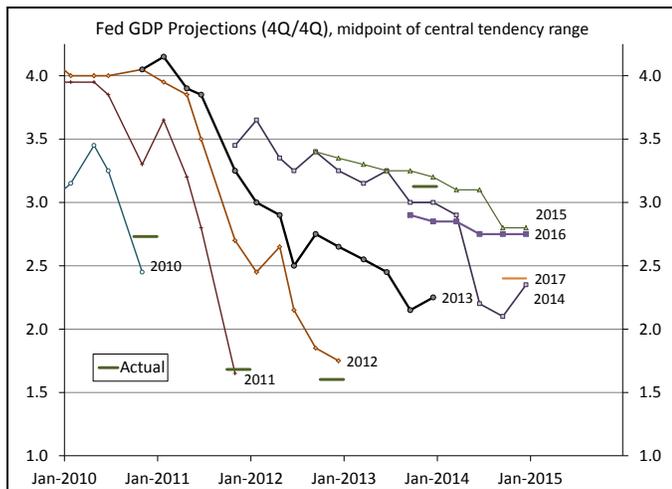


Adventures in Forecasting

Every December, economists are asked for their projections for the coming year. What’s GDP growth going to be? How many jobs will be added? What’s the Fed going to do? How will the financial markets react? We build models of the economy – models that we know are not precise. There are simply too many variables. Those who have studied forecasting in any detail know that a forecast is composed of a point estimate (a value at a certain point in time) and a level of uncertainty around that estimate. In economics, that uncertainty is usually very large, making the point estimate seem almost meaningless. For financial market participants, one should look at point estimates as a base-case scenario and focus on the risks surrounding that outlook. Some uncertainties are known, but there are others, currently unknown, that are sure to come up.



The Federal Reserve employs a lot of very smart people with considerable knowledge of forecasting. However, the Fed’s GDP projections of the last few years have been humbling. Growth estimates for 2011, 2012, and 2013 started out near 4%, only to be whittled down to more disappointing levels. Part of that reflects the nature of the recession. GDP growth projections for the next few years are more moderate.

Looking ahead to 2015, there are a number of key uncertainties. Oil prices are perhaps the most significant. After a sharp drop in the final months of 2014, most expect a new equilibrium in the months ahead – but where exactly? The answer matters a lot. The impact of lower oil prices on the consumer depends on how far prices decline and how long they stay low. The drop is a function of increased supply and decreased demand. However, lower prices will discourage new supply and encourage consumption, a combination which should (eventually) lead prices back up. The path of oil prices will have a significant impact on the economic outlook in 2015.

For Fed policymakers, the impact of lower oil prices on growth and inflation is seen as “transitory.” Overall inflation will be lower in the near term and we could see some small feed-through to core inflation. However, oil prices cannot fall forever. The impact will decrease over time. Lower gasoline prices are expected to help boost consumer spending growth, but that impact is also transitory, showing up mostly in the first half of 2015. Spending patterns will adjust to the new level of oil prices. We’ll need to see a pickup in average wages in the second half of the year to sustain strong growth in consumer spending. That may happen, but it’s hard to predict exactly.

Job growth was strong in 2014, but we didn’t see accompanying strength in areas that are normally associated with job gains, such as consumer spending and housing. Lackluster growth in average wages appears to be the most likely explanation. Average wages have barely kept pace with inflation. Wage growth should pick up as the job market tightens, but while slack is being taken up, a lot remains.

The job market outlook is a key uncertainty for Fed policymakers. While the December 19 monetary policy statement indicated that the Fed can “be patient” in beginning to normalize monetary policy, some Fed officials are more patient than others. Monetary policy affects the economy with a long and variable lag. The Fed sets policy with respect to where it thinks the economy will be 12 to 18 months from now. So, tightening does have to start at some point. However, the risks around the timing of tightening are not symmetric. If the Fed tightens too soon and growth is slower than expected, it will be harder for policymakers to change course. Short-term interest rates will still be low (even after the first couple of rate hikes) and nobody at the Fed wants another round of quantitative easing. If the Fed waits too long and inflation picks up more than intended, officials can then raise short-term rates more rapidly to get back on course. This is a strong argument for being patient and waiting longer to start tightening.

