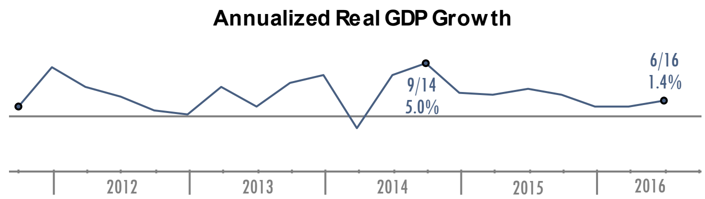
Bellwether CONSULTING

Your Quarterly Update on the Financial Markets
September 30, 2016

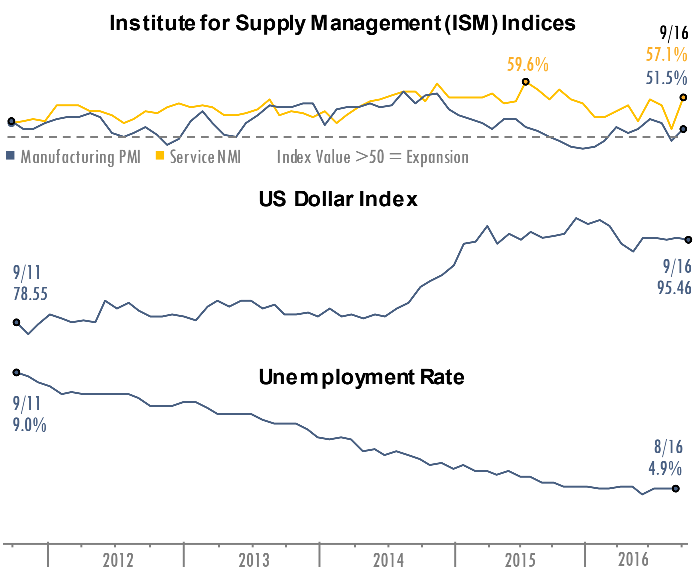
MARKET Recap

The US Economy: “We’ve Been Served”



Economic growth held steady at a 1.4% pace in the second quarter, notwithstanding Brexit and the May jobs report. Personal consumption expenditures, exports, and nonresidential investment drove the increase from Q1.

Data for the summer months were mostly firm, with a sharp upturn in September following a modest August slump. The service sector continued to outperform and outgrow manufacturing, as indicated by the steep uptick in the NMI Index. This compound indicator of business activity in the service sector registered a very solid 57.1% in September, approaching the post-crisis peak in expansion recorded in July 2015. Consumer confidence peaked at levels not seen since early 2007. As long as you don’t ask about the election, consumers seem happy – at least they are spending that way. However they continue to favor “experiences” as opposed to “stuff.”

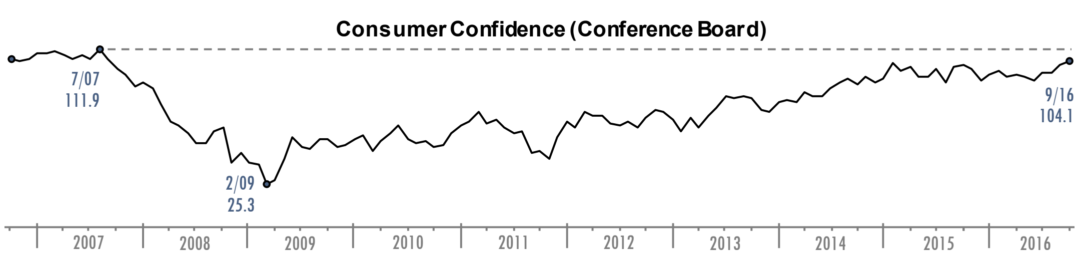


Over the long run, personal consumption expenditures tend to drive economic growth. For the past five years, real expenditures for services increased by approximately 15%, while real PCE for goods increased about 2.8%. Expenditures for durable goods have been particularly weak, shrinking by 10.5%. On the margin people are spending more on services, and more on shorter-term disposable goods which tend to be easier to import.

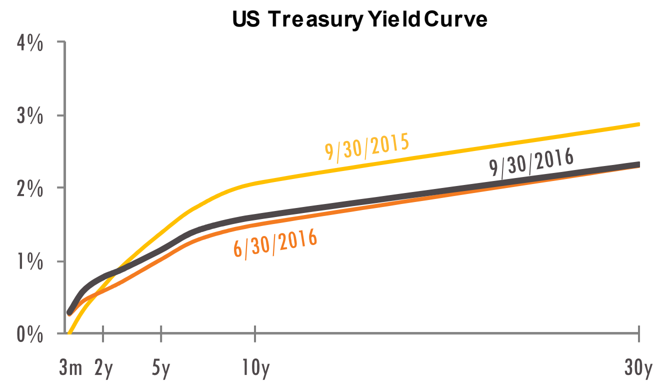
Manufacturing has historically been the employment engine for our economy, but increasingly that rule of thumb no longer applies. Payroll numbers were solid for each month following the soft May report, which was heavily impacted by the Verizon strike. September data was not yet available from the Department of Labor at press time, but ADP publishes a widely-followed report showing that private payrolls rose by 154,000 jobs – 151,000 of which were in the service sector. While robust, the print is below analysts’ advance estimates of 166,000 according to Reuters.

