2015 HMA National Conference

Economic Outlook for Forest Products Industry

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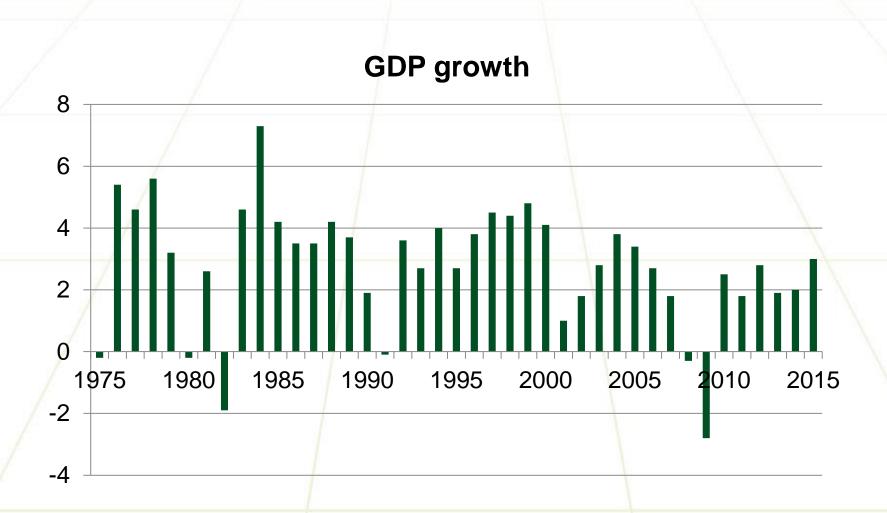
STRATEGIC ECONOMIC ANALYSIS

helping your business plan for the future

Agenda for Today

- U.S. Economic outlook: Overall growth vs. housing starts
- International Issues: Good, Bad and Ugly!
- Softwood lumber outlook: Painfully slow recovery
- Energy outlook and Biomass
- Concluding comments, plus Q &A

"Great" recession: Deep and then sluggish rebound

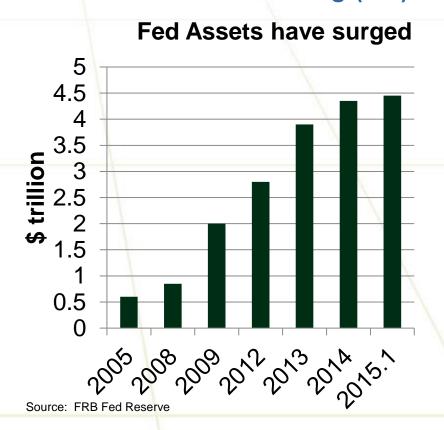


Two parts to aggressive Fed Policy: Short Term rates to Zero and QE

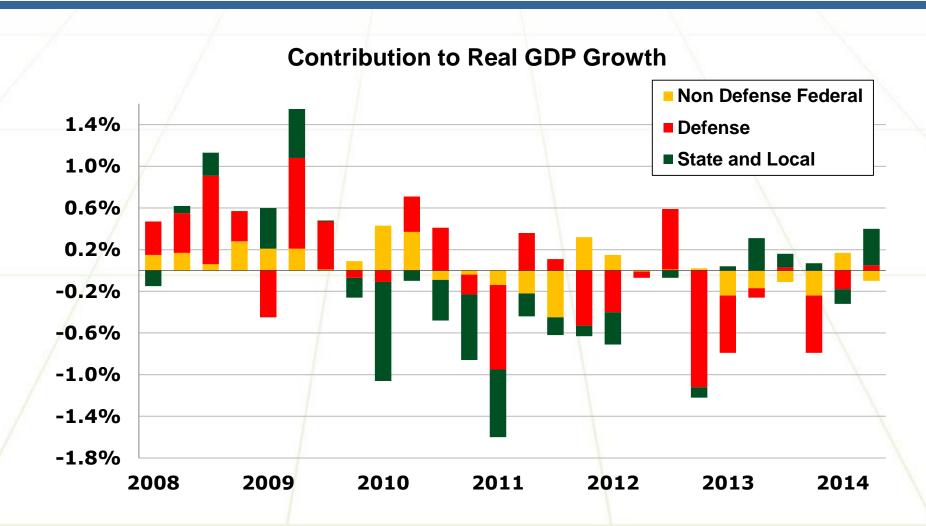
Primary Fed Action: Zero rates



Then Quantitative Easing (QE)

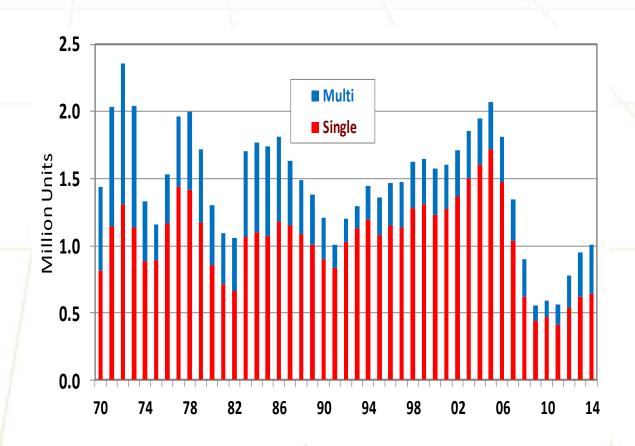


Government Has Been Drag on Overall Recovery!



Unlike Previous Cycles: Housing Did Not Respond to Low Interest Rates

- Previous cycles caused by Federal Reserve actions and interest rate movements
- Sustained up cycle after 1991 laid groundwork for the severe down cycle and the extremely slow recovery
- Inventory correction, lack of household formation and tight credit restrain recovery



U.S. Economy looks Great! Hitting on ALL Cylanders Now

Category	For 2014.4 (In 2009\$, Billion)	Share of GDP (%)	% YA
GDP Total	\$16312*		2.5
Consumer	11145	68	2.9
Bus Inv.	2157	13	5.6
Res Inv.	505	3	2.6
Federal Gov.	1120	7	.2
S&L Gov.	1775	11	1.1
Net Exports	-472	-2	NEG.

