US Economic Weekly

Keep calm and hike on

Bank of America Merrill Lynch

21 November 2018

Economics
United States

Macro viewpoint: Keep calm and hike on

As we look ahead to 2019 and beyond, we think fiscal stimulus will fade into the second half of next year, revealing an economy that is growing close to trend. We are returning to a low-2% economy. Inflation is edging higher but we see little risk of an upward inflation scare. A bottom-up forecast implies core PCE of 2.2% in 2019 and 2020.

Note: The Macro viewpoint is reprinted from our 2019 global year ahead.

We also released our 2019 US Calendar of Business Indicators.

View from the top:

Review:

As expected, core capital goods shipments rebounded 0.3% mom in October. September was revised slightly lower to -0.2% from -0.1%, however.

The housing data were mixed. First the bad news: the NAHB housing index slid 8pts to 60 in November, the largest decline since February 2014. The good news is housing starts and existing home sales both picked up in October.

Preview:

Core PCE is likely to grow only 0.1% mom in October, resulting in yoy inflation slowing to 1.8% from 2.0%. Real spending is set to grow a healthy 0.3% mom.

The goods trade deficit should widen in October, though both imports and exports should decline as trade demand was pulled forward in September ahead of tariffs.

GDP update:

We look for 3Q GDP growth to be revised slightly lower to 3.4% qoq saar in the second release next week. We continue to track 2.7% for 4Q.

Data Deck for Nov 26 – Nov 30

Date	Time	Indicator	Period	BofAML Estimate	Consensus	Previous
11/27/18	9:00	Case-Shiller HPI y oy	Sep	5.6%	—	5.8%
11/27/18	10:00	Consumer Confidence	Nov	136.0	136.1	137.9
11/28/18	8:30	Wholesale Inv entories	Oct P	—	—	0.4%
11/28/18	8:30	Adv ance Goods Trade Balance	Oct	-$76.6bn	-$76.2bn	-$76.3bn
11/28/18	8:30	GDP qoq (Annualized)	3Q S	3.4%	3.6%	3.5%
11/28/18	8:30	GDP Price Index	3Q S	1.7%	1.7%	1.7%
11/28/18	8:30	Core PCE (qoq)	3Q S	1.6%	—	1.6%
11/28/18	10:00	New Home Sales	Oct	565k	580k	553k
11/28/18	**12:00**	**Fed Chair Powell Speaks in New York**	**—**	**—**	**—**	**—**
11/29/18	8:30	Initial Jobless Claims	Nov 24	220k	—	224k
11/29/18	8:30	Personal Income	Oct	0.4%	0.4%	0.2%
11/29/18	8:30	Personal Spending	Oct	0.5%	0.4%	0.4%
11/29/18	8:30	PCE Core Prices (mom)	Oct	0.1%	0.2%	0.2%
11/29/18	10:00	Pending Home Sales	Oct	-0.5%	0.9%	0.5%
11/29/18	14:00	FOMC minutes	—	—	—	—
11/30/18	9:45	Chicago Purchasing Managers	Oct	59.0	59.3	58.4

Source: BofA Merrill Lynch Global Research, Bloomberg

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Refer to important disclosures on page 15 to 16. **11939797**

Timestamp: 21 November 2018 12:06PM EST

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Macro viewpoint

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Keep calm and hike on

- Fiscal stimulus fades into the second half of next year, revealing an economy that is growing close to trend. We are returning to a low-2% economy.
- Inflation is edging higher but we see little risk of an upward inflation scare. A bottom-up forecast implies core PCE of 2.2% in 2019 and 2020.
- The Fed is on track to wash, rinse and repeat, hiking 4 times in 2019, leaving a terminal rate of 3.25-3.50%. We do not expect hikes in 2020, but they remain a risk.

A few key questions

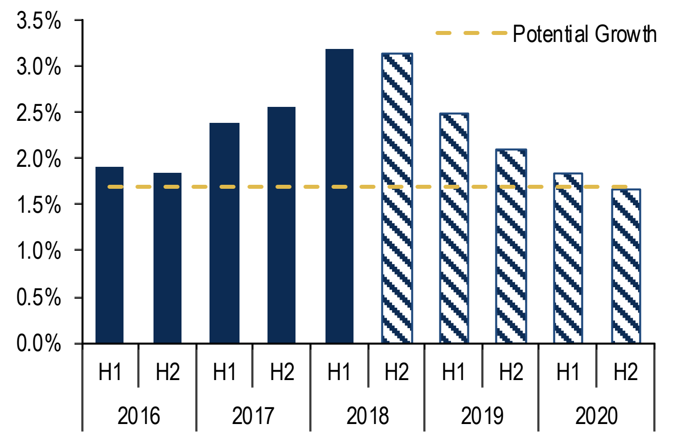
As we look ahead to 2019 and beyond, we are faced with the following questions: 1) what happens when the fiscal stimulus fades? 2) How much more will the Fed hike? 3) When will the good times end? As we elaborate in this piece, we think that fiscal stimulus fades in the second half of 2019, leaving growth to glide back to potential by 2020. This will allow the Fed to continue with gradual rate hikes next year—we now expect 4 hikes in 2019 after previously being in the 3 hike camp with risks tilted to 4—and then sit on hold in 2020. The probability of a recession rises thereafter; we advise keeping a close eye on all leading indicators as we do in our recently published guide.

There are risks to these forecasts. One possibility is that inflation surprises to the upside, prompting the Fed to hike faster, hurting the real economy. We could also be left with a monetary policy mistake if it turns out that once the fiscal stimulus fades, the economy is much weaker than previously believed. An escalation in the trade war is also a clear downside risk. On the upside, we could be underestimating the lasting effects of fiscal stimulus and the possibility of productivity growth.

Growth: on a slowing course

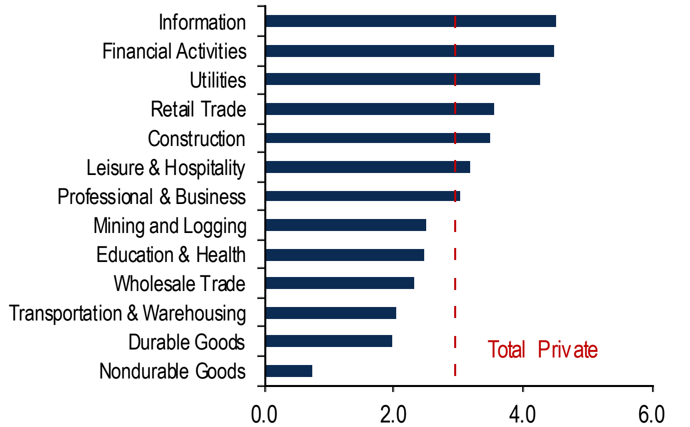
We expect a modest slowing in activity over 2019. The beginning of the year will look robust given the solid hand-off from 2018 and contribution from fiscal stimulus. But stimulus fades in the second half of the year. While we forecast full year growth of 2.7%, we are forecasting H2 to average only 2.1%. Annual growth will slow further to

Chart 1: GDP growth should slow towards potential (2q ann. % ch.)



