

Trumbower Financial Advisors, LLC
2nd Quarter 2016
Investment Market Commentary

Bremain... Brexit... Brelax!

It is impossible to comment on 2nd quarter financial markets without invoking "Brexit" jargon. Investors hit the panic button on Friday June 24th after the vote was tallied. 72% of Britain's eligible voters decided 51.9% to 48.1% to exit the European Union. Markets priced in a "bron-event" leading up to the polls. Investors and analysts obviously underestimated the depth of popular UK discontent. No-one knows how or even if the referendum will be implemented or what the implications will be longer-term – so we don't see any point in speculating. There is only one thing we can say confidently – Brexit spells uncertainty with its ever-present side-kick volatility.

Nothing was spared in the carnage that followed the Brexit announcement. The pound tumbled ~13% to a 31 year low

against the dollar and UK equities crashed. Financial stocks including Barclays, Royal Bank of Scotland and Lloyds shed -36% to -37% losing a combined \$46.4 billion in value. Equity markets in the "PIGS" (Portugal, Italy, Greece and Spain) "bratered" -9.2% to -15.9%. US stocks "brailed" as well but losses ranging from -7.04% (Small Cap US) to -5.34% (S&P 500) paled in comparison. According to reports, global equity valuations dropped roughly \$3 trillion in 2 days.

Subsequent "brecovery" has proven equally dramatic. The S&P 500 and EAFE (Developed Foreign index) rebounded 4.69% and 5.24%, respectively, in the last 3 days of June. UK stocks have returned 6.89% so far this year – in terms of local currency. US shareholders are down -3%

after converting to dollars. US equities defied Brexit fallout and gained ground during the 2nd quarter. Mid Cap stocks closed up 3.99% just ahead of the Russell 2000 at 3.79% and followed by the S&P 500, 2.46% in the black. Investors continued to favor "Value"

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2nd Quarter Equity Market Results		
	2nd Qtr. % Chg.	12-mth. % Chg.
S&P 500	2.46	3.99
S&P 400	3.99	1.33
Nasdaq	-0.23	-1.68
Russ 2000	3.79	-6.73
MSCI EAFE	-2.64	-12.70
MSCI Emg	0.66	-12.06

Market Replication – The Index Merry-Go-Round

Our 2nd Q 2009 and 1st Q 2011 essays described index basics and delved into exotic enhanced indexes. This article digs deeper into the methodologies that give plain vanilla market indicators often strikingly divergent flavors.

The expanding inventory of exchange traded funds (“ETFs”) gives testimony to the escalating popularity of “passive” investing. Traditional ETFs theoretically offer “pure” exposure to market segments through ownership of a basket of securities intended to replicate an index. Indexes are also used as performance benchmarks by active managers and influence trading decisions. Major markets are all well represented by long-lived, reputable providers like S&P and Dow Jones (recently merged), MSCI and Russell. CRSP¹ and FTSE Group jumped onto the carousel more recently. Wilshire is best known for its Total Market index, launched in 1974. Barclays and Citigroup dominate the Fixed Income arena – and there are many others. At first glance, indexing is about as exciting as a ride on the stationary horse. In fact, the varied approaches deployed by index constructors can throw investors for a loop.

The first step in index composition is to define the universe from which subsets will emerge. US index makers S&P and Dow Jones start with all securities listed on exchanges. Russell, MSCI, FTSE and CRSP cover 99% to 99.5% of publicly traded US securities. Russell and FTSE impose minimum market caps that eliminate the smallest companies. Indexes, except FTSE, generally exclude ETFs, closed end mutual funds, convertibles, investment trusts, derivatives and master limited partnerships. Global index contributors apply various standards to determine the level of coverage by country and/or region.

A strict set of rules may determine eligible index constituents or a committee might make subjective decisions. S&P, for example, uses a proprietary screening process that includes profitability measures. All major suppliers require a certain level of liquidity but there are meaningful differences. Russell excludes companies that trade for less than \$1 per share. S&P uses a more complex formula and requires a volume of at least 250,000 shares during a 6-month evaluation period, subject to selection committee discretion.

Indexes then espouse a recipe for weighting participants. The Dow Jones Industrial Average (“DJIA”) is the most famous price weighted index and it worked just fine in the late 1800’s when the market consisted of a handful of

low priced stocks. It is not particularly relevant today when price is just one indication of market cap. One of the newer members of the DJIA, Apple, traded at \$645 per share before it split 7 for 1 lowering the stock price to \$92 just before it joined the gang. The split had no bearing on Apple’s market cap but it would have seriously distressed the DJIA had it occurred subsequent to entry².

Most major indices avoid disruptions from corporate actions by adopting a market cap-weighted system, “float adjusted” in some form or another. Float adjustments exclude the value of shares not available to the general public because they are owned by illiquid entities like hedge funds or privately held. Share classes may be considered separately or aggregated. A distinguishing characteristic of the Russell family is that it only makes adjustments for float after a security is admitted. Others make this determination before they extend the invitation.