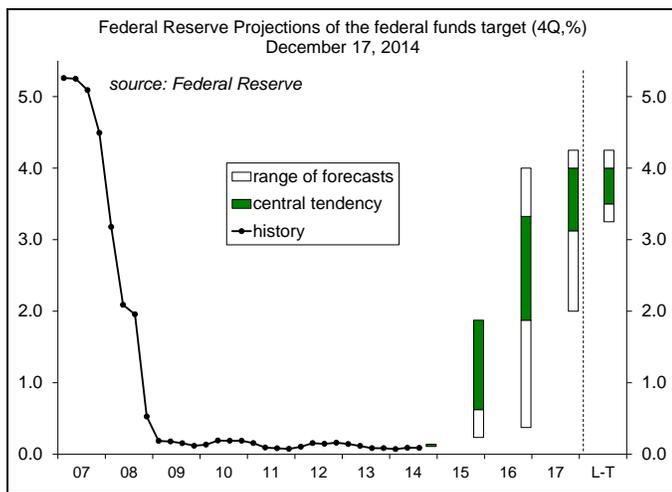
The Fed is focused primarily on the U.S., but it also has to pay attention to what’s going on in the rest of the world. That means anticipating the impact of overseas developments on the U.S. economy and financial markets. At this point, global growth is expected to be a bit soft in 2015, but the risks have been weighted to the downside. Yet, the amount of leverage in the global system is nowhere near where it was at the start of the financial crisis. That suggests that the downside risk to the financial system may be limited. Lower oil prices should have a mixed, but mostly positive impact on the rest of the world.

The 2015 economic outlook will evolve over time as the key issues, oil prices, the job market, and the global economy, become clearer. Best Wishes for a Prosperous New Year!

	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
11/21/14	0.01	0.07	0.14	0.53	0.96	1.63	2.31	3.02	1.239	1.567	117.74	1.124	4712.97	2063.50	17810.06
12/12/14	0.02	0.09	0.19	0.56	0.98	1.53	2.10	2.75	1.248	1.573	118.22	1.154	4653.60	2002.33	17280.83
12/19/14	0.03	0.11	0.25	0.65	1.10	1.65	2.17	2.76	1.223	1.563	119.53	1.161	4765.38	2070.73	17807.69

Recent Economic Data and Outlook

The stock markets anxieties about oil prices, the Fed, and the rest of the world gave way to renewed optimism (or at least less pessimism). The Fed has it both ways, abandoning the “considerable time” phrase, but keeping its intent.



The **Federal Open Market Committee** indicated that it “*can be patient in beginning to normalize the stance of monetary policy,*” but adding that it “*sees this guidance as consistent with its previous statement that it likely will be appropriate to maintain the 0 to 1/4 percent target range for the federal funds rate for a considerable time following the end of its asset purchase program in October.*”

In the Fed’s **Summary of Economic Projections**, the central tendency of the GDP forecasts for 2015 (4Q-over-4Q) remained at 2.6% - 3.0%, with 2016 seen at 2.5% - 3.0%. Expectations for the unemployment rate at the end of 2015 edged down to 5.2% to 5.3%. PCE price inflation was seen at 1.0% - 1.6% in 2015 and 1.7% - 2.0% in 2016. Projections of the year-end federal funds rate for the next couple of years remained all over the place, but appeared to be moving toward two camps in 2015: one leaning toward raising rates earlier (March, April) and the other later (July, September, October).

In her press conference, **Fed Chair Janet Yellen** said that the change in the language was made since the “*considerable time*” phrase made reference to the end of the asset purchase program, “*an event that is receding into the past.*” Yellen dispelled two popular misconceptions about future policy actions. One is that the Fed could begin raising rates at any policy meeting, not just those with a scheduled press conference. In addition, she cautioned against assuming that future rate increases would come at a measured pace.

The **Consumer Price Index** fell 0.3% in November (+1.3% y/y), held down by a 6.6% decline in gasoline (-10.5% y/y). Ex-food & energy, the CPI rose 0.1% (+0.071% before rounding, +1.7% y/y). The CPI rose at a 1.1% annual rate over the first 11 months of

2014 (vs. +1.5% for all of 2013), while core inflation has risen at a 1.8% pace (vs. +1.7% in 2013).

Real Weekly Earnings rose 0.9% in November (+1.1% y/y), reflecting a 0.3% increase in hours, a 0.4% increase in average hourly earnings, and a 0.3% decline in the CPI. Real hourly earnings rose 0.6% (+0.8% y/y).

Industrial Production jumped 1.3% in November (+5.2% y/y), boosted by a 5.1% increase in the output of utilities (colder temperatures). Manufacturing output rose 1.1% (+5.1%), led by 5.1% increase in motor vehicles and parts (+7.7% y/y). Ex-autos, factory output rose 0.9% (+4.6% y/y). Capacity utilization in manufacturing rose to 79.2% (from 78.4%), now at its long-term average (still no threat to the inflation outlook).

