



## Economic and Capital Market Review

### Second Quarter 2018

When you step back and look the U.S. economy from 10,000 feet, the view is encouraging. Financial markets remain supported by solid fundamentals. A synchronized global economic expansion continues, albeit it a slightly slower pace. U.S. GDP growth has averaged 2.9% over the last five quarters. Corporate revenue and earnings growth are surging. Business activity remains robust. Measures of consumer and business confidence are high. Consumer spending remains strong. Unemployment remains low. Wages remain steady. And inflation remains low, relatively speaking. So why do the markets seem to be gloomy?

We believe there are a few key issues weighing on investors' minds.

One development contributing to a gloomy outlook is the confrontational trade policy initiated by the Trump administration. While this issue has been simmering in the background for some time, it kicked into high gear when the administration initiated a series of trade tariffs, first on steel and aluminum, and then with provisions specifically targeting Canada, China, Europe and Mexico. Not only do these actions raise the risk of retaliatory measures by foreign governments, they also introduce uncertainty for businesses and consumers around the world, as trade tariffs will likely affect costs, prices, and demand. While the specific impact of a trade war on the global economy is difficult to estimate or quantify, the sour tone of the rhetoric about retaliatory tariffs diminished investors' appetite for risk and business' appetite for long-term investment planning.

Another development is the change in direction of the U.S. dollar, which gained strength throughout the second quarter. This reversal is due to several factors, but is primarily the result of rising U.S. interest rates and the trade concerns mentioned above. U.S. Dollar strength led to a correction in most major currencies and equity markets during the quarter, particularly in emerging countries, and likely also contributed to slower international growth.

Finally, if the challenges facing the global economy become more pronounced, the risk increases that our Fed will overshoot in its transition to higher policy rates.

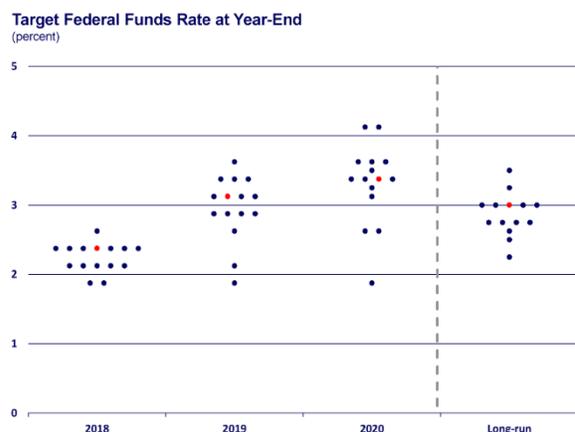
To be clear, the U.S. economic picture is quite strong. However, trade-related tensions combined with central bank monetary policy normalization will continue to impact markets given the interdependencies of a global economy.

### Federal Open Market Committee (FOMC)

At the FOMC meeting in June, the committee voted to increase short-term rates by 25 basis points. The Fed Funds rate now stands at 1.75% to 2.00%

In an unusually short statement, the FOMC changed several phrases from its previous releases, pointing to a more optimistic view on economic growth and higher inflation expectations. The committee said economic growth has been rising at a "solid" rate, as opposed to "moderate" in May. The unemployment rate has "declined," as opposed to "stayed low," and household spending "has picked up," as opposed to "moderated." These changes represent a more hawkish view.

In our view, the Federal Reserve will remain on their path of increasing short term interest rates in 2018. The chart at the right depicts the FOMC's projection for the federal funds rate at the end of 2018, 2019 and 2020. Their current projection indicates a rate of 2.375% at the end of 2018 which implies two more rate hikes.



## Real Gross Domestic Product (GDP)

Real GDP measures the value of all goods and services produced by the nation's economy.

The U.S. economy grew at its fastest pace in nearly four years in the second quarter as consumers boosted spending and farmers rushed shipments of soybeans to China to beat retaliatory trade tariffs before they took effect in early July. Based on the advance estimate, GDP grew at a 4.1% annual rate following 1Q18 growth of 2.2% and 4Q17 growth of a 2.3%. This is the strongest reading since 1Q14.

