

THE UCLA ANDERSON FORECAST FOR THE NATION AND CALIFORNIA

June 2014 Report

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2014 2st Quarter

2016 4th Quarter

63rd Year

UCLA Anderson Forecast

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THE UCLA ANDERSON FORECAST FOR THE NATION

JUNE 2014 REPORT

Something is Seriously Wrong

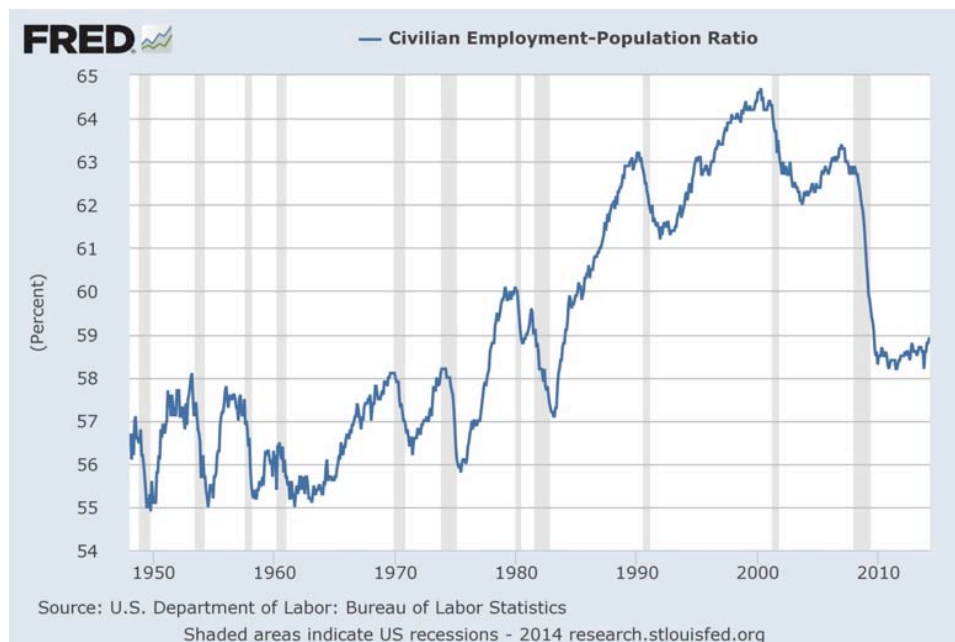
The Changing Landscape of Commercial Real Estate

Something is Seriously Wrong

Edward Leamer
 Director, UCLA Anderson Forecast
 June 2014

In 2011Q2, real GDP exceeded its previous peak level that had occurred in 2007Q4, and real GDP in 2014Q1 was 6.3% above the 2007Q4 value. Wow, that's great. In addition, payroll jobs in May of 2014 need to increase by only 98 thousand to surpass the previous peak attained in December 2007. Whoopee doo. However, the right standard is not where we were but where we should be. Real GDP in 2014Q1 was 13% below trend and payrolls in April of 2014 were 20% below trend.

A lot has been made about the decline in the unemployment rate, but that's mostly discouraged workers dropping out of the labor force. Meanwhile, the employment to population ratio illustrated below has dropped by 6 percentage points from its peak of 64.6 attained in January 2001, and has hardly budged from its immediate post-recession value of 58.5 in January 2010. Something's wrong. Something's terribly wrong. Or maybe just different.



We need to figure out what is going on to form an accurate forecast of what comes next and also to help find the right medicine to make the economy better. Clearly, the fiscal and monetary medicine that has so far been shoveled out has not worked. We could try another dose of both of these, but before we go back to the same doctors for more of the same medicine, at least we need to know why it hasn't worked and what would make us optimistic that it would work if administered again.

The first section of this document illustrates the normal corridors within which GDP, payrolls and total hours worked have grown for 35 years since 1970. All three of these series are vastly below their normal corridors.

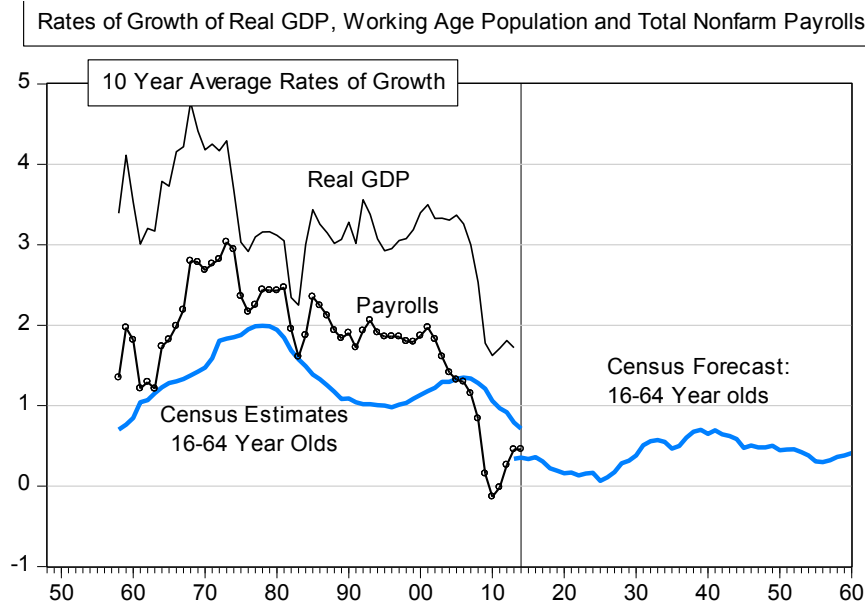
Section 2 suggests that some of the problem is a result of permanent displacements of workers from manufacturing and from residential construction. The problem in manufacturing is a negative secular job trend beginning in the 1980s which turned the usual manufacturing jobs cycle of temporary layoffs in recessions followed by recalls into an "adios buddy" message to 2 million manufacturing workers and many more in the local service sector where these manufacturing jobs were lost. Similarly for residential construction, at the peak of the housing boom we were building over 2 million units annually when normal is no greater than 1.5 million. That ratio of 2/1.5 reflects excess staffing that will not reoccur without another housing bubble far far into the future. That's another 2 million workers.

Section 3 points to competition with microprocessors as another big problem. A burst in productivity occurred between 1998 and 2003, a consequence of the heavy investments in information technology during the Internet Rush. While manufacturing for a century and a half has experienced a constant beat of productivity improvements that have allowed the few to do the work of many, service sector jobs like instructors at UCLA were still performed in pretty much the same way as they were in 1800. The microprocessor, the PC and the Internet are fundamentally changing the nature of knowledge work allowing the few and the talented to do most of the work as mundane, codifiable intellectual tasks are automated just as repetitive manual tasks were automated in the previous century.

This all adds up to a massive workforce development problem. As we continue to look to fiscal and monetary solutions, we are just postponing the hard work that has to be done.

Then in Section 4, the demand side is explored to find which components of GDP are especially weak. One that is a special focus is housing which remains far below normal, unless there is a new normal, which there is. Dramatic demographic changes will inevitably create a new normal for this sector, especially, but also on the rest of the economy. Growth in the elderly population will soon enough exceed 1.5 million per year while growth in the working age population will slow to only 600 thousand. How is that going to work? I argue that a slower growth of population and aging together slow the normal pace of household formation making the traditional normal of 1.5 million housing starts a thing of the past. But a 1.5 million increase in households for the next five years is still compatible with the demographics and in addition, there appear to be almost 3 million missing households given the current demographic mix.

Our forecast horizon is only three years, which is less influenced by demographic trends than longer-term forecasts. The figure below illustrates a demographic change that will slow household formation and slow growth in jobs and real GDP in the next decade. The dark (blue) line is the actual growth and projected growth of the working age population, ages 16 to 64. The two peaks of these demographic waves are the baby boomers and the boomer-echos (children). In addition to the waves there is a secular downward trend in the rate of growth of working age population. It is alarming to realize that we are entering a period in which the rate of growth of the working age population will be not much greater than zero. That will inevitably slow the growth of payrolls and real GDP, some of which seems already to have occurred. The economy is already dealing with this problem by increasing the retirement age. Immigration changes may also affect the future. But inevitably, there will be slower growth going forward unless there is another rabbit in the productivity hat. To put this another way, **rather than celebrating the fact that payroll jobs have finally exceeded their previous peak attained in December 2007, we should be alarmed by the fact, illustrated in Figure**



15, that 2012 was the first year in which the increase in the retirement age population exceeded the increase in working age population. As that gap widens, how can we possibly honor the commitments to the elderly which they think they have earned?

The good news is that there are none of the imbalances normally associated with an oncoming recession. The bad news is that disappointing economic growth going forward will continue to reveal that the U.S. economy faces some very serious issues, the most important of which are a workforce ill-suited to the reality of a post-industrial 21st Century world, and too many elderly and not enough working stiffs.

Despite the longer-term concerns, we see growth of real GDP bouncing back in the second quarter per the words last quarter of David Shulman, “There will be growth in the spring.” Our forecast is for a 3.6 growth in the second quarter, and from there on basically a 3% economy which gets a little healthier in 2016. Not a recovery but normal growth.

The rate of unemployment continues to trend downward to 5.4 percent in 2016. Inflation remains quiescent but rising above the Fed’s 2% target, and the Fed sits on short-term rates until the first quarter of 2015, not that that matters much for the real economy. Housing starts edge slowly up to 1.5 million in 2016.

Bottom line here: things are good if you are old or employed, but not so good if you are young and unemployed.

1 - Narrow Corridors

The first item of business is to record how unusual the last two decades have been. Many of the prominent macro-economic variables generally have stayed within fairly narrow bands but many are well outside their normal ranges now. In this section, we take a close look at the abnormalities of real GDP, total payroll jobs and total business sector hours.

Real GDP

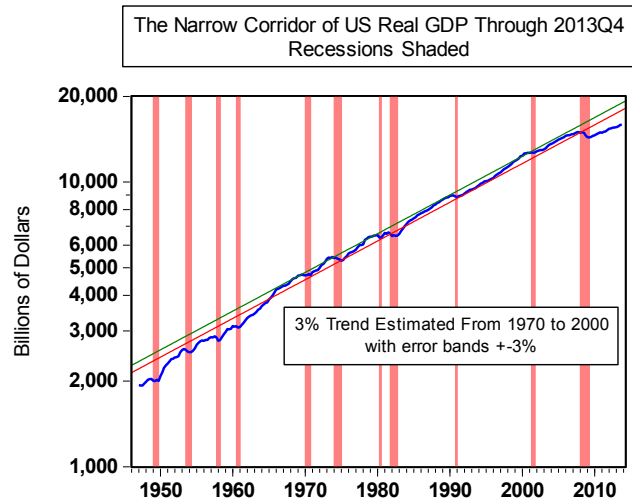
For forty years from 1968 until 2008, U.S. Real GDP had been confined to the narrow corridor illustrated in Figure 1, which grew at the rate of 3% per year with a floor to ceiling width of $\pm 3\%$. The vertical scale in this figure is logarithmic which turns constant rates of growth into straight lines – hence the corridor estimated with data from 1970 to 2000. During recessions, real GDP fell to the floor of the corridor, and sometimes slightly below. In the subsequent expansions, real GDP with supernormal growth made its way back toward the ceiling of the corridor.

But the last three recessions have been different. None has had a recovery. The ceiling of the corridor is no longer a destination. In the aftermath of the 1990 recession, real GDP crawled along the floor of the corridor until the Internet Rush commenced in 1995. In the mild downturn of 2001, U.S. real GDP went from above the ceiling to the middle of the corridor but made no movement back toward the ceiling. In the severe downturn of 2008/09, real GDP made a record fall below the floor of the corridor, and since then has moved farther below the corridor. This is all very worrisome. What does it mean?

Payroll Jobs

Payroll jobs illustrated in Figure 2 have also grown within a narrow corridor with the same width as the GDP

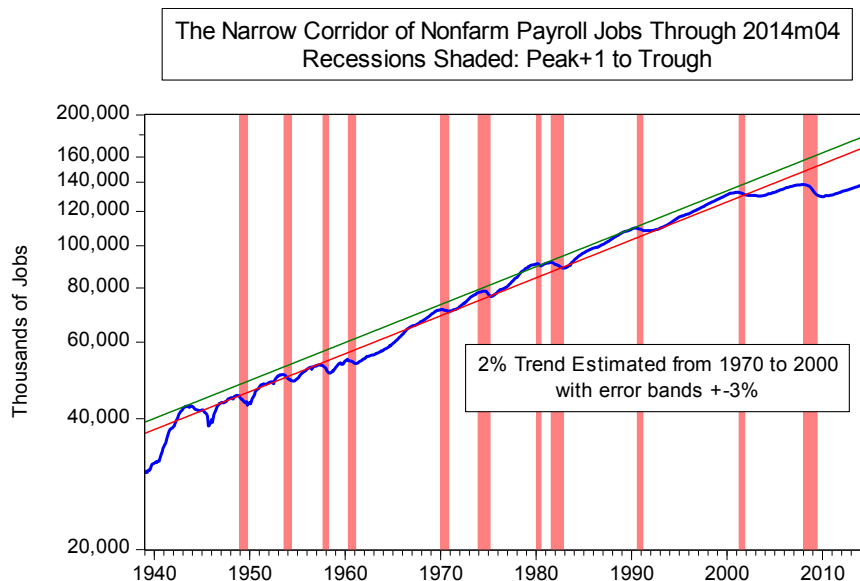
Figure 1 US Real GDP



corridor but at the lower rate of 2% per year. (The 1% difference between GDP growth and payroll jobs reflects the increase in productivity of each job.)

The problems during the last three recoveries which are troubling in the GDP data seem almost catastrophic in the payroll data. After falling to the floor of the corridor in the mild 1990 recession, payroll jobs stayed close to the floor and managed to eke their way back into the middle

Figure 2 U.S. Total Nonfarm Payroll Jobs

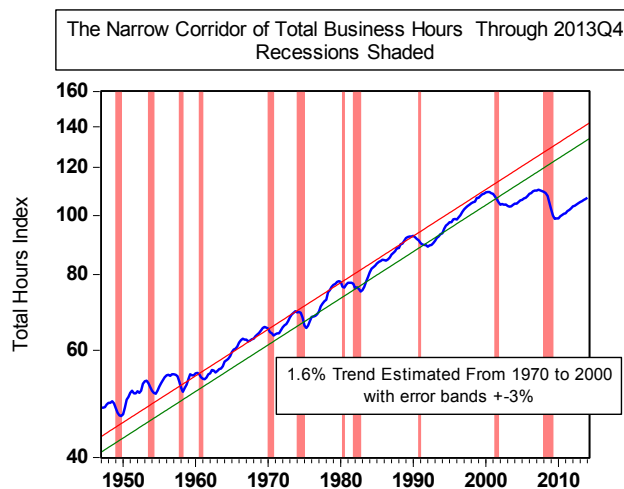


of the corridor only late in the Internet Rush in 1998 and 1999. The downturn of 2001 which had a mild effect on GDP had a large effect on payroll jobs which fell below the floor of the corridor, and stayed there even during the housing bubble in 2002-2005. Jobs turned down again in the 2008/09 recession and since they have grown a little slower than normal. Thus we are falling farther and farther outside the normal corridor.

Total Hours Worked

The usual measure of productivity is output per hour not output per payroll job. The corridor of total hours worked illustrated in Figure 3 is similar to the corridors for GDP and payroll jobs, but the departure below the corridor in the last two recessions is greater than either GDP or payroll jobs. We have had about two decades with no growth in hours worked. (The 1.4% difference between GDP growth and hours growth reflects the increase in productivity of each hour.)

Figure 3 Total Hours Worked



2 - Two Permanent Displacement Problems In Manufacturing and Construction

The last three downturns have been different from the earlier ones in terms of the severity of the declines and the weakness of the recoveries of GDP, jobs and hours. It is important to find a plausible explanation or explanations why the cycles have been different and to form a judgment regarding what comes next.

One thing to look for is a structural adjustment. A normal recession in the United States is an episode that leaves the fundamental structure of the economy unchanged. An unusual recession would usher in a fundamentally different economy which would require a different allocation of labor across activities. If the structure of work is unchanged, then a recession involves mostly temporary layoffs followed by recalls with workers returning to essentially the same job in the same location. But a structural change causes permanent displacements. A permanently displaced worker would have to change skills, location and may have to reduce aspirations as well. Demand management with fiscal or monetary policy may work well for normal cycles and may hasten the return of workers to their former jobs but these policies are likely to have only a small effect, if any, on the speed at which displaced workers find new jobs. The best treatment for that problem is retraining.

The 2008/09 recession embodied two structural adjustments, one in manufacturing and the other in construction. The long-term downward trend in manufacturing jobs since the 1980s has created recessions with jobs in manufacturing that disappear and never return. Secondly, the hot housing market of 2005 when housing starts were above 2 million units per year will not be experienced for a very long time, which means there was excess workforce in construction that has been permanently displaced.

The New Negative Secular Trend in Manufacturing Jobs

As illustrated in Figure 4, the shape of jobs in manufacturing during the cycles until 1990 was V, V and V: temporary layoffs of a couple of million workers followed by recalls. But the 1990 downturn had a U shape with tepid

Figure 4 Manufacturing Jobs

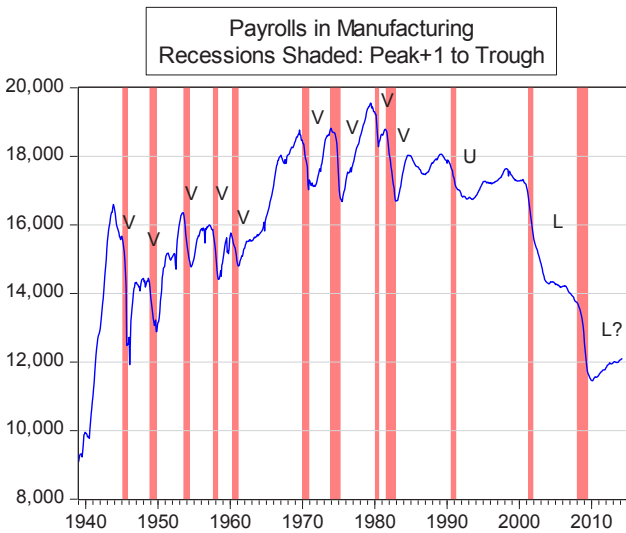
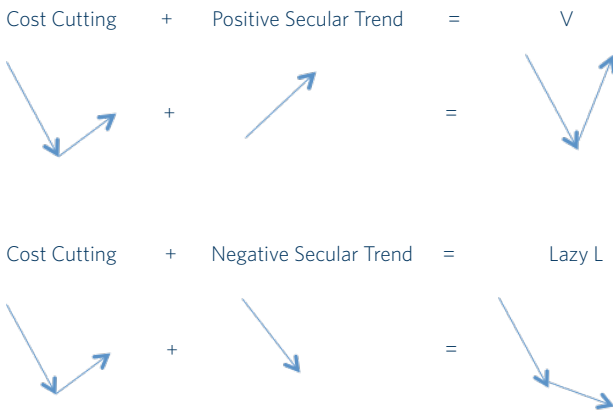


Figure 5 Negative trend Turns V into L (or worse)



recovery of jobs, followed by the catastrophic manufacturing downturn of 2001 with jobs in manufacturing falling from 17.3 million in 2000 to 14.3 million in 2004. Those 3 million jobs were permanent displacements. The recession of 2008/09 created another 2 million permanently displaced manufacturing workers, although there has been a modest recovery of jobs in durable manufacturing.

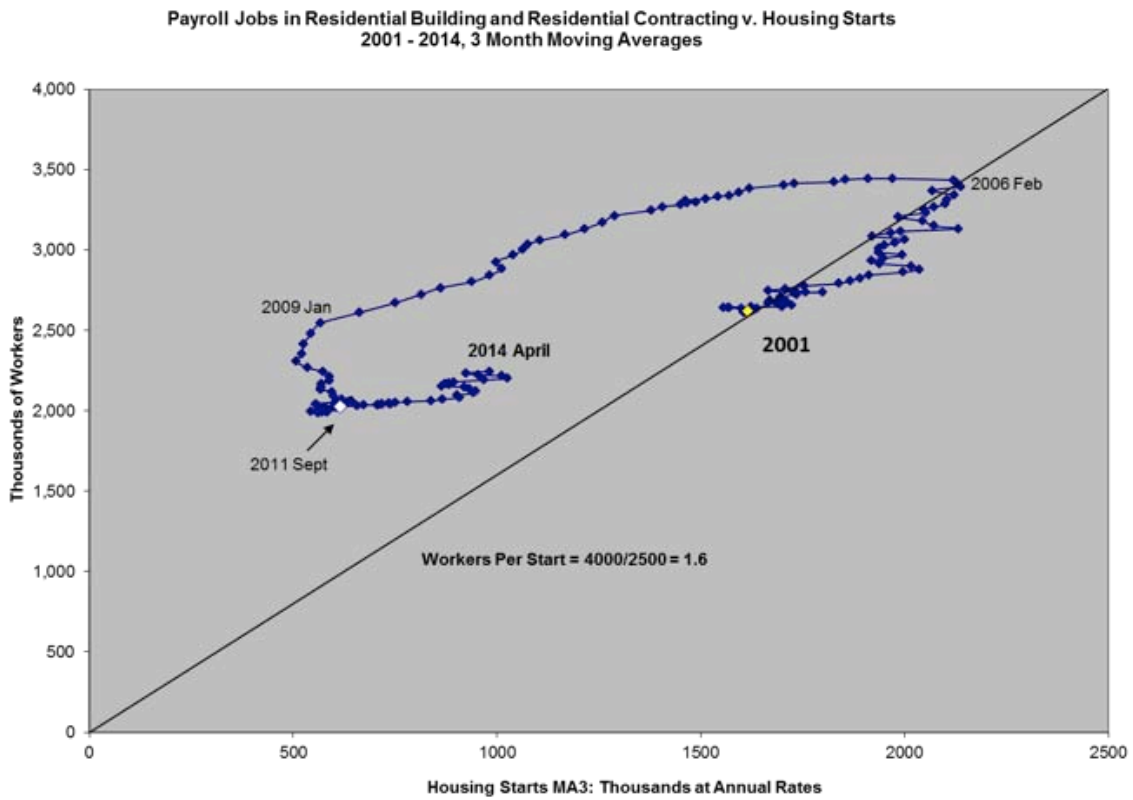
It's the negative secular trend beginning in 1980 that changed the cycle from temporary layoffs followed by recalls into permanent displacements, adios buddy. This effect is illustrated in Figure 5. Cost-cutting during recessions has layoffs followed by partial recalls as employers discover they can produce the previous peak output with a smaller workforce. Add to this cost-cutting a positive secular trend and we get the comfortable V. But add to the cost-cutting a negative trend and we get the lazy Ls with permanent displacements and no recalls at all. A permanently displaced manufacturing worker has to acquire new skills, a new location and hardest of all new aspirations since the next job is likely to pay a lot less than that lost manufacturing job.

Overbuilding in homes

The number of workers in residential construction has to fit the number of homes being built. Figure 6 compares housing starts since 2001 with the number of payroll jobs in residential building and residential contracting. Both jobs and starts are 3-month moving averages. Back in 2001, we were building 1.6 million homes with 2.6 million workers. At the peak in 2006, we were building 2.1 million units with 3.4 million workers. The line from the origin through these points identifies what might be the current normal ratio: 1.6 workers per housing start.

The downturn that began in 2006 had a much bigger effect on housing starts than on payroll jobs. Starts fell to about 500 in January 2009 but jobs fell only to 2,500. While starts stayed at the basement level of 500, 700 thousand jobs were eliminated. From September 2011 to April 2014, starts incremented by about 500 thousand but jobs increased only modestly. The current level of housing starts around 1 million is suited to only 1.6 million jobs which suggests there will be little hiring and maybe more job losses. Even if we were to return rapidly the historical average of 1.5 million

Figure 6 1-2 Million Permanently Displaced Jobs in Residential Construction



starts, the workforce suited to that level is under 2.5 million which indicates that compared with peak employment levels of 3.5 million there are at least 1 million permanently displaced construction workers. This is a sector that has a lot of jobs that are not covered by the payroll survey and has a strong local multiplier, which means that the displaced workers far exceed the 1 million figure.

3 - Productivity And Permanent Displacements

These data on real GDP, payroll jobs and hours can be explored for evidence of the microprocessor increasing productivity in an unusual way. The first step is to compare the detrended series and the second step is to compute detrended productivity.

Side-by-Side Comparisons of Detrended Series

Detrended versions of these three macroeconomic series are laid on top of each other in Figure 7. These three detrended series moved together until the last two recessions in 2001 and 2008/09. The 1990/91 recession had a similar effect on detrended real GDP, payroll jobs and total hours worked, reducing them all by about 3% below trend. Payroll jobs declined a bit more than real GDP and hours declined even more. All three variables experienced recoveries during the 1990s in the sense that the gap below trend became smaller, but only real GDP near the end of the Internet Rush managed to get much above trend.

The 2001 downturn was dramatically tougher on payrolls and hours than it was on real GDP. Payrolls and hours

fell by almost 10% relative to trend, while real GDP fell by only about 4%. That means an unprecedented 6% burst in productivity in part because of a property of averages: If the least productive workers lose their jobs, the average productivity of those who remain will increase.

Figure 7 Detrended Macro Variables

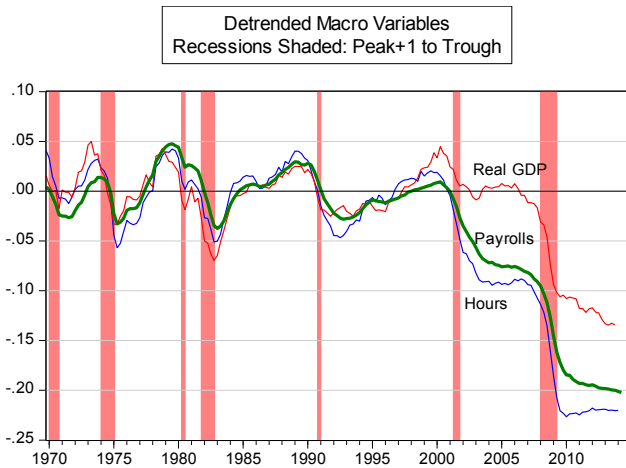
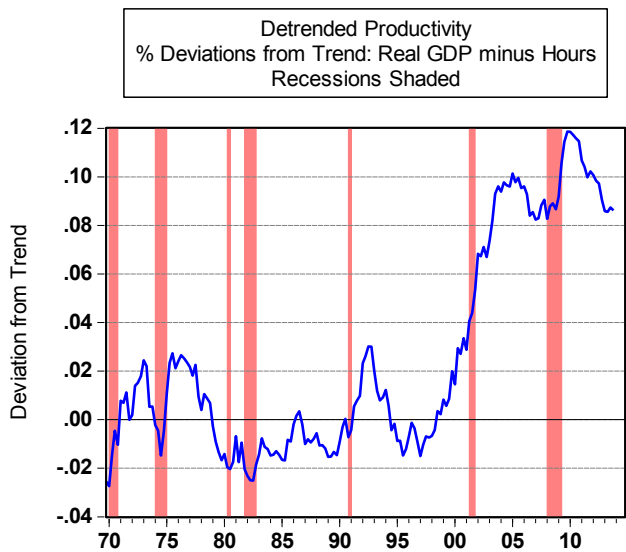


Figure 8 Detrended Productivity



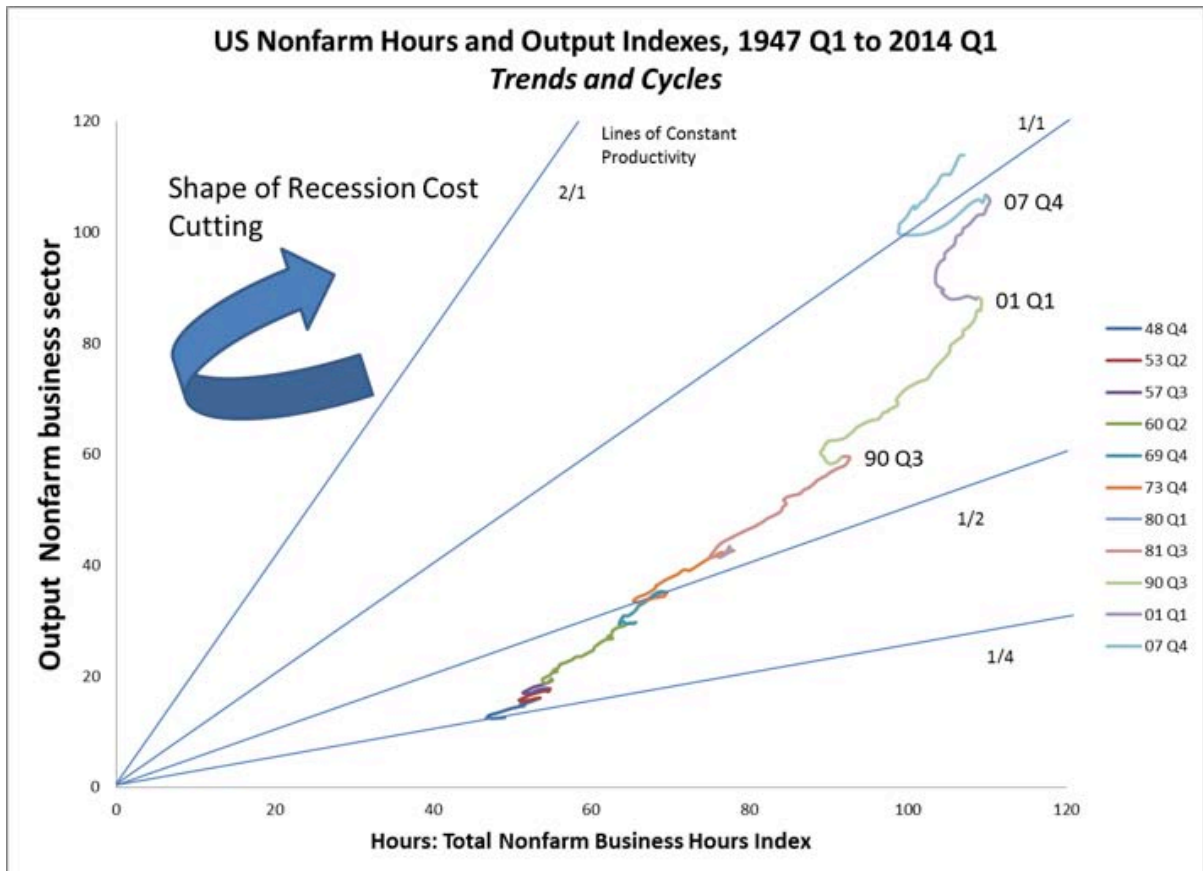
In 2013Q4, real GDP was 13% below trend and hours worked was 22% below trend. The 9% difference between these two numbers makes for a surge in measured productivity. Figure 8 plots the percentage GDP difference from trend minus the percentage hours difference from trend, which is detrended productivity (Real GDP per hour). Notice that all the gain in detrended productivity is confined to the period immediately before and immediately after the 2001 recession. Detrended productivity was normal (0) in 1998 and rose to 9.6% above normal by 2003. The aggressive layoffs that occurred in the 2008/09 downturn bumped productivity to 11.9% above trend but that subsequently has declined to 8.6% above trend. This points to the conclusion that a displacement of 9% of workers with machines occurred between 1998 and 2004.