Since it was very difficult for us to see why the Fed would delay a decision to hike rates in May, it is more difficult for us to understand why they wouldn’t hike in December. The only reason, perhaps, one might not hike rates earlier on November 2nd is the election looming 6 days hence – but if the Open Market Committee wanted to prove its political independence, what better way to do so? The only slack remaining in the economy appears to be capacity utilization for manufacturing, which we believe will take a decade to catch up with technological innovations. Satiation of the American consumer and diminished prospects for exports due to the next round of dollar strength bodes poorly for US goods manufacturers as well. But from an employment standpoint, the service sector appears able to take up the slack.

In her press conference on September 21st, Ms. Yellen noted “The unemployment rate is pretty close to most FOMC participants’ estimates of its longer-run equilibrium value.” Sounds like “mission accomplished” to us.

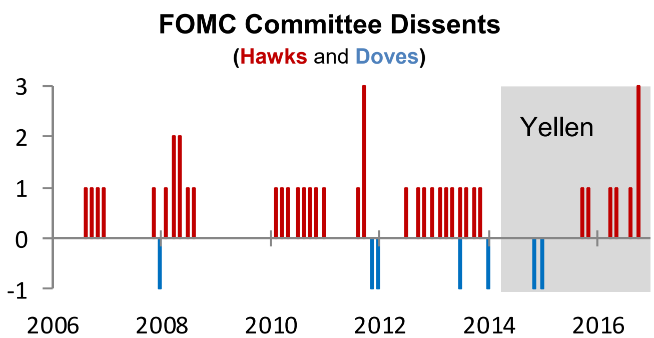


The US Bond Market



While no news was good news for credit spreads, Treasury bonds softened slightly following two consecutive quarters of remarkable strength. Coming off the surprise outcome of the Brexit vote, Treasuries hit new historic lows at the beginning of July. The 10-year dipped to close at 1.37% as the 30-year settled at a miserly rate of 2.11%. Within a week, long-term rates gave back 20 basis points. Aside from a mid-September swell, the yield curve remained close to where it began the quarter. More interesting, the front of the curve out to the 10-year key rate flattened substantially over the past year. Some flattening was anticipated as the Fed kicked off their first rate hike in nearly a decade. The front of the curve tends to move in lock-step with the Fed funds overnight rate and the effect dissipates as you move further out in duration. Yet, any effect of rising short-term rates on intermediate and long-term debt has been far outweighed by investor appetite for fixed income securities with a substantial (positive) yield.

At the September FOMC meeting, voting members Rosengren, George, and Mester dissented from the majority, favoring instead to raise the overnight target rate. Three of the ten voting members (2 seats sit vacant) taking a hawkish view is a strong signal. Outspoken concern from non-voting Richmmond Fed President Lacker toward preempting inflation adds further weight to the likelihood of a fourth quarter rate hike. As we await the next rise in rates, which Fed funds futures price in as December-probable (55%), it remains unclear how this move will translate from one end of the curve to the other. Also unclear is the rate at which the Fed will continue to hike rates. From Fed funds futures we can divine the market expects just one rate increase from now through the end of 2017.



Low and negative interest rate policies have pushed investors globally into longer duration, lower credit quality, and foreign debt. Year-to-date returns connote the benefit to credit spreads, so far. Investors have also reached into other asset classes, such as high dividend or low volatility stocks, that are seen as offering some of the benefits of fixed income securities. Since July, when the Japenese Government 10-year Bond (JGB) bottomed around negative 30 basis points (versus negative 8 basis points at quarter-end), the amount of outstanding global sovereign debt trading at negative yields has fallen from $10 trillion to $8 trillion in September (JPMorgan). Negative rates may be hard to sustain. With a bond's yield being the strongest indicator of its expected return, long-term investors are understandably loathe to accept an expected loss. Short-term investors may have had some success playing the market, but owning a negative yielding bond is somewhat akin to short selling a stock. There is a cost to carry the trade. And though you may win out by picking the right trade at the right time, you are also betting against the concensus direction of the broader market.

Calls of a global bond bubble abound. Eighty-seven percent of respondents in a recent CFAI survey indicated that they believe a global asset bubble currently exists in high yield, investment-grade corporates, or sovereign bonds. Thirty percent of respondents believe all three categories are in bubble territory. Academic Ed Altman, known for his Z-score credit measure, asserts central banks are running out of steam and the current low-default credit cycle is in "extra innings." While corporate default rates have been low ex-energy, Altman points out recovery rates are at historic lows. Compared to a 46% average since 1978, recovery rates fell below 34% in 2015 and under 20% this year.