Economists caution against putting too much weight on the surge in 2Q18 growth as one-off factors, including a \$1.5 trillion tax cut package, were behind the growth spurt. The soybean boost is likely to reverse in the coming quarters and the fiscal stimulus is expected to fade in 2019.

For a better sense of underlying domestic demand, economists look at final sales to domestic purchasers, which strips out inventories and trade, the two most volatile components of GDP. Domestic final sales grew a healthy +3.9% percent this quarter.

## Inflation

The Consumer Price Index (CPI) measures price changes in consumer goods and services from the perspective of the purchaser.

The Personal Consumption Expenditures Index (PCE) includes a broader range of expenditures than CPI and uses a formula that adjusts for changes in consumer behavior. PCE measures price changes from the perspective of the purchaser.

The Producer Price Index (PPI) measures the change in selling prices of goods and service by domestic producers from the perspective of the seller. PPI inflation generally appears before CPI and PCE.

When making decisions on monetary policy, the Fed is most interested in the less volatile Core PCE, which excludes food and energy. Core PCE inflation increased +1.9% on a year-over-year basis and continues to trend at Fed's target of +2.0%.

## Business

The Conference Board's Leading Economic Index (LEI) increased +0.8% during the quarter to 109.8, its highest ever reading. For the twelve-month period ending June, the leading economic index has increased by +5.8% which suggests solid economic growth throughout 2018.

According to the latest Manufacturing ISM Report on Business, the overall economy grew for the 110<sup>th</sup> consecutive month. The Purchasing Manager's Index (ISM PMI) ended June at 60.2%. The past relationship between PMI and the overall economy indicates that the average PMI reading in June corresponds to a +5.2% increase in real gross domestic product on an annualized basis. *(A reading above 50% indicates that the manufacturing economy is generally expanding and a reading below 50% indicates that it is generally contracting.)*

The latest Non-Manufacturing ISM Report on Business indicates economic activity in the non-manufacturing sector grew for the 101<sup>st</sup> consecutive month. The Non-Manufacturing Index (ISM NMI) ended June at 59.1%. The past relationship between NMI and the overall economy indicates that the latest reading corresponds to a +3.7% increase in real gross domestic product on an

Economic Growth	2Q18	1Q18	4Q17
<b>Real GDP <sup>(1)</sup></b>	<b>4.1%</b>	<b>2.2%</b>	<b>2.3%</b>
Personal Consumption <sup>(2)</sup>	2.7%	0.4%	2.6%
Private Investment <sup>(2)</sup>	-0.1%	1.6%	0.2%
Government <sup>(2)</sup>	0.4%	0.3%	0.4%
Net Exports <sup>(2)</sup>	1.1%	-0.1%	-0.9%
<b>Real GDP Components</b>			
Domestic Final Sales <sup>(1)</sup>	3.9%	1.9%	4.5%
Foreign Trade Effect <sup>(1)</sup>	1.1%	0.0%	-1.1%
Final Sales <sup>(1)</sup>	5.1%	1.9%	3.4%
Inventory Effect <sup>(1)</sup>	-1.0%	0.3%	-0.5%
Real GDP <sup>(1)</sup>	4.1%	2.2%	2.9%
<b>Demand Components</b>			
Personal Consumption <sup>(1)</sup>	4.0%	0.5%	3.9%
Business Fixed Investment <sup>(1)</sup>	7.4%	11.5%	4.9%
Residential Investment <sup>(1)</sup>	-1.0%	-3.4%	11.2%
Government Spending <sup>(1)</sup>	2.1%	1.5%	2.4%

<sup>(1)</sup> Annualized Q/Q % Change, <sup>(2)</sup> Contribution to GDP Growth

Inflation	6/18	5 Year High	5 Year Low
<b>Headline (All Items)</b>			
CPI <sup>(3)</sup>	2.9%	2.9%	-0.2%
PCE <sup>(3)</sup>	2.2%	2.2%	0.1%
PPI <sup>(3)</sup>	3.3%	3.3%	-1.5%
<b>Core (Less Food and Energy)</b>			
CPI <sup>(3)</sup>	2.3%	2.3%	1.6%
PCE <sup>(3)</sup>	1.9%	2.0%	1.2%
PPI <sup>(3)</sup>	2.8%	2.8%	0.2%
<b>Inflation Expectations</b>			
5Yr Breakeven Inflation	2.1%	2.1%	1.1%
10Yr Breakeven Inflation	2.1%	2.3%	1.3%
30Yr Breakeven Inflation	2.1%	2.4%	1.5%