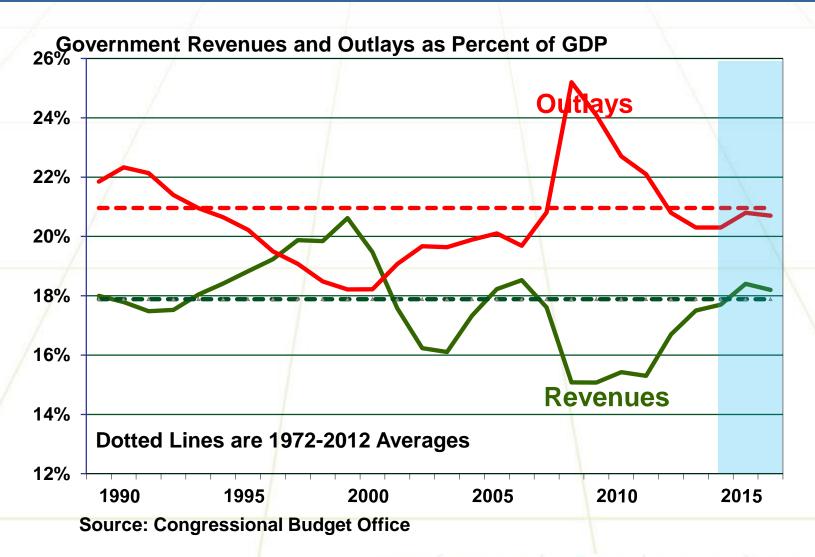
^{*}In current \$=\$17.5 trillion—8% inflation over 5 years

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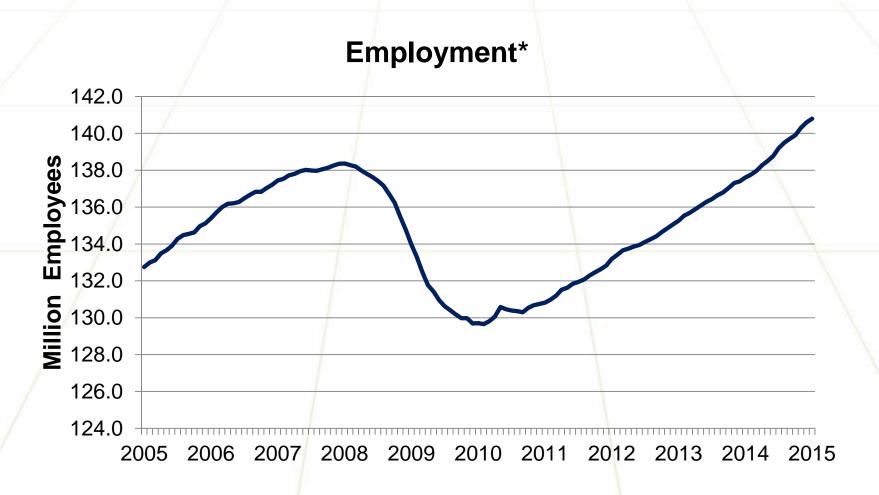
U.S Economy: Poised to sustain growth

- Factors holding back growth—government spending and housing should improve
- Fed has provided financial system with massive liquidity
- Employment, consumer confidence, drop in energy prices and net worth support even higher growth in consumer spending

The Federal Budget Deficit No Longer An Issue: Now They Can Work Together!?

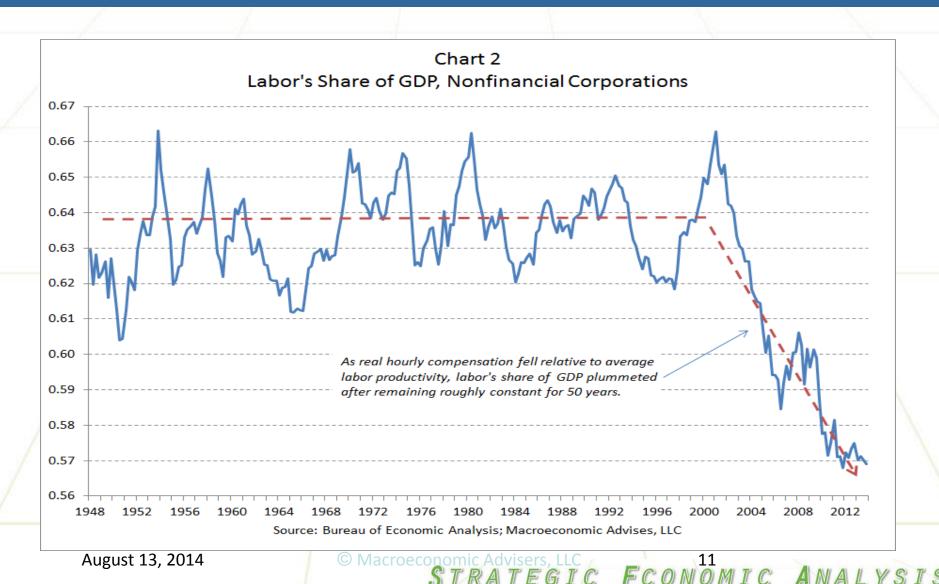


"Party Like it is 1999!" Employment surged 2.4% last year



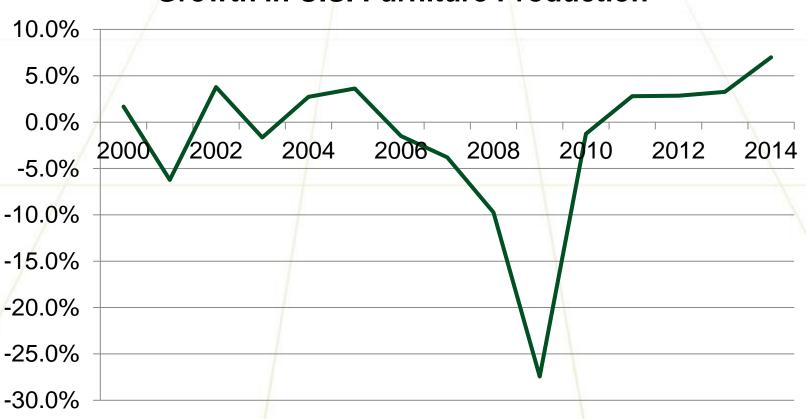
*U.S. Non-farm employment

Big shift in income shares after 2005-Big issue for type of goods sold!!!



