The HOT SPOT

Implications of the United Kingdom Referendum to Leave the European Union (6/24/2016)

As scheduled on Thursday, the United Kingdom (U.K.) held a referendum on whether or not to leave the European Union (EU), informally referred to as the "Brexit". As previously discussed in a Hot Spot published on June 7, the expectations for which way the referendum would go has varied significantly and in the last week leaned in the direction of staying in the EU. The actual result was a vote in favor of leaving. Following the vote, Prime Minister David Cameron announced his resignation. He has also said that the actual act of triggering Article 50, the provision to notify the EU that a country has decided to leave, should be left to the new Prime Minister. There is not much in terms of specifics as to how a country can disengage from the EU except that there is a time period of two years once Article 50 is triggered. The market reaction so far has been dramatic. While financial systems globally seem to all be operating properly, markets worldwide are reacting negatively to the news.

Interest Rates

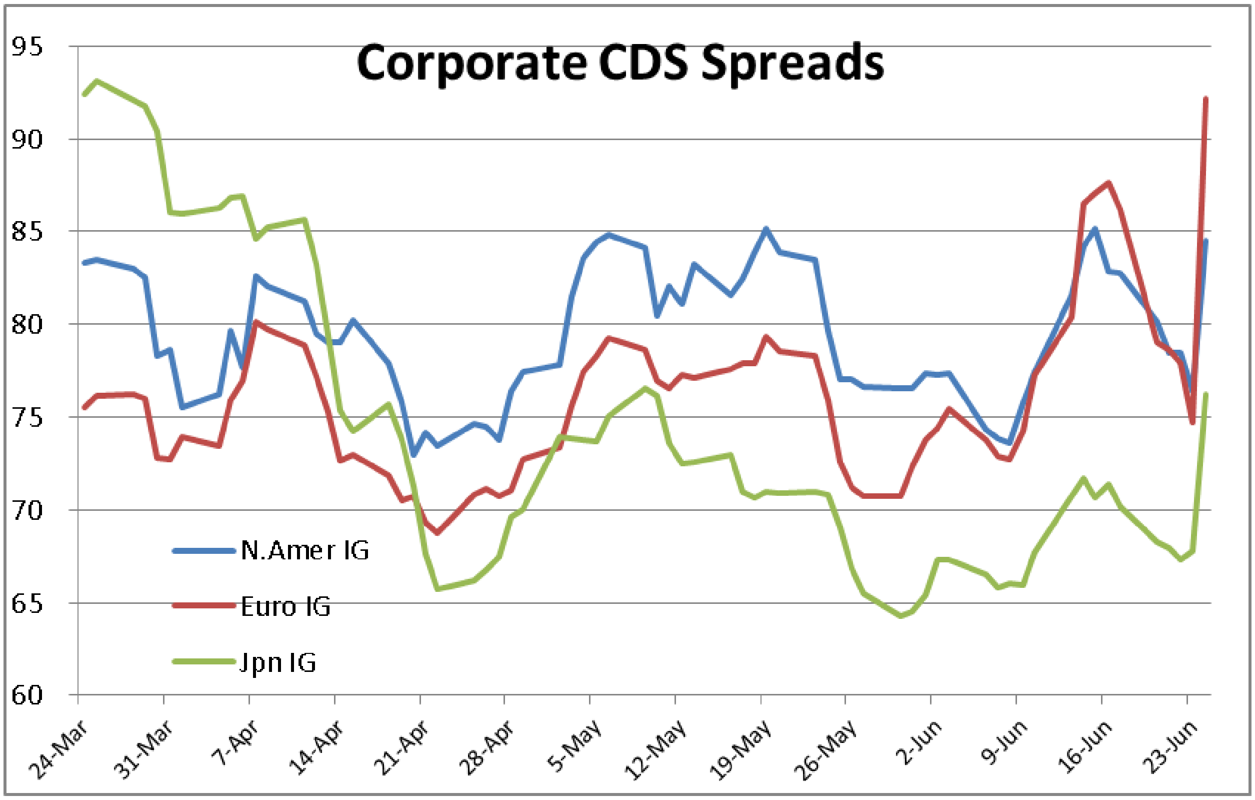
Following Britain's vote to leave the EU, government bond yields are lower (and prices are higher) as investors seek safety during this period of global financial uncertainty. U.S. Treasury yields experienced their largest declines since 2009, with 10-year yields dropping 18 basis points (bps) to 1.57%. The differential between the 30-year and 12-month U.S. Treasury yields narrowed to 194 bps, its thinnest margin in the last five years. Insurance companies, particularly life insurers, benefit from steeper yield curves given their longer-dated liabilities, so flatter yield curves pose significant challenges to their profitability. Globally, German and Japanese government bond yields fell further into negative territory. The 10-year bund yield dropped below zero, declining 13 bps to -0.04%, and the yield on the 10-year Japanese government bond (JGB) fell 2 bps to -0.17%. The yield on 10-year gilts (U.K. government bonds) plunged 28 bps to 1.09%, hitting record lows during the trading session. The gilt yield is higher than the bund (German government bonds) yield by 113 bps, compared to 128 bps one year ago, while the U.S. Treasury yield is above the gilt yield by 48 bps, widening from 22 bps one year ago as gilts have rallied to much lower yields over the period.

