DoubleLine® FUNDS

Economic Update

September 30, 2019

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Third Quarter 2019 Review

Many of the themes that were on top of our minds in the second quarter of 2019 continued to play out in the third quarter. Trade war headlines permeated global markets. Global growth deteriorated further. In order to prevent further economic slowdowns, central banks eased their monetary policies.

As we expected, the global economic data continued to slide during the quarter, dragging down global growth expectations. (Figure 1) In the U.S., weakening data became broader based. The Institute for Supply Management (ISM) reported notable declines in both manufacturing and services sectors in September with manufacturing indicating economic contraction and at the lowest level since coming out of the global financial crisis. (Figure 2) The uncertainty around the trade war appears to have hurt business executives' confidence, which has led to a pullback in capital expenditures. (Figure 3)

World Gross Domestic Product (GDP) Forecast by Year
(Bloomberg Economist Survey)

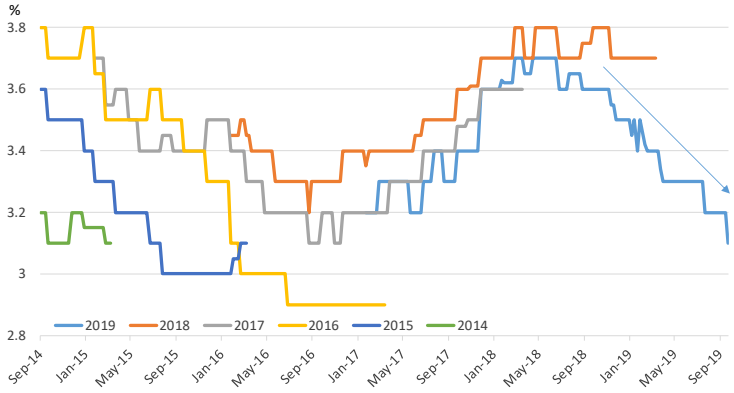

Figure 1
Source: Bloomberg, DoubleLine

Institute for Supply Management Services versus Manufacturing PMI

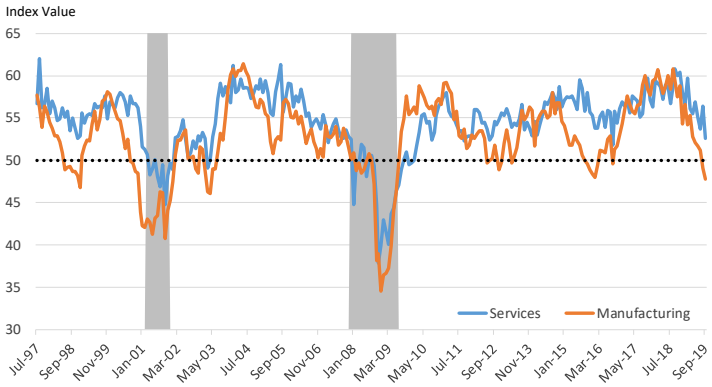

Figure 2
Source: Bloomberg, DoubleLine.
Gray shaded areas indicate recessionary periods.

CEO Confidence Index versus Capital Goods Orders ex-Aircraft YoY

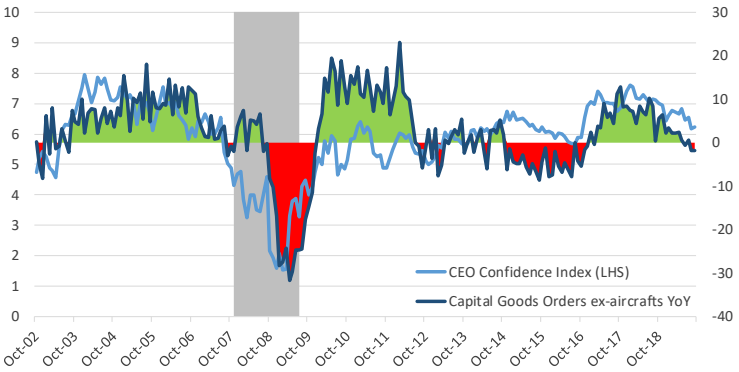

Figure 3
Source: Bloomberg, DoubleLine
Gray shaded area indicates recessionary period.

Third Quarter 2019 Review (cont'd)

Mired by trade tensions, export-driven economies struggled. German business sentiment dropped to the lowest levels since the global financial crisis, and consumer confidence collapsed. (Figures 4 and 5) Economic activity in China appeared to slow with industrial production, fixed investment and retail sales growth falling to multi-cycle lows. (Figure 6)