Furniture production should continue to improve, unless.....

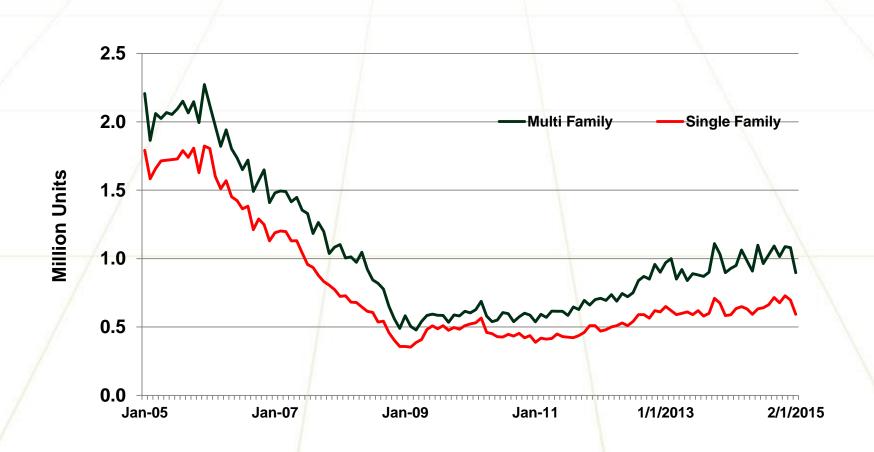
Growth in U.S. Furniture Production



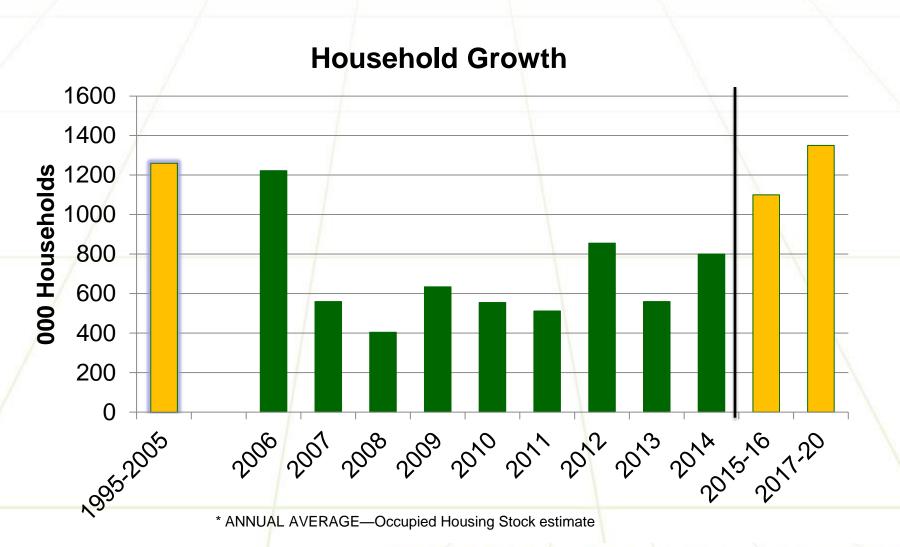
Tremendous wealth gain, especially for top 1%



What is holding housing back?

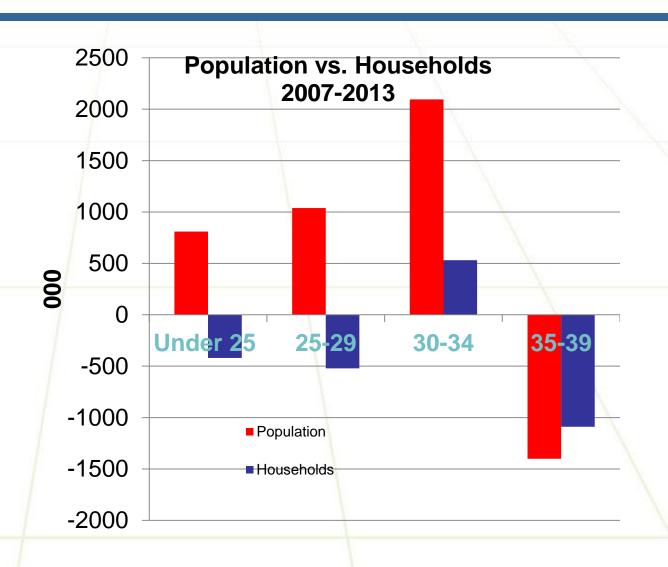


Household formations below trend: Should improve with employment and wages

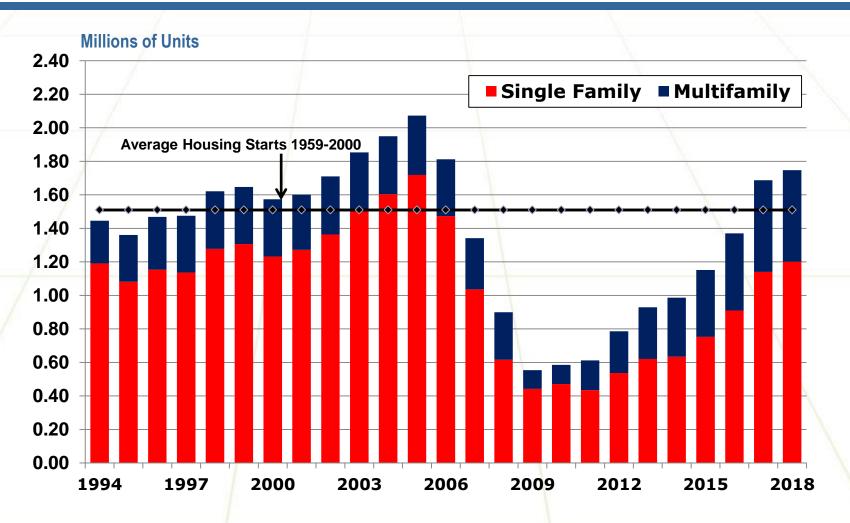


Missing in Action: Young Adults

- Primary reason for below trend household growth
- Dramatic population growth for under 35, but NO household formations
- Variety of factors at work
- PENT UP DEMAND?