Source: BofA Merrill Lynch Global Research, BEA

Chart 2: Average hourly earnings growth by industry (3-mo mov avg % yoy)



Source: BofA Merrill Lynch Global Research, BLS

1.9% in 2020 (Chart 1).

Digging into the components, we generally believe that the household sector is well positioned given modestly improving wage growth and elevated wealth, but without the same boost from the tax cuts as we saw in 2018. After-tax income jumped higher in February 2018 but will return back to its normal growth in February 2019. This should leave a modestly slower pace of spending, particularly for the lower income cohort which tends to be more sensitive to take-home pay. That said, this will be offset by a decline in gasoline prices which essentially acts as a tax break, particularly for lower income households.

The bigger debate is over the corporate sector. While business confidence improved meaningfully after the passage of tax reform, we never saw a true liftoff in capex with growth only reaching the mid-single digits. This could be because trade tensions offset the good news from tax cuts. On the upside, if the trade tensions are resolved, it could unleash pent-up investment which would be a positive surprise for 2019. However, on the downside, it could be that the trade challenges delayed investment and with the cycle advancing another year, there is a more muted response to the corporate tax cuts. Moreover, with oil prices heading lower, energy-related investment won't be as attractive. We see the latter to be a more compelling outcome.

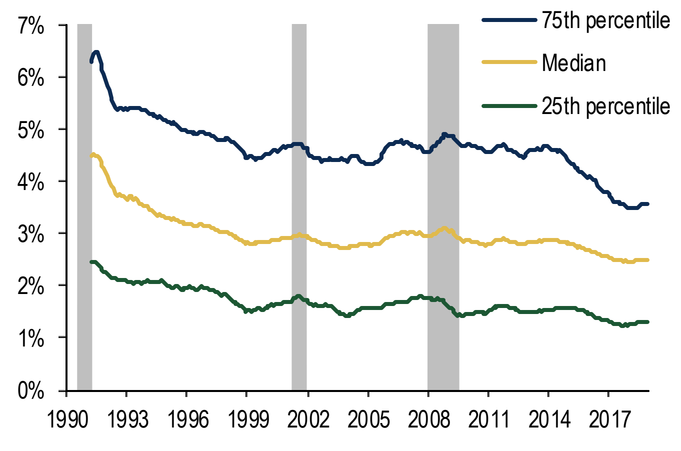
The housing market has moved from a tailwind to a headwind. However, as we have argued, the winds are blowing very slowly. The housing market remains tight with relatively low levels of inventory. We think that there are still opportunities for growth in single family construction, albeit modest. Housing sales have peaked, however, as has multifamily construction. Residential investment is likely to slice less than 0.1pp from growth in 2019, as it did in 2018.

Inflation: no monsters hiding

The labor market is tight and is set to continue to tighten. We are currently sitting with an unemployment rate of 3.7% and we think it will glide lower to 3.2% by the end of 2019, the lowest since October 1953. The unemployment rate should trough at this level and hold here for 2020 amid job growth slowing to a 115,000 average monthly pace. Along with a drop in the unemployment rate comes an increase in wage growth – we expect the current uptrend to continue, leaving wage growth at 3.5% by end of 2019. It is important to remember that this is the aggregate as wage growth has not been broad-based by industry, age or income level (Chart 2).

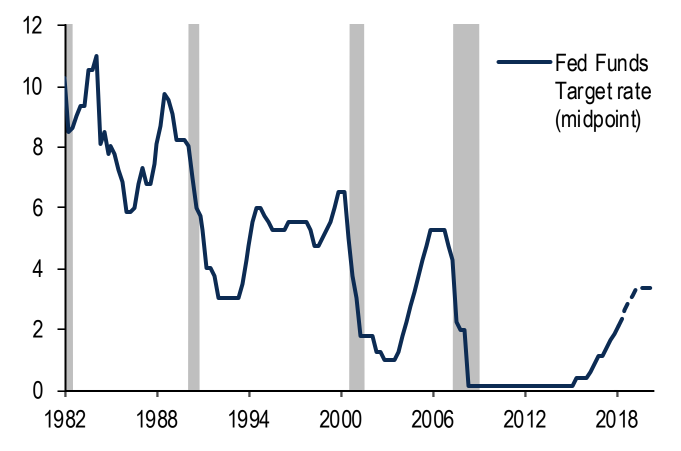
While wages seem on track to head higher, we think there will only be a modest push into underlying core inflation. With a flat Phillips Curve, the key to driving inflation will

Chart 3: U/mich survey shows a decline in those looking for "high inflation" over the next 5-10 years



Source: BofA Merrill Lynch Global Research, University of Michigan Survey of Consumers

Chart 4: Federal funds target rate to surpass estimates of neutral rate in 2020 (%)



Source: BofA Merrill Lynch Global Research, FRB be inflation expectations. It is possible that higher wages ultimately drive up expectations, thereby allowing underlying consumer prices to head higher as well. But it takes a lot to significantly move expectations, especially given the consolidation of views away from high inflation (Chart 3).

With limited insight from a top-down approach to modeling inflation, we look at the bottom-up forecast, which puts the emphasis on owners' equivalent rent (OER) and healthcare inflation. We expect OER to continue to trend close to its current pace with potential for slight upside due to limited rental inventory and low vacancy rates. We believe healthcare inflation can head higher, though the October data did not reveal a strong start to fiscal year 2019 suggesting downside risk. Another factor for the inflation forecast comes from tariffs, which will begin filtering into the data around the turn of 2018 primarily through the core goods channel. Our bottom line is that core PCE inflation will end 2019 at 2.2% and hold there for 2020.

Fed: high fives all around

Fed officials can high five each other as the economy is in excess of full employment while inflation is hovering close to target. The Fed has managed to hike rates and reduce the balance sheet without knocking the markets or economy on their back. We suspect they will want to wash, rinse and repeat in 2019 with a hike every quarter in a highly telegraphed manner. Our baseline is that the Fed hikes four times in 2019, bringing rates 3.25-3.50%. This would be nearly 50bp above the current median estimate of the long-run neutral rate (Chart 4).

The risk of 3 hikes exceeds that of 5 hikes in 2019. Although Powell will have the flexibility to hike 5 times given that there will be a press conference at every meeting, we think the data would have to be very compelling to justify the Fed to accelerate the pace. In contrast, if the data weakens and/or financial conditions tighten significantly, we could see the Fed skip the December meeting and hike only 3 times next year.