Output and Hours

There is no better way to sum up this discussion than to take a look at Figure 9 which compares total hours worked on the horizontal axis and total output on the vertical axis. The lines from the origin are lines of constant productivity with the output/hour ratio fixed. Increases in productivity occur when the data cross these lines. Also in the upper left of this figure is a curved arrow that reflects the cost cutting that normally occurs in recessions in which first hours decline more than output and then output increases more than hours and finally both hours and output increase and move the curve in the northeasterly direction. During this cycle there is a productivity increase because when hours return to their prerecession level, output exceeds its prerecession value.

What you should be able to see is that the 1990 cost cutting cycle is somewhat larger than the earlier cycles and the 2001 cycle is huge with massive gains in productivity. The 2007 cycle has also been large but with both output and hours initially declining proportionately and thus not the same gain in productivity as the 2001 event which had hours decline with no output decline. Also worth noticing is the fact that in the 20th Century the output and hours curve moved mostly in the northeasterly direction punctuated with cost cutting during the economic recessions. But in the 21st Century it has been huge cost cutting cycles that have produced no increase in hours. The increase in output has come entirely from productivity gains. That's the microprocessor at work. Humans are so 20th Century.

Figure 9 Hours and Output Trends and Cycles



4 - Looking for Lingering Problems in Demand

Having uncovered a very large 10% increase in productivity from 1998 to 2003 during which hours were falling not rising, our attention now turns to the demand side: Which components of GDP have been especially weak and how much of the problem is on the demand side?

Postponable Components of GDP

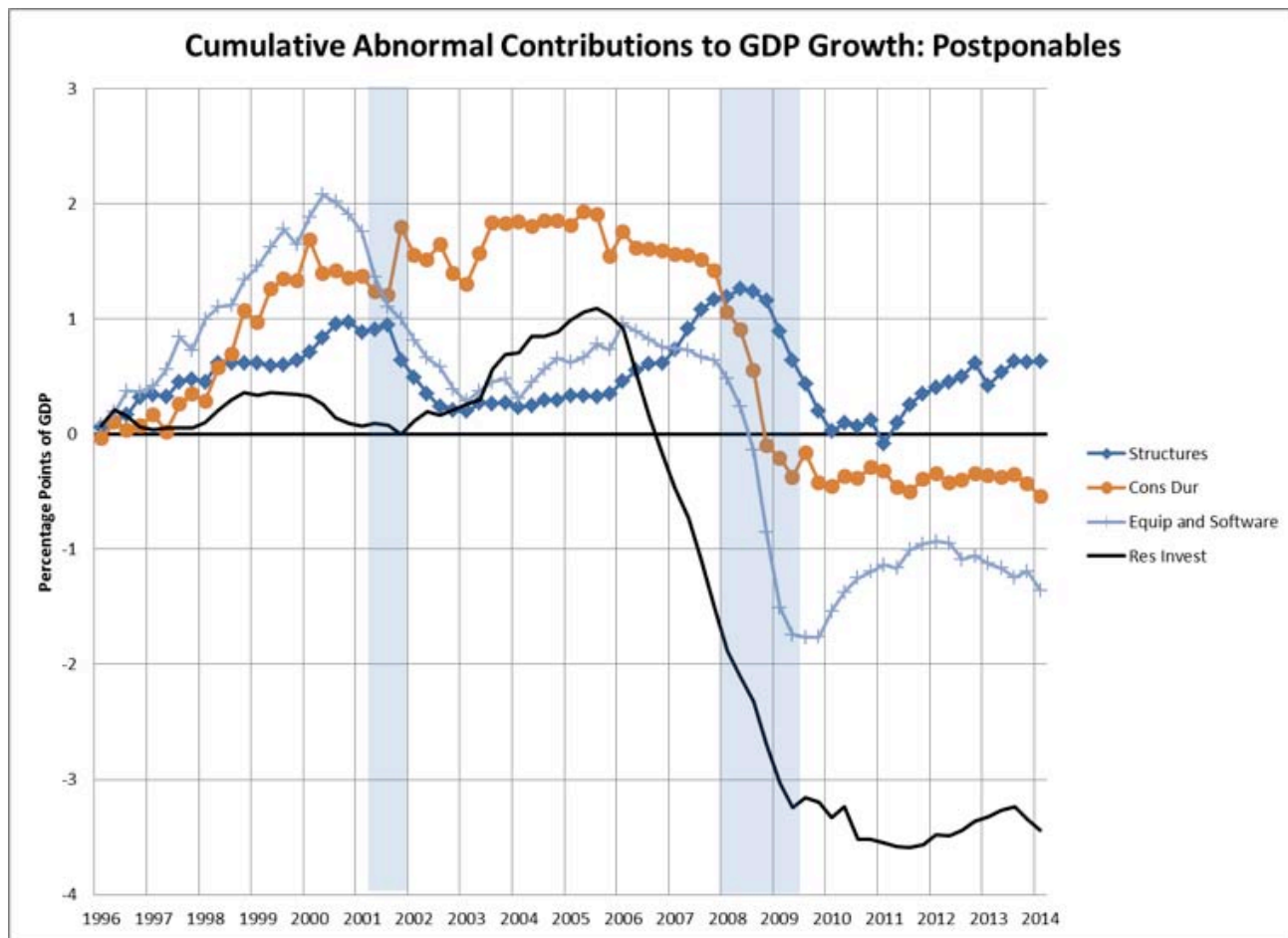
Figure 10 illustrates the “cumulative abnormal” contributions to GDP since 1996 of the four postponables: business structures, residences, equipment/software and consumer durables (especially automobiles). Demand for these typically falls in recessions since you don’t need a new car or a new home; you can make do with what you have.

Demand usually recovers quickly in these sectors in the aftermath of a recession. An abnormal contribution refers to the contribution minus the average contribution from 1970 to 2000. This is the equivalent of the detrending that was discussed in the previous section.

The Internet Rush from 1996 to 2000 came with exceptional spending on equipment and software, office buildings and also consumer durables but not residential investment. Apparently the equity appreciation was used to finance the purchase of expensive automobiles but not homes. The 2001 downturn corrected the excess spending on equipment and software and office buildings, but had no noticeable effect on consumer durables or residential investment. The low interest rates in the aftermath of that recession pumped up the housing sector, which dragged along business spending on equipment and software and on structures. Residential investment began to subtract

SOMETHING IS SERIOUSLY WRONG

Figure 10 Postponables cumulative abnormal contribution to GDP Growth



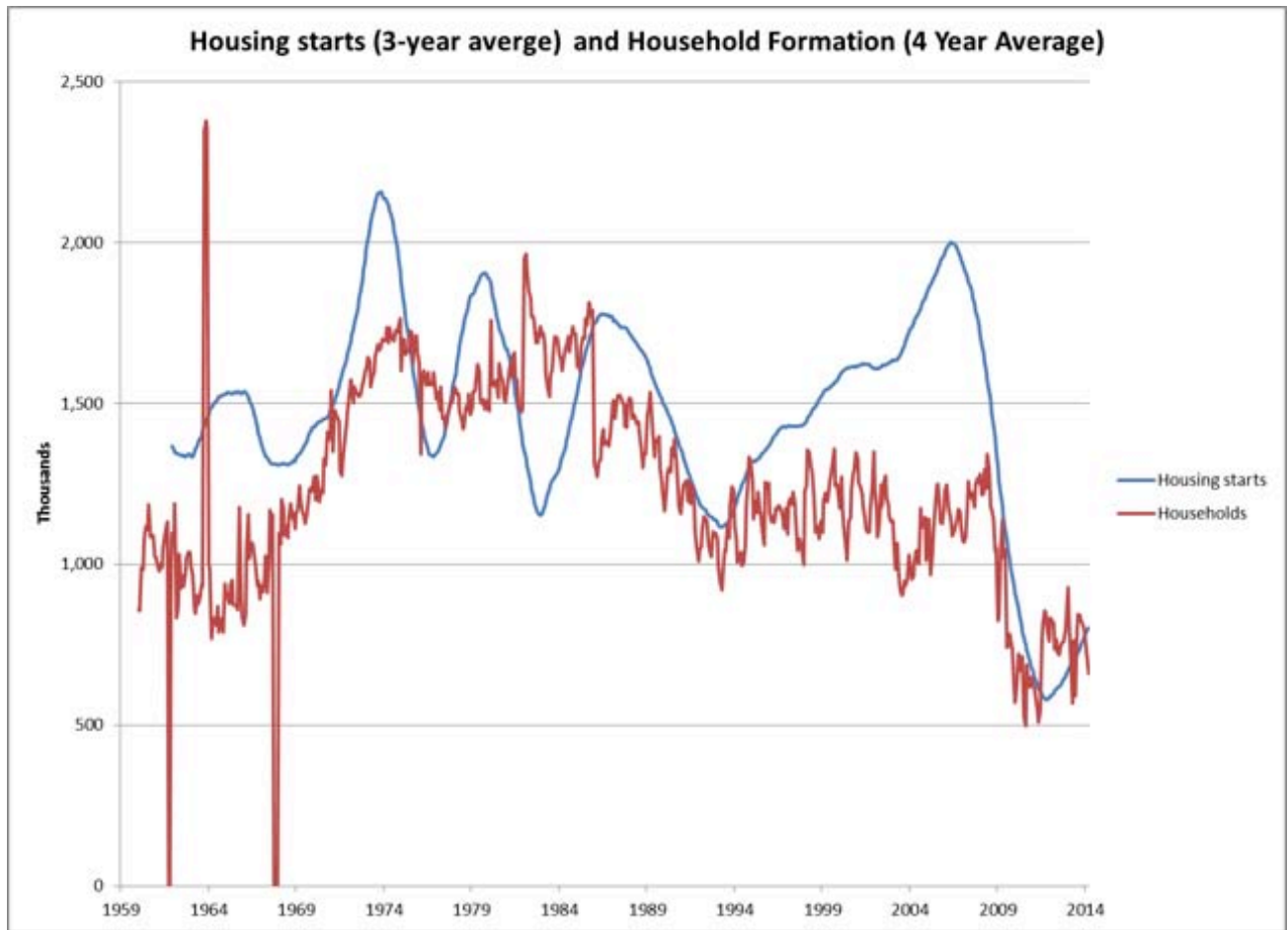
from real GDP at the end of 2005 and removed 3 percentage points before the 2008 recession officially commenced. Equipment and software spending weakened in 2006 along with residential investment, and then fell substantially in the recession of 2008/09.

Housing may not rebound

What really stands out in Figure 10 is the collapse in residential investment with a cumulative abnormal contribution to real GDP in 2014Q1 equal to a negative 3.4%. Shouldn't we be expecting to get some of that 3.4% back sometime soon? Figure 11 says maybe not. This compares housing starts with household formation. Household forma-

tion jumped in the 1970s from 1 million per year to over 1.5 million per year as the baby boomers started families. The rate of housing starts up and down around 1.5 million more or less matched the rate of household formation. But twenty years later in the 1990s household formation dropped to around 1.2 million but housing starts jumped up in excess of 1.5 million and in one three year period averaged 2 million per year. That sure looks like some serious overbuilding or a lot of second homes. Then household formation collapsed to around 700 in 2009 which was more or less matched by a collapse in housing starts. Unless household formation returns soon to the prerecession level of 1.2 or 1.3 million per year, it seems likely that housing starts will not exceed 1.0 million on a sustained basis.

Figure 11 Housing Starts and Household Formation



What's holding back household formation? Is it a weak job market? Are grandma and grandpa and mom and dad and the two twenty-something kids all living in the same unit, collectively hoping that the kids can find jobs and move out, and that mom and dad can also find jobs and can afford a separate apartment for grandma and grandpa? As the job market strengthens, can we expect household formation to strengthen as multi-generation households disassemble? That would be good for housing. The data illustrated in Figure 12 reveal a hardly perceptible recent increase in adults per household but that increase is big enough to matter a lot for housing. As illustrated in Figure 13, if the number of adults per household were held at the December 2007 level the subsequent increase in adults would create another 3.1 million households. That's two years of normal building of

housing units at the 1.5 million rate. As the labor market strengthens, we can expect to see greater rates of household formation and greater demand for places to live.

Figure 14 points to another explanation of weak household formation: slowing population growth. The old normal of 1.5 million housing starts per year was formed decades ago when population growth was 1.5% per year, but now population growth is close to 1%. Other things constant, that means GDP grows 0.5% lower than the old normal of 3.0%, and it means lower housing starts.

It's not just slower growth of population. It's also changing age composition. Figure 15 illustrates the increase in the working age (16-64) population and the increase in

SOMETHING IS SERIOUSLY WRONG

Figure 12 Population and Jobs per Household

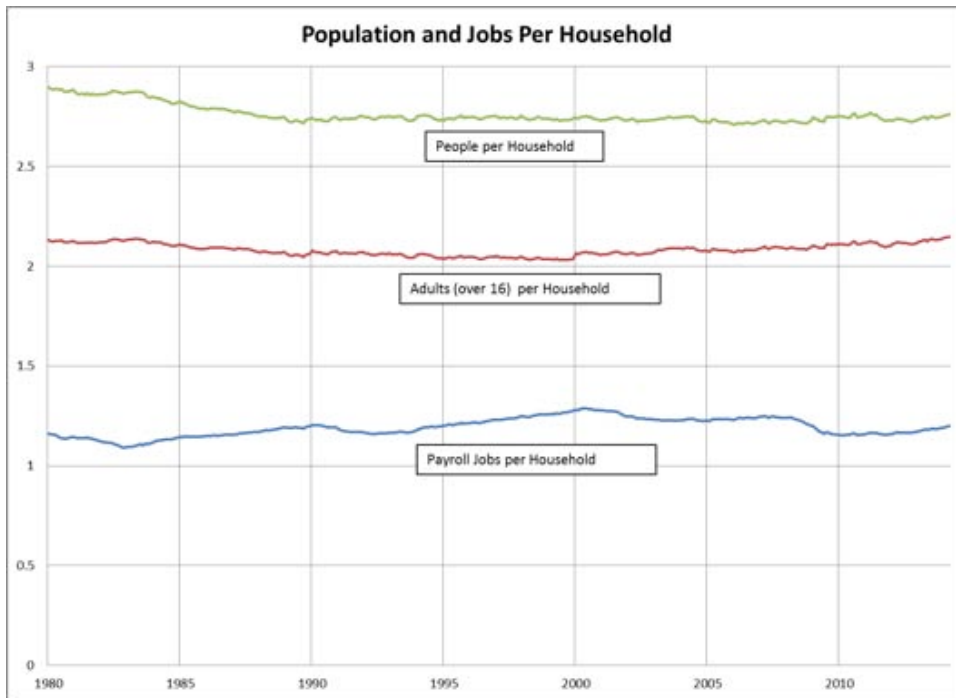


Figure 13 Missing Household Based on Assumption of Constant Ratio of Adults/Household

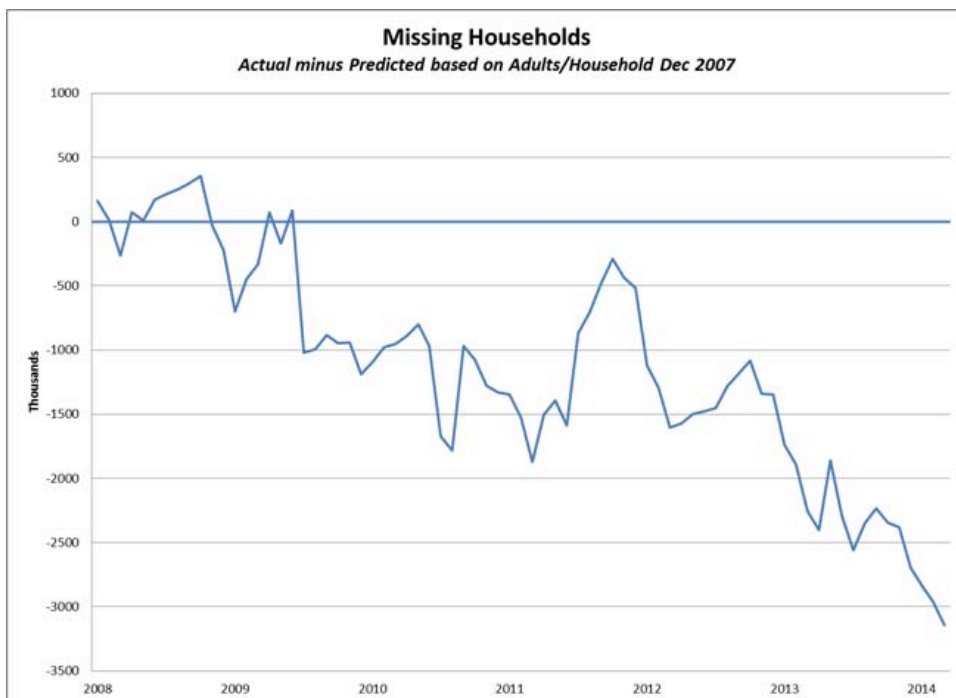


Figure 14 Slowing Population Growth

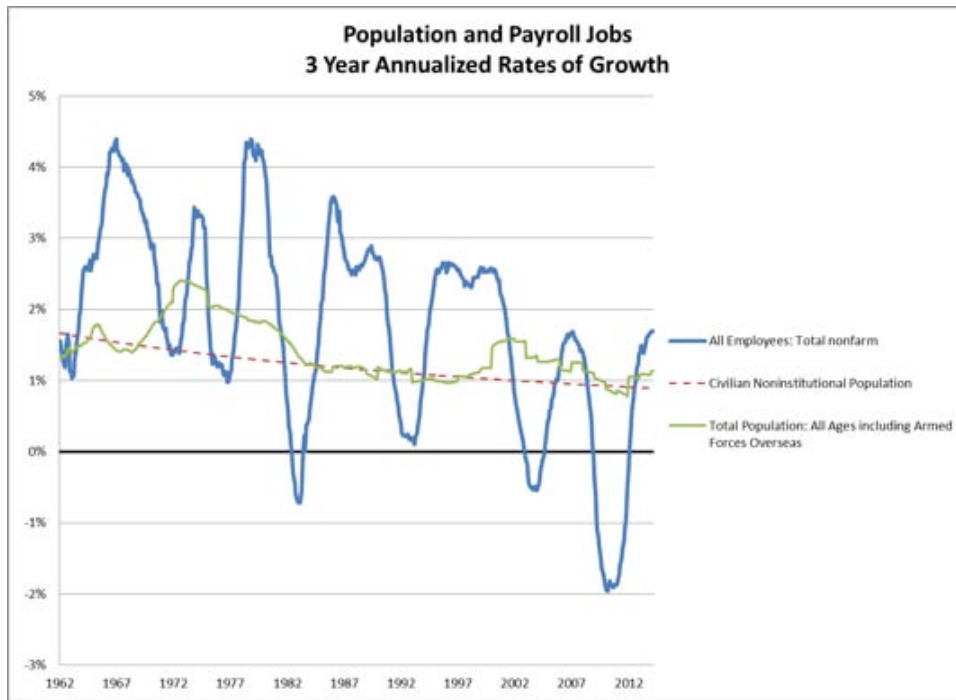
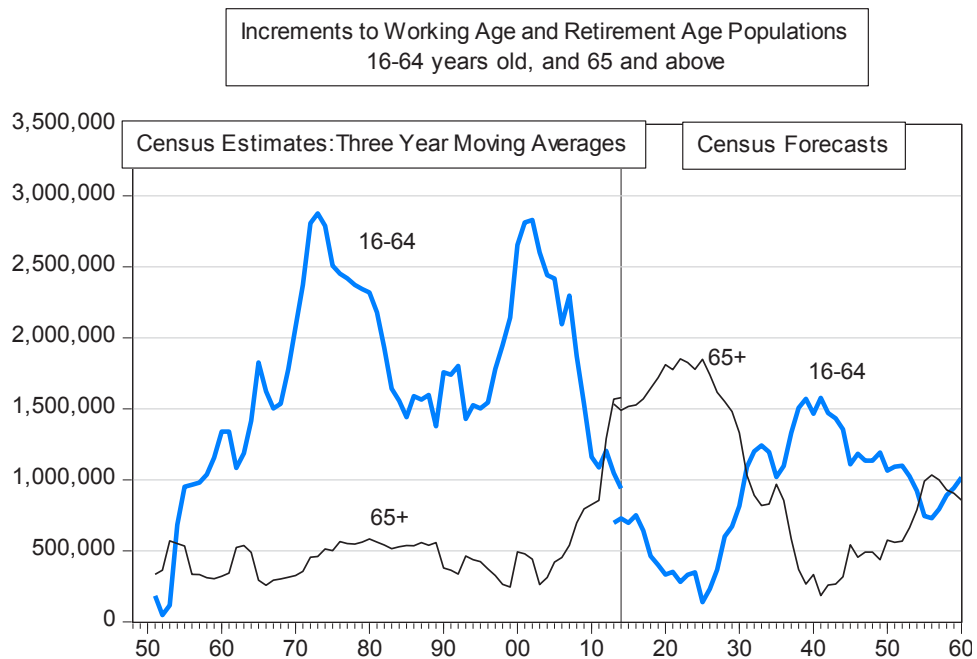


Figure 15 Working Age and Retirement Age Populations



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Figure 16 Population Increases by Age

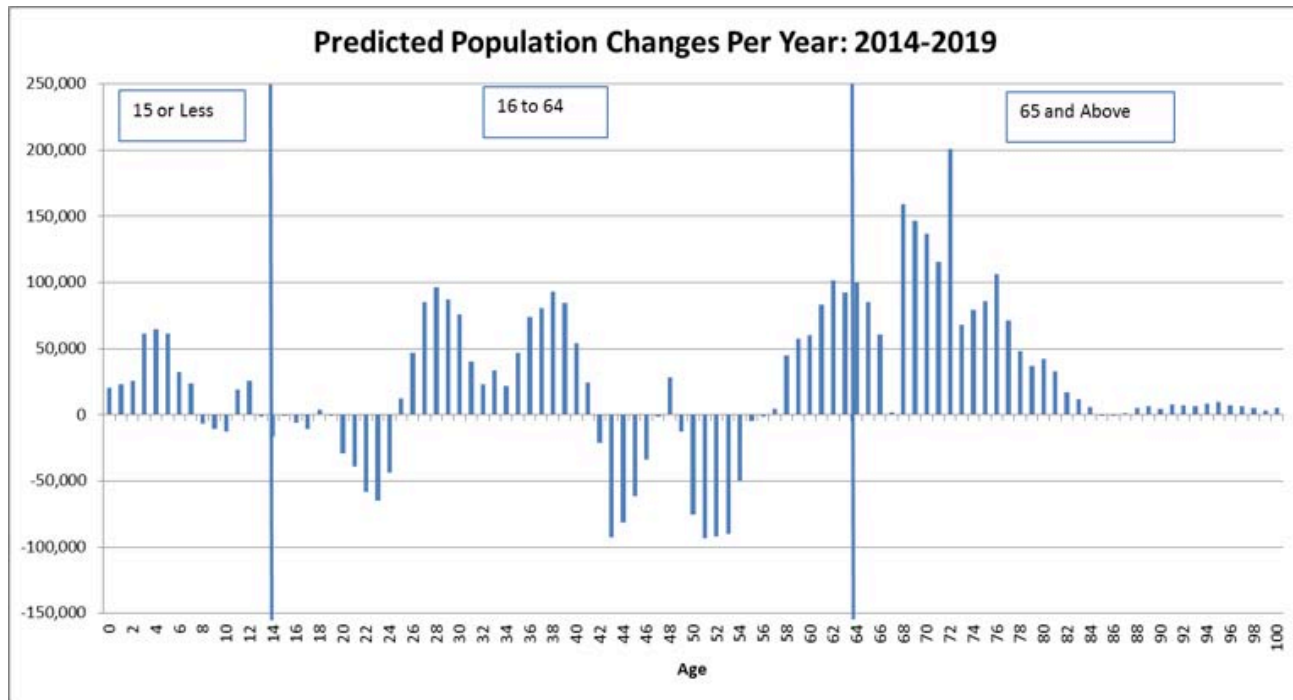
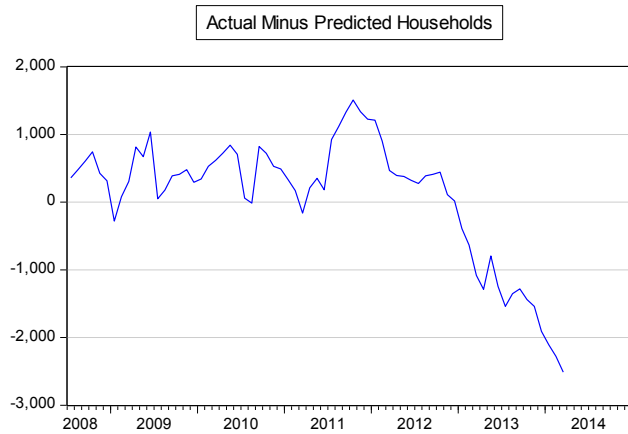


Table 1 Households Determined by Demographics and Jobs

Dependent Variable: HOUSEHOLDS_ADJ
 Method: Least Squares
 Date: 06/02/14 Time: 11:14
 Sample (adjusted): 1976M06 2007M12
 Included observations: 379 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Long -run
_16_17_YEARS	0.046	0.057	0.80	0.422	0.298
_18_19_YEARS	-0.029	0.055	-0.52	0.601	-0.187
_20_24_YEARS	0.028	0.025	1.09	0.275	0.182
_25_34_YEARS	0.037	0.031	1.16	0.245	0.240
_35_44_YEARS	0.083	0.027	3.12	0.002	0.546
_45_54_YEARS	0.027	0.024	1.13	0.260	0.175
_55_59_YEARS	0.093	0.056	1.66	0.098	0.612
_60_64_YEARS	0.036	0.057	0.64	0.521	0.239
_65_YEARS_AND_OVER	0.094	0.077	1.22	0.225	0.616
Payroll Jobs	0.018	0.007	2.43	0.015	0.119
C	1956	1055	1.85	0.065	
HOUSEHOLDS_ADJ(-1)	0.847	0.027	30.87	0.000	
R-squared	0.9998	Mean dependent var		92961.5	
Adjusted R -squared	0.9998	S.D. dependent var		11073.1	

Figure 17 Missing Households per Estimated Regression



is the watershed year when the increment to the working age population first fell below the increment to the retirement age population. Someone should have had a party then.

