July 2017 Housing Commentary

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This report is a free monthly service of Virginia Tech. Past issues can be found at: http://woodproducts.sbio.vt.edu/housing-report/

January 2017
Housing Scorecard

	M/M		Y/Y	
Housing Starts	▽	4.8%	▽	5.6%
Single-Family Starts	▽	0.5%	▽	10.9%
Building Permits	▽	4.1%	△	4.1%
Housing Completions	▽	6.2%	△	8.2%
New Single-Family House Sales	▽	9.4%	▽	8.9%
Existing House Sales[1]	▽	1.3%	△	2.1%
Private Residential Construction Spending	△	0.8%	△	11.6%
Single-Family Construction Spending	△	0.8%	△	10.4%

M/M = month-over-month; Y/Y = year-over-year

Source: U.S. Department of Commerce-Construction; [1]National Association of Realtors® (NAR®)

Housing Data

	July	June	July 2016
Total permits*	1,223,000	1,275,000	1,175,000
Single-family permits	811,000	811,000	718,000
Multi-family 2-4 unit permits	35,000	35,000	30,000
Multi-family ≥ 5 unit permits	377,000	429,000	427,000
Total starts	1,155,000	1,213,000	1,223,000
Single-family starts	856,000	860,000	722,000
Multi-family 2-4 unit starts**	12,000	7,000	8,000
Multi-family ≥ 5 unit starts	287,000	346,000	443,000
Total completions	1,1755,000	1,0252,000	1,086,000
Single-family completions	814,000	827,000	784,000
Multi-family 2-4 unit completions**	7,000	9,000	7,000
Multi-family ≥ 5 unit completions	354,000	416,000	331,000

* All data are presented at a seasonally adjusted annual rate (SAAR).

** US DOC does not report 2-4 multi-family starts and completions directly, this is an estimation.

Source: U.S. Department of Commerce-Construction: www.census.gov/construction/nrc/pdf/newresconst.pdf; 08/16/17

Housing Data

	July	June	July 2016
New single-family sales	511,000	630,000	627,000
Median price	$313,700	$311,600	$295,000
Existing sales [a]	5,440,000	5,510,000	5,330,00
Median price	$258,200	$263,300	$243,200
Private Residential Construction	$517.5 billion	$513.2 billion	$463.8 billion
SF construction	$264.1 billion	$262.0 billion	$239.2 billion
MF construction	$61.0 billion	$61.5 billion	$59.5 billion
Improvement construction [b]	$192.4 billion	$189.7 billion	$165.2 billion

[a] NAR®

[b] The US DOC does not report improvements directly, this is an estimation. All data is SAAR and is reported in nominal US$.

Sources:
NAR® www.realtor.org/topics/existing-home-sales; 08/24/17
U.S. Department of Commerce-Construction: www.census.gov/construction/nrs/pdf/newressales.pdf; 08/23/17
U.S. Department of Commerce-C30 Construction: www.census.gov/construction/c30/pdf/privsa.pdf; 09/01/17

Conclusions

Housing is moving ahead without much strength. Latest numbers show a 4.8% decrease in total starts in July. Interest rates are heading up as the labor market tightens. Hopefully, the new administration will turn things around, as investment has been lagging and meager productivity gains have been achieved over the past couple of years. Without productivity, the economy stagnates, as do incomes, standard of living, and, of course, housing activity. Without housing activity, wood product prices remain weak.

July's housing data is mostly negative – total starts are down by 4.8% (m/m), single family homes starts are down by 0.5% (m/m), permits are down by 4.1% (m/m), completions are down by 6.2% (m/m), and existing home sales are down by 1.3% from the month before.

With meager economic growth (average growth since 2009 2.1%, slowest recovery since WWII) and with 51% of all worker's in the U.S. making less than $30,000/year, it's hard to envision a scenario where the U.S. housing market returns to "normal" anytime soon. Slowing economies in China, Brazil, among others, and continuing problems in Europe's banking sector all add up to numerous negative macro-factors endangering a robust housing recovery, in particular:

1) A constrained quantity of well-paying jobs being created;
2) a tepid economy;
3) declining real median annual household incomes;
4) strict home loan lending standards – though loosening with new programs
5) slow world economy; and
6) global uncertainty

June 2017
EU Housing Scorecard

		M/M	Y/Y
Production in Construction[A]	EU 28	▽ 0.2%[s]	△ 3.6%[s]
	EU 19	▽ 0.5%[s]	△ 3.4%[s]
	Germany	▽ 0.5%	△ 4.9%
	France	△ 0.5%	△ 3.9%
	UK	▽ 0.2%[p]	△ 0.1%[p]
	Spain	△ 2.4%[ps]	△ 7.4%[p]
Building permits (m^2 floor)[A]	EU 28	-.-	-.-
	EU 19	△ 6.7%[(05)]	△ 14.5%[s(05)]
	Germany	△ 1.1%	▽ 2.3%
	France	▽ 6.3%[s]	△ 5.9%[e]
	UK	-.-	-.-
	Spain	△ 4.4[s(05)]	△ 45.1[e(05)]

Source: Eurostat (http://ec.europa.eu/eurostat/web/short-term-business-statistics/data/main-tables; 09/13/17)

M/M = month-over-month; Y/Y = year-over-year

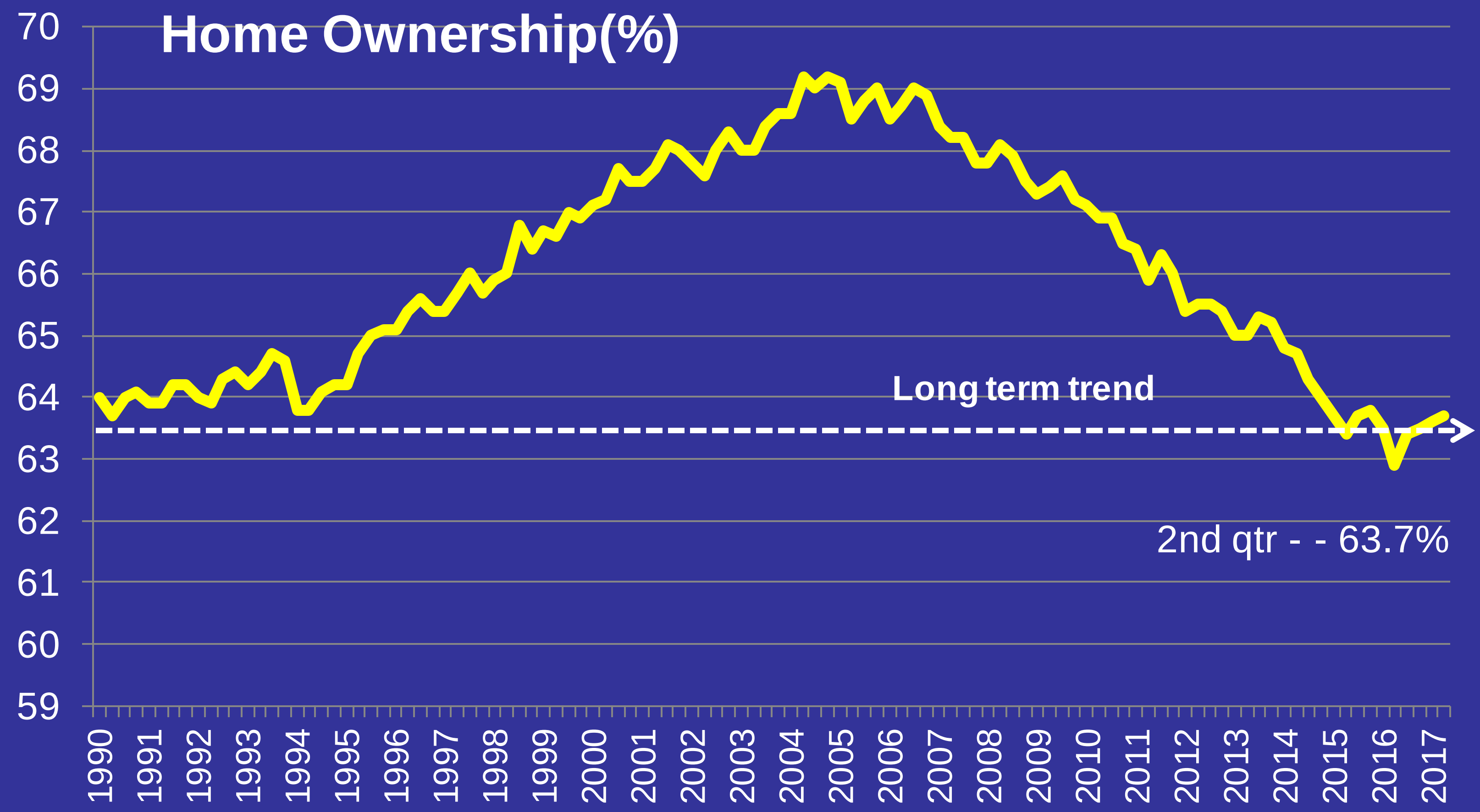
[A] see http://ec.europa.eu/eurostat/web/short-term-business-statistics/overview/sts-in-brief

[e] estimate, [s] Eurostat estimate, [p] provisional, -.- no data available, [(05)] May data

Housing comments – July 2017

- *July starts were down 4.8% to 1.15 million (SAAR) - SF at 856,000 (SAAR) – down .5% - MF was 299,000, down 17% – MF is typically volatile, and is down 35%YOY. Annual basis - total starts are down 5.6% while SF up 10.9%. Making some progress, and 1st time buyers are returning! But still have problems -* lack of supply drives prices higher and out of reach, particularly for 1st time buyers. Typical supply is 6 months – today, it is 4.2 for existing homes and 5.4 for new homes. Additional problems - tight credit, and now, rising rates.
- Low rates have not helped housing much – in fact, they have created more problems – i.e., prices rising faster than incomes in the USA, and home ownership is at a 50 year low!
- Something to think about – is home ownership still an integral component of the "American Dream"?
- *Resale market down 1.3% - 5,440,000 (annual rate) – low inventory (4.2 months) driving prices higher – prices up 6.2% YOY*
- *New home sales were down 9.4% to 571,000 SAAR, down 8.9% YOY*
- Job creation fell in August - to + 156,000, from 189,000 in July unemployment increased to 4.4% - and, wage/income growth is lacking
- GDP grew 3% for 2nd Qtr 2017 - getting better, but, longer term prospects are not good without improved productivity and larger workforce. A smarter immigration system is best solution for short term improvement! *And, we need innovation – more companies like Amazon and fewer like GE*

Falling Homeownership rate – has it bottomed, or just a pause before continuing to fall? Actually, it has returned to its long term trend of 64% following the housing collapse that was driven by "flim flam" mortgages, faulty credit scores, lax regulations, and greedy home buyers believing that house prices could only go up.



Source: Census (https://www.census.gov/housing/hvs/data/q413ind.html)

Homeownership – will it continue to be an essential part of the "American Dream"?

Maybe not: a recent WSJ article discusses the home rental market. The article suggests that homebuilding will remain weak because builders can't find construction workers; land is becoming scarce (due in part to onerous regulations); and many builder have credit issues. So, supply is restricted. (this drives prices up and out of reach for many buyers)
Demand is weak due to tight lending standards; bad credit For many borrowers, lack of saving by buyers, and demographics are unfavorable.
Conclusion by home rental companies is renting will continue to grow and homeownership will continue to fall.
Time will tell – today's millennial's are not the same as their parents. Many young people are attracted to urban city life (and renting). Due to housing costs, amenities, transportation, job opportunities, ... i.e., many are shunning the "burbs"!

(https://www.wsj.com/articles/with-merger-deal-blackstone-starwood-bet-on-being-americas-biggest-home-landlord-1502361000)
(https://www.wsj.com/articles/chicago-property-market-heats-up-as-food-companies-pile-in-1502794801)

Single family rental data – 15 million SF homes are rented – and, it is the fastest growing SF Market**

Here are some numbers from a study by Cari Smith and Charlie Koch (http://www.rclco.com/advisory-single-family)

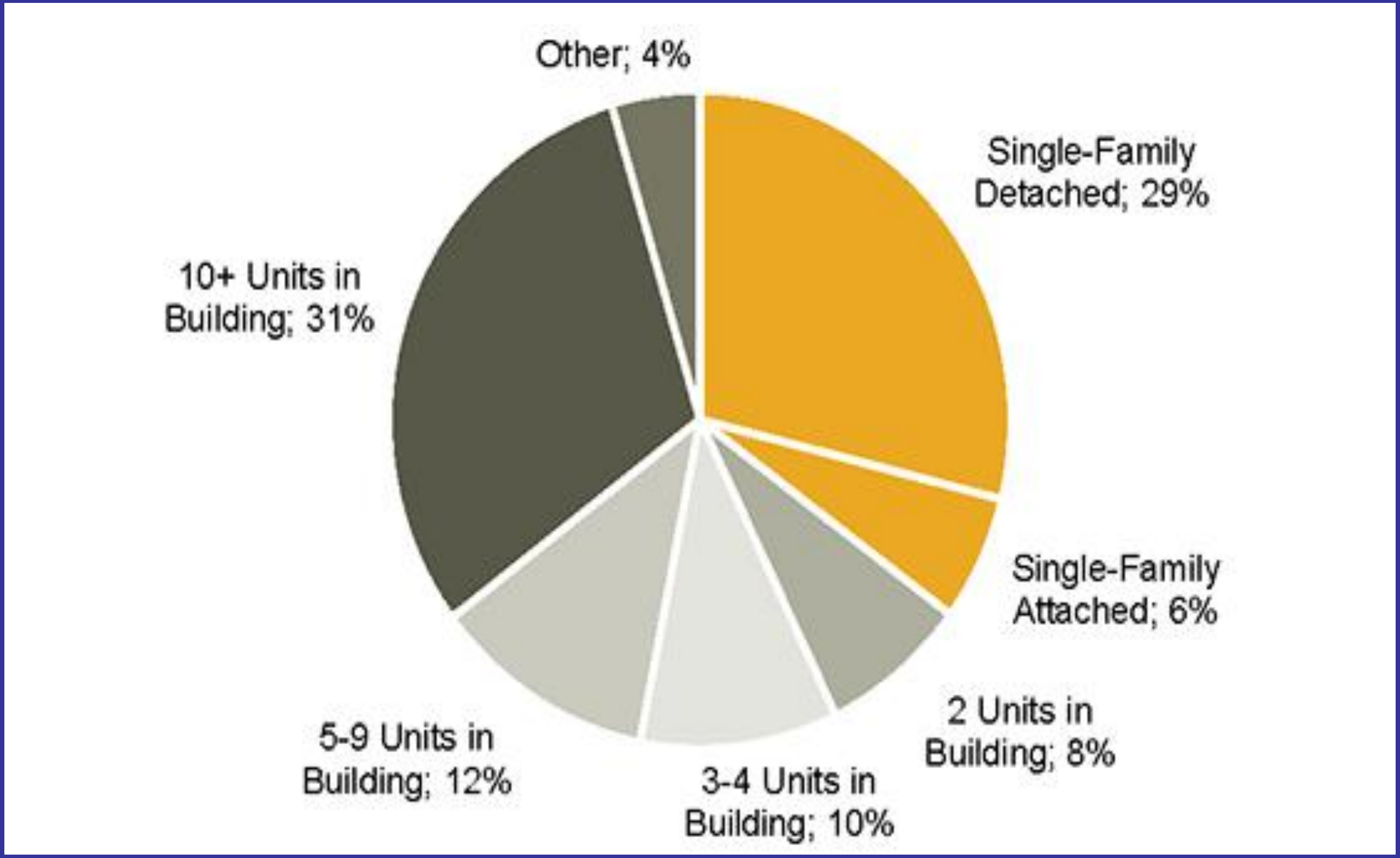
Total housing stock ~ 117 million – 73 million owner occupied and 43 million rental. This is 2014 data – new data will be available from the American Community Survey later in 2017 (https://www.census.gov/programs-surveys/acs/news/data-releases/2016/release.html)

