CARILON GROUP OF RAYMOND JAMES®

Navigating the Current Interest Rate Environment

Michael B. Fink, CPM[®] Managing Director - Investments

> Miamisburg Ohio Office Raymond James 10050 Innovation Drive Suite 160 Miamisburg, Ohio 45342 937.401.1920

Raymond James & Associates, Inc., member New York Stock Exchange/ SIPC



Navigating the Current Interest Rate Environment

- Navigational Beacons
- Rough Waters
- Smooth sailing



Navigational Beacons

Federal Reserve

Bond Market





The Fed's three main functions are to:

- provide and maintain an effective and efficient payments system,
- supervise and regulate banking operations, and
- conduct the nation's monetary policy



Monetary Policy 101

The Fed can use four tools to conduct monetary policy:

1) Discount Rate

2) Reserve Requirement

3) Interest on Reserves

3) Open Market Operations



Discount Rate

The **discount rate** is the interest rate Reserve Banks charge commercial banks for shortterm loans.



Reserve Requirement

Reserve requirements are the portions of deposits that banks must hold in cash, either in their vaults or on deposit at a Reserve Bank.



Interest on Reserves

The newest and most frequently used tool given to the Fed by Congress after the Financial Crisis of 2007-2009.



Open Market Operations

Open market operations involves, the buying and selling of U.S. government securities.



\$ policy =





M2



M2 is a measure of the money supply that includes cash, checking deposits, and easily convertible near money. It is a broader measure of the money supply that M1, which just include cash and checking deposits. M2 is a closely watched as an indicator of money supply and future inflation, and as a target of central bank monetary policy.



Excess Bank Reserves



Excess reserves are capital reserves held by a bank or financial institution in excess of what is required by regulators, creditors or internal controls. For commercial banks, excess reserves are measured against standard reserve requirement amounts set by central banking authorities. These required reserve ratios set the minimum liquid deposits (such as cash) that must be in reserve at a bank; more is considered excess. Excess reserves may also be known as secondary reserves.



The Bond Market

The bond market is really several markets: the Treasury bond market, the corporate bond market and the municipal bond market to name three.



What Moves the Bond Market?

The bond market moves when expectations change about **economic growth and inflation**. Unlike stocks, whose future earnings are anyone's guess, bonds make fixed payments for a certain period of time. Investors decide how much to pay for a given bond (that is, for a stream of fixed payments of a certain length) based on how much they expect inflation to erode the value of those fixed payments.



The Carillon Group of Raymond James **Fed Forecast**

Economic Growth

| GRAB | | | | | | | | | | |
|---------------------------------------------------------------------|------------|----------|-----------|----------|-----------------|------|------|----------|---------|---------|
| 96 Chart 97) Set as De | efault Vie | W | | | | | | Econor | mic For | ecasts |
| Country/Region/World | ▼ Co | ntributo | or Fede | ral Rese | erve | | • | 🛛 Yearl | y 🔍 Qu | arterly |
| United States | Browse | | Private | | Official | | Co | mpare to | o Compo | site |
| Actual / Forecasts | | | | | | | | | | |
| Indicator | 2012 | 2013 | 2014 | 2015 | 2010 | 2017 | 2010 | 2019 | 2020 | 2021 |
| Economic Activity | | | | | | | | | | |
| ■ Real GDP (YoY%) | 2.2 | 1.8 | 2.5 | 2.9 | 1.6 | 2.4 | 2.9 | 2.1 | 2.0 | 1.8 |
| Industrial Production (YoY | 3.0 | 2.0 | 3.1 | -1.0 | -2.0 | 2.3 | 4.0 | | | |
| Price Indices | | | | | | | | | | |
| CPI (YoY%) | 2.1 | 1.5 | 1.6 | 0.1 | 1.3 | 2.1 | 2.5 | | | |
| PCE Price Index (YoY%) | | | | | | | 1.9 | 1.5 | 1.9 | 2.0 |
| └ Core PCE (yoy%) | 1.9 | 1.5 | 1.6 | 1.3 | 1.6 | 1.6 | 2.0 | 1.8 | 1.9 | 2.0 |
| Labor Market | | | | | | | | | | |
| Unemployment (%) | 8.1 | 7.4 | 6.2 | 5.3 | 4.9 | 4.4 | 3.9 | 3.6 | 3.7 | 3.8 |
| Non Farm Payrolls (000s S | | | | | | | | | | |
| Average Hourly Earnings (| 2.2 | 1.9 | 2.0 | 2.5 | 2.7 | 2.7 | 3.3 | | | |
| | | | | | | | | | | |
| ≥ 50) News Headlines NSE | | | | | | | | | | |
| 51) Bloomberg Consensus Global Rate Forecasts as of Aug. 20 (Table) | | | | | | | | | | 8/20 |
| 52) OPEC August Report: World Oil Demand/Supply Balance (Table) | | | | | | | | | BN 0 | 8/16 |
| 53) SURVEY REPORT: U.S. Economic Forecasts in Aug. 2019 | | | | | | | | | BN 0 | 8/08 |
| 54) SURVEY REPORT: Fed W | | | | | | noff | | | BN 0 | 7/25 |
| 55) SURVEY REPORT: U.S. E | conomic | Forecas | sts in Ju | Jl. 2019 | | | | | BN 0 | 7/12 |