Figure 4
Source: Bloomberg, DoubleLine

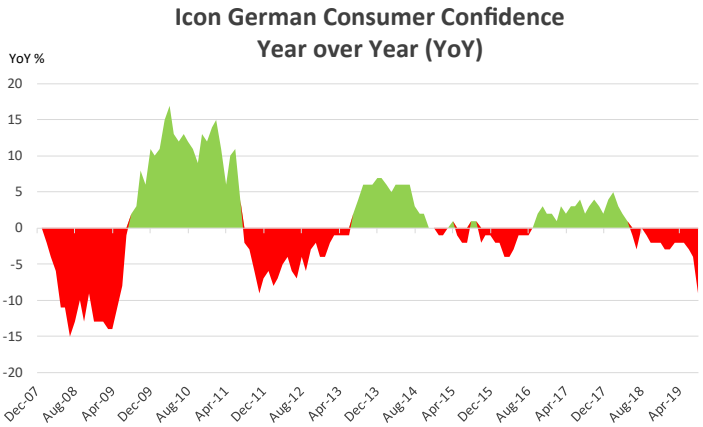

Figure 5
Source: Bloomberg, DoubleLine

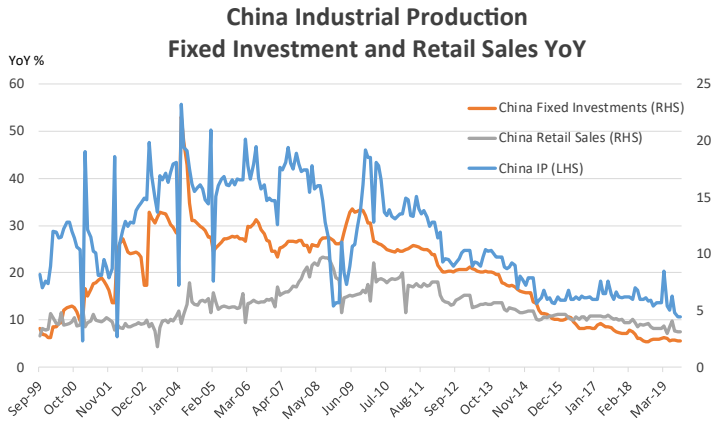

Figure 6
Source: Bloomberg, DoubleLine

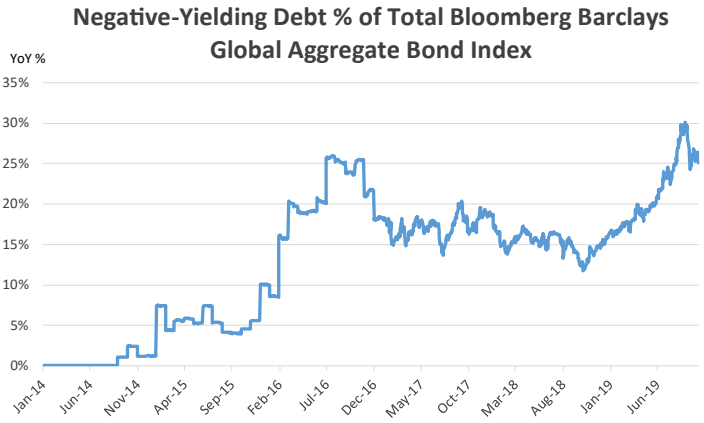

Figure 7
Source: Bloomberg, DoubleLine

Central bankers took note of the downside risks to the global economy and eased their monetary policies. The Federal Reserve made two 25-basis point cuts during the quarter. The Fed also injected liquidity into the market in September to address short-end funding pressures. In September, front-end funding markets became a bit unhinged driven by a multitude of factors, including increased T-Bill issuance, inadequate excess reserves held at the Federal Reserve and September corporate tax payments, to name a few. The Fed indicated it will start increasing the size of its balance sheet in an effort to resupply reserves to the system. The European Central Bank (ECB) took policy rates further negative in September and announced another round of large-scale asset purchases. The next round will start in November at a pace of 20 billion euros ($22.2 billion USD) per month until the inflation outlook converges toward the ECB's 2% inflation target. Central bank balance sheet expansion is back! (But don't call it Quantitative Easing (QE)).

As a result of economic slowing and central bank monetary policies, global government bond yields plunged to all-time lows. The yield on the 30-year U.S. Treasury bond dropped to 1.90% in August while the German 10-year yield reached -0.74% during the quarter. The total outstanding amount of negative-yielding debt reached an all-time high about $17 trillion in August. That represents 30% of total debt outstanding in the Bloomberg Barclays Global Aggregate Bond Index. (Figure 7)

Third Quarter 2019 Review (cont'd)

Longer-duration assets performed well during the quarter with the Bloomberg Barclays US Treasury Total Return Unhedged USD Index up 2.4%. U.S. corporate debt, as measured by the Bloomberg Barclays US Corporate Total Return Value Unhedged USD Index, returned 3.0%, bringing year-to-date performance to 13.2%.

U.S. large-cap equities reached record highs, shrugging off the concerns over trade wars and the deceleration of global growth. The S&P 500 returned 1.7% during the quarter, bringing year-to-date performance to 20.6%. European equities continued to underperform U.S. equities with Eurostoxx losing -1.0% during the quarter in U.S. dollar terms. Emerging market equities significantly underperformed the broader markets with the MSCI Emerging Markets index down -4.2%. Emerging markets came under pressure because of increased global trade tensions, renewed geopolitical risk in Argentina, Hong Kong and the Middle East, and a stronger U.S. dollar.

As measured by the trade-weighted U.S. Dollar Index, the dollar rallied 3.4% during the quarter. Emerging market currencies were hit particularly hard with the J.P. Morgan Emerging Market Currency Index (EMCI) Live Spot Index falling -4.1%. Commodities were volatile during the quarter, particularly energy following the attacks on a major Saudi oil processing facility. After rallying to a multi-month high in September, West Texas Intermediate crude oil contracts finished the quarter -7.5%. Gold benefitted from the rapid decline in real yields, rising 3.7% during the quarter and 14.4% year to date . See Figure 8 for cross-asset returns for the quarter and year to date.