US Bond Indices - Total Returns

Barcap Indices	3Q16	YTD
Aggregate	0.46%	5.80%
Interm. Gov't	-0.24%	3.30%
Long Gov't	-0.29%	14.61%
TIPS	0.96%	7.27%
Municipal	-0.30%	4.01%
Interm. Credit	0.77%	5.69%
Long Credit	2.26%	16.50%
High Yield	5.55%	15.11%
MBS	0.60%	3.72%

Despite Altman's foreboding outlook, high yield outperformed other fixed income sectors by a wide margin. Spreads contracted 70 basis points in one week as investors digested the potential Brexit fallout. Starting the quarter at 6.12%, high-yield spreads ended the quarter at 4.97% (BAML US HY OAS). Investment-grade debt also benefitted from contracting spreads, especially debt with longer duration. High-yield issuance was soft in July, with just $15 billion of supply added to the market. Investment-grade issuance was also relatively light in July, but ahead of the average monthly pace for 2015. Volumes picked up through August and September for a total of $352 billion of investment-grade and $68 billion of high yield paper coming to market – in line with averages over the first six months.

The US Stock Market

After a sharp sell-off at the end of June following the Brexit referendum vote, US stocks rebounded nicely in July. Inaction by the Federal Reserve, mainly positive US economic data, and waning concerns of spillover effects from Brexit drove much of the performance during the month. During August, returns were flat as investors weighed the effects of a potential September rate hike against the prospect of a healthy economy. Sentiment around the effect of rising rates on US stocks grew more negative in September. Markets fell leading up to the Fed's mid-month meeting, however the decision to hold short-term borrowing rates in place resulted in a quick reversal of prices which ultimately held through quarter-end.

US Stock Indices - Total Returns

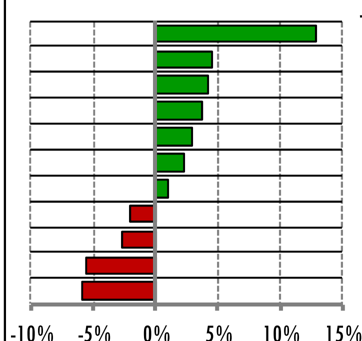
Large-cap Stocks	3Q16	YTD	Mid-cap Stocks	3Q16	YTD
S&P 500	3.85%	7.84%	S&P Midcap 400	4.14%	12.40%
Russell 1000	4.03%	7.92%	Russell Midcap	4.52%	10.26%
Growth	4.58%	6.00%	Growth	4.59%	6.84%
Value	3.48%	10.00%	Value	4.45%	13.72%
Broad Markets			**Small-cap Stocks**		
Russell 3000	4.40%	8.18%	S&P Smallcap 600	7.20%	13.88%
Growth	4.92%	6.12%	Russell 2000	9.05%	11.46%
Value	3.87%	10.40%	Growth	9.22%	7.48%
			Value	8.87%	15.49%

From a fundamental perspective, S&P 500 earnings data continued to decline (-2.2% YoY) but was above analyst expectations as 71% of companies beat estimates. While earnings growth was negative on the surface, the effect was mainly attributable to the energy sector where earnings declined -$10.9 billion compared to -$5.7 billion in total for the S&P 500. The majority of sector earnings results were flat, although consumer discretionary and healthcare earnings were up +$3.8 billion and +$3.0 billion. Revenue in the two sectors also increased.

Smallcaps outperformed their large- and midcap peers by a wide margin this quarter as investors seemed to focus on the best opportunities for growth. It is expected that smallcap EPS should increase 56% from 2015 to 2016, compared to 25% for midcaps and only 10% for largecaps (S&P). Growth stocks outperformed their value counterparts due to the technology sector, in conjunction with losses in rate-sensitive sectors such as consumer staples, utilities, and telecom.

In a dramatic reversal, the worst performing sectors during the second quarter were among the top performing in Q3, and many of last quarter's sector leaders were this quarter's laggards. Technology led through strength in the hardware, semiconductor, electronic components, and internet software & services industries. Additionally, many stocks have benefitted from share buyback programs and merger & acquisition activity, which may continue to persist in the near-term. Long-term performance will largely be dependent upon innovation and business spending on technology projects, particularly the replacement of obsolete equipment and software. While technology was by far the best sector, financials also showed relative strength. Almost every underlying industry in the sector ended in positive territory, with the exception of insurance brokers and property and casualty insurers. Amid increasing expectations of a September rate hike during July and August, demand returned for the interest rate sensitive sector which had been the worst-performing sector year-to-date at the start of the quarter. As chances of an increase in the overnight borrowing rate began to subside in September, so did willingness to own financials, which were down about 3% for the month.