<sup>(3)</sup> Y/Y % Change

Business	6/18	5 Year High	5 Year Low
Leading Economic Index	109.8	109.8	89.4
Leading Economic Index <sup>(3)</sup>	5.8%	6.5%	0.5%
Small Business Optimism	107.2	107.8	91.5
ISM PMI	60.2	60.8	47.8
ISM NMI	59.1	59.9	51.6

<sup>(3)</sup> Y/Y % Change

annualized basis. (A reading above 50% indicates that the non-manufacturing economy is generally expanding and a reading below 50% indicates that it is generally contracting.)

## Employment

The labor market has now posted 93 consecutive months of employment growth, extending the longest streak on record. Employers have added an average of just over 215,000 jobs per month so far in 2018, a pace that has held relatively steady for the past two years.

The unemployment rate dipped to 3.8% in May before ending the quarter at 4.0% as people came off the sidelines to re-enter the labor force. A more encompassing measure of unemployment that includes discouraged workers and those at part-time jobs for economic reasons remained at 7.8%. As we mentioned last quarter, the labor force participation rate and the employment to population ratio remain low, suggesting higher wages might draw workers off the sidelines and into the labor market adding fuel for continued growth.

Labor	6/18	5 Year High	5 Year Low
Wage Growth <sup>(3)</sup>	2.9%	2.9%	1.7%
Unemployment Claims <sup>(5)</sup>	224	347	218
Nonfarm Payrolls <sup>(6)</sup>	211	290	134
Unemployment Rate	4.0%	7.3%	3.8%
Under-employment Rate	7.8%	13.8%	7.6%
Labor Force Participation	62.9%	63.3%	62.3%

<sup>(3)</sup> Y/Y % Change, <sup>(5)</sup> Four Week Moving Average in Thousands,

<sup>(6)</sup> Three Month Moving Average in Thousands

Despite the relatively strong employment situation, meaningful wage gains remain elusive. The employment-cost index, a broad measure of wages and salaries in the private industry, increased 2.9% year over year through June 2018.

## Consumer

Historically, strength in consumer confidence surveys bodes well for increased economic activity in the following months. The most recent survey indicates consumers remain optimistic on the prospects for the economy as reflected by the June reading of 126.4.

While consumer expectations remain high by historical standards, the modest curtailment in optimism from 1Q18 suggests that consumers do not foresee the economy gaining additional momentum in the months ahead.

Consumer	6/18	5 Year High	5 Year Low
Consumer Confidence	126.4	130.0	72.0
Consumer Sentiment	98.2	101.4	73.2
Auto Sales <sup>(3)</sup>	4.7%	11.5%	-6.5%
Retail Sales <sup>(3)</sup>	6.6%	6.6%	1.6%

<sup>(3)</sup> Y/Y % Change

## Housing

The combination of low inventory, rising prices and higher mortgage rates is starting to weigh on the U.S. housing market.

A continued increase in home prices has been a sign of strength for the economy. But in recent months, home sales activity has dropped sharply amid low inventory levels, tax-code changes and buyers' growing weariness from being priced out of the market. For example, existing home sales dropped in June for a third straight month; new home sales are at their slowest pace in ten months and inventory has increased to 4.3 months. All signs indicate buyers are moving to the sidelines.

Housing	6/18	5 Year High	5 Year Low
Housing Affordability	141	184	141
Housing Starts <sup>(4)</sup>	1,137	1,337	850
Building Permits <sup>(4)</sup>	1,292	1,377	961
New Home Sales <sup>(4)</sup>	631	712	375
Existing Home Sales <sup>(4)</sup>	5,380	5,720	4,720

<sup>(4)</sup> Monthly Seasonally Adjusted Annual Rate in Thousands

If the trend should persist, it could hamper a sector that represents about 15% of U.S. GDP. Rising mortgage rates have already crimped refinancing activity and pushed would-be home buyers who were on the margins, out of the market as home prices also have risen.