How can float affect index composition and performance? The S&P 500 index adopted the float adjustment in 2005 and published comparisons between the new and superseded versions through July 2013. Coincidentally, the impact on performance was minimal but the composition of the top 10 holdings changed. WalMart was a major player in the classic index but drifted out of the top ten as a result of the Walton family’s founding position. Float adjustments are typically less noticeable among Large Cap US stocks where 97% of shares are “free float”. 91% to 82% of Small Cap US and International stocks are considered free floating so distinctions in float adjustment techniques used by representative indexes in these markets may have a more profound impact.

Peculiarities related to float adjustment could become more pronounced as businesses led by founders such as Alphabet (a.k.a. Google), Facebook, Alibaba and Under Armour embrace dual-class share structures. These companies may be underrepresented in indices depending on the way they define free float. Alphabet recently became the largest US company by total market cap. A few years ago, however, they split into 2 share classes, A and C, to give founders more voting power. Only 86% of the class C shares are considered free float by S&P in its market cap weighting process. Apple, therefore, continues to rule this prevalent gauge of US Large Cap equity performance.

Style based indexes are used to evaluate focused specialty

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The Index Merry-Go-Round

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managers. Style oriented ETF and index fund clones let investors fine tune a portfolio's emphasis on Value or Growth and efficiently rebalance. Index families, however, use different stratification systems complicating the choice of an appropriate benchmark or tool. S&P used only Price-to-Book ratio up until 2005, a practice that distorted its composition during periods when one style dominated the other. S&P now analyzes six classification elements. Russell reviews 3 metrics whereas CRSP considers 11 categorization factors. The objective is to minimize overlap – but it is inevitable (except for Pure Style indices offered by S&P). Overlapping stock representation can differ markedly. Johnson & Johnson, for example, tops the list of shared stocks in both Russell and S&P Large Cap Value indices, but it is also at the top of the S&P shared Growth positions.

Market-cap stratification is a rules-based process for each of the index providers – but the rules are different. Russell puts the largest 3,000 US stocks in their all-cap Russell 3000. This universe is then broken down into the largest 1,000 stocks (Russell 1000) and smallest 2,000 stocks (Russell 2000). The Mid Cap Index is a subset of the smallest 800 stocks in Russell 1000. Dow Jones, MSCI and CRSP use similar methods all resulting in overlap. S&P, on the other hand, starts with 1,500 all-cap US stocks that meet selection criteria and breaks them down into distinct categories: Large Cap (S&P 500), Mid Cap (S&P 400) and Small Cap (S&P 600) with no overlap. FTSE also uses this approach.

Rebalancing techniques are another distinction among indexes that can influence outcomes. Russell keeps it simple moving stocks in and out of its indices once a year in June. FTSE rebalances semi-annually while Dow Jones, MSCI and CRSP make changes quarterly and the S&P reconstitutes as needed. Russell's once a year scheduled maintenance routine has been cited as a weakness – particularly for the Russell 2000. It is one of the most widely replicated indexes. A narrow buffer used to determine migration between the 1000 and 2000 helps reduce turnover but huge trading volumes still occur on the day ETFs, funds and separate accounts buy and sell to remain in synch with the index. Volume is more likely to move prices at the smaller end of the market cap spectrum. This tactic also increases fund transactions costs.

Initially, we used the Russell 2000 to fill Small Cap US index allocations because we felt that it was more representative of the segment. From 1995 through 2003 there were a number of years where performance relative to the S&P 600 varied by double digits in both directions. Despite, or maybe because of its popularity, the Russell 2000 has underperformed the S&P 600 Small Cap index consistently over the past fifteen years. We found that the 600 beat the 2000 by more than 1% in 66%, 68% and 77% of 3, 5 and 10-year rolling periods beginning in 2000. S&P's average market cap is smaller and it is obviously more concentrated – in the right places. S&P's discretionary process and profitability screens coupled with lower turnover have trumped Russell's rules-based approach. Over the last 12-months, for example, the S&P Small Cap 600 topped the Russell 2000 by 6.36% as the latter suffered from higher exposure to more volatile Biotech stocks that missed S&P's profitability cut.

International indices add another potential dichotomy in the way they define Developed, Emerging and Frontier countries. MSCI currently classifies South Korea as an Emerging Market country. The FTSE Group granted South Korea Developed status beginning in 2009. The Vanguard Emerging Market index fund we recommend decided to follow the less expensive FTSE model. We were concerned that funds following the FTSE might suffer relative to MSCI based products, however, 3 year annualized returns have tracked pretty closely since South Korea was booted upstairs. We expect that MSCI will ultimately make this change as well.