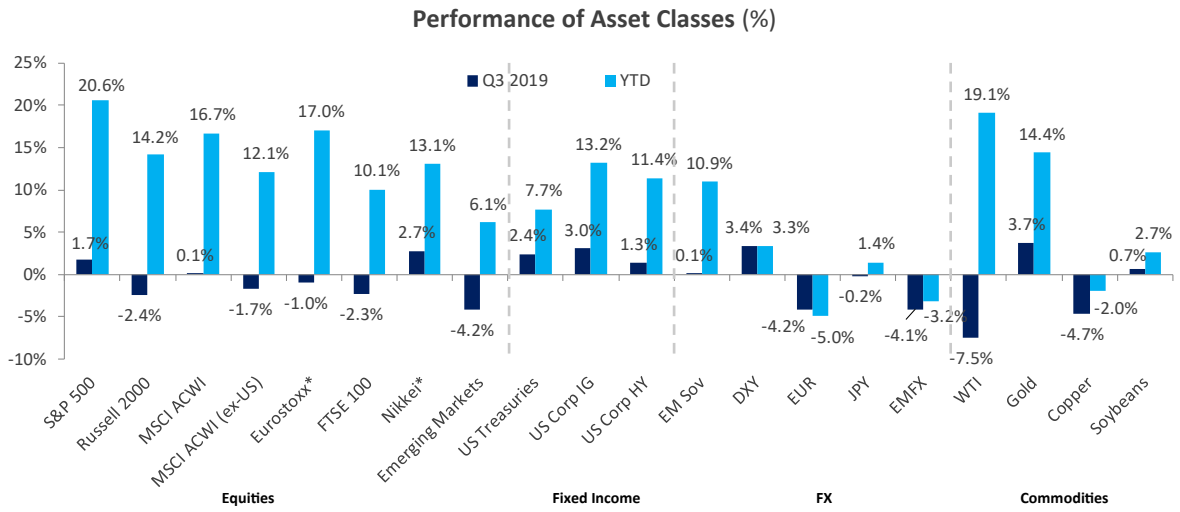

Figure 8
Source: Bloomberg, DoubleLine. * Returns in U.S. dollars.

Outlook

Has the Fed responded in time to avoid a recession?

By several measures, the probability of the U.S. dipping into recession within the next 12 months has increased over the course of the year. On average, economists surveyed by Bloomberg put the odds of recession in the next 12 months at 35%. This is in line with the New York Fed Recession Probability model, which uses the yield curve as the main input; that indicator puts the odds at 34.8%. (Figure 9)

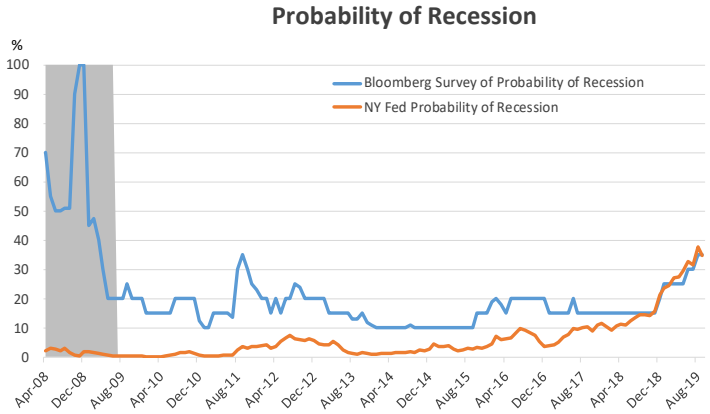

Figure 9
Source: Bloomberg, DoubleLine
Gray shaded area indicates recessionary period.

Outlook (cont'd)

We believe the risk of the U.S. slipping into recession is much higher than indicated by the Bloomberg survey and the New York Fed model.

As we have highlighted, the manufacturing sector has been softening for some time as illustrated in ISM manufacturing PMIs and Manufacturing New Orders. Moreover, the contraction in the ISM September report was broad based with 15 of the 18 industries reporting contraction. According to the report, "global trade remains the most significant issue, as demonstrated in new export orders."[1] Excluding the global financial crisis, new export orders have collapsed over the last 12 months and is at an all-time low. (Figure 10)

Weekly hours worked in the private manufacturing sector is another leading indicator giving cause for concern. Firms tend to reduce employees' hours worked prior to making layoffs. Weekly hours worked in the private manufacturing sector has declined over the last 12 months and is now below its five -year moving average. (Figure 11) It is important to highlight that the manufacturing sector is a relatively small part of the overall economy and represents less than 10% of total employment in the U.S.

In contrast, the services sector is a much larger portion of total employment in the U.S., representing 70% of total employment. (Figure 12) Largely unscathed from global trade tensions, the services sector is beginning to soften, and the employment component of the ISM non-manufacturing report is at the lowest level since February 2014. (Figure 13)

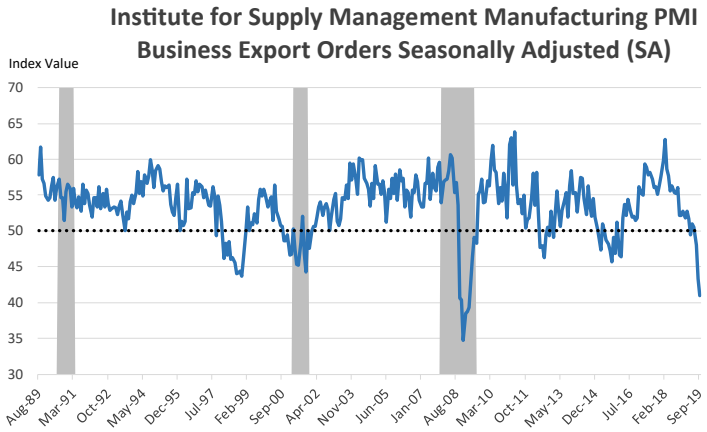

Figure 10
Source: Bloomberg, DoubleLine
Gray shaded areas indicate recessionary periods.