There will also be big changes within the working age population. Figure 16 illustrates the Census predicted average annual increases or decreases in population during the five-year period from 2014 to 2019 for each age. The big wave at the right in this figure is the aging of the baby boomers who in 2019 are 55 – 77 years old, born from 1942 to 1964. That increase in the elderly doesn't seem supportive of high rates of home building, something we will confirm next. The echo of the baby boomers can also be seen in the big increases in population of the 26-40 year olds. That may be where many of the new households are formed.

Table 2 Predicted increase in Number of Households

Projected 5-year annual increases(long-run)

Source of Population Projections: Census

	Five Years Ending			
	2019	2024	2029	2034
Total Pop	2,497	2,511	2,435	2,279
<16	310	373	386	189
16-64	591	329	402	1,110
16_17_YEARS	-17	48	63	57
18_19_YEARS	4	-11	-9	135
20_24_YEARS	-235	12	52	135
25_34_YEARS	523	141	-145	125
35_44_YEARS	262	593	575	192
45_54_YEARS	-482	-182	288	608
55_59_YEARS	100	-381	-63	-91
60_64_YEARS	436	109	-358	-53
65_YEARS+	1,596	1,809	1,648	981
Payrolls	2,132	1,000	1,000	1,000
Households	1,539	1,372	1,369	913

A data analysis can help identify which age groups are most important for household formation. Table 1 reports a regression of the number of households explained by population by age group and also payroll jobs and the number of households in the previous month. The last column has the long-run demographic estimated effect which are equal to the coefficient on the age group divided by one minus the coefficient on the lagged level of households. The long-run coefficient on payroll jobs equal to 0.12 suggests only a small effect of the job market on household formation in the long-run with each job supporting 0.12 extra households holding fixed the population variables. The smallest long-run coefficient on the age categories is equal to -0.19 and applies to the 18-19 year olds. This coefficient has a big standard error which makes it statistically indistinguishable from zero. In other words, the 18-19 year olds don't have a demonstrable effect on household formation. The largest long-run coefficient equal to 0.62 actually applies to the elderly. Elderly seem good for household formation, but this coefficient has a large standard error. The category with the most statistically significant coefficient is 35-44 year olds with a long-run coefficient equal to 0.55. Two of these folks translate into slightly more than one household.

the retirement age population (65 and over). A sharp rise of the retirement group begins in 2005 as the baby boomers grow older, something that is well understood, but also there has been a sharp reduction in the working age population, as the baby boomers leaving the working age are not being replaced by young people. The increment to the 65+ group will grow to 1.8 million per year while the increment to the working age population falls to under 500. The year 2012

The equation has been estimated with data up to 2007 and can be used to forecast from 2008 to 2014 to see if we can pick up the missing households. The difference between the actual and the forecast level of households is illustrated in Figure 17. This takes as inputs the actual levels of the demographic variables which are translated into a dynamic forecast of households. The difference between the actual and predicted number of households is illustrated in Figure 17. Prior to 2013 the weakness in payrolls included in the model is enough to account for the weakness in household formation but subsequently the model suggests that there are 2.5 million missing households, compatible with Figure 13.

The next order of business is to predict the rate of household formation in the decades ahead based on predicted changes in population. The Census predicted changes in the number of people in each of these age categories are reported by five-year intervals in Table 2 and used to predict the increase in the number of households with the coefficients in the regression in Table 1. Census expects the population to increase in the next five years by 2.5 million per year. That total includes a huge 1.6 million increase in the 65 and over group, and only a 591 thousand increase in ages 16 to 64. In other words, the worrisome trends in Figure 15 are predicted to continue. With that small annual increase in working-age population, we still have a large increase in payroll jobs, 2.1 million per year. Some of that must come from the 65 and over who cannot afford or do not want to retire, and some from an increase in labor force participation as the economy heals. But it is important to recognize that demographics are working against economic growth. This slow-growth fact is acknowledged in the predicted growth in payrolls after 2019 falling to only 1 million per year.

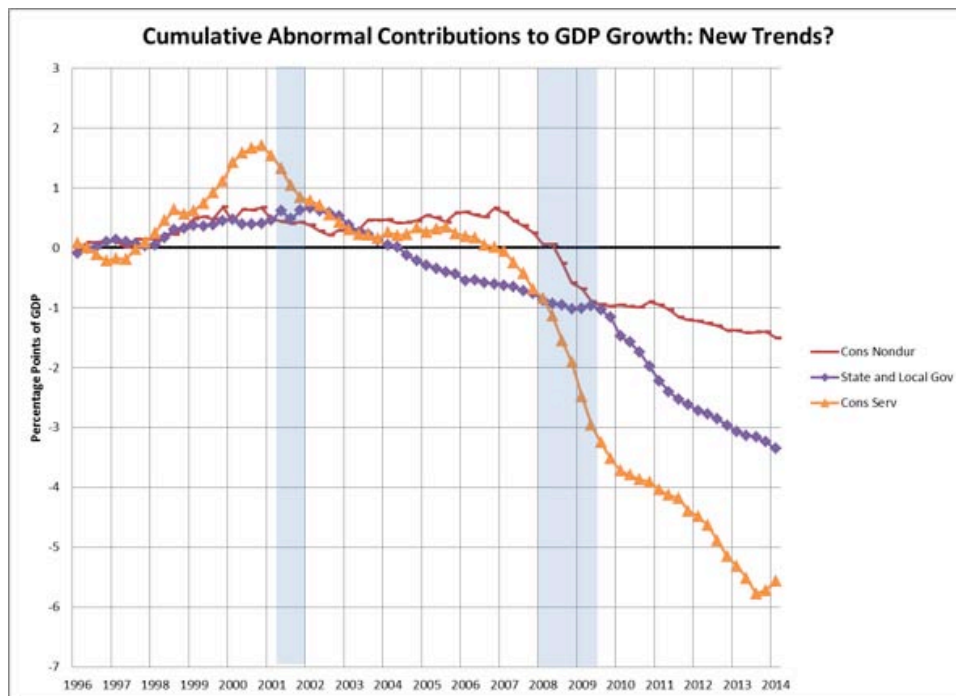
The last line in Table 2 reports the predicted increase in households implied by the payroll numbers and population numbers in each column. For the five years ending in 2019, we have predicted increases in households equal to

1.5 million. Add to that the 3 million missing households that may show up soon, and we should have a strong housing market over the next several years. After that, demographic trends slow down payroll growth and slow down household formation. That isn't good for the home building industry.

Deteriorating Components of GDP

At least the postponables illustrated in Figure 10 have stabilized at normal and the cumulative abnormal contributions have flat-lined. The three components of GDP illustrated in Figure 18 continue to erode: consumer nondurables, state and local government and consumer services. These are the components that have been holding GDP growth below 3%. The extreme weakness comes from consumer services, the components of which we review next. The other substantial weakness is in state and local government which has subtracted over 3% from GDP compared with its normal contribution. State and local demand has been weak since the recession of 2001 and its rate of deterioration compared with normal has accelerated in the recession of 2008/09. Given the commitment that has been made to public sector worker retirements and health care, it doesn't seem likely that state and local will normalize soon, but revenue increases with the growth that is occurring should help.

Figure 18 The Deteriorating Components of GDP



Service Sector Detail

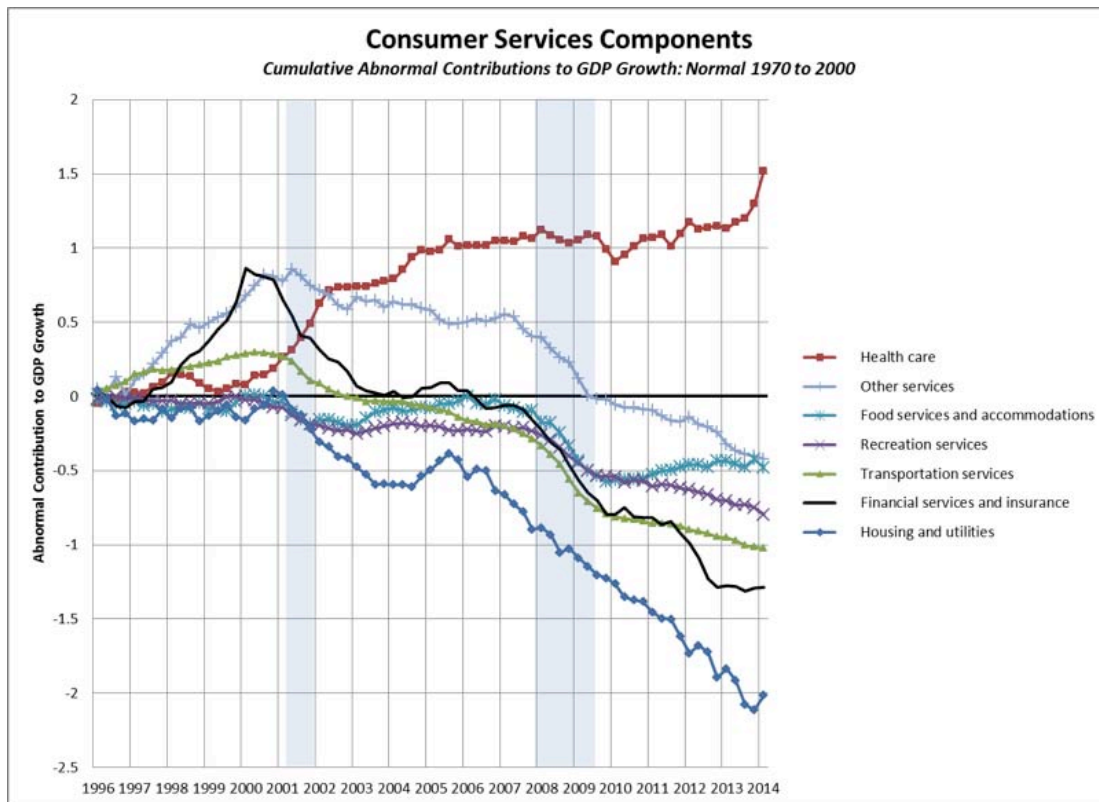
A surprisingly large share of the weakness of GDP has come from the broad category of consumer services. Disaggregated details of this component are illustrated in Figure 19. The standout component of consumer services is housing! Here we get another 2 percentage points of missing GDP from housing services (rental values of existing units). Don't expect to get that back. Next in terms of problems is financial services and insurance. Modest job growth is occurring in this sector but it is nothing like the job growth that occurred from 1940 to 1985, and not enough to suggest that this is reason for optimism.

The bright spots here are health care and food services. I am thinking, that is people becoming obese from constant fast food meals. Oh well, we count that as GDP.

Federal Government

What about another stimulus package, or another war? Figure 20 illustrates the cumulative abnormalities of federal defense and federal nondefense. The defense ramp-up for the war on terror added about 1.8 percentage points to real GDP demand but that has mostly been withdrawn with the defense cutbacks that began in 2011. The so-called stimulus package shows up as a tiny 0.3 percentage point increase in GDP from 2008 to 2010 which has been more than completely withdrawn by 2014. That's an important point when one evaluates the stimulus package: \$1 trillion of Federal spending financed by debt can be elevated once but has to be withdrawn unless we are willing to increase debt by another \$1 trillion. More likely, a stimulus package is a one-time injection of \$1 trillion in spending followed soon enough by a \$1 trillion withdrawal. When it is taken

Figure 19 Consumer Services Components: Cumulative Abnormals



SOMETHING IS SERIOUSLY WRONG

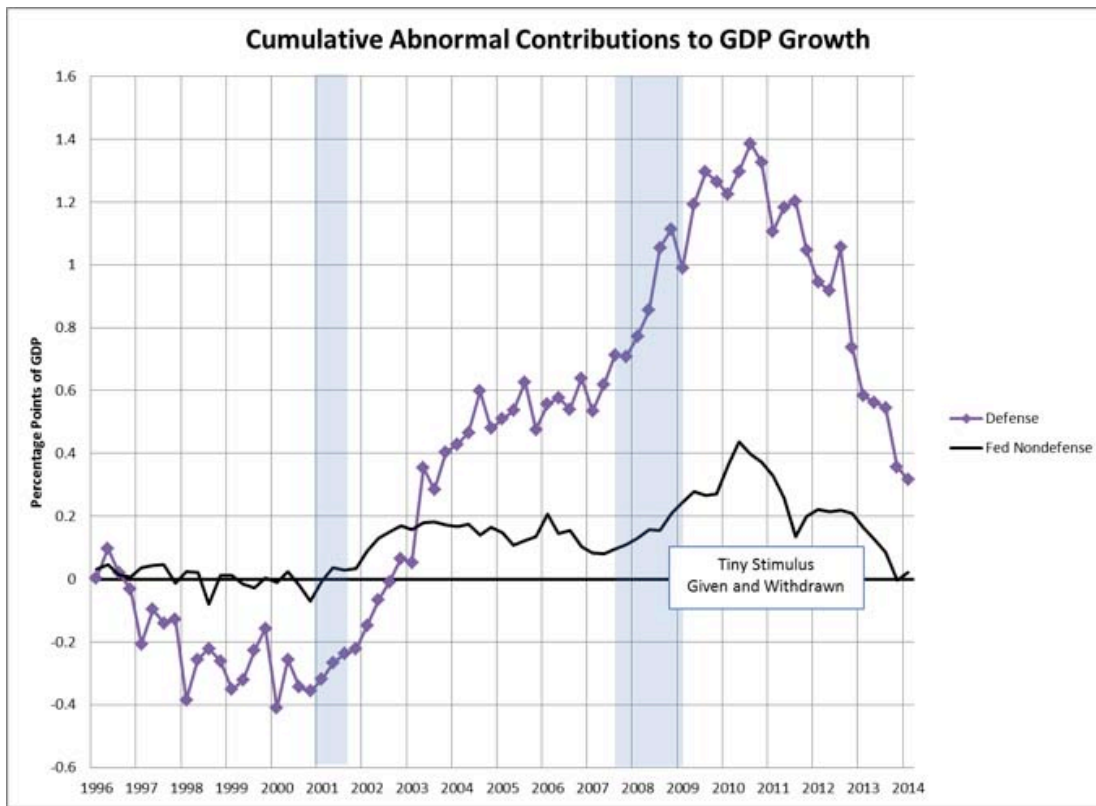
away, GDP will remain higher than it otherwise would have been only if that spending created some new momentum and other components of demand were stimulated on an ongoing basis even when the medicine is withdrawn. Do you think this stimulus created some special momentum, or are we pretty much where we would have been had we not had the stimulus? Do you know my view on this?

Conclusion

I am feeling very glum. How about you?

(If you have read this document all the way to the end please send a congratulatory email to edward.learner@anderson.ucla.edu)

Figure 20 Federal Government Spending



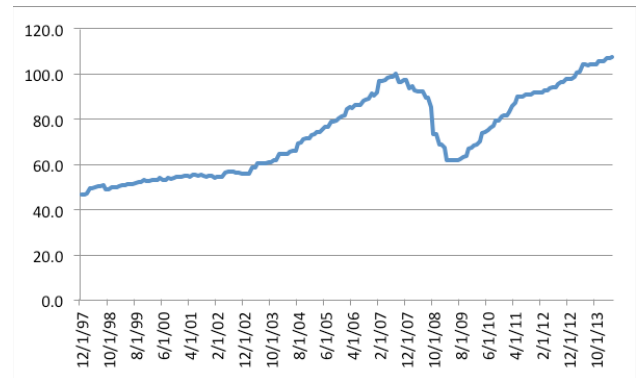
The Changing Landscape of Commercial Real Estate

David Shulman
 Senior Economist, UCLA Anderson Forecast
 June 2014

On the surface it would appear that the commercial real estate asset market is booming. The prices of “institutional grade” real estate have surpassed the prior boom levels of 2006-2007, the commercial mortgage backed securities (CMBS) market has risen from its nadir in 2009 and is half way back to the level of 2007, interest rates remain extraordinarily low, and commercial construction generally remains constrained, at least for now. (See Figures 1, 2, 3, and 4) Capitalization rates (net operating income divided by purchase price) for high-quality properties are in the 5% range or lower and investors in a yield-starved world are willing to accept ten-year pro forma internal rates of return in the 6-7% range. We are in truly heady times.

However, beneath the surface, commercial real estate, with the notable exception of apartments, faces the challenge of disruptive technology that is undermining tenant, as opposed to investor, demand for commercial real estate.¹ Put simply, disruptive technology is defined as a low cost solution that offers lower performance but, represents a

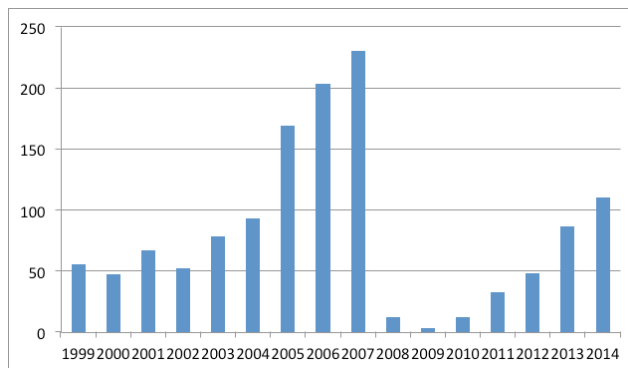
Figure 1 Green Street Advisors Commercial Property Index, Dec 97 -April 14, 2007 Peak = 100.



Source: Green Street Advisors

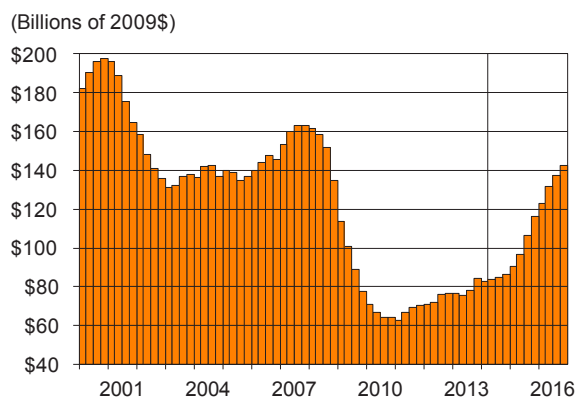
true value at the price. Think tablet computers compared to personal computers. In the following sections I will discuss the major issues facing each property type in turn.

Figure 2 CMBS Issuance, 1999-2014F, In \$ Billions



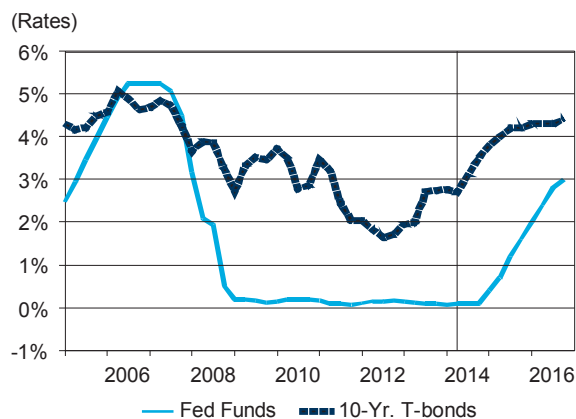
Source: Real Estate Alert and UCLA Anderson Forecast

Figure 3 Real Commercial Construction Spending, 2000Q1 - 2016Q4F



Sources: U.S. Department of Commerce and UCLA Anderson Forecast

Figure 4 Federal funds vs. 10 Year U.S. Treasury Yields, 2005Q1 - 2016Q4F



Sources: Federal Reserve Board and UCLA Anderson Forecast

Retail

Fifteen years ago, fear of internet competition stalked the retail real estate world. Then the fears were premature; today it is reality. The share of retailing going to e-commerce has risen from 1% in 2000 to 6.2% today. (See Figure 5) **Indeed if you strip out the non-e-commerce intensive automobile, gasoline, retail food and restaurant groups the share of retail spending devoted to e-commerce doubles to 12.5%.** In fact, since the recession lows, e-commerce sales have advanced 110% while retail sales ex- autos have risen just 23%; not a pretty picture. Slowly but surely e-commerce is eroding the very foundations of retail real estate.

This trend is manifested in still very high mall vacancy rates which are at recession levels, and in the bifurcation of the mall business. (See figure 6) For now the Class A malls are thriving with sales per square foot exceeding \$700. However, the bottom tier malls with sales per square foot of less than \$300 are suffering. They are certainly not being helped by the slow motion demise of JC Penney and Sears. Of the 1050 open and enclosed malls in the U.S. about 150 of them have vacancy rates in excess of 20%.² Instead of being retail draws they have become places where retailers go to die. At the end, most of those malls will be “scrapped” with alternative uses found for the land.

Although the top tier malls appear to thriving, underlying sales growth has been eroding over time. For example Simon Property Group, the nation’s largest mall owner, has reported consistently rising leasing spreads (new leases above existing leases), as sales growth is stagnating. (See Figure 7) This trend is not sustainable. Simply put, retailer profitability is eroding in the face of sluggish consumer spending and greater pricing transparency induced by smart phones and to the detriment of the mall. Retailers are upping their own e-commerce games. Thus, it is no surprise that mall operators are keen to add more restaurant tenants into their mix and they too will have to up their investment in technology. Furthermore, the travail of the B-malls might just represent the canary in the coal mine.

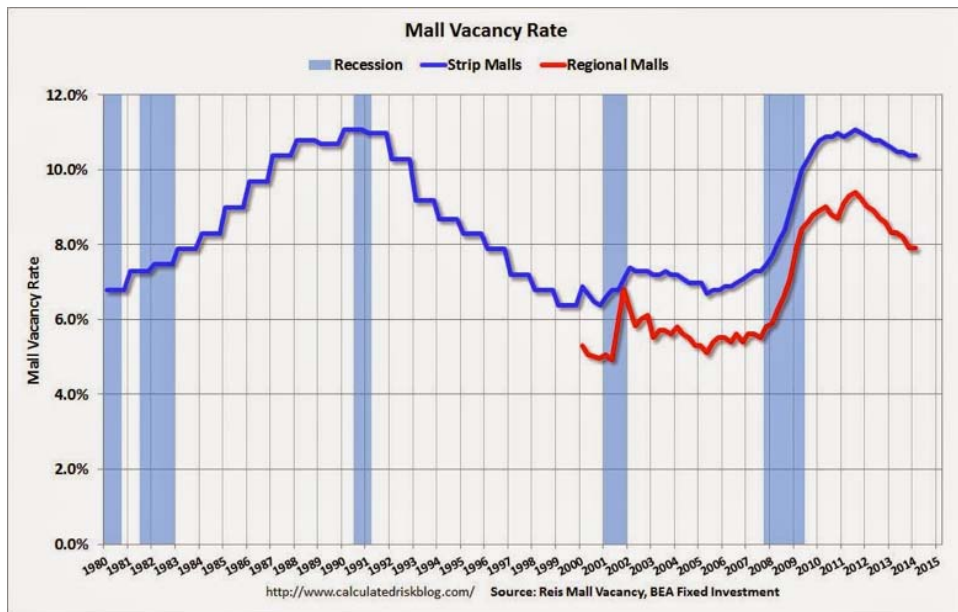
Similarly, power and community and even neighborhood centers are facing digital competition. Home Depot is no longer expanding its store count as it is now concentrating its efforts on e-commerce. Although there are e-commerce retail food distribution models, the entrance of Amazon into this arena certainly bears watching. Needless to say, e-commerce is making huge inroads into kitchen, bath personal care and pharmacy items. Look out Bed, Bath and Beyond.

Figure 5 E-Commerce Sales as a Percent of Total Retail Sales, 2000Q1 – 2014Q1



Source: U.S. Department of Commerce via FRED

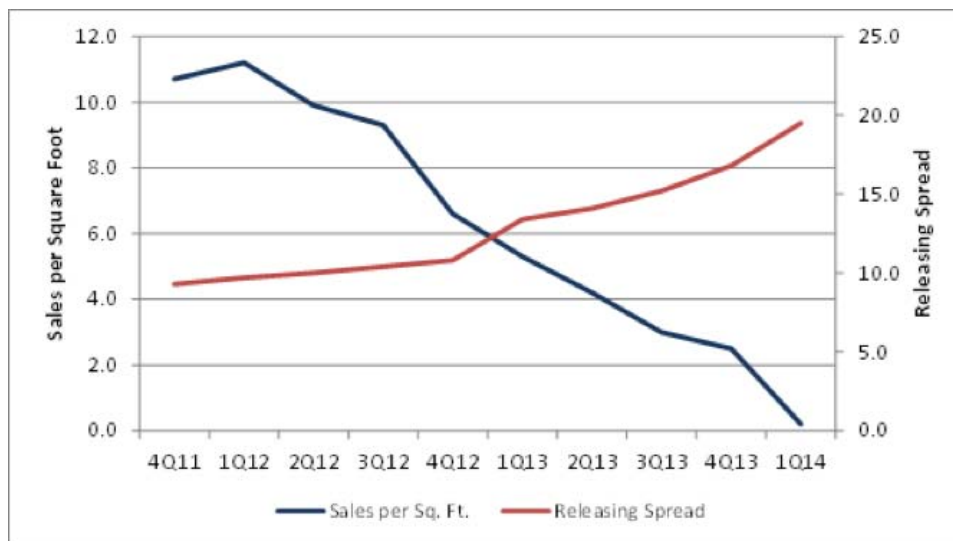
Figure 6 Mall Vacancy Rates, 1980-2014Q1



Sources: Calculatedriskblog.com and REIS.

THE CHANGING LANDSCAPE OF COMMERCIAL REAL ESTATE

Figure 7 Simon Property Group, Sales/Square Foot, Percent Change, Year over Year vs. Releasing Spread, 2011Q4 - 2014Q1



Source: David Harris, Imperial Capital

What is working in retail appears to be street level retail in dense urban centers that have a significant tourist component to support underlying demand. For example, retail rents in Manhattan have been known to exceed \$2000 a square foot with rents in high hundreds common. Contrast this with top mall rents of around \$100 a square foot. Critical for this model to work is a dense environment of high income consumers. Aside from Manhattan, think Boston, Chicago, San Francisco and parts of West Los Angeles/Beverly Hills/Santa Monica.

Office

Aside from a few exceptions such as Manhattan, San Francisco, San Jose, Seattle, and Houston, the office market remains in the doldrums. The national office vacancy rate stands at a high 16.8% and has only marginally come down from its recession peak of 17.5%. (See Figure 8) There are two very important factors at work. First, as we discussed

previously, the historic drivers of office demand, financial and legal services employment are but a shadow of their former selves.³ (See Figures 9 and 10) For example, financial activities and legal services employment increased by historically modest 55,000 and 1,000 jobs over the past year and both are still below their pre-recession peaks. In contrast, employment in computer systems design, management and technical consulting and support services for mining (largely oil and gas) increased by 63,000, 51,000 and 29,000 jobs, respectively. Indeed all three categories are at new highs.

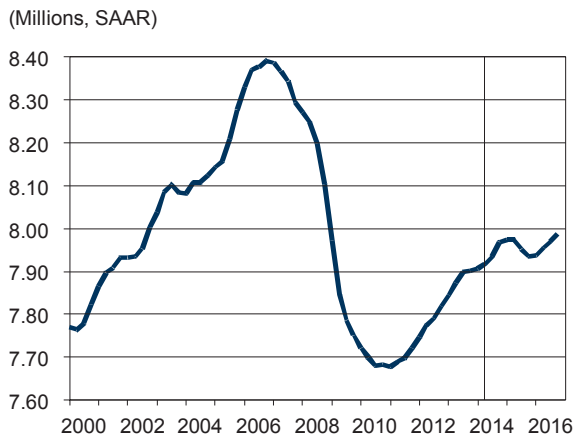
This change in the pattern of office employment growth explains why the technology and energy related office markets are doing so much better than the more traditional markets. And it also explains why the previously out of favor mid-town south markets of Manhattan, where technology firms tend to concentrate are doing far better than the very traditional Park Avenue market. In Los Angeles, the same goes for Silicon Beach compared to Brentwood.

