THE GLOBAL AND U.S. ECONOMIC AND INTEREST RATE OUTLOOK

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Slow Growth, Low Interest Rates Ahead for Global Economies

Europe

- EC sees gradual recovery over the medium-term with continued monetary accommodation and only modest easing of tight fiscal policies. ECB has moved to negative interest rates but is unlikely to cut further due to concerns about the hit to bank earnings. Deutsche Bank and Italian banks are prime examples.
- EC growth is expected remain at the 1.6%-1.8% level through 2018. The EC grew 1.6% yoy in Q2. ECB staff projections do not see inflation reaching the central bank's target of "below but close to 2%" until 2018.
- EC growth has been driven mainly by private consumption. In Q2 net exports were the biggest contributor for the first time since mid-2015, with exports solid and imports relatively weak due to sluggish business investment. Geopolitical uncertainties, Brexit and oil oversupply are among the dampers on business spending plans.
- ECB will maintain very accommodative monetary policy for the foreseeable future. Has moved to negative deposit rate and is prepared to take additional measures if inflation expectations do not move towards target. Forward guidance will continue to focus on CPI inflation, inflation expectations and bank lending growth. There is growing concern that the ECB is approaching policy limits. Pressure will build for fiscal accommodation and structural reforms.
- The surprise passage of Brexit is a downside risk for Europe but will weigh predominately on the UK economy. So far, households have been resilient to the outcome. Consumer spending has been relatively strong and the labor market has yet to show any major hit. Business spending and real estate are more vulnerable. There were signs manufacturing and construction had slowed before the vote. Manufacturing has recovered in part due to increased export demand after Sterling sank in response to Brexit.

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Europe (continued)

- UK growth was 2.2% in 2015 and is expected to be 1.8% in 2016 and 1.1% in 2017. CPI inflation is currently at 0.6%, well below the 2% target. Inflation is expected to increase in coming months as the impact of a weaker currency works its way through the economy. Although the unemployment rate is relatively low as 4.9%, weak earnings growth has kept domestic price pressures modest. This has been a concern for the Bank of England.
- In the near-term, the major policy concern will be consumer and business confidence. The Bank of England has already added stimulus to the system. At its August meeting, it cut its policy rate to a record low 0.25%, restarted government bond purchases and initiated a corporate bond purchasing program. It left policy unchanged at its September 15 meeting but the door remains open for a further rate cut despite the strong rebound following the June vote. BoE Governor Carney will not take rates negative. If there is another rate cut, it is likely to be less than 25bp. UK fiscal policy is expected to be relaxed modestly at Autumn budget announcement on November 23. This will take some of the pressure off the BoE.
- Brexit uncertainty will be the major issue hanging over the UK economy for some time. Relations with the EC remain unchanged until the Article 50 is triggered and negotiations for the "divorce" gets underway. UK PM May has said this will happen before end-March 2017. It could take 2 years or more to complete negotiations. EC relations remain unchanged until the final agreement is approved. Immigration and access to the EC market are among the major issues. The May government has provided little detail about their major goals but there are growing concerns it will be a "hard-Brexit." There are many firms (UK and EC), including financial institutions, already in early stages of planning restructuring their operations and investments.

Global page 3

China & Japan

- China's economic growth rate is showing signs of stabilizing at 6.0%-7.0%. The government's growth target for the current 5yr plan is 6-7%. Growth was 6.7% yoy in Q2, but there is little confidence in the quality of the Chinese data. The inflation target is 3%, but CPI inflation is only 1.3% yoy. On the positive side, the deflationary pressures in the economy have subsided, with PPI now -0.8% as compared to -5.3% in January. The government will maintain an accommodative monetary policy with fiscal policy centered on targeted infrastructure projects. Structural reforms are aimed at reducing excess capacity in aging industries and "zombie" companies. The high debt levels of local governments and companies remain a major risk.
- China is managing its exchange rate against a currency basket of its major trading partners. The government has said it plans to keep the CNY relatively stable against the basket. Improved stability in the exchange rate has eased market fears of a sharp devaluation. This has contributed to reduced capital outflows. The CNY was added as a component of the IMF's SDR as of October 1.
- China is Australia's largest trading partner. The AUD's value is sensitive to China developments, particularly those related to domestic demand and raw material imports. Australia's favorable credit rating and relatively high interest rates makes the AUD attractive to investors and the currency's strength has complicated central bank policy.
- Japan's economic recovery remains weak and near recession. Growth was 0.5% yoy in 2015 and the IMF expects growth will be 0.5% in 2016 and 0.6% in 2017. Consumer spending is the major engine of growth. While the labor market is tight, continued weak earnings growth raises doubts about its sustainability. In Q2 2016, household spending, inventories and public investment were the major source of growth. Business investment was down 0.1% during the quarter and net exports subtracted 0.3% from quarterly growth.

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<u>**China & Japan (continued)**</u>

- **So far Abenomics has failed to defeat the "deflationary mindset." Inflation is still near zero and showing no signs of rising in the near future. The Bank of Japan government bond purchase program has been successful in taking bond yields to negative levels out through 15 yr maturities. The Bank of Japan surprised the markets on January 29 by announcing a negative deposit rate. Since then, the yen has strengthened and the stock market has declined. At its September meeting, the Bank of Japan moved from targeting growth of the monetary base to targeting the 10yr bond yield with "yield curve controls." The current 10yr target is near zero. The shift seems to have been aimed at reducing the impact of negative rates on bank earnings.**
- **Business morale has declined putting at risk investment and spending plans. Investors lack confidence in government's policy mix. Yen strength continues to complicate government policy objective. Yen's safe haven status in the current environment of significant economic, financial and geopolitical uncertainties significantly reduces government's capacity to influence the exchange rate. The strong yen dampens inflation and export demand.**
- **Horrible demographics (shrinking and aging population) and an unsustainable public debt position have put the Japanese economy in a "death spiral". Abenomics is merely the policy equivalent of rearranging the deck chairs on the Titanic (or perhaps putting a few new chairs out on deck). It has failed to achieve its goals and is unlikely to ever do so.**

Global page 5

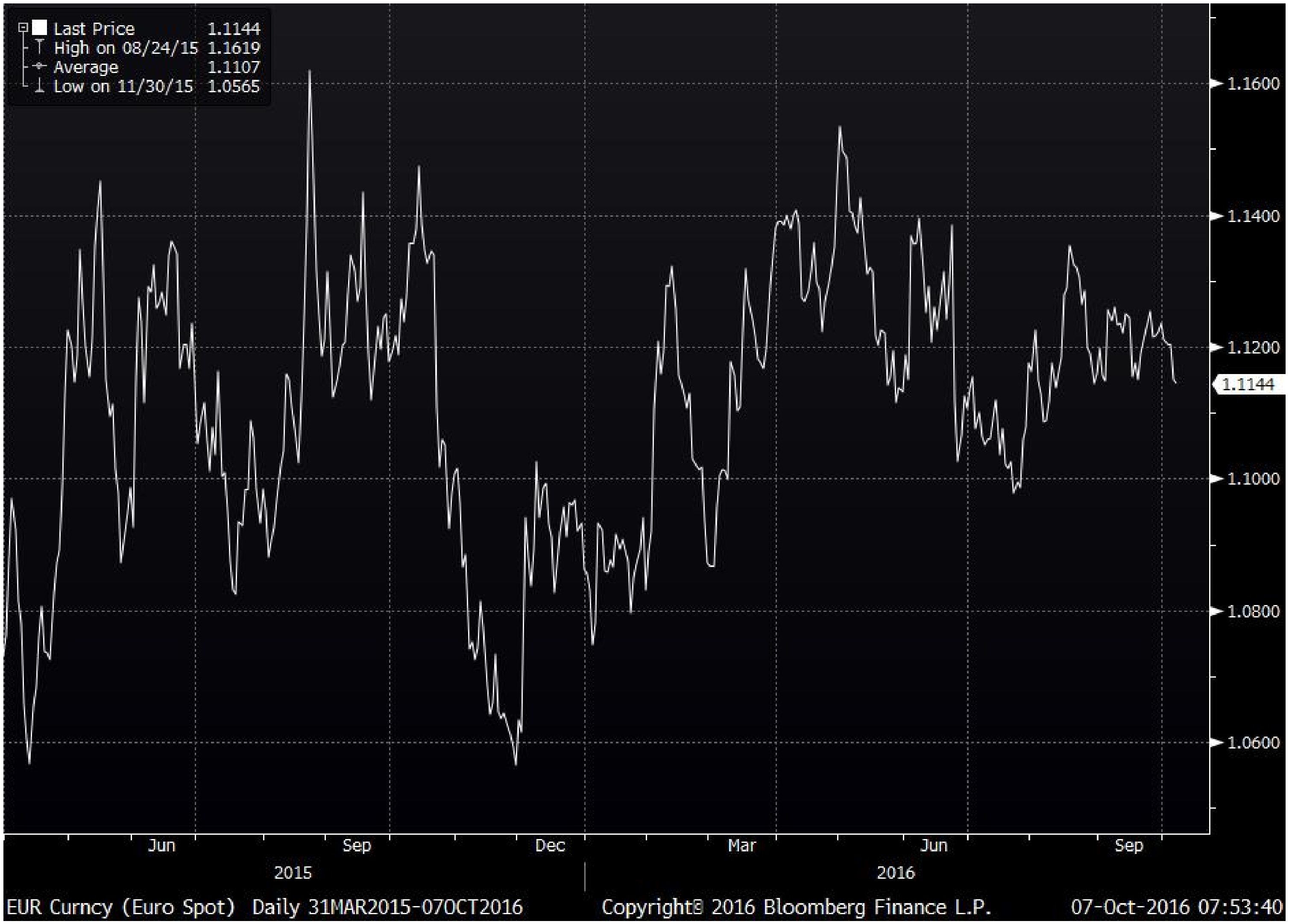
Oil

- **Brent crude hit a low of $27.10 in late January, the lowest level since 2004. The sharp price decline hit commodity companies, countries and currencies hard. Companies scaled back investments and hiring, countries suffered revenue declines and currencies depreciated. Recently, Brent has found support in the $40-$50 level. The global oversupply of crude and products is not expected to come into supply-demand balance until mid-2017 at the earliest.**
- **There have been preliminary efforts by OPEC and non-OPEC producers to negotiate an agreement to stabilize the oil market. At meetings in Algiers in late September, OPEC announced an agreement to keep production in a 32.5 -33.0 million barrel per day range. OPEC production is expected to have reached a record 33.6 Mbpd in September. The country level details and implementation of the agreement will be finalized at OPEC's November 30 meeting in Vienna. The OPEC production agreement has improved market sentiment and, provided it is adhered to, significantly reduced the risk of another sharp price decline.**
- **The International Energy Agency (IEA) has said global demand has weakened and supplies are still increasing. Investor skepticism of the OPEC agreement and the large inventory overhang of crude and products will limit oil's upside potential over the next 12 months. We expect oil prices to remain in a $45-$55 range well into 2017.**

Oil Off Its Lows, But Still Severely Depressed

Yen Has Strengthened on Safe Haven Status

After Earlier Firming, Euro Has Been Trading in a Range



Brexit Has Weighed Heavily on Sterling

U.S. Economic Forecast Summary

- While the FOMC passed on tightening at its September 20/21 meeting, we think the economy will retain sufficient momentum for a tightening move before year-end. We believe that a December 14 tightening is more likely than one at the intervening November 2 meeting, as the nearer parley is just six days ahead of the election, making it a lower probability despite the insistence of many Fed officials that all meetings are “live”.

- Our forecast of growth in the second half of this year is now 2.5%, down from almost 3% a month ago, but still above trend. Further out, we still believe that the downward trend in corporate profit margins will spur increasingly aggressive cost-cutting, which in turn will lead to heightened pressure on job growth. This will result in considerably slower economic growth as 2017 progresses and in recessionary or near-recessionary conditions in the second half of the year.

- We therefore reiterate our call that the FOMC will be forced to unwind its tightening moves in 2017, with a first 25bp easing penciled into our forecast in June and a second in September.

- While real GDP growth was an anemic 1.4% in Q2 (q/q annual rate), this was suppressed by what looks to be the last leg of an inventory adjustment. Growth in final sales at 2.6% was almost double that of GDP and was led by a rebound in consumer spending after a weak Q1. Overall growth in Q3 is likely to benefit from a rebound in the contribution from inventories, but consumer spending has expanded a good deal slower than in Q2 (2.8% versus 4.3% on our estimate), which will help limit Q3 aggregate GDP growth to what now appears to be about a 2.3% pace.

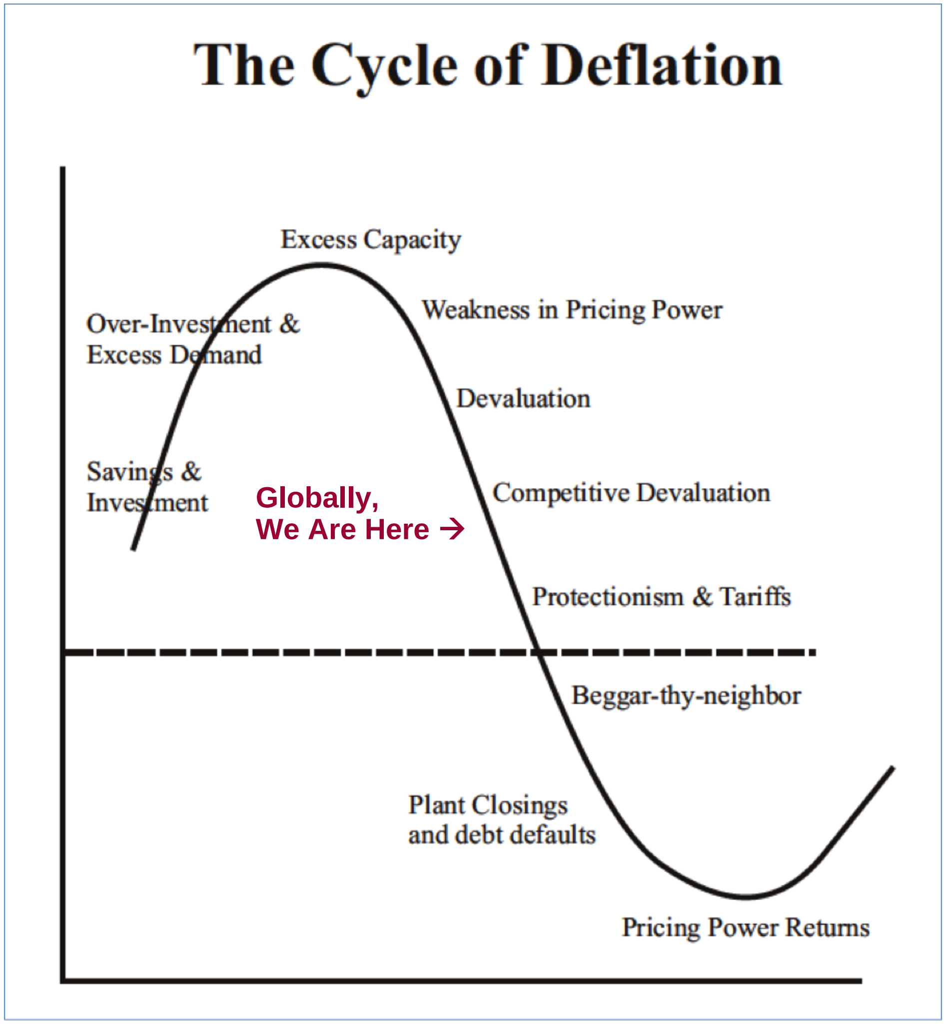
- We are forecasting 2.6% growth in the final quarter of the year, which is almost identical to last month’s estimate, and we then anticipate little if any growth in 2017 tallied on a q4/q4 basis, with conditions worsening as the year progresses.