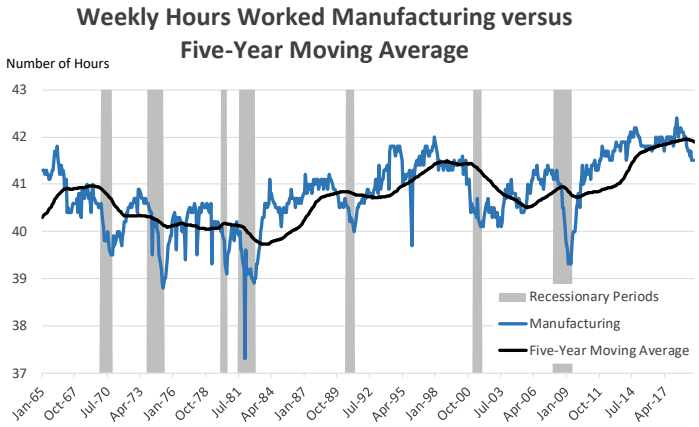

Figure 11
Source: Bloomberg, DoubleLine

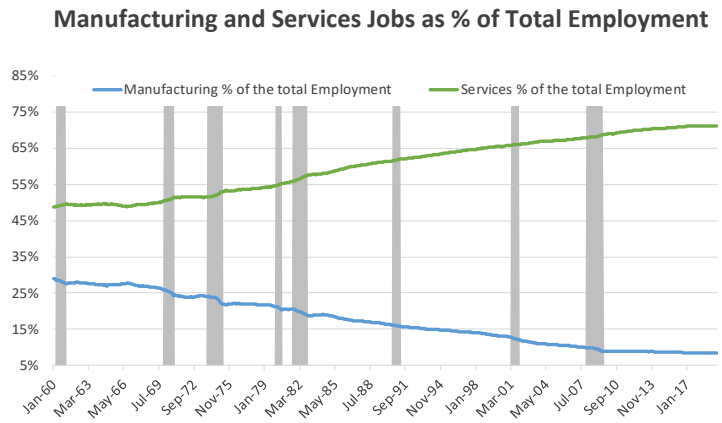

Figure 12
Source: Bloomberg, DoubleLine

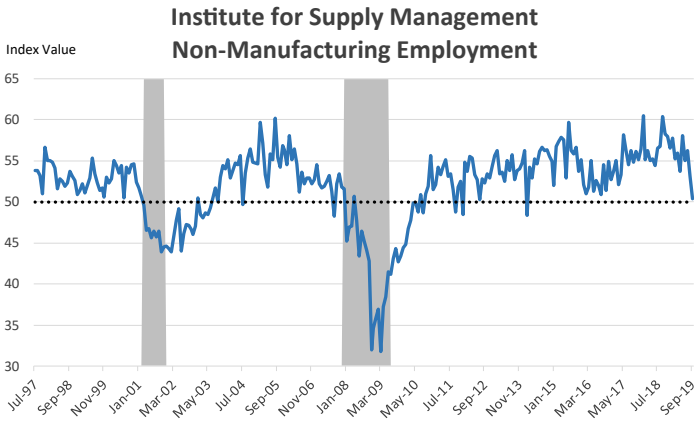

Figure 13
Source: Bloomberg, DoubleLine
Gray shaded areas represent recessionary periods.

1 Manufacturing ISM *Report on Business,* September 2019 (https://www.instituteforsupplymanagement.org/ismreport/mfgrob.cfm?SSO=1)

Outlook (cont'd)

On a positive note, the initial jobless claims reading remains low and well below its five-year moving average. A cross above the five-year moving average has historically coincided with recessions. (Figure 14) We will monitor this indicator for signs of deterioration.

Consumer confidence, which is largely dependent on the state of the labor market and the performance of risk assets, remains relatively high. A key risk to consumer confidence is the proposed tariffs on a new tranche of Chinese goods, which includes a significant amount of consumer goods, expected to go into effect on December 15. This would not bode well for personal consumption, which represents about two thirds of U.S. GDP.