Building Permits fell 5.2% in November, to a 1.035 million seasonally adjusted annual rate (-0.2% y/y). Single-family permits, the key figure in the report, slipped 1.2% (-0.9% y/y), with mixed results across the four major regions of the country (+7.8% in the Northeast, -11.0% in the Midwest, -2.5% in the South, and +6.8% in the West). **Housing Starts** fell 1.6% to a 1.028 million pace (-4.6% y/y), with single-family starts down 5.4% (-4.6% y/y). Results were disappointing, obviously, but it’s hard to get excited about November housing data.

Homebuilder Sentiment edged down to 57 in December, vs. 58 in November and 54 in October.

The Index of **Leading Economic Indicators** rose 0.6% in November, led by positive contributions from the yield curve, ISM new orders, and the stock market.

Economic Outlook (1Q15): Real GDP growth of 2.5-3.0%, following 2.0-2.5% in 4Q14.

Employment: Job growth has strengthened. Labor market slack is being taken up, but considerable slack remains.

Consumers: The underlying trend in nominal average wages has been lackluster, but lower gasoline prices will add to consumer purchasing power in the near term and wage growth should pick up later on as the job market tightens.

Manufacturing: Mixed. A stronger dollar and weakness in the global economy are expected to restrain exports, but domestic demand should strengthen in the months ahead.

Housing/Construction: Supply constraints have eased and affordability has improved. Look for a better balance in 2015 (less speculative buying, better consumer fundamentals).

Prices: The PCE Price Index, the Fed’s chief inflation gauge, remains well below the Fed’s 2% target on a y/y basis. Pipeline pressures appear mild. Wage pressures are limited. Inflation expectations remain well-anchored, but could decline.

Interest Rates: With the Fed’s large-scale asset purchases (QE3) completed, short-term interest rates are expected to remain exceptionally low through the middle of 2015. The Fed’s policy moves in 2015 will be dictated largely by job market conditions, but the Fed will also react to financial market conditions.

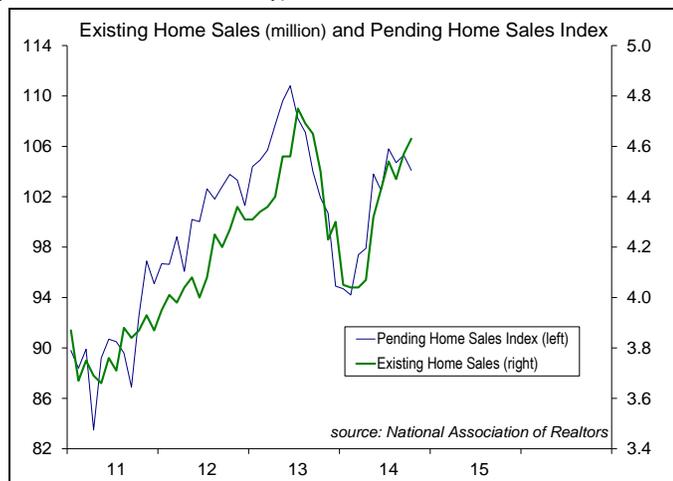
This Week:				<i>forecast</i>	last	last -1	comments	
Monday	12/22	10:00	Existing Home Sales, mln	Nov	5.30	5.26	5.18	an improving trend
			% change		+0.8	+1.5	+2.6	seasonal adjustment may magnify
		1:00	Treasury Note Auction					\$27 billion in 2-year notes
Tuesday	12/23	8:30	Real GDP (3 rd estimate)	3Q14	+4.0%	+4.6%	-2.1%	+3.9% in the 2 nd estimate
		8:30	Durable Goods Orders	Nov	+0.4%	+0.3%	-0.7%	a soft trend generally
			ex-transportation		+0.6%	-1.1%	+0.3%	mixed across industries
			nondef cap gds ex-aircraft		+0.8%	-1.6%	-1.1%	trend has been weak into 4Q14
		9:55	Consumer Sentiment	Dec	94.2	88.8	86.9	93.8 at mid-month
		10:00	Personal Income	Nov	+0.5%	+0.2%	+0.2%	picking up (revisions?)
			Personal Spending		+0.6%	+0.2%	+0.0%	improving (watch for revisions)
			PCE Price Index ex-f&e		+0.1%	+0.2%	+0.1%	mild core inflation
		10:00	New Home Sales, th.	Nov	470	458	455	improving fundamentals
			% change		+2.6	+0.7	+0.4	but these figures are choppy
		11:30	FRN Auction					\$13 billion in re-opened 2-year FRNs
		1:00	Treasury Note Auction					\$35 billion in 5-year notes (a reopening?)
Wednesday	12/24	8:30	Jobless Claims, th.	12/20	295	289	295	still subject to seasonal noise
		11:30	Treasury Note Auction					\$29 billion in 7-year notes
		1:00	NYSE close					still time for last minute shopping, guys
Thursday	12/25		Christmas Holiday					Peace on Earth
Friday	12/26		no significant data					markets close early
Next Week:								
Monday	12/29		no significant data					1851: It's fun to stay at the...
Tuesday	12/30	9:00	Case-Shiller Home Prices	Oct	+0.4%	+0.7%	+0.3%	national index now turning up again
			year-over-year		+4.4%	+4.8%	+5.1%	y/y pace has moderated
		10:00	Consumer Confidence	Dec	94.2	88.7	94.1	was November decline a fluke?
Wednesday	12/31	8:30	Jobless Claims, th.	12/27	295	295	294	holiday adjustments add uncertainty
		9:45	Chicago PM Index	Dec	60.2	60.8	66.2	still strong
		10:00	Pending Home Sales Index	Nov	+0.5%	-1.1%	+0.6%	seasonal adjustment can be tricky in Nov
Thursday	1/01		New Year's Day Holiday					markets closed
		5:00	Rose Bowl					Oregon vs. Florida State
		8:30	Sugar Bowl					Alabama vs. Ohio State
Friday	1/02	9:45	Markit US Manf PMI (final)	Dec	NF	54.8	55.9	53.7 in the flash estimate
		10:00	ISM Manf. Index	Dec	57.4	58.7	59.0	moderately strong
		10:00	Construction Spending	Nov	NF	+1.1%	-0.1%	choppy and subject to large revisions