The story for 2020 is a bit more complicated. Based on our forecasts, the economy will be slowing in 2020 while inflation stabilizes. Moreover, the Presidential election in 2020 creates additional complications for Chair Powell, particularly given that there is already political pressure brewing. The path of least resistance will likely be to finish the hiking cycle in 2019 and stay on hold in 2020. Importantly, we think the Fed will characterize the lack of hikes in 2020 as a "hawkish hold", leaving options open.

Risks: clear and present danger

The key upside risks are: (1) the effects of fiscal stimulus are more significant and lasting than we expect; (2) adoption of artificial intelligence and other technological advancements can lead to greater productivity growth. These factors are not mutually exclusive. If the growth effects of fiscal stimulus are greater than anticipated then it is likely to come from greater capex which in turn could result in gains to productivity.

The downside risks are more prevalent and include: 1) an escalation of the trade war and 2) a monetary policy mistake. Our baseline view on the "trade war" is for there to be a de-escalation in trade tensions between the US and China, but after tariffs on Chinese goods increase to 25% from 10% next year. However, we do not think the administration will relinquish its use of tariffs as a blunt object in trade negotiations. As for the Fed, Powell is trying to navigate the economy towards an ever elusive soft landing, something it has not previously achieved. The risk is that the Fed is tricked by strong growth in 2018/early 2019 from fiscal stimulus and once that rolls off, it will unveil a much weaker economy. As a result the Fed would have increased rates too quickly, thereby pushing the economy into a downturn.

Based on our forecast, we think that cries of recession will get louder over next year. Investors will be carefully trying to sniff out a recession as this expansion continues to age. At this point, our crystal ball is decidedly not showing a recession for 2019 but the picture gets foggier into 2020 and beyond.

View from the top

Review

- As expected, core capital goods shipments rebounded 0.3% mom in October. September was revised slightly lower to -0.2% from -0.1%, however.
- The housing data were mixed. First the bad news: the NAHB housing index slid 8pts to 60 in November, the largest decline since February 2014. The good news is housing starts and existing home sales both picked up in October.

Preview

- Core PCE is likely to grow only 0.1% mom in October, resulting in yoy inflation slowing to 1.8% from 2.0%. Real spending is set to grow a healthy 0.3% mom.
- The goods trade deficit should widen in October, though both imports and exports should decline as trade demand was pulled forward in September ahead of tariffs.

GDP update

- We look for 3Q GDP growth to be revised slightly lower to 3.4% qoq saar in the second release next week. We continue to track 2.7% for 4Q.

Core views

Growth

- We expect 2.9% real GDP growth this year and 2.7% next year. Both years remain notably above our potential growth estimate of 1.7%. Trade tensions are a headwind and further escalation is a downside risk.

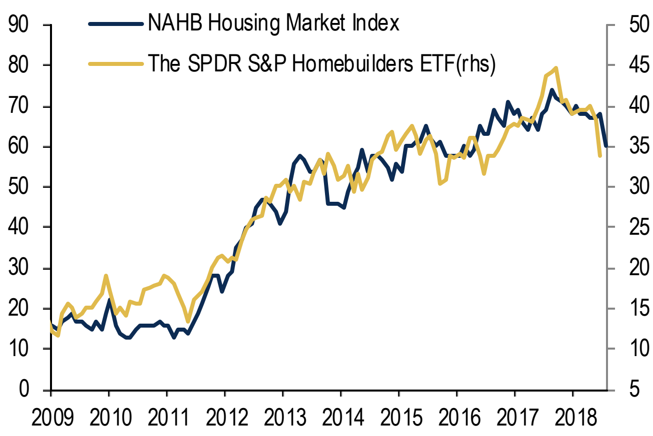
Inflation

- We expect core PCE to persist around the Fed's 2% target this year. By the end of 2019, core inflation should advance further to 2.2% partly aided by tariff pressures.

Federal Reserve

- We expect the Fed to proceed with gradual tightening and hike a total of 4 times this year, followed by 4 hikes next year. At that point, policy is likely to become slightly restrictive. Meanwhile, balance sheet normalization continues.

Chart 5: Housing market deceleration



Source: NAHB, Bloomberg

- November NAHB Housing Market Index surprised to the downside, coming in at 60 which was the lowest level since August 2016. The index reached the peak of 74 in December 2017.
- Similarly, the S&P Homebuilders ETF, which tracks home builder confidence closely, has also been on a downward trend since late last year.
- Rising interest rates and declining affordability have weighed on housing demand while labor shortages and high regulatory costs created headwinds to the supply side. As we have argued previously, housing has turned from a tailwind to neutral for the economy.

Data in the past week

Data deck for Nov.19-Nov.23

Date	Time	Indicator	Period	Actual	Consensus	Previous
11/19/18	10:00	NAHB Housing Market Index	Nov	60	67	68
11/20/18	8:30	Housing Starts	Oct	1228k	1230k	1210k
11/20/18	8:30	Building Permits	Oct	1263k	1260k	1270k
11/21/18	8:30	Initial Jobless Claims	Nov 17	224k	215k	221k
11/21/18	8:30	Durable Goods Orders	Oct P	-4.4%	-2.6%	-0.1%
11/21/18	8:30	Durables Ex Transportation	Oct P	0.1%	0.4%	-0.6%
11/21/18	8:30	Core Capital Goods Orders	Oct P	0.0%	0.2%	-0.5%
11/21/18	8:30	Core Capital Goods Shipments	Oct P	0.3%	0.3%	-0.2%
11/21/18	10:00	U. of Michigan Sentiment	Nov F	97.5	98.3	98.3
11/21/18	10:00	Leading Indicators	Oct	0.1%	0.1%	0.6%
11/21/18	10:00	Existing Home Sales	Oct	5.22M	5.20M	5.15M

Source: BofA Merrill Lynch Global Research, Bloomberg

Unexpected drop in the NAHB index

November NAHB Housing Market Index surprised to the downside, coming in at 60 (lowest since August 2016) versus consensus expectations at 67. This was the biggest drop in the index since 2014 as higher rates weighed on demand. Moreover, labor shortages and rising regulatory costs have also provided headwinds to the housing recovery. That said, we are not worried about housing yet: while it is no longer a tailwind, its headwinds are modest.

Core capital goods shipments rebound, orders disappoint

Core capital goods shipments rebounded with a 0.3% mom increase in October, in line with expectations, though September was revised slightly lower to -0.2% from -0.1%. Core capital goods orders were unchanged, coming in below consensus at 0.2%. The rebound in shipments confirms that the small decreases in September and August (-0.1%) likely reflected cooling after July and June posted strong gains. On balance, the data left our GDP tracking unchanged with 4Q holding at 2.7% qoq saar.