S&P 500 Economic Group Components - Total Returns



Sector	3Q16	YTD
Technology	12.86%	12.51%
Financials	4.59%	1.40%
Industrials	4.14%	10.87%
Materials	3.71%	11.45%
Consumer Discr.	2.94%	3.64%
Energy	2.26%	18.72%
Health Care	0.94%	1.37%
Real Estate	-2.09%	8.16%
Consumer Staples	-2.63%	7.55%
Telecom	-5.60%	17.86%
Utilities	-5.91%	16.13%

Source: Standard & Poor's

On the downside, high dividend-paying utilities and telecom companies, which can have an inverse relationship to interest rates, fell out of favor with investors seeking yield on the growing view that the Fed could increase rates sooner. Much of the pressure also came from concerns of overvaluation after abnormally large gains during the first half of the year.

In a unique occurrence, S&P Dow Jones and MSCI have restructured the Global Industry Classification Standard (GICS) for categorizing sectors and industries to separate real estate from financials. Historically, REITs and other real estate-related industries (3.8% of the S&P 1500 as of 9/19) were included in the financial sector. However, growth of the industry and fundamental differences between other financial subsectors led to the decision by both index providers to make the appropriate change.

The reclassification is likely to have a modest impact on both company stock prices and actively-managed strategies. Initially, financial sector-focused funds or ETFs will be forced to sell the securities, however new similar real estate-focused strategies will form over time to offset this effect. For some active managers, they may now be forced to purchase the securities when in the past they owned very little or no exposure. An example would include a manager with specific portfolio constraints at the sector level (e.g. ±2% of index exposure), but none at the industry level. Assuming the manager did not find real estate securities attractive prior to the classification change, they would now be forced to purchase securities to maintain portfolio guidelines. From our perspective, significant effects of the reclassification will be limited. We view the change as beneficial to our analysis of active managers as large underweights to REITs often alter a manager's performance attribution results and require additional reporting explanations.

Overseas Markets

Overseas markets took a summer vacation from the volatility which has plagued them recently, moving past geopolitical events such as the Brexit vote and the attempted coup in Turkey to finish solidly in positive territory. Although concerns over growth persist in most regions, developed markets performed well, but trailed emerging markets.

Europe

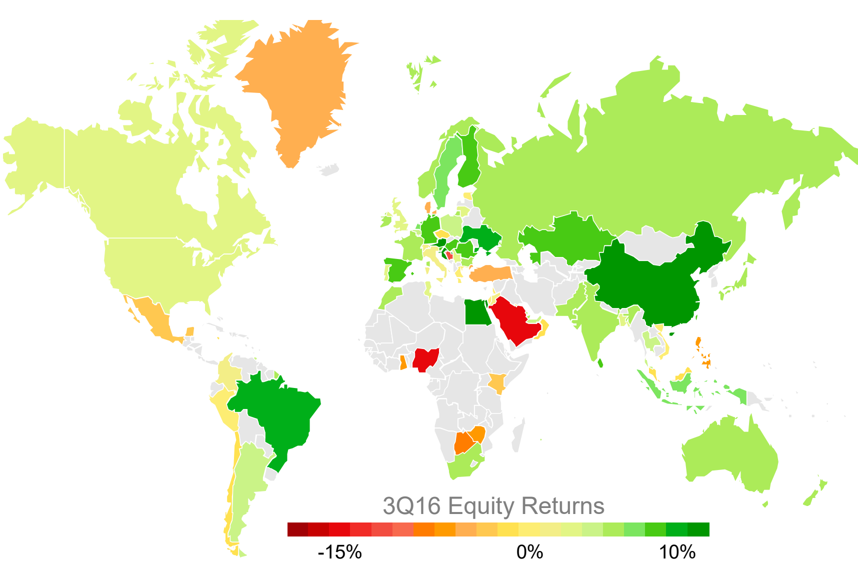
After the fury and bluster surrounding the UK's vote to break its ties with the EU, many expected an immediate negative impact on both the UK and eurozone economies. Surprisingly, the eurozone's economic recovery showed itself to be resilient, according to a poll of purchasing managers that indicated growth in activity accelerated in the aftermath of the Brexit vote. The final reading of the July purchasing managers' index for the eurozone, compiled by Markit, rose to 53.2 from 53.1 in June, well above 50 - the level that marks an expansion. In Germany, the PMI reading reached a high for the year at 55.3. However, Spain's PMI fell to a 32-month low of 53.7, and Italy fell to a two-month low of 52.2. While still indicating an expansion, the divergence highlights a split between the northern and southern economies. Unemployment in the eurozone remains in double-digits at 10.1%.