Figure 8 National Office Vacancy Rate



Sources: *Calculatedriskblog.com* and *REIS*.

Figure 9 Financial Activities Employment, 2000Q1 - 2016Q4F



Sources: *Bureau of Labor Statistics* and *UCLA Anderson Forecast*

A far more serious challenge to office demand is that under the impetus of changes in technology and technology-oriented tenants, the space demanded per office worker is dramatically contracting. Instead of 200 square feet of office space per worker, office space is now being designed around utilizing 150 square feet per worker. Moreover, in many new buildings for tech-oriented tenants space planners are now allotting only 120 square feet per worker.

Why is this happening? First, technology has reduced the demand for file space and reference rooms as records have become digitized. Second, technology firms emphasize collaborative work environments utilizing open floor plans. The densification of work spaces has not been limited to technology firms as Goldman Sachs, Credit Suisse and Unilever have adopted floor plans allocating 150 square feet per worker.

THE CHANGING LANDSCAPE OF COMMERCIAL REAL ESTATE

Figure 10 Legal Service Employment, Jan 2000 – April 2014, In Thousands



Sources: Bureau of Labor Statistics via FRED.

Figure 11 Panama Canal Logistics



Source: Google

What this means is that much of the existing office stock is technologically obsolete. It is no easy task to go from 200 square feet per employee to 150 square feet or less. At higher employment densities existing buildings have issues with elevator, restroom, ventilating and fire stairwell capacity. Further, in suburban markets with limited mass transit, the traditional parking ratio of 4 spaces per 1000 square feet of office space will prove to be inadequate. Thus, even in high vacancy markets we will see new construction to accommodate the new workplace of the 21st century. Put bluntly, even at higher rents an office building in a dense configuration can cost less on a per employee basis than a lower density building. As a result, the national office vacancy rate will stay high for many years to come. And it should surprise no one that urban office buildings are being converted to residential use and suburban office buildings are being “scrapped” to make way for high-density, residential development.

Industrial

The industrial market is gradually recovering from recession as the availability rate has gradually declined from 14.5% in 2010 to around 11% today according to CBRE. Industrial space has and will continue to benefit from e-commerce as warehouse space is substituted for retail space and the need to be closer to the consumer. However, the main driver of demand on the coasts has weakened with softer import growth.

Of greater consequence will be the completion of the delayed widening of the Panama Canal in 2016 to accommodate the larger container ships. That mega-project has the

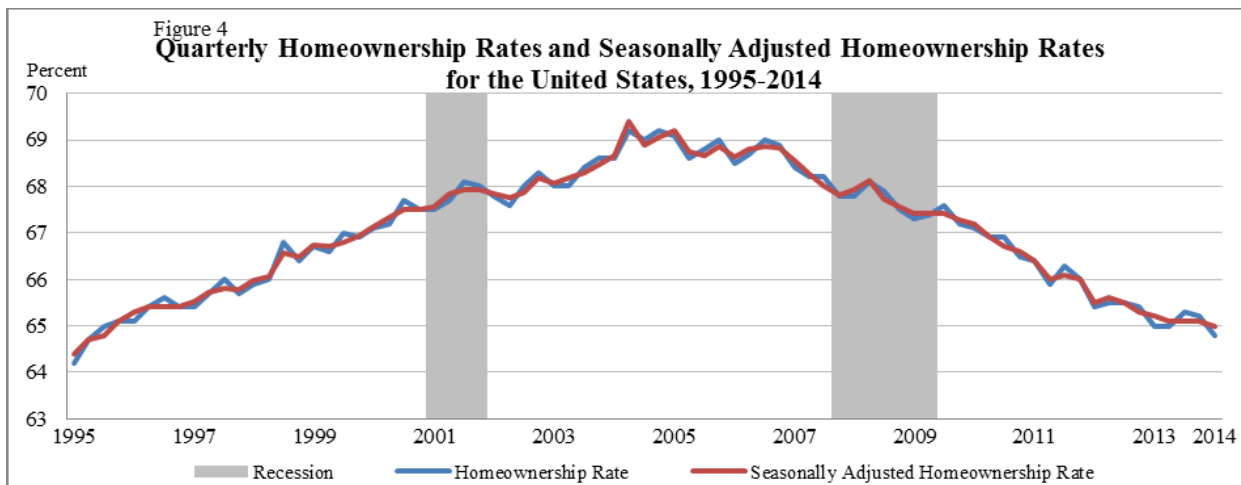
potential to shift warehouse demand from the west coast to the gulf and east coast ports benefitting such port cities as Houston, Savannah and Charleston. (See Figure 11)

Hotels

Technology has made the hotel business far more transparent. There are a host of on-line services that supply up-to-the-minute pricing data for hotel rooms throughout the world. There are also consumer reviews available for practically every hotel in America. More than ever hoteliers have to be on their toes. All of this has been true for about the past decade. What is new is the rise of the “sharing economy” where individuals offer up their own houses, apartments or rooms to be made available for temporary rental.

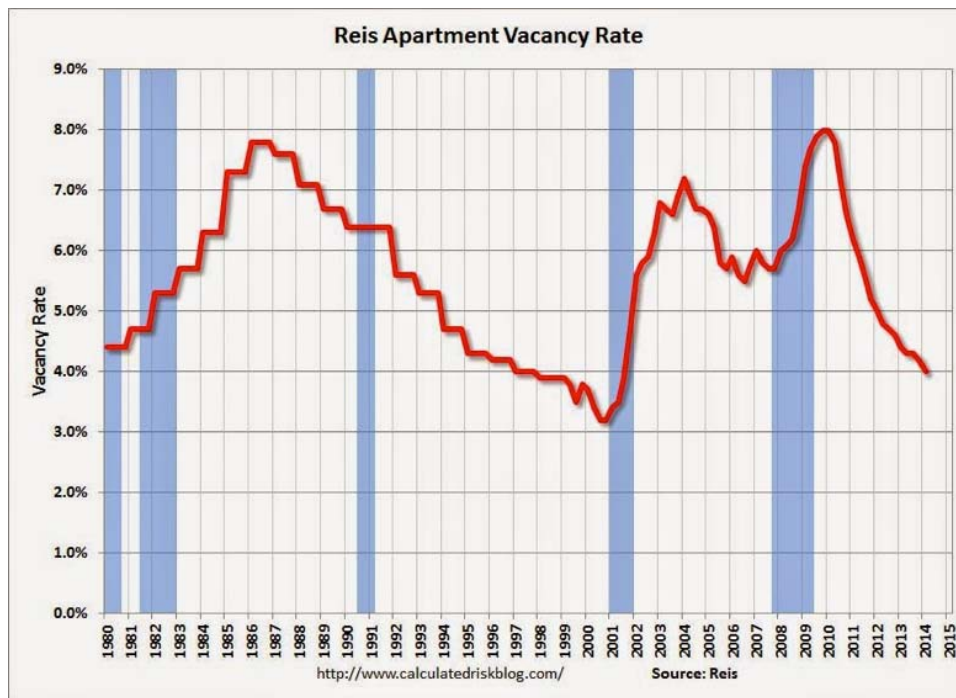
The prototype of this new form is Airbnb a website that offers up private accommodations in people’s homes. Earlier this year, Airbnb received venture financing that established a \$10 billion value for the firm, greater than the market capitalization of Hyatt Hotels. This is truly disruptive competition. It doesn’t have to be as good as a hotel room. All it has to be is cheap and convenient. Of course, it should not be surprising that the regulation-heavy cities, under the guise of protecting rent control, of New York and San Francisco are making moves to stifle this new form of competition to the hotel industry. There is also the issue of collecting hotel taxes where the owner is responsible for both collection and payment of the tax. Airbnb is in the process of seeking legislative change to allow it to collect and pay the required taxes. Meanwhile, a recent perusal of the Airbnb found a host of accommodations in or near Westwood Village at prices ranging from \$50-\$350 a night.

Figure 12 Homeownership Rate, 1995Q1 -2014Q1.



Source: Bureau of the Census

Figure 13 Apartment Vacancy Rate



Sources: Calculatedriskblog.com and REIS.

Figure 14. Consumer Price Index, Rent of Primary Residence, Jan 2000 – Apr 2014, Percent Change Year Ago.



Sources: Bureau of Labor Statistics via FRED.

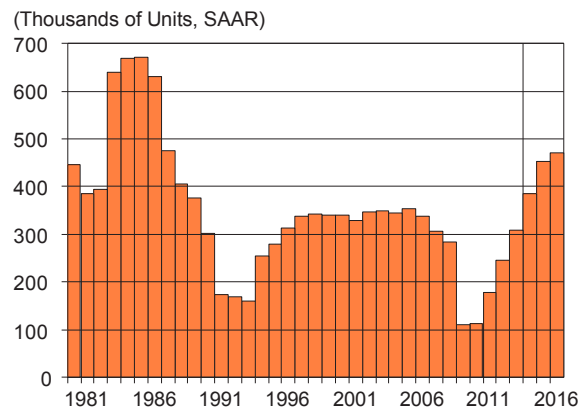
Multi-Family Housing

Multi-family housing is in the sweet spot. The sector is benefitting from

- A decline homeownership rate (See Figure 12)
- An increased consumer preference for urban and sub-urban density.
- A still sluggish economy that is delaying such life cycle events as marriage and childbirth.
- The need for 24/7 tech workers to be close to their employment.
- Transit-related development being viewed as “green.”

All of these forces have led to a free fall in the apartment vacancy rate to 4% from the recession high of 8%, increasing rents, and a surge in construction. (See Figures 13, 14 and 15) We would also note that the 3% increase in year-over-year rents reported by the Bureau of Labor Statistics is understated because of a few technical issues. Specifically, we are forecasting multi-family housing starts to easily exceed 400,000 units a year in 2015 and 2016 which will represent their highest level since the mid-1980s. Of course, by 2016 the increases in construction and a leveling off in the homeownership rate will cause vacancies to rise and rent increases to abate. Meanwhile the boom is on.

Figure 15. Multi-Family Housing Starts, 1980 – 2016F



Sources: Bureau of the Census and UCLA Anderson Forecast

Conclusion

In this report we have outlined several very important issues facing commercial real estate. We do not expect investors will focus on the technological disruption facing retail, office and hotel real estate until capital market conditions become less favorable. There is too much money pouring into real estate to worry right now. Simply put, the worriers don’t get the deals. Nevertheless, when the capital markets turn, investors will wake up to the changing landscape for commercial real estate.

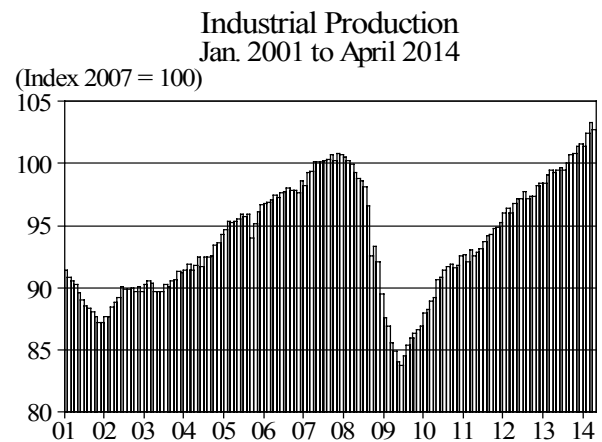
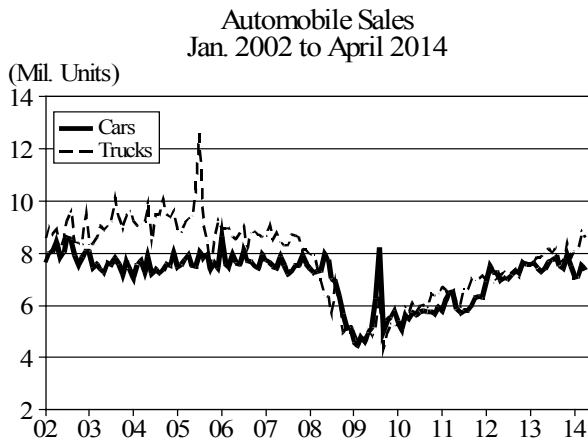
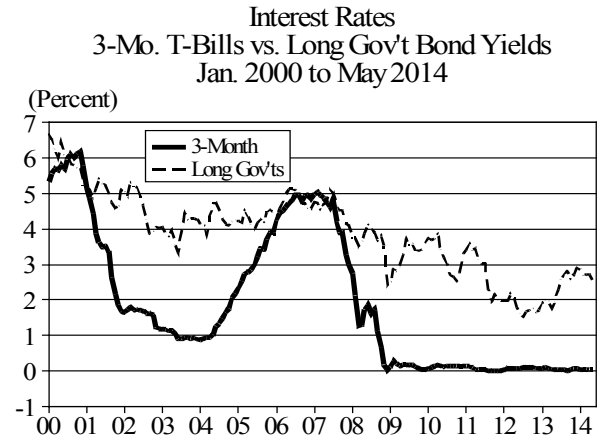
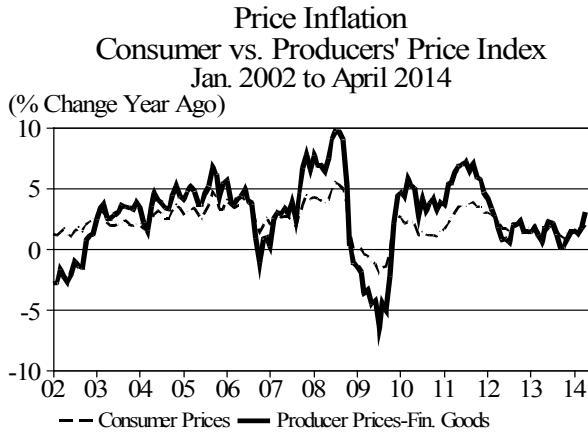
Endnotes

1. For a discussion of disruptive technology see, Christensen, Clayton M., *"The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail,"* (Boston: Harvard Business School Press, 1997)
2. See Kapner, Suzanne and Robbie Whelan, "Struggling Malls Suffer as Penney, Sears Shrink," *The Wall Street Journal*, May 10, 11, 2014, p.1.
3. See Shulman, David, "An Uneasy look at office Space Demand," *UCLA Economic Letter*, December 2012

THE UCLA ANDERSON FORECAST FOR THE NATION

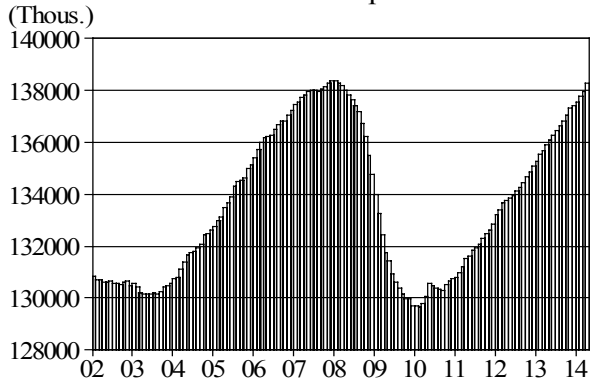
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Charts

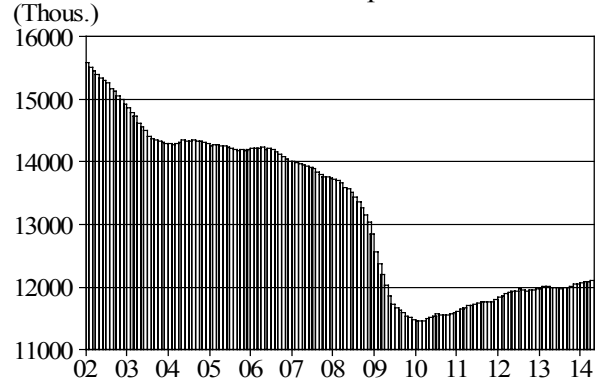


CHARTS - RECENT EVIDENCE

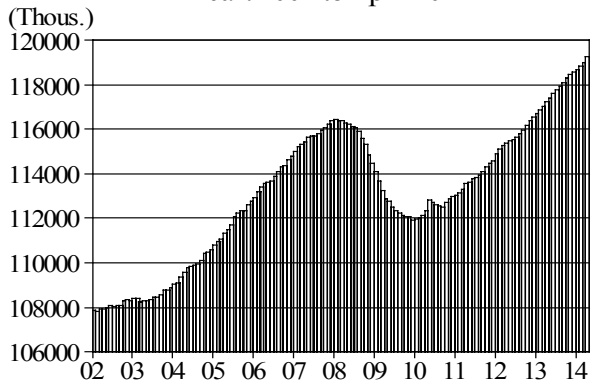
Total Nonfarm Employment
Jan. 2002 to April 2014



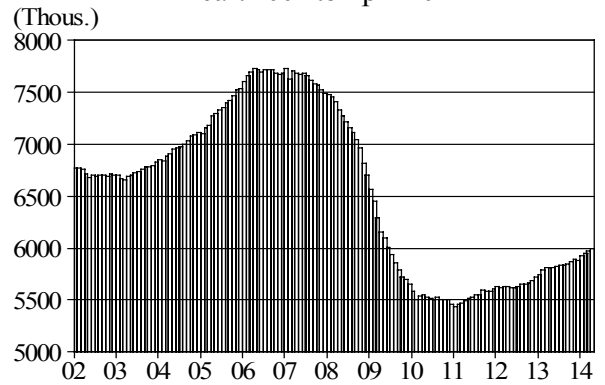
Employment in Manufacturing
Jan. 2002 to April 2014



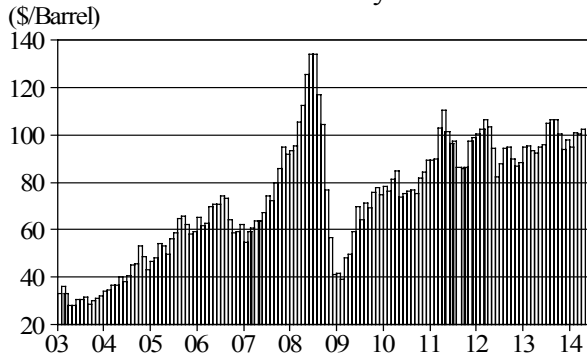
Employment in Services
Jan. 2002 to April 2014



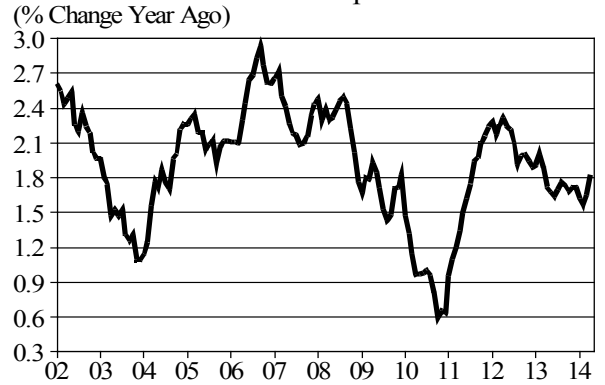
Employment in Construction
Jan. 2002 to April 2014



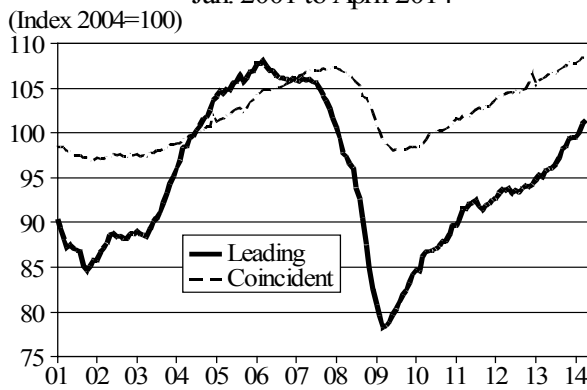
Crude Oil Price
West Texas Intermediate
Jan. 2003 to May 2014



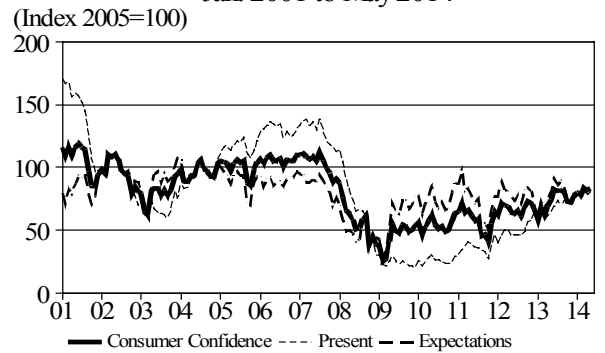
Core Consumer Price Index
Jan. 2002 to April 2014



Composite Indexes of Economic Indicators
Jan. 2001 to April 2014

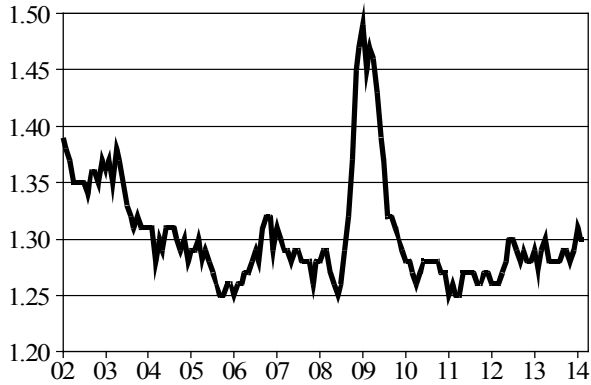


Indexes of Consumer Attitudes
Conference Board
Jan. 2001 to May 2014

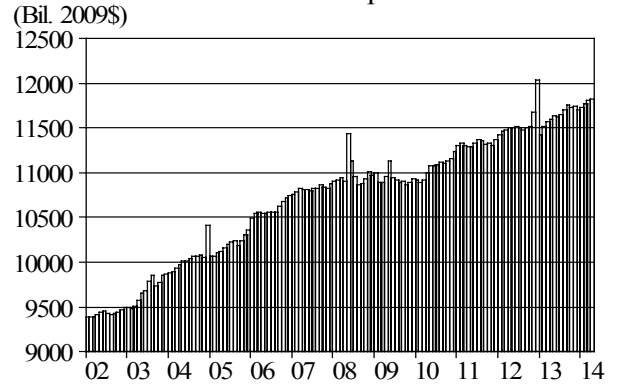


CHARTS - RECENT EVIDENCE

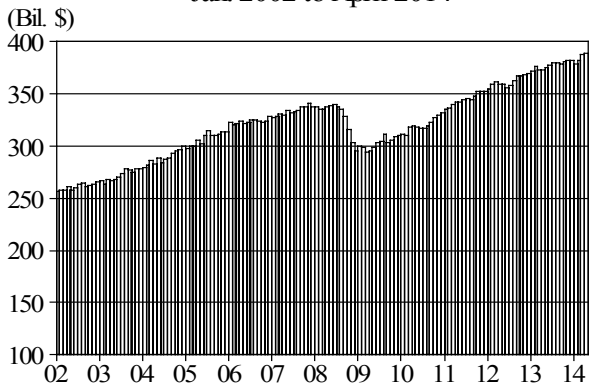
Total Business Inventory-to-Sales Ratio
Jan. 2002 to March 2014



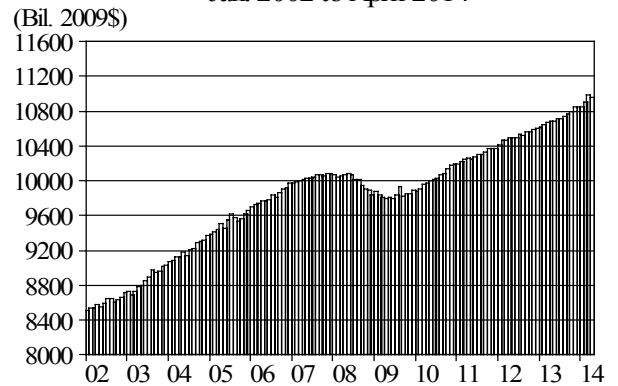
Real Disposable Personal Income
Jan. 2002 to April 2014



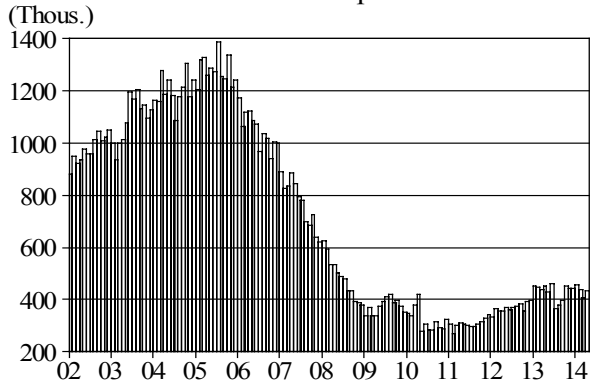
Retail Sales
Jan. 2002 to April 2014



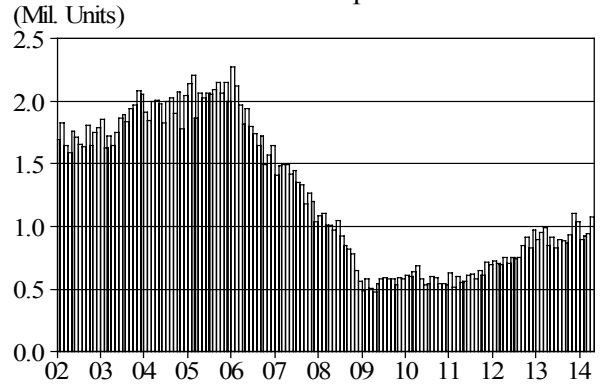
Real Personal Consumption
Jan. 2002 to April 2014



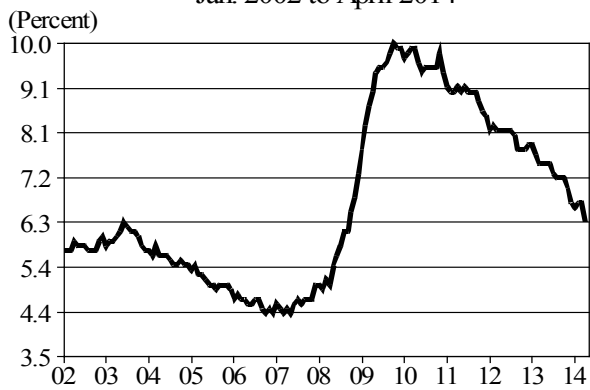
Single-Family New Home Sales
Jan. 2002 to April 2014



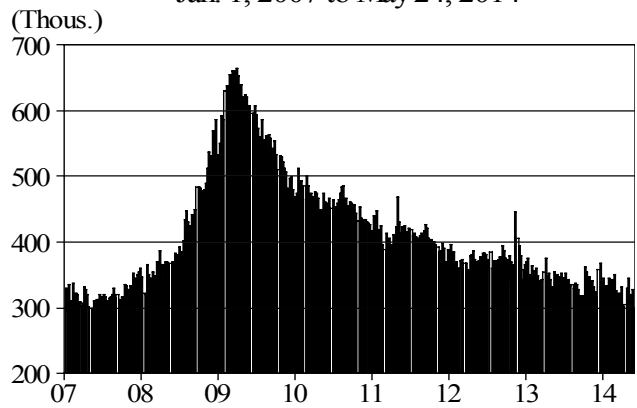
Housing Starts
Jan. 2002 to April 2014



Rate of Unemployment
Jan. 2002 to April 2014

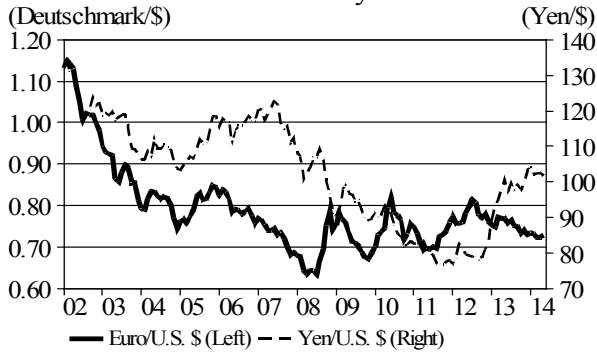


Unemployment Insurance Claims
Jan. 1, 2007 to May 24, 2014

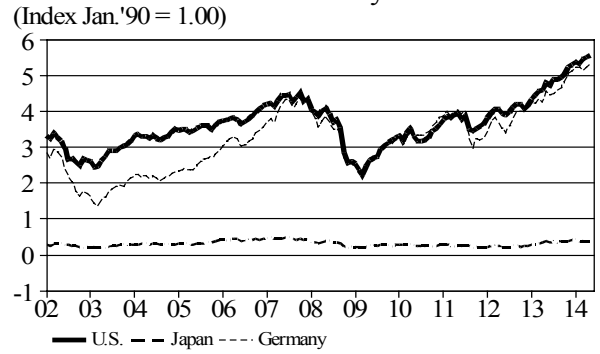


CHARTS - RECENT EVIDENCE

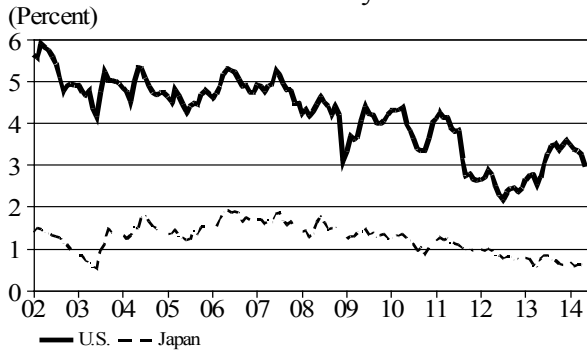
Japanese and European
Exchange Rates
Jan. 2002 to May 2014