Is the current economic slowdown similar to 2015-2016 economic slowdown?
Many market participants have made the comparison of the current economic slowdown to the 2015-2016 slowdown. There are some notable similarities to 2015-2016: 1) a weak manufacturing sector, particularly surrounding the energy sector; 2) stagnant industrial production and capital expenditures; and 3) the advent in 2016 of negative-yielding debt in Europe and Japan. However, a clear difference between the current slowdown and the 2015-2016 episode is that the yield curve is inverted this time around, a signal that monetary policy was and remains too tight. As is widely known, the yield curve has inverted before all of the recessions since the 1960s. (Figure 15)

In response to the deteriorating economic data, the Federal Reserve is expected to cut rates another two to three times over the next 12 months. (Figure 16) In addition, the Fed has indicated its intention to resume balance sheet expansion in an effort to grow reserves to adequate levels to avoid future funding pressure. In November, the ECB will also resume balance sheet expansion to the order of 20 billion euros per month. After less than a year of central bank balance sheet reduction, aggregate balance sheets will start growing again. (Figure 17)

U.S. Initial Jobless Claims versus Five-Year Moving Average

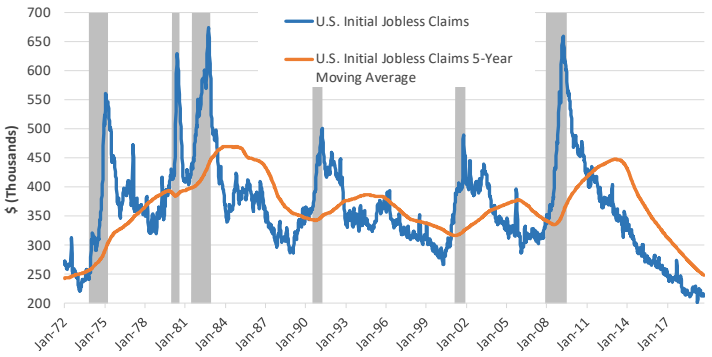

Figure 14
Source: Bloomberg, DoubleLine
Gray shaded areas represent recessionary periods.

10Y Yield Minus Fed Fund Rate (%)

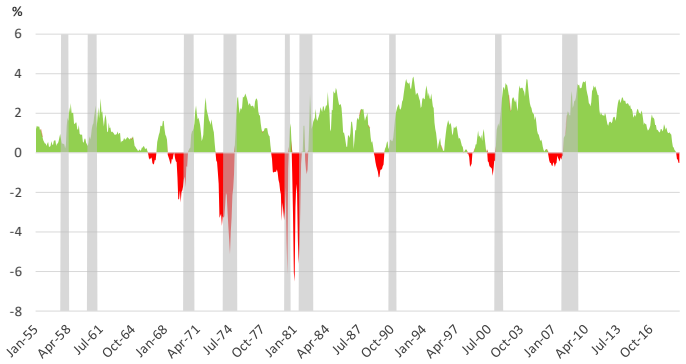

Figure 15
Source: Bloomberg, DoubleLine
Gray shaded areas represent recessionary periods.

Number of Fed Hikes/Cuts Expected Over Next 12 Months and Economic Momentum

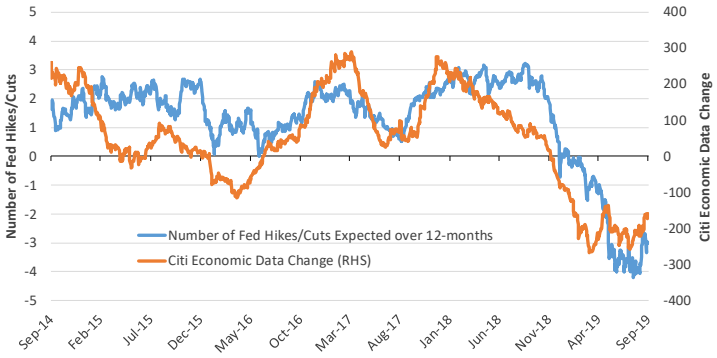

Figure 16
Source: Bloomberg, UDoubleLine

Global Central Bank Balance Sheet 12 Month Change

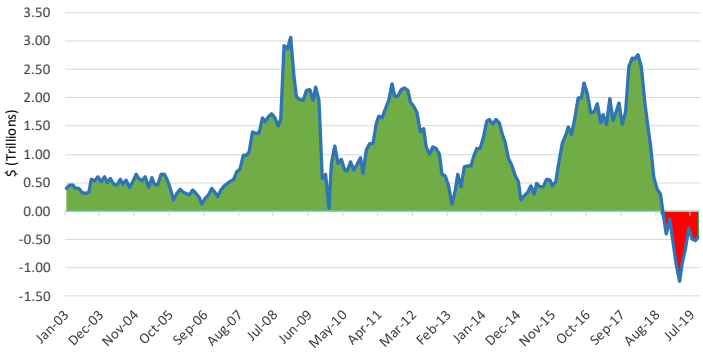

Figure 17
Source: Bloomberg, DoubleLine

Outlook (cont'd)

Government Bonds

In the near term, cyclical factors may continue to drive government bond yields. (Figure 18) The risk of recession should keep government bond yields anchored, particularly on the front end, causing the yield curve to steepen. However, with government bond yields near all-time lows, the Treasury market appears to have priced in much of the recession risk. We are not looking to add duration at these levels and hold a neutral outlook on duration. We anticipate the 10-year yield to be largely range bound, between 1.40-1.90 over the near-term.

Credit

As we have highlighted many times in the past, corporate debt looks vulnerable come the next recession. Total corporate debt as a percentage of the U.S. economy has climbed to record levels. (Figure 19) At the same time, the quality of that debt has deteriorated with higher leverage and a larger portion of investment grade rated as BBB, one notch above junk. (Figure 20) Given the tightness of spreads, investors do not seem to be adequately compensated for these risks.

We prefer to take credit risk in structured products. Total outstanding debt of the asset class has declined since the global financial crisis while credit quality of the underlying collateral has improved as evidenced by higher FICO scores, a product of tighter lending standards. (Figure 21) Household balance sheets have dramatically improved over the course of the cycle. In the next recession, we believe structured products should outperform corporate credit on a risk-adjusted basis.