Foreign Stock & Bond Indices - Total Returns

MSCI Broad Indices	3Q16	Barcap Global Indices*	3Q16
World Index	4.87%	Global Aggregate	0.82%
EAFE (Developed)	6.43%	Pan-Euro	1.77%
Emerging Markets	9.03%	Asian-Pacific	0.09%
		Eurodollar	0.99%
MSCI Regions		Euro-Yen	-2.48%
Europe	5.40%	Other Currencies	0.57%
Japan	8.60%	**Unhedged*	
Pacific ex-Japan	8.18%		
Latin America	5.37%		

Even the UK's data showed a measure of resilience. August numbers for the UK related to job growth, service sector sentiment, and retail sales all showed a positive trend. Sentiment in the UK's service sector, measured by the UK Service PMI, defied expectations by fully rebounding from July's post-Brexit vote drop. July PMI had fallen to 47.4 from 52.3 in June, the first contraction seen since the end of 2012 and the sharpest decline since early in 2009. The UK stock markets also stood up well to the Brexit vote, with the FTSE 100 up nearly 10% from pre-vote levels at quarter-end. The index was down 3% in US dollar terms as the pound weakened versus the dollar over the period.

In July, the Bank of England Monetary Policy Committee voted 8-1 to maintain the Bank Rate at 0.5%, while the market had expected a 25 basis point cut. The Committee decided to wait until releasing its August Inflation Report to decide on policy easing. According to economists, recession risk rose significantly in the UK following the Brexit vote, but global market resiliency appears to have left Brexit largely a local issue. After assessing the economy in late July, in early August the BoE decided to cut interest rates by 0.25%, the first decrease in more than seven years. The Bank's governor, Mark Carney, took a hard line with commercial banks, telling them they had no excuse not to pass on lower borrowing costs. Carney unveiled a 4-point package to combat recession. In addition to the rate cut, the bank announced plans to add an additional £60 billion in cash into the economy through the purchase of government bonds, extending the existing QE program to £435 billion; another £10 billion in cash to buy corporate bonds from firms "making a material contribution to the UK economy;" and up to £100 billion of new funding to banks to help them pass on the rate cut. This last piece of the package, called a "term funding scheme" (TFS), will help the BoE provide loans to commercial banks at interest rates close to the base rate of 0.25%. The TFS will charge a penalty rate if the banks don't lend.



European Central Bank (ECB) policy makers left policy rates and the asset purchase program unchanged in July, while hinting that the Governing Council would re-assess the outlook in September. On September 8, the ECB, again, left its €1.7 trillion stimulus plan unchanged even in the face of forecasts showing the bank will miss its inflation target now and into the forseeable future. President Draghi's concern is focused on persistent low inflation in the zone which has continued to fall short of the near 2% target for more than 3 years. New ECB forecasts show inflation rising gradually over the next 2 years to 1.2% and 1.6%.

With continued low inflation, investors expect the ECB to extend its quantitative bond-purchase program before it ends in early 2017. Although the bloc's economy is expanding, growth remains sluggish. Given the slow growth prospects, the ECB cut their quarterly forecast for eurozone growth over the next three years. In addition, Draghi reiterated the bank's willingness to provide more stimulus if needed. The ECB president is also re-examining the design of the stimulus program, to potentially broaden the pool of eligible assets and avoid possible shortages in some markets. Under the current rules of QE the ECB can't buy more than 33% of most bond issues or any bonds yielding less than -0.4%. That rules out a large portion of German government debt. The review is to ensure the ECB can implement its existing stimulus, rather than laying the groundwork for new measures. Draghi said policy makers hadn't discussed any radical new policy measures, such as buying stocks or providing "helicopter money," which could involve the central bank financing government deficits. He also defended negative rates, arguing that adverse side effects of the policy hadn't materialized and eurozone credit markets continue to improve.

Asia

Late in the quarter the BOJ changed the focus of its monetary stimulus from expanding the money supply to controlling interest rates. Economists keyed in on this change, believing that the shift was driven by the bank's policy reaching the limits of its effectiveness. Japan's central bank said it would adjust the volume of its asset purchases, the main tenet of its framework until this point, as needed in the short term to control bond yields, while keeping it at about ¥80 trillion annually over the long term. The BOJ also did away with a target for the average maturity of its holdings of government bonds. It is believed that these changes will help the central bank manage the impact of its purchases and negative interest rates on Japanese banks, which have been squeezed by a narrowing of short-term and long-term yields.

BOJ Governor Kuroda and the policy board kept the negative rate imposed on a share of bank reserves unchanged at -0.1%. Kuroda has acknowledged that negative rates have impacted financial institutions' profits by driving long-term yields lower. He also expressed concern about the spillover effect leading to declines in returns on insurance and pension products, as well as the impact on consumer confidence. Shares in Japanese banks surged as investors bet that the BOJ's new framework would be less likely to erode commercial banks' profits. Kuroda has been considering the costs of long-term easing against the benefits, moving away from his "whatever-it-takes" approach of the past few years. The decision to change course followed a comprehensive review of policies to assess their effectiveness and determine how to reach a stated 2% inflation target. The bank strengthened its forward guidance by pledging to continue expanding the monetary base until inflation is stable above its target.

