Capital Markets Authority or any other relevant Kuwaiti government agency. The offering of the Interests in Kuwait on the basis a private placement or public offering is, therefore, restricted in accordance with Decree Law No. 31 of 1990 and the implementing regulations thereto (as amended) and Law No. 7 of 2010 and the bylaws thereto (as amended). No private or public offering of the Interests is being made in Kuwait, and no agreement relating to the sale of the Interests will be concluded in Kuwait. No marketing or solicitation or inducement activities are being used to offer or market the Interests in Kuwait.

United Arab Emirates

Deutsche Bank AG in the Dubai International Financial Centre (registered no. 00045) is regulated by the Dubai Financial Services Authority. Deutsche Bank AG - DIFC Branch may only undertake the financial services activities that fall within the scope of its existing DFSA license. Principal place of business in the DIFC: Dubai International Financial Centre, The Gate Village, Building 5, PO Box 504902, Dubai, U.A.E. This information has been distributed by Deutsche Bank AG. Related financial products or services are only available to Professional Clients, as defined by the Dubai Financial Services Authority.

State of Qatar

Deutsche Bank AG in the Qatar Financial Centre (registered no. 00032) is regulated by the Qatar Financial Centre Regulatory Authority. Deutsche Bank AG - QFC Branch may only undertake the financial services activities that fall within the scope of its existing QFCRA license. Principal place of business in the QFC: Qatar Financial Centre, Tower, West Bay, Level 5, PO Box 14928, Doha, Qatar. This information has been distributed by Deutsche Bank AG. Related financial products or services are only available to Business Customers, as defined by the Qatar Financial Centre Regulatory Authority.

Kingdom of Saudi Arabia

Deutsche Securities Saudi Arabia LLC Company, (registered no. 07073-37) is regulated by the Capital Market Authority. Deutsche Securities Saudi Arabia may only undertake the financial services activities that fall within the scope of its existing CMA license. Principal place of business in Saudi Arabia: King Fahad Road, Al Olaya District, P.O. Box 301809, Faisaliah Tower - 17th Floor, 11372 Riyadh, Saudi Arabia.

United Arab Emirates

Deutsche Bank AG in the Dubai International Financial Centre (registered no. 00045) is regulated by the Dubai Financial Services Authority. Deutsche Bank AG - DIFC Branch may only undertake the financial services activities that fall within the scope of its existing DFSA license. Principal place of business in the DIFC: Dubai International Financial Centre, The Gate Village, Building 5, PO Box 504902, Dubai, U.A.E. This information has been distributed by Deutsche Bank AG. Related financial products or services are only available to Professional Clients, as defined by the Dubai Financial Services Authority.

Important disclosures U.K.

In the UK this publication is considered a financial promotion and is approved by Deutsche Asset Management (UK) Limited on behalf of all entities trading as Deutsche Bank Wealth Management in the UK. Deutsche Bank Wealth Management (DBWM) offers wealth management solutions for wealthy individuals, their families and select institutions worldwide and is part of the Deutsche Bank Group. DBWM is communicating this document in good faith and on the following basis. This document is a financial promotion and is for general information purposes only and consequently may not be complete or accurate for your specific purposes. It is not intended to be an offer or solicitation, advice or recommendation, or the basis for any contract to purchase or sell any security, or other instrument, or for Deutsche Bank to enter into or arrange any type of transaction as a consequence of any information contained herein. It has been prepared without consideration of the investment needs, objectives or financial circumstances of any investor. This document does not identify all the risks (direct and indirect) or other considerations which might be material to you when entering into a transaction. Before making an investment decision, investors need to consider, with or without the assistance of an investment adviser, whether the investments and strategies described or provided by Deutsche Bank, are suitability and appropriate, in light of their particular investment needs, objectives and financial circumstances. We assume no responsibility to advise the recipients of this document with regard to changes in our views.

Past performance is no guarantee of future results.

The products mentioned in this document may be subject to investment risk including market fluctuations, regulatory change, counterparty risk, possible delays in repayment and loss of income and principal invested. Additionally, investments denominated in an alternative currency will be subject to currency risk, changes in exchange rates which may have an adverse effect on the value, price or income of the investment. The value of an investment can fall as well as rise and you might not get back the amount originally invested at any point in time. We have gathered the information contained in this document from sources we believe to be reliable; but we do not guarantee the accuracy, completeness or fairness of such information and it should not be relied on as such. Deutsche Bank has no obligation to update, modify or amend this document or to otherwise notify the recipient in the event that any matter stated herein, or any opinion, projection, forecast or estimate set forth herein, changes or subsequently becomes inaccurate. Deutsche Bank does not give taxation or legal advice. Prospective investors should seek advice from their own taxation agents and lawyers regarding the tax consequences on the purchase, ownership, disposal, redemption or transfer of the investments and strategies suggested by Deutsche Bank. The relevant tax laws or regulations of the tax authorities may change at any time. Deutsche Bank is not responsible for and has no obligation with respect to any tax implications on the investment suggested. This document may not be reproduced or circulated without our written authority. The manner of circulation and distribution of this document may be restricted by law or regulation in certain countries, including the United States. This document is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, including the United States, where such distribution, publication, availability or use would be contrary to law or regulation or which would subject Deutsche Bank to any registration or licensing requirement within such jurisdiction not currently met within such jurisdiction. Persons into whose possession this document may come are required to inform themselves of, and to observe, such restrictions. This document contains forward looking statements. Forward looking statements include, but are not limited to assumptions, estimates, projections, opinions, models and hypothetical performance analysis. The forward looking statements expressed constitute the author‘s judgement as of the date of this material. Forward looking statements involve significant elements of subjective judgements and analyses and changes thereto and/or consideration of different or additional factors could have a material impact on the results indicated. Therefore, actual results may vary, perhaps materially, from the results contained herein. No representation or warranty is made by Deutsche Bank as to the reasonableness or completeness of such forward looking statements or to any other financial information contained in this document.