- Our forecast for 2016 core CPI inflation is 2.3% (q4/q4), and we continue to expect a slowing to 2.0% in 2017 as the economy slumps.

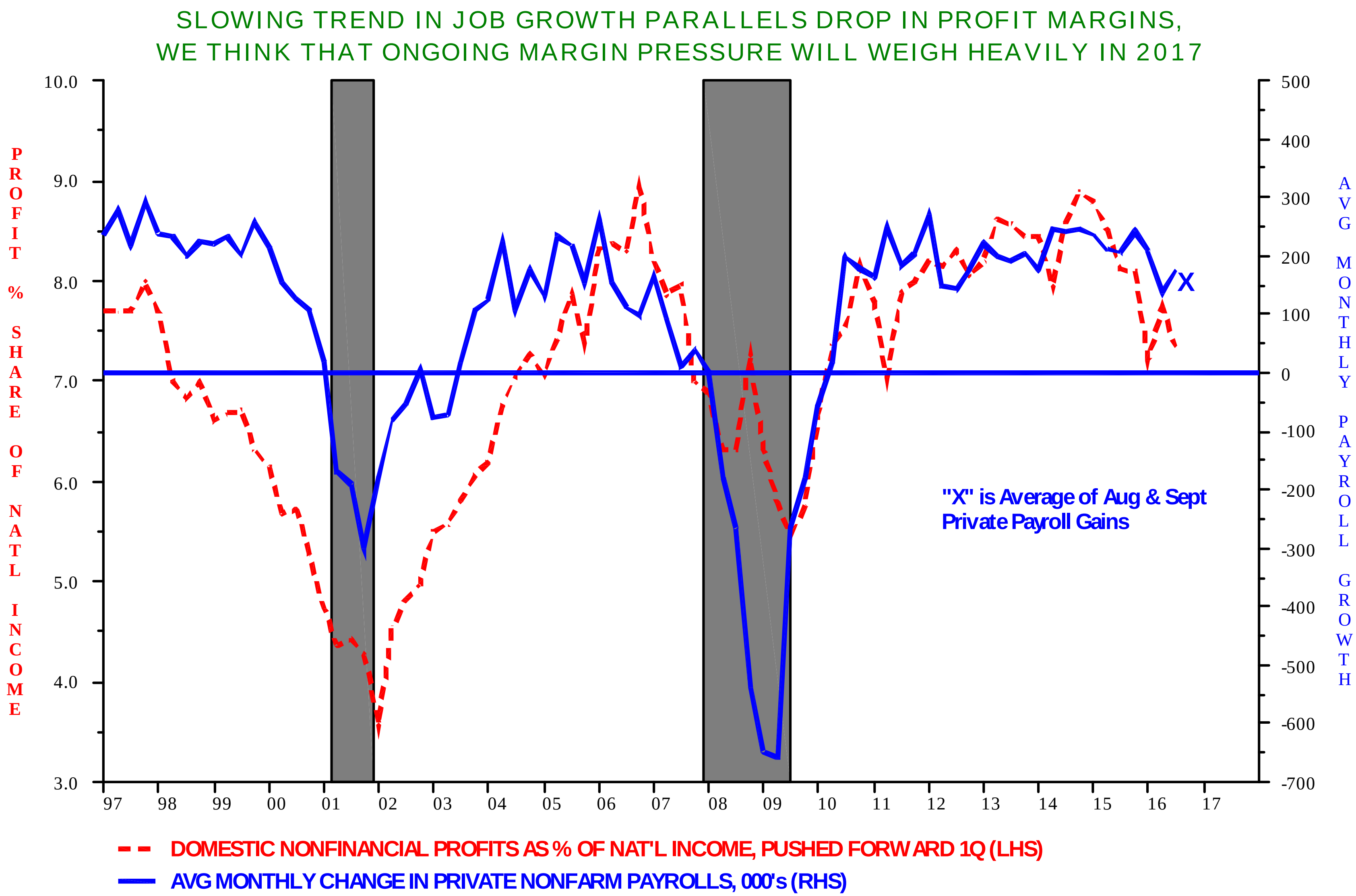
U.S. Economic Forecast Summary

- We continue to believe that the medium-term risks facing the United States in terms of growth and inflation are more skewed to the downside than the upside, with the main variables being the weakened state of the global economy, financial market volatility as participants adjust to the fact that central banks are for the most part maxed out in terms of their ability to support asset values, and increasingly unsettled geopolitical conditions.
- Although we are compelled to make quarterly forecasts of GDP growth, inflation, and interest rates, we urge our readers not to over-emphasize specific point estimates and to instead focus more on the broader situation facing the United States and many other developed economies. Monetary stimulus has run its course, and the explosion in government debt/deficits that occurred in the wake of the last economic and financial crisis leaves limited scope for traditional fiscal stimulus.
- The fact that all that was derived from massive monetary and fiscal support was a sub-par recovery/expansion and mountains of debt on central bank balance sheets speaks volumes about the deep-seated imbalances that remain unresolved.
- An increasingly polarized political environment in the United States and many other nations does not bode well for the ability to agree on policies that might help cure the malaise affecting almost every major industrialized economy. At some point, aggressively expansionary fiscal actions will probably be seen as the only option, but significant pain is likely to be necessary before that prospect comes into play.

Excessive debt leads to excess capacity, disinflation/deflation, competitive devaluations, and finally to a purge of excesses and then a true recovery. Global ZIRP & QE has delayed the inevitable, but most likely will not have prevented it.



(Diagram courtesy of Comstock Partners)



SLOWING TREND IN JOB GROWTH PARALLELS DROP IN PROFIT MARGINS,
WE THINK THAT ONGOING MARGIN PRESSURE WILL WEIGH HEAVILY IN 2017
PROFIT % SHARE OF NATL INCOME
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
AVG MONTHLY PAYROLL GROWTH
500
400
300
200
100
0
-100
-200
-300
-400
-500
-600
-700
97
98
99
00
01
02
03
04
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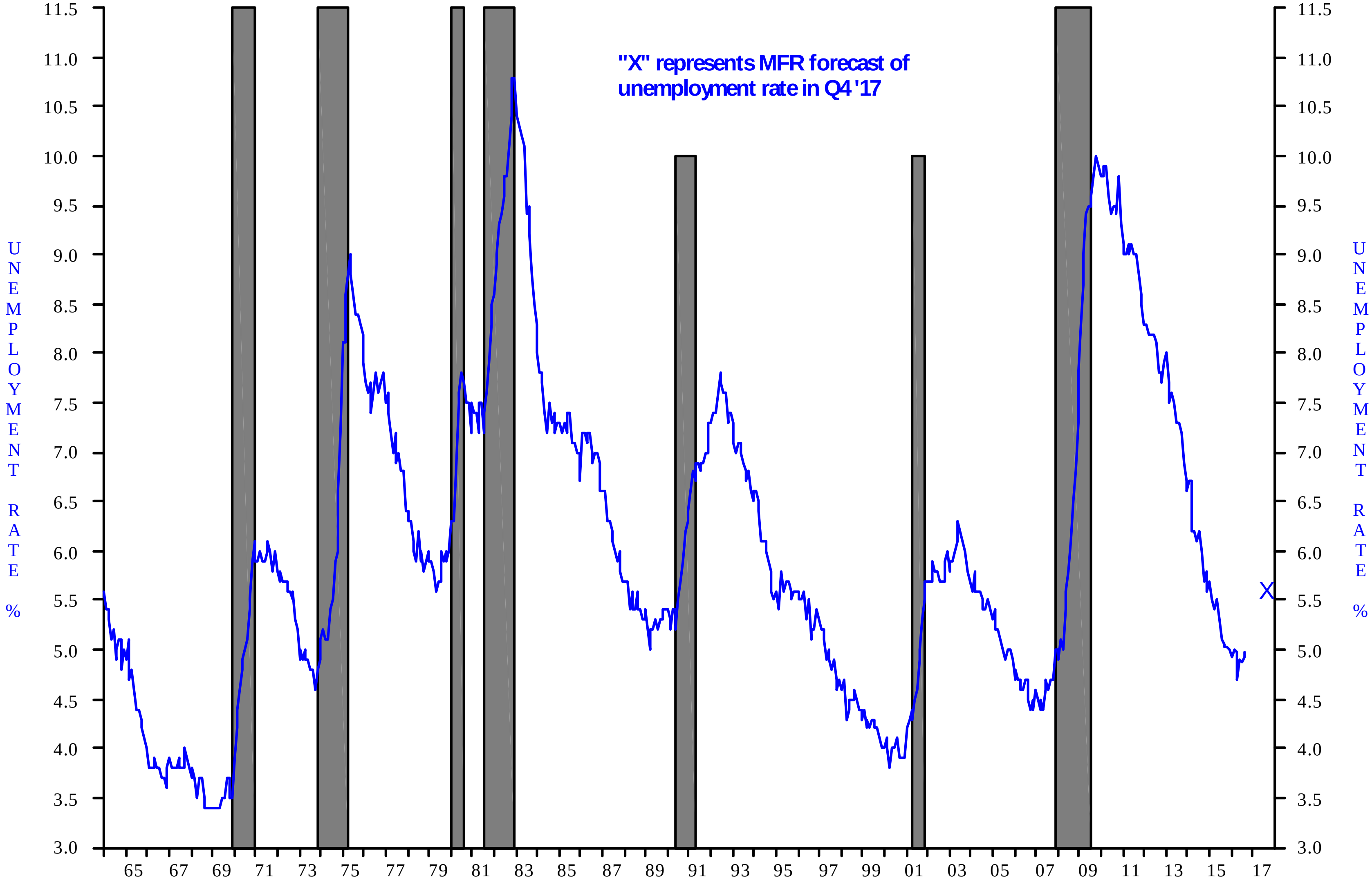
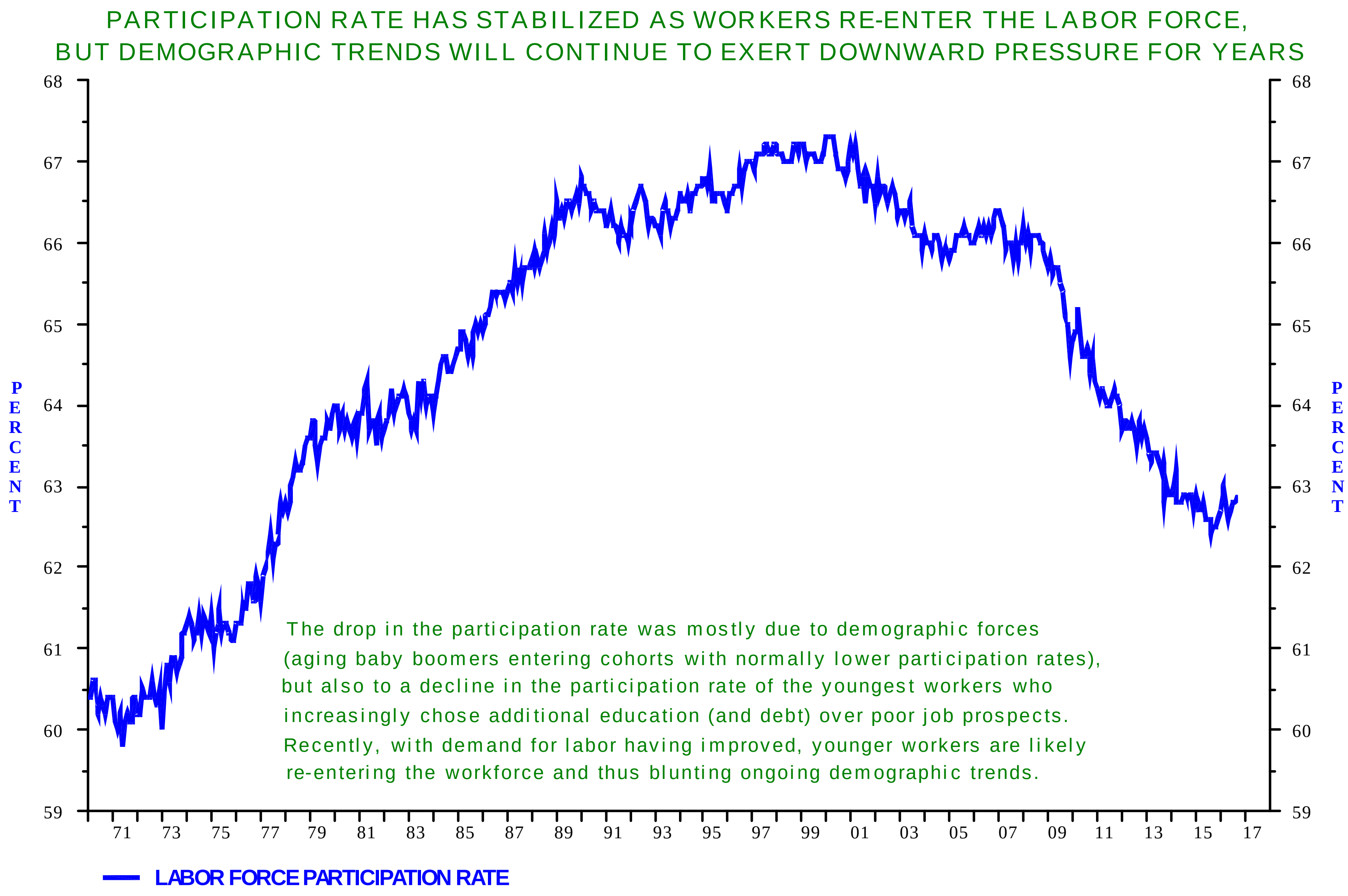
16
17
X
"X" is Average of Aug & Sept Private Payroll Gains
DOMESTIC NONFINANCIAL PROFITS AS % OF NAT'L INCOME, PUSHED FORWARD 1Q (LHS)
AVG MONTHLY CHANGE IN PRIVATE NONFARM PAYROLLS, 000's (RHS)