Chart 1: 10-Year Government Yield, Select Advanced Economies (June 25, 2015 to June 24, 2016)

Credit Spreads

The Brexit vote has increased concerns for credit risk given the potential for negative economic consequences as well as increased operating costs for companies. This has been reflected in the index credit default swap (CDS) markets. The Market iTraxx European and North American indices are each comprised of 125 investment grade issuers and the Japanese of forty. All three followed a similar pattern over the past 3 months. Spreads in all three regions spiked with today's news: European spreads jumped overnight from 74.74 bps to 91.47, North America from 76.44 bps to 84.03, and Japan from 67.76 bps to 76.25. Among companies with the largest stock market value in the FTSE 100 index, 5-year CDS on Unilever jumped from 25 bps to 30, British American Tobacco from 56 bps to 61, and British Petroleum from 86 bps to 92 (after touching 103).

Chart 2: Corporate CDS Spreads

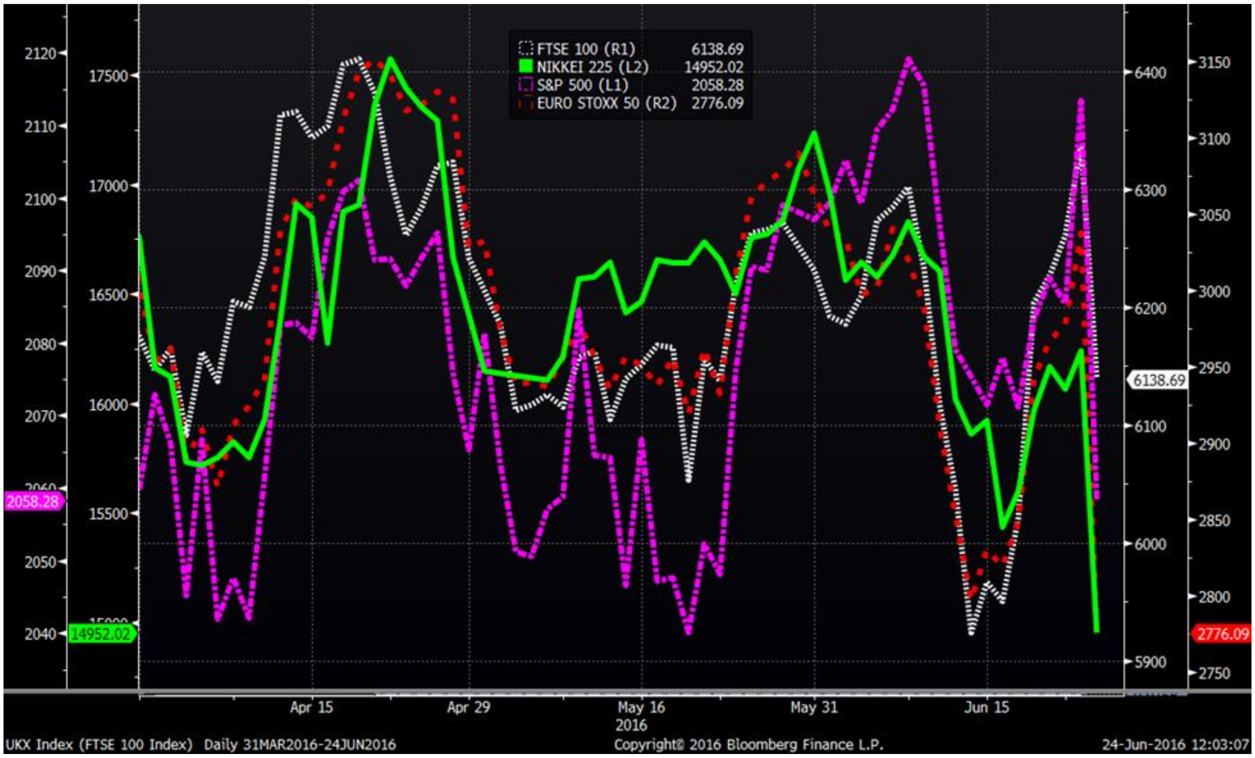


There has been volatility in sovereign CDS spreads. CDS widened on the U.K., German, and French benchmark government bonds. From May 31 to June 9, U.K. CDS were trading around 32 bps. They began a steady ascent to around 41 bps but when new opinion polls tilted towards "stay" U.K. CDS spreads fell back to 36 bps, drifting around 38 over the past few days. When trading reopened today, U.K. CDS spiked to 48 bps before falling back to 42.4 around New York's 8:00 AM open. CDS on German and French bonds showed a similar pattern: Germany was up 2.5 overnight to 21.3 bps and France was up 13 to 49.2 bps. Corporate spreads in Europe (the index includes U.K.), North America, and Japan each made similar jumps on today's news.

Equity Markets

Global stocks tumbled today losing approximately $2 trillion in market value. London's FTSE 100 Index dropped 3.2% today (as of 12:30 PM U.S. Eastern Standard Time) and was down 1.7% year to date (YTD), after a volatile two weeks where the markets moved with the BREXIT opinion polls. From June 8 to June 14, fear of Brexit