SF detached rental is 29% of rental units, or 12.5 million, and 6% are SF attached or 2.6 million for a total of 15.1 million

"Between 2005 and 2014, single-family rentals accounted for 89% of the net increase in occupied single-family stock and 62.5% of the increase in total occupied housing units"

13% of housing stock is single family rental units – 15 million total housing units in 2014 was 117 million – 43 million or 37% were rental units – 35% of rental units were SF (detached plus attached/townhouses/row homes)

Distribution of rental occupied housing in 2014

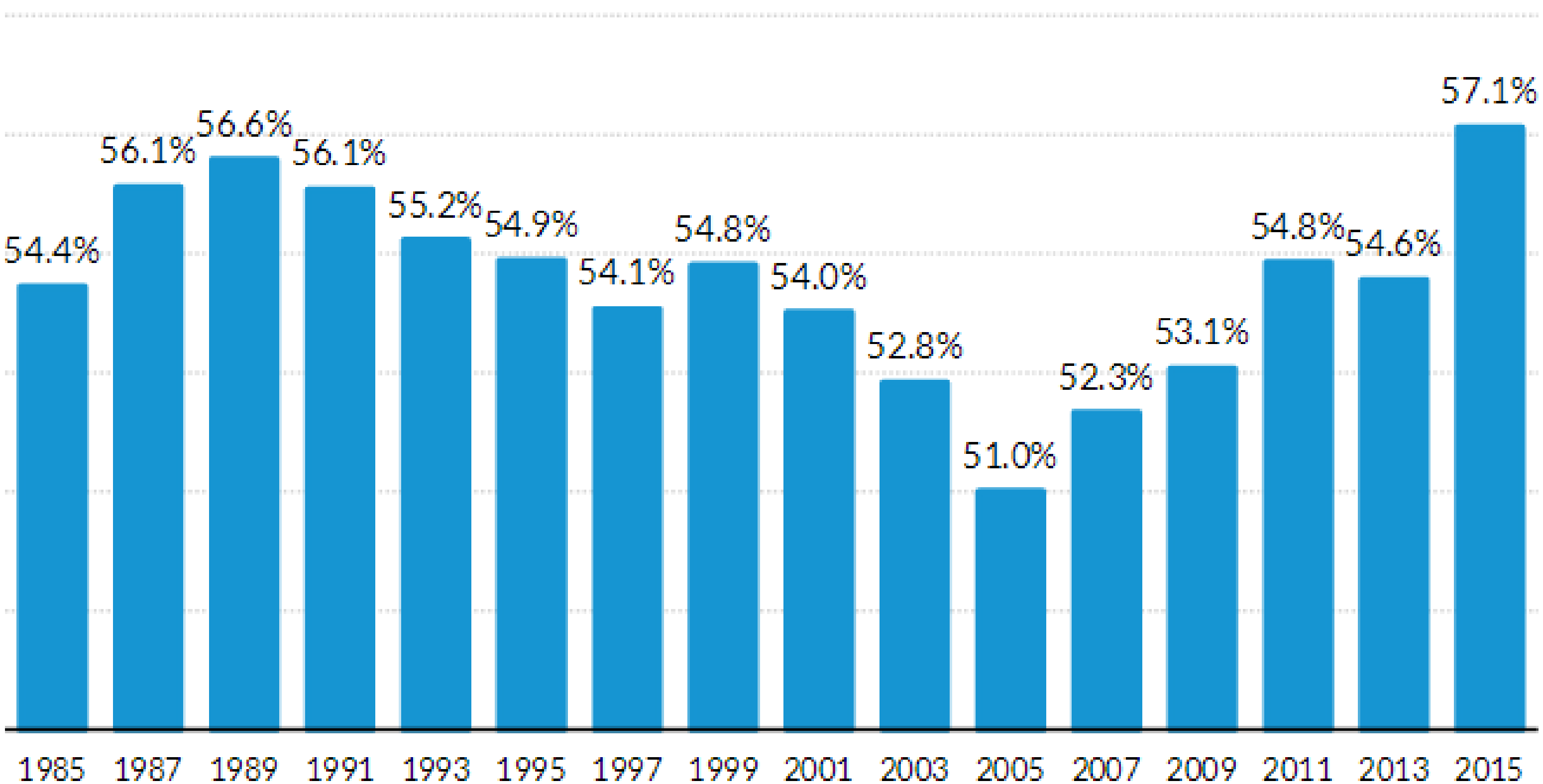


Source: Cari Smith and charlie koch (http://www.rclco.com/advisory-single-family)

US Census American community survey

From the same American Housing Survey, but using a more generous definition of Single Family (one to four unit properties), SFR are 57% of the rental housing stock (25 million)

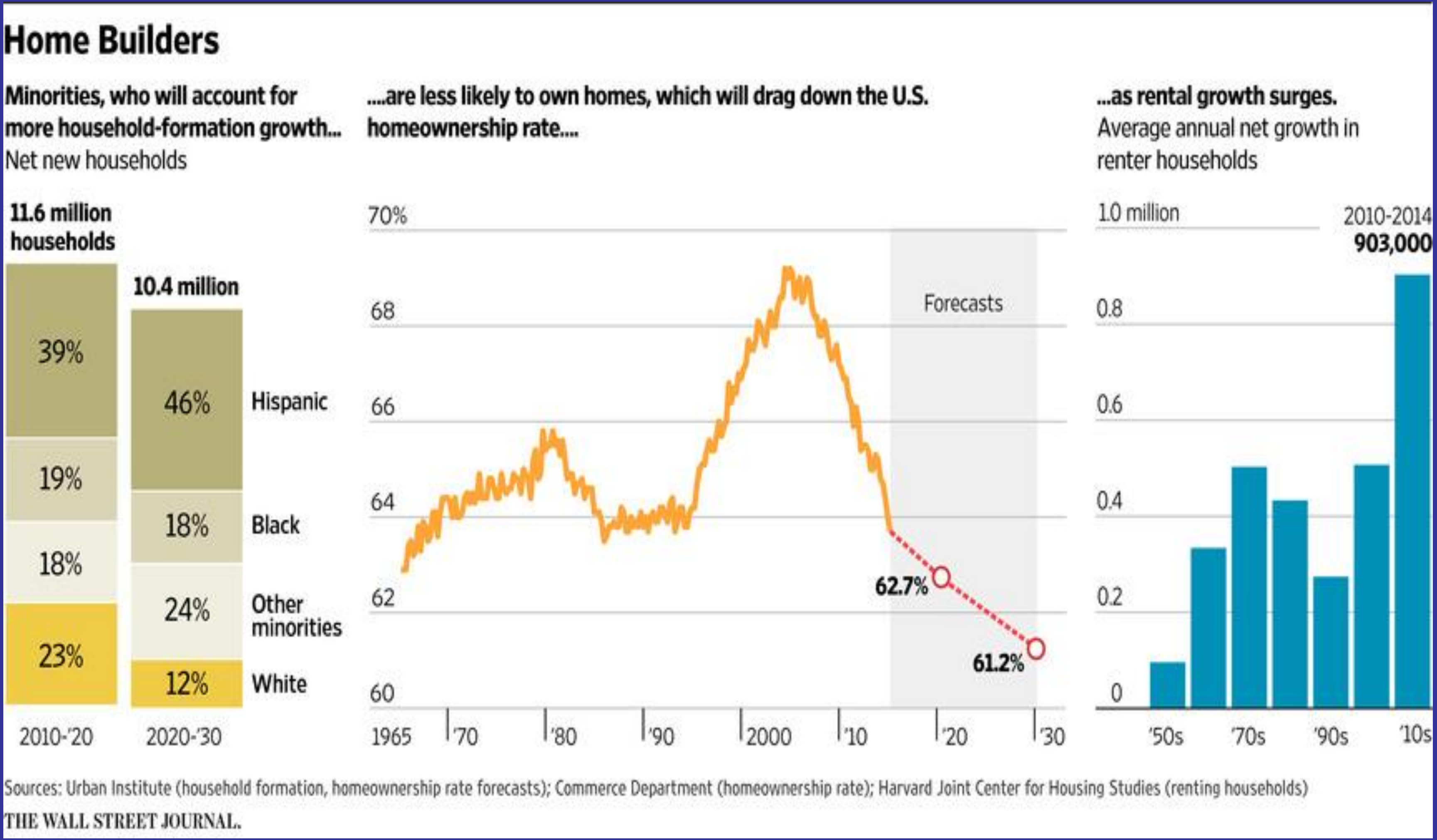
Single-Family Rentals as a Share of the Total Rental Housing Stock



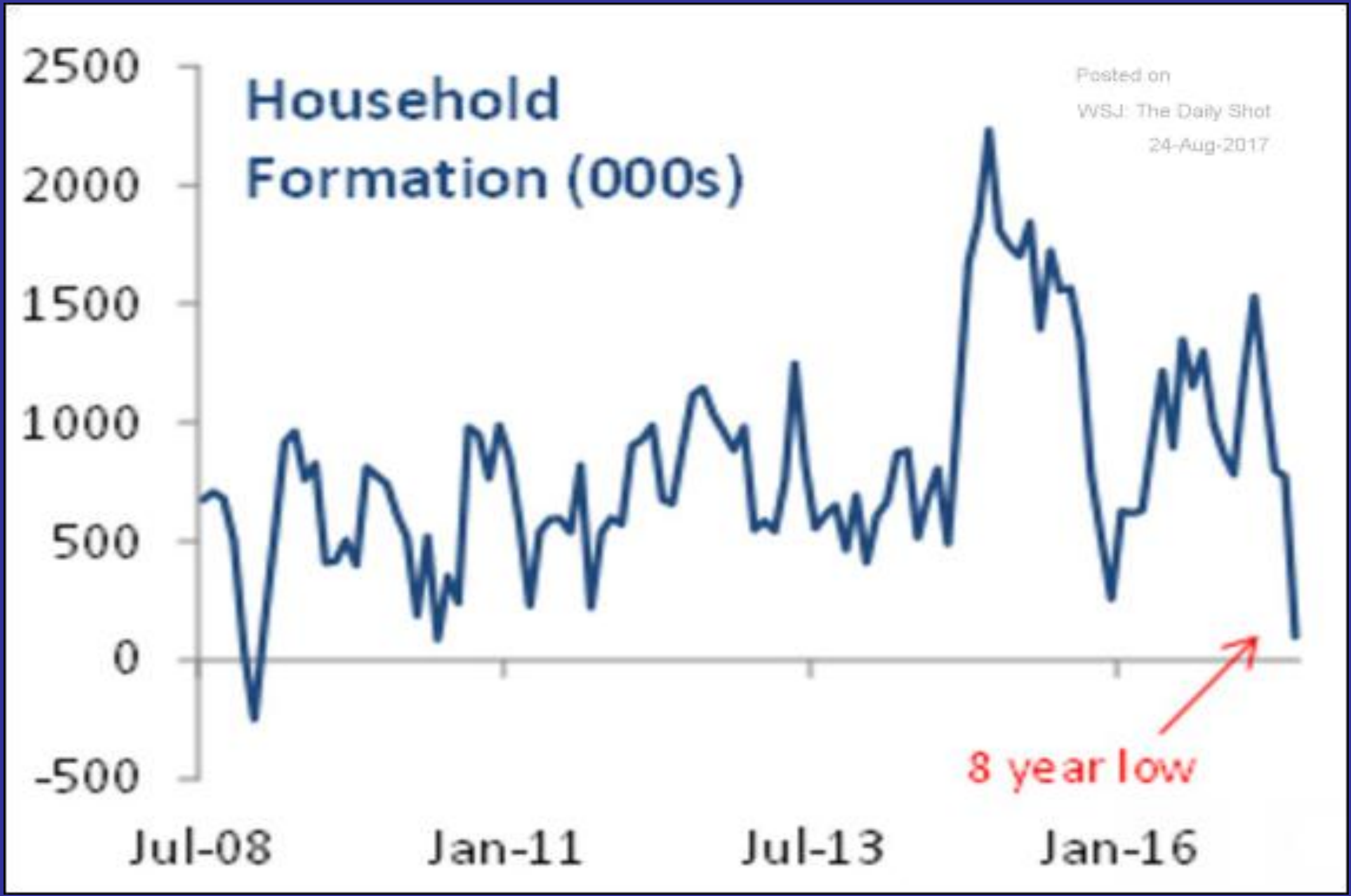
Source: 2015 American Housing Survey.

Note: Single-family includes one- to four-unit properties.

Minorities will account for more household formation growth – 77% this decade and 88% next decade.
But, they are less likely to own a home due to lower incomes, and other affordability problems – that means homeownership falls, And renting increases! **(sources; The Urban Institute; Commerce Dept; and Harvard Joint Center for Housing Studies)**



Household Formation - - -
Major long term problem for housing industry – poor demographics, aging baby boomers, falling birth rates, all contribute to this problem. short term fix – smarter immigration policy! BTW, this is similar problem for the economy.. (e.g., falling labor supply, …)



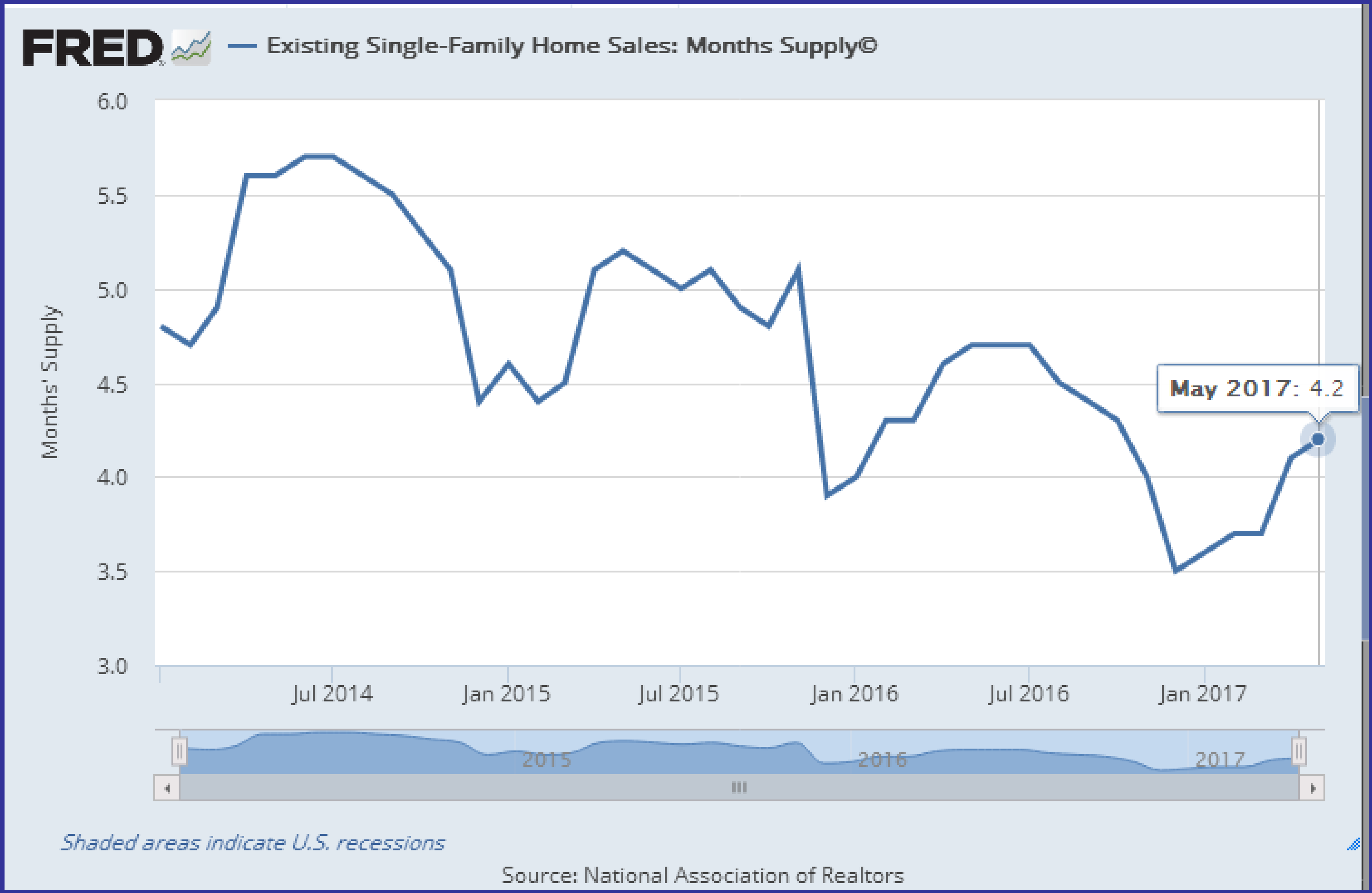
Source: Piper Jaffray

Immediate problem for housing – too little supply!