On the surface, economic statistics out of China appeared solid during the third quarter after a volatile start to the year. PMI went up from 49.9 in July to 50.4 in August and industrial output beat expectations, coming in at 6.3%. GDP also grew, reaching 7.2% in August versus 6.9% in July, according to Bloomberg. But the China Beige Book (CBB) International Survey, an independent quarterly economic survey of over 3,000 Chinese firms, displays some underlying concerns that government statistics often fail to report. The survey pointed out that the only sectors that appeared to grow throughout the quarter were the old drivers of the economy such as manufacturing, real estate, commodities and infrastructure, while the services and retail sectors struggled. This trend doesn't support China's effort to transition its economy from one based on investment towards an economy driven by consumption and service. It appears that China remains dependent on government spending to spur growth. The nation's total debt is on target to reach 283% of GDP by the end of 2016, doubling since 2008. Meanwhile, real estate in China is looking particularly bubbly. Out of 70 major Chinese cities surveyed, 64 of them experienced year-on-year price increases in August, up from 51 in July. Speculators are dominating the market as housing prices have reached unrealistically high levels compared with local GDP or incomes. In August, 70% of all bank loans went to the property market according to the central bank. If the housing bubble bursts, commercial banks will plunge into crisis with mortgage defaults and nonperforming loans. A possible "hard landing" for China looks like it is still on the table.

CBB Economic Snapshot: 3Q 2016

Strengthened	Weakened
↑ The "Old" Economy ▪ Manufacturing ▪ Real Estate ▪ Commodities	↓ The "New" Economy ▪ Retail ▪ Services ▪ Transportation
↑ Jobs	↓ Profit Margins
↑ Borrowing and Capex	↓ Cash Flow
↑ Northern Region	↓ Shanghai Region

Source: China Beige Book

Latin America

Emerging markets rallied during the quarter with Brazil leading the way. Brazil's surge was spurred by the official impeachment of Dilma Rousseff on August 31st. Rousseff was found guilty by a Senate vote of 61 to 20 of bypassing Congress to finance government spending. Michel Temer, previously Rousseff's Vice President, will serve out the remainder of her term. Temer has inherited a country immersed in recession, corruption, inflation around 9%, and unemployment at its highest since 2004. His focus is to put public finances in order and curtail government spending. With Temer promising fiscal austerity, global investors have started to look at Brazil again. Since Temer took over temporarily in May, consumer confidence has risen and retail sales and industrial output are up. The real appreciated 7.8% against the US dollar and the benchmark Ibovespa stock index jumped 14.2% in Q3. Additionally, Brazil's central bank expects annual inflation to fall below the government's 4.5% target in 2017. This could open the door for cutting rates as early as October of this year. After contracting for six consecutive quarters, Brazil's economy may finally be on the mend.

President Mauricio Macri continued to promote his own pro-business reforms in Argentina. After taking office Mr. Macri cut export taxes, devalued the peso, and ended currency controls- earning him praise from many economists. However, recent data has been disappointing. The economy shrank 4.3% in the 12-month period through June, industrial production fell 7.9% in July from a year earlier, and unemployment reached 9.3% during Q2. Additionally, Macri's devaluation of the peso pushed inflation up around 40%, the highest rate in Latin America excluding Venezuela. Argentines are frustrated; in September, union-organized protests brought thousands onto the streets of Buenos Aires. Government officials and some analysts maintain that Argentina is showing the first signs of exiting the recession. The IMF projects that the economy will shrink by 1.5% of GDP this year, but will grow 2.8% in 2017. Unwinding former President Kirchner's populism may take longer and prove more painful than Mr. Macri originally expected.

Meanwhile, Latin America's second largest economy has been experiencing some major currency fluctuations. Many analysts believe that the Mexican peso has been tracking expectations for the outcome of the US election. Prior to the first presidential debate, the peso plunged to a record low of 19.9 to the dollar as several polls showed Donald Trump gaining ground against Hillary Clinton. However, the currency began to surge during the debate on Monday, September 26th and was up 2.5% by late Tuesday trading, marking its second-largest daily gain this year. Some attribute the gains to perceptions that Democratic nominee Hillary Clinton won the first debate. Regardless, the Mexican peso remains one of the worst-performing emerging market currencies, down 11% so far this year.