caused the FTSE 100 Index to plunge 6%, but quickly turned around and increased 7% as of June 23 as Brexit fears subsided. From the end of the first quarter until yesterday's close, the FTSE 100 Index increased 2.6% and was up 1.5% year to date. The hardest hit sectors as of June 24 within the FTSE 100 Index included financials (-10.8%) and more cyclical sectors, such as consumer discretionary (-6.5%) and industrials (-5.6%). Meanwhile defensive sectors gained, such as healthcare (+3%), technology (+1.7%) and consumer staples (+1.1%). As of June 24, the Euro Stoxx Index of 50 stocks dropped 8.6% (YTD down 15%), the S&P 500 Index dropped 2.9% (YTD up 0.4%), and the Nikkei 225 Index dropped 7.9% (YTD down 21.4%).

Chart 3: Stock Indices from 3/31/2016 to 6/24/2016 as of 12:30 PM U.S. Eastern Standard Time



Currency Exchange Rates

The pound has fluctuated wildly since the beginning of the referendum campaign in February, reflecting the changing sentiment regarding the outcome of the vote. Britain's vote yesterday to leave the EU sank the pound sterling (GBP) to its lowest level since 1985.

Most major currency markets moved in reaction to the vote yesterday and its potential impact on financial markets. The sterling fell to its weakest level against the euro in more than two years, with a drop early today to 1.2027 euros to GBP. It also experienced wider swings against the dollar than it did in all of 2015. The GBP has traded today to a low of 1.3229 from 1.5018 GBP versus the USD.

Other currencies have also reacted to Britain's exit decision. Bloomberg's British Pound Index, which tracks sterling against several major peers, tumbled by 6 percent. The yen, however, which is considered as a safe haven, at one point in the day, broke through 100 per dollar, for the first time since 2013.

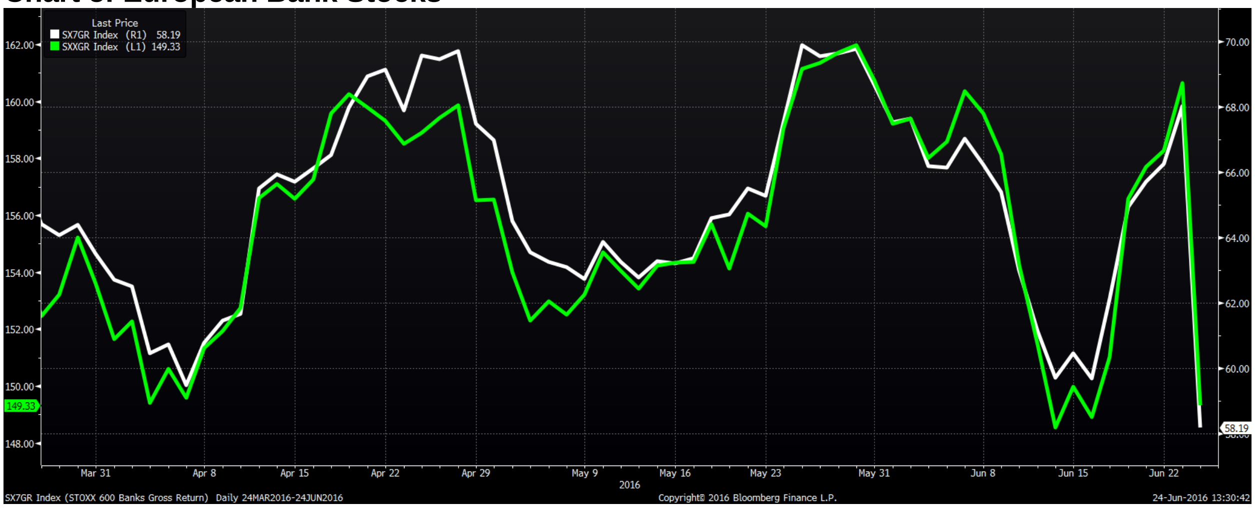
The Bank of England is "monitoring developments closely" and has "undertaken extensive contingency planning and is working closely with HM Treasury, other domestic authorities and overseas central banks," to make the transition less painful.

