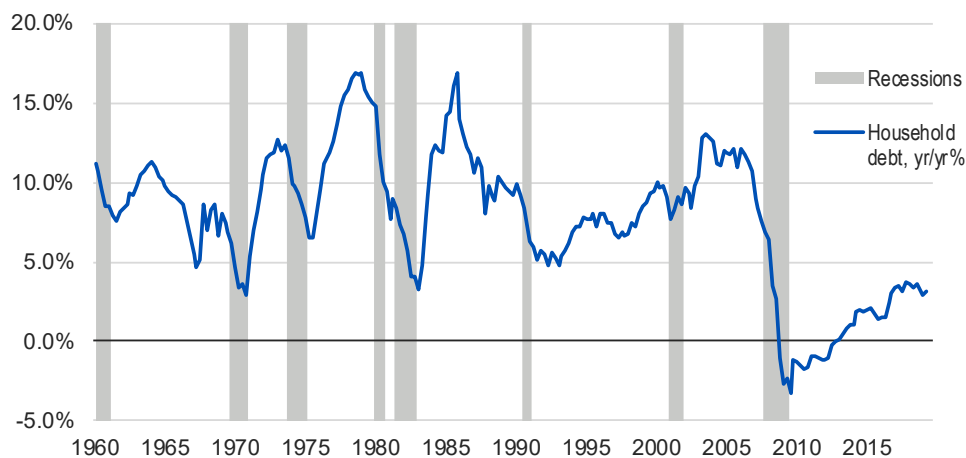


## Is Policy Accommodative?

Since September 3, 10-yr US Treasury yields have risen almost half a point, from 1.47% to 1.92%, as prospects for a US-Chinese trade deal improved. The logic is simple enough to understand. In the first half of the year, the Fed thought rate policy was essentially neutral. The 2.25-2.5% fed funds target was consistent with stable, 2% growth and 2% inflation. Then the trade talks collapsed. Without a deal, the global economy sputtered, sucking the US economy down with it, forcing the Fed to cut rates 75bp to keep the economy out of recession.

Traders do not exactly agree with the Fed. Based on the shape of the yield curve and forward money markets, they are willing to meet the Fed in the middle, however. From traders' perspective, last year's rate hikes thwarted global growth and this year's trade dispute threatened to tip a severe slowdown into a global recession. As to who is right — traders or the Fed — we need to determine if current policy is, in fact, accommodative.

### If policy is accommodative, why has household debt growth stalled?



Source: Federal Reserve

What, exactly, makes monetary policy accommodative? Even Fed Chair Powell had to think about it when asked last Wednesday. It's one thing for FOMC participants to debate whether to add accommodation to an already accommodative policy stance, after all, and quite another to debate removing monetary policy restraint. And it is critical because there is still some doubt about how much of the slowdown since the boom of the summer of 2018 is due to i) Fed rate hikes; ii) US/China trade; and iii) a quick fade from the tax cut sugar high.

## CONTENTS

Is Policy Accommodative?	page 1
The Week Ahead	page 6
The Weekly Numbers	page 6

## ECONOMICS

Chris Low  
Chief Economist  
212.418.7909  
[chris.low@fhnfinancial.com](mailto:chris.low@fhnfinancial.com)

Rebecca Kooshak  
Economic Analyst  
212.418.7966  
[rebecca.kooshak@fhnfinancial.com](mailto:rebecca.kooshak@fhnfinancial.com)

**FHNFINANCIAL.COM**  
**800.456.5460**

## Not sure anymore

Chicago Fed President Charles Evans has been an FOMC member since 2007, long enough to fully marinate in the Fed's way of thinking and the Fed's way of talking. Both were on full display in a Wednesday interview with Bloomberg Television's Tom Keene, who asked if policy is below neutral. "I'm not even sure what neutral is anymore," Evans began. It caught our attention.