## Looking forward

***Overall, domestic economic indicators maintained their strength during the second quarter of 2018. We believe the prospects for 2018 appear favorable based on positive trends in consumer spending, job gains and inflation. We expect the U.S. economy to grow at annualized rate of +3.0% in 2018 due in large part to tax law changes and low unemployment, a combination that produces stronger consumer purchasing power. We expect inflation to remain within the Fed's 2.0%-2.5% threshold until a tighter labor market delivers meaningful wage gains.***

## Equity Market Summary

As measured by the S&P 500, domestic equities gained 3.4% during the quarter, driven by domestic economic growth, strong corporate profits and business-friendly regulatory policies.

While the S&P 500 is generally used as a proxy for the broader equity market, this measure does not tell the whole story for the second quarter.

The quarter was marked by significant outperformance of small-cap companies versus large-cap companies as the Russell 2000 Index outperformed the S&P 500 Index by more than 4%. One reason was rising U.S. interest rates which support a strong U.S. dollar. As the U.S. dollar gained strength during the quarter, firms with high foreign sales as a percentage of total sales (which tend to be larger cap companies) began to underperform relative to their more domestically focused peers (which tend to be small cap companies).

The quarter was also marked by significant outperformance of growth companies versus value companies as the Russell 3000 Growth Index outperformed the Russell 3000 Value Index by more than 4.0%. The Growth index is dominated by Technology, Consumer Discretionary, Health Care and Industrials. These sectors combined represent 70% of the index. Value on the other hand is more broadly diversified by sector with much more Financials, Utilities and Energy. It is also worth noting that while it appears both have a good Consumer Discretionary weighting, this masks over some very different holdings. The growth consumer discretionary holdings include companies like Amazon and Netflix while the value index has Ford and Macy's.

From a fundamental perspective, corporate earnings remained strong in 1Q 2018 with a year-over-year increase of +19.0%. Projections for 2Q 2018 corporate earnings call for a year-over-year gain of +21.0%. The consensus forecast for full year 2018 corporate earnings growth currently stands at +26.0%. (Earnings data is according to S&P Dow Jones.)

Corporate revenue also remained strong in 1Q 2018 with a year-over-year increase of +7.7%. Projections for 2Q 2018 corporate revenue call for a year-over-year increase of +8.1%. (Revenue data is according to S&P Dow Jones.)

Current valuations appear reasonable as they are supported by improving corporate earnings and modest inflation.

International equities declined with developed markets down -1% and emerging markets down a staggering -8%. Trade concerns are weighing heavily on the international equity markets. Fears of a trade war, the strengthening dollar, and rising U.S. interest rates have hit international equity markets hard.

The good news for international equities is that other fundamental catalysts remain in place. Valuations remain attractive for developed market equities and very attractive for emerging market equities as international corporate profit growth remains healthy. We continue to believe that international equities will eventually enter a period of outperformance relative to the U.S. markets. As such, we will maintain our allocations to international equities both for diversification and to position portfolios to take advantage of the long-term trends.

### Looking forward

*In the current environment, we are neutral on equities and will maintain a base allocation exposure as long as earnings continue to support current P/E multiples.*

Equity Total Returns			
	2Q 18	YTD	12 MO
DJIA	1.3%	-0.7%	16.3%
S&P 500	3.4%	2.7%	14.4%
Nasdaq	6.6%	9.4%	23.7%
International <sup>(1)</sup>	-1.0%	-2.2%	8.2%
Emerging Markets <sup>(2)</sup>	-7.9%	-6.7%	8.3%
<b>Domestic Market Cap</b>			
Mega <sup>(3)</sup>	4.2%	2.2%	14.9%
Large <sup>(4)</sup>	3.9%	3.0%	15.4%
Mid <sup>(5)</sup>	2.8%	2.3%	12.3%
Small <sup>(6)</sup>	7.8%	7.7%	17.6%
<b>Domestic Style</b>			
Growth <sup>(7)</sup>	5.9%	7.4%	22.5%
Core <sup>(7)</sup>	3.9%	3.2%	14.8%
Value <sup>(7)</sup>	1.7%	-1.2%	7.3%