Deutsche Bank conducts its business according to the principle that it must manage conflicts of interest fairly, both between itself and its clients and between one client and another.

As a global financial services provider, Deutsche Bank faces actual and potential Conflicts of Interest periodically. The Bank’s policy is to take all reasonable steps to maintain and operate effective organisational and administrative arrangements to identify and manage relevant conflicts. Senior management within the Bank are responsible for ensuring that the Bank’s systems, controls and procedures are adequate to identify and manage Conflicts of Interest.

This information is communicated by Deutsche Bank Wealth Management.

Deutsche Bank Wealth Management is a trading name of Deutsche Asset Management (UK) Limited. Registered in England & Wales No 5233891.

Registered Office: Winchester House, 1 Great Winchester Street, London EC2N 2DB. Deutsche Asset Management (UK) Limited is authorised and regulated by the Financial Conduct Authority. Financial Services Registration Number 429806.

This document may not be distributed in Canada, Japan, the United States of America, or to any U.S. person.

Risk Warning

Investments are subject to investment risk, including market fluctuations, regulatory change, possible delays in repayment and loss of income and principal invested. The value of investments can fall as well as rise and you might not get back the amount originally invested at any point in time.

Investments in Foreign Countries - Such investments may be in countries that prove to be politically or economically unstable. Furthermore, in the case of investments in foreign securities or other assets, any fluctuations in currency exchange rates will affect the value of the investments and any restrictions imposed to prevent capital flight may make it difficult or impossible to exchange or repatriate foreign currency.

Foreign Exchange/Currency - Such transactions involve multiple risks, including currency risk and settlement risk. Economic or financial instability, lack of timely or reliable financial information or unfavorable political or legal developments may substantially and permanently alter the conditions, terms, marketability or price of a foreign currency. Profits and losses in transactions in foreign exchange will also be affected by fluctuations in currency where there is a need to convert the product's denomination(s) to another currency. Time zone differences may cause several hours to elapse between a payment being made in one currency and an offsetting payment in another currency. Relevant movements in currencies during the settlement period may seriously erode potential profits or significantly increase any losses.

High Yield Fixed Income Securities - Investing in high yield bonds, which tend to be more volatile than investment grade fixed income securities, is speculative. These bonds are affected by interest rate changes and the creditworthiness of the issuers, and investing in high yield bonds poses additional credit risk, as well as greater risk of default.

Hedge Funds - An investment in hedge funds is speculative and involves a high degree of risk, and is suitable only for "Qualified Purchasers" as defined by the US Investment Company Act of 1940 and "Accredited Investors" as defined in Regulation D of the 1933 Securities Act. No assurance can be given that a hedge fund's investment objective will be achieved, or that investors will receive a return of all or part of their investment.

Commodities - The risk of loss in trading commodities can be substantial. The price of commodities (e.g., raw industrial materials such as gold, copper and aluminium) may be subject to substantial fluctuations over short periods of time and may be affected by unpredicted international monetary and political policies. Additionally, valuations of commodities may be susceptible to such adverse global economic, political or regulatory developments. Prospective investors must independently assess the appropriateness of an investment in commodities in light of their own financial condition and objectives. Not all affiliates or subsidiaries of Deutsche Bank Group offer commodities or commodities-related products and services.

Investment in private equity funds is speculative and involves significant risks including illiquidity, heightened potential for loss and lack of transparency. The environment for private equity investments is increasingly volatile and competitive, and an investor should only invest in the fund if the investor can withstand a total loss. In light of the fact that there are restrictions on withdrawals, transfers and redemptions, and the Funds are not registered under the securities laws of any jurisdictions, an investment in the funds will be illiquid. Investors should be prepared to bear the financial risks of their investments for an indefinite period of time.

Investment in real estate may be or become nonperforming after acquisition for a wide variety of reasons. Nonperforming real estate investment may require substantial workout negotiations and/ or restructuring.

Environmental liabilities may pose a risk such that the owner or operator of real property may become liable for the costs of removal or remediation of certain hazardous substances released on, about, under, or in its property. Additionally, to the extent real estate investments are made in foreign countries, such countries may prove to be politically or economically unstable. Finally, exposure to fluctuations in currency exchange rates may affect the value of a real estate investment.

Structured solutions are not suitable for all investors due to potential illiquidity, optionality, time to redemption, and the payoff profile of the strategy. We or our affiliates or persons associated with us or such affiliates may: maintain a long or short position in securities referred to herein, or in related futures or options, purchase or sell, make a market in, or engage in any other transaction involving such securities, and earn brokerage or other compensation. Calculations of returns on the instruments may be linked to a referenced index or interest rate. In such cases, the investments may not be suitable for persons unfamiliar with such index or interest rates, or unwilling or unable to bear the risks associated with the transaction. Products denominated in a currency, other than the investor’s home currency, will be subject to changes in exchange rates, which may have an adverse effect on the value, price or income return of the products. These products may not be readily realizable investments and are not traded on any regulated market.