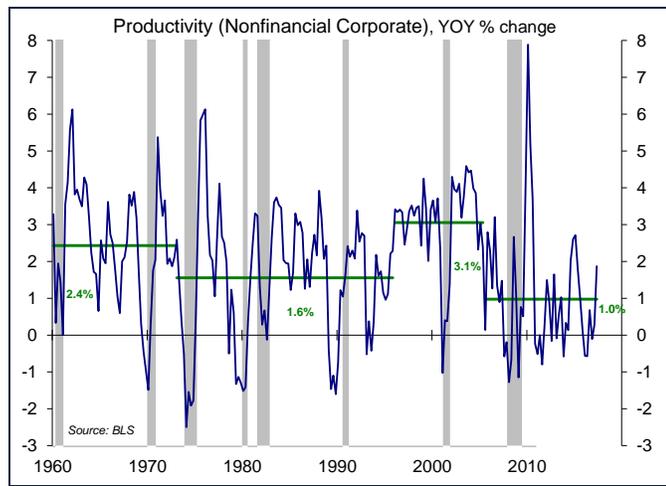


Weekly Economic Monitor

The Importance of Productivity Growth

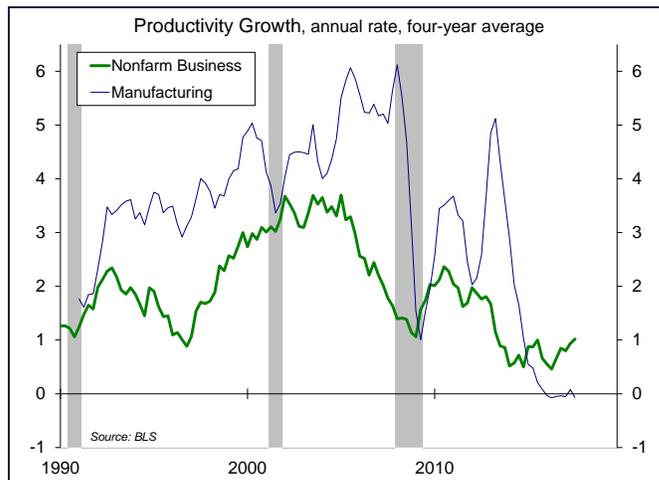
Economists view the growth in labor productivity, or output per worker, as the single most important variable in an economy. It's what lifts the standard of living, helps keep prices low, reduces government budget strains, and drives corporate profits. Over the next few decades, achieving faster productivity growth will be key as labor force growth slows. The outlook is encouraging, but uncertain.



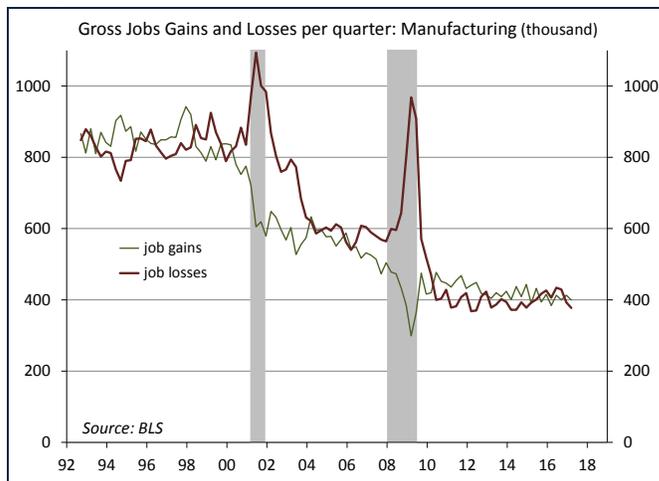
Productivity growth has slowed significantly over the last decade. Some may be quick to blame policies out of Washington. However, the slowdown in productivity growth has been observed worldwide (that is, it can't be due to U.S. policies alone). Most economists believe that the slowdown reflects weaker capital spending following the Great Recession. In the U.S. capital spending had begun to pick up in the middle of 2016 and has been further fueled by improvement in business optimism in 2017. A stronger global economy has helped. Most long-term economic models include stronger productivity growth assumptions over the next ten years.

One of the long-standing strengths of the U.S. economy has been its ability to re-invent itself. New industries arrive over time while others fade away. Through this process, low-productivity jobs are shed, replaced by higher-productivity jobs. However, as the population ages, we can expect to see less turnover in the economy. There is less job-hopping and less migration to other areas of the country. In turn, productivity growth will be less than it would be otherwise.

This has been especially true in manufacturing, where growth in output per worker has long outpaced overall productivity growth by a wide margin, reflecting advances in technology and the impact of increased global trade. The share of employment in manufacturing had been trending lower for decades, well before the rise of trade with China.