WE LOOK FOR THE UNEMPLOYMENT RATE TO CLIMB IN 2017 AS THE ECONOMY SLUMPS




PARTICIPATION RATE HAS STABILIZED AS WORKERS RE-ENTER THE LABOR FORCE,
BUT DEMOGRAPHIC TRENDS WILL CONTINUE TO EXERT DOWNWARD PRESSURE FOR YEARS
PERCENT
PERCENT
68
67
66
65
64
63
62
61
60
59
71
73
75
77
79
81
83
85
87
89
91
93
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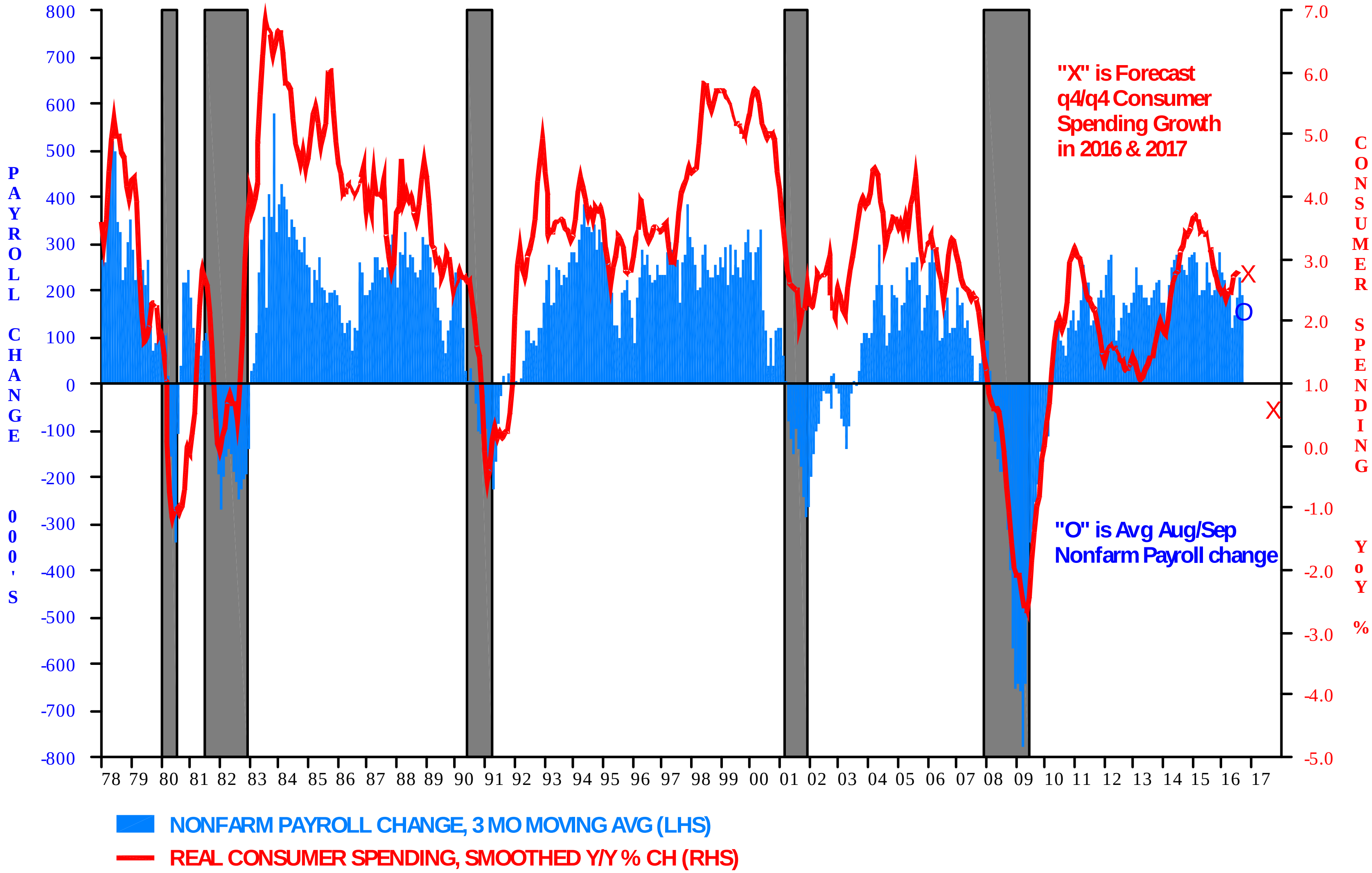
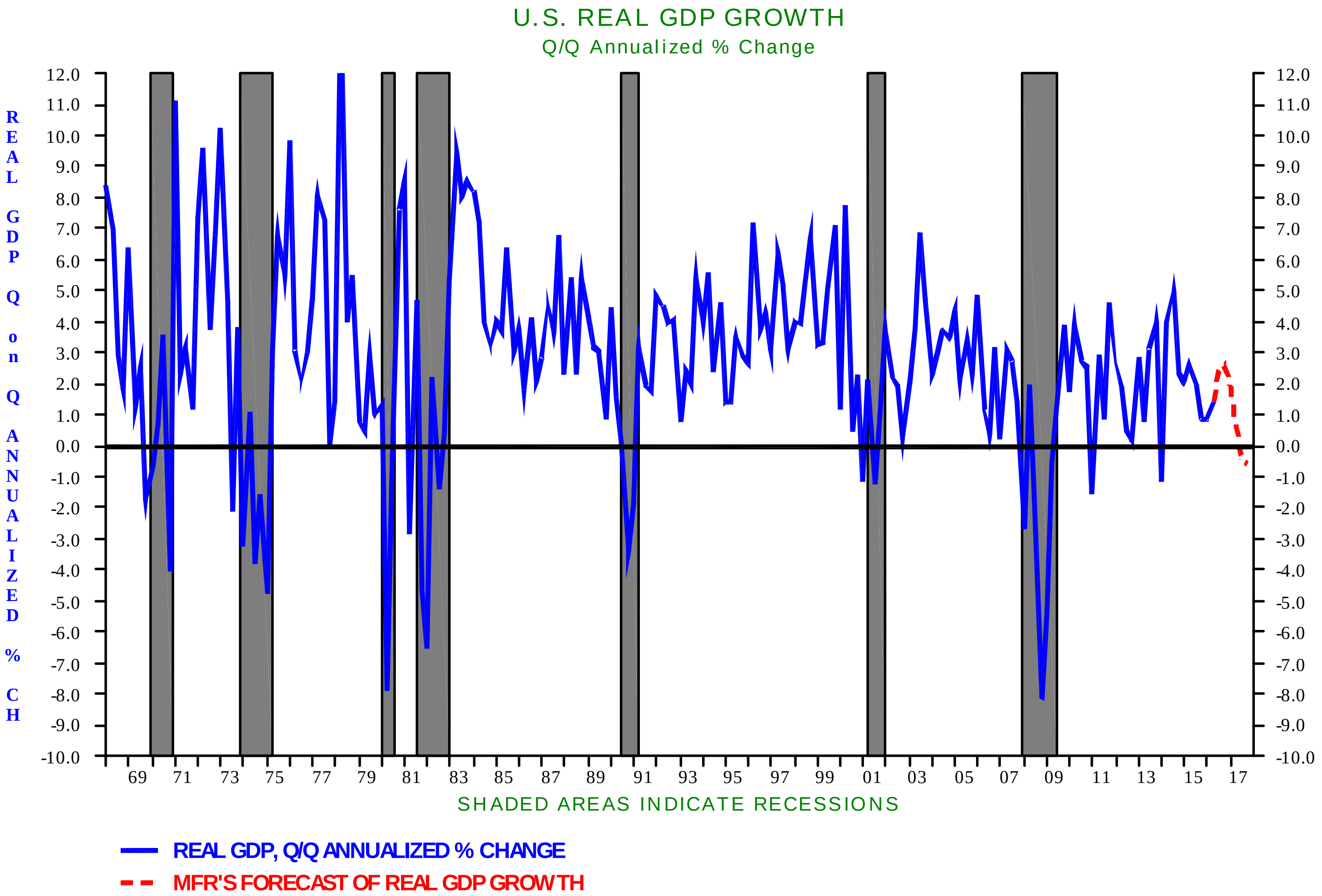
17
The drop in the participation rate was mostly due to demographic forces
(aging baby boomers entering cohorts with normally lower participation rates),
but also to a decline in the participation rate of the youngest workers who
increasingly chose additional education (and debt) over poor job prospects.
Recently, with demand for labor having improved, younger workers are likely
re-entering the workforce and thus blunting ongoing demographic trends.
LABOR FORCE PARTICIPATION RATE

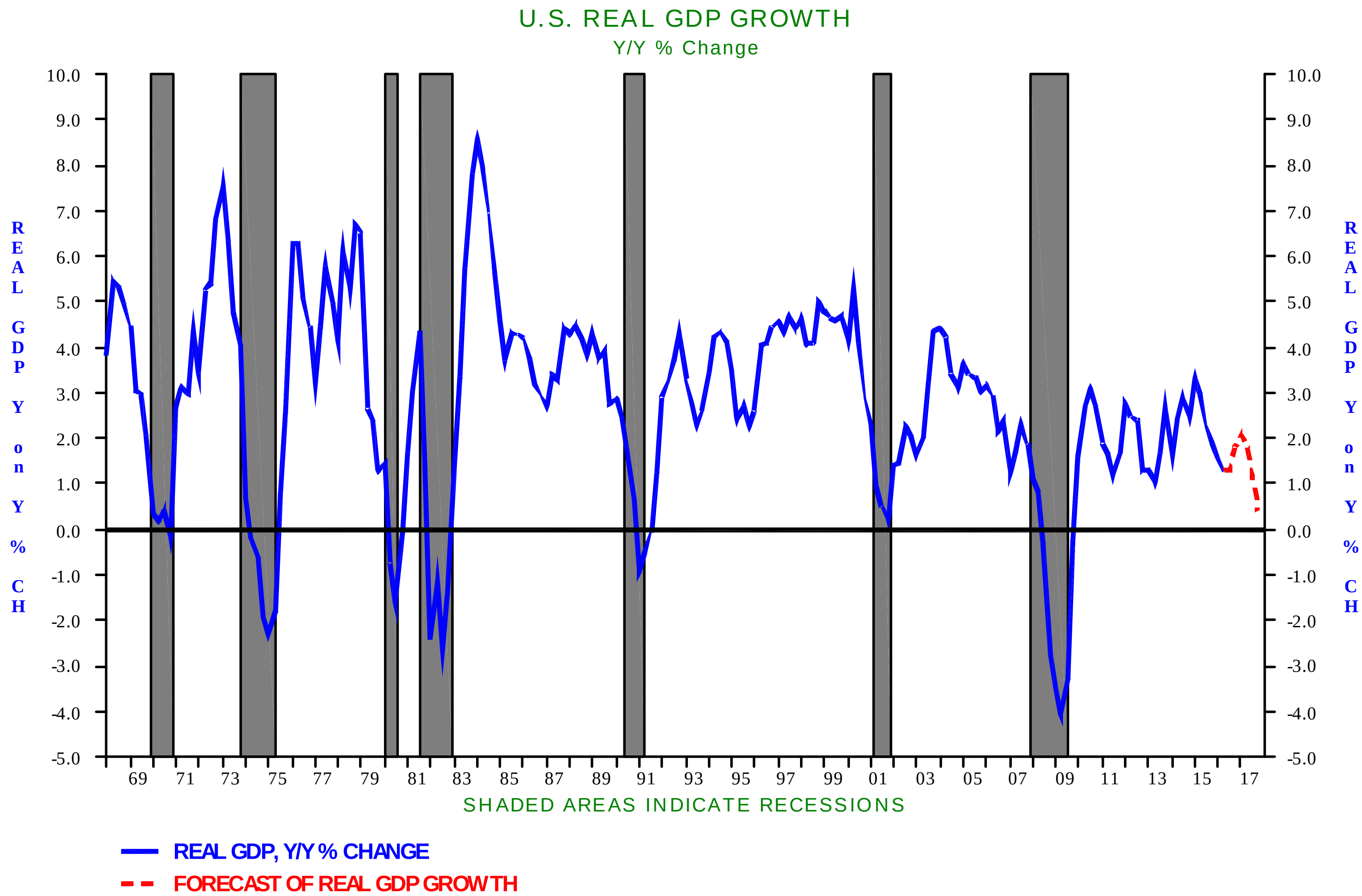
WE EXPECT A PROFIT MARGIN SQUEEZE TO WEIGH HEAVILY ON JOB GROWTH IN 2017;