Other studies have concluded that, in spite of their diverse practices, index providers have gravitated toward a greater degree of conformity. With the exception of the Russell 2000 for reasons noted, market segment measurements are usually fairly consistent across index families. Under extreme conditions, however, dissimilarities may be magnified. We are engaged in our own survey of relative historical index performance within Large/Mid Cap US and International asset classes as well as style subsets in search of evidence that supports the use of one ETF/index fund replicator over another.

¹ The Center for Research in Security Prices

² Inclusion in the index was a strong motivation for the split.

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over “Growth” across all asset classes. Rich dividend payers in Energy (+10.97%) and Utilities (+6.72%) were prized while Technology (-1.73%) and Consumer Discretionary (-0.94%) sectors were scorned.

The EAFE dropped -2.64% in Q2 but the Emerging Markets Index erased post Brexit losses completely coming in at 0.66%. South American countries Peru and Brazil gained 25.7% and 13.5%. The latter’s performance was buoyed by a 3.9% increase in the value of the Brazilian real against the dollar in the quarter’s final week. Peru, Brazil and Columbia country stock indexes were flying high at the 2016 half-way mark delivering 49%, 44% and 25%, respectively. That is not to say they are now bastions of political stability and worthy safe havens. Emerging Markets are climbing out of a three-year slump fueled in part by a weaker dollar, commodities rally and fading prospects for another 2016 Fed rate hike.

Government debt prices surged in response to a wave of diminishing yields. The 10 year British gilt touched an all-time low of 0.85% on the last day of Q2. The 10 year US Treasury offered 1.49% - near its record low of 1.4%. Yields on 10 year German, Japanese and Swiss bonds are below zero. As of June 30th 36% of sovereign debt bears a negative yield. Existing bond holders were rewarded by the pressure on rates. Barclays Aggregate Bond Index advanced 2.21% in Q2 and has returned 5.31% year-to-date. Energy laden US High Yield Bond Index reaped 5.52% during the quarter and is up 9.06% YTD. The 1-5 Year US Treasury benchmark returned 0.81% in Q2 and 2.34% YTD. It is ironic that Brexit-related insecurity has benefited stock and bond investors – at least in the short run – by restraining interest rates.

Commodities turned a blind eye on Brexit. Gold shined up 6.7% during the quarter and 24.6% for the year. Silver prices hiked up almost 35% so far. Brent crude surged 26% during Q2. While oil prices have rebounded 84% since mid-February, they are still well below record highs. Natural gas, up 25.1% YTD, rallied 49% logging its strongest quarter since 2005. Lean Hog and Live Cattle futures tell an interesting story. Beef is down -16% this year but a shortage of pork in China has stoked US exports. Betting it will take years to rebuild domestic supplies, speculators bid Hog futures up 39.3% to top the commodities food chain. One more example of the power of the masses.

At the beginning of 2016 Fed Funds futures set the probability of a December rate hike at 98%. 6 months later the odds are

less than 10%. Conforming 30 year fixed-rate mortgages hit a 3-year low of 3.48% giving real estate a shot in the arm. Existing home sales are up 4.5% for the year and Real Estate is a top performing sector for the first six months of 2016 (+10.28%). On the flip side, super-low, artificially induced rates are frustrating for cautious savers and haven’t delivered robust widespread economic growth as promised. This environment can exacerbate volatility as capital with “nowhere else to go” clamors for higher risk assets and then flees abruptly for safer territory when confronted by uncertainty. Sustainable equity price appreciation needs a dose of earnings growth – an elusive achievement for tapped out monetary policies. On a positive note, US unemployment rates declined in April and May although the number of new jobs fell terribly short of expectations. June statistics have yet to be released. Expanding factory production trends are not expected to waver post Brexit. UK accounts for just 4% of US exports.

Puerto Rico’s financial woes are well publicized. The Puerto Rico Oversight, Management and Economic Stability Act (“PROMESA”) was signed into law on June 30th to help the Commonwealth restructure its \$70+ billion debt burden. Hours later the governor declared a moratorium on repayments in order to maintain essential services for residents. As expected, on July 1st the island defaulted on \$779 million General Obligation securities. Assured Guaranty, Ambac and MBIA covered principal and interest on insured paper. Hopefully the new fiscal oversight board and creditors will come to a mutually beneficial re-payment plan during upcoming negotiations. Rest assured that none of our laddered municipal portfolios are affected by this situation because we only purchase bonds that are pre-refunded with air-tight escrow agreements. Only two of the municipal Fixed Income funds we recommend have any exposure to Puerto Rico and it is minimal.

As a group, investors are high strung emotional creatures who are easily inflamed by frenzied financial media. If you fell asleep on Thursday night June 23rd and woke up a week later you might not know that Brexit ever happened. Turning off the television is the most prudent short-term response to events like this. Evidence of any enduring financial consequences will emerge over time and a well-diversified portfolio structured to accommodate your liquidity needs gives you the flexibility to react thoughtfully and strategically. So please Brelax!

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