We continue to believe capex will be a tailwind in the outlook given that momentum in the economy remains strong, though trade uncertainty remains a headwind. The recent selloff in crude oil if sustained is also a downside risk to capex, given that the energy sector has become a big contributor to broad US capex. That said our commodity strategists believe oil is oversold and expect a rebound as OPEC is likely to respond with cuts in December.

Housing starts and building permits in line with expectations

October housing starts were in line with expectations at 1228k, slightly up from the 1210k in September. Looking at the details, single family starts were down 1.8% while multifamily starts (which tend to be very noisy) were up 10.3%, partly reversing last month's decline. On a regional basis, multifamily starts fell sharply in the Northeast but were up notably in the Midwest. Outside of starts, building permits dropped 0.6% mom to 1263k in October.

Existing home sales increase for first time in seven months

Existing home sales finally picked up 1.4% mom to 5.22mn saar in October, ending a 6-mo streak of declines. While there is room for further positive payback, the trajectory is challenged by higher rates and stretched affordability limiting the upside. As a result, it is likely that existing home sales have already peaked this cycle.

Data in the week ahead

Tuesday, Nov 27

Data Deck for Nov 27

Date	Time	Indicator	Period	BofAML Estimate	Consensus	Previous
11/27/18	9:00	Case-Shiller HPI yoy	Sep	5.6%	—	5.8%
11/27/18	10:00	Consumer Confidence	Nov	136.0	136.2	137.9

Source: BofA Merrill Lynch Global Research, Bloomberg

Case-Shiller

In September, we look for the national Case-Shiller home price index to edge down to 5.6% yoy from 5.8% yoy in August. Housing data softened further in September as new home sales fell by 5.5% and existing home sales declined by 3.4%. With softer demand starting to take hold, price appreciation should continue to slow.

Consumer confidence

We expect the Conference Board Consumer Confidence index to pull back slightly in November to 136 from its 18-year high of 137.9. Optimism around labor markets continues to support confidence although the recent market selloff should be a slight drag. The midterm election results should not have a big impact as they were widely expected.

Wednesday, Nov 28

Data Deck for Nov 28

Date	Time	Indicator	Period	BofAML Estimate	Consensus	Previous
11/28/18	8:30	Wholesale Inventories	Oct P	—	—	0.4%
11/28/18	8:30	Advance Goods Trade Balance	Oct	-$76.6bn	-$76.2bn	-$76.3bn
11/28/18	8:30	GDP qoq (Annualized)	3Q S	3.4%	3.6%	3.5%
11/28/18	8:30	GDP Price Index	3Q S	1.7%	1.7%	1.7%
11/28/18	8:30	Core PCE (qoq)	3Q S	1.6%	—	1.6%
11/28/18	10:00	New Home Sales	Oct	565k	580k	553k

Source: BofA Merrill Lynch Global Research, Bloomberg

GDP

In the second release of 3Q GDP, we expect growth to be revised only a tenth lower to 3.4%. On the upside, we expect better residential and structures investment. But on the downside, consumption, government, trade, and inventories are likely to be revised slightly lower. Inflation metrics are likely to be unchanged, with the GDP price index at 1.7% qoq saar and core PCE at 1.6% qoq saar.

Advance goods trade

In October, we expect the advance goods trade deficit will widen further to $76.6bn from $76.3bn, previously. Both exports and imports increased strongly in September, with exports rising by 2.0% and imports advancing by 1.7%. We think this likely reflects some pull-forward in demand ahead of tariffs enacted by both countries on September 24th as the seasonally adjusted trade balance with China widened by nearly $2bn on increased exports and imports. With tariffs in full effect for the month of October, we expect to see a reversal of sorts and for exports and imports to decline slightly on the month.

New home sales

New single-family home sales likely increased to 565k in October from 553k previously, or 2.3% over the month. This would be a slight rebound following four consecutive monthly declines by an average of a little over 4.0%, similar to the rebound in existing home sales.

Thursday, Nov 29

Data Deck for Nov 29

Date	Time	Indicator	Period	BofAML Estimate	Consensus	Previous
11/29/18	8:30	Initial Jobless Claims	Nov 24	220k	—	224k
11/29/18	8:30	Personal Income	Oct	0.4%	0.4%	0.2%
11/29/18	8:30	Personal Spending	Oct	0.5%	0.4%	0.4%
11/29/18	8:30	PCE Core Prices (mom)	Oct	0.1%	0.2%	0.2%
11/29/18	10:00	Pending Home Sales	Oct	-0.5%	0.9%	0.5%
11/29/18	14:00	FOMC minutes	—	—	—	—

Source: BofA Merrill Lynch Global Research, Bloomberg

Personal income and spending

October personal spending likely edged up 0.5% mom, supported by strong retail sales. Adjusting for our headline inflation forecast of 0.2%, we look for real personal spending to come in at 0.3% mom. Meanwhile personal income likely rebounded to 0.4% in October after a disappointing reading of 0.2% in September, as average hourly earnings rose by 0.3% mom.

Core PCE inflation

We expect core PCE inflation of only 0.1% (0.106% unrounded) mom in October. Despite core CPI coming in at a healthy 0.2% mom this month, the components point to a weaker reading for core PCE. Another factor is that healthcare PCE inflation is likely to underwhelm based on the signal from the PPI data. If our forecast proves correct, yoy inflation would slow to 1.8% (1.809% unrounded) from 2.0%. The risk is that core PCE ends modestly below our yearend forecast of 2%. Meanwhile, headline inflation should rise by 0.2% mom, keeping yoy inflation unchanged at 2.0%.

Initial jobless claims

We look for 220k initial jobless claims in the week ending November 24th. In the latest reading, initial claims trended higher to 224k with upward revisions to the prior week's data. The pickup should prove transitory as the increase likely reflects volatility around the Veterans Day holiday and the wildfires in California shuttering business activity on the west coast. Indeed, the 4-week moving average, a better measure of trend, only edged up to 219k from 217k, previously. Note that initial claims will likely be volatile in coming weeks as seasonal adjustment procedures tend to be less reliable around the holiday period at yearend.

Pending home sales

We look for pending home sales to decline by 0.5% mom in October after increasing by 0.5% in September. We take signal from the MBA mortgage purchase applications index which declined by 3.5% over the month.

FOMC minutes

The minutes to the November FOMC meeting should show a confident Fed that is comfortable gradually raising rates given their expectations for above trend growth and steady inflation over the next several quarters. But the focus will likely be on the discussion around the balance of risks to the outlook. In particular, markets will be watching closely how much emphasis the Committee puts on the downside risks from the slowing global economy, softening housing market and fading fiscal stimulus. We expect the Committee to give a balanced view on risks by also discussing the upside risk to the outlook from greater-than-expected effects of fiscal stimulus on the economy and the potential for better productivity growth going forward. The discussion around financial market volatility prior to the FOMC meeting may sound stale given the latest moves. However, recent comments by Fed officials suggest that they are willing to overlook temporary moves in the market though a sustained correction would be more worrisome.