Source: Bloomberg

Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2019 Bloomberg Finance L.P. SN 325428 H682-5990-3 03-5ep-19 13:58:39 EDT GMT-4:00

The Carillon Group of Raymond James **Private Economists Forecast** Economic Growth

| GRAB | | | | | | | | | | | |
|-----------------------------------------------------------------------------------------------------------------------|---------|------------|----------|---------------|----------|---------|------|----------|--------------------------|----------|----------|
| 96) Chart 97) Se | t as De | efault Vie | ew | | | | | | Econo | omic For | ecasts |
| Country/Region/World | | • C | ontribut | or Con | tributor | Compo | site | • | Year | ly 🔍 Qı | uarterly |
| United States | | Brows | e | Privat | te 🛛 | Officia | al | | | | |
| | | | Ac | <u>tual/F</u> | orecast | s | Pro | bability | of Rece | ession | 35.0% |
| Indicator | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Economic Activity | | | | | | | | | | | |
| 🗖 Real GDP (YoY%) | | 2.2 | 1.8 | 2.5 | 2.9 | 1.6 | 2.4 | 2.9 | 2.3 | 1.8 | 1.8 |
| – Consumer Spendi | ng | 1.5 | 1.5 | 3.0 | 3.7 | 2.7 | 2.6 | 3.0 | 2.5 | 2.2 | 2.0 |
| Government Sper | ıdin | -2.1 | -2.4 | -0.9 | 1.9 | 1.8 | 0.7 | 1.7 | 2.2 | 1.5 | 1.1 |
| Private Investme | nt (| 11.0 | 6.9 | 5.6 | 4.9 | -1.3 | 4.4 | 5.1 | 2.8 | 1.9 | 2.6 |
| Exports (YoY%) | | 3.4 | 3.6 | 4.2 | 0.5 | 0.0 | 3.5 | 3.0 | 0.4 | 1.8 | 2.3 |
| Imports (YoY%) | | 2.7 | 1.5 | 5.0 | 5.3 | 2.0 | 4.7 | 4.4 | 1.8 | 2.3 | 2.9 |
| Industrial Production | (Yo | 3.0 | 2.0 | 3.1 | -1.0 | -2.0 | 2.3 | 4.0 | 1.2 | 1.3 | 1.5 |
| Price Indices | | | | | | | | | | | |
| CPI (YoY%) | | 2.1 | 1.5 | 1.6 | 0.1 | 1.3 | 2.1 | 2.5 | 1.8 | 2.0 | 2.1 |
| PCE Price Index (Y | oY%) | | | | | | | 2.0 | 1.5 | 1.9 | 2.0 |
| Housing Market | | | | | | | | | | | |
| Housing Starts (000s | saa | | | | | | | 1261 | 1250 | 1269 | 1273 |
| New Home Sales (000 | s S | | | | | | | 616 | 652 | 655 | 663 |
| Existing Home Sales (| Mln | | | | | | | 5.4 | 5.3 | 5.4 | 5.4 |
| Building Permits (000 | s S | | | | | | | 1310 | 1302 | 1332 | 1332 |
| Labor Market | | | | | | | | | | | |
| ☆ 50) News Headlines | NSE | » | | | | | | | | | |
| Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000 | | | | | | | | | | | |

U.S. 1 212 318 2000

Јарал 81 3 3201 8900

Singapore 65 6212 1000



Copyright 2019 Bloomberg Finance L.P. 25478 μ682–5990–3 03−500–19 13:57:55 EDT GMT-4:00