"I think it [the neutral rate] may have moved down on a short-term basis and we need to make an adjustment so that policy would be... and I would say moving from leaning towards a restrictive stance as a path to leaning toward an accommodative stance. And that's pretty much what I think we've engineered with our third rate cut at our last meeting."

So is monetary policy accommodative now? "Now, in my own mind, I was searching for something that was definitely accommodative, not hugely accommodative, but definitely on the accommodative side of neutral, and I think that the neutral rate probably moved down. I mean, on a long-run basis, my assessment of neutral is 2.75%, and so we were still below that when we paused, and now we're at 1.5-1.75%. I think we are definitely accommodative, but I'm not entirely sure that the short-run neutral funds rate isn't a lot closer to 2%."

Let's unpack that.

First, what's all this about a long-run neutral rate and a short-run neutral rate? The short-run neutral rate<sup>1</sup> is the fed funds rate resulting in economic stability. Assuming the economy is growing at an optimal speed to produce optimal inflation, this is the rate that, adopted today, will result in continued optimal growth and inflation.

The long-run neutral rate is the rate that will result in stable growth and stable inflation once the economy reaches full employment.

But wait, hasn't the economy already reached full employment? The whole point of the Fed's five-year policy normalization effort, when they pushed the fed funds rate from near zero to 2.25-2.5% and allowed the balance sheet to shrink from \$4.5 trillion to \$3.8 trillion, was to lift the fed funds rate to the long-run neutral rate because the unemployment rate was as low as it could safely be allowed to go. **In other words, the long-run is now.**

If the long-run is now, why might the short-run neutral rate be lower than the long-run neutral rate, as Evans believes? There are two possible explanations. First, something unusual may be dragging the economy down. It's clear from repeated mentions in Powell's press conference the FOMC is convinced the trade dispute with China is the source of unusual drag. The second explanation, of course, is that the Fed's estimate of the long-run neutral rate is wrong. Interestingly, Chair Powell acknowledged the possibility in his October press conference.

<sup>1</sup> Throughout, we use terminology consistent with most of the economic literature, where natural rate is the long-run equilibrium real interest rate, and neutral rate is the long-run equilibrium nominal rate.

## The question

During Powell's press conference, Paul Kiernan, from Dow Jones Newswires, asked the Chair if policy is accommodative now.

"Yes. Okay. So, if you look at where the federal funds rate is trading," Powell explained, "it should be in the middle of or maybe the lower half of the range of 1.50% to 1.75%. So, that means the real rate is probably modestly below zero. I think my own sense would be that that's somewhat accommodative policy. **I would say, though, that there's a range of plausible estimates of what the neutral rate of interest is, and I think many of those who make such estimates have moved their estimate down over the course of many years, and that process continues.** But, nonetheless, that seems to me to be very likely to be an accommodative stance of policy, and an appropriate stance given the situation we're in with continuing downside risks and that I mentioned."

The Fed likes to frame the question in terms of the natural rate, which is a theoretical real neutral interest rate determined by supply and demand for credit in an economy at full employment. The problem is, no one really knows where the natural rate is. The Fed maintains r-star, natural-rate, models, but output from these models change dramatically even years after the fact. In real time, they can be as much as hundreds of basis points high or low. Then, too, economists are constantly tweaking the models. In recent decades, these tweaks have resulted in successively lower r-star estimates, something Powell acknowledged in this answer.

The yield curve is itself a short-run natural-rate model, in the sense that longer-term yields are market determined and the curve should have a positive slope to reflect the term premium. Fed economists like to talk about term premium compression as something resulting from too-low long-term yields, but the only manipulated point on the curve is the fed funds rate. If the FOMC sets it so high that credit demand is insufficient to sustain a parallel upward shift in the curve, the term premium will compress, flattening the curve. In other words, the lack of term premium from fed funds to the five-year note after three rate cuts this year more likely reflects a too high fed funds rate than too low coupon yields.