On logistics, the minutes will likely reveal preliminary discussions about the possibility of a technical adjustment to the IOER (interest on excess reserves) as well as possible changes to the framework for monetary policy. However, major discussions and decisions on long-run policy frameworks are unlikely to be included in the minutes as the Fed announced that it will review “the strategies, tools, and communication practices” used by the Fed next year.

Friday, Nov 30

Data Deck for Nov 30

Date	Time	Indicator	Period	BofAML Estimate	Consensus	Previous
11/30/18	9:45	Chicago Purchasing Managers	Oct	59.0	60.0	58.4

Source: BofA Merrill Lynch Global Research, Bloomberg

Chicago PMI

After tumbling by around 5 points over the last two months, we expect Chicago PMI to stabilize around 59.0 in October, little changed from 58.4 in September. We take signal from previously released regional manufacturing surveys as both the Empire State and Philly Fed index, on an ISM-adjusted basis, increased modestly on the month. If our result holds, then the index would continue to signal expansionary activity in the region for the 33rd consecutive month.

Upcoming policy speakers

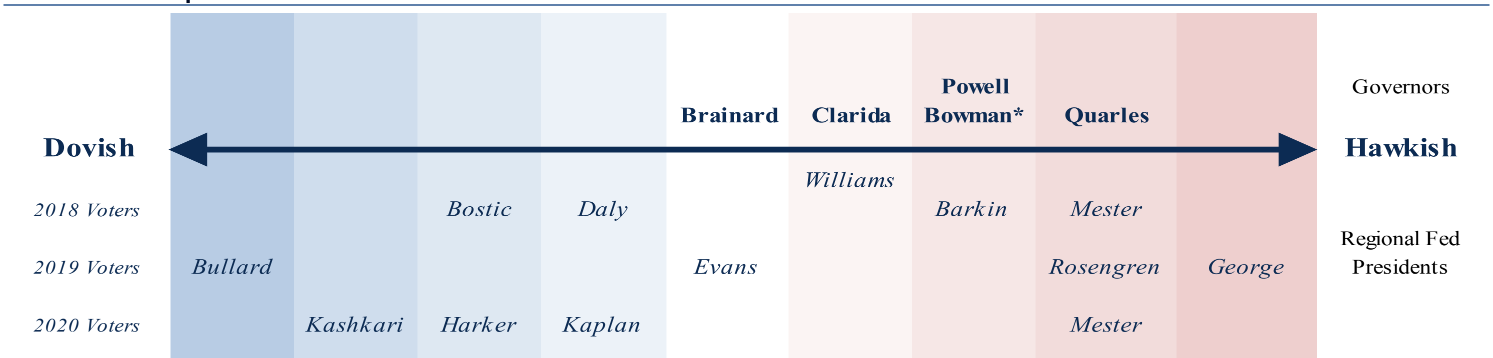
Key speaking engagements and news events*

Monday, Nov 26		*No events scheduled at this time*
Tuesday, Nov 27	*2:30pm*	*Bostic (voter), Evans (non-voter) and George (non-voter) participate in panel discussion in New York*
Wednesday, Nov 28	*12:00pm*	*Fed Chair Powell speaks on Economic Outlook in New York*
Thursday, Nov 29	*2:00pm*	*FOMC Meeting Minutes*
	2:00pm	*FRB Chicago President Evans speaks at Boston Fed*
Friday, Nov 30	*9:00am*	*FRB NY President Williams (voter) speaks on Global Economy*

*All listed times are Eastern times. Dates and times are subject to change.
Source: BofA Merrill Lynch Global Research, Bloomberg

FOMC dove-hawk spectrum

FOMC dove-hawk spectrum



Note(s): NY Fed President (Williams) is always a voter.
* There is limited information on Bowman's monetary policy views. For now, we assume she will vote with the core of the committee.
The Senate Finance Committee has voted in favor of Goodfriend, but his nomination has not been put up for vote in the full Senate. If confirmed, Goodfriend likely adds another hawkish voice to the FOMC.
Source: BofA Merrill Lynch Global Research