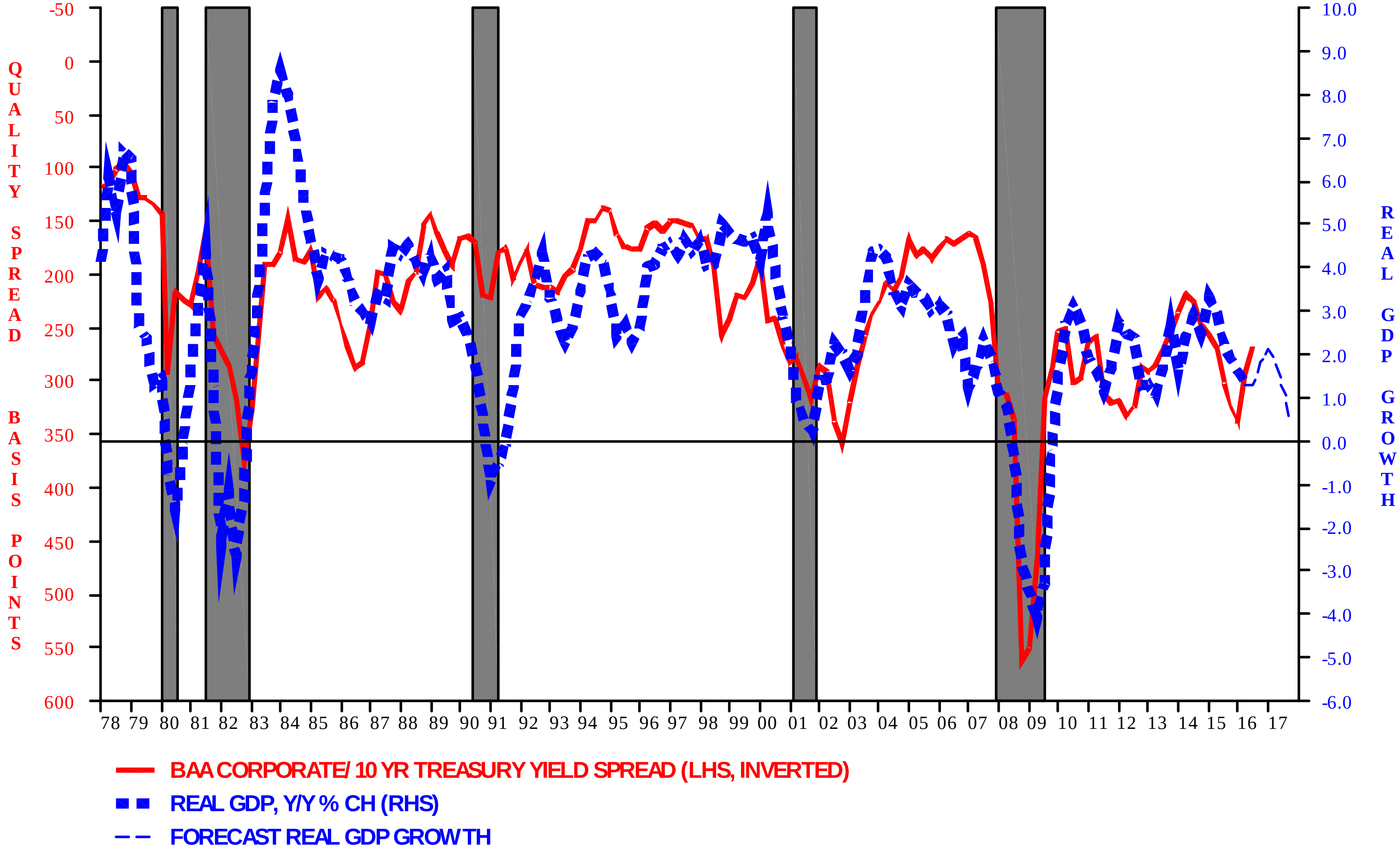
Q/Q Growth Forecast to Pick Up in H2 But Then Slump in 2017



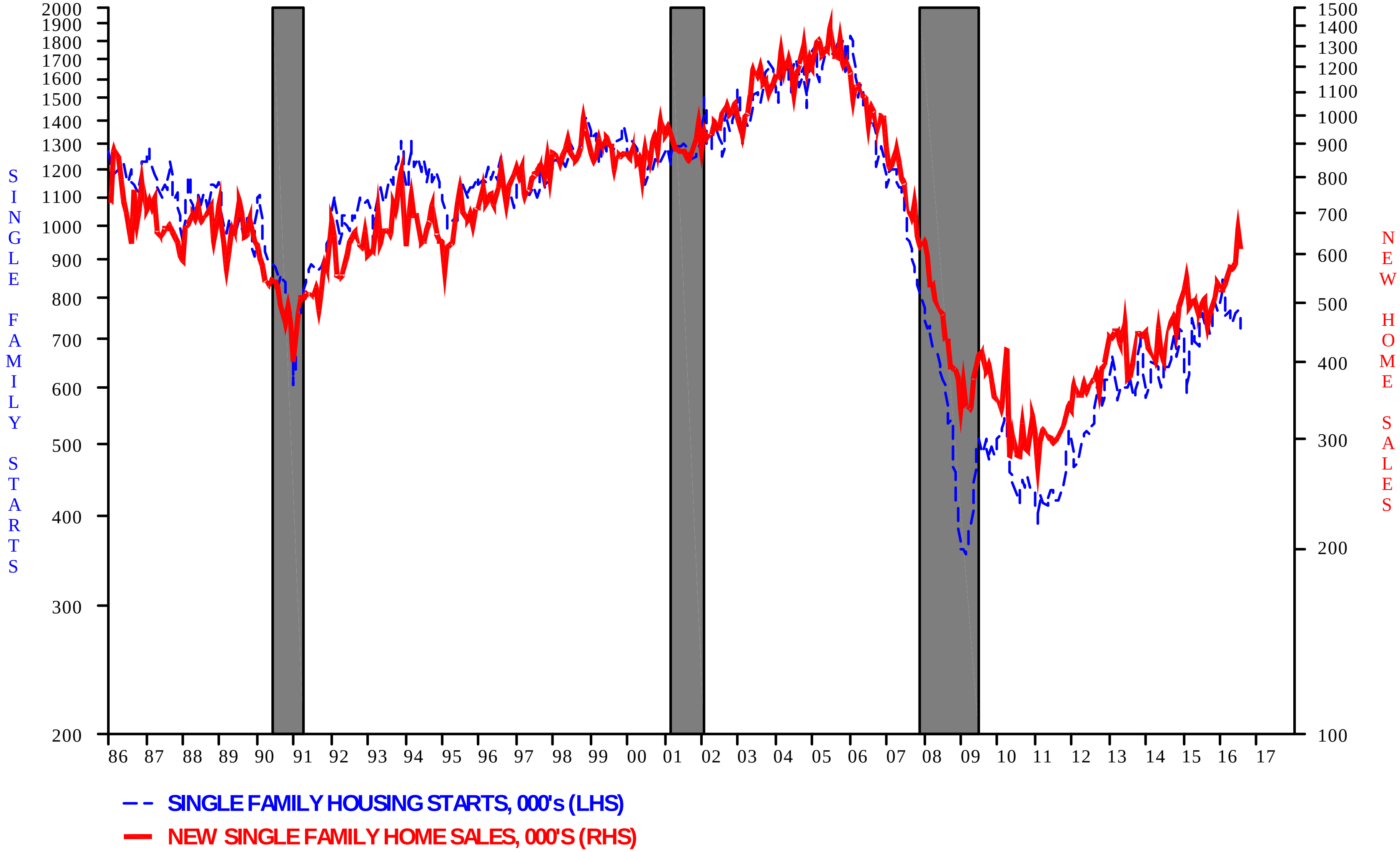
Y/Y Growth to Also Move Up a Bit Before Reversing



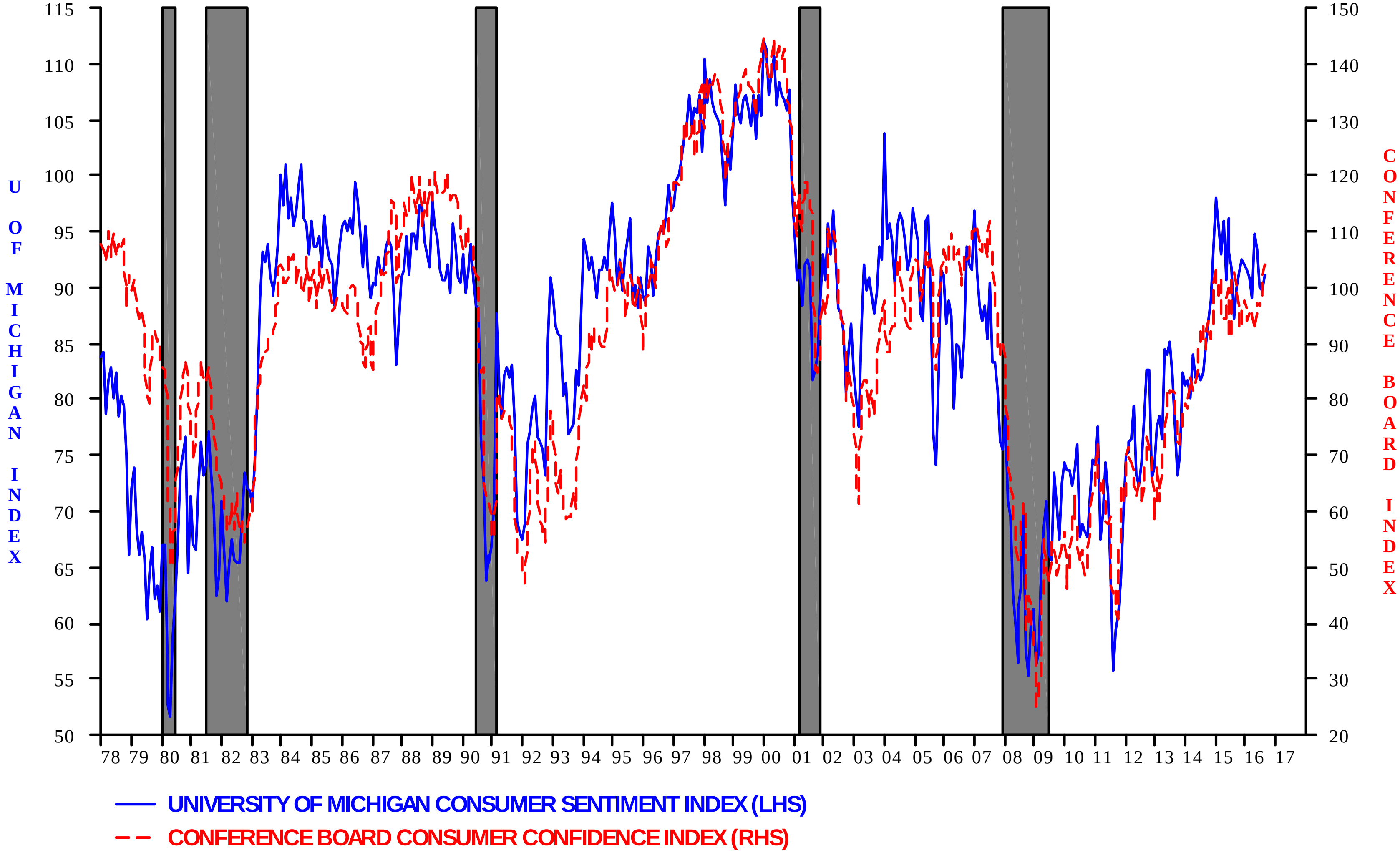
QUALITY SPREADS WERE MUCH WIDER DURING THE WINTER;
NARROWING SINCE THEN CONSISTENT WITH BETTER GROWTH IN SECOND HALF