## Michael Kiley's r-star update

Michael Kiley, an economist at the Federal Reserve Board, has written extensively about the natural rate. Kiley's work with his Fed colleague, John Roberts, sparked Ben Bernanke's interest in the natural rate, ultimately initiating the chain of events leading to the Fed's ongoing review of its policy approach to inflation. It's easy to forget, when FOMC participants like Evans talk about the need to shift the fed funds rate closer to its long-run neutral, that **Fed research is laser focused on r-star because the FOMC has consistently overestimated the neutral rate and as a result, has consistently maintained a restrictive policy.**

This week, Kiley published a new [paper on the natural rate](#), in which he advocates a global approach. Kiley's work considers two techniques to get to r-star. The first is based on term structure (i.e., curve shape) and the second seeks the interest rate consistent with potential GDP. Many economists have pursued both lines in the past. The best-known r-star model, developed by John Williams and Thomas Laubach, uses the latter of these methods.

Where Kiley departs from the old way of doing things is by starting with a global perspective. “Most earlier work proceeds on an individual-country basis — even multi-country studies... — estimate the equilibrium rate at an individual country level and only consider co-movement subsequently. I estimate the equilibrium real interest from a global perspective — that is, the models herein explicitly incorporate global developments in estimation of trends for individual countries, rather than estimating trends for individual countries and then extracting common trends.”

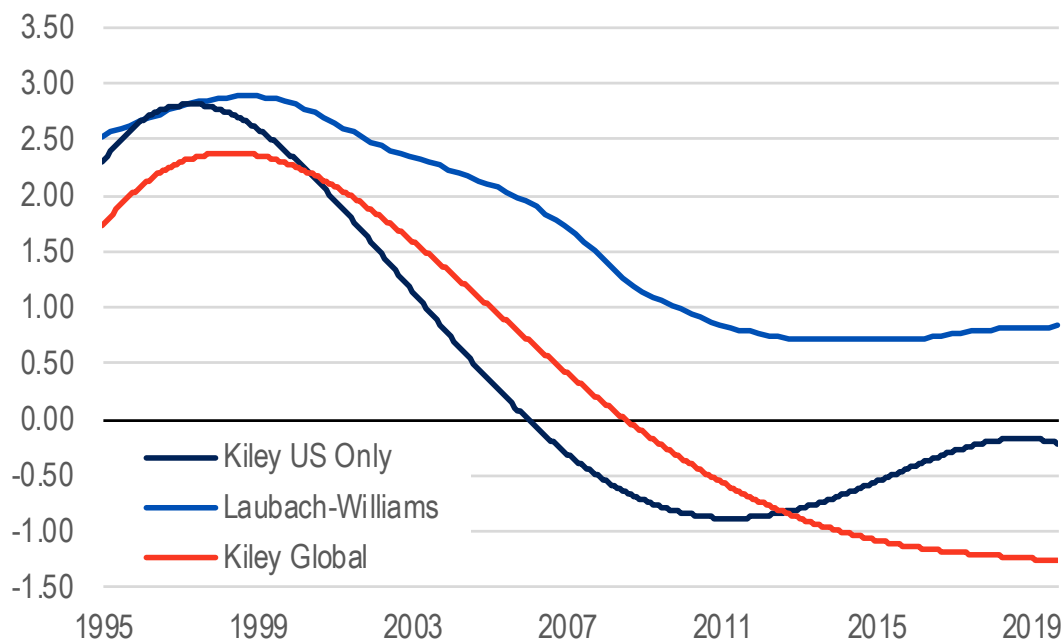
**As a result, Kiley concludes two things. The natural rate is likely a lot lower than we thought it was, and the results of natural rate models, already uncertain, are likely even less certain than previously thought.**

### Just how low is the neutral rate, really?

Kiley says the natural rate is inherently difficult to estimate in real time. He demonstrates that our understanding of the real rate at any given point in time improves as time progresses from that point and additional information becomes available. He also notes that since the mid-90s, that improved understanding has always been in a downward direction. No exceptions. Plus, he says, “the top of the 90-percent credible interval is near 0 percent for the United States in 2019.” In other words, the natural rate is almost certainly below zero, and probably well below zero. As a result, the neutral (nominal) rate is at most 1.5% and is more likely 0.5% or less.