10-Year U.S. Treasury Yield and Citi Economic Data Change

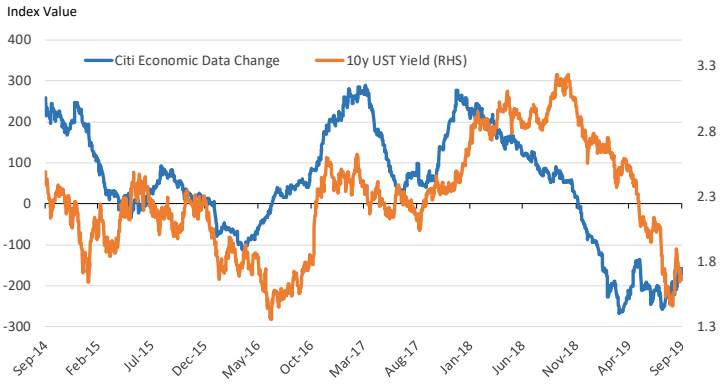

Figure 18
Source: Bloomberg, DoubleLine

U.S. Corporate Debt as % of GDP

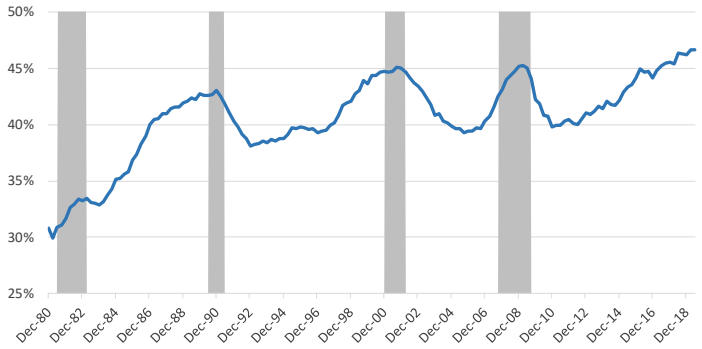

Figure 19
Source: Bloomberg, DoubleLine
Gray shaded areas represent recessionary periods.

Portion of Investment Grade Corporate Debt Rated BBB

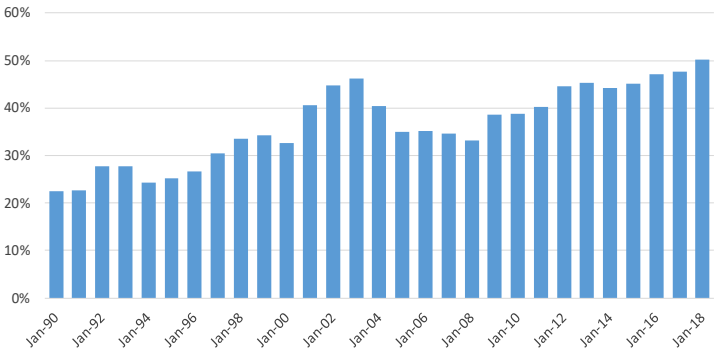

Figure 20
Source: Bloomberg, DoubleLine

Size of Non-Agency MBS and CMBS Debt Outstanding

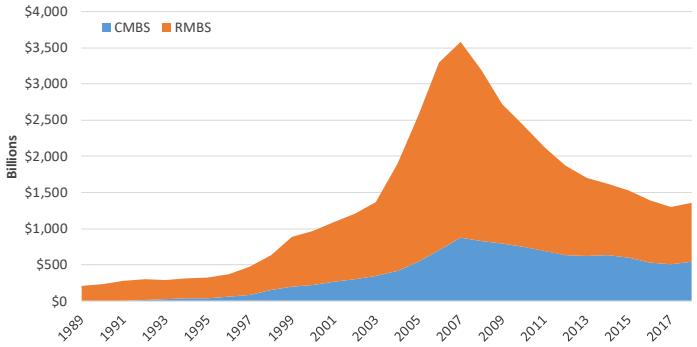

Figure 21
Source: Bloomberg, DoubleLine

Outlook (cont'd)

U.S. Dollar

While we believe the next big move in the dollar is lower as we highlighted in our previous quarterly letter we have moved to a neutral stance on the dollar.[2] The dollar continues to find support from U.S. economic outperformance and historically wide interest rate differentials versus the rest of the developed world. The outperformance of U.S. equities versus the non-U.S. equity markets has also boosted the dollar. (Figure 22) We will look to reenter short dollar positions once the positive dollar momentum subsides.

Equities

U.S. equities continue to find support from the expectation of loose monetary policy despite the weak fundamental backdrop. Obviously a recession would not be good for equities. Equities will likely suffer as the asset class usually faces large drawdowns during recessions. That said, equities tend to top out just before the start of recession. As shown in Figure 23, equities tend to peak around two months prior to the start of recessions defined by the National Bureau of Economic Research (NBER) since 1923. We plan to delay on reducing equities until we see deterioration in the labor market and consumer confidence, a sign that recession is just around the corner.