<sup>(1)</sup> MSCI EAFE IMI, <sup>(2)</sup> MSCI Emerging Markets IMI, <sup>(3)</sup> Russell Top 50, <sup>(4)</sup> Russell top 200, <sup>(5)</sup> Russell Midcap, <sup>(6)</sup> Russell 2000, <sup>(7)</sup> Russell 3000



## Taxable Bond Market Summary

The fixed income markets remained under pressure in the second quarter as investors focused on the Fed (yield curve) and inflation. The Bloomberg Barclays U.S. Aggregate Bond Index generated a slightly negative return in the quarter and is now down 1.6% year-to-date.

We have reached a point in the interest rate cycle where global central banks are normalizing monetary policy after a decade of stimulus. Central bankers and fixed income investors are in uncharted territory as the markets sort out the timing and implications of the policy shift, so uncertainty and volatility have increased.

Domestically, the combination of fiscal policy stimulus (tax cuts), monetary policy tightening (Fed rate increases), strong jobs data and the potential for rising inflation are creating a perplexing environment. Ultimately, less accommodative monetary policy pushed short-term rates higher during the quarter.

Given this backdrop, money market, high yield, floating rate and short-term bonds performed relatively well while international and emerging market debt, investment grade corporates and U.S. Treasuries lagged.

The most notable performance issues in the fixed income markets during the quarter were widening corporate bond spreads and the flattening yield curve, both of which reflect diminished investor appetite for risk.

Most important was the flattening of the Treasury yield curve. The difference between short and long-term Treasury bond yields is an important indicator of sentiment about economic growth and inflation. In normal times investors demand more compensation for investing in longer term bonds to compensate them for inflation risk. If market expectations about growth and inflation decline, long term rates decline as well. An inverted yield curve, where short-term rates are higher than long-term rates, has historically been predictive of a recession. As the second quarter ended the difference between the two-year and ten-year Treasury yields fell to 32 basis points, the smallest gap since 2007.

The question facing bond investors is how to interpret the Fed's plan for "normalize" interest rates given the current Treasury yield curve. The Fed plan as expressed through the dot plot calls for the Fed Funds rate to reach the 3.0-3.25% range in 2019 and as high as 3.5% in 2020, levels significantly above the current 10-year Treasury yield. Those plans either invert the curve or force long-term yields higher than current expectations, and neither of those scenarios would be good news for the economy and markets.

Another risk to the current interest rate outlook is the possibility of a trade war. Tariffs and trade wars are inflationary, causing prices on imported goods to increase and pressing U.S. companies to raise prices on domestic products to make up for the loss of export sales. If tariffs are implemented they will lead to higher input prices and result in higher prices for U.S. consumers.

### Looking forward

*We continue to underweight Treasury and Agency bonds in favor of high rated Corporate and Securitized bonds. As market conditions allow, and as appropriate for each client, we will keep duration slightly shorter than respective benchmarks, improve credit quality and increase coupons in anticipation of gradually rising interest rates.*

U.S. Treasury Yield Curve				
	Jun 18	QTR Δ	YTD Δ	12 MO Δ
2 Year	2.52%	25 bps	63 bps	114 bps
5 Year	2.73%	17	53	84
10 Year	2.85%	11	45	54
30 Year	2.98%	1	24	14

Credit Spreads				
	Jun 17	QTR Δ	YTD Δ	12 MO Δ
Aaa	14 bps	0	1	-2
Aa	62 bps	6	12	0
A	101 bps	11	28	12
Baa	157 bps	20	33	16
< Baa	363 bps	9	20	-1

Taxable Bond Total Returns			
	2Q 18	YTD	12 MO
Aggregate Bond Index	-0.2%	-1.6%	-0.4%
International	-4.8%	-1.3%	2.8%
Emerging Markets	-2.4%	-3.8%	-1.0%

Domestic Sector			
	2Q 18	YTD	12 MO
Treasury	0.1%	-1.1%	-0.7%
Agency	-0.2%	-0.9%	0.0%
Corporate	-1.0%	-3.3%	-0.8%
Securitized	0.2%	-1.0%	0.1%