Kiley’s point estimate for the natural rate, the real neutral fed funds rate, is -1.25%. Add back 1.7% inflation, and it suggests the neutral fed funds rate is 0.45%. The 90% confidence interval is -1.0% to 1.5%. Based on the data available now, the fed funds rate is at least a bit too high and more likely a lot too high, especially considering Kiley’s warning that the model is almost always revised down as new data become available.

## Natural Rate Estimates



Source: Federal Reserve and FHN Financial

There is bound to be pushback against Kiley's conclusion, especially from John Williams, the natural-rate expert among FOMC participants. But Kiley's work is difficult to refute. For one thing, he incorporates Williams's work and, rather than disputing it, supplements it with the findings of other economists. The Kiley analysis is far broader than Williams' in scope. For another, Williams has consistently revised his r-star estimate lower over the years as data have become available, in line with one of Kiley's key findings.

Robert Kiley would be the first to tell you his point estimate of the natural rate is probably not accurate. At the same time, it is so low that he would also tell you, with 90% certainty, that the fed funds rate is not accommodative. At 1.50-1.75%, it is at least a little restrictive.

**Bottom line: Too tight policy means lower yields eventually**

If the Fed funds rate is even a little restrictive, then growth and inflation are not going to roar back even if the US and China sign Phase 1 of a trade deal. More likely, growth will remain in a 1.5% to 2% range, as will inflation. Once traders are confident the economy is not overheating, in fact remains close to stall speed, interest rates will stop rising and will likely fall again in anticipation of another downward adjustment in the fed funds rate. We expect the Fed will cut again, but not until March. It should allow GDP to recover to 2% by the end of next year, but that is not be sufficient to lift inflation. For sustained symmetric 2% inflation, the Fed would have to trust the economy to run fast enough to generate some productivity growth, something they are simply not willing to do.