US$ Trade-Weighted Index & U.S. versus Rest of World Forward Earnings per Share Gap

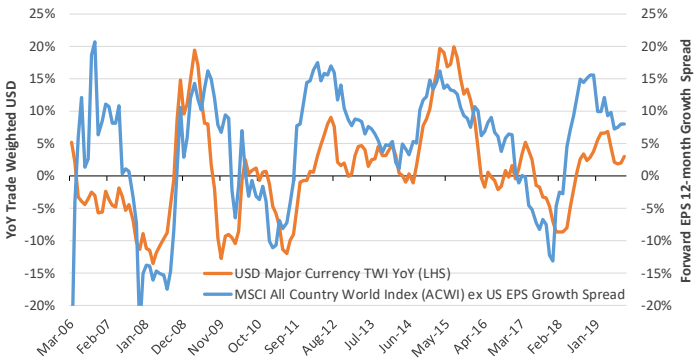

Figure 22
Source: Bloomberg, DoubleLine

S&P 500 Performance Heading Into Recession
Normalized to 12 Months Prior to Recessions; NBER Recessions Since 1929

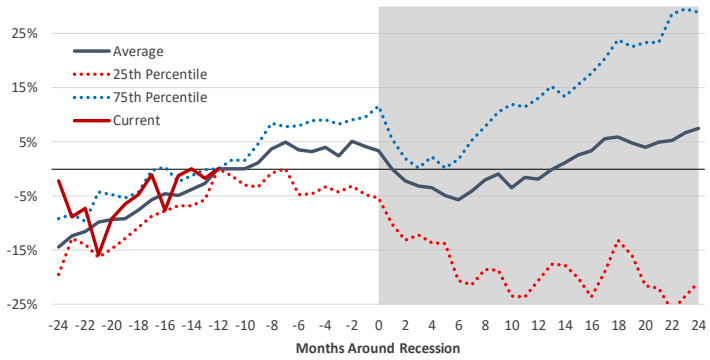

Figure 23
Source: Bloomberg, DoubleLine

Outlook (cont'd)

The probability of recession over the next 12 months has risen materially this year. We believe the probability of recession is higher than consensus. The weakening of the manufacturing sector has now spread to some segments of the services sector and select parts of the labor market. This broader based softening coupled with an inverted yield curve, is an early warning signal that recession could be on the horizon . While personal consumption remains strong, it is unclear whether the consumer can continue to support the economy. Central banks have reacted to the softening data, but we fear their measures could amount to too little too late. Cyclical factors should continue to drive government bond yields over the near term, but extremely low levels in yields keep us at neutral on the asset class. In credit, we continue to underweight corporate debt and prefer to take credit risk in structured products. Higher leverage and lower overall credit quality make corporate debt vulnerable in the next economic downturn. We remain neutral on equities for the time being but stand ready to reduce equity exposure if our base case for recession begins to play out. We are nearing the point in the cycle when it pays to be in liquid assets. In other words, we are avoiding securities which are tough to exit if recession does come to fruition. Good luck in the remainder of the year. ■

2 DoubleLine Multi-Asset Growth Strategy Second Quarter 2019 Economic Update (https://doubleline.com/dl/wp-content/uploads/MAG-Economic-Update-Strategy-2Q19.pdf

Definitions of Select Terms

Basis Point - A basis point (bps) equals 0.01%.

Bloomberg Barclays US Aggregate Bond Index - An index that represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

BB US Corporate Total Return Value Unhedged USD Index - Measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by US and non-US industrial, utility and financial issuers.

Bloomberg Barclays US Treasury Total Return Unhedged USD Index - Measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury.

Bond Ratings (Credit Quality) - Grades given to bonds that indicate their credit quality as determined by a private independent rating service such as Standard and Poor's. The firm evaluates a bond issuer's financial strength, or its ability to pay a bond's principal and interest in a timely fashion. Ratings are expressed as letters ranging from 'AAA', which is the highest grade, to 'D', which is the lowest grade. In limited situations when the rating agency has not issued a formal rating, the rating agency will classify the security as non-rated.

CEO Confidence Index - America's largest monthly survey of chief executives.

CMBS - Commercial Mortgage-Backed Securities

Copper - COMEX Copper Front Month Futures Contract.

Earnings per Share - Calculated as a company's profit divided by the outstanding shares of its common stock. The resulting number serves as an indicator of a company's profitability. The higher a company's EPS, the more profitable it is considered.

Emerging Markets is represented by the MSCI EM (Emerging Markets) Index is a free-float weighted equity index that captures large and mid cap representation across Emerging Markets (EM) countries. The index covers approximately 85% of the free float-adjusted market capitalization in each country.

EMFX is represented by the JP Morgan Emerging Market Currency Index (EMCI) - A tradeable benchmark for emerging markets currencies vs. USD.

EM Sovereign Debt is represented by Bloomberg Barclays EM Sovereign TR Index—The Bloomberg Barclays Emerging Markets USD Sovereign Bond Index tracks fixed and floating-rate US dollar-denominated debt issued by EM governments. Country eligibility and classification as Emerging Markets is rules-based and reviewed annually using World Bank income group and International Monetary Fund (IMF) country classifications.

EUR - Euro

Financial Times Stock Exchange 100 (FTSE 100) - A capitalization-weighted index of the 100 most highly capitalized companies traded on the London Stock Exchange.

Gold - A yellow precious metal used to guarantee the value of currencies. Represented by the COMEX Gold Front Month Futures Contract.