Domestic Quality			
	2Q 18	YTD	12 MO
Aaa	0.1%	-1.0%	-0.3%
Aa	-0.2%	-1.6%	0.0%
A	-0.9%	-3.3%	-1.0%
Baa	-1.2%	-3.3%	-0.6%
< Baa	1.0%	0.2%	2.6%

Domestic Maturity			
	2Q 18	YTD	12 MO
Short <sup>(1)</sup>	0.3%	0.1%	0.2%
Intermediate <sup>(2)</sup>	0.0%	-1.2%	-0.5%
Long <sup>(3)</sup>	-1.4%	-4.9%	-0.8%

<sup>(1)</sup> Short 1-3 Years, <sup>(2)</sup> Intermediate 5-7 Years, <sup>(3)</sup> Long 10+ Years

## Municipal Bond Market Summary

The municipal bond market rewarded investors with an unexpected positive return during the quarter. The Bloomberg Barclays Municipal Bond Index generated a slight positive return in the quarter and is now down 0.2% year-to-date.

The market's strong technical environment provided a solid footing for municipal bonds to benefit from rangebound interest rates and mounting fears around the impact of international trade wars.

Municipal bond credit fundamentals remain benign. Credit conditions have been buoyed by strong tax receipts, low unemployment and rising home prices. Also, fewer states experienced FY19 budget debates this year. However, structural risks still pose a challenge to many issuers, including a weaker federal government partner, growing pension and retiree healthcare costs, and deferred infrastructure maintenance.

As we pointed out in our last commentary, the new tax law significantly limited the ability of municipal issuers to refinance their tax-exempt debt prior to call dates. As a result, new issuance continues to be depressed in 2018 and is down 19% year-to-date versus the same period last year.

High-grade issues (Aaa, Aa, A) have produced slightly negative year-to-date returns as interest rates have drifted higher. BBB rated municipal bonds outperformed high-grade municipal bonds over the second quarter, boosted by a strong performance from Illinois. High-yield municipal bonds (<Baa) were the strongest performers for the quarter, led by Puerto Rico and tobacco bonds.

Heading into the late summer months, we hold a positive view on the municipal market as relative valuations have reset to slightly more attractive levels. Looking further ahead into the fall, we anticipate taking a bit more caution as we watch for event risks relating to a potential third Fed rate hike, midterm elections, and the curtailment of the tax benefit for pension buyers.

During the quarter, the Supreme Court ruled that public employees represented by a labor union do not have to pay fees to cover costs associated with collective bargaining on their behalf. This decision is viewed as helping state and local governments to eventually contain or lower labor costs as union coffers and bargaining strength weaken.

The Supreme Court also ruled that state and local governments can require internet retailers to collect sales taxes even in states where they have no physical presence. The ruling is certain to have a positive credit impact given annual revenue estimates ranging from \$8 to \$20 billion.

### Looking forward

*We believe that municipals are fairly valued when compared to other asset classes on a tax-equivalent basis. We favor A-rated bonds in the intermediate part of the curve. As market conditions allow, and as appropriate for each client, we will keep duration slightly shorter than respective benchmarks, improve credit quality and increase coupons in anticipation of gradually rising interest rates.*

AAA Municipal Yield Curve (%)				
	Jun 18	QTR Δ	YTD Δ	12 MO Δ
2 Year	1.65%	-3 bps	9 bps	66 bps
5 Year	2.00%	-7	30	65
10 Year	2.47%	-1	46	51
30 Year	3.00%	-1	38	19

Municipal AAA Yield to Treasury Yield Ratio (%)				
	Jun 18	QTR Δ	YTD Δ	12 MO Δ
2 Year	65%	-9%	-17%	-6%
5 Year	73%	-7%	-4%	2%
10 Year	87%	-4%	3%	2%
30 Year	101%	-1%	5%	2%

Municipal Credit Spreads				
	Jun 18	QTR Δ	YTD Δ	12 MO Δ
Aa	13 bps	4	3	0
A	49 bps	4	0	-14
Baa	112 bps	-3	-3	-47
<Baa	243 bps	-40	-61	-173