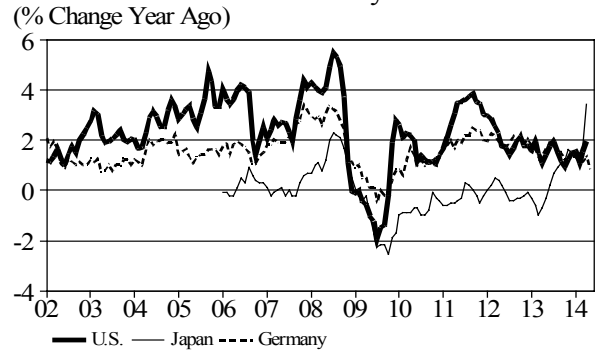
U.S., Japanese and German
Stock Markets
Jan. 2002 to May 2014

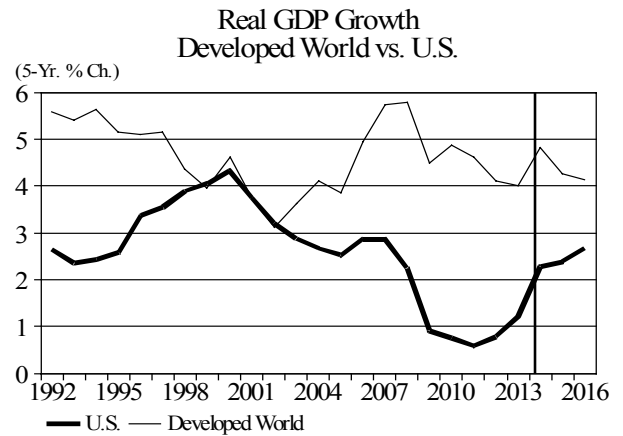
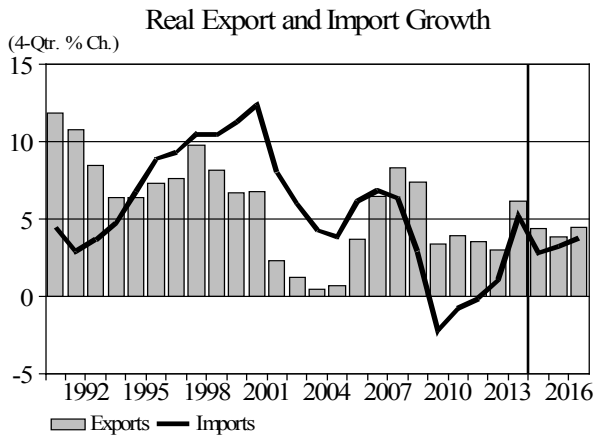
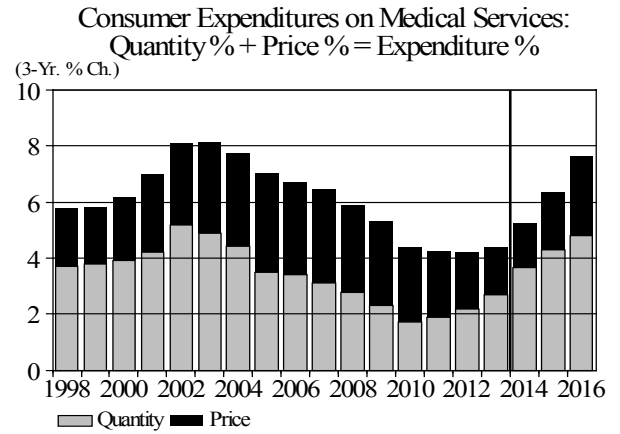


U.S. and Japanese
Long Term Gov't Bond Yields
Jan. 2002 to May 2014

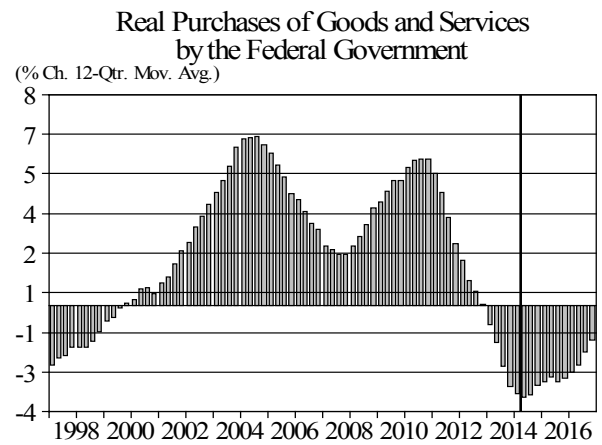
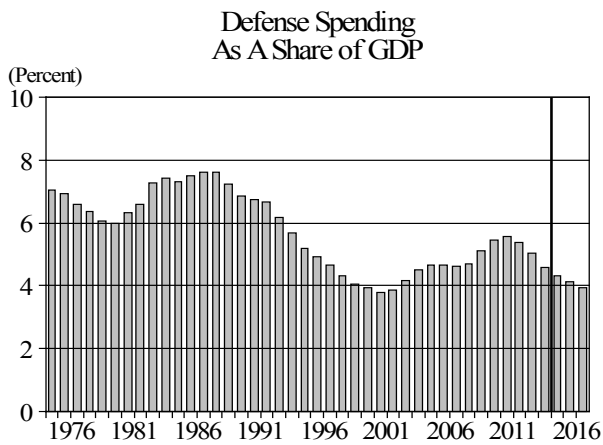
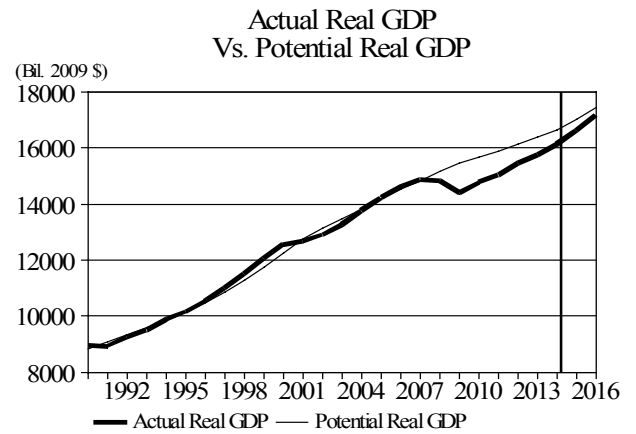
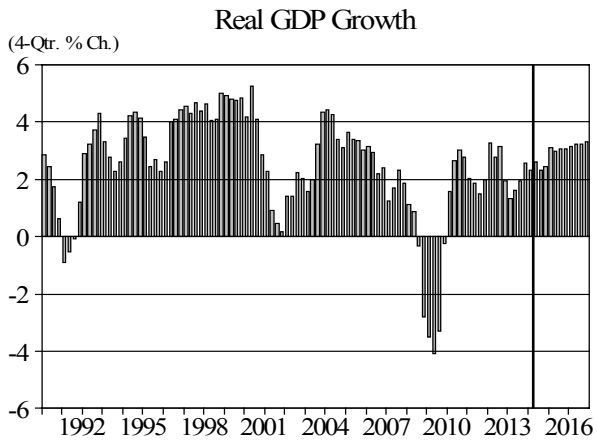


U.S., Japanese and German
Consumer Price Index
Jan. 2002 to May 2014

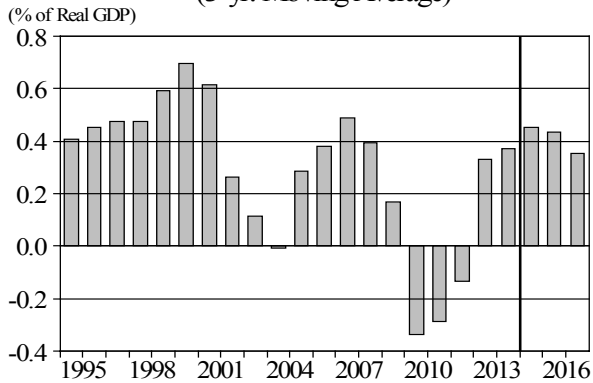




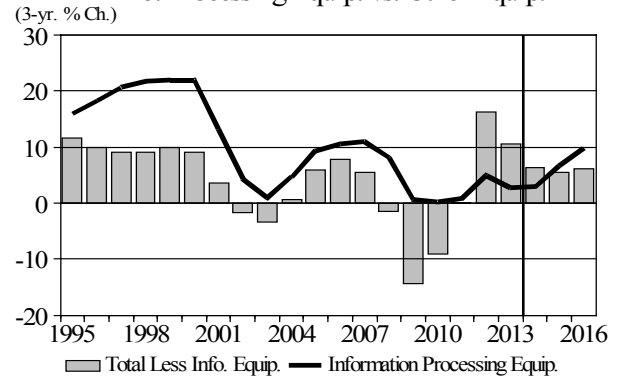
CHARTS - FORECAST



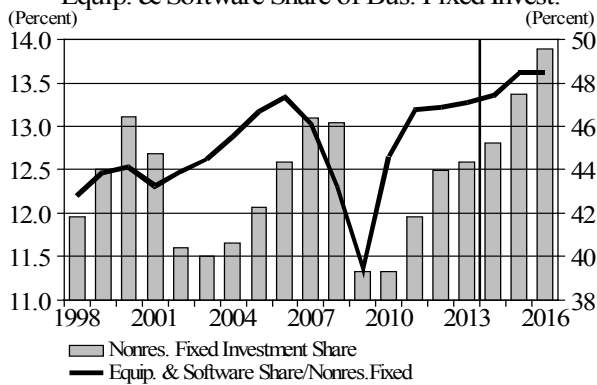
Change in Real Business Inventories
(3-yr. Moving Average)



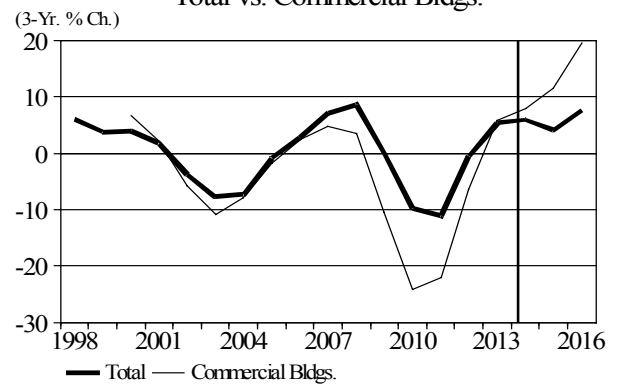
Real Investment-Equipment & Software
Info. Processing Equip. vs. Other Equip.



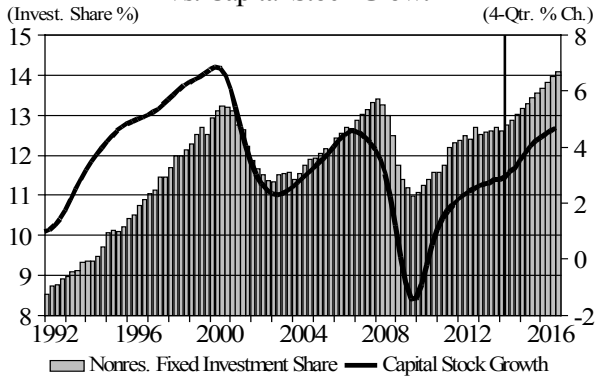
Nonres. Fixed Investment Share of Real GDP Vs.
Equip. & Software Share of Bus. Fixed Invest.



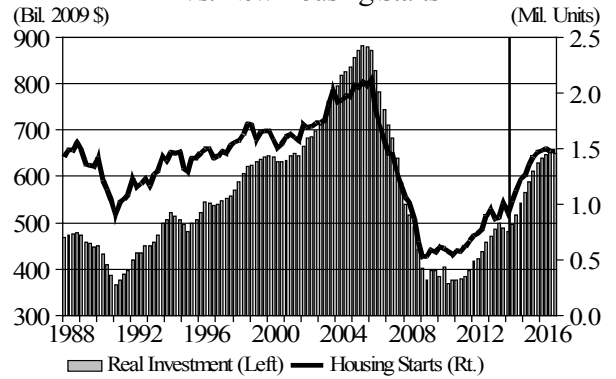
Real Investment in Nonresidential Structures
Total vs. Commercial Bldgs.



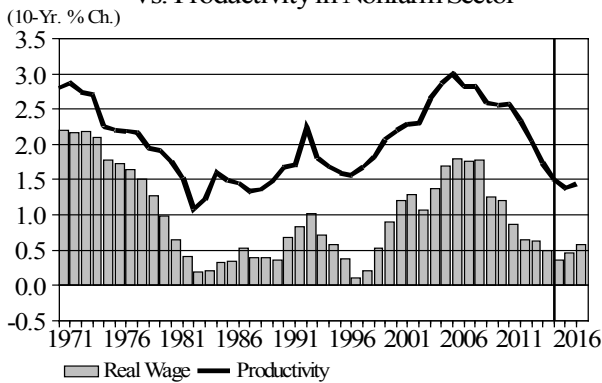
Nonresidential Fixed Investment Share of Real GDP
Vs. Capital Stock Growth



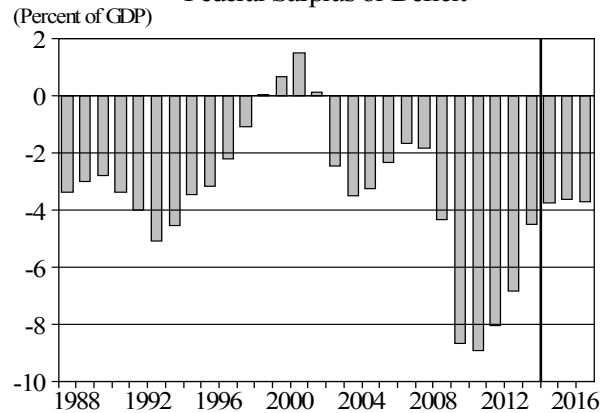
Real Investment in Residential Structures
Vs. New Housing Starts



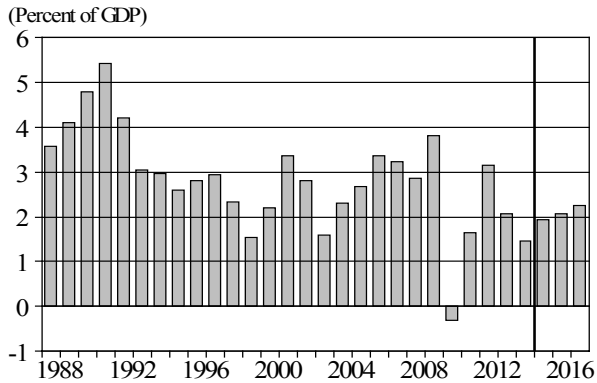
Real Hourly Wage Compensation
Vs. Productivity in Nonfarm Sector



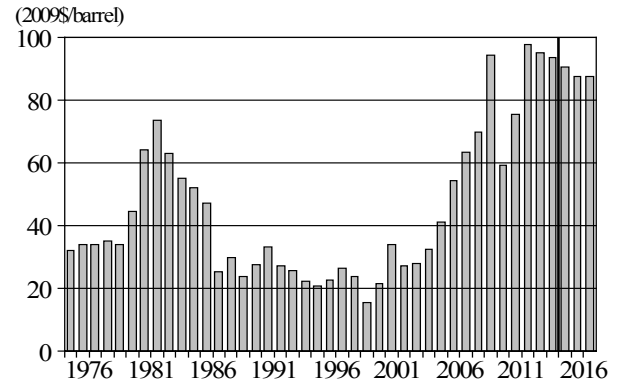
Federal Surplus or Deficit



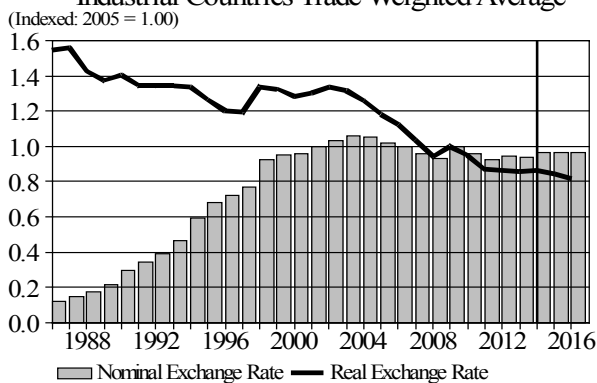
Consumer Price Index Inflation



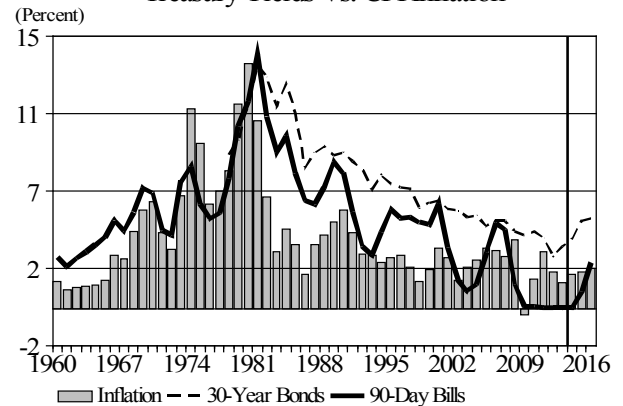
Real Refiner's Cost of Crude Oil



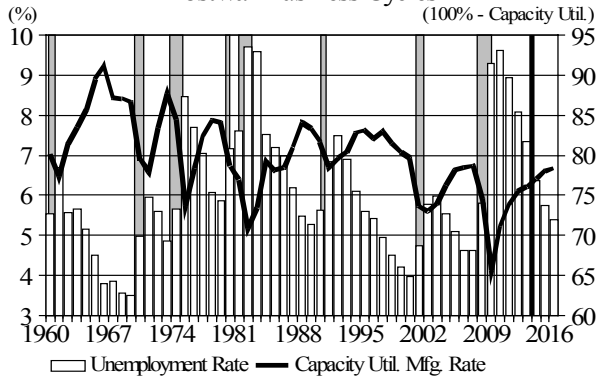
Real and Nominal Exchange Rate
Industrial Countries Trade Weighted Average



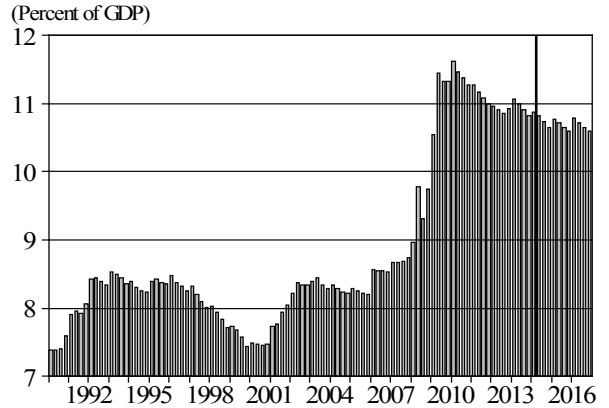
Treasury Yields Vs. CPI Inflation



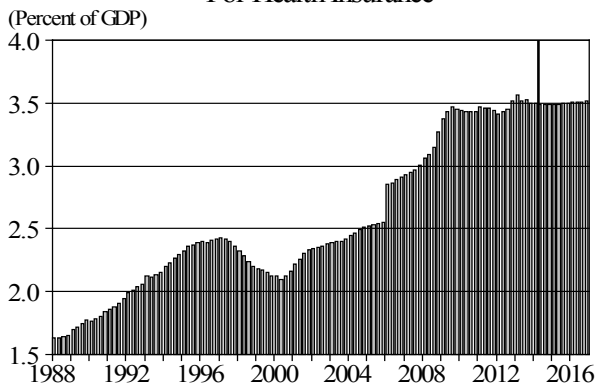
Unemployment and Capacity Utilization Mfg.
Postwar Business Cycles



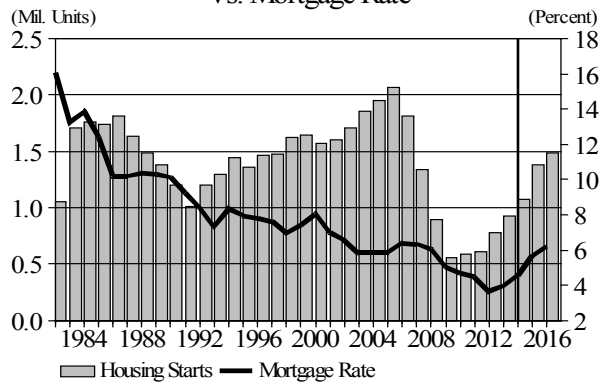
Federal Transfers to Persons



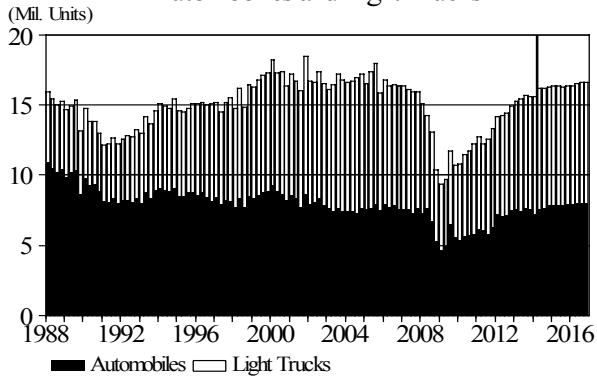
Federal Transfers to Persons
For Health Insurance



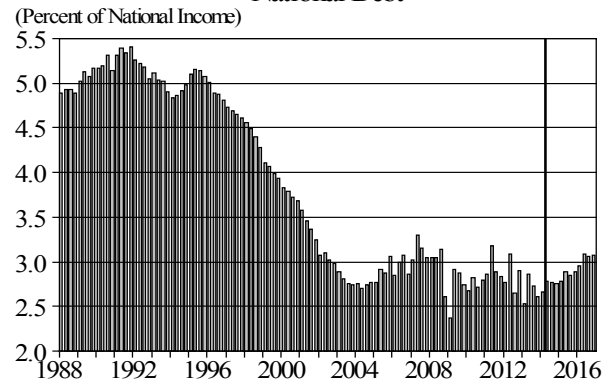
U.S. Housing Starts
Vs. Mortgage Rate



U.S. Retail Sales of
Automobiles and Light Trucks



Federal Net Interest Payments on
National Debt



THE UCLA ANDERSON FORECAST FOR THE NATION

JUNE 2014 REPORT

Tables

Table 1. Summary of the UCLA Anderson Forecast for the Nation

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Monetary Aggregates and GDP (% Ch.)												
Money Supply (M1)	2.0	0.2	-0.2	4.5	14.2	6.4	15.4	15.0	10.2	8.8	-2.0	-9.5
Money Supply (M2)	4.3	5.3	6.2	6.8	8.0	2.5	7.3	8.6	6.8	5.6	3.9	3.5
GDP Price Index	3.2	3.1	2.7	1.9	0.8	1.2	2.0	1.7	1.4	1.7	2.2	2.2
Real GDP	3.4	2.7	1.8	-0.3	-2.8	2.5	1.8	2.8	1.9	2.4	3.0	3.2
Interest Rates (%) on:												
Federal Funds	3.2	5.0	5.0	1.9	0.2	0.2	0.1	0.1	0.1	0.1	1.0	2.6
90-day Treasury Bills	3.1	4.7	4.4	1.4	0.2	0.1	0.1	0.1	0.1	0.1	1.0	2.6
10-year Treasury Bonds	4.3	4.8	4.6	3.7	3.3	3.2	2.8	1.8	2.4	3.0	4.1	4.3
30-year Treasury Bonds	4.6	4.9	4.8	4.3	4.1	4.3	3.9	2.9	3.4	3.9	4.9	5.0
Moody's Corporate Aaa Bonds	5.2	5.6	5.6	5.6	5.3	4.9	4.6	3.7	4.2	4.5	5.6	5.9
30-yr Bond Less Inflation	1.7	2.2	2.3	1.2	4.1	2.6	1.5	1.1	2.3	2.4	3.1	2.8
Federal Fiscal Policy												
Defense Purchases (% Ch.)												
Current \$	6.7	5.6	5.7	11.1	4.5	5.6	0.4	-2.2	-5.7	-2.0	0.8	0.4
Constant \$	2.0	2.0	2.5	7.5	5.4	3.2	-2.3	-3.2	-7.0	-3.3	-0.6	-1.1
Other Expenditures (% Ch.)												
Transfers to Persons	6.2	6.6	6.4	9.0	17.1	6.9	-0.4	0.4	2.9	3.1	5.4	6.2
Grants to S&L Gov't	3.4	-0.7	5.3	3.4	23.5	10.3	-6.5	-6.2	0.2	6.3	8.6	9.5
Billions of Current Dollars, Unified Budget Basis, Fiscal Year												
Receipts	2153.4	2406.7	2567.7	2523.6	2104.4	2161.7	2302.5	2449.1	2774.0	3008.7	3240.3	3411.9
Outlays	2472.1	2654.9	2729.2	2978.4	3520.1	3455.9	3599.3	3538.3	3454.2	3527.7	3779.0	3976.3
Surplus or Deficit (-)	-318.7	-248.2	-161.5	-454.8	-1415.7	-1294.2	-1296.8	-1089.2	-680.2	-519.1	-538.7	-564.3
As Shares of GDP (%), NIPA Basis												
Revenues	17.5	18.3	18.4	17.0	15.5	16.0	16.2	16.4	18.1	18.4	18.4	18.4
Expenditures	19.9	19.9	20.2	21.3	24.1	24.9	24.2	23.2	22.6	22.2	22.0	22.1
Defense Purchases	4.6	4.6	4.7	5.1	5.5	5.6	5.4	5.0	4.6	4.3	4.1	3.9
Transfers to Persons	11.3	11.3	11.6	12.4	14.8	15.3	14.6	14.1	14.0	13.8	13.9	14.0
Surplus or Deficit (-)	-2.3	-1.6	-1.8	-4.3	-8.7	-8.9	-8.0	-6.8	-4.5	-3.7	-3.6	-3.7
Details of Real GDP (% Ch.)												
Real GDP	3.4	2.7	1.8	-0.3	-2.8	2.5	1.8	2.8	1.9	2.4	3.0	3.2
Final Sales	3.4	2.6	2.0	0.2	-2.0	1.1	2.0	2.6	1.7	2.5	3.2	3.3
Consumption	3.5	3.0	2.2	-0.4	-1.6	2.0	2.5	2.2	2.0	2.7	2.9	3.2
Nonres. Fixed Investment	7.0	7.1	5.9	-0.7	-15.6	2.5	7.6	7.3	2.7	4.2	7.5	7.2
Equipment	9.6	8.6	3.2	-6.9	-22.9	15.9	12.7	7.6	3.1	5.0	9.9	7.3
Intellectual Property	6.5	4.5	4.8	3.0	-1.4	1.9	4.4	3.4	3.1	3.4	4.2	3.8
Structures	1.7	7.2	12.7	6.1	-18.9	-16.4	2.1	12.7	1.3	3.9	7.3	11.7
Residential Construction	6.6	-7.7	-19.0	-24.3	-21.4	-2.7	0.4	13.1	12.3	4.7	17.6	8.2
Exports	6.0	8.9	8.9	5.7	-9.1	11.5	7.1	3.5	2.7	2.8	5.3	4.7
Imports	6.1	6.1	2.3	-2.6	-13.7	12.8	4.9	2.2	1.4	2.2	6.5	5.1
Federal Purchases	1.7	2.5	1.7	6.8	5.7	4.3	-2.6	-1.4	-5.2	-2.4	-0.5	-0.9
State & Local Purchases	-0.0	0.9	1.5	0.3	1.6	-2.7	-3.6	-0.7	-0.2	0.3	0.9	0.9
Billions of 2009 Dollars												
Real GDP	14235.6	14615.2	14876.8	14833.6	14417.9	14779.4	15052.4	15470.7	15761.3	16141.9	16633.9	17171.3
Final Sales	14171.3	14543.6	14841.3	14867.2	14565.5	14721.1	15018.8	15413.1	15679.8	16065.5	16582.3	17123.9
Inventory Change	64.3	71.6	35.6	-33.7	-147.6	58.2	33.6	57.6	81.6	76.4	51.6	47.3