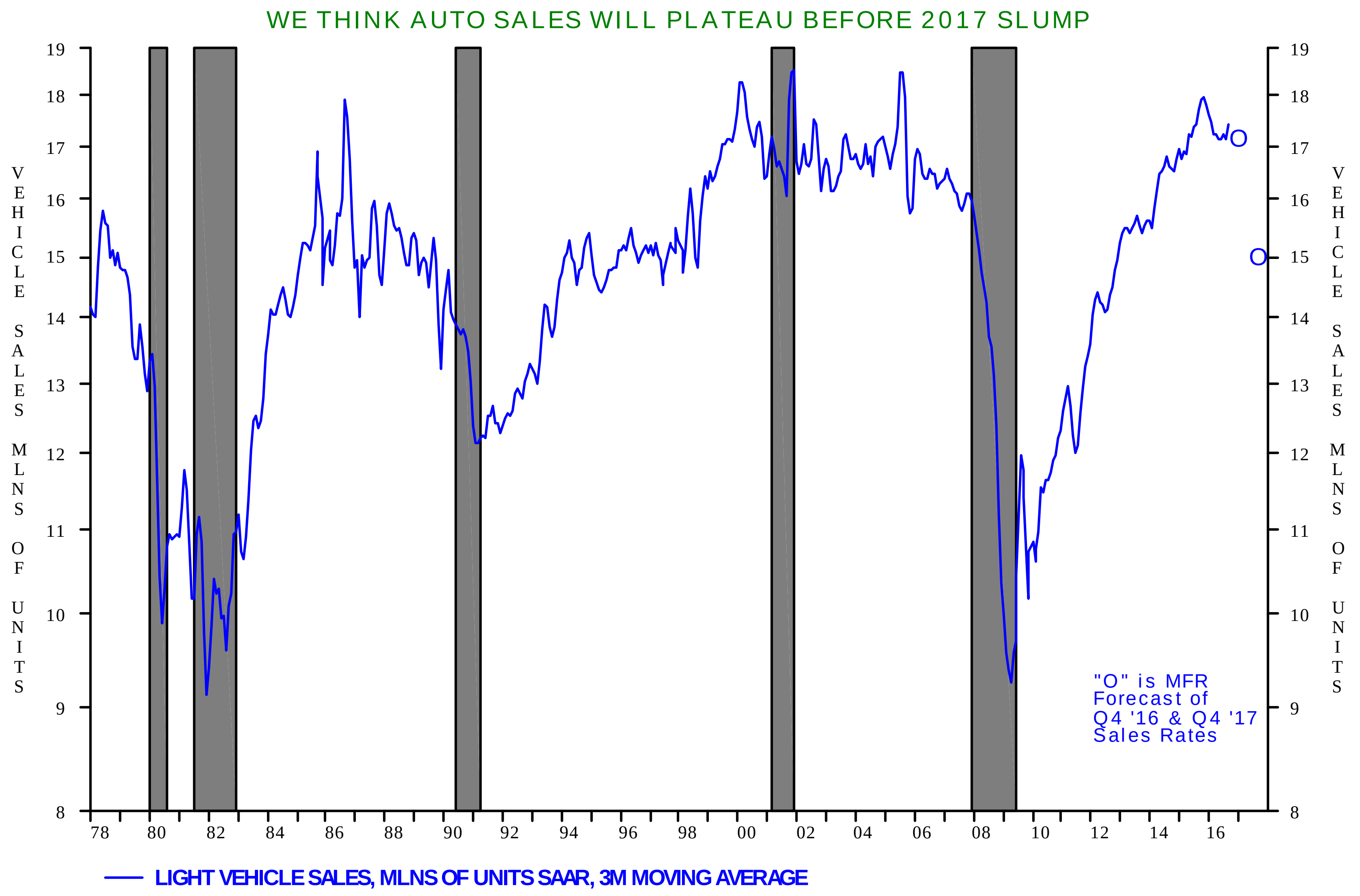


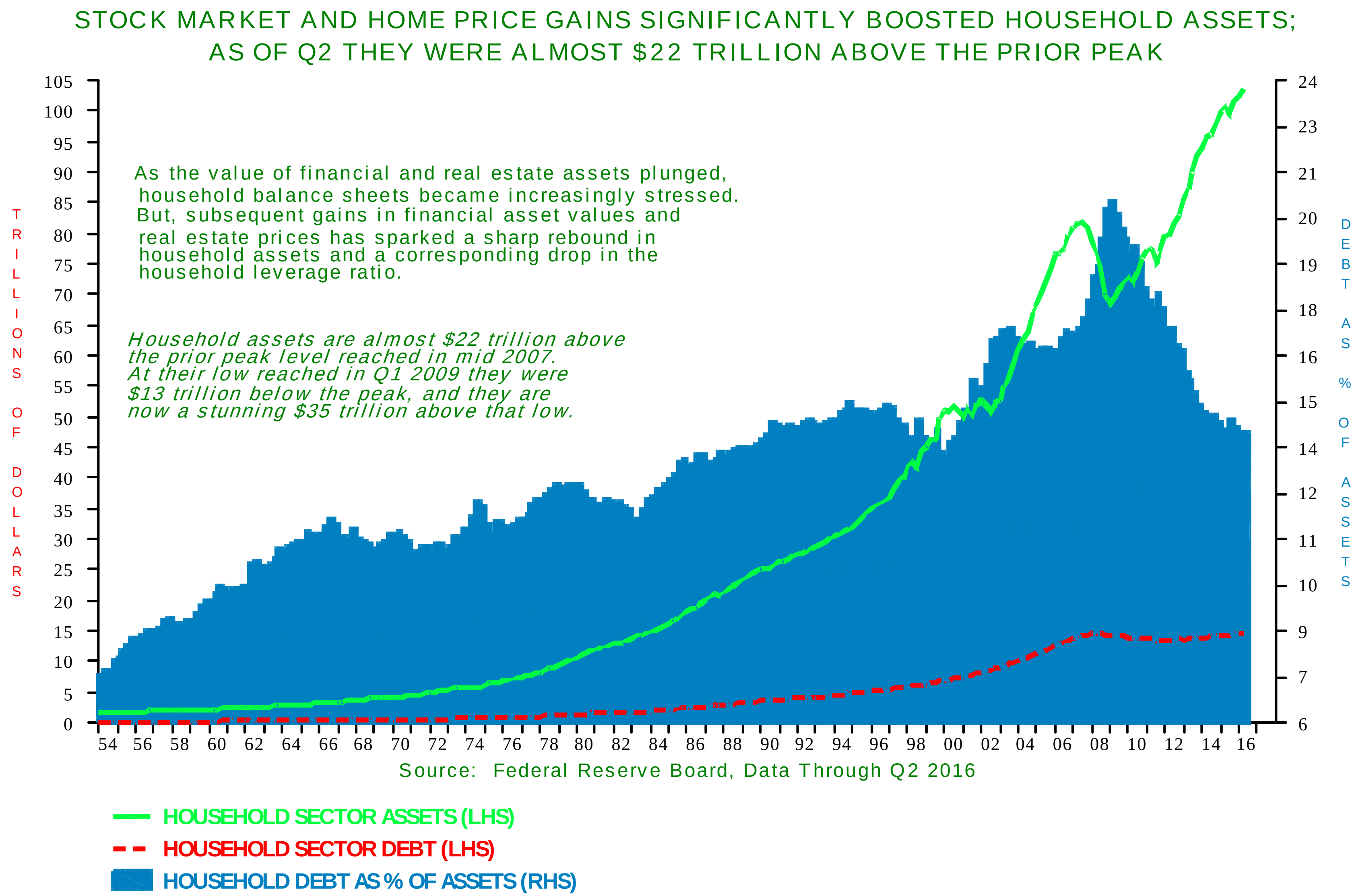
SINGLE FAMILY STARTS HAVE NOT RESPONDED TO LATEST JUMP IN SALES; IF SALES GAINS PERSIST, STARTS ARE LIKELY TO PICK UP

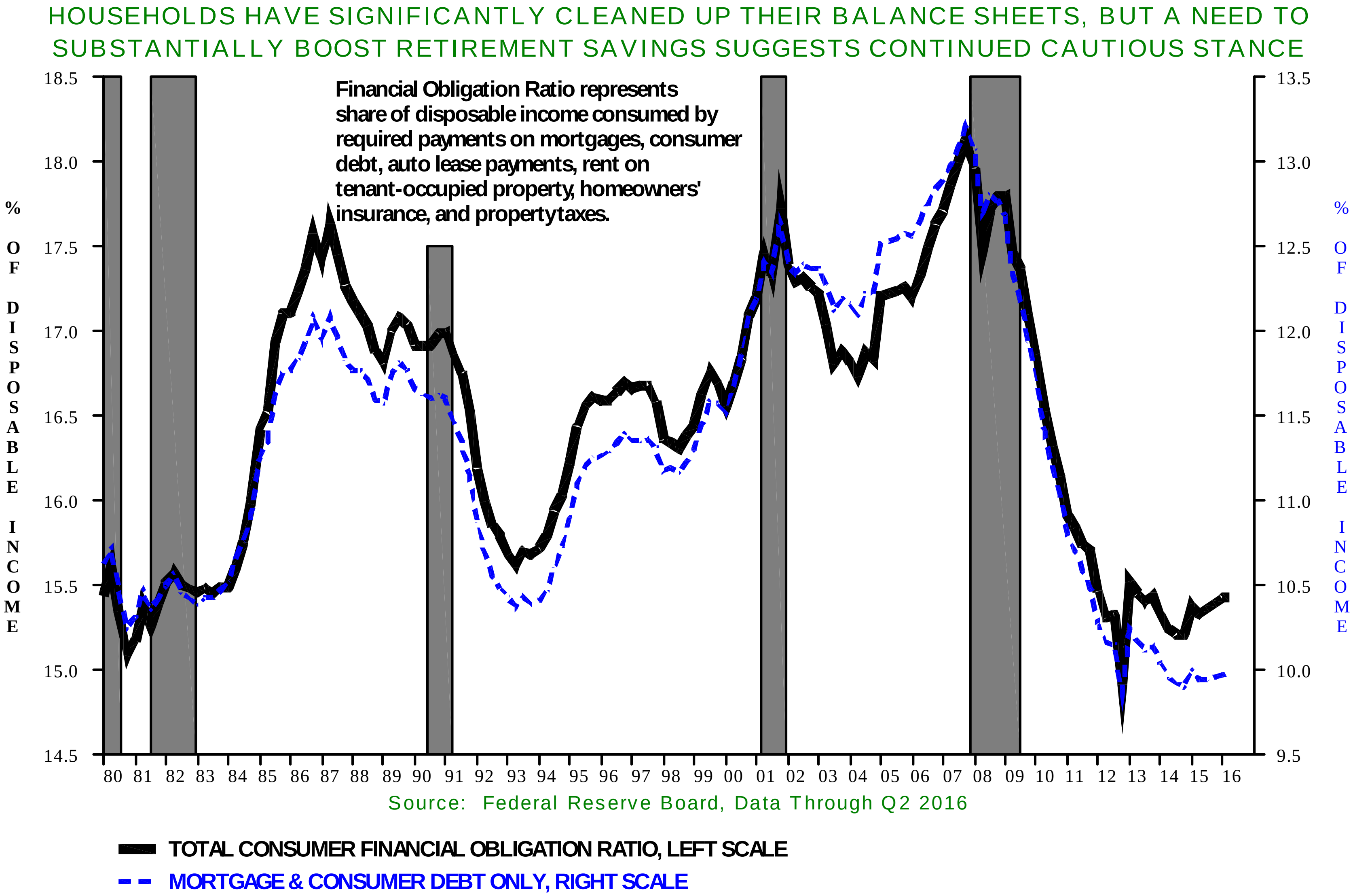


CONSUMER CONFIDENCE / SENTIMENT INDICES HAVE BEEN VOLATILE, BUT TRENDS NOW LOOK TO BE REASONABLY FLAT AT HEALTHY LEVELS

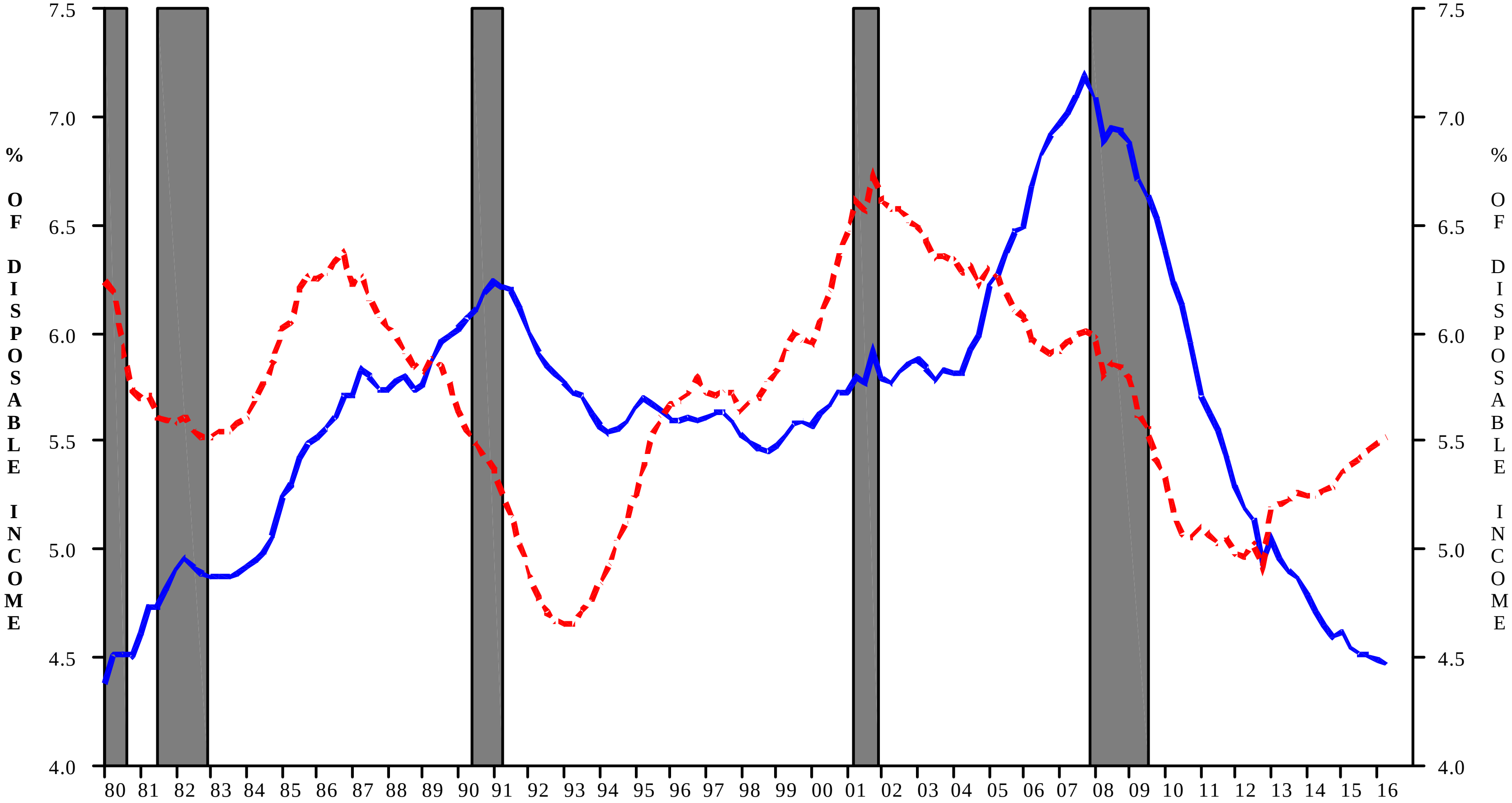



WE THINK AUTO SALES WILL PLATEAU BEFORE 2017 SLUMP
VEHICLE SALES MLNS OF UNITS
19
18
17
16
15
14
13
12
11
10
9
8
78
80
82
84
86
88
90
92
94
96
98
00
02
04
06
08
10
12
14
16
O
O
"O" is MFR Forecast of Q4 '16 & Q4 '17 Sales Rates
LIGHT VEHICLE SALES, MLNS OF UNITS SAAR, 3M MOVING AVERAGE


STOCK MARKET AND HOME PRICE GAINS SIGNIFICANTLY BOOSTED HOUSEHOLD ASSETS;
AS OF Q2 THEY WERE ALMOST $22 TRILLION ABOVE THE PRIOR PEAK
As the value of financial and real estate assets plunged, household balance sheets became increasingly stressed. But, subsequent gains in financial asset values and real estate prices has sparked a sharp rebound in household assets and a corresponding drop in the household leverage ratio.
Household assets are almost $22 trillion above the prior peak level reached in mid 2007. At their low reached in Q1 2009 they were $13 trillion below the peak, and they are now a stunning $35 trillion above that low.
TRILLIONS OF DOLLARS
DEBT AS % OF ASSETS
Source: Federal Reserve Board, Data Through Q2 2016
HOUSEHOLD SECTOR ASSETS (LHS)
HOUSEHOLD SECTOR DEBT (LHS)
HOUSEHOLD DEBT AS % OF ASSETS (RHS)


HOUSEHOLDS HAVE SIGNIFICANTLY CLEANED UP THEIR BALANCE SHEETS, BUT A NEED TO SUBSTANTIALLY BOOST RETIREMENT SAVINGS SUGGESTS CONTINUED CAUTIOUS STANCE
Financial Obligation Ratio represents share of disposable income consumed by required payments on mortgages, consumer debt, auto lease payments, rent on tenant-occupied property, homeowners' insurance, and propertytaxes.
% OF DISPOSABLE INCOME
18.5
18.0
17.5
17.0
16.5
16.0
15.5
15.0
14.5
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
Source: Federal Reserve Board, Data Through Q2 2016
TOTAL CONSUMER FINANCIAL OBLIGATION RATIO, LEFT SCALE
MORTGAGE & CONSUMER DEBT ONLY, RIGHT SCALE