Drives housing starts back to 1.7-1.8 million with lower single family share—if....

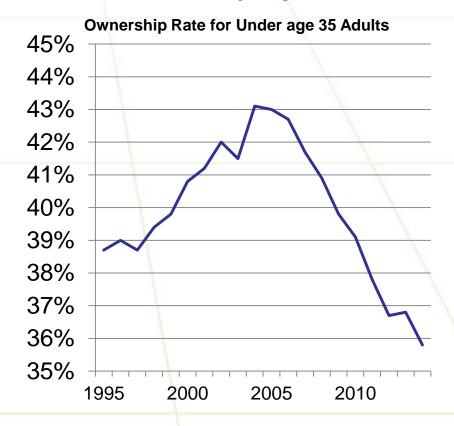


Reason SF starts so weak: Decline in ownership rate

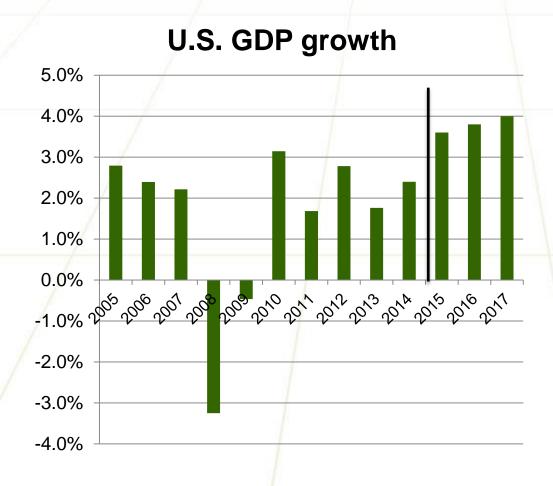
Overall Homeownership rate misleading



Below 1995 for younger adults



Bottom Line: Strong U.S. Economic growth, but...



- Stronger growth,
 particularly consumer
 spending
- Government no longer a constraint
- Housing should also contribute to growth
- Financial system awash in liquidity

What Will the Federal Reserve Do?

"Historic Guide for FED action

"Take away the punchbowl before the party really gets going!"

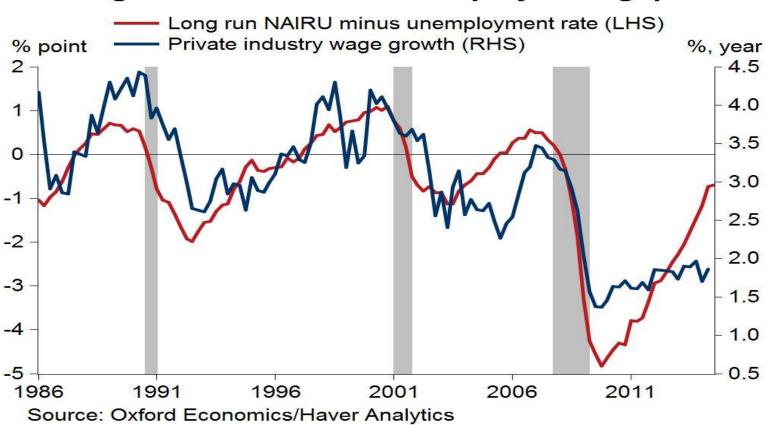
SO WHY IS THE FED BEING SO PATIENT? SLOW TO ACT??

Inflation not Issue Yet, but....

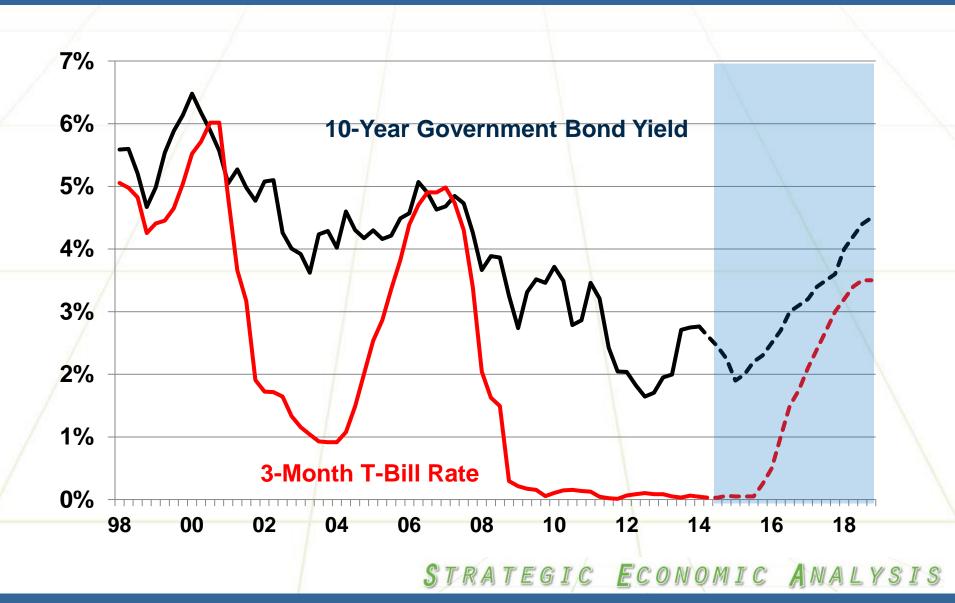


One reason Fed is "patient": Wages not following unemployment

US: Wages should rise as unemployment gap closes



One Rate Forecast of FOMC: Implications for Economy and YOU!!!