FORECAST TABLES - SUMMARY

Table 2. Summary of the UCLA Anderson Forecast for the Nation

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Industrial Production and Resource Utilization												
Industrial Prod. (% Ch.)	3.2	2.2	2.5	-3.4	-11.3	5.7	3.3	3.8	2.9	3.7	3.8	3.5
Capacity Util. Manuf. (%)	78.2	78.4	78.7	74.6	65.6	71.1	73.9	75.5	76.1	77.0	78.1	78.4
Real Bus. Investment as % of Real GDP	18.3	18.2	17.5	16.4	14.0	13.9	14.5	15.3	15.7	16.0	17.0	17.7
Nonfarm Employment (mil.)	134.0	136.4	137.9	137.2	131.2	130.3	131.8	134.1	136.4	138.9	141.7	144.4
Unemployment Rate (%)	5.1	4.6	4.6	5.8	9.3	9.6	8.9	8.1	7.4	6.4	5.7	5.4
Inflation (% Ch.)												
Consumer Price Index	3.4	3.2	2.9	3.8	-0.3	1.6	3.1	2.1	1.5	1.9	2.1	2.2
Total less Food & Energy	2.1	2.5	2.3	2.3	1.7	1.0	1.7	2.1	1.8	1.8	2.4	2.6
Consumption Chain Index	2.9	2.7	2.5	3.1	-0.1	1.7	2.4	1.8	1.1	1.5	1.8	2.1
GDP Chain Index	3.2	3.1	2.7	1.9	0.8	1.2	2.0	1.7	1.4	1.7	2.2	2.2
Producers Price Index	7.3	4.7	4.8	9.8	-8.7	6.8	8.8	0.5	0.6	2.7	1.0	1.1
Factors Related to Inflation (% Ch.)												
Nonfarm Business Sector												
Wage Compensation	3.6	3.9	4.3	2.7	1.1	2.1	2.5	2.6	1.6	2.4	3.4	4.0
Productivity	2.1	0.9	1.6	0.8	3.2	3.3	0.5	1.5	0.5	0.8	0.8	1.6
Unit Labor Costs	1.6	3.0	2.6	2.0	-2.0	-1.2	2.0	1.2	1.1	1.6	2.6	2.4
Farm Price Index	-3.8	-1.2	22.5	12.4	-16.5	12.2	23.6	3.1	1.4	5.1	0.6	-3.9
Crude Oil Price (\$/bbl)	56.5	66.1	72.3	99.6	61.7	79.4	95.1	94.2	98.0	99.0	95.0	99.7
New Home Price (\$1000)	234.2	243.1	243.7	230.4	214.5	221.2	224.3	242.1	265.1	266.2	268.6	280.5
Income, Consumption and Saving (% Ch.)												
Disposable Income	4.4	6.8	4.7	4.6	-0.5	2.8	4.8	3.9	1.9	3.6	5.7	6.2
Real Disposable Income	1.5	4.0	2.1	1.5	-0.5	1.1	2.4	2.0	0.7	2.0	3.8	4.0
Real Consumption	3.5	3.0	2.2	-0.4	-1.6	2.0	2.5	2.2	2.0	2.7	2.9	3.2
Savings Rate (%)	2.6	3.4	3.0	5.0	6.1	5.6	5.7	5.6	4.5	3.9	4.6	5.3
Housing and Automobiles--millions of units												
Housing Starts	2.073	1.812	1.342	0.900	0.554	0.586	0.612	0.783	0.929	1.072	1.377	1.487
Auto & Light Truck Sales	16.9	16.5	16.1	13.2	10.4	11.6	12.7	14.4	15.5	16.1	16.3	16.5
Corporate Profits												
Billions of Dollars												
Before Taxes	1653.3	1851.4	1748.4	1382.4	1468.2	1834.8	1847.4	2190.0	2263.8	2592.9	2571.0	2623.5
After Taxes	1240.9	1378.1	1302.9	1073.3	1198.7	1464.3	1473.1	1755.3	1844.9	2058.6	2009.9	2037.3
Percent Change												
Before Taxes	31.8	12.0	-5.6	-20.9	6.2	25.0	0.7	18.5	3.4	14.5	-0.8	2.0
After Taxes	30.8	11.1	-5.5	-17.6	11.7	22.2	0.6	19.2	5.1	11.6	-2.4	1.4
International Trade Factors												
Nominal												
U.S. Dollar--% change												
Industrial Countries	-1.9	-1.5	-5.6	-4.5	4.3	-3.0	-5.9	3.7	3.4	2.2	1.3	0.3
Developing Countries	-3.1	-2.5	-3.8	-2.6	7.2	-4.1	-3.5	2.0	-0.3	2.9	-0.1	-0.0
Exports	10.8	12.8	12.7	10.7	-14.1	16.4	14.0	4.5	2.9	4.6	7.1	6.2
Imports	12.7	10.6	6.0	7.6	-22.7	19.5	13.0	2.7	0.5	3.0	6.0	5.8
Net Exports (bil. \$)	-716	-762	-710	-713	-392	-518	-569	-547	-497	-476	-478	-496
Real												
U.S. Dollar--% change												
Industrial Countries	-2.2	-2.4	-6.4	-5.3	7.8	-0.4	-7.8	3.8	4.7	3.2	1.5	-0.4
Developing Countries	-6.0	-5.1	-7.5	-9.5	6.4	-5.2	-8.3	-0.6	-1.0	1.0	-2.6	-3.3
Exports	6.0	8.9	8.9	5.7	-9.1	11.5	7.1	3.5	2.7	2.8	5.3	4.7
Imports	6.1	6.1	2.3	-2.6	-13.7	12.8	4.9	2.2	1.4	2.2	6.5	5.1
Net Exports (bil. '09\$)	-777	-786	-704	-547	-392	-463	-446	-431	-412	-410	-461	-493

FORECAST TABLES - QUARTERLY SUMMARY

Table 3. Quarterly Summary of the UCLA National Anderson Forecast for the Nation

	2013:4	2014:1	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2
Monetary Aggregates and GDP (% Ch.)											
Money Supply (M1)	8.8	14.3	9.4	3.0	1.3	-2.5	-4.1	-8.3	-10.7	-10.1	-10.0
Money Supply (M2)	6.6	6.5	4.9	4.3	4.2	3.8	3.7	3.4	3.3	3.6	3.4
GDP Price Index	1.6	1.3	2.2	2.3	2.2	2.3	2.0	2.0	2.0	2.4	2.2
Real GDP	2.6	0.1	3.6	2.9	3.1	2.8	3.0	3.2	3.1	3.3	3.3
Interest Rates (%) on:											
Federal Funds	0.1	0.1	0.1	0.1	0.1	0.4	0.7	1.2	1.6	2.0	2.4
90-day Treasury Bills	0.1	0.0	0.0	0.1	0.1	0.4	0.7	1.3	1.6	2.0	2.4
10-year Treasury Bonds	2.7	2.8	2.7	3.1	3.5	3.8	4.0	4.2	4.2	4.3	4.3
30-year Treasury Bonds	3.8	3.7	3.5	3.9	4.4	4.7	4.8	5.0	5.0	5.0	5.0
Moody's Corporate Aaa Bonds	4.6	4.4	4.2	4.5	5.0	5.3	5.5	5.8	5.8	5.9	5.9
30-yr Bond Less Inflation	2.7	2.3	1.5	2.0	2.8	2.9	3.1	3.1	3.1	2.7	2.8
Federal Fiscal Policy											
Defense Purchases (% Ch.)											
Current \$	-11.6	-2.1	1.6	2.6	2.2	1.0	-0.9	-0.9	0.5	1.8	-0.2
Constant \$	-14.5	-2.4	0.3	1.3	1.0	-1.6	-1.7	-1.7	-0.3	-1.1	-1.2
Other Expenditures (% Ch.)											
Transfers to Persons	-3.5	6.6	4.7	3.0	2.4	13.5	2.1	2.8	3.4	16.3	2.7
Grants to S&L Gov't	-10.7	19.1	6.7	4.6	3.4	24.1	2.7	3.9	4.6	26.2	4.6
Billions of Current Dollars, Unified Budget Basis, NSA											
Receipts	664.6	656.2	916.1	771.8	749.1	717.4	969.2	804.7	784.7	756.8	1021.1
Outlays	837.2	896.9	891.1	902.6	928.6	975.6	933.2	941.7	969.9	1020.7	987.4
Surplus or Deficit (-)	-172.6	-240.7	24.9	-130.8	-179.6	-258.2	36.0	-137.0	-185.2	-263.9	33.8
As Shares of GDP (%), NIPA Basis											
Revenues	18.3	18.2	18.4	18.6	18.5	18.5	18.5	18.3	18.3	18.5	18.4
Expenditures	22.1	22.3	22.3	22.2	22.0	22.2	22.1	21.9	21.9	22.2	22.2
Defense Purchases	4.4	4.4	4.3	4.3	4.3	4.2	4.2	4.1	4.1	4.0	4.0
Transfers to Persons	13.8	13.9	13.9	13.8	13.7	14.0	13.9	13.8	13.8	14.1	14.0
Surplus or Deficit (-)	-3.8	-4.1	-3.9	-3.5	-3.5	-3.7	-3.7	-3.6	-3.5	-3.8	-3.7
Details of Real GDP (% Ch.)											
Real GDP	2.6	0.1	3.6	2.9	3.1	2.8	3.0	3.2	3.1	3.3	3.3
Final Sales	2.7	0.7	3.8	3.2	3.3	3.1	3.1	3.3	3.1	3.4	3.3
Consumption	3.3	3.0	2.5	2.7	3.1	2.8	2.9	3.2	3.0	3.3	3.1
Nonres. Fixed Investment	5.7	-2.0	8.5	6.2	7.9	8.1	6.8	7.8	7.1	6.1	8.5
Equipment	10.9	-5.5	13.3	9.5	9.8	10.8	9.7	8.7	7.1	5.4	8.8
Intellectual Property	4.0	1.5	2.9	6.3	6.0	4.4	2.9	2.5	2.8	3.8	4.1
Structures	-1.8	0.2	6.9	-0.4	6.8	7.7	6.6	13.5	12.9	10.6	13.3
Residential Construction	-8.1	-5.7	13.5	16.5	21.4	17.9	17.5	17.4	12.9	6.7	5.3
Exports	9.5	-7.6	5.2	6.2	6.6	5.7	4.1	3.9	4.2	5.5	4.0
Imports	1.5	-1.4	1.8	5.6	9.0	6.9	6.0	6.0	6.0	4.3	4.6
Federal Purchases	-12.8	0.7	0.8	0.7	0.4	-1.1	-1.4	-1.4	-0.3	-1.1	-0.8
State & Local Purchases	0.0	-1.3	1.6	0.5	0.6	0.9	1.1	0.8	0.9	0.7	1.1
Billions of 2009 Dollars											
Real GDP	15942.3	15946.6	16087.3	16204.1	16329.7	16444.1	16565.9	16698.4	16827.4	16962.5	17098.9
Final Sales	15830.6	15859.2	16007.2	16132.2	16263.4	16389.6	16513.7	16648.9	16777.2	16916.5	17053.3
Inventory Change	111.7	87.4	80.2	71.8	66.4	54.5	52.2	49.5	50.2	46.1	45.6

FORECAST TABLES - QUARTERLY SUMMARY

Table 4. Quarterly Summary of The UCLA National Anderson Forecast for the Nation

	2013:4	2014:1	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2
Industrial Production and Resource Utilization											
Production--% change	4.8	4.4	2.9	4.2	3.7	4.5	3.3	3.7	3.1	3.5	4.0
Capacity Util. Manuf. (%)	76.4	76.2	76.8	77.3	77.7	77.9	78.0	78.2	78.2	78.3	78.3
Real Bus. Investment as % of Real GDP	15.8	15.6	15.9	16.1	16.3	16.6	16.9	17.1	17.3	17.5	17.6
Nonfarm Employment (mil.)	137.2	137.8	138.5	139.4	140.1	140.7	141.4	142.1	142.7	143.3	144.1
Unemployment Rate (%)	7.0	6.7	6.4	6.2	6.1	6.0	5.7	5.7	5.6	5.5	5.4
Inflation--% change											
Consumer Price Index	1.1	1.9	2.8	2.4	2.1	2.1	1.9	1.9	1.8	2.5	2.4
Total less Food & Energy	1.6	1.6	2.0	2.2	2.4	2.6	2.4	2.5	2.5	2.6	2.7
Consumption Deflator	1.1	1.4	2.0	1.9	1.6	1.8	1.7	1.9	1.9	2.3	2.2
GDP Deflator	1.6	1.3	2.2	2.3	2.2	2.3	2.0	2.0	2.0	2.4	2.2
Producers Price Index	-0.6	4.4	6.2	3.1	1.0	0.2	-0.3	0.1	0.4	1.5	1.6
Factors Related to Inflation--%change											
Nonfarm Business Sector											
Wage Compensation	1.9	2.4	2.2	3.0	3.2	3.7	3.4	3.8	4.0	4.4	4.0
Productivity	2.3	-1.7	1.0	-0.1	1.0	0.9	0.5	1.2	1.5	1.8	1.5
Unit Labor Costs	-0.4	4.2	1.2	3.1	2.2	2.8	2.9	2.6	2.4	2.5	2.4
Farm Price Index	-10.7	13.2	29.8	6.1	0.0	0.0	-3.8	-5.6	-3.8	-5.8	-3.9
Crude Oil Price (\$/bbl)	97.5	98.7	102.2	99.4	95.5	95.0	95.0	95.0	95.0	96.6	99.7
New Home Price (\$1000)	272.3	271.2	275.6	262.6	255.5	264.5	267.2	270.5	272.1	276.0	278.8
Income, Consumption and Saving--%change											
Disposable Income	1.8	3.3	3.1	5.0	5.4	6.7	5.8	6.1	5.7	7.0	5.8
Real Disposable Income	0.8	1.9	1.1	3.1	3.7	4.8	4.0	4.1	3.7	4.6	3.5
Real Consumption	3.3	3.0	2.5	2.7	3.1	2.8	2.9	3.2	3.0	3.3	3.1
Savings Rate (%)	4.3	4.1	3.7	3.8	3.9	4.3	4.5	4.7	4.9	5.2	5.2
Housing and Automobiles--millions of units											
Housing Starts	1.008	0.923	1.023	1.120	1.223	1.258	1.355	1.427	1.468	1.485	1.499
Auto and Light Truck Sales	15.6	15.6	16.2	16.2	16.3	16.3	16.3	16.3	16.4	16.4	16.5
Corporate Profits											
Billions of Dollars											
Before Taxes	2335.6	2502.7	2617.0	2619.1	2632.6	2554.9	2563.0	2570.1	2596.0	2567.4	2613.1
After Taxes	1904.5	2012.9	2083.9	2065.0	2072.7	2006.5	2006.5	2005.1	2021.6	1985.7	2023.7
Percent Change											
Before Taxes	8.9	31.8	19.5	0.3	2.1	-11.3	1.3	1.1	4.1	-4.3	7.3
After Taxes	7.9	24.8	14.9	-3.6	1.5	-12.2	-0.0	-0.3	3.3	-6.9	7.9
International Trade											
Nominal											
U.S. Dollar--% change											
Industrial Countries	-3.6	6.1	1.1	2.8	3.9	2.0	-0.9	-1.4	0.3	0.1	0.9
Developing Countries	-0.8	6.3	2.1	1.0	-0.5	-0.1	-1.0	-0.5	-0.5	0.2	0.2
Exports--% change	10.0	-5.2	8.4	9.1	8.6	7.4	5.4	5.2	5.5	7.2	5.5
Imports--% change	1.7	1.5	3.6	5.6	7.6	5.7	5.5	6.3	6.7	5.3	5.7
Net Exports (bil. \$)	-456.9	-498.0	-475.9	-462.9	-465.6	-461.8	-468.8	-482.7	-498.2	-492.9	-500.9
Real											
U.S. Dollar--% change											
Industrial Countries	-2.7	7.7	1.4	3.9	4.7	2.2	-1.0	-1.8	-0.4	-0.8	0.0
Developing Countries	-2.7	4.4	-0.5	-1.0	-2.4	-2.5	-3.7	-3.6	-3.8	-3.2	-3.3
Exports--% change	9.5	-7.6	5.2	6.2	6.6	5.7	4.1	3.9	4.2	5.5	4.0
Imports--% change	1.5	-1.4	1.8	5.6	9.0	6.9	6.0	6.0	6.0	4.3	4.6
Net Exports (bil. '09\$)	-382.8	-414.4	-399.8	-402.2	-422.7	-435.9	-452.4	-469.6	-486.0	-484.8	-493.8

Table 5. Part A. Gross Domestic Product

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Billions of Current Dollars											
Gross Domestic Product	13095.4	13857.9	14480.4	14720.3	14418.0	14958.3	15533.8	16244.6	16799.7	17492.2	18409.2	19425.8
Personal Consumption Expenditures	8790.3	9297.5	9744.4	10005.5	9842.9	10201.9	10711.8	11149.6	11501.5	11995.1	12565.7	13239.9
Durable Goods	1127.2	1156.1	1184.6	1102.3	1023.3	1070.7	1129.9	1202.7	1263.0	1303.5	1365.8	1437.0
Autos and Parts	410.0	394.9	400.6	339.6	317.1	342.0	368.7	401.7	424.5	450.6	475.6	503.3
Nondurable Goods	1953.0	2079.7	2176.9	2273.4	2175.1	2292.1	2472.8	2567.0	2622.9	2700.6	2796.6	2915.8
Services	5710.1	6061.7	6382.9	6629.8	6644.5	6839.1	7109.1	7379.9	7615.7	7990.9	8403.3	8887.1
Gross Private Domestic Investment	2527.1	2680.7	2643.7	2424.8	1878.1	2100.8	2232.1	2475.2	2670.0	2822.5	3102.0	3385.9
Residential	856.1	837.4	688.7	515.9	392.3	381.1	385.8	439.2	516.9	569.5	685.4	762.2
Nonres. Structures	345.6	415.6	496.9	552.4	438.2	362.0	380.6	437.3	456.4	490.8	547.3	634.3
Equipment	790.7	856.1	885.8	825.1	644.3	731.8	832.7	907.6	939.7	988.8	1088.9	1174.9
Intellectual Property	475.1	504.6	538.0	563.4	550.9	564.4	596.6	625.0	651.0	681.3	719.8	758.8
Change In Inv.	59.6	67.0	34.5	-32.0	-147.6	61.5	36.4	66.1	106.1	92.0	60.5	55.6
Net Exports	-715.7	-762.4	-709.8	-713.2	-392.2	-518.5	-568.8	-547.2	-497.3	-475.6	-477.8	-496.3
Exports	1310.4	1478.5	1665.7	1843.2	1583.8	1843.5	2101.1	2195.9	2259.9	2363.2	2531.1	2688.2
Imports	2026.1	2241.0	2375.6	2556.4	1976.0	2362.0	2669.9	2743.1	2757.2	2838.8	3009.0	3184.4
Government Purchases	2493.7	2642.2	2801.9	3003.2	3089.1	3174.0	3158.7	3167.0	3125.5	3150.2	3219.4	3296.3
Federal	946.3	1002.0	1049.8	1155.6	1217.7	1303.9	1304.1	1295.7	1245.9	1230.2	1240.4	1247.7
Defense	608.3	642.4	678.7	754.1	788.3	832.8	835.9	817.2	770.8	755.3	761.5	764.4
Other	338.1	359.6	371.1	401.5	429.4	471.1	468.2	478.6	475.1	474.9	478.9	483.4
State and Local	1547.4	1640.2	1752.2	1847.6	1871.4	1870.2	1854.7	1871.3	1879.6	1920.0	1979.0	2048.5
	Billions of 2009 Dollars											
Gross Domestic Product	14235.6	14615.2	14876.8	14833.6	14417.9	14779.4	15052.4	15470.7	15761.3	16141.9	16633.9	17171.3
Personal Consumption Expenditures	9527.8	9814.9	10035.5	9999.2	9842.9	10035.9	10291.3	10517.6	10727.9	11022.0	11342.9	11703.0
Durable Goods	1046.9	1091.5	1141.7	1083.2	1023.3	1085.7	1157.1	1246.7	1333.3	1402.9	1485.5	1576.0
Autos & Parts	400.0	385.1	392.8	340.8	317.1	323.4	339.4	364.0	382.2	403.2	421.9	442.0
Nondurable Goods	2132.3	2202.2	2239.3	2214.7	2175.1	2223.5	2266.0	2296.8	2342.0	2388.4	2453.1	2524.3
Services	6349.4	6519.8	6650.4	6700.6	6644.5	6727.2	6871.1	6982.7	7067.7	7251.5	7432.9	7640.9
Gross Private Domestic Investment	2672.6	2730.0	2644.1	2396.0	1878.1	2120.4	2224.6	2436.0	2566.4	2674.4	2894.1	3101.0
Residential	872.6	806.6	654.8	497.7	392.3	382.4	384.3	433.8	486.6	509.2	597.9	647.0
Nonres. Structures	421.2	451.5	509.0	540.2	438.2	366.3	374.1	421.6	426.9	443.7	476.0	531.8
Equipment	801.6	870.8	898.3	836.1	644.3	746.7	841.7	905.9	934.4	980.8	1077.7	1156.0
Intellectual Property	495.0	517.5	542.4	558.8	550.9	561.3	586.1	605.8	624.8	646.2	673.2	698.7
Change In Inv.	64.3	71.6	35.6	-33.7	-147.6	58.2	33.6	57.6	81.6	76.4	51.6	47.3
Net Exports	-777.1	-786.2	-703.6	-546.9	-392.2	-462.6	-445.9	-430.8	-412.3	-409.8	-461.0	-492.7
Exports	1388.4	1512.4	1647.3	1741.8	1583.8	1765.6	1890.6	1957.5	2010.1	2066.4	2175.1	2277.0
Imports	2165.5	2298.6	2350.9	2288.7	1976.0	2228.1	2336.4	2388.2	2422.3	2476.1	2636.1	2769.7
Government Purchases	2826.2	2869.3	2914.4	2994.8	3089.1	3091.4	2992.3	2963.1	2897.0	2874.7	2883.9	2890.8
Federal	1034.8	1060.9	1078.7	1152.3	1217.7	1270.7	1237.9	1220.3	1157.4	1129.8	1123.8	1113.8
Defense	665.5	678.8	695.6	748.1	788.3	813.5	794.6	769.1	715.0	691.4	687.4	680.1
Other	369.4	382.1	383.1	404.2	429.4	457.1	443.3	451.2	442.5	438.5	436.5	433.7
State and Local	1792.3	1808.9	1836.2	1842.5	1871.4	1820.8	1754.5	1742.8	1739.2	1744.5	1759.6	1776.3

FORECAST TABLES - DETAILED

Table 5. Part B. Gross Domestic Product

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Annual Rates of Change of Current Dollar GDP Components (%)											
Gross Domestic Product	6.7	5.8	4.5	1.7	-2.1	3.7	3.8	4.6	3.4	4.1	5.2	5.5
Personal Consumption												
Expenditures	6.4	5.8	4.8	2.7	-1.6	3.6	5.0	4.1	3.2	4.3	4.8	5.4
Durable Goods	4.4	2.6	2.5	-7.0	-7.2	4.6	5.5	6.4	5.0	3.2	4.8	5.2
Autos and Parts	0.2	-3.7	1.4	-15.2	-6.6	7.9	7.8	8.9	5.7	6.2	5.5	5.8
Nondurable Goods	7.3	6.5	4.7	4.4	-4.3	5.4	7.9	3.8	2.2	3.0	3.6	4.3
Services	6.6	6.2	5.3	3.9	0.2	2.9	3.9	3.8	3.2	4.9	5.2	5.8
Gross Private Domestic												
Investment	11.0	6.1	-1.4	-8.3	-22.5	11.9	6.2	10.9	7.9	5.7	9.9	9.2
Residential	14.2	-2.2	-17.8	-25.1	-24.0	-2.9	1.2	13.8	17.7	10.2	20.3	11.2
Nonres. Structures	14.5	20.2	19.6	11.2	-20.7	-17.4	5.1	14.9	4.4	7.5	11.5	15.9
Equipment	9.9	8.3	3.5	-6.8	-21.9	13.6	13.8	9.0	3.5	5.2	10.1	7.9
Intellectual Property	7.5	6.2	6.6	4.7	-2.2	2.5	5.7	4.8	4.1	4.7	5.7	5.4
Exports	10.8	12.8	12.7	10.7	-14.1	16.4	14.0	4.5	2.9	4.6	7.1	6.2
Imports	12.7	10.6	6.0	7.6	-22.7	19.5	13.0	2.7	0.5	3.0	6.0	5.8
Government Purchases	5.8	6.0	6.0	7.2	2.9	2.7	-0.5	0.3	-1.3	0.8	2.2	2.4
Federal	6.0	5.9	4.8	10.1	5.4	7.1	0.0	-0.6	-3.8	-1.3	0.8	0.6
Defense	6.7	5.6	5.7	11.1	4.5	5.6	0.4	-2.2	-5.7	-2.0	0.8	0.4
Other	4.9	6.4	3.2	8.2	7.0	9.7	-0.6	2.2	-0.7	-0.0	0.8	0.9
State and Local	5.6	6.0	6.8	5.4	1.3	-0.1	-0.8	0.9	0.4	2.1	3.1	3.5
	Annual Rates of Change of Constant Dollar GDP Components (%)											
Gross Domestic Product	3.4	2.7	1.8	-0.3	-2.8	2.5	1.8	2.8	1.9	2.4	3.0	3.2
Personal Consumption												
Expenditures	3.5	3.0	2.2	-0.4	-1.6	2.0	2.5	2.2	2.0	2.7	2.9	3.2
Durable Goods	5.4	4.3	4.6	-5.1	-5.5	6.1	6.6	7.7	6.9	5.2	5.9	6.1
Autos & Parts	-1.4	-3.7	2.0	-13.2	-7.0	2.0	4.9	7.2	5.0	5.5	4.6	4.8
Nondurable Goods	3.3	3.3	1.7	-1.1	-1.8	2.2	1.9	1.4	2.0	2.0	2.7	2.9
Services	3.2	2.7	2.0	0.8	-0.8	1.2	2.1	1.6	1.2	2.6	2.5	2.8
Gross Private Domestic												
Investment	6.4	2.1	-3.1	-9.4	-21.6	12.9	4.9	9.5	5.4	4.2	8.2	7.1
Residential	6.6	-7.6	-18.8	-24.0	-21.2	-2.5	0.5	12.9	12.2	4.6	17.4	8.2
Nonres. Structures	1.7	7.2	12.7	6.1	-18.9	-16.4	2.1	12.7	1.3	3.9	7.3	11.7
Equipment	9.6	8.6	3.2	-6.9	-22.9	15.9	12.7	7.6	3.1	5.0	9.9	7.3
Intellectual Property	6.5	4.5	4.8	3.0	-1.4	1.9	4.4	3.4	3.1	3.4	4.2	3.8
Exports	6.0	8.9	8.9	5.7	-9.1	11.5	7.1	3.5	2.7	2.8	5.3	4.7
Imports	6.1	6.1	2.3	-2.6	-13.7	12.8	4.9	2.2	1.4	2.2	6.5	5.1
Government Purchases	0.6	1.5	1.6	2.8	3.1	0.1	-3.2	-1.0	-2.2	-0.8	0.3	0.2
Federal	1.7	2.5	1.7	6.8	5.7	4.3	-2.6	-1.4	-5.2	-2.4	-0.5	-0.9
Defense	2.0	2.0	2.5	7.5	5.4	3.2	-2.3	-3.2	-7.0	-3.3	-0.6	-1.1
Other	1.3	3.5	0.3	5.5	6.2	6.5	-3.0	1.8	-1.9	-0.9	-0.4	-0.6
State and Local	-0.0	0.9	1.5	0.3	1.6	-2.7	-3.6	-0.7	-0.2	0.3	0.9	0.9