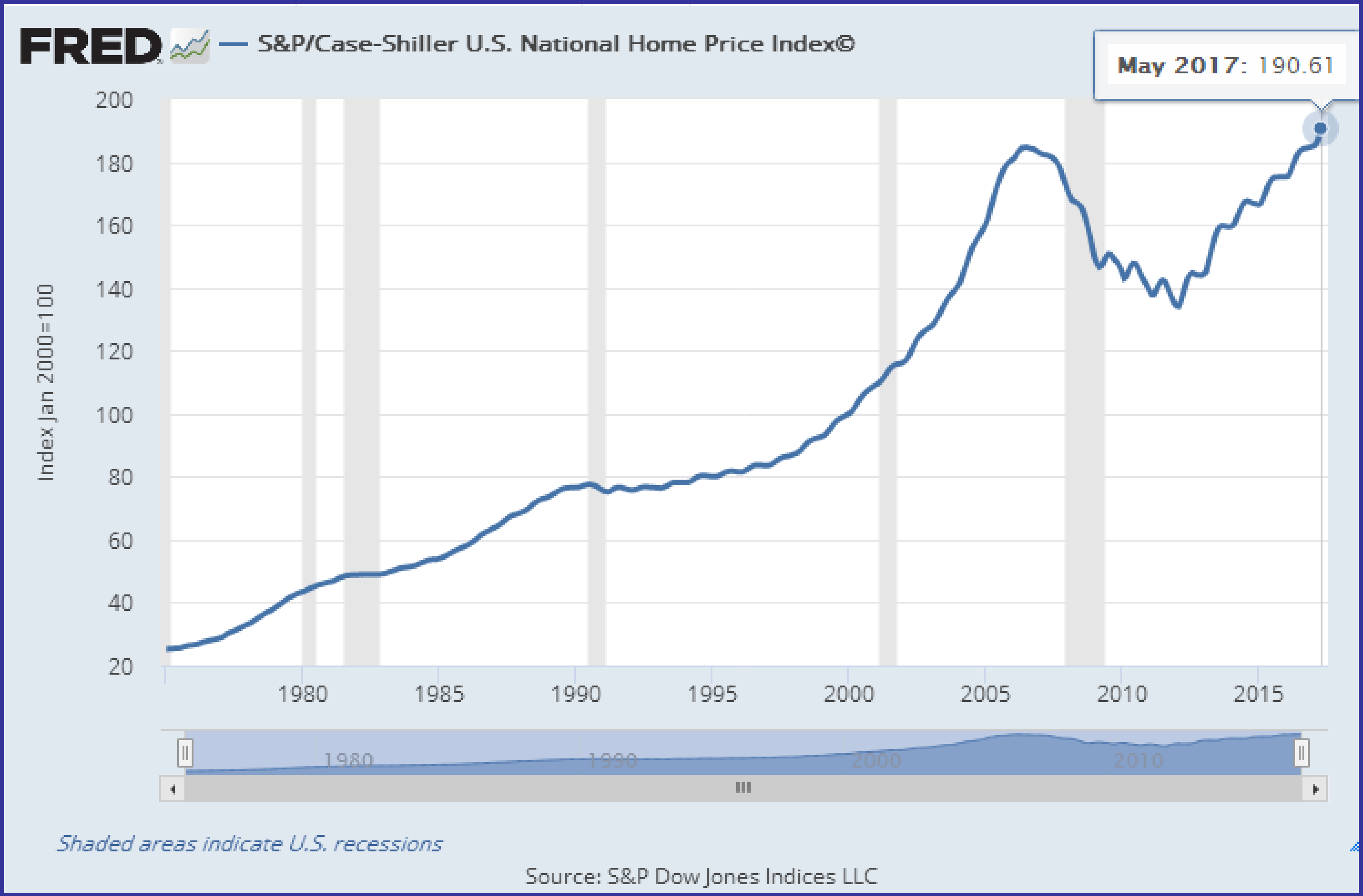
This drives prices higher and out of reach for many buyers, especially 1st time buyers.
Typically, supply is about 6 months (time it takes to sell existing inventory at current sales rates). Today, existing home inventory is 4.2 months while new home inventory is 5.4 months. Many homeowners are reluctant to list their homes because buying another one is expensive while builders are reluctant to build new homes due to costs, driven partly by labor and land shortages in parts of the country. And, many builders have credit problems.

Today, prices are increasing three times as fast as incomes, so this problem is actually getting worse. Also, mortgage rates are increasing, and credit remains tight following new rules In the aftermath of the 2008 financial crisis. E.g, existing home prices up 6.2% while wages up 2%, annual basis.
Prognosis – housing could remain below par for some time!

Low existing home inventory (4.2 months) drives prices higher - out of reach to most 1st time buyers.

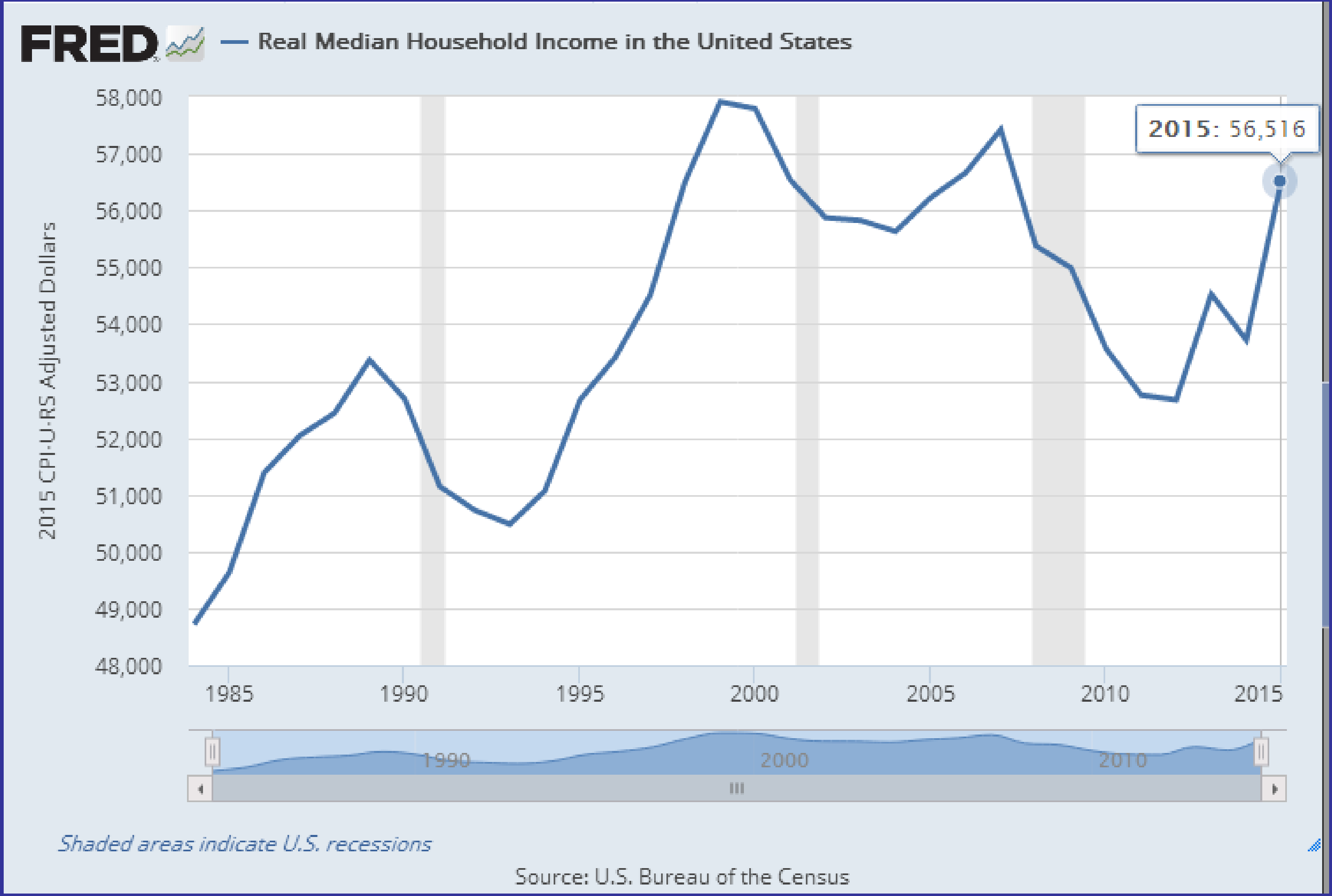


Case Shiller National existing home prices – up 42% In past 5 years – driven primarily by short supply and demand for upscale homes

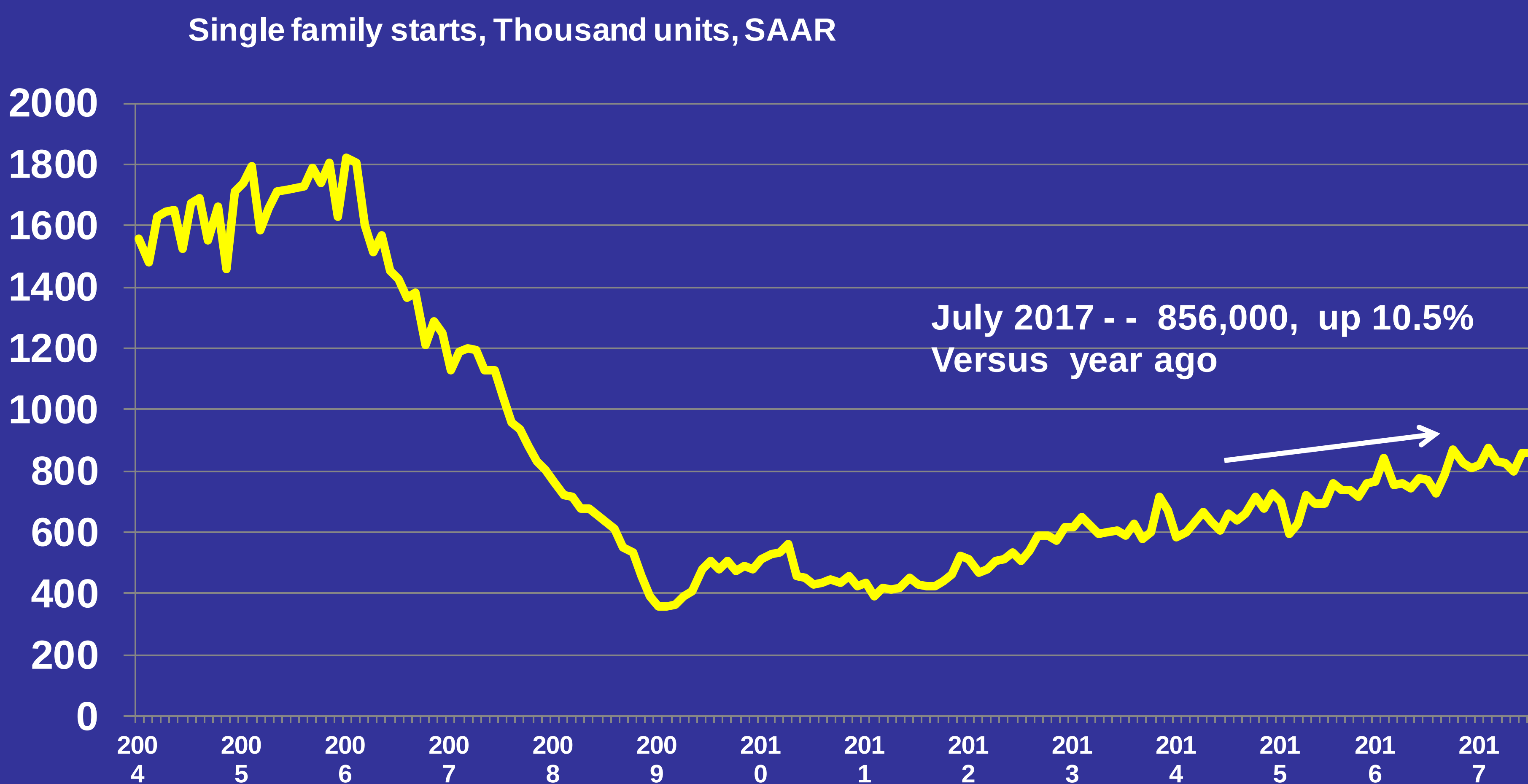


(https://fred.stlouisfed.org/series/CSUSHPINSA)

Real Incomes today same as 1998 – i.e., little progress in two decades – unemployment at record low levels, yet wage growth has lagged.



Weak housing starts contribute to the supply shortage and *drive prices higher*



Source: Census (http://www.census.gov/const/www/newresconstindex.html)

Comment on GDP* – we may be underestimating the contribution of technology to GDP. Traditional metrics rely on dollars to measure GDP – however, it is difficult To convert many gains from technology to "dollar equivalents". E.g., technology often improves quality of life, but how do we put a "dollar value" on this? This affects both dollar value of GDP and productivity. Here is article from "The Economist" on the subject:
(https://www.economist.com/news/briefing/21697845-gross-domestic-product-gdp-increasingly-poor-measure-prosperity-it-not-even)

Bottom line – we may be underestimating actual GDP measurement and we may be shortchanging productivity. This combination effect would significantly "underestimate current GDP", and our estimate of future GDP growth.

Remember:
GDP growth rate = (labor force growth rate)(productivity growth rate)

*The Gross Domestic Product measures the value of economic activity within a country. Strictly defined, GDP is the sum of the market values, or prices, of all final goods and services produced in an economy during a period of time." (from Wikipedia)

Why we may be underestimating GDP (and productivity) – quotes from The Economist magazine - -

(https://www.economist.com/news/briefing/21697845-gross-domestic-product-gdp-increasingly-poor-measure-prosperity-it-not-even)

"These days it seems that a growing fraction of innovation is not measured at all. In a world where houses are Airbnb hotels and private cars are Uber taxis, where a free software upgrade renews old computers, and Facebook and YouTube bring hours of daily entertainment to hundreds of millions at no price at all, many suspect GDP is becoming an ever more misleading measure." "Also, inflation measurements are flawed (e.g. performance improvement in products and services is not taken into account – we simply record price changes."