REDUCTION IN HOUSEHOLD MORTGAGE DEBT BURDEN
LEAVES SCOPE FOR INCREASED NON-MORTGAGE LEVERAGE

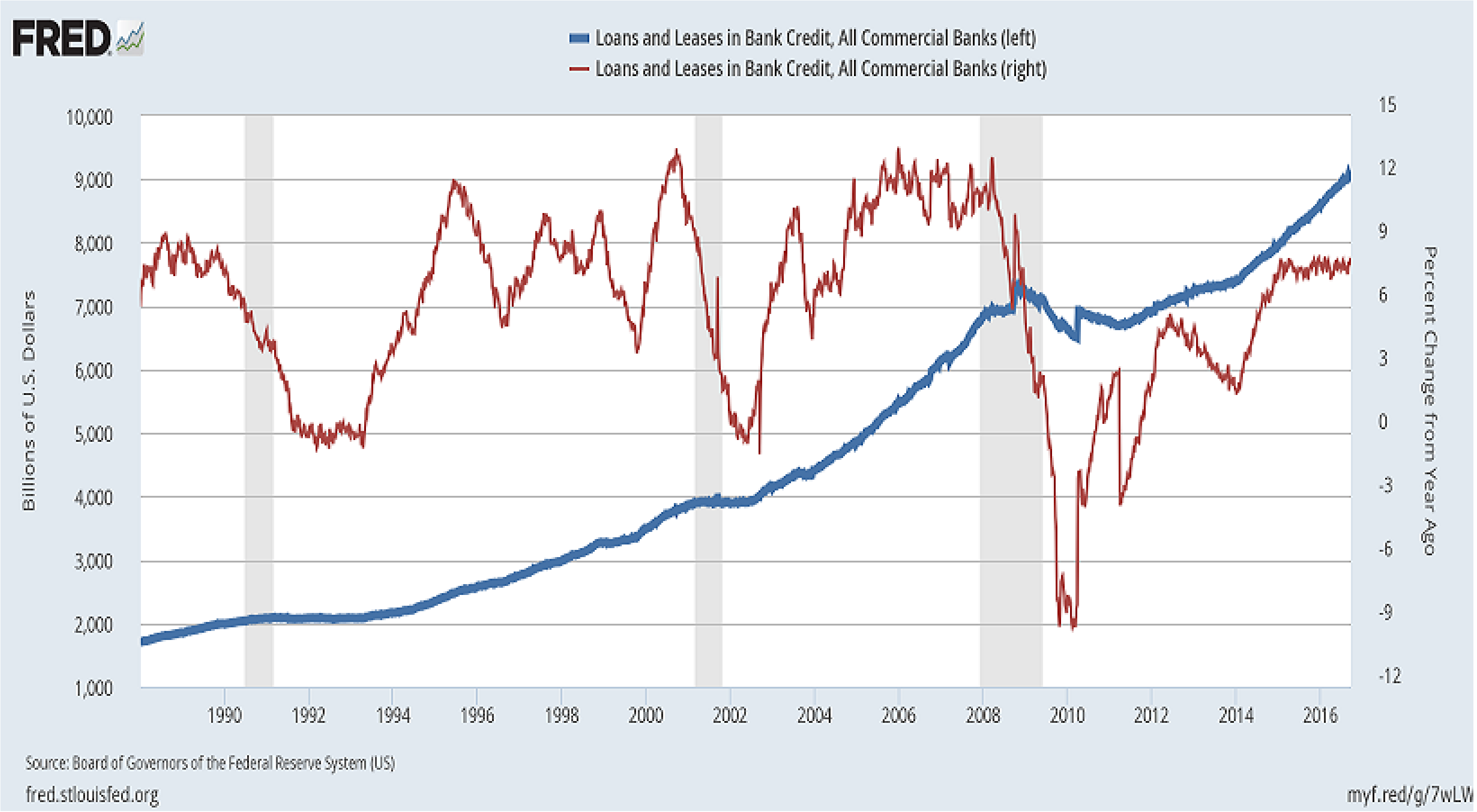


Source: Federal Reserve Board, Data Through Q2 2016

MORTGAGE DEBT SERVICE RATIO

NON-MORTGAGE DEBT SERVICE RATIO

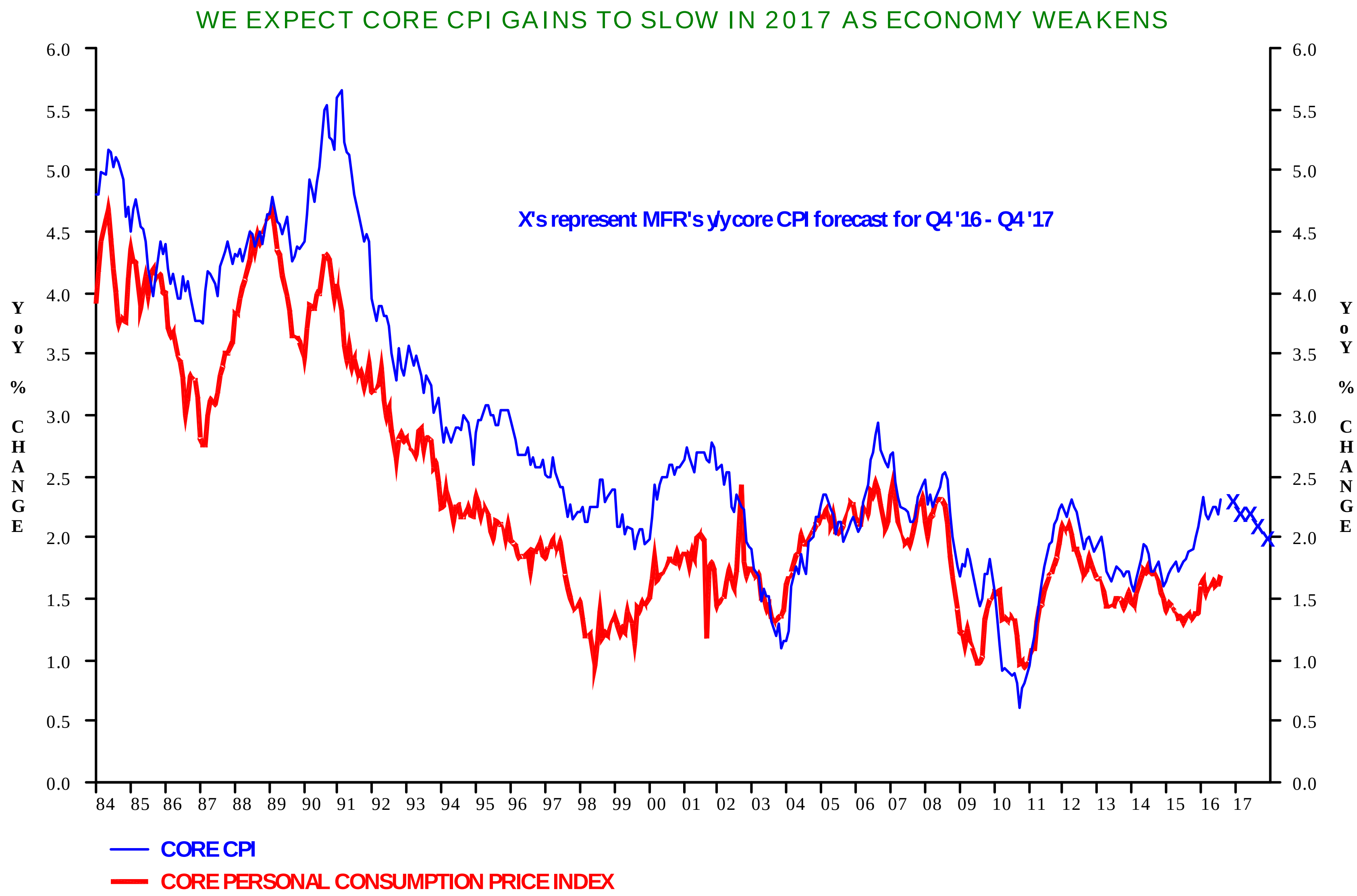
Bank Lending Growth Holding Steady at 8% Y/Y Pace

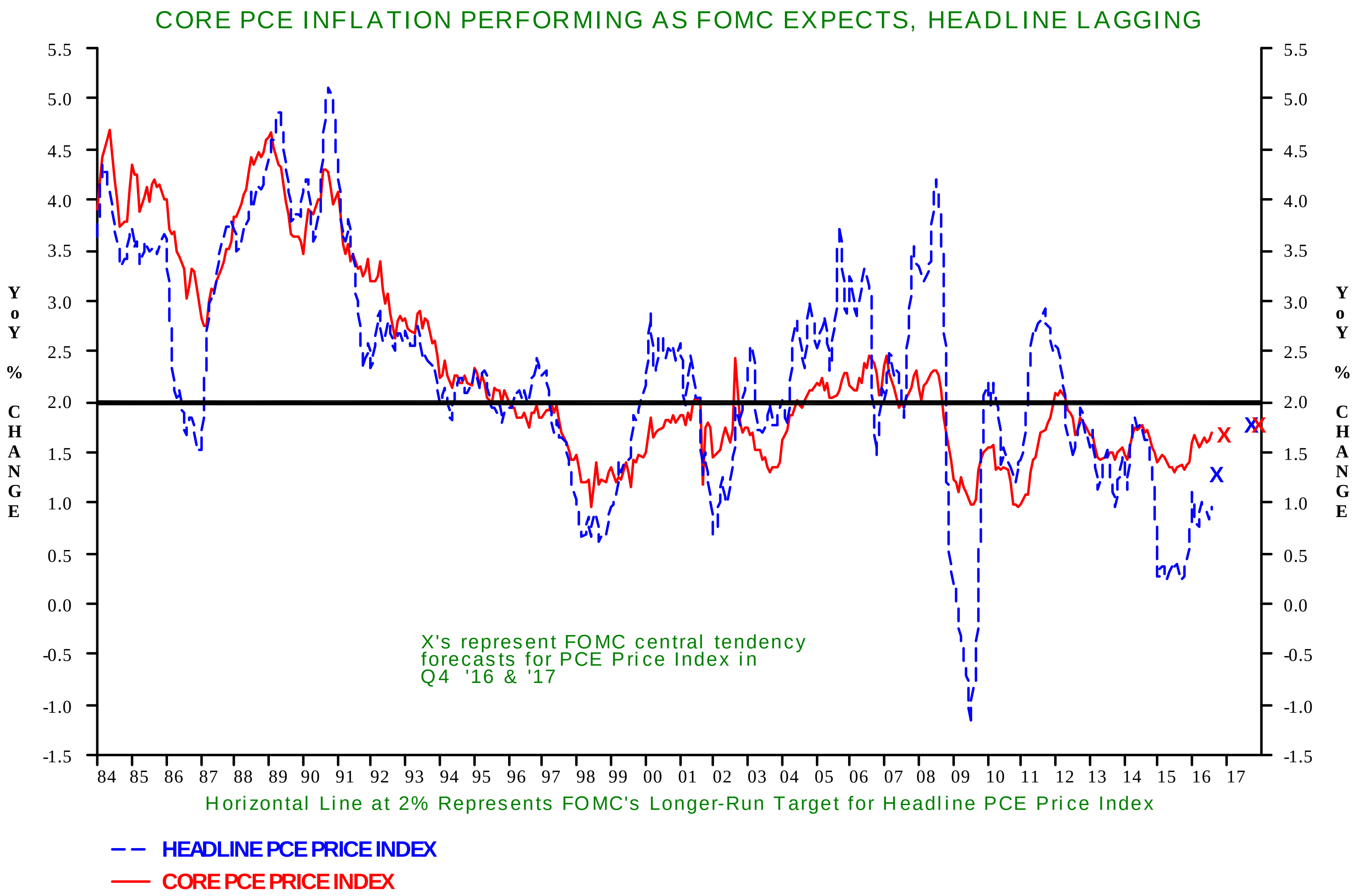


Core Inflation Forecast to Change by Little on Y/Y Basis Before Decelerating in 2017

- **Core inflation measures have drifted very gently higher while headline inflation has gyrated with big swings in energy prices. Wage gains have failed to accelerate in a significant manner measured economy-wide, with highly skilled workers in short supply doing well, but the majority continuing to struggle. Legislated minimum wage increases in some states and localities have helped those at the bottom.**
- **Our forecast is for little change in the y/y pace of core inflation over the near term and a gradual normalization of headline price measures as energy prices are more stable. However, weakening growth and increasingly aggressive corporate cost-cutting is likely to spur renewed disinflation in 2017.**
- **In the longer run, in addition to questions about the Federal Reserve's ability to manage a $4 trillion balance sheet, the inflation picture is clouded by the temptation for policymakers to try to use inflation as a means of reducing the burden of debt.**

	2016:Q2 (actual)	2016:Q3	2016:Q4	2017:Q1	2017:Q2	2017:Q3	2015 q4/q4 (actual)	2016 q4/q4	2017 q4/q4
CPI y/y	+1.1%	+1.1%	+1.4%	+2.0%	+1.8%	+1.9%	+0.4%	+1.4%	+1.7%
Core CPI y/y	+2.2%	+2.3%	+2.3%	+2.2%	+2.2%	+2.1%	+2.0%	+2.3%	+2.0%


WE EXPECT CORE CPI GAINS TO SLOW IN 2017 AS ECONOMY WEAKENS
X's represent MFR's y/y core CPI forecast for Q4 '16 - Q4 '17
YoY % CHANGE
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17
CORE CPI
CORE PERSONAL CONSUMPTION PRICE INDEX