Table 6. Employment

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Employment (Millions)											
Total	141.7	144.4	146.1	145.4	139.9	139.1	139.9	142.5	143.9	146.2	149.5	151.9
Nonagricultural	134.0	136.4	137.9	137.2	131.2	130.3	131.8	134.1	136.4	138.9	141.7	144.4
Natural Res. & Mining	0.6	0.7	0.7	0.8	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0
Construction	7.3	7.7	7.6	7.2	6.0	5.5	5.5	5.6	5.8	6.1	6.5	7.2
Manufacturing	14.2	14.2	13.9	13.4	11.8	11.5	11.7	11.9	12.0	12.2	12.4	12.5
Trans. Warehouse. Util	4.9	5.0	5.1	5.1	4.8	4.7	4.9	5.0	5.0	5.2	5.3	5.5
Trade	21.0	21.3	21.5	21.2	20.1	19.9	20.2	20.5	20.8	21.3	21.5	21.6
Financial Activities	8.2	8.4	8.3	8.2	7.8	7.7	7.7	7.8	7.9	7.9	8.0	8.0
Information	3.1	3.0	3.0	3.0	2.8	2.7	2.7	2.7	2.7	2.7	2.6	2.7
Professional & Busi.	17.0	17.6	17.9	17.7	16.6	16.7	17.3	17.9	18.6	19.3	20.3	21.0
Education & Health	17.6	18.1	18.6	19.2	19.5	19.9	20.2	20.7	21.1	21.4	21.8	22.4
Leisure & Hospitality	12.8	13.1	13.4	13.4	13.1	13.0	13.4	13.8	14.2	14.6	14.8	15.0
Other Services	5.4	5.4	5.5	5.5	5.4	5.3	5.4	5.4	5.5	5.5	5.5	5.5
Government	21.8	22.0	22.2	22.5	22.6	22.5	22.1	21.9	21.9	21.9	22.0	22.1
Federal	2.7	2.7	2.7	2.8	2.8	3.0	2.9	2.8	2.8	2.7	2.7	2.6
State & Local	19.1	19.2	19.5	19.7	19.7	19.5	19.2	19.1	19.1	19.2	19.4	19.5
	Population and Labor Force (Millions)											
Population aged 16+	231.4	234.2	237.0	239.6	242.2	244.6	247.0	249.2	251.4	253.6	255.9	258.1
Labor Force	149.3	151.4	153.1	154.3	154.2	153.9	153.6	155.0	155.4	156.1	158.6	160.5
Unemployment (%)	5.1	4.6	4.6	5.8	9.3	9.6	8.9	8.1	7.4	6.4	5.7	5.4

Table 7. Personal Income and Its Disposition

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Billions of Current Dollars											
Personal Income	10610.3	11389.9	11995.8	12430.6	12082.1	12435.2	13191.3	13743.8	14135.3	14664.0	15489.4	16410.4
Wages & Salaries	5692.9	6058.2	6396.0	6532.8	6252.2	6377.5	6638.7	6926.8	7138.2	7431.3	7824.8	8247.8
Other Labor Income	966.8	997.6	1041.4	1075.1	1077.5	1120.4	1145.4	1170.6	1190.6	1218.7	1271.0	1349.7
Nonfarm Income	932.6	1017.7	941.1	979.5	937.6	986.7	1082.6	1149.6	1221.2	1290.1	1370.3	1449.3
Farm Income	46.4	36.0	38.1	47.0	35.5	46.0	72.6	75.4	127.7	106.5	106.4	105.9
Rental Income	238.4	207.5	189.4	262.1	333.7	402.8	484.4	541.2	590.6	613.5	617.6	616.0
Dividends	578.3	723.7	816.6	805.5	547.9	544.6	680.5	746.9	768.5	807.2	898.6	944.8
Interest Income	1088.2	1214.8	1350.1	1361.6	1263.9	1195.0	1204.1	1211.6	1229.2	1264.5	1380.2	1560.0
Transfer Payments	1512.0	1609.7	1722.8	1884.0	2140.2	2276.9	2306.9	2358.3	2444.3	2533.3	2664.8	2827.6
Personal Contributions												
For Social Insurance	445.3	475.2	499.7	516.9	506.3	514.7	423.8	436.4	574.9	601.1	644.3	690.8
Personal Tax and Nontax												
Payments	1208.5	1352.1	1487.9	1435.2	1144.9	1191.5	1404.0	1498.0	1658.6	1740.2	1829.6	1909.5
Disposable Income	9401.8	10037.7	10507.9	10995.4	10937.2	11243.7	11787.4	12245.8	12476.7	12923.7	13659.8	14500.9
Consumption	8790.3	9297.5	9744.4	10005.5	9842.9	10201.9	10711.8	11149.6	11501.5	11995.1	12565.7	13239.9
Interest	248.8	275.1	305.9	289.6	274.0	250.8	248.0	248.4	248.0	256.5	275.8	296.1
Transfers To Foreigners	48.4	51.6	59.3	66.2	66.1	73.0	74.1	71.9	75.1	76.7	81.3	86.6
Personal Saving	242.7	336.9	317.3	551.3	670.7	634.2	668.2	687.4	561.8	499.4	631.4	762.9
Personal Saving Rate(%)	2.6	3.4	3.0	5.0	6.1	5.6	5.7	5.6	4.5	3.9	4.6	5.3

FORECAST TABLES - DETAILED

Table 8. Personal Consumption Expenditures By Major Types

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Billions of Current Dollars												
Personal Consumption	8790.3	9297.5	9744.4	10005.5	9842.9	10201.9	10711.8	11149.6	11501.5	11995.1	12565.7	13239.9
Durable Goods	1127.2	1156.1	1184.6	1102.3	1023.3	1070.7	1129.9	1202.7	1263.0	1303.5	1365.8	1437.0
Autos and Parts	410.0	394.9	400.6	339.6	317.1	342.0	368.7	401.7	424.5	450.6	475.6	503.3
Nondurable Goods	1953.0	2079.7	2176.9	2273.4	2175.1	2292.1	2472.8	2567.0	2622.9	2700.6	2796.6	2915.8
Services	5710.1	6061.7	6382.9	6629.8	6644.5	6839.1	7109.1	7379.9	7615.7	7990.9	8403.3	8887.1
Billions of 2009 Dollars												
Personal Consumption	9527.8	9814.9	*****	9999.2	9842.9	10035.9	10291.3	10517.6	10727.9	11022.0	11342.9	11703.0
Durable Goods	1046.9	1091.5	1141.7	1083.2	1023.3	1085.7	1157.1	1246.7	1333.3	1402.9	1485.5	1576.0
Autos and Parts	400.0	385.1	392.8	340.8	317.1	323.4	339.4	364.0	382.2	403.2	421.9	442.0
Nondurable Goods	2132.3	2202.2	2239.3	2214.7	2175.1	2223.5	2266.0	2296.8	2342.0	2388.4	2453.1	2524.3
Services	6349.4	6519.8	6650.4	6700.6	6644.5	6727.2	6871.1	6982.7	7067.7	7251.5	7432.9	7640.9
Annual Rates of Real Growth												
Personal Consumption	3.5	3.0	2.2	-0.4	-1.6	2.0	2.5	2.2	2.0	2.7	2.9	3.2
Durable Goods	5.4	4.3	4.6	-5.1	-5.5	6.1	6.6	7.7	6.9	5.2	5.9	6.1
Autos and Parts	-1.4	-3.7	2.0	-13.2	-7.0	2.0	4.9	7.2	5.0	5.5	4.6	4.8
Furniture	6.6	5.1	0.8	-4.6	-8.7	7.0	5.5	6.1	6.1	3.3	4.0	5.3
Other Durables	7.4	7.2	4.7	-3.3	-5.0	4.2	5.3	5.7	7.3	3.9	2.9	2.7
Nondurable Goods	3.3	3.3	1.7	-1.1	-1.8	2.2	1.9	1.4	2.0	2.0	2.7	2.9
Food and Beverages	3.8	3.1	1.3	-1.2	-1.5	2.1	1.6	1.3	1.3	1.5	2.4	2.4
Gasoline and Oil	0.8	0.4	-0.3	-3.9	-0.8	-0.1	-1.7	-0.7	0.5	-0.0	0.3	1.3
Fuel	-13.3	-6.6	1.1	-11.3	15.0	-7.9	-11.5	-10.5	-2.8	8.7	-9.0	0.7
Clothing and Shoes	5.4	3.5	2.0	-0.5	-4.9	5.3	3.8	1.2	1.3	1.3	4.1	4.1
Other Nondurables	3.4	4.9	2.7	0.4	-1.7	2.3	3.4	2.7	3.6	3.3	3.7	3.5
Services	3.2	2.7	2.0	0.8	-0.8	1.2	2.1	1.6	1.2	2.6	2.5	2.8
Housing	4.6	2.7	0.9	1.5	1.3	1.1	1.8	1.3	0.5	0.8	1.1	1.5
Transportation Serv.	1.0	0.2	1.0	-5.2	-9.8	-0.9	2.5	1.3	0.8	1.8	4.6	3.9
Health Care	3.3	2.3	2.5	2.3	1.8	1.3	2.7	2.7	2.4	5.6	4.0	3.9
Recreational Service	2.5	3.5	3.9	-0.8	-3.3	1.3	2.1	1.4	0.8	0.7	3.0	2.9
Food Svcs. Accom.	3.6	3.2	1.3	-1.0	-4.1	1.5	4.0	3.6	2.8	1.9	2.5	2.4
Financial Services	5.3	2.3	3.1	-0.7	-2.5	2.1	3.0	-1.3	1.6	4.2	1.6	1.7
Other Services	0.2	2.2	2.4	-1.0	-1.7	0.7	0.9	1.5	-1.1	0.8	4.0	4.6

Table 9. Residential Construction and Housing Starts

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Housing Starts (Millions of Units)												
Housing Starts	2.073	1.812	1.342	0.900	0.554	0.586	0.612	0.783	0.929	1.072	1.377	1.487
Single-family	1.719	1.474	1.036	0.616	0.442	0.471	0.434	0.537	0.621	0.686	0.924	1.016
Multi-family	0.354	0.338	0.306	0.284	0.112	0.114	0.178	0.247	0.308	0.386	0.453	0.470
Residential Construction Expenditures (Billions of Dollars)												
Current Dollars	856.1	837.4	688.7	515.9	392.3	381.1	385.8	439.2	516.9	569.5	685.4	762.2
2009 Dollars	872.6	806.6	654.8	497.7	392.3	382.4	384.3	433.8	486.6	509.2	597.9	647.0
% Change	6.6	-7.6	-18.8	-24.0	-21.2	-2.5	0.5	12.9	12.2	4.6	17.4	8.2
Related Concepts												
Treas. Bill Rate	3.15	4.73	4.35	1.37	0.15	0.14	0.05	0.09	0.06	0.07	0.97	2.56
Conventional 30-year												
Mortgage Rate	5.87	6.41	6.34	6.04	5.04	4.69	4.46	3.66	3.98	4.57	5.68	6.23
Median Sales Price of												
New Homes (Thous \$)	234.2	243.1	243.7	230.4	214.5	221.2	224.3	242.1	265.1	266.2	268.6	280.5
Real Disp. Income	9401.8	10037.7	10507.9	10995.4	10937.2	11243.7	11787.4	12245.8	12476.7	12923.7	13659.8	14500.9
% Change	1.5	4.0	2.1	1.5	-0.5	1.1	2.4	2.0	0.7	2.0	3.8	4.0

Table 10. Nonresidential Fixed Investment and Inventories

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Billions of Current Dollars												
Nonres. Fixed Investment	1611.5	1776.3	1920.6	1941.0	1633.4	1658.2	1809.9	1970.0	2047.1	2161.0	2356.1	2568.1
Equipment	790.7	856.1	885.8	825.1	644.3	731.8	832.7	907.6	939.7	988.8	1088.9	1174.9
Intellectual Property	475.1	504.6	538.0	563.4	550.9	564.4	596.6	625.0	651.0	681.3	719.8	758.8
Nonresidential Structures	345.6	415.6	496.9	552.4	438.2	362.0	380.6	437.3	456.4	490.8	547.3	634.3
Buildings	211.5	244.8	293.9	317.5	249.1	173.7	170.2	190.9	203.4	222.0	261.4	329.3
Commercial	112.8	128.4	150.7	148.9	95.4	64.7	66.8	75.6	82.4	91.1	113.7	154.2
Industrial	28.4	32.3	40.2	52.8	56.3	39.8	38.9	45.8	48.0	52.6	57.6	65.2
Other Buildings	70.3	84.2	103.0	115.8	97.4	69.2	64.5	69.5	73.0	78.4	90.2	109.9
Utilities	54.3	63.6	89.6	104.6	104.3	93.3	90.8	110.9	104.5	105.3	101.3	104.2
Mining Exploration	69.4	96.0	102.2	117.0	75.0	86.2	110.2	125.5	138.0	152.7	172.8	189.0
Other	10.5	11.1	11.2	13.3	9.9	8.9	9.4	10.0	10.6	10.8	11.8	11.8
Billions of 2009 Dollars												
Nonres. Fixed Investment	1717.4	1839.6	1948.4	1934.5	1633.5	1673.8	1800.4	1931.8	1984.4	2068.5	2223.5	2384.7
Equipment	801.6	870.8	898.3	836.1	644.3	746.7	841.7	905.9	934.4	980.8	1077.7	1156.0
Intellectual Property	495.0	517.5	542.4	558.8	550.9	561.3	586.1	605.8	624.8	646.2	673.2	698.7
Nonresidential Structures	421.2	451.5	509.0	540.2	438.2	366.3	374.1	421.6	426.9	443.7	476.0	531.8
Buildings	250.8	268.7	305.2	317.9	249.1	179.3	172.4	188.4	195.2	205.1	233.5	282.4
Commercial	137.6	144.3	159.9	151.7	95.4	66.6	67.4	74.0	78.8	84.5	102.4	133.5
Industrial	34.2	36.5	43.1	53.8	56.3	40.8	39.1	45.0	46.1	48.4	50.7	54.8
Other Buildings	79.7	88.5	102.6	112.8	97.4	71.9	65.9	69.3	70.2	72.1	80.5	94.3
Utilities	64.9	70.0	94.3	103.6	104.3	89.8	82.8	97.9	91.0	90.4	84.7	84.6
Mining Exploration	92.1	99.5	97.9	105.0	75.0	87.8	109.0	124.1	130.4	138.8	149.1	157.8
Other	10.7	10.8	10.6	12.6	9.9	9.2	9.7	10.1	10.2	9.8	10.0	9.6
Percent Change in Real Nonresidential Fixed Investment												
Nonres. Fixed Investment	7.0	7.1	5.9	-0.7	-15.6	2.5	7.6	7.3	2.7	4.2	7.5	7.2
Equipment	9.6	8.6	3.2	-6.9	-22.9	15.9	12.7	7.6	3.1	5.0	9.9	7.3
Intellectual Property	6.5	4.5	4.8	3.0	-1.4	1.9	4.4	3.4	3.1	3.4	4.2	3.8
Nonresidential Structures	1.7	7.2	12.7	6.1	-18.9	-16.4	2.1	12.7	1.3	3.9	7.3	11.7
Buildings	-0.9	7.2	13.6	4.2	-21.7	-28.0	-3.8	9.2	3.6	5.1	13.9	20.9
Commercial	-1.3	4.9	10.8	-5.2	-37.1	-30.2	1.1	9.8	6.5	7.3	21.1	30.4
Industrial	13.6	6.6	18.2	24.8	4.6	-27.5	-4.1	15.1	2.4	4.9	4.8	8.1
Other Buildings	-5.3	11.0	16.0	9.9	-13.7	-26.2	-8.3	5.1	1.3	2.7	11.6	17.2
Utilities	3.8	7.9	34.6	9.9	0.7	-13.9	-7.8	18.3	-7.1	-0.7	-6.3	-0.1
Mining Exploration	9.4	8.0	-1.6	7.3	-28.6	17.1	24.2	13.8	5.1	6.4	7.4	5.8
Other	3.2	0.8	-1.4	18.0	-21.3	-7.4	6.2	3.9	1.2	-4.5	2.8	-4.8
Related Concepts												
Annual Growth-Price Deflator For:												
Producers Dur. Equip.	0.3	-0.3	0.3	0.1	1.3	-2.0	0.9	1.3	0.4	0.3	0.2	0.6
Structures	12.6	12.2	6.1	4.8	-2.2	-1.2	2.9	2.0	3.0	3.5	3.9	3.7
Moody's AAA Rate(%)	5.2	5.6	5.6	5.6	5.3	4.9	4.6	3.7	4.2	4.5	5.6	5.9
Capacity Utilization in Manufacturing(%)	78.2	78.4	78.7	74.6	65.6	71.1	73.9	75.5	76.1	77.0	78.1	78.4
Final Sales(Bil. 2009 \$)	14171.3	14543.6	14841.3	14867.2	14565.5	14721.1	15018.8	15413.1	15679.8	16065.5	16582.3	17123.9
Change in Business Inventories												
Current Dollars	59.6	67.0	34.5	-32.0	-147.6	61.5	36.4	66.1	106.1	92.0	60.5	55.6
2005 Dollars	64.3	71.6	35.6	-33.7	-147.6	58.2	33.6	57.6	81.6	76.4	51.6	47.3

FORECAST TABLES - DETAILED

Table 11. Federal Government Receipts and Expenditures

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Billions of Current Dollars												
Unified Budget Basis, Fiscal Year												
Receipts	2153.4	2406.7	2567.7	2523.6	2104.4	2161.7	2302.5	2449.1	2774.0	3008.7	3240.3	3411.9
Outlays	2472.1	2654.9	2729.2	2978.4	3520.1	3455.9	3599.3	3538.3	3454.2	3527.7	3779.0	3976.3
Surplus or Deficit (-)	-318.7	-248.2	-161.5	-454.8	*****	-1294.2	-1296.8	-1089.2	-680.2	-519.1	-538.7	-564.3
National Income & Products Accounts Basis, Calendar Year												
Current Receipts	2298.1	2531.7	2660.8	2505.7	2230.1	2391.8	2516.7	2663.0	3040.8	3226.4	3389.9	3566.7
Current Tax Receipts	1384.6	1558.5	1637.1	1448.1	1163.8	1305.0	1496.2	1636.0	1752.5	1955.8	2064.9	2168.4
Personal Current Taxes	932.1	1049.6	1164.4	1101.7	857.2	893.8	1077.0	1149.2	1282.9	1364.9	1440.0	1509.2
Taxes - Corporate Income	341.0	395.0	362.8	233.6	200.4	298.7	294.3	351.1	329.5	436.2	460.1	482.3
Taxes - Production/Imports	99.4	99.2	94.6	94.0	91.4	96.8	108.6	118.0	120.2	134.3	143.5	154.8
Contributions for Soc. Ins.	853.4	905.7	947.3	974.4	950.8	970.9	904.4	937.8	1093.9	1139.6	1216.0	1299.5
Income Receipts on Assets	27.3	28.9	33.4	33.9	48.5	54.6	57.5	52.9	164.5	101.7	69.5	54.1
Current Transfer Receipts	32.0	36.8	41.0	48.6	66.2	64.4	66.1	49.7	54.7	56.1	63.0	65.9
Surplus of Gov't. Enterprises	0.9	1.8	2.0	0.8	0.7	-3.1	-7.3	-13.4	-24.7	-26.9	-23.5	-21.2
Current Expenditures	2603.5	2759.8	2927.5	3140.9	3479.9	3721.3	3764.9	3772.7	3792.9	3881.1	4057.4	4285.7
Consumption Expenditures	723.4	763.9	798.3	879.8	933.7	1003.9	1008.7	1011.7	971.0	965.8	974.9	985.6
Defense	475.9	500.3	526.1	582.8	613.3	653.2	662.9	652.0	612.0	606.2	611.4	616.6
Nondefense	247.5	263.6	272.3	297.0	320.4	350.7	345.8	359.7	359.0	359.5	363.6	369.0
Transfer Payments	1475.1	1572.4	1673.5	1823.5	2135.6	2282.5	2274.3	2283.6	2349.3	2421.8	2551.5	2710.5
Government Social Benefits	1079.7	1184.2	1258.9	1391.9	1608.9	1710.1	1728.2	1772.5	1838.2	1883.4	1966.6	2075.9
To the Rest of the World	11.3	12.5	13.3	15.5	16.0	16.5	17.1	18.0	18.5	18.8	19.3	19.7
Grants-in-Aid												
To S&L Governments	343.4	340.8	359.0	371.0	458.1	505.3	472.5	443.2	444.0	472.1	512.6	561.2
To the Rest of the World	40.9	35.0	42.3	45.1	52.7	50.6	56.5	49.9	48.6	47.5	53.0	53.8
Interest Payments	344.4	372.4	408.2	388.0	353.6	380.6	422.6	420.6	414.3	439.1	478.3	537.9
Subsidies	60.5	51.1	47.5	49.6	56.9	54.3	59.4	56.8	58.2	54.4	52.7	51.7
Surplus or Deficit (-)	-305.5	-228.1	-266.7	-635.1	*****	-1329.5	-1248.3	-1109.7	-752.1	-654.7	-667.5	-719.0

Table 12. State and Local Government Receipts and Expenditures

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Billions of Current Dollars												
Receipts	1166.5	1254.5	1321.3	1328.9	1268.1	1305.7	1366.3	1405.2	1457.0	1498.8	1561.0	1628.4
As Share of GDP	8.9	9.1	9.1	9.0	8.8	8.7	8.8	8.7	8.7	8.6	8.5	8.4
Personal Tax and Nontax Receipts	276.4	302.5	323.5	333.5	287.8	297.6	327.0	348.8	375.7	375.3	389.6	400.3
Corporate Profits	55.0	59.2	57.9	47.4	45.6	47.7	50.8	51.4	54.8	65.9	67.3	69.0
Indirect Business Tax and Nontax Accruals	835.1	892.7	940.0	947.9	934.8	960.4	988.5	1004.9	1026.5	1057.6	1104.2	1159.2
Contributions For Social Insurance	24.6	21.5	18.9	18.7	18.6	18.2	18.3	17.5	17.6	18.5	19.5	20.5
Federal Grants-In-Aid	343.4	340.8	359.0	371.0	458.1	505.3	472.5	443.2	444.0	472.1	512.6	561.2
Expenditures	1775.4	1850.3	1973.3	2074.1	2191.2	2235.9	2243.0	2292.1	2320.2	2392.9	2481.0	2591.1
As Share of GDP	13.6	13.4	13.6	14.1	15.2	14.9	14.4	14.1	13.8	13.7	13.5	13.3
Purchases	1547.4	1640.2	1752.2	1847.6	1871.4	1870.2	1854.7	1871.3	1879.6	1920.0	1979.0	2048.5
Transfer Payments	406.6	403.9	433.3	455.4	492.6	523.8	532.0	544.3	561.4	602.9	646.9	696.8
Interest Received	35.0	25.4	17.3	36.0	114.3	123.0	126.7	146.8	143.3	138.5	138.3	142.4
Net Subsidies	7.7	11.5	25.6	25.0	22.8	21.4	17.0	14.7	15.8	16.1	15.3	14.5
Dividends Received	2.0	2.1	2.2	2.6	2.2	2.3	2.3	2.4	2.3	2.4	2.5	2.5
Net Wage Accruals												
Surplus Or Deficit	-66.6	-39.4	-72.7	-165.1	-271.9	-237.3	-213.1	-252.7	-220.9	-213.6	-184.7	-163.7

Table 13. U.S. Exports and Imports of Goods and Services

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Billions of Current Dollars											
Net Exports-Goods & Serv.	-715.7	-762.4	-709.8	-713.2	-392.2	-518.5	-568.8	-547.2	-497.3	-475.6	-477.8	-496.3
Current Account Balance	-739.8	-798.5	-713.4	-681.3	-381.6	-449.5	-457.7	-440.4	-379.3	-367.3	-440.8	-481.6
Merchandise Balance	-790.9	-848.4	-835.0	-848.8	-522.6	-672.8	-761.0	-759.4	-729.0	-727.1	-738.6	-768.5
Exports-Goods & Services	1310.4	1478.5	1665.7	1843.2	1583.8	1843.5	2101.1	2195.9	2259.9	2363.2	2531.1	2688.2
Merchandise	925.3	1048.1	1165.3	1297.6	1064.7	1278.4	1473.6	1536.0	1567.0	1629.9	1750.2	1852.0
Food, Feeds & Beverages	59.0	66.0	84.3	108.3	93.9	107.7	126.2	132.8	132.1	141.5	143.5	141.8
Industrial Supplies	236.8	279.1	316.3	386.9	293.5	388.6	484.7	482.3	492.4	515.6	561.6	609.8
Motor Vehicles & Parts	98.4	107.3	121.3	121.5	81.7	112.0	132.9	146.2	152.1	153.1	169.6	185.8
Capital Goods, Ex. MVP	302.5	339.5	360.0	383.7	316.8	375.9	413.1	433.3	429.3	442.4	466.8	497.0
Computer Equipment	45.5	47.6	45.6	43.9	37.7	43.8	48.4	49.3	48.1	48.9	48.4	55.5
Other	257.0	291.9	314.5	339.8	279.0	332.1	364.7	384.0	381.2	393.4	418.4	441.5
Consumer Goods, Ex. MVP	115.3	129.1	146.0	161.3	149.4	165.3	174.9	181.8	188.7	196.3	212.0	215.9
Other	57.4	62.7	64.5	62.0	54.6	57.1	61.7	65.3	66.9	71.1	74.9	78.0
Services	385.1	430.4	500.4	545.5	519.1	565.1	627.6	659.9	692.9	733.3	781.0	836.2
Imports-Goods & Services	2026.1	2241.0	2375.6	2556.4	1976.0	2362.0	2669.9	2743.1	2757.2	2838.8	3009.0	3184.4
Merchandise	1716.2	1896.5	2000.3	2146.4	1587.3	1951.2	2234.6	2295.4	2296.0	2357.0	2488.7	2620.4
Foods, Feeds & Beverage	69.1	76.1	83.0	90.4	82.9	92.5	108.3	111.1	116.1	118.7	123.6	130.0
Petroleum & Products	263.2	316.7	346.7	476.1	267.7	353.7	462.2	433.9	386.8	382.6	369.9	353.9
Indus Supplies Ex. Petr	268.0	293.5	297.9	318.7	196.6	249.4	293.0	290.0	291.9	316.0	339.4	348.9
Motor Vehicles & Parts	238.7	256.0	258.5	233.2	159.2	225.7	255.3	298.6	310.1	313.1	328.9	338.9
Capital Goods, Ex. MVP	357.0	394.2	414.6	423.2	343.4	419.1	477.9	511.6	511.0	531.6	576.7	637.5
Computer Equipment	93.5	101.6	105.5	101.2	94.2	117.3	119.7	122.2	121.4	122.7	123.2	128.3
Other	263.5	292.6	309.2	322.0	249.2	301.9	358.2	389.3	389.7	408.8	453.5	509.2
Consumer Goods, Ex. MVP	412.9	447.9	480.0	486.7	431.4	486.5	517.5	519.7	535.9	547.7	577.2	618.7
Other	81.5	83.8	85.1	82.5	75.5	93.1	85.1	90.6	97.9	98.6	122.4	140.6
Services	309.9	344.5	375.3	410.0	388.7	410.8	435.3	447.7	461.2	481.8	520.3	564.0
	Billions of 2009 Dollars											
Net Exports-Goods & Serv.	-777.1	-786.2	-703.6	-546.9	-392.2	-462.6	-445.9	-430.8	-412.3	-409.8	-461.0	-492.7
Exports-Goods & Services	1388.4	1512.4	1647.3	1741.8	1583.8	1765.6	1890.6	1957.5	2010.1	2066.4	2175.1	2277.0
Imports-Goods & Services	2165.5	2298.6	2350.9	2288.7	1976.0	2228.1	2336.4	2388.2	2422.3	2476.1	2636.1	2769.7
	Exports and Imports -- % Change											
Current Dollars												
Exports	10.8	12.8	12.7	10.7	-14.1	16.4	14.0	4.5	2.9	4.6	7.1	6.2
Imports	12.7	10.6	6.0	7.6	-22.7	19.5	13.0	2.7	0.5	3.0	6.0	5.8
Constant Dollars												
Exports	6.0	8.9	8.9	5.7	-9.1	11.5	7.1	3.5	2.7	2.8	5.3	4.7
Imports	6.1	6.1	2.3	-2.6	-13.7	12.8	4.9	2.2	1.4	2.2	6.5	5.1
	Production Indicators - % Change											
U.S. Industrial Production	3.2	2.2	2.5	-3.4	-11.3	5.7	3.3	3.8	2.9	3.7	3.8	3.5
Real GDP -- Industrial Countries	2.6	2.8	2.7	0.6	-3.5	2.9	1.9	1.0	1.3	1.9	2.2	2.2
Real GDP -- Developing Countries	5.5	6.7	6.6	3.9	-0.0	7.4	5.4	4.1	3.4	3.9	4.6	4.8
	Price Indicators											
Price Deflators (% Ch)												
Exports	4.4	3.6	3.4	4.6	-5.5	4.4	6.4	0.9	0.2	1.7	1.8	1.4
Imports	6.2	4.2	3.7	10.5	-10.5	6.0	7.8	0.5	-0.9	0.7	-0.4	0.7
Crude Oil Prices (\$/barrel)	56.5	66.1	72.3	99.6	61.7	79.4	95.1	94.2	98.0	99.0	95.0	99.7
Real U.S. Dollar												
Ex. Rate-Indust. Countries	1.07	1.05	0.98	0.93	1.00	1.00	0.92	0.95	1.00	1.03	1.04	1.04
%Change	-2.2	-2.4	-6.4	-5.3	7.8	-0.4	-7.8	3.8	4.7	3.2	1.5	-0.4
Ex. Rate-Dev. Countries	1.18	1.12	1.04	0.94	1.00	0.95	0.87	0.86	0.86	0.86	0.84	0.81
%Change	-6.0	-5.1	-7.5	-9.5	6.4	-5.2	-8.3	-0.6	-1.0	1.0	-2.6	-3.3