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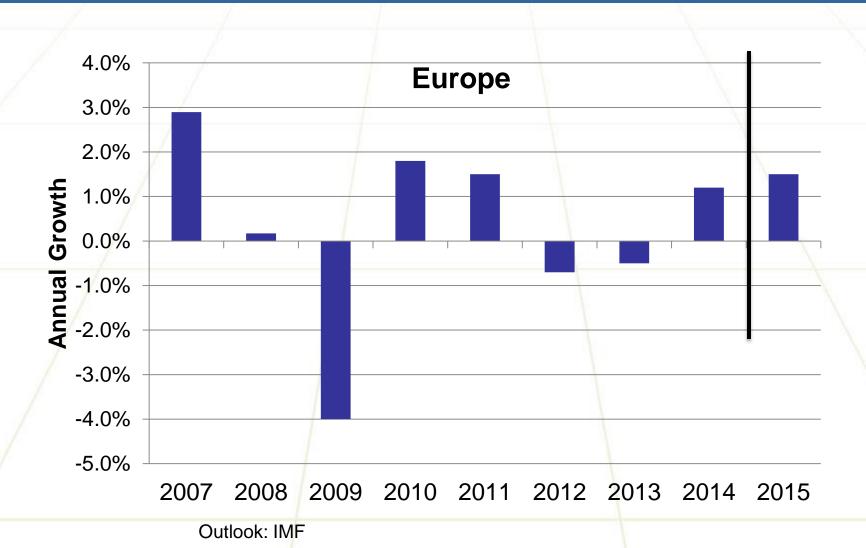
International situation Not Pretty and Big Implications for Forest Products

- Europe is struggling with deflation and Greece default: Future of Euro?
- ISIS and Middle East: need for more defense spending in U.S.? Oil prices?
- Russia and Ukraine: Collapse in Ruble and trade with China?
- China slowdown: Growth fell below 4% last year—so what? Housing starts and demand for lumber and logs?

One Shocker: Serious drop in value of Euro

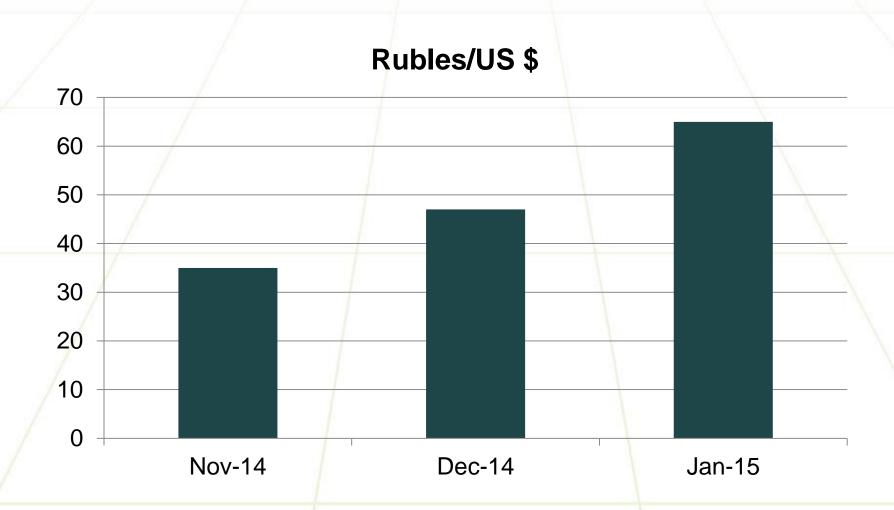


Europe Continues to Struggle

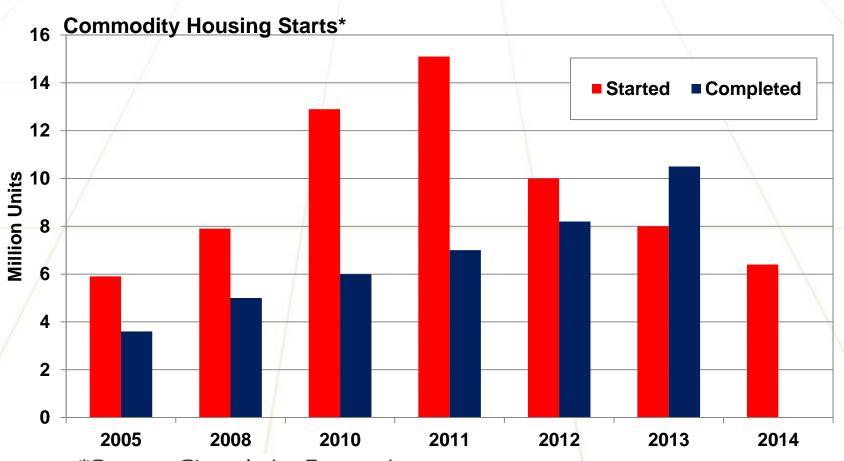


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Decline in Ruble: Clear drop in delivered cost of logs/lumber to China



China Growth Slowdown: Big issue for range of commodities, plus.....

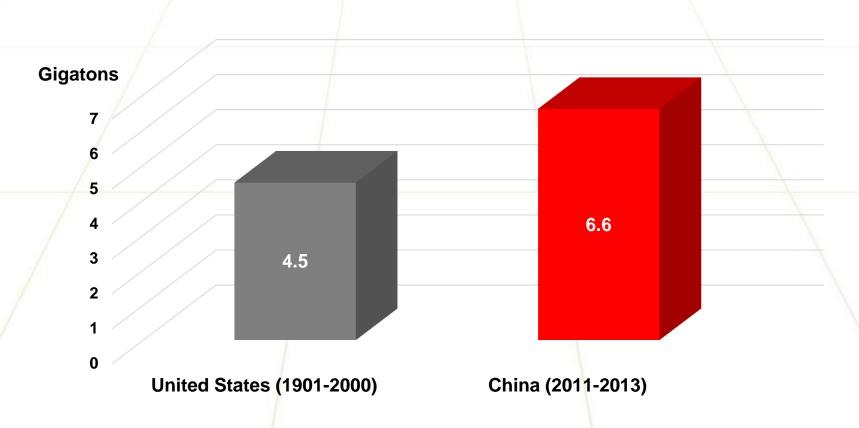


*Source: Straszheim Economics

2014 based on Financial Times Estimate

Trivia Factoid:

China Used More Cement in Last Three Years Than US Did in 20th Century



Source: Vaclav Smil, USGS, Cement Statistics 1900-2012, Mineral Industry of China, 1990-2013