Chart 4: GBPUSD Spot Exchange Rate

Financial Institutions
The impact is greatest on financial institutions. The ramifications for Europe's financial institutions will take time to sort out, but it stands to reason that there will be several years of regulatory uncertainty, a likely slump in trading volumes, and especially new share listings and mergers, thus cutting into banks' fee revenue. Currency volatility may hurt foreign exchange (FX) trading operations. One thing that seems clear is that many firms will incur significant costs as they reorient their businesses to the post-Brexit environment. Brexit may make it harder for London-based banks to do cross-border business with the EU, and possible immigration restrictions may hamper their ability to hire European staff. That not only includes British institutions, but also major European institutions that have concentrated their operations in London. Analysts at JPMorgan Chase & Co. estimate banks exposed to the U.K. could see a 20% hit to earnings with a 17% hit to pretax profit for Deutsche Bank AG and 21% for Credit Suisse Group AG. Many international firms could have to move people and operations to continental Europe as the post-Brexit regulatory scheme develops. This includes major US banks. JPMorgan Chief Executive Officer Jamie Dimon said the bank might have to change its European corporate structure and relocate staff. Ireland, the Netherlands and the Nordic countries have all positioned themselves to step in for London, and financial firms located in those countries could conceivably feel the least impact. According to Bloomberg, before the vote, Ireland's government approached banks on relocating operations to Ireland, and Nasdaq Inc. pitched the Nordic exchanges it owns as an alternative to London for initial public offerings.

There will likely be at least a couple years of regulatory uncertainty, market volatility, and a probable slump in new share listings and mergers that could cut into advisory fees and perhaps lead to trading losses. For example, Deutsche Boerse's $14 billion pending merger with London Stock Exchange Group could be at risk, as politicians in Germany's ruling parties have indicated discomfort with the deal in a non-EU U.K. Smaller and mid-sized U.K. institutions focused more on the domestic market - such as building societies - could be hurt if the economic impact of Brexit is materially negative. This could hurt revenue, profits, and asset quality. Larger firms are likely less dependent on the U.K. Volatility amid the build-up to the referendum hurt investment and hiring, according to the Bank of England, as economic growth slowed to 0.4% in the first quarter. A recession could result, according to the U.K. Treasury and BOE Governor Mark Carney; the BOE meets next on July 14 and may have to step up support with a rate cut, although the falling pound could make a rate cut more difficult. It also may not be much help if the EU also contracts, since it contains seven of the U.K.'s top 10 trading partners. Norway, not an EU member, may also be adversely affected by Brexit because the U.K. is its second largest trading partner. Financial stocks – particularly banks – were hard-hit by Brexit concerns, both today and in the months leading up to the referendum. Over the past three months, the Euro STOXX 600 Banks Index, which tracks the banking sector the broader Euro STOXX 600 Index, has fallen 9.5%, including a 14.3% decline today. By comparison, the Euro STOXX 600 index overall declined just 1.8% over the past three months, including a 6.8% drop today.

Chart 5: European Bank Stocks



Rating Agency Views

As a consequence of the "leave" vote, all three major rating agencies – Standard & Poor's (S&P), FitchRatings (Fitch) and Moody's Investors Service (Moody's) – agree that the decision is a credit negative for most sectors in the U.K., including the U.K. sovereign rating. Currently U.K.'s long term sovereign debt is rated AAA/AA+/Aa1 by S&P, Fitch and Moody's, respectively. All three rating agencies have stable outlooks on the respective ratings, but they will be reviewing these ratings and others that are potentially affected as a result of this event. In S&P's view, the vote to leave "deter[s] investment in the economy, decrease[s] official demand for sterling reserves, and put[s] the U.K.'s financial services sector at a competitive disadvantage compared with other global financial centers." S&P does not anticipate an immediate impact on U.K. domestic commercial bank ratings; the impact is expected to be indirect, such as through possible adverse consequences related to economic activity. Fitch views the vote to leave as a negative for most U.K. sectors because of "weaker medium-term growth and investment prospects and uncertainty about future trade arrangements". Any medium to long-term rating actions are dependent on various factors including the size and duration of GDP impact and extent of sterling depreciation. In addition, Fitch stated that "[t]he U.K.'s status as a major international banking hub could be damaged as some business lines shift to the EU. Higher import costs and pressure on exports due to the potential imposition of tariffs would be broadly negative for corporates." And according to Moody's "[t]he immediate financial markets reaction has been pronounced, with sterling depreciating sharply and global equity markets falling.