Ifo Germany Business Expectations index - Tracks the future expectations for the economy as it relates to businesses using three sectors of the economy: manufacturing, trade, and construction. Comprised of 7,000 companies, the survey takes place in the middle of each month.

Institute for Supply Management (ISM) Purchasing Managers Index (PMI) - An indicator of the economic health of the manufacturing sector. The PMI is based on five major indicators: new orders, inventory levels, production, supplier deliveries and the employment environment.

JP Morgan Emerging Market Currency Index (EMCI) Live Spot Index - A tradeable benchmark for emerging markets currencies versus the U.S. Dollar.

JPY - Japanese Yen

Morgan Stanley Capital International All Country World Index (MSCI ACWI) - A market-capitalization-weighted index designed to provide a broad measure of stock performance throughout the world, including both developed and emerging markets.

National Bureau of Economic Research - A private, non-profit, non-partisan organization dedicated to conducting economic research and to disseminating research findings among academics, public policy makers, and business professionals.

Nikkei 225 Index - A price-weighted index comprised of Japan's top 225 blue-chip companies on the Tokyo Stock Exchange. The Nikkei is equivalent to the Dow Jones Industrial Average Index in the U.S.

S&P 500 Index - A market-capitalization-weighted index of the 500 largest U.S. publicly traded companies by market value. The index is widely regarded as the best single gauge of large-cap U.S. equities.

Spread - The difference between yields on differing debt instruments, calculated by deducting the yield of one instrument from another. The higher the yield spread, the greater the difference between the yields offered by each instrument. The spread can be measured between debt instruments of differing maturities, credit ratings and risk.

JP Morgan Global Manufacturing PMI - The Purchasing Managers' Index (PMI) is an index of the prevailing direction of economic trends in the manufacturing and service sectors. It consists of a diffusionindex that summarizes whether market conditions, as viewed by purchasing managers, are expanding, staying the same, or contracting.

RMBS - Residential Mortgage-Backed Securities

Russell 2000 Index - A subset of the Russell 3000 Index representing approximately 10% of the total market capitalization and measuring the performance of the small-cap segment of the U.S. equity universe.

Soybeans - Represented by the Soybean Futures (1st generic contract) traded on the Chicago Board of Trade.

U.S. Corp IG - The Bloomberg Barclays U.S. Corporate Bond Index measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by U.S. and non-U.S. industrial, utility and financial issuers.

U.S. Dollar Index (DXY) - A weighted geometric mean of the United States dollar's value relative to a basket of 6 major foreign currencies, including the Euro, Japanese yen, Pound sterling, Canadian dollar, Swedish krona and Swiss franc.

US$ Trade-Weighted Index - A measure of the value of the United States dollar relative to other world currencies.

U.S. Treasuries (UST) - Commonly used for references to the Treasury debt that the U.S. issues.

WTI - West Text Intermediate Crude Oil Front Month Futures Contract.

Yield Curve - A yield curve is a line that plots the interest rates, at a set point in time, of bonds having equal credit quality but differing maturity dates.

YTD - Year to Date

An investment cannot be made directly in an index.

DoubleLine® FUNDS

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DoubleLine Disclosure

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Important Information Regarding DoubleLine

In preparing the client reports (and in managing the portfolios), DoubleLine and its vendors price separate account portfolio securities using various sources, including independent pricing services and fair value processes such as benchmarking.

To receive a copy of DoubleLine's current Form ADV (which contains important additional disclosure information, including risk disclosures), a copy of DoubleLine's proxy voting policies and procedures, or to obtain additional information on DoubleLine's proxy voting decisions, please contact DoubleLine's Client Services.

Important Information Regarding DoubleLine's Investment Style

DoubleLine seeks to maximize investment results consistent with our interpretation of client guidelines and investment mandate. While DoubleLine seeks to maximize returns for our clients consistent with guidelines, DoubleLine cannot guarantee that DoubleLine will outperform a client's specified benchmark or the market or that DoubleLine's risk management techniques will successfully mitigate losses. Additionally, the nature of portfolio diversification implies that certain holdings and sectors in a client's portfolio may be rising in price while others are falling; or, that some issues and sectors are outperforming while others are underperforming. Such out or underperformance can be the result of many factors, such as, but not limited to, duration/interest rate exposure, yield curve exposure, bond sector exposure, or news or rumors specific to a single name.

DoubleLine is an active manager and will adjust the composition of clients' portfolios consistent with our investment team's judgment concerning market conditions and any particular sector or security. The construction of DoubleLine portfolios may differ substantially from the construction of any of a variety of market indices. As such, a DoubleLine portfolio has the potential to underperform or outperform a bond market index. Since markets can remain inefficiently priced for long periods, DoubleLine's performance is properly assessed over a full multi-year market cycle.

Important Information Regarding Client Responsibilities

Clients are requested to carefully review all portfolio holdings and strategies, including by comparison of the custodial statement to any statements received from DoubleLine. Clients should promptly inform DoubleLine of any potential or perceived policy or guideline inconsistencies. In particular, DoubleLine understands that guideline enabling language is subject to interpretation and DoubleLine strongly encourages clients to express any contrasting interpretation as soon as practical. Clients are also requested to notify DoubleLine of any updates to client's information, such as, but not limited to, adding affiliates (including broker dealer affiliates), issuing additional securities, name changes, mergers or other alterations to Client's legal structure.

DoubleLine Group is not an investment adviser registered with the Securities and Exchange Commission (SEC).