– Chris Low, Chief Economist

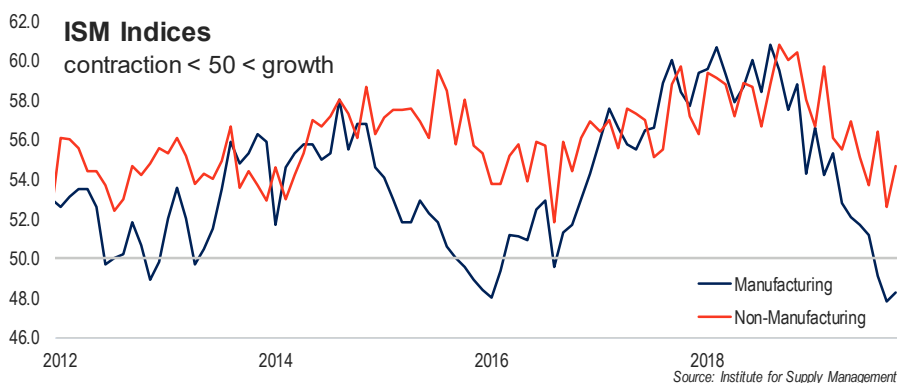
## The Week Ahead

This Week's Numbers		CONSENSUS				
		PRIOR	HIGH	LOW	MEDIAN	FHN
Tuesday, November 12	NFIB Small Business Optimism - Oct	101.8	102.6	100.0	102.0	<b>102.0</b>
Wednesday, November 13	Real Avg Hourly Earning YoY - Oct	1.2%	--	--	--	<b>1.1%</b>
	CPI MoM - Oct	0.0%	0.4%	0.1%	0.3%	<b>0.3%</b>
	CPI Ex Food and Energy MoM - Oct	0.1%	0.3%	0.1%	0.2%	<b>0.2%</b>
	CPI YoY - Oct	1.7%	1.8%	1.5%	1.7%	<b>1.7%</b>
	CPI Ex Food and Energy YoY - Oct	2.4%	2.5%	2.3%	2.4%	<b>2.3%</b>
Thursday, November 14	PPI Final Demand MoM - Oct	-0.3%	0.6%	-0.1%	0.3%	<b>0.3%</b>
	PPI Ex Food and Energy MoM - Oct	-0.3%	0.5%	0.1%	0.2%	<b>0.2%</b>
	PPI Ex Food, Energy, Trade MoM - Oct	0.0%	0.2%	0.1%	0.2%	<b>0.2%</b>
	PPI Final Demand YoY - Oct	1.4%	1.3%	0.5%	0.9%	<b>0.8%</b>
	PPI Ex Food and Energy YoY - Oct	2.0%	1.6%	1.4%	1.5%	<b>1.5%</b>
	PPI Ex Food, Energy, Trade YoY - Oct	1.7%	--	--	--	<b>1.7%</b>
Friday, November 15	Retail Sales Advance MoM - Oct	-0.3%	0.7%	0.0%	0.2%	<b>0.2%</b>
	Retail Sales Ex Auto MoM - Oct	-0.1%	0.6%	0.2%	0.4%	<b>0.4%</b>
	Retail Sales Ex Auto and Gas - Oct	0.0%	0.4%	0.3%	0.3%	<b>0.3%</b>
	Retail Sales Control Group - Oct	0.0%	0.4%	0.3%	0.3%	<b>0.3%</b>
	Industrial Production MoM - Oct	-0.4%	0.0%	-1.0%	-0.4%	<b>-0.5%</b>
	Manufacturing (SIC) Production - Oct	-0.5%	--	--	--	<b>-0.7%</b>
	Capacity Utilization - Oct	77.5%	77.4%	76.9%	77.1%	<b>77.0%</b>
	Business Inventories - Sep	0.0%	0.2%	-0.1%	0.1%	<b>0.2%</b>

## Review

This week brought mixed data. The ISM non-manufacturing index rose, but utilities and agriculture led the increases in new orders and employment, suggesting it was a narrow gain. Non-farm productivity fell and consumer sentiment nudged higher.

- **ISM Non-Manufacturing rebounded** from a weak 52.6 last month to 54.7. Three of four components led the increase: employment (+3.3 points to 53.7), new orders (+1.9 points to 55.6), and production (+1.8 points to 57.0). The utilities and agriculture sectors reported a need for higher staffing to handle increased workloads. Respondents mentioned orders were rising due to a "fiscal year-end push," "increased demand of customer base/new customers," and "business expansion." Neither ISM manufacturing nor ISM non-manufacturing rose enough in October to challenge the declining trend since the end of last year.



- **Consumer sentiment** rose 0.2 points from 95.5 to 95.7. Current conditions fell 2.3 points to 110.9 as consumers believe the outlook for personal finances has become less favorable. Spontaneous negative references to tariffs were made by 25% of respondents commenting, while there is still no mention of impeachment. Expectations were higher (+1.7 points to 85.9) as consumers believe the labor market will remain strong with no anticipation of increased unemployment.
- German factory orders rose 1.3% in September, which sounds like a lot, but was less than the decline in the prior two months. Nevertheless, it was enough to stir some confidence in Europe that maybe, just maybe, the European industrial sector is bottoming, and with it, the European downturn is ending.
- German industrial production fell 0.6% in September, marking 11 consecutive months of decline. So much for that newfound optimism about German industry. Surveys suggest weakness should abate, but the decline was bigger than in July or August.
- NY Fed President John Williams noted this year's rate cuts demonstrate the Fed's willingness to change its views on the outlook. He also said low inflation expectations are holding inflation down. He did not draw the link between Fed communication and market inflation expectations, but it's as clear as could be in the data. Inflation expectations are depressed because the Fed is still fighting inflation harder than traders think necessary.
- Chicago Fed President Charles Evans characterized the three cuts this year as "a nice adjustment that takes account of risk management concerns." He added, "I think it's good for getting inflation to 2%."