The Carillon Group of Raymond James Fed Forecast

Inflation

| GRAB | | | | | | | | | | |
|-----------------------------------------------------------------|-------------------------|----------|------------|-------------|-----------------|------------|------|----------|----------|---------|
| 96) Chart 97) Set as De | fault Viev | N | | | | | | Econor | nic Fore | ecasts |
| Country/Region/World | Cor | ntributo | r Fede | ral Res | erve | | • | • Yearly | y 🔍 Qu | arterly |
| United States | Browse | | Private | • • | Official | | Co | mpare to | o Compo | site |
| | | Act | ual/Fo | recasts | | | | | | |
| Indicator | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Economic Activity | | | | | | | | | | |
| • Real GDP (YoY%) | 2.2 | 1.8 | 2.5 3.1 | 2.9 -1.0 | 1.6 -2.0 | 2.4 2.3 | 2.9 | 2.1 | 2.0 | 1.8 |
| Industrial Production (YoY | 3.0 | 2.0 | 3.1 | -1.0 | -2.0 | 2.3 | 4.0 | | | |
| Price Indices | | | | | | | | | | |
| CPT (YoV%) | 21 | 15 | 16 | 0 1 | 1 3 | 21 | 25 | | | |
| PCE Price Index (YoY%) | | | | | | | 1.9 | 1.5 | 1.9 | 2.0 |
| Core PCE (yoy%) | 1.9 | 1.5 | 1.6 | 1.3 | 1.6 | 1.6 | 2.0 | 1.8 | 1.9 | 2.0 |
| Labor Market | | | | | | | | | | |
| Unemployment (%) | 8.1 | 7.4 | 6.2 | 5.3 | 4.9 | 4.4 | 3.9 | 3.6 | 3.7 | 3.8 |
| Non Farm Payrolls (000s S | | | | | | | | | | |
| Average Hourly Earnings (| 2.2 | 1.9 | 2.0 | 2.5 | 2.7 | 2.7 | 3.3 | | | |
| | | | | | | | | | | |
| ≥ 50) News Headlines NSE | | _ | | | | | | | | |
| 51) Bloomberg Consensus (| | | | | | | | | | 3/20 |
| 52) OPEC August Report: World Oil Demand/Supply Balance (Table) | | | | | | | | | | 8/16 |
| 53) SURVEY REPORT: U.S. Economic Forecasts in Aug. 2019 | | | | | | | | | | 3/08 |
| 54) SURVEY REPORT: Fed W | | | | | | noff | | | | 7/25 |
| 55) SURVEY REPORT: U.S. E | conomic | Forecas | sts in Ju | Jl. 2019 | | | | | BN 0 | 7/12 |



Source: Bloomberg

Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2019 Bloomberg Finance L.P.

325428 H682-5990-3 03-5ep-19 14:10:21 EDT GMT-4:00

Private Economists Inflation

| GRAB | | | | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|-----------|----------|----------|--------|----------|--------|---------|----------|
| 96) Chart 97) Set as D | | | | | | | | | omic Fo | |
| Country/Region/World | • C | | | tributor | _ | | • | Year | ʻly 🕘 Q | uarterly |
| United States | Brows | | Privat | | Officia | | | | | |
| | | Ac | tual/F | orecast | | Pro | bability | of Rec | ession | 35.0% |
| Indicator | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 🔺 |
| Economic Activity | | | | | | | | | | |
| ➡ Real GDP (YoY%) | 2.2 | 1.8 | 2.5 | 2.9 | 1.6 | 2.4 | 2.9 | 2.3 | 1.8 | 1.8 |
| Industrial Production (Yo | 3.0 | 2.0 | 3.1 | -1.0 | -2.0 | 2.3 | 4.0 | 1.2 | 1.3 | 1.5 |
| Price Indices | | | | | | | | | | |
| CPI (YoY%) | 2.1 | 1.5 | 1.6 | 0.1 | 1.3 | 2.1 | 2.5 | 1.8 | 2.0 | 2.1 |
| PCE Price Index (YoY%) | | | | | | | 2.0 | 1.5 | 1.9 | 2.0 |
| Core PCE (yoy%) | 1.9 | 1.5 | 1.6 | 1.3 | 1.6 | 1.6 | 2.0 | 1.7 | 2.0 | 2.0 |
| Housing Market | | | | | | | | | | |
| Housing Starts (000s SAA | | | | | | | 1261 | 1250 | 1269 | 1273 |
| New Home Sales (000s S | | | | | | | 616 | 652 | 655 | 663 |
| Existing Home Sales (Mln | | | | | | | 5.4 | 5.3 | 5.4 | 5.4 |
| Building Permits (000s S | | | | | | | 1310 | 1302 | 1332 | 1332 - |
| ➣ 50) News Headlines NSE | » | | | | | | | | | |
| 51) Bloomberg Consensus | Global R | late For | ecasts | as of Au | ıg. 20 (| Table) | | | BN | 08/20 |
| 52) OPEC August Report: World Oil Demand/Supply Balance (Table) | | | | | | | | | BN | 08/16 |
| | | | | | | | | BN | 08/08 | |
| 54) SURVEY REPORT: Fed Will Cut in July, Keep Balance Sheet Runoff | | | | | | | | BN | 07/25 | |
| 55) SURVEY REPORT: U.S. | Economi | c Foreca | asts in . | Jul. 201 | 9 | | | | BN | 07/12 |
| Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2019 Bloomberg Finance L.P. | | | | | | | | | | |

SN 325428 H682-5990-3 03-5ep-19 14:19:40 EDT GMT-4:00



Source: Bloomberg

10 year Treasury Forecast vs Actual





Rough Waters





Source: U.S. Treasury, "Irrational Exuberance," Robert Shiller, March 2000, Bioomberg, Columbia Threadneedle Investments. Data as of 6/28/2019. Past performance is not a guarantee of future results.