The article is sometimes hard to understand – lots of "economic jargon". Here is the jest however – most GDP and productivity measurement techniques were developed years ago when production/manufacturing activity was more prevalent in our economy. Today, the service sector is much larger; many products/services are provided free of charge; for other products/ services, improvement in quality is not measured. Here is example – a new cell phone may cost more, but it does much more – but, we only measure the increase in cost or price.

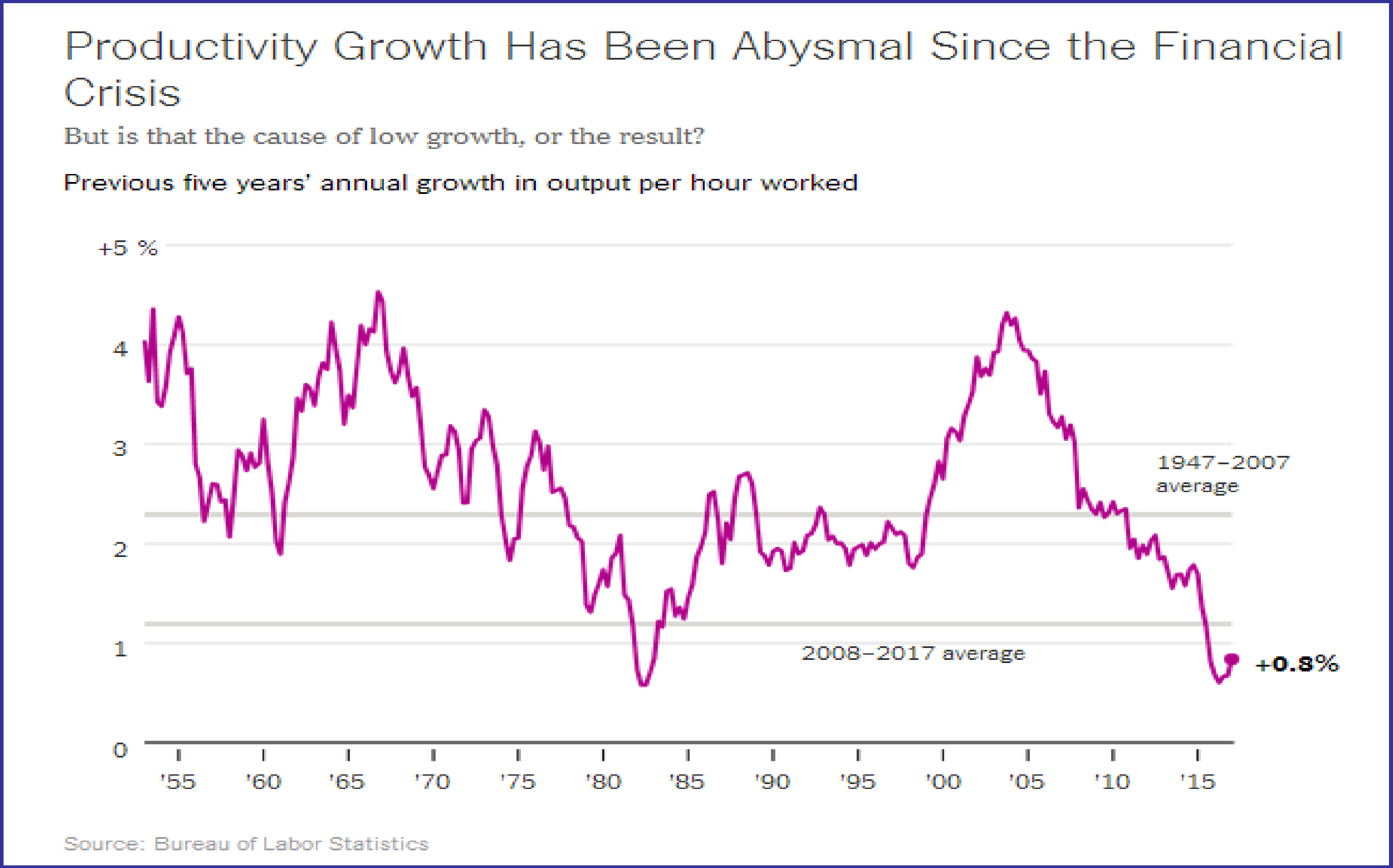
Here is good one for housing: following slide

Here is a good example of "inaccurate measurement" From housing – (from the Economist article)

"Some private-sector services are also measured indirectly. Housing services is one. This is straightforward wherever householders rent the property they live in. Rental payments capture both the value of housing services to tenants as well as the income of landlords from providing them. But in places where most people own the home they live in, a large part of the total value of housing services has to be imputed." I.e., it is estimated!

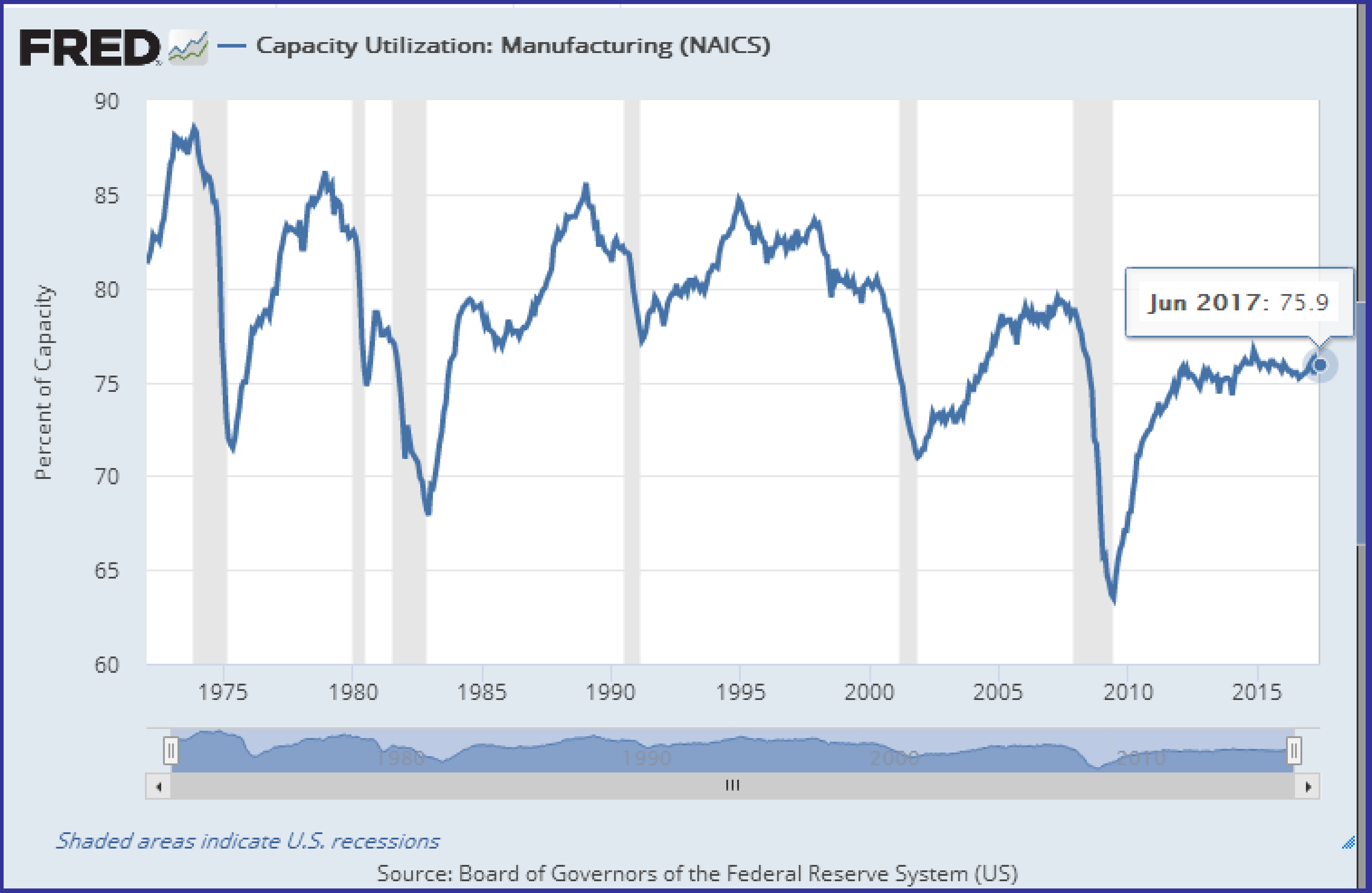
OK – what does this mean? For starters, this is important because so many decisions are influenced by statements about GDP and productivity – business decisions; government decisions; Federal Reserve decisions; … You get the point – so what to do? Take the GDP and productivity measurements with a grain of salt – e.g., if you're in business, develop your own metrics!

Another thought on productivity and GDP - **A very good and wise friend sent me an article discussing productivity growth and its relationship to GDP growth. The jest of the article is that GDP growth has been weak over the past decade – is this due to lower productivity , or do companies see low growth as a sign that there is excess capacity in the economy, and they don't invest, hence productivity falls!**

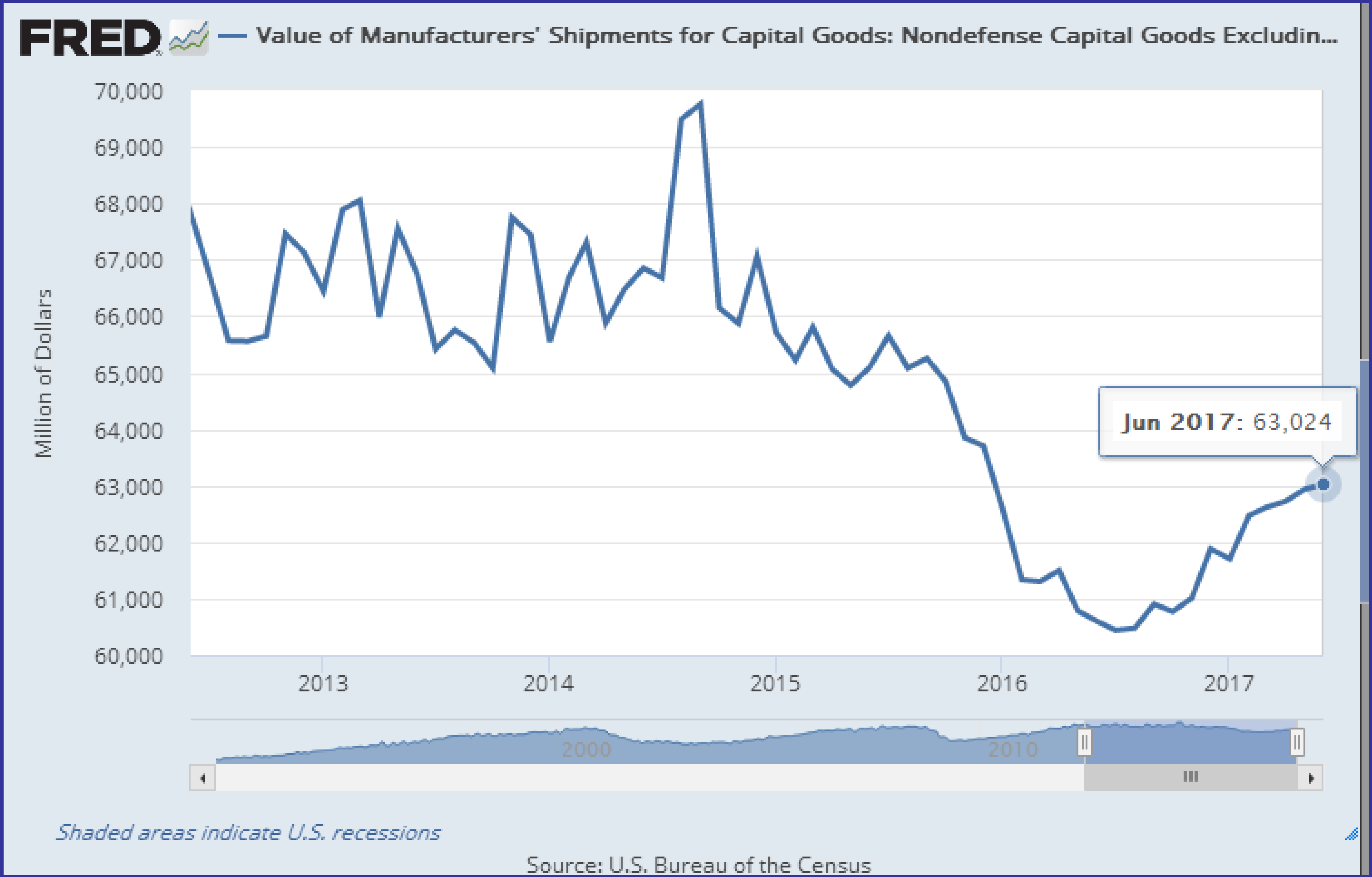


(https://www.nytimes.com/2017/07/25/upshot/maybe-weve-been-thinking-about-the-productivity-slump-all-wrong.html?ref=business)

There is excess capacity in our economy – anything less than 80% is considered excess – the Canadians call this the "output gap". When companies see excess capacity, why invest?



Capital spending has been improving in past 12 months, but is still off 10% from September 2014
Why? Companies not confident of future – uncertainty re: Tax code, regulations; Washington grid lock!



(http://www.wsj.com/articles/u-s-durable-goods-orders-fell-2-2-in-may-1466771610)

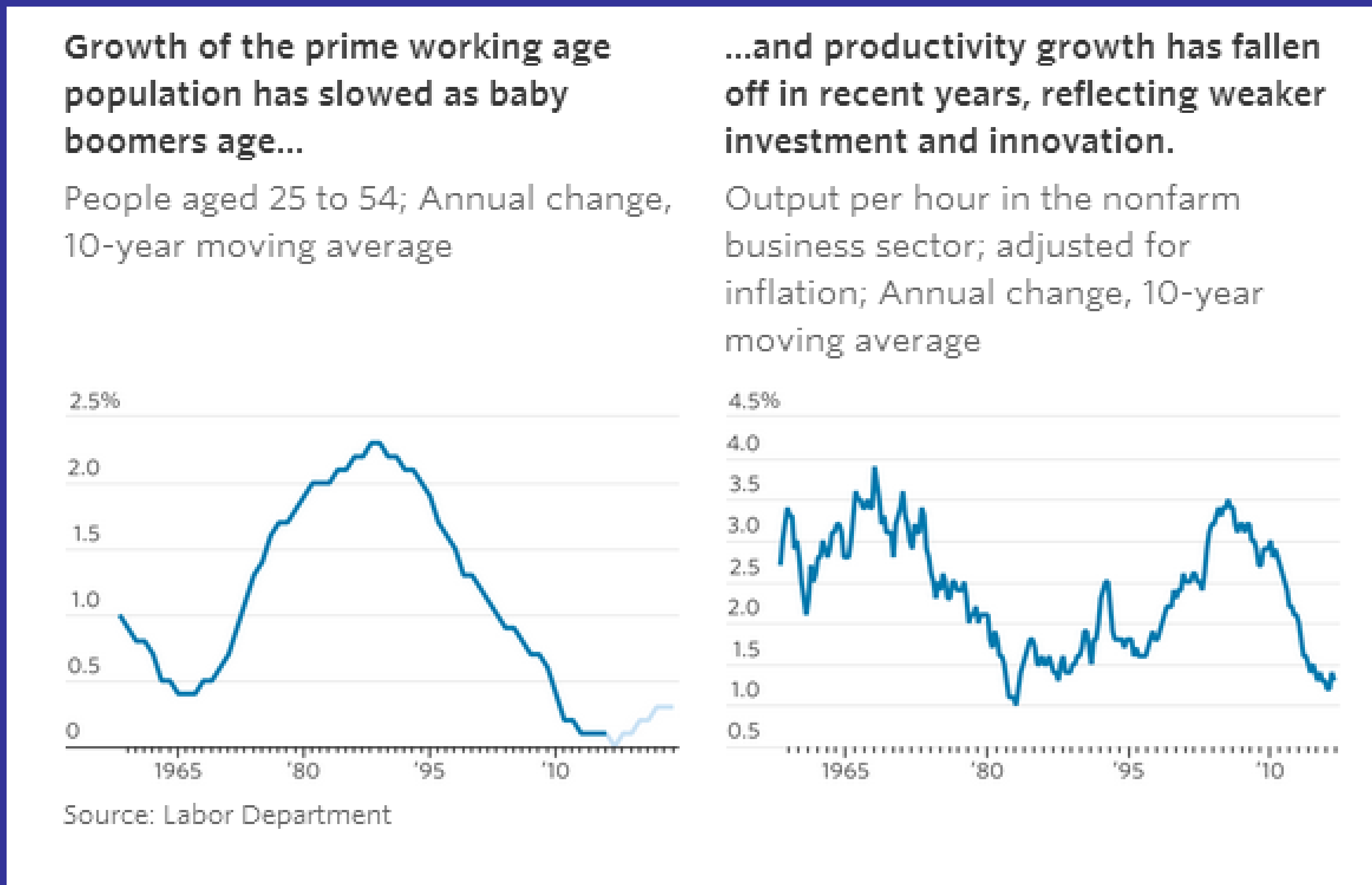
Here is another suggestion on how to fix the economy – a "no brainer" .
GDP = (labor force) (productivity). "Economics 101"
We have an aging work Force and our fertility rate has been falling for decades. That means slow growing labor force. Productivity has been Weak for decades too. Yes, we need to invest for the future – R&D; Infrastructure spending; less regulation; fix K-12 system;.... But, we also need immigrants

Solution – develop a smart immigration system that brings in educated, hard working people with technical skills that will support better productivity growth., and address our shrinking labor force too.