This Week...

Durable goods orders and home sales data are choppy, which could generate oversized reactions in thin financial markets.

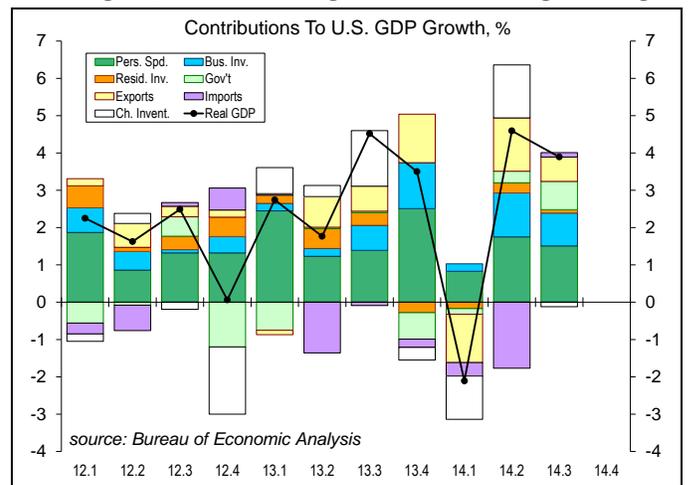
Monday

Existing Home Sales (November) – This year’s activity has been driven largely by affordability issues (weaker at the start of the year, better more recently).



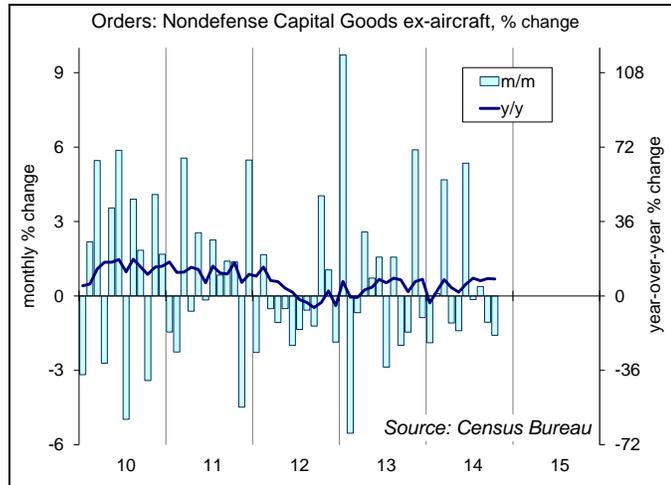
Tuesday

Real GDP (3Q14, revised) – Consumer spending is expected to be revised higher, further boosting the headline GDP growth figure.