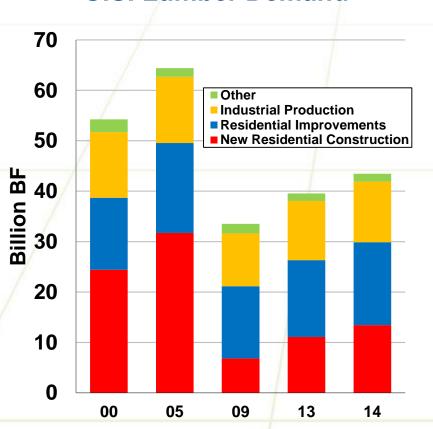
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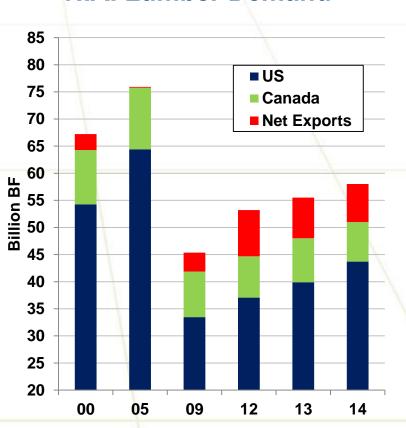
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New Residential Construction Drives Cycle in U.S. and NA Lumber Demand

U.S. Lumber Demand



N.A. Lumber Demand



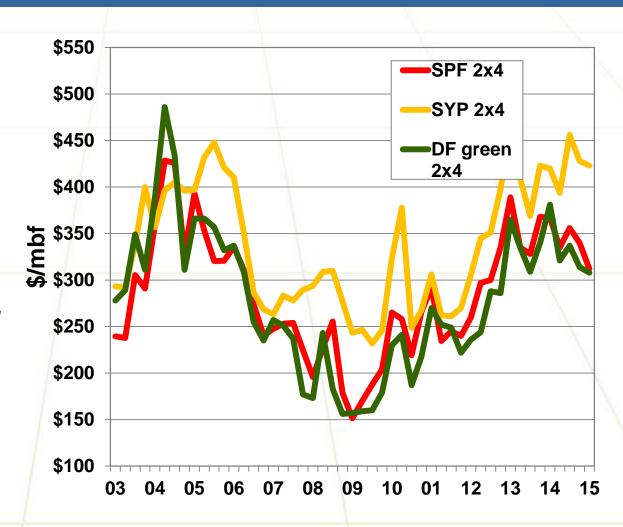
Recent Prices Rebounded to Cash Cost, except U.S. South

Prices fell below cash break even in 2008-09

Most of price rebound reflects underlying cost of producing lumber

Low operating rate has kept margins for the average mill near break even

Only region where mills are very profitable: U.S. South

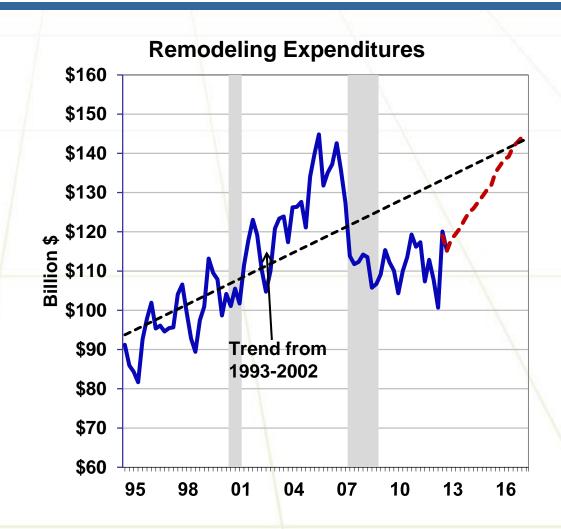


Remodeling expenditures: modest growth expected

Historically lags existing home sales and in trend grows with consumer disposable income

Rebound in home equity should also help

Some make-up seems likely given deferred repair and aging housing stock

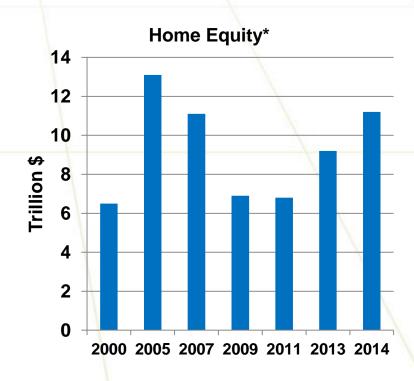


Even so House prices have rebounded and boosted net worth

Home prices collapse, then...

Median Existing House Price 230 210 190 170 150 130 2010 2012 2014 2006 2008

Helps Consumer Balance Sheet



*SOURCE: FRB flow of funds ECONOMIC ANALYSIS

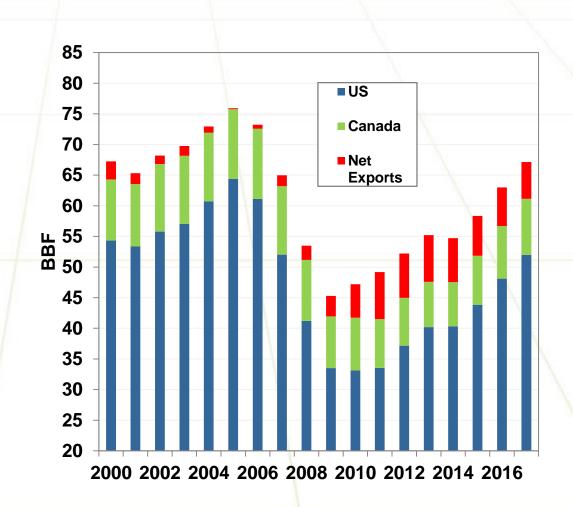
N.A. Lumber Demand Outlook: U.S. Housing Starts and Net Exports Key

Primary driver of overall demand recovery will be U.S. Housing starts and remodeling expenditures