Yes, we still need to bring in refugees too – that is the mark of a compassionate country. But, the focus today needs to be highly educated, English speaking (doesn't have to be perfect, but workable) people with technical skills and a strong work ethic.

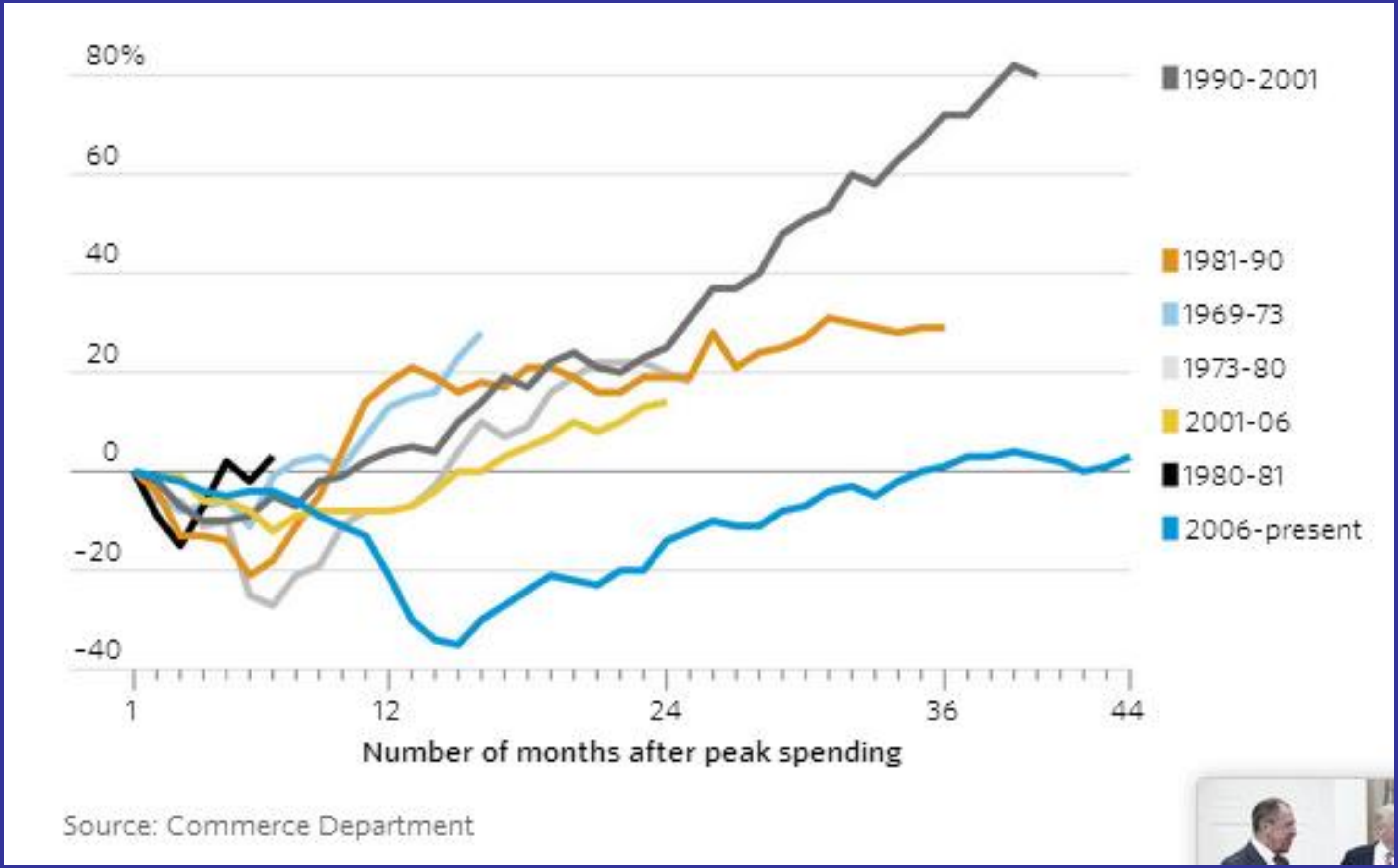
A more interesting comment on the U.S. economy by Greg Ip WSJ (https://www.wsj.com/articles/the-economy-needs-amazons-but-it-mostly-has-ges-1498037403)
Innovation is the solution – "we need more companies like Amazon and fewer like GE" notes Mr. Ip

Growth comes from workforce and productivity – can't increase very fast over the long term unless we deal with declining workforce and weak productivity

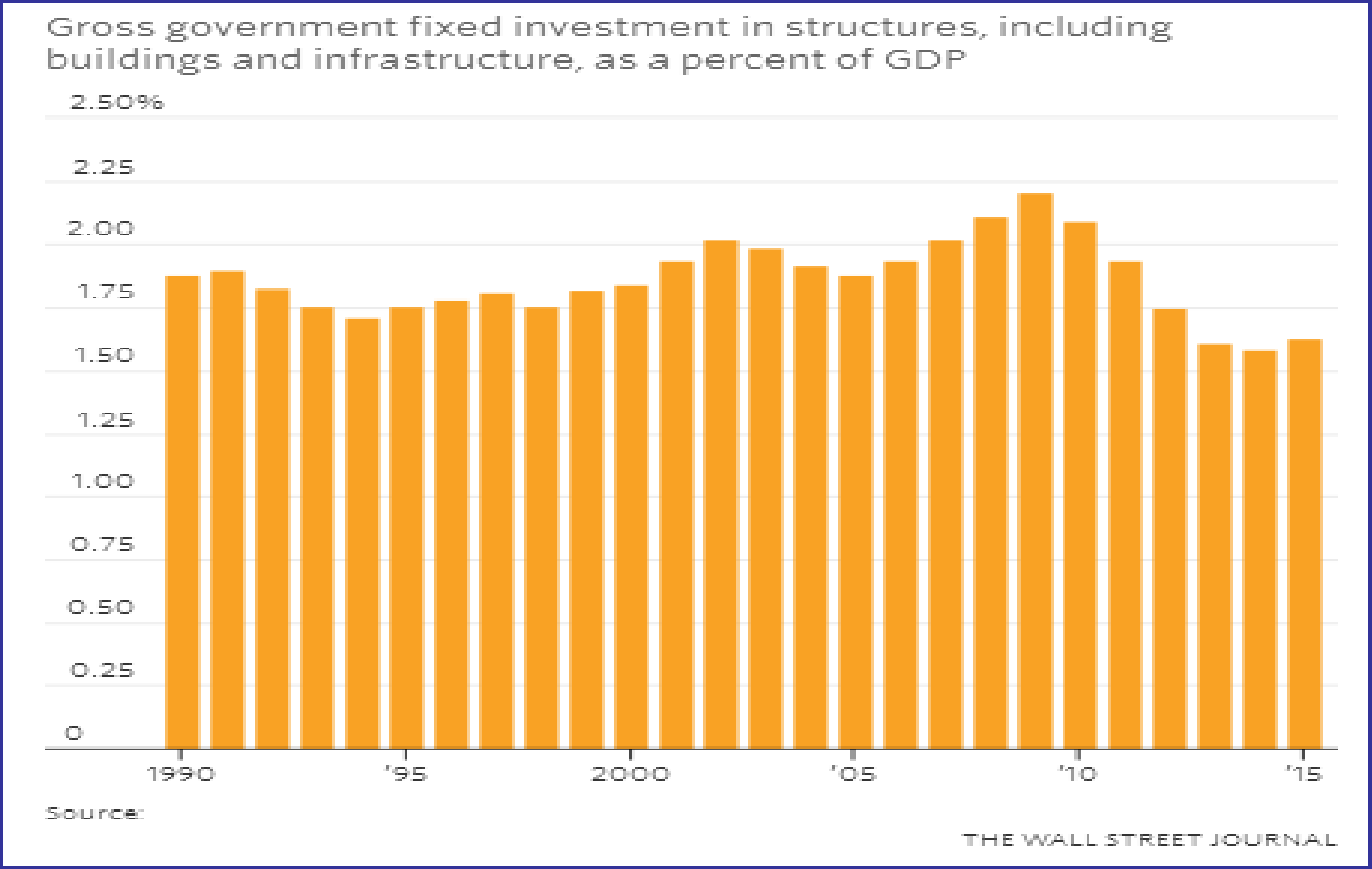


(https://www.wsj.com/articles/labor-force-stands-in-way-of-trumps-3-growth-goal-1494861153)

Gross private investment spending over the last three decades - chart compares recovery in investment following recessions. Latest recovery is pathetic! Why? Many are not excited about the future – can't blame them with current political climate!



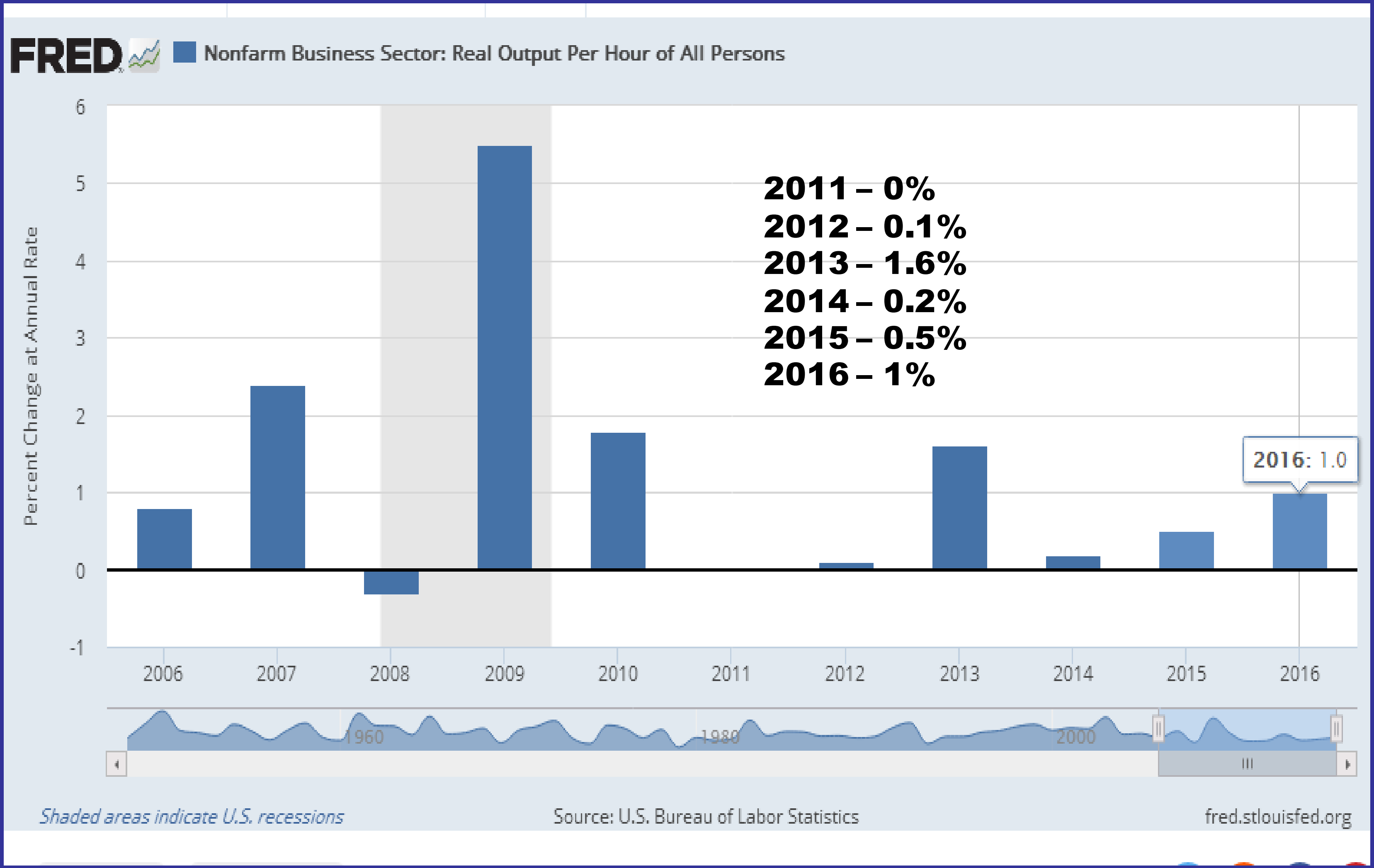
Public infrastructure investments have been falling for a decade - hinders any improvement in productivity



What happens when innovation/investment are missing!
Dismal productivity growth - - worst performance for US economy since the 1980's when we experienced back to back recessions.
(PS – I understand that productivity measurement is a problem as new products/services quality is difficult To measure so maybe we are underestimating real productivity?)