Economic forecast summary

Real Economic Activity, % SAAR	2Q 17	3Q 17	4Q 17	1Q 18	2Q 18	3Q 18	4Q 18	1Q 19	2Q 19	3Q 19	4Q 19	2017	2018	2019	2020
Real GDP	3.0	2.8	2.3	2.2	4.2	3.5	2.8	2.4	2.6	2.1	2.1	2.2	2.9	2.7	1.9
% Change, Year Ago	2.1	2.3	2.5	2.6	2.9	3.0	3.2	3.2	2.8	2.5	2.3				
Final Sales	2.8	1.8	3.2	1.9	5.3	1.4	3.3	2.3	2.5	2.0	2.0	2.2	2.9	2.5	1.9
Domestic Demand	2.7	1.8	4.1	2.0	4.1	3.2	3.1	2.5	2.7	2.2	2.2	2.5	2.9	2.7	2.1
Consumer Spending	2.9	2.2	3.9	0.5	3.8	4.0	3.1	2.2	2.5	2.1	2.1	2.5	2.7	2.7	2.0
Residential Investment	-5.5	-0.5	11.2	-3.4	-1.4	-4.0	-1.0	-1.0	-1.0	-1.0	-1.0	3.3	-0.1	-1.4	-1.0
Nonresidential Investment	7.3	3.4	4.9	11.5	8.7	0.8	4.3	4.0	4.0	3.0	3.0	5.3	6.6	3.8	3.1
Structures	3.8	-5.8	1.3	13.9	14.5	-7.9	2.5	4.0	4.0	3.0	3.0	4.6	4.8	2.6	3.1
Equipment	9.7	9.8	9.9	8.5	4.6	0.4	4.0	4.0	4.0	3.0	3.0	6.1	6.9	3.4	3.1
Intellectual Property	6.6	1.7	0.7	14.1	10.5	7.9	6.0	4.0	4.0	3.0	3.0	4.6	7.5	5.1	3.1
Government	0.1	-1.0	2.4	1.5	2.5	3.3	2.5	2.8	2.8	2.1	2.1	-0.1	1.7	2.7	2.1
Exports	3.6	3.5	6.6	3.6	9.3	-3.5	5.5	2.0	2.0	2.0	2.0	3.0	4.4	2.4	2.0
Imports	2.5	2.8	11.8	3.0	-0.6	9.1	3.0	3.0	3.0	3.0	3.0	4.6	4.6	3.5	3.0
Net Exports (Bil 12$)	-844	-846	-899	-902	-841	-939	-931	-943	-956	-968	-981	-859	-903	-962	-1016
Contribution to growth (ppts)	0.1	0.0	-0.9	0.0	1.2	-1.8	0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.2	-0.2	-0.2
Inventory Accumulation (Bil 12$)	11.9	64.4	16.1	30.3	-36.8	76.3	50.0	55.0	60.0	65.0	70.0	22.5	30.0	62.5	70.0
Contribution to growth (ppts)	0.2	1.0	-0.9	0.3	-1.2	2.1	-0.5	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.0
Nominal GDP (Bil $, SAAR)	19359	19588	19832	20041	20412	20659	20901	21112	21383	21607	21837	19485	20503	21485	22388
% SAAR	4.2	4.8	5.1	4.3	7.6	4.9	4.8	4.1	5.2	4.3	4.3	4.2	5.2	4.8	4.2
Key Indicators															
Industrial Production (% SAAR)	5.0	-1.5	7.7	2.5	5.3	4.7	2.7	3.4	3.1	2.7	2.4	1.6	3.9	3.3	2.4
Capacity Utilization (%)	76.2	75.8	77.1	77.2	77.8	78.3	78.5	78.9	79.2	79.5	79.8	76.1	78.0	79.4	80.5
Nonfarm Payrolls (Avg mom change, 000s)	190	142	221	218	217	190	220	200	180	165	160	182	211	176	115
Civilian Unemployment Rate (%)	4.3	4.3	4.1	4.1	3.9	3.8	3.7	3.6	3.4	3.3	3.2	4.4	3.9	3.4	3.2
Civilian Participation Rate (%)	62.8	62.9	62.7	62.9	62.8	62.8	62.9	63.0	63.0	63.0	63.0	62.8	62.8	63.0	63.0
Productivity (% SAAR)	1.6	2.3	-0.3	0.3	3.0	2.2	1.2	1.1	1.1	1.0	1.0	1.1	1.3	1.3	1.2
Personal Savings Rate (%)	6.7	6.7	6.3	7.4	6.8	6.4	6.1	6.3	6.6	6.8	7.1	6.7	6.7	6.7	6.8
Light Vehicle Sales (Millions SAAR)	16.8	17.1	17.6	17.1	17.2	16.9	17.3	16.9	16.6	16.3	16.0	17.1	17.1	16.4	15.2
Housing Starts (Thous. SAAR)	1171	1172	1259	1317	1261	1218	1243	1295	1298	1301	1305	1208	1260	1300	1325
Current Account (% of GDP)												-2.3	-2.3	-2.4	-2.5
US Budget Balance ($bn, Fiscal Year)												-666	-779	-995	-1050
Inflation															
GDP Price Index (% SAAR)	1.2	2.2	2.5	2.0	3.0	1.7	2.0	1.7	2.6	2.1	2.2	1.9	2.2	2.1	2.2
% Change, Year Ago	1.7	1.9	2.0	2.0	2.4	2.3	2.2	2.1	2.0	2.1	2.1				
PCE Chain Prices (% SAAR)	0.8	1.6	2.7	2.5	2.0	1.6	1.8	1.2	2.3	1.9	1.9	1.8	2.1	1.8	2.0
% Change, Year Ago	1.6	1.6	1.8	1.9	2.2	2.2	1.9	1.6	1.7	1.8	1.9				
Core PCE Chain Prices (% SAAR)	1.3	1.4	2.1	2.2	2.1	1.6	1.9	2.3	2.2	2.1	2.0	1.6	1.9	2.1	2.2
% Change, Year Ago	1.6	1.5	1.6	1.7	1.9	2.0	2.0	2.0	2.0	2.1	2.2				
CPI, Consumer Prices (% SAAR)	0.1	2.1	3.3	3.5	1.7	2.0	1.8	0.7	2.6	2.0	2.1	2.1	2.4	1.7	2.1
% Change, Year Ago	1.9	2.0	2.1	2.2	2.7	2.6	2.2	1.5	1.8	1.8	1.9				
CPI ex Food & Energy (% SAAR)	0.8	1.8	2.2	3.0	1.8	2.0	2.0	2.6	2.5	2.4	2.4	1.8	2.1	2.3	2.4
% Change, Year Ago	1.8	1.7	1.8	1.9	2.2	2.2	2.2	2.1	2.3	2.4	2.5				

Shaded regions represent BofA Merrill Lynch US Economics Research forecast

Source: BofA Merrill Lynch US Economics Research

To view our long-run forecasts, see US Economic Watch: The long View: the debate over the trend

Global economic forecast summary

	GDP growth, %				CPI inflation, %				Short-term interest rates, %			
	2017	2018F	2019F	2020F	2017	2018F	2019F	2020F	Current	2018F	2019F	2020F
Global	**3.8**	**3.8**	**3.6**	**3.7**	**2.8**	**3.2**	**3.0**	**3.0**	**4.28**	**4.42**	**4.47**	**4.44**
US	2.2	2.9	2.7	1.9	2.1	2.4	1.9	2.1	2.13	2.38	3.38	3.38
Global ex US	**4.1**	**4.0**	**3.7**	**4.0**	**2.9**	**3.4**	**3.3**	**3.2**	**4.75**	**4.86**	**4.70**	**4.66**
Euro Area	2.5	1.9	1.4	1.5	1.5	1.8	1.6	1.3	0.00	0.00	0.00	0.25
UK	1.7	1.2	1.3	1.6	2.7	2.5	1.8	1.8	0.75	0.75	1.00	1.50
Japan	1.7	0.9	1.4	0.6	0.5	1.1	0.4	0.8	-0.10	-0.10	-0.10	-0.05
Canada	3.0	2.2	2.2	1.8	1.6	2.3	1.6	1.8	1.75	1.75	2.50	3.00
Emerging EMEA	2.8	2.8	2.0	2.9	7.0	7.9	8.6	7.2	9.48	9.71	9.24	8.97
Latin America	1.1	0.8	1.8	2.1	4.2	3.8	3.9	3.8	11.17	11.83	10.10	8.89
Brazil	1.0	1.5	3.5	3.0	3.4	3.7	4.1	4.1	6.50	6.50	7.00	8.00
Emerging Asia	6.2	6.3	5.9	6.0	2.2	2.8	2.5	2.9	4.59	4.64	4.72	4.76
China	6.9	6.6	6.1	6.2	1.6	2.2	1.6	2.2	4.35	4.35	4.35	4.35

Shaded regions represent BofA Merrill Lynch Global Economics Research forecast.
Source: BofA Merrill Lynch Global Economics Research