The Atlanta Fed's Q4 GDPNow is tracking 1.0% and the New York Fed revised its Nowcast from 0.8% to 0.7%.

## Preview

Note: ★ = High Impact Event

All times Eastern

## Sunday, November 10

★ 6:50pm – Japan:

- Core Machine Orders – Sep (Last: -2.4% m/m)
- Core Machine Orders – Sep (Last: -14.5% y/y)
- BoP Current Account Balance – Sep (Last: ¥2157.7b)
- Trade Balance – Sep

## Monday, November 11

▪ 4:00am – Italy:

- Industrial Production – Sep (Last: 0.3% m/m)
- Industrial Production – Sep (Last: -1.8% y/y)

## ★ 4:30am – UK:

- GDP Q3 P (Last: -0.2% q/q; Con: 0.4% q/q)
- GDP Q3 P (Last: 1.3% y/y)
- Industrial Production – Sep (Last: -0.6% m/m)
- Industrial Production – Sep (Last: -1.8% y/y)
- Manufacturing Production – Sep (Last: -0.7% m/m)
- Manufacturing Production – Sep (Last: -1.7% y/y)
- Trade Balance – Sep
- 8:15am – US: Boston Fed President Eric Rosengren speaks in Oslo. (FOMC Voter)

## Tuesday, November 12

- 12:00am – Singapore: Retail Sales – Sep (Last: -4.1% y/y)
- 1:00am – Japan: Machine Tool Orders – Oct P (Last: -35.5%)
- 2:30am – France: Bank of France Industry Sentiment – Oct (Last: 96)
- ★ 4:30am – UK: Labor Market Report – Sep
- ★ 5:00am – Germany:
  - ZEW Survey Current Situation – Nov (Last: -25.3)
  - ZEW Survey Expectations – Nov (Last: -22.8)
- ★ 6:00am – US: NFIB Small Business Optimism – Oct (Last: 101.8; Con: 102.2)
- 11:30am – US: \$45b 3M and \$42b 6M Treasury Bill Auctions
- ★ 12:55pm – US: Philadelphia Fed President Patrick Harker speaks in New York. (FOMC Voter in 2020)
- 6:00pm – US: Minneapolis Fed President Neel Kashkari speaks. (FOMC Voter in 2020)
- 6:50pm – Japan:
  - PPI – Oct (Last: 0.0% m/m)
  - PPI – Oct (Last: -1.1% y/y)

## Wednesday, November 13

- 2:00am – Germany:
  - CPI – Oct F (Last: 0.1% m/m)
  - CPI – Oct F (Last: 1.1% y/y)
  - CPIH – Oct F (Last: 0.1% m/m)
  - CPIH – Oct F (Last: 0.9% y/y)
- 4:30am – UK:
  - CPI – Oct (Last: -0.1% m/m)
  - CPI – Oct (Last: 1.7% y/y)
  - Core CPI – Oct (Last: 1.7% y/y)
  - Retail Price Index – Oct (Last: -0.2% m/m)
  - Retail Price Index – Oct (Last: 2.4% y/y)
  - PPI Output – Oct (Last: -0.1% m/m)
  - PPI Output – Oct (Last: 1.2% y/y)