Over the last four years, productivity growth in manufacturing has stalled. At the same time, the pace of job turnover in the factory sector is half of what it was in the 1990s.



Technology changes (robotics and artificial intelligence) are expected to have significant effects on the U.S. economy. The transitions for displaced workers can be difficult. Over the next couple of decades, technologies will almost certainly alter the economy in ways that we cannot even imagine.

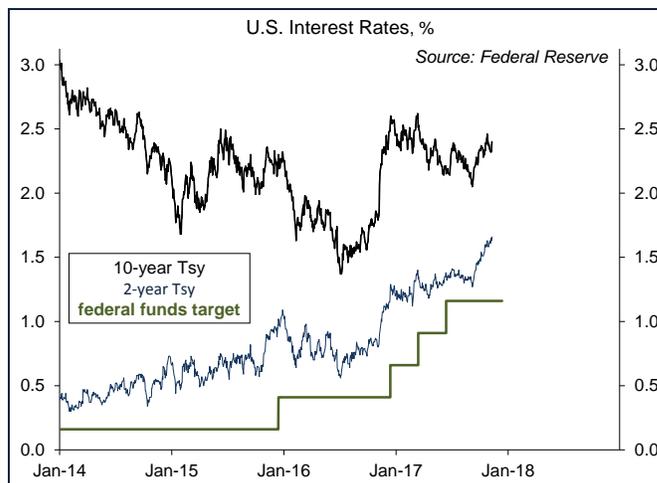
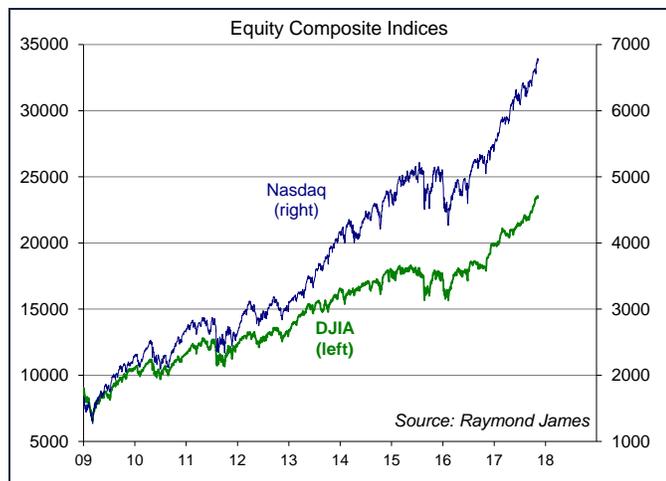
As the job market tightens, wage pressures should pick up. To gauge the inflationary impact, one has to factor in productivity growth. If wages rise by 3% and output per worker rises 3%, then the labor cost per unit of output is unchanged. This is a key argument in the Fed's gradual approach to raising rates.

Output growth is the growth in labor plus the growth in output per worker. Labor force growth will slow in the U.S. (and worldwide) as populations age. It is unclear how demographic and technology forces will interact, but the pace of productivity growth should pick up relative to the last decade.

Treasury Yields									Dollar				Equities		
	13-wk	26-wk	52-wk	2-yr	3-yr	5-yr	10-yr	30-yr	\$/Euro	\$/BP	JY/\$	CD/\$	NASD	SPX	DJIA
10/13/17	1.09	1.26	1.39	1.51	1.64	1.91	2.28	2.81	1.184	1.330	111.94	1.249	6605.80	2553.17	22871.72
11/03/17	1.18	1.31	1.49	1.63	1.74	1.99	2.34	2.82	1.162	1.307	114.25	1.277	6764.44	2587.84	23539.19
11/10/17	1.23	1.37	1.54	1.66	1.79	2.06	2.40	2.89	1.166	1.320	113.53	1.267	6751.20	2582.30	23422.21

Recent Economic Data and Outlook

Doubts about the prospects for tax-cut legislation weighed against stock market sentiment. Normally, stock market weakness is a plus for the bond market, but bond yields abroad rose, adding some upward pressure to U.S. bond yields. Developments in Saudi Arabia lifted oil prices.



Asked about banking regulation at a conference in New York, recently appointed Fed Governor and Vice-Chair for Supervision) **Randal Quarles** said that “we ought to be taking a fresh look at everything.” The Fed will work to make the regulatory process more transparent “in a very short period of time.” Changes to bank stress testing “are on the front burner.”

In **Saudi Arabia**, the government arrested about 500 people, citing “a clampdown of corruption.” The country, along with the United Arab Emirates and Kuwait, also ordered its citizens to leave Lebanon, raising fears of a possible war.