Under European law, the formal withdrawal process should take place over a two-year period, although this can be extended by mutual agreement." With respect to impact on EU economies, Fitch stated that the U.K.'s post-exit trade agreements would be the main driver of the magnitude, and there would also be political repercussions, including a weakening of EU cohesion and possible negative rating actions. "Fitch would expect the main direct effect of

Brexit on EU economies to be through lower exports." In particular Ireland, Belgium and the Netherlands are most dependent on merchandise exports to the U.K., according to Fitch; and "…the EU is the market for some 44% of U.K. exports of goods, equivalent to 7% of U.K. GDP." And the EU budget would also experience a large decrease as the U.K. was the third largest contributor.

US Insurer Exposure to U.K. Issuers

As of year-end 2015, U.S. insurers' exposure to U.K.-domiciled debt and equity totaled $118 billion, with $105.4 billion in bonds and $12.6 billion in equities. The bulk of the U.K.-domiciled debt, approximately 81% of the total, was with nonfinancial corporates. Approximately 90% of this exposure is USD denominated with the rest in British pounds. U.K. bonds represented approximately 15% of the U.S. insurance industry's foreign bond exposure (approximately $688 billion) at year-end 2015, second only to Canada (16%). Exposure to U.K. sovereign debt (gilts) was only 1.5% of the U.K.-domiciled bond exposure, while U.K. financial bonds were 17%. Exposure to U.K. equities was the largest foreign stock exposure for the U.S. insurance industry, at 62% of total foreign stock exposure — 3% of which was in U.K. financial stocks.

While concerns have generally been about the potential impact to the U.K. economy and therefore U.K. related investments, it is safe to say that there is considerable uncertainty about the impact of the decision to leave the EU. This includes the likelihood of secondary and tertiary impacts among the other current EU countries. Some have suggested that there may be other countries that will also consider leaving if the U.K. does. The US insurer exposure to other EU countries is detailed in Table A. Given the specific concerns related to the financial sector, US insurer exposure to financial institutions in EU countries is detailed in Table B.

Table A: Insurer Exposure to Other European Union Countries ($ billions)

Bonds			Stocks	
Netherlands	47,366		Ireland	3,040
France	30,873		Netherlands	1,525
Luxembourg	20,937		Germany	853
Ireland	16,491		France	681
Germany	9,735		Denmark	554
Other	24,776		Other	1,280

Table B: US Insurer Exposure to European Financials

BACV as of December 31, 2015	Banks	Financial	Insurance	Grand Total	%
Britain	16,301,861,772	2,645,646,222	2,548,350,589	21,495,858,583	39.3%
Switzerland	7,752,829,357	26,000,887	442,053,428	8,220,883,672	15.0%
Netherlands	7,460,774,993	9,759,486	11,404,829	7,481,939,308	13.7%
France	4,729,461,404	126,000,000	791,369,739	5,646,831,143	10.3%
Sweden	4,609,802,521	253,238,054		4,863,040,575	8.9%
Germany	2,250,290,540	186,655,058		2,436,945,598	4.5%
Ireland	401,408,711		1,074,712,919	1,476,121,630	2.7%
Norway	808,168,206		203,134,068	1,011,302,274	1.8%
Italy	458,594,996	2,288,451		460,883,447	0.8%
Turkey	459,584,756			459,584,756	0.8%
Spain	369,659,372	17,960,536		387,619,908	0.7%
Denmark	268,727,188			268,727,188	0.5%
Belgium	162,218,522	38,587,500	673,371	201,479,393	0.4%
Guernsey		110,181,464		110,181,464	0.2%
Austria	95,229,655			95,229,655	0.2%
Finland	80,306,335			80,306,335	0.1%
Luxembourg	41,455,932			41,455,932	0.1%
Iceland	2,563,321			2,563,321	0.0%
	46,252,937,581	3,416,317,658	5,071,698,943	54,740,954,182	100.0%

This will be an evolving situation over the next several days, weeks, months and perhaps even years. The actual impact on markets and economies will hopefully become clearer over time. The NAIC Capital Markets Bureau will continue to monitor developments relative to the potential Brexit and report as deemed appropriate.