Case for Higher Rates Higher Inflation?



Case for Higher Rates

Higher Inflation?

Tax Cut Fueled Growth?



Case for Higher Rates

Higher Inflation?

Tax Cut Fueled Growth?

Scaling Back of Quantitative Easing?



Case for Higher Rates

Higher Inflation?

Tax Cut Fueled Growth?

Scaling Back of Quantitative Easing?

Fed Rate Hikes?



Case for Higher Rates

Higher Inflation?

Tax Cut Fueled Growth?

Scaling Back of Quantitative Easing?

Fed Rate Hikes?

Tariffs?



Case for Higher Rates

Higher Inflation?

Tax Cut Fueled Growth?

Scaling Back of Quantitative Easing?

Fed Rate Hikes?

Tariffs?

War?



Wholesale price inflation in the U.S.



Source: Historical Statistics of United States, Bureau of Labor Statistics, data as of 12/31/2018, updated annually. Wholesaler prices refer to producer prices rather than consumer prices. Past performance does not guarantee future results.



The Case for Lower Rates Demographics



The Vanishing Worker





The Case for Lower Rates Demographics The Dollar



US Trade Weighted Dollar

The trade-weighted US dollar index, also known as the broad index, is a measure of the value of the United States dollar relative to other world currencies. It is a trade weighted index that improves on the older U.S. Dollar Index by using more currencies and the updating the weights yearly (rather than never). The base index value is 100 in Jan 1997.





Source: Bloomberg

The Case for Lower Rates Demographics The Dollar World Monetary Policy



4G Central Bank Total Assets





The Case for Lower Rates Demographics The Dollar World Monetary Policy Competing Sovereign Debt



Foreign Sovereign Rates

| 1 | World Bor | nd Mark | ets | |
|---------------------|----------------|---------|---------|---------|
| | 2-Year | 5-Year | 10-Year | 30-Year |
| United States | 1.464 | 1.348 | 1.473 | 1.953 |
| Canada | 1.334 | 1.166 | 1.141 | 1.407 |
| France | -0.810 | -0.754 | -0.396 | 0.435 |
| Germany | -0.912 | -0.919 | -0.706 | -0.191 |
| Greece | - | 0.949 | 1.617 | - |
| Ireland | -0.438 | -0.525 | -0.063 | 0.764 |
| Italy | -0.280 | 0.315 | 0.875 | 1.928 |
| Japan | -0.289 | -0.347 | -0.284 | 0.112 |
| Netherlands | -0.881 | -0.832 | -0.556 | -0.198 |
| Spain | -0.572 | -0.360 | 0.109 | 0.992 |
| Sweden | -0.651 | -0.718 | -0.353 | - |
| United Kingdom | 0.334 | 0.274 | 0.406 | 0.916 |
| * as of 09/03/2019 | | | | |
| Source: Bloomberg L | P, Raymond Jan | nes | | |


The Case for Lower Rates Demographics The Dollar World Monetary Policy Competing Sovereign Debt Geopolitical Uncertainty Zero Interest Rate Policy



Why Own Bonds?



Know Your Risks



Credit Risk



Interest Rate Risk



Reinvestment Risk



Stay Disciplined



Have a plan



Stay Informed



Get a buy-in



Conclusion



Disclaimers

The information contained in this presentation does not purport to be a complete description of the securities, markets, or developments referred to in this material. The information has been obtained from sources considered to be reliable, but we do not guarantee that the foregoing material is accurate or complete. Investing involves risk and you may incur a profit or loss regardless of strategy selected. Keep in mind that individuals cannot invest directly in any index, and index performance does not include transaction costs or other fees, which will affect actual investment performance. Individual investor's results will vary. Past performance does not guarantee future results. Future investment performance cannot be guaranteed, investment yields will fluctuate with market conditions. Prior to making an investment decision, please consult with your financial advisor about your individual situation.

Bond prices and yields are subject to change based upon market conditions and availability. If bonds are sold prior to maturity, you may receive more or less than your initial investment. There is an inverse relationship between interest rate movements and fixed income prices. Generally, when interest rates rise, fixed income prices fall and when interest rates fall, fixed income prices rise. Credit Risk: The possibility that a bond issuer will fail to repay interest and principal in a timely manner. Also called default risk. Interest Rate Risk: The possibility that a bond fund will decline in value because of an increase in interest rates. Reinvestment Risk: The probability that an investor will be unable to reinvest cash flows (e.g., coupon payments) at a rate comparable to the current investment's rate of return.