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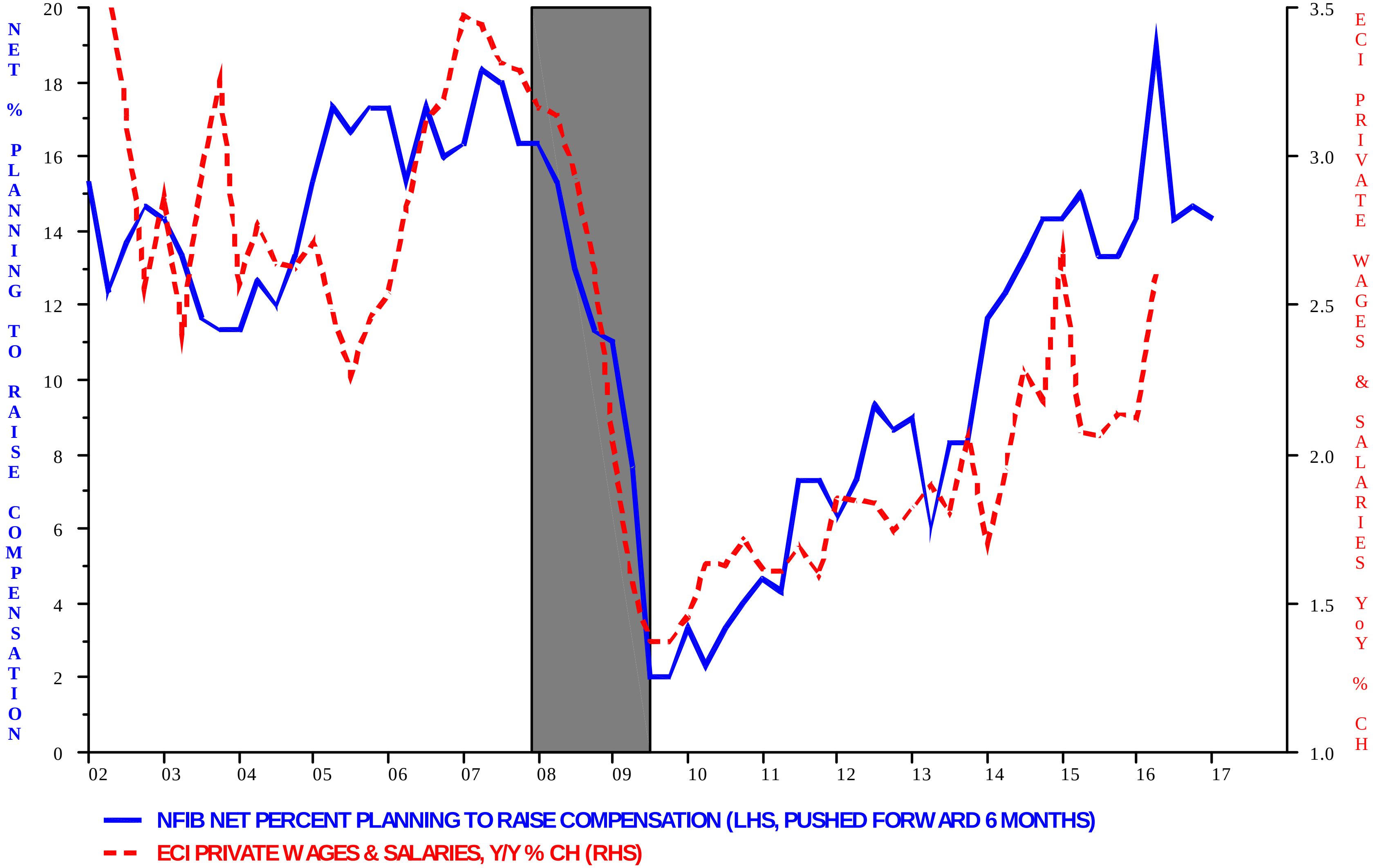
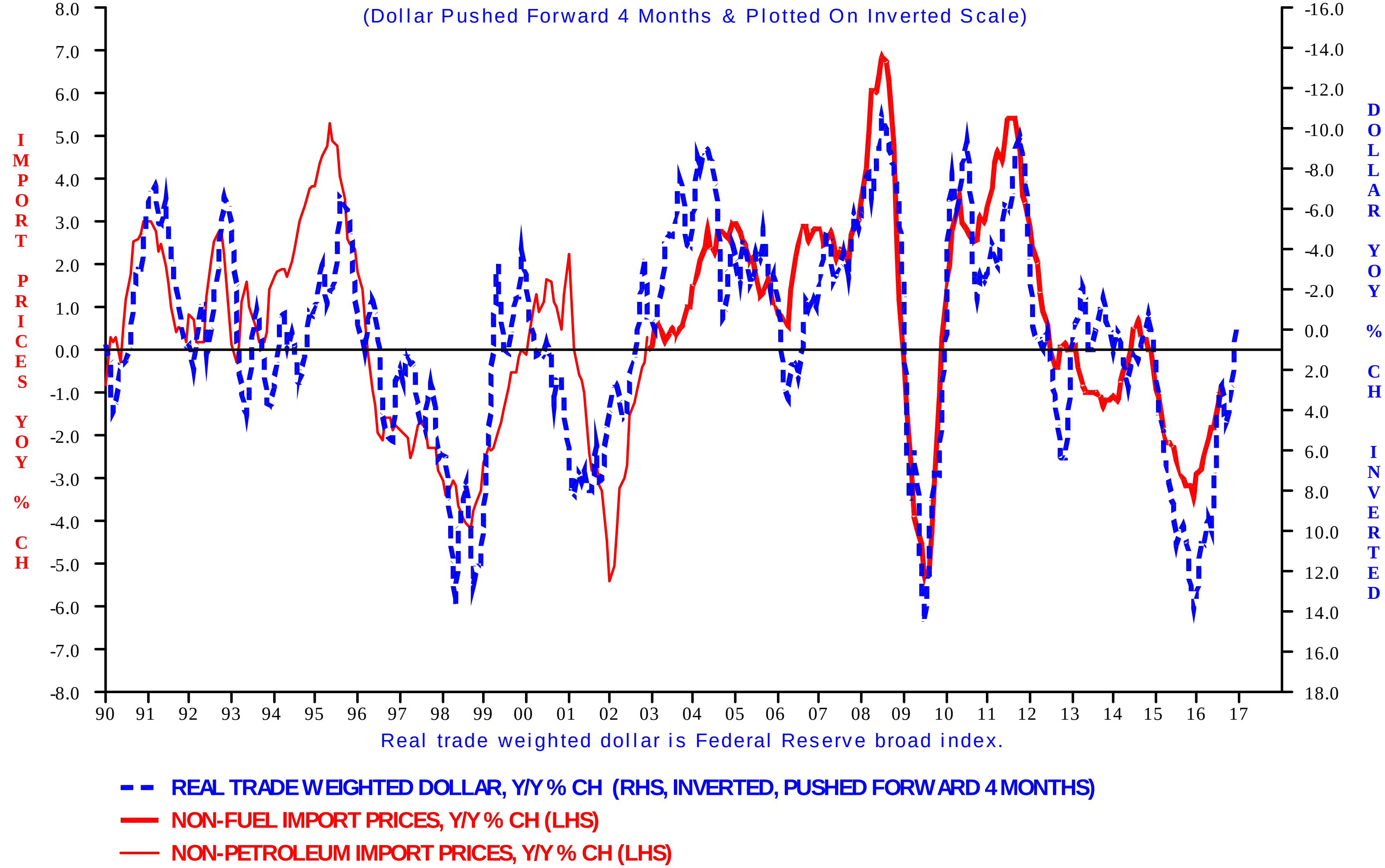
SMALL BUSINESS COMPENSATION PLANS INDEX APPEARS TO BE PLATEAUING



THE DOLLAR-GENERATED DOWNWARD IMPETUS TO IMPORT PRICES IS BEHIND US



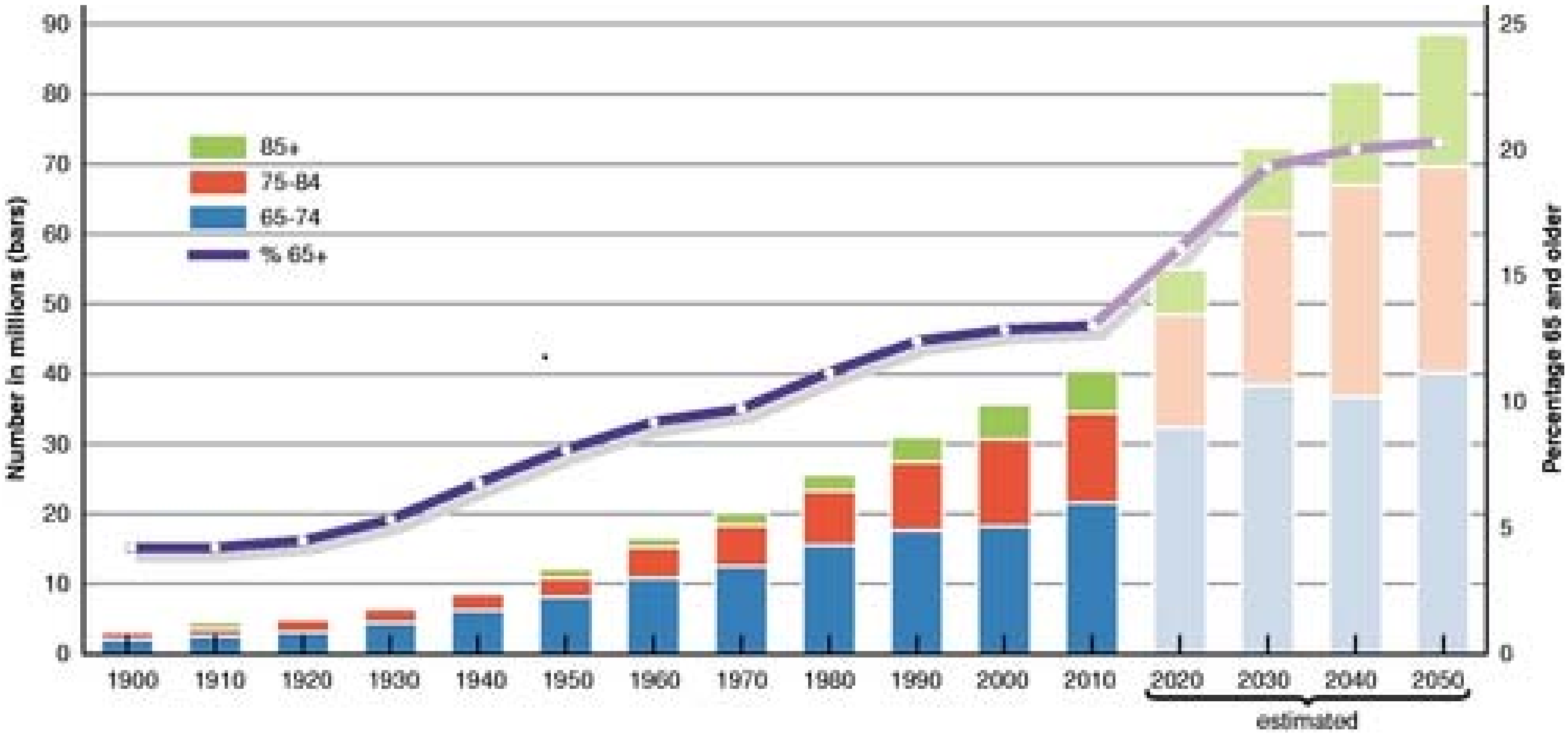
Longer-Term Demographic Realities Will Create Fiscal Policy Imperatives

Given the aging of the population and rising costs for health care, attaining a sustainable federal budget will require the United States to deviate from the policies of the past in at least one of the following ways:

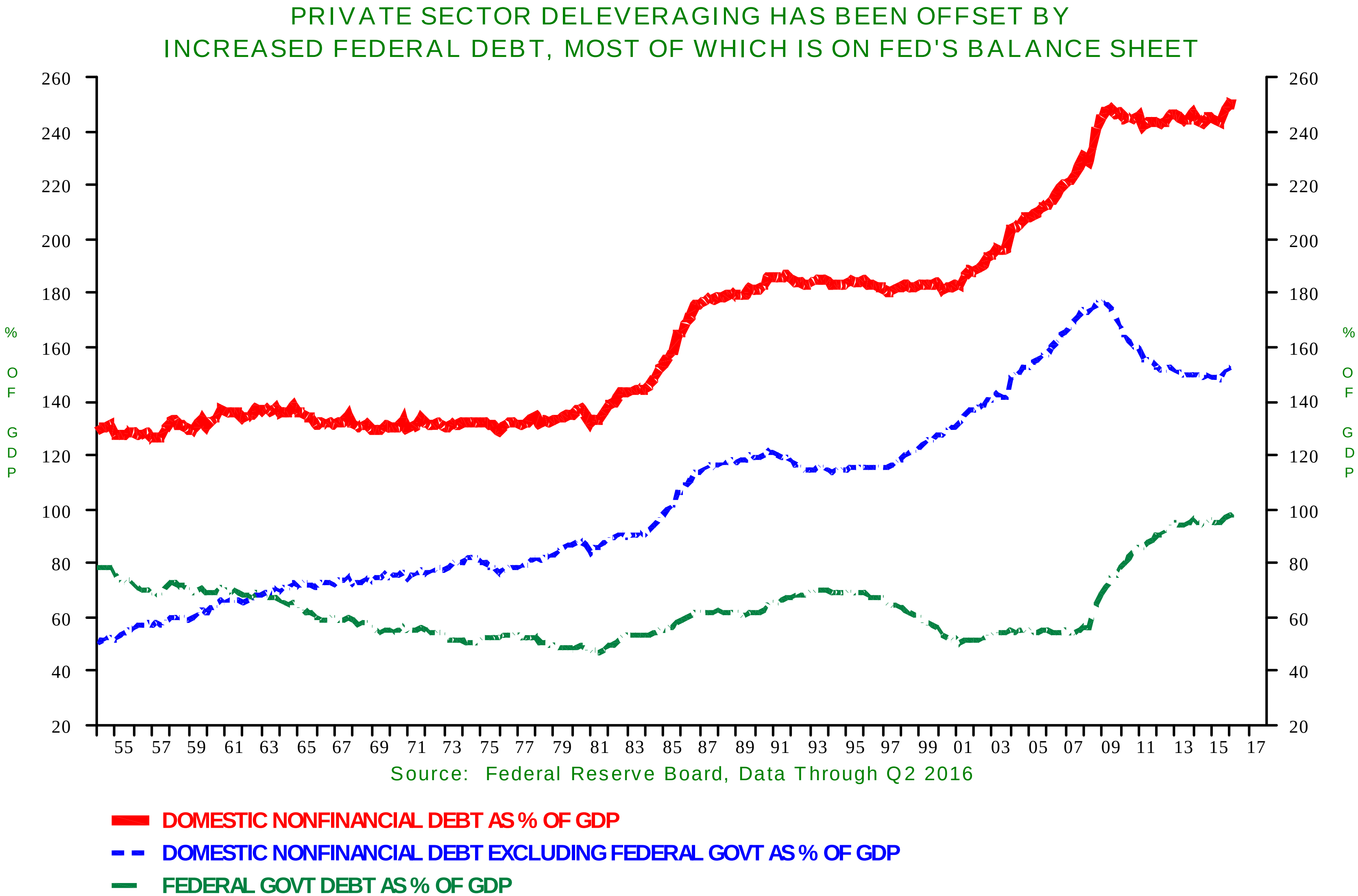
- ***Raise federal revenues significantly above their historical average share of GDP;***
- ***Make major changes to the benefits provided for Americans when they become older; or***
- ***Substantially reduce the role of the rest of the federal government relative to the size of the economy.***

The most likely eventual outcome is some combination of all three of the above. The political, social, and economic consequences from the battle over how this will occur promise to be substantial and long-lasting.