Source: WSJ (http://www.wsj.com/articles/u-s-productivity-dropped-at-0-5-pace-in-the-second-quarter-1470746092)

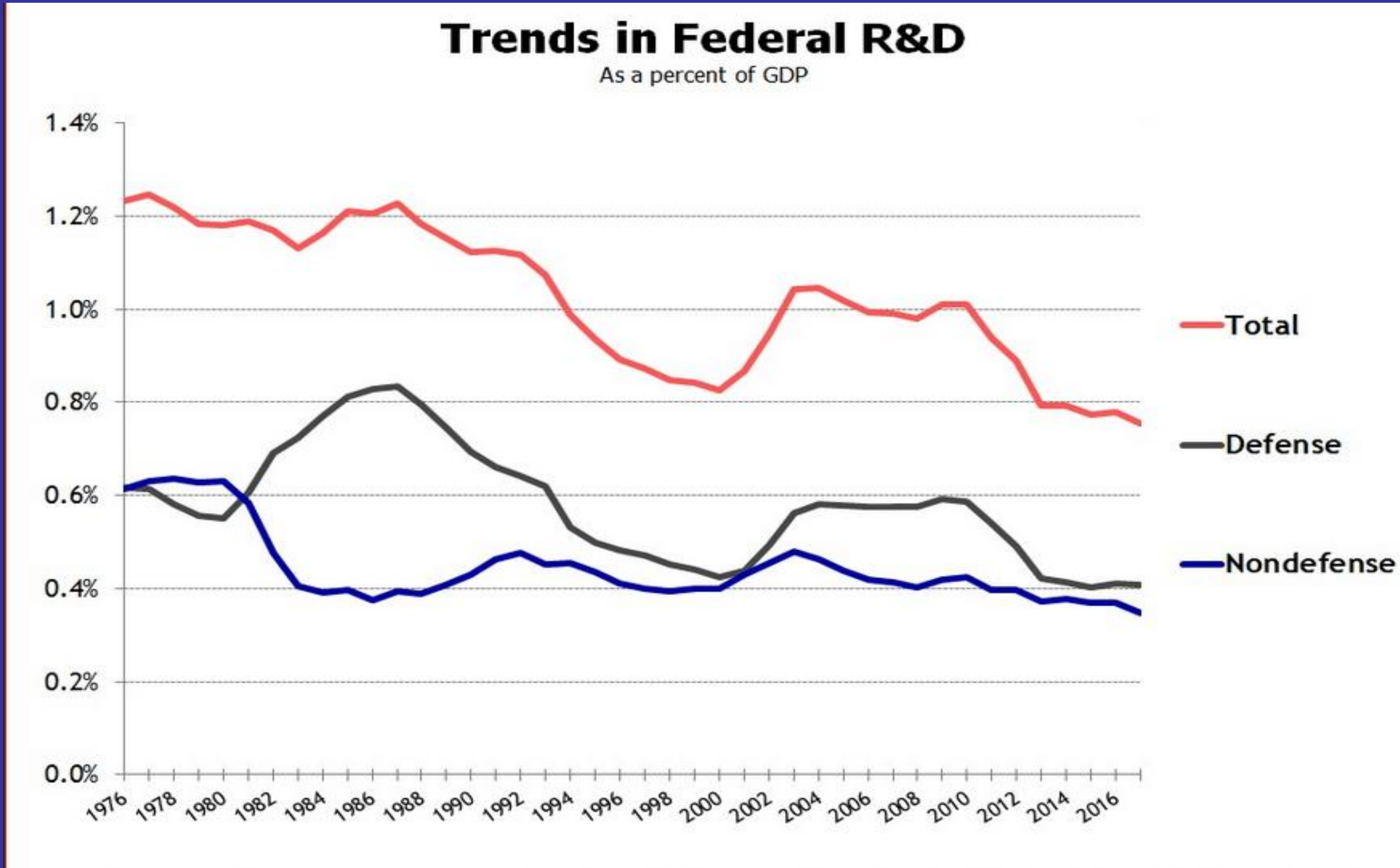
Declining productivity is a major problem – has averaged 0.6% annually since 2011 – this plus declining work force means weak GDP and declining standard of living



2011 – 0%
2012 – 0.1%
2013 – 1.6%
2014 – 0.2%
2015 – 0.5%
2016 – 1%

Falling Basic R&D - - funding basic science is declining – big problem that needs fixing

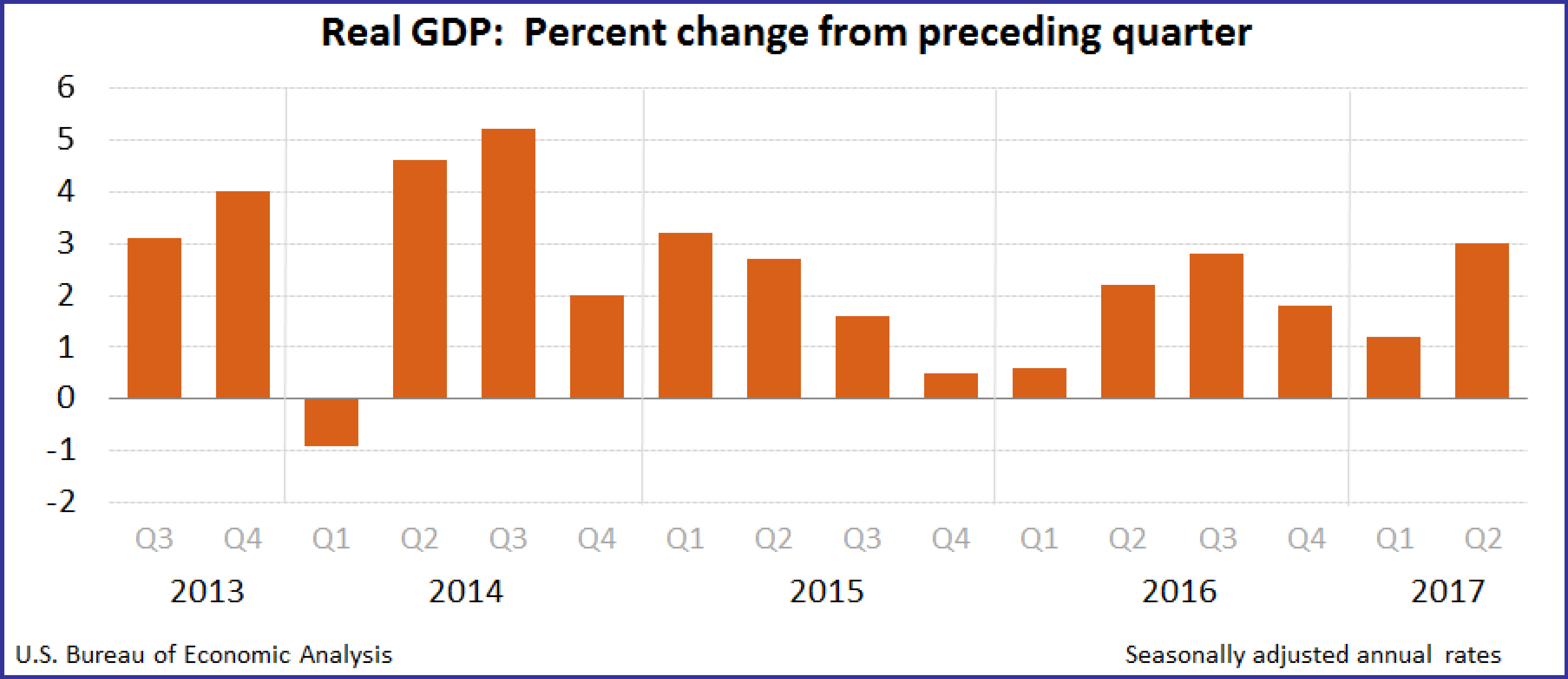
Federal government funds basic research while industries fund applied research – basic research is critical to development of new technology and innovation in science and engineering - critical to economic and job growth, and productivity
(http://www.wsj.com/articles/the-dividends-of-funding-basic-science-1480982516?mod=rss_opinion_main)



Source: AAAS analyses of historical budget and agency data and the FY 2017 request. GDP figures from OMB. R&D includes conduct and facilities. © AAAS

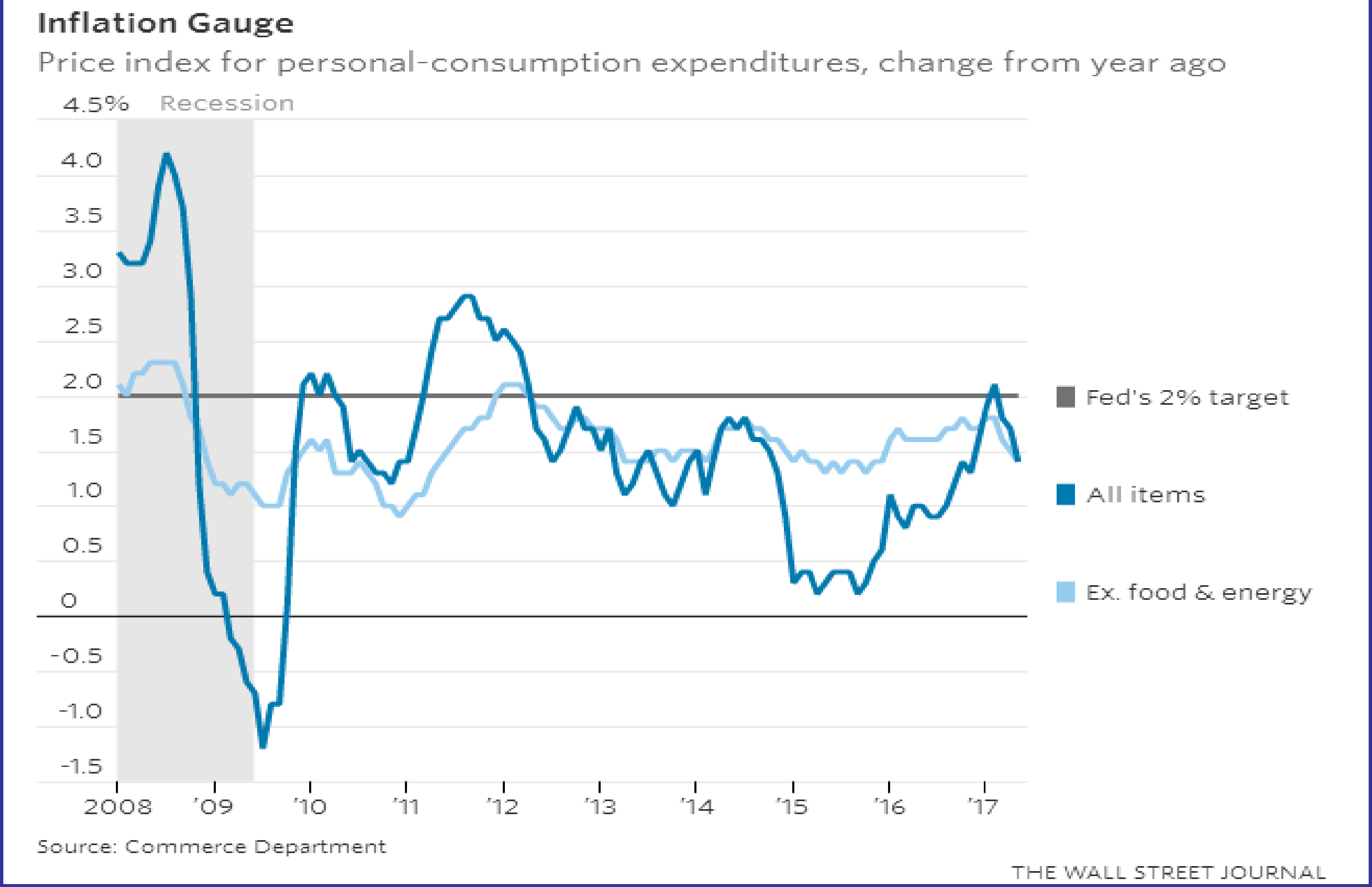
U.S. 2nd Qtr 2017 Economic growth 3% - - - 1.6% for 2016 - terrible
The slowest expansion since WWII.

(1) Slowing world economy (weaker China , European, and South American growth)
(2) Weaker dollar will support exports and decrease imports – positive impact on manufacturing jobs which is key to income growth in USA – good news!!!!
(3) Political stalemate/weak leadership, terrorism, currency wars, growing national debt, ...
(4) Weak income growth and continuing high "real unemployment"



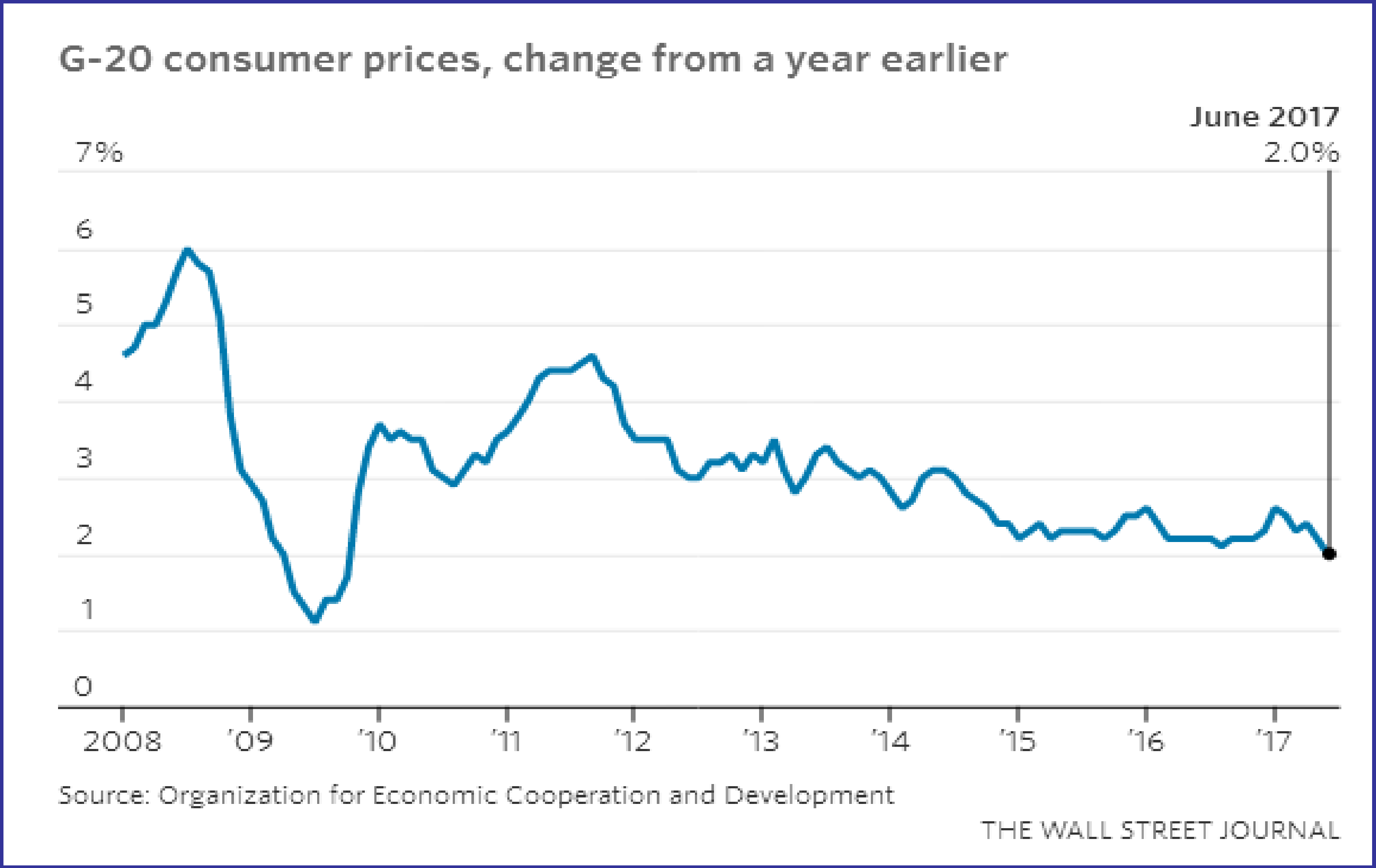
Source: BEA (http://www.bea.gov/newsreleases/national/gdp/gdp_glance.htm)

Little U.S. inflation despite "free money" for a decade. Why – weak demand and weak income growth – this is an indication of an economy in trouble - Another possibility – traditional inflation metrics incorrectly measure impact of technology (e.g., cost reduction and/or benefits) -- i.e., maybe technology Is keeping inflation down despite good economic growth?