*Tax Bills (selected aspects)		
	House	Senate
Brackets	Consolidates to 4 brackets, top rate 39.6%	Retains 7 brackets, top rate at 38.5%
Itemized Deductions	Retains property tax deduction, but eliminates deduction for state & local taxes (for households, not corporations)	Eliminates deduction for state & local taxes (for households, not corporations)
Corporate Tax Rate	Lowers to 20% for 2018	Lowers to 20%, but for 2019
Estate Tax	Increases exemption to \$10 million, indexes to inflation, repeals after 6 years	Doubles the exemption
Retirement Accounts	No change	Eliminates catch-up contributions and consolidates contribution limits
Repatriation	Mandatory repatriation of currently deferred foreign profits at a rate of 14% for liquid assets and 7% for illiquid assets	Mandatory repatriation of currently deferred foreign profits at a rate of 10% for liquid assets and 5% for illiquid assets

*This is only a partial list and everything is subject to change.

Economic Outlook (4Q17): 2.5-3.0% GDP growth.

Employment: Beyond hurricane distortions, the trend in private-sector job growth has remained similar to that of 2016, but is expected to slow as the job market continues to tighten.

Consumers: Job and wage growth remain supportive, but excluding a temporary rise in vehicle sales in September, the pace of consumer spending growth appears to have slowed.

Manufacturing: Sentiment surveys remain strong and orders have been improving, but factory output fell in 3Q17. An improving global outlook has supported export growth.

Housing/Construction: Recent figures have been mixed, but stronger than a year ago. Job growth has been supportive, with some weather-related shift into the earlier part of the year. Higher home prices and rising building costs are restraints.

Prices: Core inflation has continued to trend below the Fed’s 2% target, partly reflecting a “one-off” plunge in wireless telecom services. Wage pressures are moderate.

Interest Rates: The Fed remains in tightening mode, and is expected to continue raising short-term rates gradually (most likely in December). Balance sheet reduction has begun, initially gradual, but picking up over the course of a year.

This Week:				<i>forecast</i>	last	last -1	comments	
Monday	11/13		no significant data				Holland Tunnel opens (1927)	
Tuesday	11/14	6:00	Small Business Optimism	Oct	NF	103.0	105.3	should remain elevated
		8:30	Producer Price Index	Oct	+0.2%	+0.4%	+0.2%	some retreat in gasoline
			ex-food & energy		+0.3%	+0.4%	+0.1%	moderate
			ex-f, e, trade service		+0.2%	+0.2%	+0.2%	some pressure from raw materials
Wednesday	11/15	8:30	Consumer Price Index	Oct	+0.1%	+0.5%	+0.4%	lower gasoline prices
			year-over-year		+2.0%	+2.2%	+1.9%	moderate
			ex-food & energy		+0.1%	+0.1%	+0.2%	mild core inflation
			year-over-year		+1.7%	+1.7%	+1.7%	steady
		8:30	Real Hourly Earnings	Oct	-0.1%	-0.1%	-0.2%	nominal AHE reported flat
		8:30	Retail Sales	Oct	+0.6%	+1.6%	-0.1%	some further clearance in autos
			ex-autos		+0.3%	+1.0%	+0.5%	lower gasoline prices
	ex-autos, bld mat, gasoline		+0.4%	+0.4%	0.0%	a moderate trend		
	8:30	Empire St. Manf. Index	Nov	NF	30.2	24.4	volatile, but strong recently	
	10:00	Business Inventories	Sep	0.0%	+0.7%	+0.3%	inventory clearance in autos	
Thursday	11/16	8:30	Jobless Claims, th.	11/11	238	239	229	a low trend
		8:30	Import Prices	Oct	NF	+0.7%	+0.6%	outside energy, little inflation in goods
			ex-food & fuels		NF	+0.2%	+0.2%	higher inflation in raw materials
		8:30	Philadelphia Fed Index	Nov	NF	27.9	23.8	volatile, but a strong trend
		9:15	Industrial Production	Oct	+0.8%	+0.3%	-0.7%	should pick up
			Manufacturing Output		+0.6%	+0.1%	-0.2%	aggregate manufacturing hours rose 0.5%
			Capacity Utilization		76.6%	76.0%	75.8%	higher
	10:00	Homebuilder Sentiment	Nov	67	68	64	still strong	
	1:00	TIPS Auction					re-opened 10-year TIPS	
	3:45	Fed Gov Brainard Speaks					Fintech	
Friday	11/17	8:30	Building Permits, th.	Oct	1260	1225	1272	seen rebounding
			% change		+2.9	-3.7	+3.4	single-family trend remains strong
			Housing Starts		1200	1127	1183	reported with gargantuan uncertainty
		% change		+6.5	-4.7	-0.2	watch for revisions	
Next Week:								
Monday	11/20	10:00	Leading Econ Indicators	Oct	+1.1%	-0.2%	+0.4%	unwinding hurricane effect & then some
Tuesday	11/21	10:00	Existing Home Sales, mln	Oct	5.45	5.39	5.35	seen rebounding
			% change		+1.1	+0.7	-1.7	trend likely to flatten
Wednesday	11/22	8:30	Jobless Claims, th.	11/18	237	238	239	a low trend
		8:30	Durable Goods Orders	Oct	-0.5%	+2.0%	+2.1%	Boeing reported a decline in orders
			ex-transportation		+0.5%	+0.7%	+0.8%	moderately strong otherwise
			nondef cap gds ex-aircraft		+0.6%	+1.7%	+1.4%	a strong trend in recent months
	10:00	UM Consumer Sentiment	Nov	94.5	100.7	95.1	97.8 at mid-month	
	2:00	FOMC Minutes	11/01				looking for signs of a December hike	
Thursday	11/23		Thanksgiving Holiday				markets closed	
Friday	11/24		no significant data				markets close early	