AGING BABY-BOOMERS WILL PUT INCREASED BURDEN ON ENTITLEMENT PROGRAMS – EXISTING BENEFIT LEVELS, COSTS, AND METHODS OF FINANCING ARE UNSUSTAINABLE



Source: U.S. Census Bureau


PRIVATE SECTOR DELEVERAGING HAS BEEN OFFSET BY
INCREASED FEDERAL DEBT, MOST OF WHICH IS ON FED'S BALANCE SHEET
% OF GDP
260
240
220
200
180
160
140
120
100
80
60
40
20
55 57 59 61 63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99 01 03 05 07 09 11 13 15 17
Source: Federal Reserve Board, Data Through Q2 2016
DOMESTIC NONFINANCIAL DEBT AS % OF GDP
DOMESTIC NONFINANCIAL DEBT EXCLUDING FEDERAL GOVT AS % OF GDP
FEDERAL GOVT DEBT AS % OF GDP

U.S. ECONOMIC FORECAST　　OCTOBER 2016

	2015				2016				2017				Annual Averages		
	I	II	III	IV	I	II	III f	IV f	I f	II f	III f	IV f	2015	2016 f	2017 f
Real GDP By Sector															
Blns of Chained 2009 $															
Real GDP	16,269.0	16,374.2	16,454.9	16,490.7	16,525.0	16,583.1	16,676.4	16,785.4	16,865.4	16,889.4	16,872.4	16,847.4	16,397.2	16,642.5	16,868.7
% Chg., Qtr/Qtr	2.0	2.6	2.0	0.9	0.8	1.4	2.3	2.6	1.9	0.6	(0.4)	(0.6)			
% Chg., Yr/Yr	3.3	3.0	2.2	1.9	1.6	1.3	1.3	1.8	2.1	1.8	1.2	0.4	2.6	1.5	1.4
Inventory Change	114.4	93.8	70.9	56.9	40.7	(9.5)	5.0	20.0	30.0	25.0	25.0	25.0	84.0	14.1	26.3
Final Sales	16,140.9	16,267.5	16,371.7	16,422.4	16,473.5	16,579.5	16,658.3	16,752.3	16,822.3	16,851.3	16,834.3	16,809.3	16,300.6	16,615.9	16,829.3
% Chg., Qtr/Qtr	1.0	3.2	2.6	1.2	1.3	2.6	1.9	2.3	1.7	0.7	(0.4)	(0.6)			
% Chg., Yr/Yr	2.8	2.7	2.2	2.0	2.1	1.9	1.8	2.0	2.1	1.6	1.1	0.3	2.4	1.9	1.3
Consumer Spending	11102.4	11181.3	11255.9	11319.3	11365.2	11484.9	11565.0	11630.0	11690.0	11720.0	11715.0	11700.0	11,214.7	11,511.3	11,706.3
% Chg., Qtr/Qtr	2.4	2.9	2.7	2.3	1.6	4.3	2.8	2.3	2.1	1.0	(0.2)	(0.5)			
% Chg., Yr/Yr	3.6	3.4	3.1	2.6	2.4	2.7	2.7	2.7	2.9	2.0	1.3	0.6	3.2	2.6	1.7
Capital Spending	2,187.9	2,196.6	2,217.5	2,198.8	2,179.7	2,185.0	2,200.8	2,218.8	2,216.8	2,205.8	2,188.8	2,165.8	2,200.2	2,196.1	2,194.3
% Chg., Qtr/Qtr	1.3	1.6	3.9	(3.3)	(3.4)	1.0	2.9	3.3	(0.4)	(2.0)	(3.0)	(4.1)			
% Chg., Yr/Yr	3.6	2.5	1.4	0.8	(0.4)	(0.5)	(0.8)	0.9	1.7	1.0	(0.5)	(2.4)	2.1	(0.2)	(0.1)
Structures	461.5	458.4	453.4	435.1	435.2	432.9	438.0	441.0	436.0	431.0	421.0	411.0	452.1	436.8	424.8
% Chg., Qtr/Qtr	(12.4)	(2.7)	(4.3)	(15.2)	0.1	(2.1)	4.8	2.8	(4.5)	(4.5)	(9.0)	(9.2)			
% Chg., Yr/Yr	(1.2)	(3.6)	(4.0)	(8.8)	(5.7)	(5.6)	(3.4)	1.4	0.2	(0.4)	(3.9)	(6.8)	(4.4)	(3.4)	(2.8)
Equipment	1063.2	1062.3	1085.7	1078.6	1052.0	1044.1	1045.0	1055.0	1055.0	1045.0	1035.0	1020.0	1,072.5	1,049.0	1,038.8
% Chg., Qtr/Qtr	9.3	(0.3)	9.1	(2.6)	(9.5)	(3.0)	0.3	3.9	0.0	(3.7)	(3.8)	(5.7)			
% Chg., Yr/Yr	5.1	3.4	2.0	3.7	(1.1)	(1.7)	(3.7)	(2.2)	0.3	0.1	(1.0)	(3.3)	3.5	(2.2)	(1.0)
Intellectual Property	666.5	679.5	683.1	690.7	697.1	712.2	722.0	727.0	730.0	734.0	737.0	739.0	680.0	714.6	735.0
% Chg., Qtr/Qtr	0.8	8.0	2.1	4.5	3.8	9.0	5.6	2.8	1.7	2.2	1.6	1.1			
% Chg., Yr/Yr	5.0	5.9	4.6	3.8	4.6	4.8	5.7	5.3	4.7	3.1	2.1	1.7	4.8	5.1	2.9
Housing	538.0	556.9	573.7	589.5	600.7	588.7	577.0	583.0	583.0	578.0	573.0	563.0	564.5	587.4	574.3
% Chg., Qtr/Qtr	13.4	14.8	12.6	11.5	7.8	(7.8)	(7.7)	4.2	0.0	(3.4)	(3.4)	(6.8)			
% Chg., Yr/Yr	9.9	10.7	13.0	13.1	11.7	5.7	0.6	(1.1)	(2.9)	(1.8)	(0.7)	(3.4)	11.7	4.0	(2.2)
Net Exports	(521.2)	(524.9)	(547.1)	(566.6)	(566.3)	(558.5)	(565.0)	(570.0)	(570.0)	(570.0)	(575.0)	(567.0)	(540.0)	(565.0)	(570.5)
X	2,120.6	2,135.5	2,120.4	2,105.8	2,102.0	2,111.3	2,145.0	2,160.0	2,170.0	2,170.0	2,165.0	2,153.0	2,120.6	2,129.6	2,164.5
I	2,641.8	2,660.5	2,667.6	2,672.4	2,668.2	2,669.7	2,710.0	2,730.0	2,740.0	2,740.0	2,740.0	2,720.0	2,660.6	2,694.5	2,735.0
Government	2858.0	2880.7	2894.4	2901.7	2913.2	2900.9	2902.0	2912.0	2924.0	2939.0	2954.0	2969.0	2,883.7	2,907.0	2,946.5
% Chg., Qtr/Qtr	2.6	3.2	1.9	1.0	1.6	(1.7)	0.2	1.4	1.7	2.1	2.1	2.0			
% Chg., Yr/Yr	1.2	2.0	1.8	2.2	1.9	0.7	0.3	0.4	0.4	1.3	1.8	2.0	1.8	0.8	1.4

	2015				2016				2017				Annual Averages		
	I	II	III	IV	I	II	III f	IV f	I f	II f	III f	IV f	2015	2016 f	2017 f
Domestic Demand															
Blns of Chained 2009 $	16,791.3	16,900.1	17,002.6	17,057.2	17,091.5	17,142.6	17,242.4	17,356.4	17,436.4	17,460.4	17,448.4	17,415.4	16,937.8	17,208.2	17,440.2
% Ch., Qtr/Qtr	3.6	2.6	2.4	1.3	0.8	1.2	2.3	2.7	1.9	0.6	(0.3)	(0.8)			
% Ch., Yr/Yr	3.9	3.5	3.0	2.5	1.8	1.4	1.4	1.8	2.0	1.9	1.2	0.3	3.2	1.6	1.3
Domestic Final Demand															
Blns of Chained 2009 $	16,663.6	16,793.8	16,919.8	16,989.4	17,040.5	17,139.9	17,225.2	17,324.2	17,394.2	17,423.2	17,411.2	17,378.2	16,841.7	17,182.5	17,401.7
% Ch., Qtr/Qtr	2.6	3.2	3.0	1.7	1.2	2.4	2.0	2.3	1.6	0.7	(0.3)	(0.8)			
% Ch., Yr/Yr	3.4	3.3	3.0	2.6	2.3	2.1	1.8	2.0	2.1	1.7	1.1	0.3	3.1	2.0	1.3
GDP Price Index															
2009 = 100.0	109.3	109.9	110.3	110.5	110.6	111.3	111.7	112.2	112.7	113.2	113.6	114.0	110.0	111.5	113.4
% Chg., Qtr/Qtr	(0.1)	2.3	1.3	0.8	0.5	2.3	1.6	1.8	1.8	1.8	1.4	1.4			
% Chg., Yr/Yr	1.1	1.1	1.0	1.1	1.2	1.2	1.3	1.5	1.9	1.7	1.7	1.6	1.1	1.3	1.7
CPI ('82-84=100)	235.4	236.8	237.6	238.1	237.9	239.4	240.3	241.5	242.7	243.8	244.8	245.6	237.0	239.8	244.2
% Chg., Qtr/Qtr	(2.9)	2.4	1.4	0.8	(0.3)	2.5	1.5	2.0	2.0	1.8	1.7	1.3			
% Chg., Yr/Yr	(0.1)	0.0	0.1	0.4	1.1	1.1	1.1	1.4	2.0	1.8	1.9	1.7	0.1	1.2	1.9
Core CPI ('82-84=100)	240.3	241.7	242.8	244.0	245.8	247.0	248.3	249.7	251.1	252.4	253.6	254.7	242.2	247.7	253.0
% Chg., Qtr/Qtr	1.7	2.3	1.8	2.0	2.9	2.1	2.0	2.3	2.3	2.1	1.9	1.7			
% Chg., Yr/Yr	1.7	1.8	1.8	2.0	2.3	2.2	2.3	2.3	2.2	2.2	2.1	2.0	1.8	2.3	2.1
Nominal GDP															
Billions of Dollars	17,783.6	17,998.3	18,141.9	18,222.8	18,281.6	18,450.1	18,627.5	18,833.2	19,007.3	19,118.8	19,167.0	19,206.0	18,036.7	18,548.1	19,124.8
% Ch., Qtr/Qtr	2.1	4.9	3.2	1.8	1.3	3.7	3.9	4.5	3.7	2.4	1.0	0.8			
% Ch., Yr/Yr	4.5	4.1	3.3	3.0	2.8	2.5	2.7	3.3	4.0	3.6	2.9	2.0	3.7	2.8	3.1
Other Key Indicators															
Housing Starts (mlns., saar)	0.978	1.158	1.158	1.135	1.151	1.156	1.175	1.170	1.160	1.150	1.135	1.090	1.107	1.163	1.134
Light Veh. Sales (mlns, saar)	16.9	17.2	17.7	17.8	17.2	17.1	17.3	17.2	16.5	16.3	15.5	15.0	17.4	17.2	15.8
Unemployment Rate	5.6	5.4	5.2	5.0	4.8	4.9	4.9	4.9	5.0	5.1	5.3	5.6	5.3	4.9	5.3
Current Account ($ bn, saar)	(458.2)	(447.6)	(492.4)	(453.6)	(527.4)	(479.5)	(500.0)	(510.0)	(515.0)	(525.0)	(530.0)	(540.0)	(463.0)	(504.2)	(527.5)
Federal Budget, FY ($ bn)													(439)	(590)	(594)
Mfg. Output ('12=100)	102.7	102.9	103.3	103.2	103.2	102.9	103.3	103.8	104.2	104.5	103.9	103.2	103.0	103.3	104.0
% Chg., Qtr/Qtr	(1.5)	0.8	1.6	(0.4)	0.0	(1.2)	1.6	2.0	1.6	1.2	(2.3)	(2.7)			
% Chg., Yr/Yr	1.8	0.8	0.7	0.1	0.5	0.0	0.0	0.6	1.0	1.6	0.6	(0.6)	0.8	0.3	0.6
Corp. Profits ($bn, saar)															
PreTax w/ IVA & CCA	2,177.0	2,112.4	2,095.4	1,967.5	2,033.5	2,021.0	1,985.0	1,960.0	1,930.0	1,900.0	1,875.0	1,840.0	2,088.1	1,999.9	1,886.3
% Chg., Yr/Yr	7.5	(2.8)	(4.5)	(11.2)	(6.6)	(4.3)	(5.3)	(0.4)	(5.1)	(6.0)	(5.5)	(6.1)	(3.0)	(4.2)	(5.7)

Note: Q/Q % changes are expressed at seasonally adjusted annual rates. (f = MFR forecast)

Forecast as of October 7, 2016

MFR Forecast of Fed Funds Target, 2-Year, 10-Year & 30-Year Treasuries

(End-of-Quarter Basis, FF Rate is Midpoint of 25bp Target Range)

	Actual			Forecast				
	1Q'16	2Q'16	3Q'16	*4Q'16*	*1Q'17*	*2Q'17*	*3Q'17*	*4Q'17*
FF	0.38	0.38	0.38	***0.63***	***0.63***	***0.38***	***0.13***	***0.13***
2s	0.72	0.58	0.76	***0.90***	***0.75***	***0.50***	***0.45***	***0.40***
10s	1.77	1.47	1.60	***1.85***	***1.80***	***1.70***	***1.60***	***1.50***
30s	2.61	2.28	2.32	***2.50***	***2.50***	***2.40***	***2.35***	***2.25***
2s-FF	34	20	38	***27***	***12***	***12***	***32***	***27***
10s-FF	139	109	122	***122***	***117***	***132***	***147***	***137***
10s-2s	105	89	84	***95***	***105***	***120***	***115***	***110***
30s-10s	84	81	72	***65***	***70***	***70***	***75***	***75***

October 7, 2016

MFR – Who We Are

GLOBAL ECONOMIC CONSULTING

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