- 5:00am – EU:
  - Industrial Production – Sep (Last: 0.4% m/m)
  - Industrial Production – Sep (Last: -2.8% y/y)
- ★ 8:30am – US:
  - CPI – Oct (Last: 0.0% m/m; Con: 0.3% m/m)
  - CPI – Oct (Last: 1.7% y/y; Con: 1.7% y/y)
  - Core CPI – Oct (Last: 0.1% m/m; Con: 0.2% m/m)
  - Core CPI – Oct (Last: 2.4% y/y; Con: 2.4% y/y)
  - Real Average Hourly Earnings – Oct (Last: 1.2% y/y)
- 2:00pm – US: Monthly Budget Statement – Oct (Last: \$82.8b)
- ★ 11:00am – US: Chair Powell Addresses “The Economic Outlook” before the Joint Economic Committee of Congress.
- 1:30pm – US: Minneapolis Fed President Neel Kashkari speaks. (FOMC Voter in 2020)
- ★ 6:50pm – Japan:
  - GDP – Q3 P (Last: 0.3% q/q; Con: 0.2% q/q)
  - GDP – Q3 P (Last: 1.3% Annualized q/q; Con: 0.9% Annualized q/q)
  - GDP Deflator – Q3 P (Last: 0.4% y/y; on: 0.5% y/y)
- ★ 9:00pm – China:
  - Fixed Assets Ex Rural – Oct (Last: 5.4% YTD y/y; Con: 5.4% YTD y/y)
  - Industrial Production – Oct (Last: 5.8% y/y; Con: 5.4% y/y)
  - Industrial Production – Oct (Last: 5.6% YTD y/y; Con: 5.6% YTD y/y)
  - Retail Sales – Oct (Last: 7.8% y/y; Con: 7.8% y/y)
  - Retail Sales – Oct (Last: 8.2% YTD y/y; Con: 8.1% YTD y/y)

## Thursday, November 14

- 1:30am – France: ILO Unemployment Rate – Q3 (Last: 8.5%)
- 2:00am – Germany:
  - GDP – Q3 P (Last: -0.1% q/q)
  - GDP – Q3 P (Last: 0.0% y/y NSA)
  - GDP – Q3 P (Last: 0.4% y/y WDA)
- 2:45am – France:
  - CPI – Oct F (Last: -0.1% m/m)
  - CPI – Oct F (Last: 0.7% y/y)
  - CPIH – Oct F (Last: -0.1% m/m)
  - CPIH – Oct F (Last: 0.9% y/y)
- 4:30am – UK: Retail Sales - Oct
- ★ 5:00am – EU:
  - GDP – Q3 P (Last: 0.2% q/q)
  - GDP – Q3 P (Last: 1.1% y/y)
- ★ 8:30am – US:
  - PPI Final Demand – Oct (Last: -0.3% m/m; Con: 0.2% m/m)
  - PPI Final Demand – Oct (Last: 1.4% y/y; Con: 0.9% y/y)

- Core PPI – Oct (Last: -0.3% m/m; Con: 0.2% m/m)
- Core PPI – Oct (Last: 2.0% y/y)
- PPI Ex Food, Energy, Trade – Oct (Last: 0.0% m/m; Con: 0.2% m/m)
- PPI Ex Food, Energy, Trade – Oct (Last: 1.7% y/y)
- 8:30am – Canada:
  - New Housing Prices Index – Sep (Last: 0.1% m/m)
  - New Housing Prices Index – Sep (Last: -0.3% y/y)
- ★ 9:00am – US: Fed Vice Chair Richard Clarida speaks at the Cato Institute. (FOMC Voter)
- 9:10am – US: Chicago Fed President Charles Evans speaks at Fintech event in Philadelphia. (FOMC Voter)
- ★ 11:45am – US: San Francisco Fed President Mary Daly gives opening remarks at Economic Policy Conference. (FOMC Voter in 2020)
- ★ 12:00pm – US: New York Fed President John Williams speaks. (FOMC Voter)
- ★ 12:20pm – US: Saint Louis Fed President James Bullard speaks. (FOMC Voter)
- 8:30pm – China: New Home Prices – Oct (Last: 0.53% m/m)
- 9:15pm – Canada: Bank of Canada Governor Poloz speaks at San Francisco Fed Conference.
- 11:30pm – Japan:
  - Industrial Production – Sep F (Sep P: 1.1% y/y)
  - Capacity Utilization – Sep F (Last: -2.9% m/m)