This Week...

There are a number of potentially market-moving data points among the mid-month economic releases, with an expected focus on the retail sales and CPI reports. Lawmakers will be under significant pressure to advance tax cut proposals before the Thanksgiving holiday break. Financial markets are likely to be sensitive to signals of progress or lack thereof.

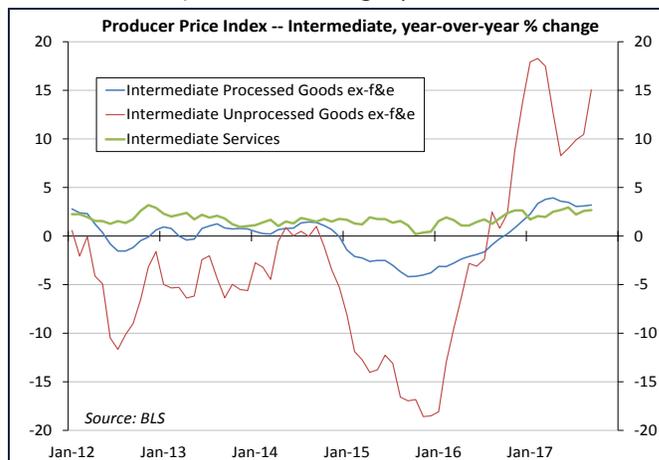
Monday

No significant economic data.

Tuesday

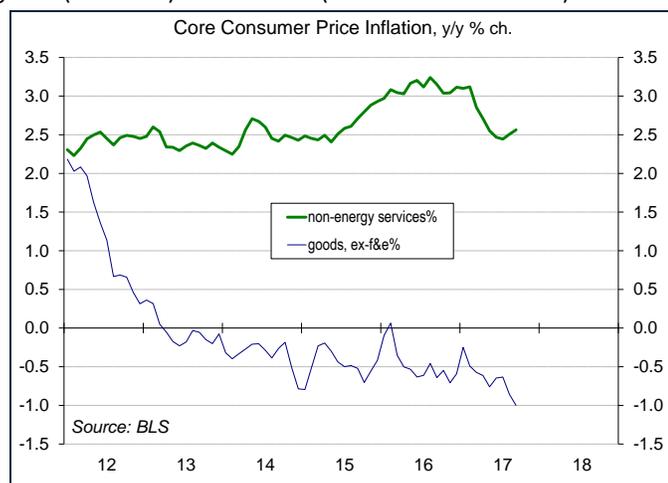
Producer Price Index (October) – The PPI report tends to have a lot more surprises, but carries a lot less weight, than the CPI. Gasoline prices retreated somewhat last month, but that may contribute to distortions in trade services (which include wholesaler and retailer margins). Beyond the headline figures,

prices at the earlier stages of production have been firming up in recent months (not all of which get passed to the consumer).