Municipal Bond Total Returns			
	2Q 18	YTD	12 MO
Municipal Bond Index	0.9%	-0.2%	1.6%
<b>Type</b>			
General Obligation	0.9%	-0.3%	1.4%
Revenue	0.9%	-0.3%	1.7%
<b>Quality</b>			
Aaa	0.7%	-0.5%	0.7%
Aa	0.8%	-0.3%	1.2%
A	0.9%	-0.2%	1.9%
Baa	1.4%	0.4%	4.7%
<Baa	3.1%	3.7%	7.1%
<b>Maturity</b>			
Short <sup>(1)</sup>	0.6%	0.8%	0.5%
Intermediate <sup>(2)</sup>	1.0%	-0.3%	0.3%
Long <sup>(3)</sup>	0.9%	-0.7%	0.9%

<sup>(1)</sup> Short 3 Years, <sup>(2)</sup> Intermediate 6-8 Years, <sup>(3)</sup> Long 8-12 Years

## Economic Index Descriptions

**Real Gross Domestic Product (GDP):** Real GDP is a basic measure of U.S. economic output adjusted for inflation. Alternatively, it can be thought of as the final value of all goods and services produced within the U.S. Positive Real GDP growth signals an expanding economy.

**Consumer Price Index (CPI):** Measuring the change in the CPI provides an estimate for inflation. The CPI tracks the price of a basket of consumer goods and services. High inflation or deflation (negative inflation) can be signs of economic worry. CPI is typically reported in two ways: headline and core CPI. Headline CPI includes all categories that comprise the CPI basket of goods and services. Core CPI, which is closely monitored by the Fed, strips out the more volatile Food and Energy categories.

**Personal Consumption Expenditure Chain-type Price Index (PCE):** Measuring the change in the PCE provides an estimate for inflation. In comparison to CPI, which uses one set of expenditure weights for several years, this index uses expenditure data from the current period and the preceding period. This price index method assumes that the consumer has substituted from goods whose prices are rising to goods whose prices are stable or falling. Core PCEPI, which is closely monitored by the Fed, strips out the more volatile Food and Energy categories.

**Producer Price Index (PPI):** Measuring the change in the PPI provides an estimate for inflation. The PPI is a weighted index of prices measured at the wholesale, or producer level. A monthly release from the Bureau of Labor Statistics (BLS), the PPI shows trends within the wholesale markets (the PPI was once called the Wholesale Price Index), manufacturing industries and commodities markets. All of the physical goods-producing industries that make up the U.S. economy are included, but imports are not. The PPI measures the average changes over time in the selling prices received by domestic producers.

**Conference Board Index of Leading Economic Indicators (LEI):** The LEI is designed to signal peaks and troughs in the business cycle. The ten components of for the U.S. include: average weekly manufacturing hours; average weekly initial claims for unemployment insurance; manufacturers' new orders for consumer goods and materials; ISM® Index of New Orders; manufacturers' new orders for nondefense capital goods excluding aircraft orders; building permits for new private housing units; stock prices of 500 common stocks; Leading Credit Index™; interest rate spread on 10-year Treasury bonds less federal funds and average consumer expectations for business conditions.

**NFIB Small Business Optimism Index:** The small business optimism index is compiled from a survey that is conducted each month by the National Federation of Independent Business (NFIB) of its members. The index is a composite of 10 seasonally adjusted components based on the following questions: plans to increase employment, plans to make capital outlays, plans to increase inventories, expect economy to improve, expect real sales higher, current inventory, current job openings, expected credit conditions, now a good time to expand, and earnings trend.

**The Institute for Supply Management (ISM) PMI Index:** The PMI is a composite index of five "sub-indicators", which are extracted through surveys to purchasing managers from around the country, chosen for their geographic and industry diversification benefits. The five sub-indices are: Production, New orders, Supplier deliveries, Inventories and Employment level. An Index value over 50 indicates expansion; below 50 indicates contraction.

**The Institute for Supply Management (ISM) Non-manufacturing Index (NMI):** The NMI is a composite index of four "sub-indicators", which are extracted through surveys to purchasing managers from around the country, chosen for their geographic and industry diversification benefits. The four sub-indices: Business activity, New orders, Employment, Supplier deliveries. An Index value over 50 indicates expansion; below 50 indicates contraction.