Interest rate forecast summary

(% EOP)	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	2016	2017	2018	2019
Fed Funds	1.00-1.25	1.00-1.25	1.25-1.50	1.50-1.75	1.75-2.00	2.00-2.25	2.25-2.50	2.50-2.75	2.75-3.00	3.00-3.25	3.25-3.50	0.50-0.75	1.25-1.50	2.25-2.50	3.25-3.50
Fed effective	1.06	1.16	1.33	1.67	1.91	2.18	2.38	2.63	2.88	3.13	3.38	0.55	1.33	2.38	3.38
3-Month T-Bill	1.01	1.03	1.38	1.70	1.91	2.20	2.40	2.66	2.87	3.13	3.40	0.50	1.38	2.40	3.40
3-Month LIBOR	1.30	1.30	1.69	2.31	2.34	2.40	2.80	2.96	3.22	3.55	3.80	1.00	1.69	2.80	3.80
2-Year T-Note	1.38	1.39	1.88	2.27	2.53	2.82	3.05	3.20	3.30	3.35	3.35	1.19	1.88	3.05	3.35
5-Year T-Note	1.89	1.94	2.21	2.56	2.74	2.95	3.15	3.25	3.30	3.30	3.30	1.93	2.21	3.15	3.30
10-Year T-Note	2.30	2.37	2.41	2.74	2.86	3.06	3.25	3.30	3.30	3.30	3.25	2.44	2.41	3.25	3.25
30-Year T-Bond	2.83	2.90	2.74	2.97	2.99	3.21	3.35	3.40	3.30	3.25	3.20	3.07	2.74	3.35	3.20
2-Year swap	1.62	1.65	2.08	2.58	2.79	2.99	3.25	3.43	3.55	3.60	3.60	1.45	2.08	3.25	3.60
5-year swap	1.96	2.01	2.24	2.71	2.89	3.07	3.30	3.42	3.50	3.55	3.55	1.98	2.24	3.30	3.55
10-year swap	2.28	2.35	2.40	2.79	2.93	3.12	3.35	3.42	3.45	3.45	3.45	2.34	2.40	3.35	3.45
30-year swap	2.54	2.61	2.54	2.82	2.93	3.13	3.30	3.38	3.35	3.30	3.30	2.59	2.54	3.30	3.30

Source: BofA Merrill Lynch US Rates Research
Note: Federal funds rate forecasts are modal expectations; other values are for market rates. Shaded regions represent BofA Merrill Lynch US Rates Research forecast.

FX rate forecast summary

	Spot	18-Dec	19-Mar	19-Jun	19-Sep	19-Dec	20-Mar	20-Jun	20-Sep	20-Dec
G3										
EUR-USD	1.14	1.18	1.20	1.22	1.22	1.25	1.25	1.27	1.30	1.30
USD-JPY	113	115	112	109	107	105	105	105	105	105
EUR-JPY	129	136	134	133	131	131	131	133	137	137
Dollar Bloc										
USD-CAD	1.33	1.33	1.32	1.31	1.31	1.30	1.30	1.29	1.28	1.27
AUD-USD	0.73	0.73	0.75	0.77	0.79	0.81	0.81	0.82	0.83	0.84
NZD-USD	0.68	0.68	0.71	0.72	0.73	0.74	0.74	0.75	0.75	0.75
Europe										
EUR-GBP	0.89	0.87	0.87	0.86	0.86	0.86	0.87	0.87	0.88	0.88
GBP-USD	1.28	1.36	1.38	1.42	1.42	1.45	1.44	1.46	1.48	1.48
EUR-CHF	1.13	1.15	1.17	1.18	1.20	1.22	1.23	1.24	1.25	1.25
USD-CHF	0.99	0.97	0.98	0.97	0.98	0.98	0.98	0.98	0.96	0.96
EUR-SEK	10.32	10.10	10.00	9.90	9.80	9.80	9.70	9.60	9.50	9.50
USD-SEK	9.05	8.56	8.33	8.11	8.03	7.84	7.76	7.56	7.31	7.31
EUR-NOK	9.74	9.30	9.20	9.10	9.00	8.90	8.80	8.70	8.60	8.50
USD-NOK	8.54	7.88	7.67	7.46	7.38	7.12	7.04	6.85	6.62	6.54

Source: BofA Merrill Lynch Global FX Rates & Commodities Research
Note: Spot exchange rate as of day before publishing. The left of the currency pair is the denominator of the exchange rate. Forecasts for end of period.

Monthly CPI forecast update

	Non-seasonally Adjusted						Seasonally Adjusted			
	Total CPI			Energy			Total CPI		Core CPI	
	Level	mom	yoy	Level	mom	yoy	mom	yoy	mom	yoy
2017: Jul	244.79	-0.07	1.7	202.55	-1.02	3.4	0.08	1.7	0.14	1.7
2017: Aug	245.52	0.30	1.9	205.89	1.65	6.4	0.42	2.0	0.22	1.7
2017: Sep	246.82	0.53	2.2	215.71	4.77	10.1	0.46	2.2	0.13	1.7
2017: Oct	246.66	-0.06	2.0	207.29	-3.90	6.4	0.08	2.0	0.21	1.8
2017: Nov	246.67	0.00	2.2	209.38	1.01	9.4	0.34	2.2	0.12	1.7
2017: Dec	246.52	-0.06	2.1	206.60	-1.33	6.9	0.20	2.1	0.24	1.8
2018: Jan	247.87	0.54	2.1	210.66	1.97	5.5	0.54	2.1	0.35	1.8
2018: Feb	248.99	0.45	2.2	213.52	1.36	7.7	0.15	2.3	0.18	1.9
2018: Mar	249.55	0.23	2.4	212.55	-0.45	7.0	-0.06	2.4	0.18	2.1
2018: Apr	250.55	0.40	2.5	218.83	2.95	7.9	0.22	2.4	0.10	2.1
2018: May	251.59	0.42	2.8	226.81	3.65	11.7	0.21	2.7	0.17	2.2
2018: Jun	251.99	0.16	2.9	229.14	1.03	12.0	0.13	2.8	0.16	2.2
2018: Jul	252.01	0.01	2.9	227.11	-0.89	12.1	0.17	2.9	0.24	2.3
2018: Aug	252.15	0.06	2.7	226.94	-0.07	10.2	0.22	2.7	0.08	2.2
2018: Sep	252.44	0.12	2.3	226.17	-0.34	4.8	0.06	2.3	0.12	2.2
2018: Oct	252.89	0.18	2.5	225.76	-0.18	8.9	0.33	2.5	0.19	2.2
2018: Nov	252.21	-0.27	2.2	217.51	-3.65	3.9	0.07	2.3	0.20	2.2
2018: Dec	251.15	-0.42	1.9	204.24	-6.10	-1.1	-0.15	1.9	0.20	2.2
2019: Jan	251.82	0.27	1.6	204.40	0.08	-3.0	0.16	1.5	0.25	2.1
2019: Feb	252.65	0.33	1.5	204.28	-0.06	-4.3	0.05	1.4	0.21	2.1
2019: Mar	253.82	0.46	1.7	209.22	2.42	-1.6	0.18	1.7	0.21	2.1
2019: Apr	254.86	0.41	1.7	212.95	1.78	-2.7	0.28	1.7	0.21	2.2
2019: May	255.82	0.38	1.7	218.83	2.76	-3.5	0.22	1.7	0.21	2.3
2019: Jun	256.50	0.27	1.8	223.80	2.28	-2.3	0.23	1.8	0.21	2.3
2019: Jul	256.27	-0.09	1.7	220.17	-1.62	-3.1	0.06	1.7	0.20	2.3
2019: Aug	256.64	0.14	1.8	219.62	-0.25	-3.2	0.27	1.8	0.20	2.4
2019: Sep	256.99	0.13	1.8	217.27	-1.07	-3.9	0.08	1.8	0.20	2.5
2019: Oct	257.18	0.08	1.7	212.86	-2.03	-5.7	0.23	1.7	0.20	2.5
2019: Nov	256.86	-0.13	1.8	208.18	-2.20	-4.3	0.22	1.8	0.20	2.5
2019: Dec	256.35	-0.20	2.1	203.40	-2.30	-0.4	0.05	2.0	0.20	2.5