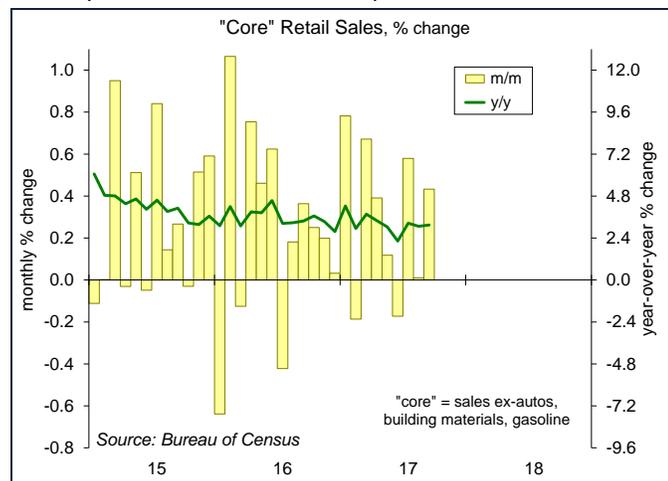
Wednesday

Consumer Price Index (October) – Retail gasoline fell a little more than is anticipated by the seasonal adjustment, which should keep the increase in the headline figure low. Core inflation is expected to remain modest, with a continued split between goods (deflation) and services (moderation in shelter).



Real Hourly Earnings (October) – Nominal earnings were reported to be flat (following a 0.5% rise in September). Hence, inflation-adjusted earnings are expected to edge lower.

Retail Sales (October) – Unit auto sales fell last month, but the pace remained strong (not all of these sales are to consumers). We should see some rebound from hurricane effects, but we're also likely to see revisions to the September data.



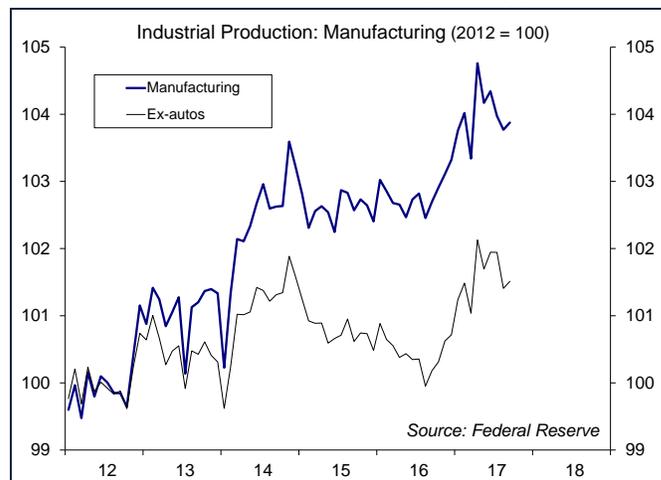
Thursday

Jobless Claims (week ending November 11) – The impact of hurricanes Harvey and Irma have faded (claims in Texas and Florida are back down), but we still have some impact from Maria (the total includes claims in Puerto Rico, which are catching up). The underlying trend remains low.

Import Prices (October) – Prices of imported raw materials have been rising, but prices of imported finished goods are flat.

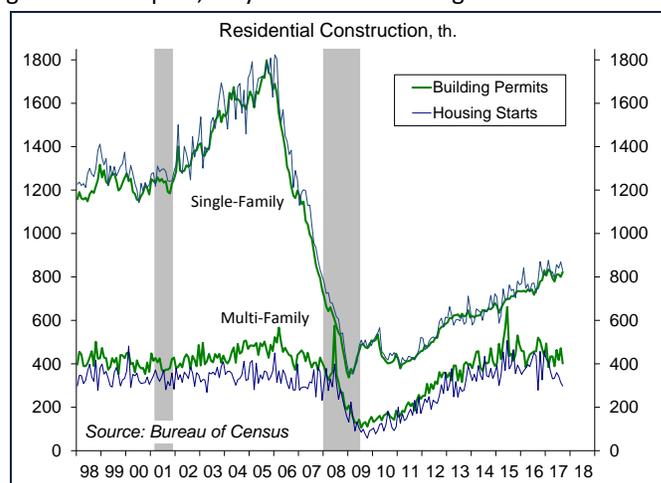
Industrial Production (October) – The headline figure is likely to be supported by energy exploration (a recovery from hurricane

effects and a rebound following the sharp contraction of 2014-2016). Employment data (payrolls, hours) suggest that factory output should have risen at a moderately strong pace.



Friday

Building Permits, Housing Starts (October) – Construction activity is expected to rebound from hurricane effects, but starts and multi-family figures are noisy. Single-family permits, the key figure in the report, may exhibit a flattening trend near term.



Next Week ...

The economic data reports aren't critical. Market activity will likely thin in the holiday week.

Coming Events and Data Releases

November 28	CB Consumer Confidence (November) Powell Nomination Hearing
November 29	Real GDP (3Q17, 2 nd estimate) Fed Beige Book
December 8	Employment Report (November)
December 13	FOMC Policy Decision, Yellen press conf.
January 31	FOMC Policy Decision (no press conf.)
March 21	FOMC Policy Decision, press conf.