**Consumer Confidence Index (CCI):** The Consumer Confidence Index is a well-known proxy for the attitudes of U.S. consumer towards topics such as the business climate, personal finances and spending. In essence, this index attempts to measure the confidence that consumers have in the overall economy. This is important because consumer spending accounts for a large portion of U.S. GDP.

**Unemployment Rate:** Calculated monthly by the Bureau of Labor Statistics, the unemployment rate is a gauge of the health of the U.S. labor market. High unemployment can stifle the growth of the economy.

## Domestic Equity Benchmark Descriptions

**Investment Style:** Performance of different types of stocks will vary over time. A common way to characterize a stock is by market capitalization (e.g., large cap or small cap) or style (e.g., value or growth).

**Large Cap vs. Small Cap:** Large companies tend to be more established companies and therefore exhibit lower volatility. Over an extended period of time, expected returns of small cap companies are often higher due to the risks associated with smaller, less established companies.

**Mega Cap:** The Russell Top 50 Index measures the performance of the 50 largest companies in the Russell 1000 Index, which represents approximately 40% of the total market capitalization of the of the Russell 1000 Index.

**Large Cap:** The Russell Top 200 Index measures the performance of the 200 largest companies in the Russell 1000 Index, which represents approximately 68% of the total market capitalization of the of the Russell 1000 Index.

**Mid Cap:** The Russell Midcap Index measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 36% of the total market capitalization of the Russell 1000 Index.

**Small Cap:** The Russell 2000 Index measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 10% of the total market capitalization of the Russell 3000 Index.

**Value vs. Growth:** Value companies typically trade at discount valuations and may pay a dividend. Growth companies are those that are experiencing greater earnings growth prospects.

**Growth:** The Russell 3000 Growth Index measures the performance of those Russell 3000 index companies with higher price-to-book ratios and higher forecasted growth values.

**Value:** The Russell 3000 Value Index measures the performance of those Russell 3000 companies with lower price-to-book ratios and lower forecasted growth values.

#### **Domestic Fixed Income Benchmark Descriptions**

**U.S. Aggregate Bond:** The Barclays U.S. Aggregate Bond Index measures the performance of USD-denominated, SEC-registered, investment-grade, fixed-rate or step up, taxable bonds. The index includes bonds from the Treasury, Government-Related, Corporate and MBS (agency fixed-rate and hybrid ARM pass-through), ABS, and CMBS sectors. Securities included in the index must have at least 1 year until final maturity.

**U.S. Treasury:** The Barclays Capital U.S. Treasury Index measures the performance of public obligations of the U.S. Treasury with a remaining maturity of one year or more.

**U.S. Agency:** The Barclays Capital U.S. Agency Bond Index measures the performance of the agency sector of the U.S. government bond market and is comprised of investment-grade U.S. dollar-denominated debentures issued by government and government-related agencies, including FNMA. The index includes both callable and non-callable securities that are publicly issued by U.S. government agencies, quasi-federal corporations, and corporate and foreign debt guaranteed by the U.S. government.

**U.S. Corporate:** The Barclays Capital U.S. Corporate Bond Index measures the performance of publicly issued USD-denominated corporate and Yankee debentures and secured notes that meet specified maturity, liquidity, and quality requirements.

**U.S. MBS:** The Barclays Capital U.S. Mortgage Backed Securities Index measures the performance of mortgage-backed pass-through securities of Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC).

**U.S. Municipal Bond:** The Barclays Capital Municipal Bond Index measures the performance of the USD-denominated, investment grade, fixed-rate tax exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds and pre-refunded bonds. Securities included in the index must have at least 1 year until final maturity.

**General Obligation Bond Index:** The Barclays General Obligation Bond Index measures the average market-weighted performance of general obligations securities that have been issued in the last five years with maturities greater than one year.

**Revenue Bond Index:** The Barclays Revenue Bond Index measures the average market-weighted performance of revenue backed securities that have been issued in the last five years with maturities greater than one year.