## Friday, November 15

- ★ 3:30am – Hong Kong:
  - GDP – Q3 F (Q3 P: -3.2% q/q)
  - GDP – Q3 F (Q3 P: -2.9% y/y)
- 4:00am – Italy: Trade Balance – Sep (Last: €2585m)
- ★ 5:00am – EU:
  - CPI – Oct F (Last: 0.2% m/m; Con: 0.2% m/m)
  - CPI – Oct F (Last: 0.7% y/y; Con: 0.7% y/y)
  - Core CPI – Oct F (Last: 1.1% y/y)
- ★ 8:30am – US:
  - Retail Sales Advance – Oct (Last: -0.3% m/m; Con: 0.2% m/m)
  - Retail Sales Ex Autos – Oct (Last: -0.1% m/m; Con: 0.4% m/m)
  - Retail Sales Ex Autos and Gas – Oct (Last: 0.0% m/m)
  - Retail Sales Control Group – Oct (Last: 0.0% m/m)
  - Empire Manufacturing – Nov (Last: 4; Con: 5.5)
  - Import Price Index – Oct (Last: 0.2% m/m; Con: -0.2% m/m)
  - Import Price Index Ex Petroleum – Oct (Last: -0.1% m/m; Con: 0.0% m/m)
  - Import Price Index – Oct (Last: -1.6% y/y)
  - Export Price Index – Oct (Last: -0.2% m/m)
  - Export Price Index – Oct (Last: -1.6% y/y)

- 9:15am – US:
  - Industrial Production – Oct (Last: -0.4% m/m; Con: -0.3% m/m)
  - Manufacturing Production – Oct (Last: -0.5% m/m)
  - Capacity Utilization – Oct (Last: 77.5%; Con: 77.1%)
- 10:00am – US: Business Inventories – Sep (Last: 0.0% m/m; Con: 0.1% m/m)

– Rebecca Kooshak, Economic Analyst

---

Although this information has been obtained from sources which we believe to be reliable, we do not guarantee its accuracy, and it may be incomplete or condensed. This is for informational purposes only and is not intended as an offer or solicitation with respect to the purchase or sale of any security. All herein listed securities are subject to availability and change in price. Past performance is not indicative of future results, and changes in any assumptions may have a material effect on projected results. Ratings on all securities are subject to change.

FHN Financial Capital Markets, FHN Financial Portfolio Advisors, and FHN Financial Municipal Advisors are divisions of First Horizon Bank. FHN Financial Securities Corp., FHN Financial Main Street Advisors, LLC, and FHN Financial Capital Assets Corp. are wholly owned subsidiaries of First Horizon Bank. FHN Financial Securities Corp. is a member of FINRA and SIPC — <http://www.sipc.org>.

FHN Financial Municipal Advisors is a registered municipal advisor. FHN Financial Portfolio Advisors is a portfolio manager operating under the trust powers of First Horizon Bank. FHN Financial Main Street Advisors, LLC is a registered investment advisor. None of the other FHN entities, including FHN Financial Capital Markets, FHN Financial Securities Corp., or FHN Financial Capital Assets Corp. are acting as your advisor, and none owe a fiduciary duty under the securities laws to you, any municipal entity, or any obligated person with respect to, among other things, the information and material contained in this communication. Instead, these FHN entities are acting for their own interests. You should discuss any information or material contained in this communication with any and all internal or external advisors and experts that you deem appropriate before acting on this information or material.

FHN Financial, through First Horizon Bank or its affiliates, offers investment products and services. Investment products are not FDIC insured, have no bank guarantee, and may lose value.