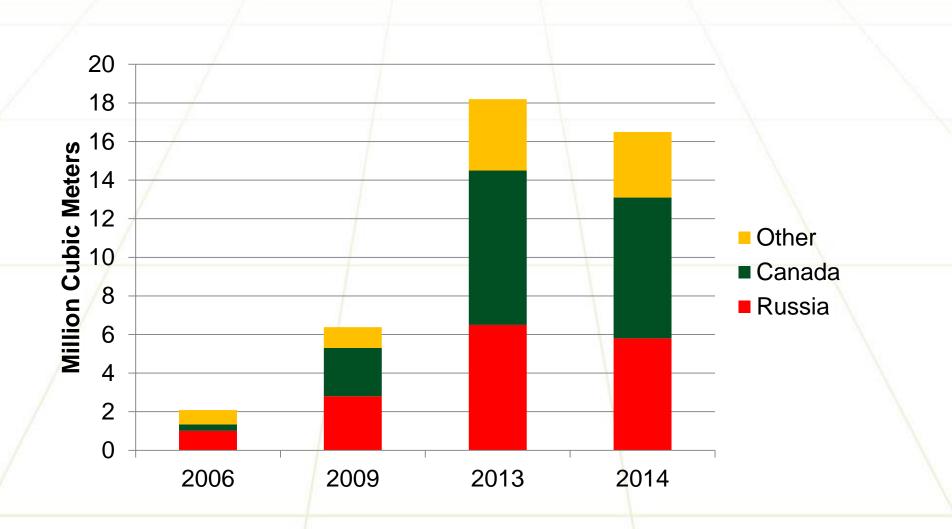
Net export outlook has two components

Demand for lumber in China—primarily from Canada

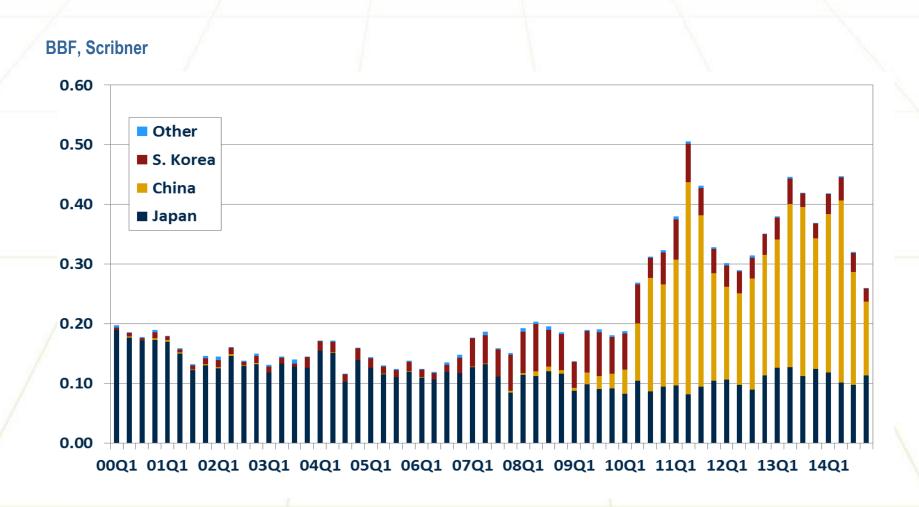
Imports for Europe, when operating rates and prices get high



Chinese Lumber Imports down 8% in 2014



Demand for West Coast Log Exports: Japan stable, China drops

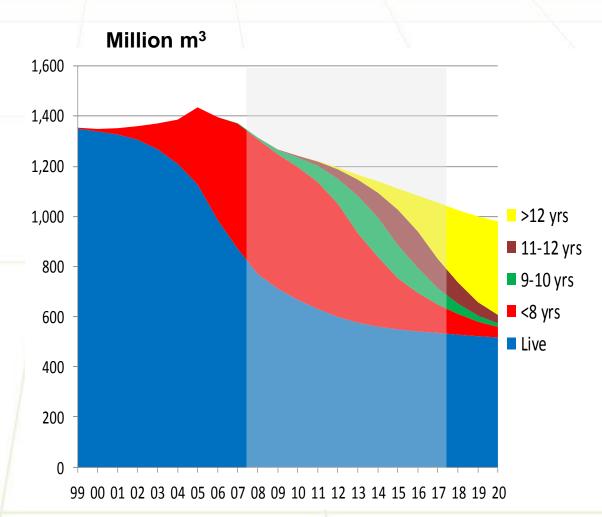


B.C. Interior: Beetle kill of Lodgepole pine

Trees are commercial for 8 years, then have limited use in sawmill, but could still meet some export needs

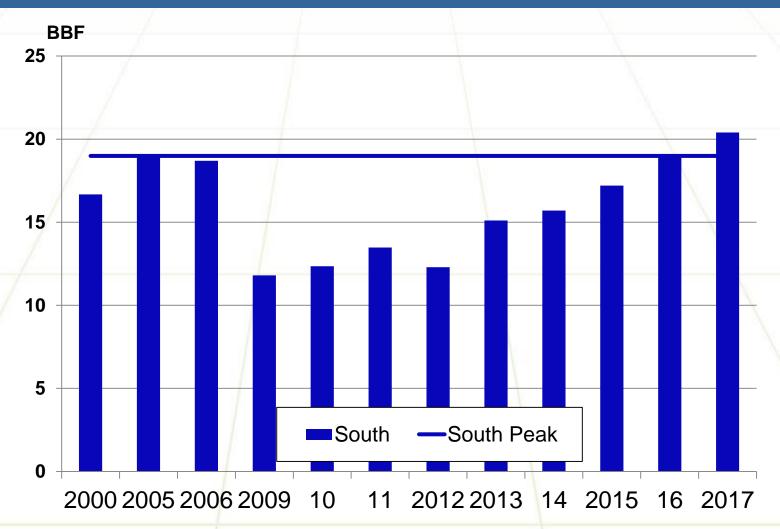
Harvests were boosted to remove dead stands, but harvest will continue to decline after 2015