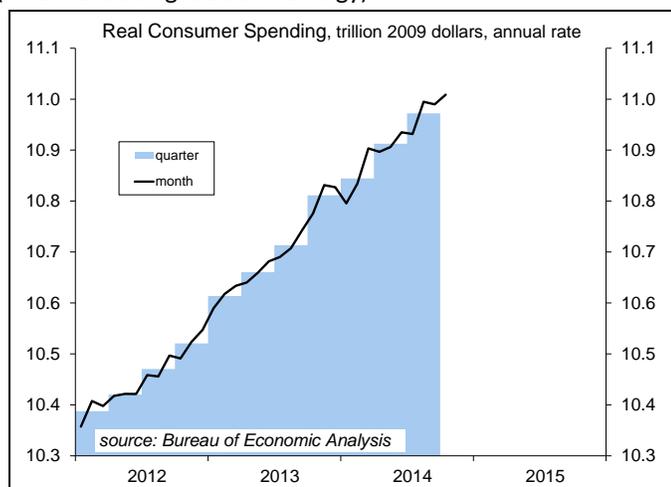
Durable Goods Orders (November) – Monthly changes in new orders tend to be erratic, but short-term trends in orders and shipments of capital goods were weak into early 4Q14. We may see a strong correction in November. However, worries about

low oil prices and downside risks to the global outlook could make firms (not just energy producers and exporters) more cautious about fixed investment in the near term.



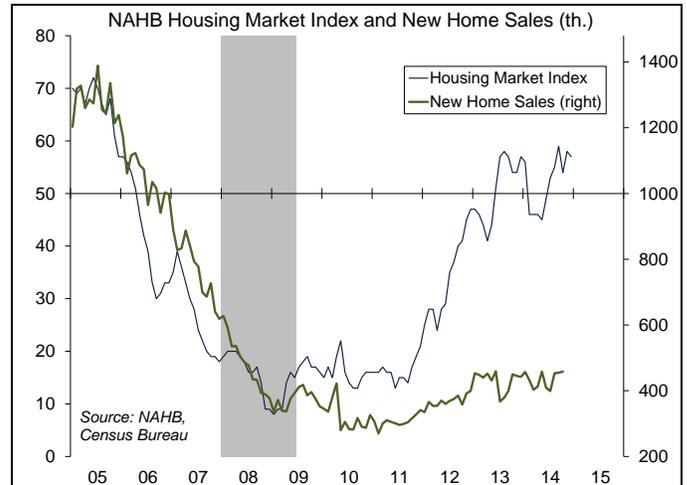
UM Consumer Sentiment (December) – The mid-month figure was sharply higher, reflecting the impact of lower gasoline prices. Further improvement is likely in the full month reading.

Personal Income and Spending (November) – These figures are rarely market-moving, but they provide good insight into the underlying pace of domestic demand. We can usually get a good idea of income from the monthly employment report, while retail sales results tell us a lot about spending. Average hourly earnings and average weekly hours picked up last month (note: these figures are often revised in the following jobs report). Retail sales data for November were relatively strong, a contrast to disappointing Black Friday results (which likely reflected earlier-than-usual promotions and discounting by retailers ahead of the short holiday shopping period). The PCE Price Index, the Fed's chief inflation gauge, is expected to fall, pushing the year-over-year increase down to about +1.3% (+1.5% excluding food and energy).



New Home Sales (November) – Homebuilder sentiment has gradually improved over the last few years. However, the housing recovery has been disappointing. Affordability and supply constraints were restraints in 2014, but we should see some pickup this coming spring, helped somewhat by lower

gasoline prices. The November home sales figures are not critical to the housing market outlook, but seasonal adjustment could exaggerate what would otherwise be minor changes.



Wednesday

Jobless Claims (week ending December 20) – The figures will remain subject to large week-to-week swings, but the underlying trend is expected to remain relatively low.

Christmas Eve – Markets close early.

Thursday

Christmas Day – Markets closed.

Friday

Markets close early.

Next Week ...

Still in holiday mode. The economic data are not critical to the overall outlook. The Conference Board's Consumer Confidence Index should rebound in December from what appears to be a questionable drop in November. On Thursday, the key bowl games will be a lot more interesting to watch this year (as the winners will go on to the NCAA Championship game on January 12). On Friday, the new year begins with the release of the ISM manufacturing data. The FOMC minutes and the December Employment Report are due the following week. Best Wishes!

Coming Events and Data Releases

January 7	FOMC Minutes (December 16-17)
January 9	Employment Report (December)
January 14	Retail Sales (December)
January 19	MLK Holiday (markets closed)
January 22	ECB Policy Meeting
January 28	FOMC Policy Decision (no press conference)
March 18	FOMC Policy Decision, Yellen press conference
April 29	FOMC Policy Decision (no press conference)
June 17	FOMC Policy Decision, Yellen press conference