Focus On: *Immigration Economics*

How much does the US presidential election impact the market? From a policy perspective history shows us that, contrary to popular belief, the impact of a particular President has been less dependent on the President himself, but rather on a sustained commitment that begins with his proposals or visions. Congressional approval is required for the majority of substantive actions the President can take. And while Presidents have the authority in some cases to act unilaterally, executive orders are easily removed by the next President. Not surprisingly, executive actions – especially on an economic issue – are rare. Perhaps the most notable post-WWII example is when Nixon boldly removed the US from the Bretton Woods system of international transfers of gold, changing the dollar to a free-floating international currency (often referred to as the "Nixon Shock"). This executive action created one of the Federal Reserve's most powerful tools, the ability to devalue the dollar to blunt the impact of recessions. When looking for transformational effects, more examples are found where a President and Congress tackle an issue together. Compare the Nixon Shock with the introduction of social security. Social Security fundamentally changed America's economy, but to this day it requires sustained commitment from every President and Congress to ensure its continuation.

According to national polls, immigration is a driving issue in this election cycle, ranking in the top three in virtually every poll and in some cases noted as the most important. Donald Trump has proposed the following: ending birthright citizenship, building a wall, removing suspected undocumented immigrants, and changing laws regarding employment of non-US citizens by US corporations. By comparison, Hillary Clinton has proposed creating a new immigration process with a pathway to citizenship for unauthorized immigrants. The United States has had several deportation events in history, so to understand the economic impact of Trump's proposal; we can look at those events. However, immigration in the US is just a thread of the larger global migration crisis.

A recent, if smaller-scale, example of an immigration enforcement event is the state of Georgia's unauthorized migrant crackdown in 2011. The action led to a steady outflow of unauthorized migrants and a desperate labor shortage on farms resulting in a loss of $140 million in agricultural revenue, as reported by Forbes. To help buoy the farms, the state mobilized the prisoner workforce who generally refused to work as long and as hard as the immigrants. The laws were eventually blocked in court. A similar crackdown in Arizona in 2008 shrunk their economy by 2%. Proponents of the enforcement claimed the state saved with less spending on emergency room Medicare and the education of the undocumented children. While it is clear those expenditures must have been reduced, attempts to quantify the savings have proved unsuccessful. Now, Arizona is suffering from a labor shortage. And while the shortage is driving an increase in wages, Moody's estimates that the state still lost 0.2% of its GDP last year because of the 2008 and subsequent crackdowns.

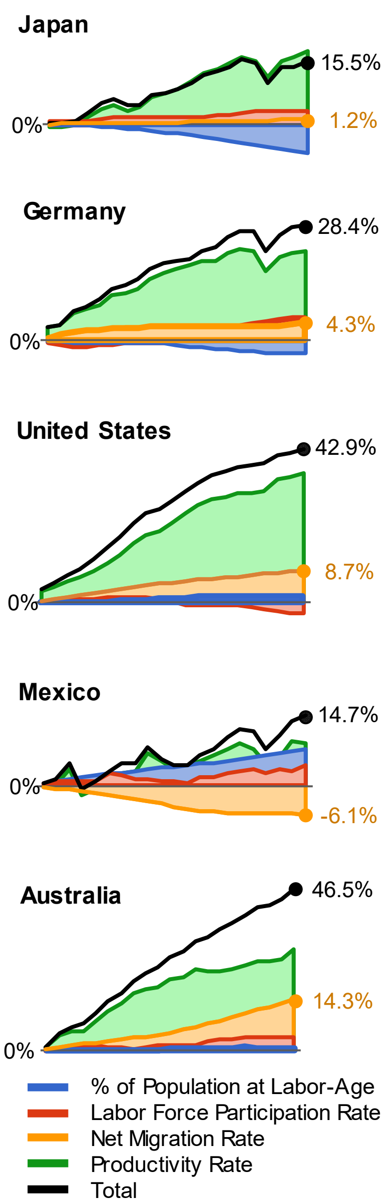
Types of Immigration

- **Asylum Seekers** - People who already reside in a country and fear for their safety should they return home.
- **Refugees** - People outside of a country who fear for their safety, so they are looking for a new home.
- **Economic Immigrants** - People who move voluntarily for jobs or higher wages in another country.

Economic Impact of Immigration

Mortality rates combined with birth rates indicate how the labor force population will change in the future. Developing economies largely satisfy their need for workers through higher birth rates. For instance, Nigeria's sits at 6 births per woman. A country with a low birth rate, like Germany at 1.38 births per woman, is simply not going to have enough young people to meet the demands of their economy. This suggests why Germany has been so welcoming, receiving an estimated 1.1 million migrants in 2015, 90% of whom were working age (Germany Federal Statistics Office). Prior to that, the working age population in Germany had been declining, at 65.4% of the population in 2014 according to the OECD.

Labor Dynamics 1992 - 2012



Source: World Bank

The United States has maintained a strong economy largely through population growth in tandem with productivity increases. Like the rest of our developed-markets peers, our consumer driven economy needs laborers of all skills to produce and consume while the aging generation receives their benefits. Rand Corporation estimates that in the US "10% growth in the fraction of the population ages 60 and older decreases growth in GDP per capita by 5.5%."