Like Spotted Owl in early 1990's won't see problem until demand recovers



Source: FEA estimates

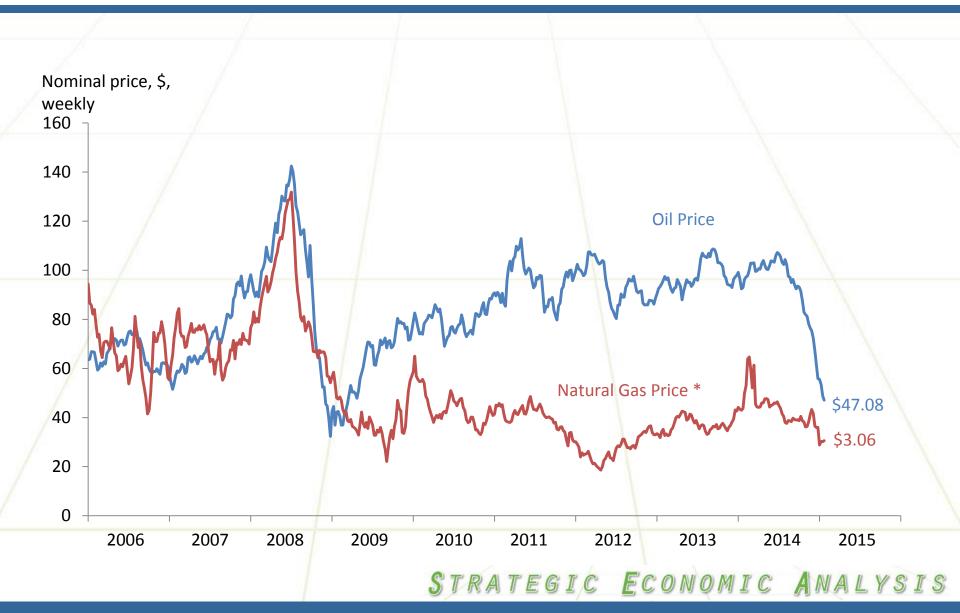
High mill margins and timber supply, will push South to new peak production levels



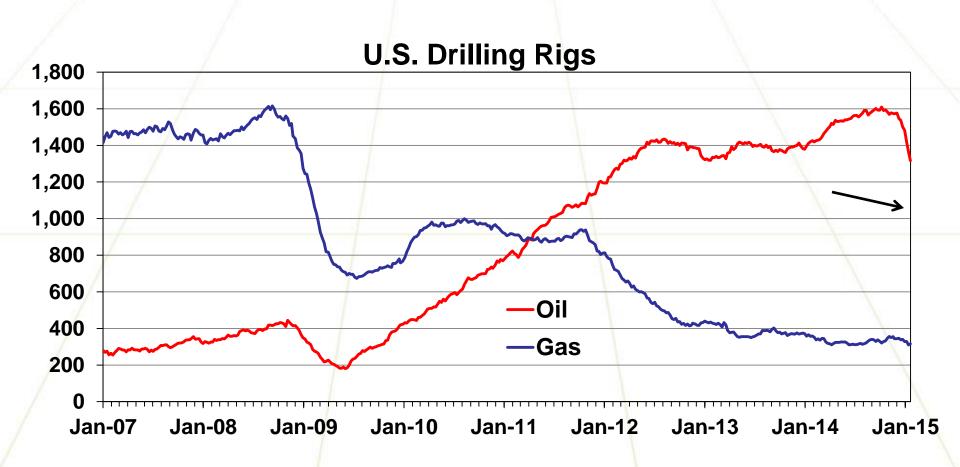
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Oil and gas prices plunge



U.S. Oil Rigs Down 18% Since October: Demand for Hardwood mats



Oil Price decline and the Canadian Dollar: Big issue for Forest products Industry

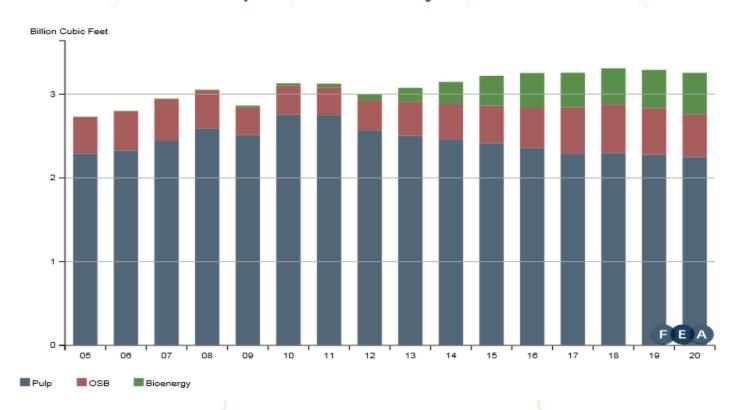
Until recently, assumed it would remain near parity along with \$100/barrel oil price—but things changed

C\$ is crucial to the U.S. product outlook: now near Purchasing Power Parity

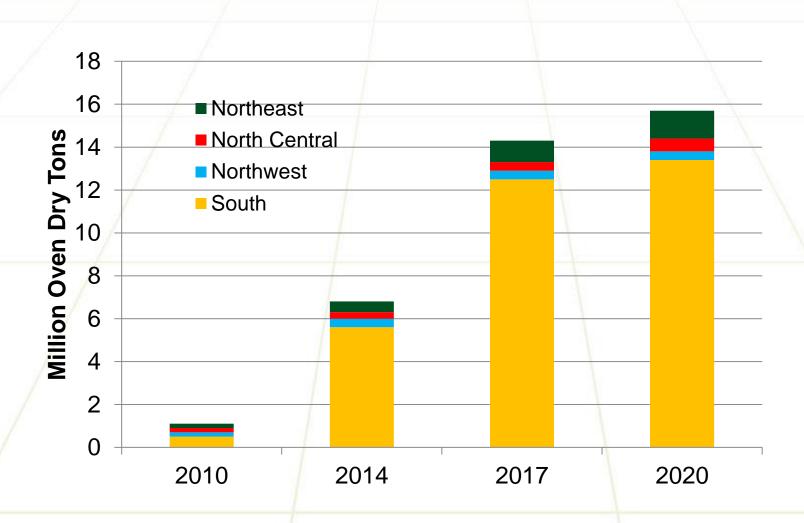


Growth in Pellet Exports Major part of Bio-energy demand growth

US South Softwood Pulpwood Demand by End-Use



U.S. Wood Pellet Production

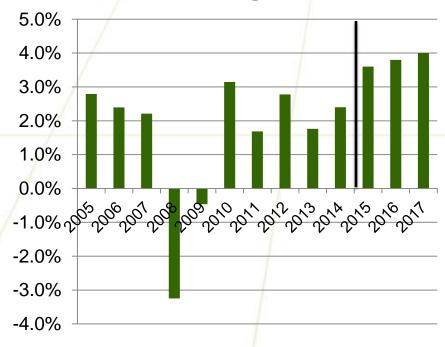


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Bottom Line: Strong U.S. Economic growth, but...





- Stronger growth, particularly consumer spending
- Interest begin to be "normalized"
- Significant push in wage rates
- International situation becomes even more challenging and risky
- Very challenging period for personal and business finance decisions