Low world inflation despite "free money" for 9 years – is this weak demand or we aren't measuring inflation and GDP correctly? Here is interesting article from "The Economist"

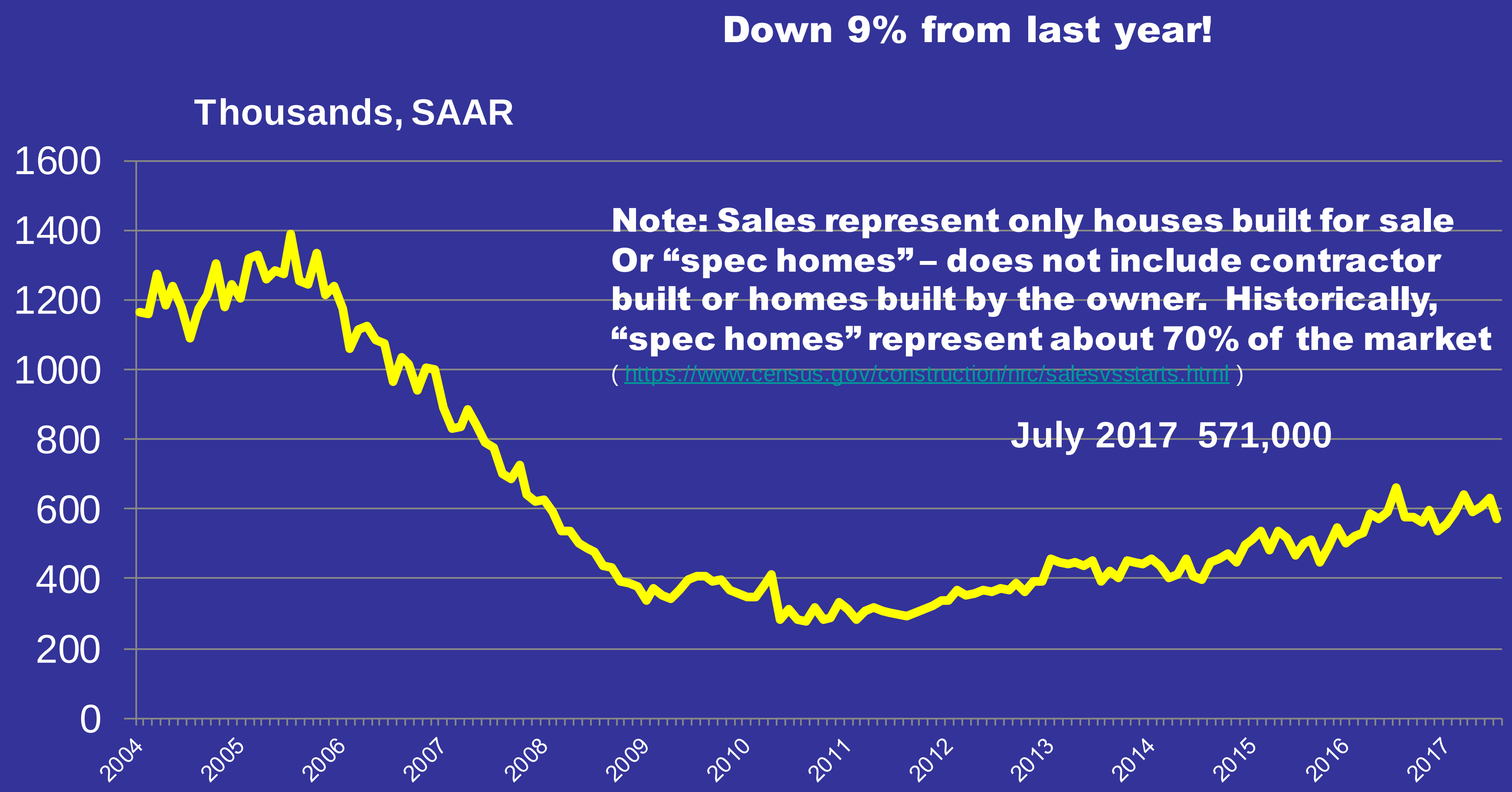
(www.economist.com/news/briefing/21697845-gross-domestic-product-gdp-increasingly-poor-measure-prosperity-it-not-even)



(https://www.wsj.com/articles/global-inflation-hits-lowest-level-since-2009-1501754403)

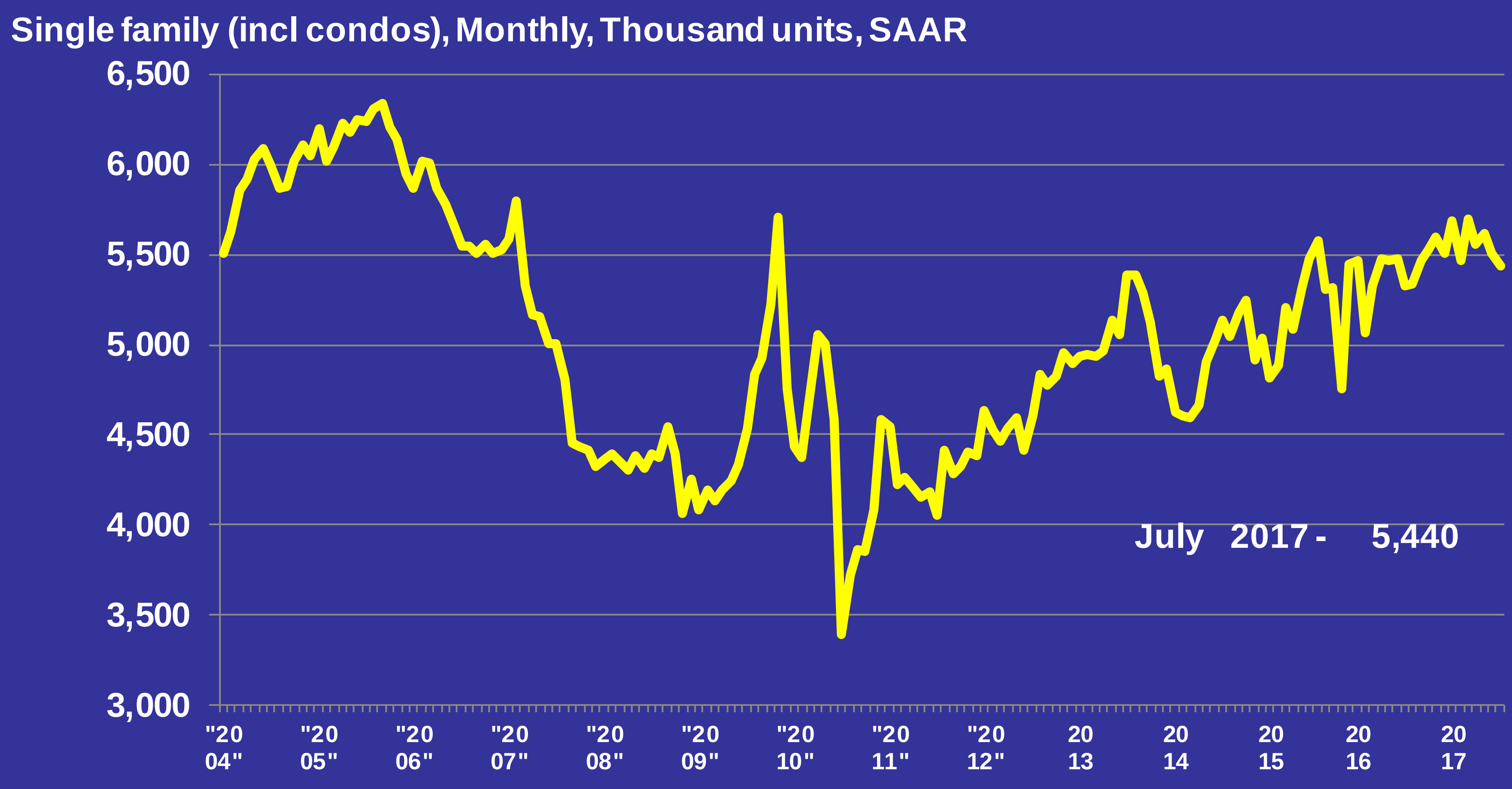
Additional housing comments

New single family home sales are the key statistic to watch for wood products demand – sales drive housing starts – this drives demand for wood products!



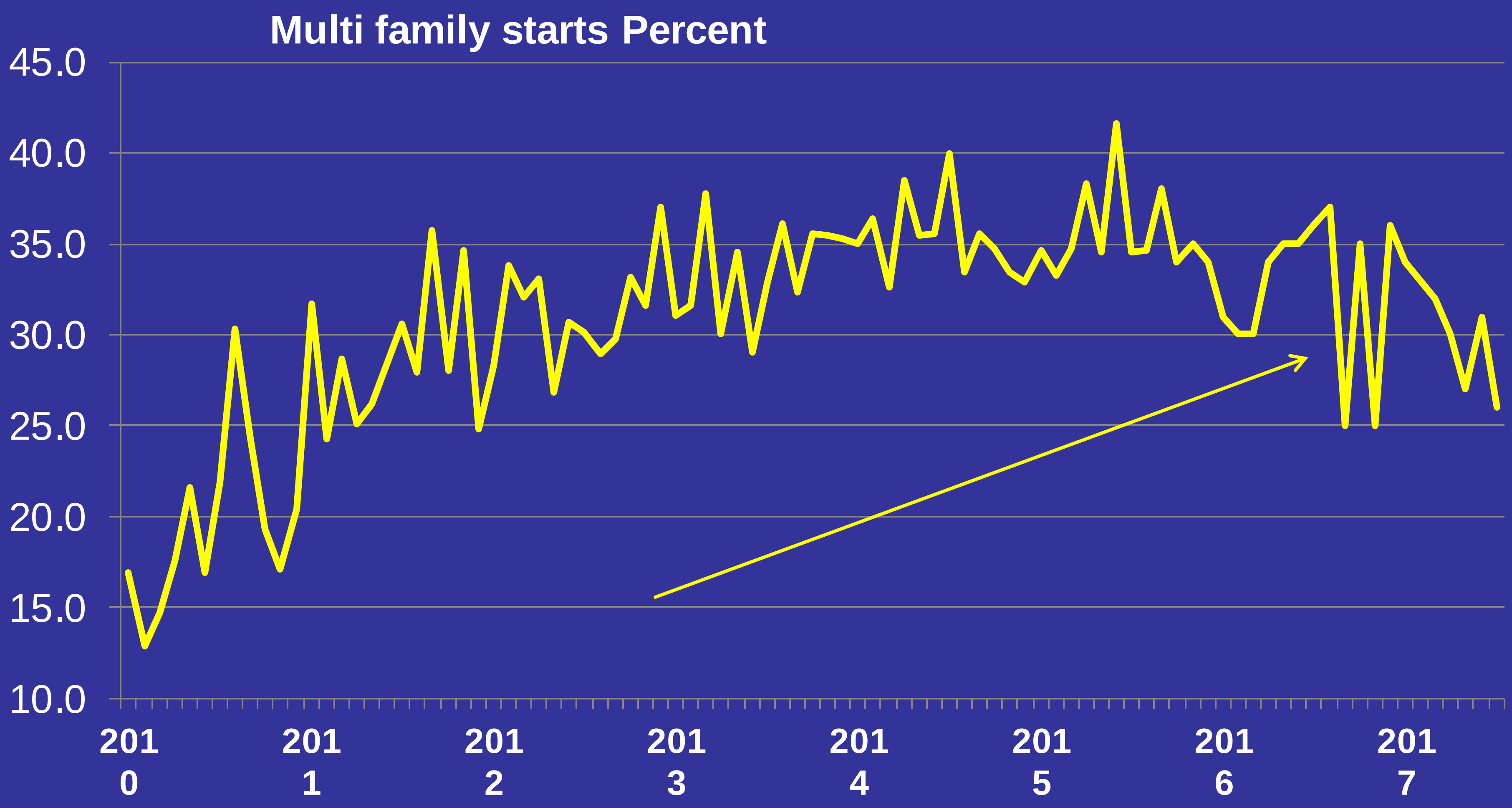
Source: Census (http://www.census.gov/const/www/newressalesindex.html)

Resale market continues to improve - however, tight supply (which drives prices), currently at 4.3 months, remains a problem. Healthy market is about 6 months supply. ***Median prices are up 6.2%, annual basis - 65sth consecutive monthly increase, YOY Here is good report from NAR on 2016 totals*** *(https://www.nar.realtor/news-releases/2017/01/existing-home-sales-slide-in-december-2016-sales-best-since-2006)*



Source: NAR (http://www.realtor.org/news-releases/2015/06/existing-home-sales-bounce-back-strongly-in-may-as-first-time-buyers-return)

Multi family share of housing starts – upward trend has leveled off, However, single family rentals (SFR) are increasing rapidly. So, the rental market is simply shifting from multi family to SFR?



Source: Census

More News on the labor front

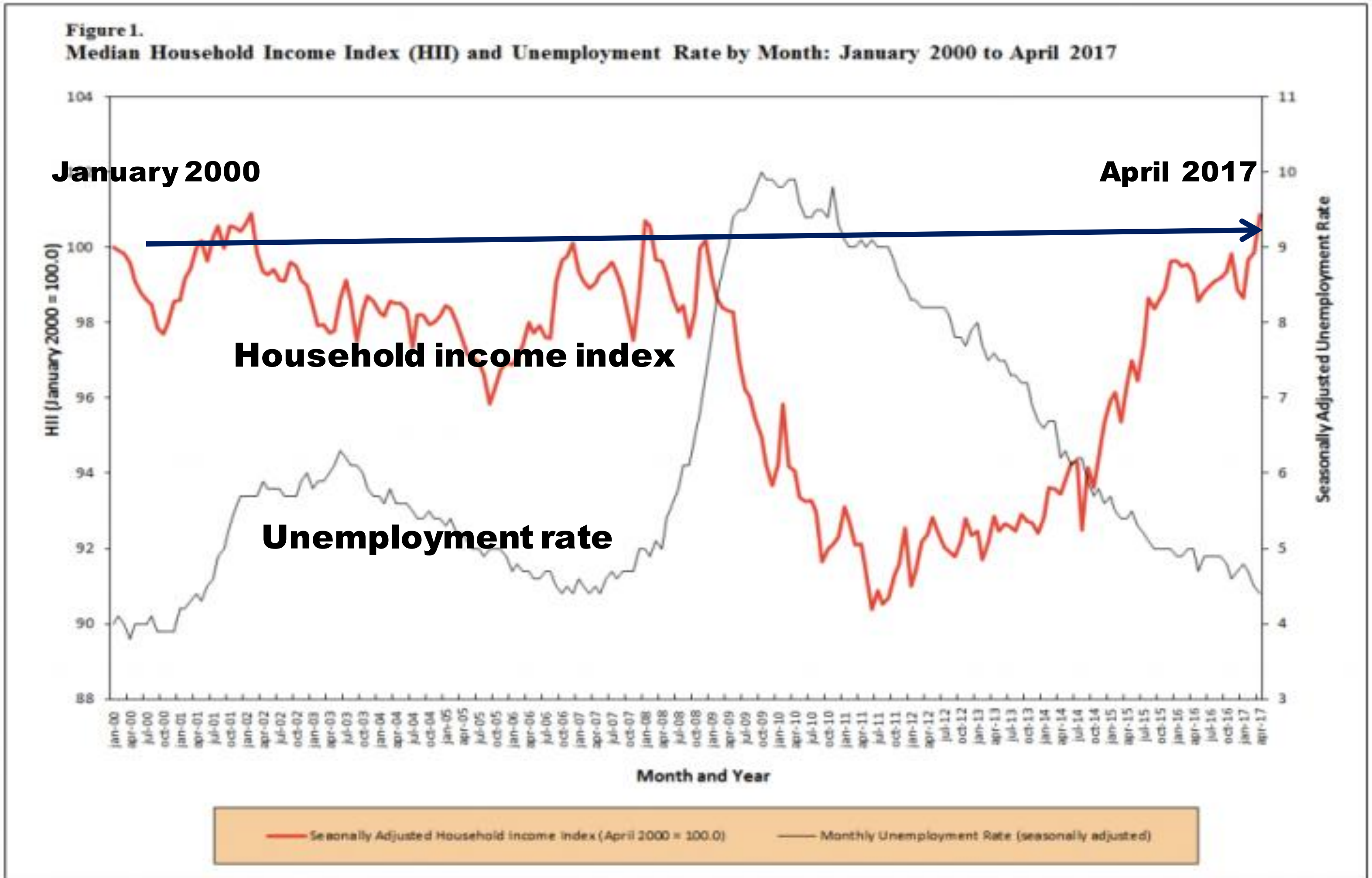
Unemployment coming down,
but wages are not coming up.
That causes problems with housing affordability with house prices increasing faster than incomes!