NSA: Not seasonally adjusted, SA: seasonally adjusted. MoM is monthly percent change; YoY is year-over-year percent change. Shaded regions represent BofA Merrill Lynch US Rates Research forecast.

Source: BofA Merrill Lynch Global Research

Rolling calendar of business indicators

Monday	Tuesday	Wednesday	Thursday	Friday
26 Nov 8:30 am: Chicago Fed Nat'l Activity Index – Oct Sep 0.17 Aug 0.27	27 Nov 9:00 am: FHFA House Price Index – Sep Aug 0.2% Jul 0.4% 9:00 am: Case-Shiller HPI yoy – Sep Sep 5.6%* Aug 5.8% Jul 6.0% 10:00 am: Consumer confidence – Nov Nov 136.0* Oct 137.9 Sep 135.3	28 Nov MBA Mortgage Applications -(week ending 11/23/18) 8:30 am: Advance Goods Trade Balance – Oct Oct -$76.6B * Sep -$76.3B Aug -$75.4B 8:30 am: Wholesale Inventories – Oct (P) Sep 0.3% Aug 0.9% 8:30 am: GDP qoq ann. – 3Q (S) 3Q (S) 3.4%* 3Q (A) 3.5% 2Q 4.2% 8:30 am: GDP Price Index – 3Q (S) 3Q (S) 1.7%* 3Q (A) 1.7% 2Q 3.0% 8:30 am: Core PCE qoq – 3Q (S) 3Q (S) 1.6%* 3Q (A) 1.6% 2Q 2.1% 10:00 am: New Home Sales – Oct Oct 565k* Sep 553k Aug 585k	29 Nov 8:30 am: Initial Jobless Claims -(week ending 11/24/18) 8:30 am: Personal Income – Oct Oct 0.4%* Sep 0.2% Aug 0.4% 8:30 am: Personal Spending – Oct Oct 0.5%* Sep 0.4% Aug 0.5% 8:30 am: PCE Core – Oct Oct 0.1%* Sep 0.2% Aug 0.0% 10:00 am: Pending Home Sales – Oct Oct -0.5%* Sep 0.5% Aug 1.9% 2:00 pm: FOMC Minutes	30 Nov 9:45 am: Chicago PMI – Nov Nov 59.0* Oct 58.4 Sep 60.4
3 Dec 10:00 am: Construction Spending – Oct Sep 0.0% Aug 0.8% 10:00 am: ISM Manufacturing – Nov Oct 57.7 Sep 59.8 All day: Vehicle Sales– Nov Oct 17.5M Sep 17.4M	4 Dec	5 Dec MBA Mortgage Applications -(week ending 11/30/18) 8:15 am: ADP Employment Change – Nov Oct 227K Sep 218K 8:30 am: Nonfarm Productivity – 3Q(F) 2Q 2.2% 1Q 3.0% 8:30 am: Unit Labor Costs – 3Q(F) 2Q 1.2% 1Q -1.0% 10:00 am: ISM Non-Manufacturing – Nov Oct 60.3 Sep 61.6 2:00pm: Federal Reserve Beige Book	6 Dec 8:30 am: Initial Jobless Claims -(week ending 12/01/18) 10:00 am: Factory Orders – Oct Sep 0.7% Aug 2.6% 10:00 am: Durable Goods Orders – Oct (F) Sep 0.7% Aug 4.6% 10:00 am: Durables Ex Transportation – Oct (F) Sep 0.0% Aug 0.3% 10:00 am: Cap Goods Orders Nondef Ex Air – Oct (F) Sep -0.1% Aug -0.2% 10:00 am: Cap Goods Ship Nondef Ex Air – Oct (F) Sep -0.1% Aug 0.0%	7 Dec 8:30 am: Change in Nonfarm Payrolls – Nov Oct 250K Sep 118K 8:30 am: Unemployment Rate – Nov Oct 3.7% Sep 3.7% 8:30 am: Average Hourly Earnings MoM– Nov Oct 0.2% Sep 0.3% 10:00 am: Wholesale Inventories MoM – Oct (F) Sep 0.4% Aug 0.9% 10:00 am: U. of Mich Sentiment – Dec (P) Nov 98.3 Oct 98.6
10 Dec 10:00 am: JOLTS Job Openings– Oct Sep 7,099k Aug 7,293k	11 Dec 6:00 am: NFIB Small Business Optimism – Nov Oct 107.4 Sep 107.9 8:30 am: PPI Final Demand – Nov Oct 0.6% Sep 0.2% 8:30 am: Core PPI – Nov Oct 0.5% Sep 0.2% 8:30 am: Core Core PPI – Nov Oct 0.2% Sep 0.4%	12 Dec MBA Mortgage Applications -(week ending 12/07/18) 8:30 am: Consumer Price Index – Nov Oct 0.3% Sep 0.1% 8:30 am: Core CPI – Nov Oct 0.2% Sep 0.1% 2:00 pm: Monthly Budget Statement – Nov Oct -$100.5B Sep -$119.1B	13 Dec 8:30 am: Initial Jobless Claims -(week ending 12/08/18) 8:30 am: Import Price Index – Nov Oct 0.5% Sep 0.2%	14 Dec 8:30 am: Retail Sales – Nov Oct 0.8% Sep -0.1% 8:30 am: Retail Sales ex. Autos – Nov Oct 0.7% Sep -0.1% 8:30 am: Core Control – Nov Oct 0.3% Sep 0.0% 9:15 am: Industrial Production – Nov Oct 0.1% Sep 0.2% 9:15 am: Capacity Utilization – Nov Oct 78.4% Sep 78.5% 9:15 am: Mfg. Production – Nov Oct 0.3% Sep 0.3%

*Projections— subject to revision as additional data become available. P – preliminary reading , S – second reading, T – third reading, F – final reading

Disclosures

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