While an open immigration policy can help balance an aging population, the make-up of the migrant cohort matters. Unauthorized workers in the United States can largely be classified as economic immigrants. However, Sweden, with a working age population of 63.6%, has welcomed refugees. According to University of Gothenburg researcher Joakim Ruist's study "Fiscal Cost of Refugee Immigration: The Example of Sweden," Sweden's refugee population has required more support services than typically needed by economic immigrants, who are prepared to immediately work and contribute to an economy versus refugees who are driven from their homes often with little to no planning for their new lives. Germany has recently experienced a shift in its immigrant population with an increase in refugees, who are characterized by low literacy rates and a lack of German language skills sufficient enough for basic work. Now the German government is being urged by the business community to increase language and culture training to promote the hiring of more refugees.

The Economic Impact of Policy

A quick look at World Bank statistics from 1992 to 2012 shows that the dynamics of the labor market are heavily influenced by the culture of the country. For example, Japan is stubbornly anti-immigrant. Hence, their workforce population is largely domestic and driven almost exclusively by birth and mortality rates. In contrast, Germany has had a liberal immigration policy since the end of the Second World War. In the Comparison of Labor Dynamics, we see a steep drop in the percentage of population that is working age (15-64) in Japan. Only a slight decline is noted in Germany, which has consistently higher net migration. The charts also show the labor force participation rate for these countries, with both Japan and Germany increasing their labor force participation as their working-age populations have dropped. Supply and demand theory would suggest that, if the supply of workers drops, then the price of their labor should increase, which in turn should have the effect of convincing more and more available workers to join the labor force.

Abenomics, or Prime Minister Shinzo Abe's initiatives to jumpstart the slow growth in the Japanese economy, comes with a cultural push to convince women to join the labor market. This makes sense. If a cultural barrier is all that is preventing growth in the working population, then a cultural fix could help to remedy the shortage. Australia has not experienced a recession in the 20-year period covered, so we can compare that with Mexico, which experienced multiple recessions. Net migration in these countries plays an important role. Notice, Mexico's sustained net negative migration, while its labor age population is increasing. Mexico's prime workers are leaving, and their domestic economy pays for it. Further, we can see that productivity has been increasing across Germany, Japan, and the United States. Productivity tells us how much an hour of labor is valued in a given country. Productivity can increase when either GDP increases or the number of hours worked in a country decreases. Technological advances decreasing the number of hours worked in a country can pose a problem if the population of a country is increasing as well. (The small downtick in the trend line is the 2008 crisis when Germany and Japan experienced a severe GDP contraction and the United States muddled through.)

Retirees are the first to feel the impact of a shrinking labor force. They are more sensitive to inflationary pressure from a labor supply shortage since they have fixed incomes and cannot easily re-enter the workforce. Social benefits programs require the funding from taxes on everything from labor to goods sold. Japan has already been forced to raise the retirement age to 65 by 2025. Increased demand that is generated by the working-age population revs the economy as well as utilizes and pays for the infrastructure projects that benefit the whole population. As the population begins to live longer, the burden of the social programs increases. A growing labor force solves many of these problems. It puts downward pressure on wages and expands the taxable base while generating demand.

Market Impact

How does the macroeconomic outlook effect the markets, and why should we care about who becomes President? The equity markets are less directly driven by the macroeconomic outlook than one would think. Fixed-income markets are actually more impacted by the changing macroeconomic climate due to the time horizon an investor must consider when purchasing a bond. Consider the following: a birth in this year will add to the working age population in 15 years. The maturity of some commonly traded bonds is 7 to 10 years. Investors need to take into account the company's demand for workers into the future when they are buying a corporate bond maturing in 10 years. Luckily, population shifts usually occur at a glacial pace. Except for cases of global war and extreme crisis, populations do not change overnight.

It is difficult to separate the emotional aspect of immigration as a political issue from the economic study. Here we have tried to be even-handed in consideration of the economic effects, but the benefits to be gained are clear and drawbacks only slight. George Borjas's seminal 1995 paper, "The Economic Benefits of Immigration," detailed a simple formula for calculating the percentage of Gross Domestic Product attributable to immigrants. We have used this formula to calculate the historical impact of undocumented immigrants in the labor force.

The Economic Benefits of Immigration (as a share of US GDP)		
1995	0.02%	$2.056 billion
2000	0.03%	$3.804 billion
2008	0.04%	$5.832 billion
2010	0.04%	$5.976 billion
2012	0.04%	$6.152 billion

The economic effects of immigration are minor in the short-run. Yet, the effect is demonstrably positive and not insignificant in dollar terms. Healthy growth in the workforce population is vital not only to support those outside the workforce, but to generate demand for ongoing expansion and existing sunk capital investments in infrastructure. Unlike the irreversible Nixon Shock, the United States' immigration policies are meant to be adaptable to global migration shifts. It may be cheaper to retrain and re-equip 11 million US citizens than to deport 11 million immigrants, with far better long-term results.

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