And, there are lots of jobs, but employers can't find enough qualified workers.

The worker shortage will only get worse as baby boomers retire, fertility rates plummet, and we continue to restrict immigration. Proper Skill set is also missing! Education needs to be refocused – need more technical training, engineers, scientists, and fewer liberal arts majors.

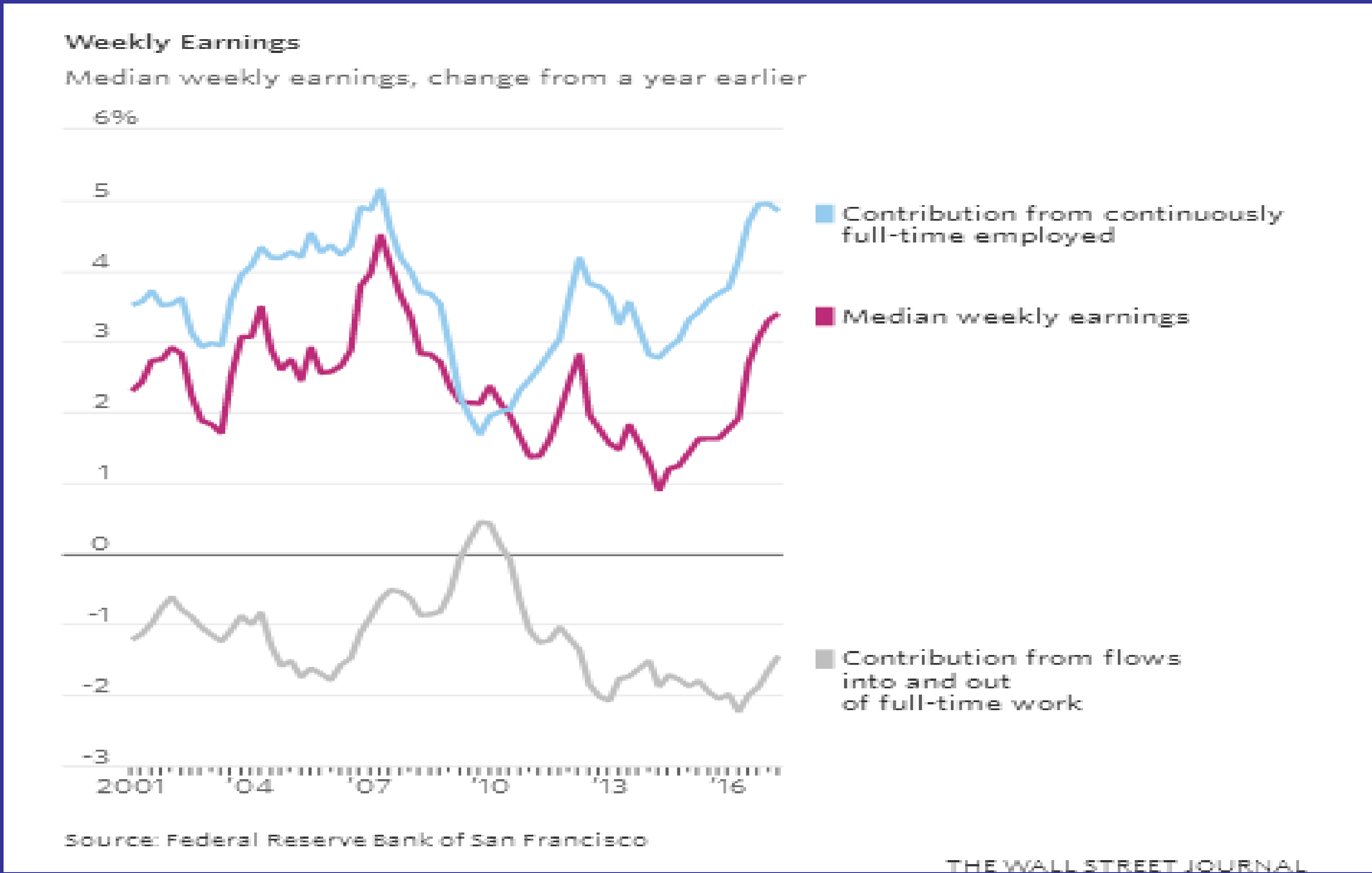
(https://finance.yahoo.com/news/americas-shortage-workers-get-much-worse-161634414.html)

Long term trend - a disconnect between unemployment rates and incomes. Problem - many of new jobs created are low paying with little or no benefits. This is a structural problem with many high paying jobs that go unfilled because applicants don't have the required skill set!



Sources: For income data: Sentier Research, LLC estimates of annual household income derived from the monthly Current Population Survey (CPS) conducted by the U.S. Census Bureau; for the unemployment rate and the CPI-U: the U.S. Bureau of Labor Statistics.

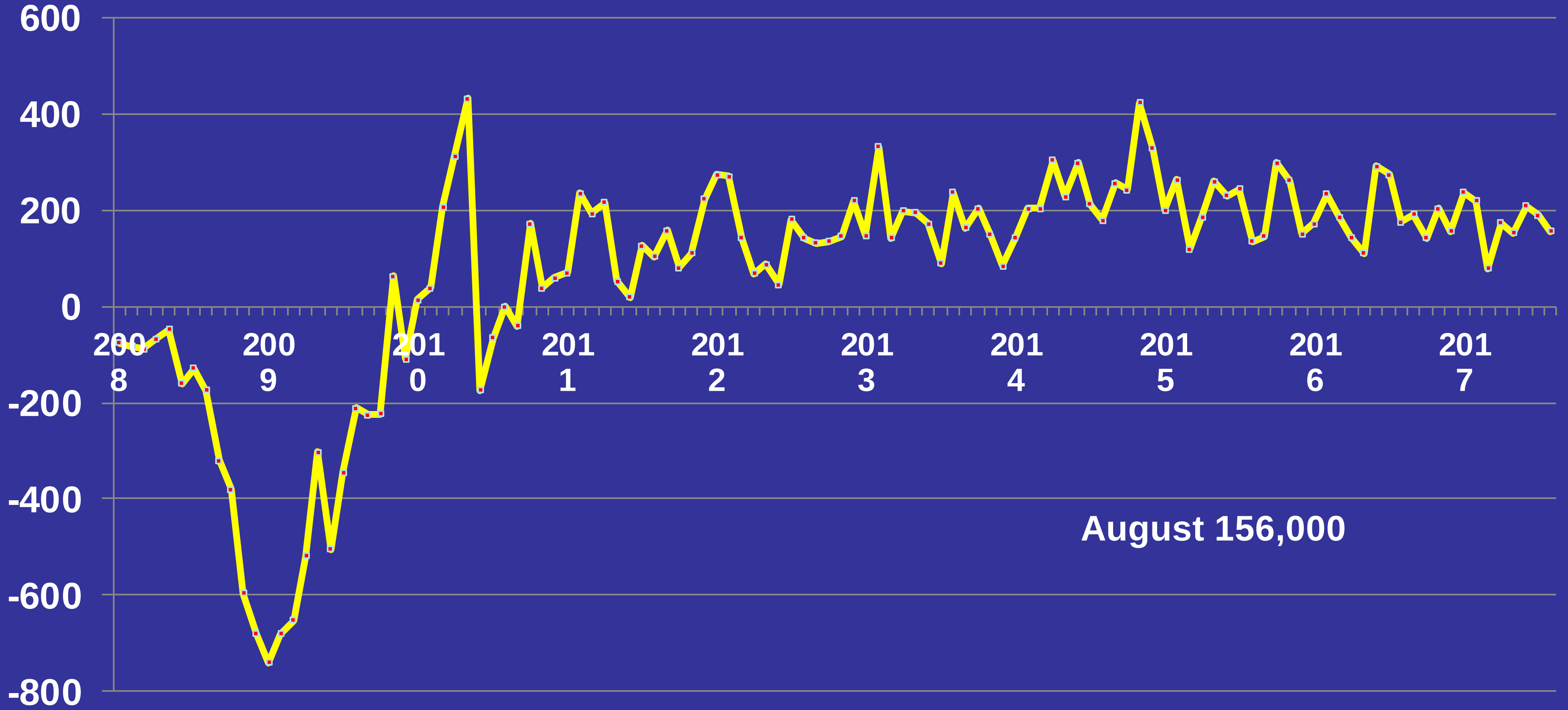
However, maybe muted wage growth is influenced by retiring baby boomers being replaced by lower paid new employees? The charts below suggest that newer, lower paid employees are pulling the median weekly earnings down since 2008. Alternatively, median incomes (previous slide) have been falling for two decades – conclusion – my guess, retiring baby boomers are just exacerbating a long term structural problem.



Source: WSJ (https://blogs.wsj.com/economics/2017/08/21/how-retiring-baby-boomers-hinder-u-s-wage-growth/)

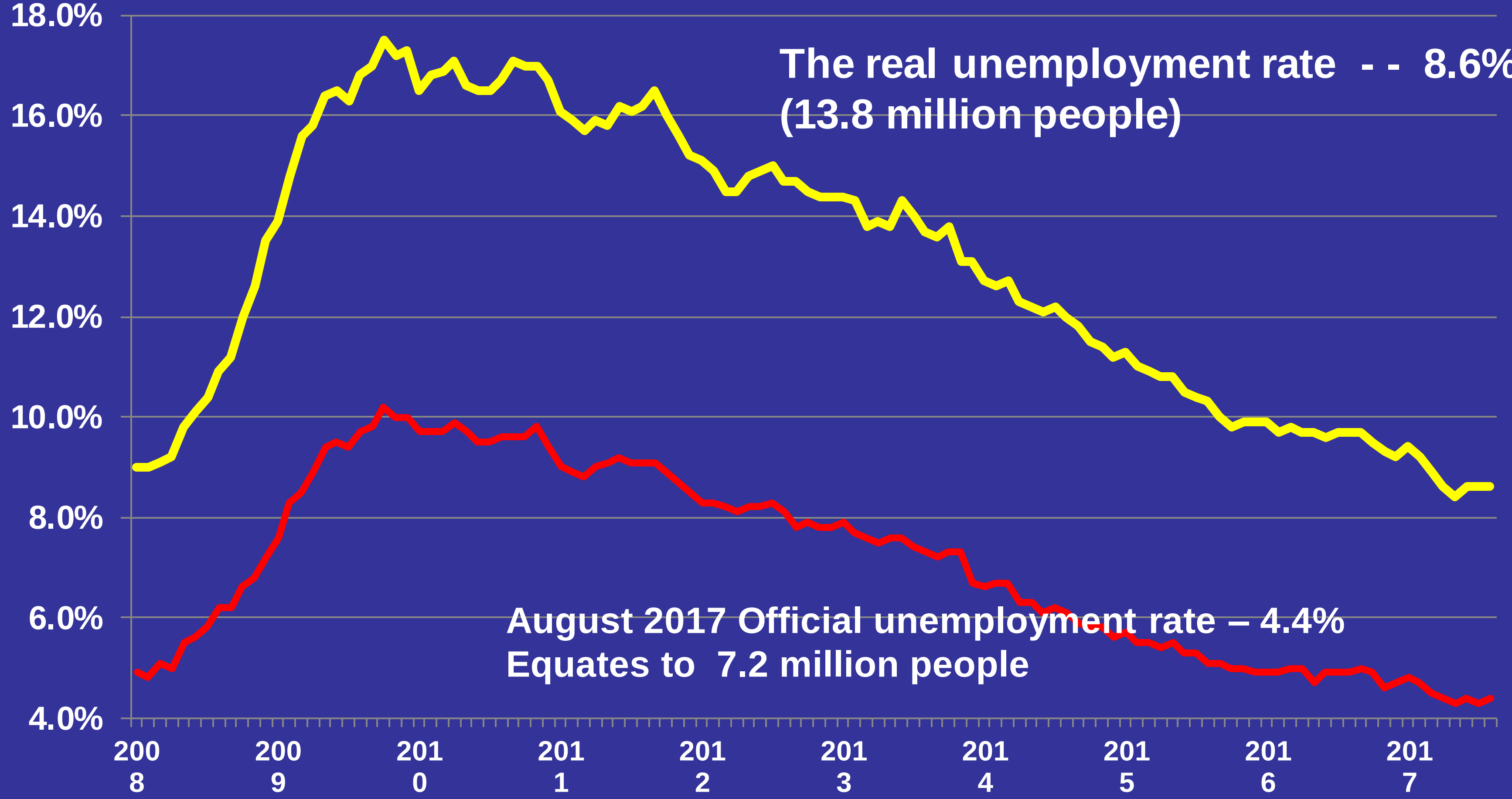
Employment situation – stuck around 200,000, and many of these jobs are part time with little or no benefits – not conducive to driving housing demand higher - *need to encourage innovation and investment in future - that means less government, more research, fix k-12 education, and rebuild crumbling Infrastructure.*

Net change in non farm payrolls – monthly, thousands



Source: U.S. BLS (www.bls.gov)

Unemployment rate keeps coming down – but, 5.3 million remain "underemployed" – working part time, but want full time jobs – another 1.6 million are "marginally attached" including 536,000 discouraged – total = 13.9 million including official 7.3 million unemployed



Source - - BLS: http://www.bls.gov/news.release/pdf/empsit.pdf; http://data.bls.gov/cgi-bin/surveymost?ln

Labor force participation rate is shrinking – demographics is one reason – another reason – bloated welfare system – 130 million people on some form of welfare (food stamps, long term disability, housing allowances, Medicaid, …) - - we'll see skilled labor shortages increase over the next decade - we're already seeing construction related shortages with brick layers, masons, electricians, plumbers, etc.

Excellent article (http://finance.yahoo.com/news/should-i-go-to-a-trade-school-162413337.html#)

Some conclusions – housing continues to improve albeit very slowly And this will not change soon for the reasons listed below:

(1) Economy is improving (slowly) -- 2016 growth was 1.9% while 2017 expected to be about the same.

(2) Housing market is improving? - 1st time buyers are returning – 1st Qtr 2017 percentage back to 42%, up from 30% in 2008! Will it continue?

(3) Productivity a major problem for U.S. economy – real GDP driven by population (number of workers) and real GDP/worker or productivity. During past 7 years, productivity has grown 1.7% annually whereas the average over previous 17 years was 2.4%.

(4) "QE" not working – bulk of "printed money" hoarded by the banks to shore up capital positions – not being loaned out to the economy - GDP languishes

(5) Low rates have created housing bubbles in Canada, Australia, and equity bubbles here in USA - I hope the central banks have a solution?

(5) Leadership is a serious problem for our country – 2016 elections changed nothing – we're more divided than ever – little progress on key issues and this probably won't change until we elect responsible politicians

(7) The Fed finally increased rates in December, 2016 with two more in 2017. Low rates are not the solution to the weak economy!
Innovation, investment, tax reform, is the solution, but that will be challenging with $20 trillion (and counting) federal debt and 41% of the population on some form of welfare. Many business leaders have lost confidence in where the country is headed so they are not investing.

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