FORECAST TABLES - DETAILED

Table 14. Price Indexes for GDP and Other Inflation Indicators (Percent Change)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Implicit Price Deflators												
GDP	3.2	3.1	2.7	1.9	0.8	1.2	2.0	1.7	1.4	1.7	2.2	2.2
Consumption	2.9	2.7	2.5	3.1	-0.1	1.7	2.4	1.8	1.1	1.5	1.8	2.1
Durables	-1.0	-1.6	-2.0	-1.9	-1.7	-1.4	-1.0	-1.2	-1.8	-1.9	-1.0	-0.8
Motor Vehicles	1.5	0.1	-0.6	-2.3	0.3	5.7	2.8	1.6	0.6	0.6	0.9	1.0
Furniture	0.0	-0.5	-0.8	-0.7	-0.4	-4.2	-1.6	-0.3	-2.0	-3.0	-0.5	-0.4
Other Durables	-0.6	1.5	2.6	3.3	1.1	0.4	3.2	0.6	-0.1	-1.1	1.0	1.4
Nondurables	3.8	3.1	2.9	5.6	-2.6	3.1	5.9	2.4	0.2	1.0	0.8	1.3
Food	1.7	1.7	3.9	6.1	1.2	0.3	4.0	2.3	1.1	2.2	1.8	0.9
Clothing & Shoes	-0.9	-0.4	-0.9	-0.8	0.9	-0.7	1.7	3.6	1.0	0.1	0.2	0.4
Gasoline	22.5	12.9	8.3	18.0	-27.2	18.1	25.8	3.4	-2.3	-0.9	-3.2	0.5
Fuel	33.0	13.7	6.9	35.6	-31.5	17.0	27.2	1.3	-1.3	4.1	-3.6	1.3
Motor Vehicle Fuel	21.6	12.8	8.4	16.6	-26.8	18.2	25.7	3.5	-2.4	-1.3	-3.2	0.4
Services	3.3	3.4	3.2	3.1	1.1	1.7	1.8	2.2	2.0	2.3	2.6	2.9
Housing	2.6	3.5	3.6	2.7	1.8	0.1	1.3	2.3	2.4	2.8	3.1	3.2
Utilities	8.9	8.0	3.1	7.8	-2.2	1.3	1.9	-0.2	3.4	5.7	1.3	1.1
Electricity	6.2	12.1	3.9	6.4	3.0	0.2	1.9	-0.0	2.2	4.6	0.6	0.5
Natural Gas	19.4	2.4	-1.2	13.8	-21.9	-2.0	-2.8	-9.7	5.0	12.8	-0.1	-0.6
Water & Sanit.	5.2	4.9	5.1	5.9	6.1	6.3	5.2	5.6	4.5	3.3	3.4	3.3
Health Care	3.2	3.0	3.7	2.7	2.7	2.5	1.8	1.8	1.4	1.5	3.2	3.7
Transportation	3.6	4.1	2.3	5.3	3.1	2.0	2.7	1.9	1.1	1.4	1.9	2.1
Recreation	2.8	3.4	2.8	3.1	1.2	1.1	1.7	2.7	1.7	2.0	1.9	2.4
Food & Accom.	3.2	3.4	3.9	3.9	2.2	1.3	2.5	2.8	2.1	2.7	3.1	2.1
Financial & Insur.	3.1	2.7	2.9	1.1	-4.4	4.0	1.9	3.9	1.8	1.7	2.2	2.8
Other Services	4.8	4.0	3.1	4.6	2.8	3.1	2.5	2.5	2.7	2.2	1.9	2.8
Investment Deflators:												
Nonresidential	2.9	2.9	2.1	1.8	-0.3	-0.9	1.5	1.4	1.2	1.3	1.4	1.6
Structures	12.6	12.2	6.1	4.8	-2.2	-1.2	2.9	2.0	3.0	3.5	3.9	3.7
Equipment	0.3	-0.3	0.3	0.1	1.3	-2.0	0.9	1.3	0.4	0.3	0.2	0.6
Intellectual Prop.	0.9	1.6	1.7	1.7	-0.8	0.5	1.2	1.4	1.0	1.2	1.4	1.6
Residential	7.2	5.8	1.3	-1.5	-3.5	-0.4	0.7	0.9	4.9	5.3	2.5	2.8
Government Purchases	5.1	4.4	4.4	4.3	-0.3	2.7	2.8	1.3	0.9	1.6	1.9	2.1
Federal	4.2	3.3	3.0	3.0	-0.3	2.6	2.7	0.8	1.4	1.1	1.4	1.5
State & Local	5.6	5.0	5.2	5.1	-0.3	2.7	2.9	1.6	0.7	1.8	2.2	2.5
Exports	4.4	3.6	3.4	4.6	-5.5	4.4	6.4	0.9	0.2	1.7	1.8	1.4
Imports	6.2	4.2	3.7	10.5	-10.5	6.0	7.8	0.5	-0.9	0.7	-0.4	0.7
Other Inflation Related Indicators												
Consumer Price Index												
All Urban	3.4	3.2	2.9	3.8	-0.3	1.6	3.1	2.1	1.5	1.9	2.1	2.2
Producers Price Index	7.3	4.7	4.8	9.8	-8.7	6.8	8.8	0.5	0.6	2.7	1.0	1.1
Nonfarm Sector Indicators												
Wage Compensation	3.6	3.9	4.3	2.7	1.1	2.1	2.5	2.6	1.6	2.4	3.4	4.0
Productivity	2.1	0.9	1.6	0.8	3.2	3.3	0.5	1.5	0.5	0.8	0.8	1.6
Unit Labor Costs	1.6	3.0	2.6	2.0	-2.0	-1.2	2.0	1.2	1.1	1.6	2.6	2.4
Crude Oil Prices (dollars/barrel)												
West Texas Intermediate	56.46	66.10	72.28	99.61	61.69	79.41	95.07	94.21	97.96	98.95	95.00	99.72

Table 15. Producers Price Indexes

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Annual Percent Change											
All Commodities	7.3	4.7	4.8	9.8	-8.7	6.8	8.8	0.5	0.6	2.7	1.0	1.1
Industrial Commodities	8.6	5.4	3.8	9.8	-9.0	7.0	8.0	0.0	0.4	2.5	0.9	1.5
Textiles & Apparel	1.5	1.4	1.0	2.4	0.5	1.7	7.6	0.3	0.8	1.8	1.2	0.5
Fuels	23.2	6.6	6.6	20.5	-25.8	17.1	16.0	-1.8	-0.2	4.5	-1.9	0.7
Chemicals	10.1	7.2	4.4	14.3	-6.5	7.5	11.5	0.5	0.9	1.8	2.6	2.7
Rubber & Plastics	7.5	6.9	0.8	7.0	-0.4	3.3	7.1	2.3	1.1	1.4	1.2	1.6
Lumber & Wood	0.4	-1.1	-1.0	-0.6	-4.4	5.4	1.1	3.5	6.5	4.3	3.6	1.8
Pulp & Paper	3.5	3.6	3.4	4.6	-0.5	5.0	3.5	-0.4	1.9	2.0	2.8	2.6
Metals & Products	7.5	12.9	6.5	10.1	-12.2	11.1	8.8	-2.7	-2.9	1.7	2.6	2.3
Equipment	1.3	2.0	0.9	1.9	1.2	-0.1	1.3	1.1	0.7	0.8	0.7	1.0
Trans. Equipment	1.6	1.1	1.6	2.3	2.3	0.7	1.7	2.2	1.1	1.9	2.5	1.9
Farm	-3.8	-1.2	22.5	12.4	-16.5	12.2	23.6	3.1	1.4	5.1	0.6	-3.9
Processed Foods & Feeds	1.3	0.4	7.3	9.3	-2.4	3.4	8.4	3.9	1.5	4.7	2.2	-0.1
By Stage of Processing												
Crude Materials	14.6	1.4	12.2	21.5	-30.5	21.3	17.4	-3.2	2.1	8.0	-1.0	-0.7
Intermediate Materials	8.0	6.4	4.0	10.3	-8.2	6.4	8.9	0.5	0.0	2.1	1.1	1.2
Finished Goods	4.9	2.9	3.9	6.4	-2.6	4.2	6.0	1.9	1.2	2.9	1.3	1.1
Consumers	5.8	3.4	4.5	7.4	-3.8	5.5	7.5	2.0	1.4	3.4	1.2	0.9
Producers	2.3	1.5	1.9	2.9	1.8	0.4	1.5	1.9	0.9	1.5	1.6	1.6

Table 16. Money, Interest Rates and Corporate Profits

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Billions of Dollars											
Money Supply (M1)	1371.8	1374.8	1372.7	1434.5	1637.8	1742.1	2009.7	2311.6	2547.0	2771.2	2715.9	2458.9
Money Supply (M2)	6505.7	6848.2	7270.1	7766.3	8389.2	8596.3	9224.5	10013.7	10690.4	11292.6	11732.1	12142.8
	Percent Change											
Money Supply (M1)	2.0	0.2	-0.2	4.5	14.2	6.4	15.4	15.0	10.2	8.8	-2.0	-9.5
Money Supply (M2)	4.3	5.3	6.2	6.8	8.0	2.5	7.3	8.6	6.8	5.6	3.9	3.5
	Interest Rates (Percent)											
Short-term Rates												
3-Month Treas. Bills	3.15	4.73	4.35	1.37	0.15	0.14	0.05	0.09	0.06	0.07	0.97	2.56
Prime Bank Loans	6.19	7.96	8.05	5.09	3.25	3.25	3.25	3.25	3.25	3.25	4.04	5.55
U.S. Government Bond Yields												
5 Year Maturity	4.05	4.75	4.43	2.80	2.19	1.93	1.52	0.76	1.17	1.81	2.66	3.61
10 Year Maturity	4.29	4.79	4.63	3.67	3.26	3.21	2.79	1.80	2.35	3.02	4.05	4.33
30 Year Maturity	4.56	4.87	4.84	4.28	4.07	4.25	3.91	2.92	3.45	3.87	4.87	4.97
State and Local Governments Bond Yields												
Domestic Municipal Bonds	4.40	4.41	4.39	4.85	4.62	4.29	4.51	3.73	4.26	4.69	5.54	5.71
Corporate Bond Yields												
Moodys AAA Corp. Bonds	5.23	5.59	5.56	5.63	5.31	4.94	4.64	3.67	4.24	4.54	5.61	5.88
Conventional Mortgage Rate	5.87	6.41	6.34	6.04	5.04	4.69	4.46	3.66	3.98	4.57	5.68	6.23
	Corporate Profits (Billions of Dollars)											
Profits Before Taxes	1653.33	1851.43	1748.43	1382.43	1468.18	1834.80	1847.35	2190.03	2263.75	2592.86	2571.00	2623.54
Inventory Valuation Adj.	-32.13	-35.68	-39.50	-36.95	6.68	-41.03	-56.05	-10.03	-0.30	-26.51	1.38	-11.38
Profits After Taxes	1240.93	1378.08	1302.88	1073.33	1198.73	1464.28	1473.13	1755.25	1844.85	2058.64	2009.91	2037.25

THE UCLA ANDERSON FORECAST FOR CALIFORNIA

JUNE 2014 REPORT

Home Construction in California: Did it Stall Shifting from 1st into 2nd?

From China to California: Trans-Pacific Investment in Real Estate

Home Construction in California: Did it Stall Shifting from 1st into 2nd?

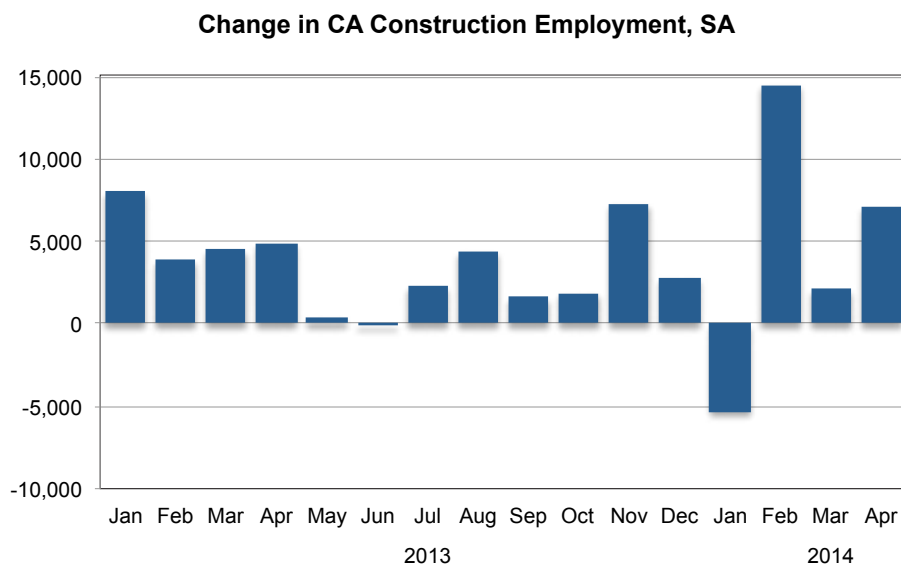
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June 2014

There are several pricing puzzles in California housing markets today engendered by falling home sales and dramatically rising prices. Typically observations of these trends have taken the view “The high costs are driving the number of sales to a six-year low.”¹ But how did they get so high? Is it that sellers don’t really want to sell and are pricing their homes out of reach of most buyers? Is it a bubble once again? And with home sales low, why are builders building again? Clearly builders are responding to the dearth of inventory and the higher prices, but that brings us back to why are prices so high in the first place? If the builders could have made a profit building at the lower prices, wouldn’t residential construction be more robust at the moment? Yet overall permits for new residential construction in California are

just now reaching the anemic levels of the mid 1990s. In this essay we will look at the data on California home prices, sales, and employment to ferret out the answers.

These questions are important to understanding the trajectory of California’s economy in the face of some superficial evidence of a weakening in housing demand because construction has been one of the drivers of job growth, and in particular middle-class job growth, in the State in recent years. Over the last 14 months (January 2013 to April 2014) construction job growth has directly provided over 12% of all new payroll jobs in the State.² As we shall see in what follows, the data are mixed and representative of housing markets which are normalizing to transactional conditions

Figure 1



Source: California EDD

with predominately non-distressed sales. Home prices in key markets have been accelerating, but they are also driving new construction, and the health of the local job market is one of the key elements in this process. That said, what is happening in California’s housing markets, including a normalization in the inland markets as the stock of distressed housing is finally worked through, does not portend an end to the two-Californias economy.

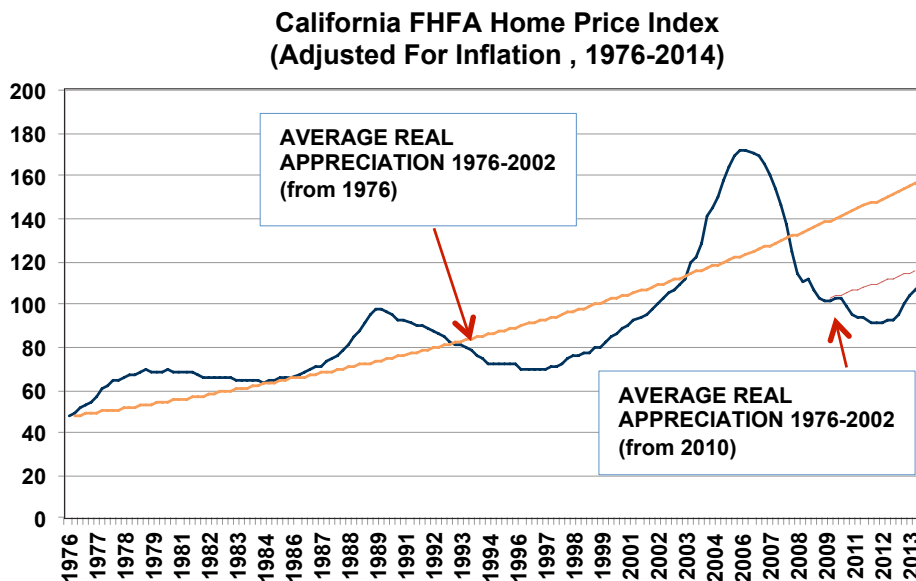
Home Prices

There is ample evidence that home prices in California have been soaring through this year. The FHA home price index for the State shows a 16.1% increase between the 1st quarter of 2013 and the same quarter for 2014.³ But we have to be careful in interpreting the data. Prices do not rise on their own. Nor does the pricing data we employ to describe housing markets represent asking prices. Rather, the price data are the outcome of market transactions. When home prices rise it is because, given the supply of homes on the market, the demand cannot be satisfied at current prices. Potential purchasers compete with one another by offering

higher prices until only one buyer is left to consummate the transaction. Those competing buyers maybe investors, owner-occupiers, or both. The first question we want to answer about these prices is; are we in the throes of another speculative bubble?

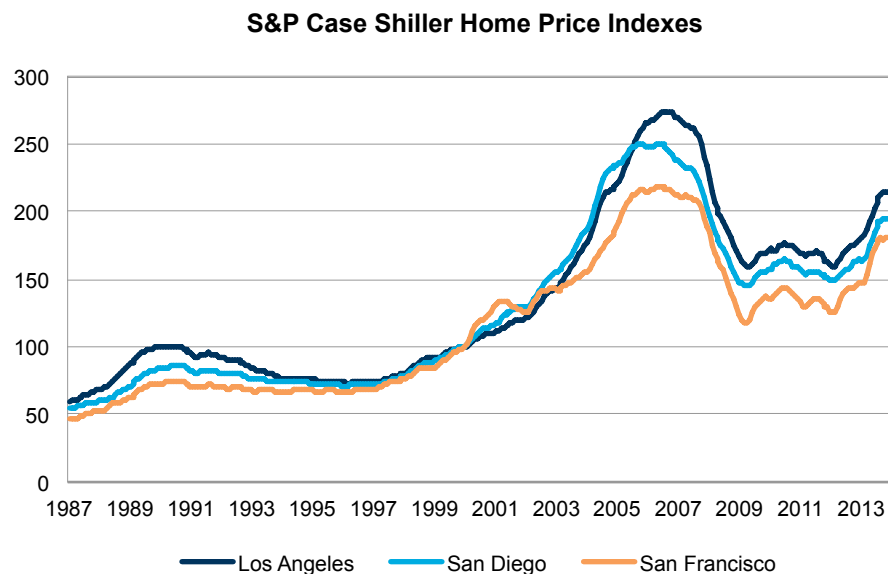
To answer this we consider two data sources on pricing. The first is the aforementioned FHFA Home Price Index. This is a composite of home prices throughout the state. Over the period 1976 to 2014, there are times when home prices are above the average appreciation (0.8% quarterly adjusted for inflation), but prices invariably return to the long run average. The most dramatic of these deviations was the speculative bubble of 2004 to 2006. The current run up in home prices remains below this long run average. One might argue that the long run average appreciation to which home prices ought to converge should not be based on 1976 prices but a more recent date, say 2010 quarter 1. Making this change in the analysis does not change the conclusion, home prices in California over-adjusted in the collapse of 2008 and the increase we are seeing today is a re-adjustment rather than a bubble.

Figure 2



SOURCE: FHFA, BLS, Anderson Forecast

Figure 3



Source: S&P

The second relevant data set is the Case-Shiller Home Price Index which measures home prices in selected metropolitan areas. The coverage for California is comprised of San Diego, Los Angeles and San Francisco. For these three cities the picture is a bit different. Home prices have appreciated faster than in the State as a whole (measured as Q1 2013 to Q1 2014) with San Diego at 19.4%, Los Angeles at 18.0% and San Francisco 22.2%. Nevertheless, the data do not indicate a clear bubble in housing prices. Rather it looks as if home prices have returned to their long run average appreciation path. That being the case, one cannot expect further dramatic appreciation to occur, and were it to, worries of a nascent bubble would be in order.

Home Sales: A Market In The Process of Normalization

Overall California home sales have been flat to slightly negative this past year. This has led to some concern that the residential real estate market, in spite of the high prices homes are now bringing, is not really healing. Indeed, if Chart 4 is our guide we ought to be worried about the future of housing markets and therefore the legs of the nascent construction sector growth in the State. The data in the chart fluctuate about 35,000 to 40,000 homes sold per month. Connecting the sales for April of each year we see a slight decrease relative to the past few years (the dashed

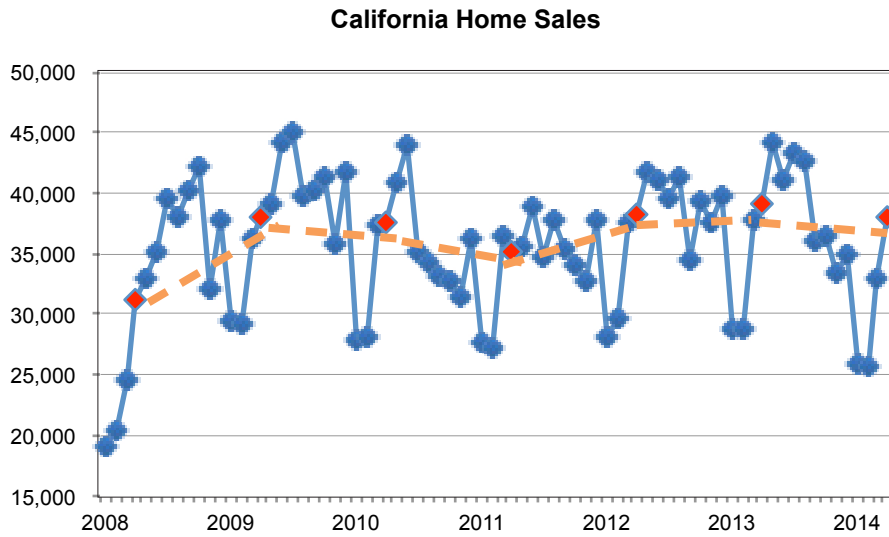
line). February's sales are a bit more worrisome as they are the lowest since the recession. But the data in Chart 4 are not our only guide.

The composition of sales is as important an indicator in an expansion as the total number of sales. Both foreclosures and short sales have been plummeting over the past few years. Foreclosures now represent less than 7% of all home sales and total distressed sales are just over 12%. What that means in a market with near constant total sales is an ever-increasing number of normal sales. In other words, a market that is returning to normal where sellers are motivated not by bad investments and a desire by financiers to bail out, but by more normal market forces. This is important as it gives developers increased confidence in the pricing signals vis-à-vis the price they will receive when they ultimately sell their newly constructed housing units, and it induces home owners who were sitting on the sidelines waiting for a better market, to list their homes.

Moreover, this sheds further light on the increase in home prices discussed in the previous section. A foreclosed home will, on average, sell at a lower market price than an owner occupied home. This is because the foreclosed home will typically not be maintained as well, will for some have bad karma associated with it, will not show as well, and will be offered by a highly motivated seller. A short sale home

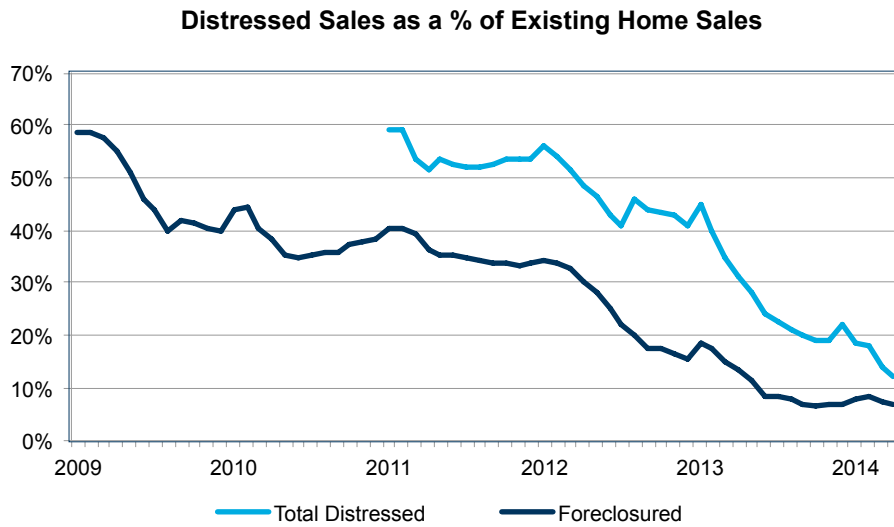
HOME CONSTRUCTION IN CALIFORNIA: DID IT STALL SHIFTING FROM 1ST INTO 2ND?

Figure 4



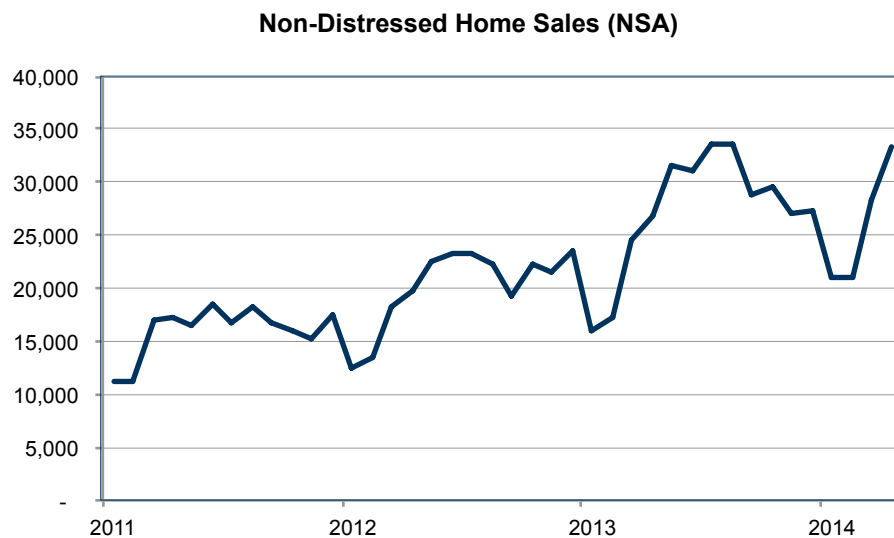
Source: DataQuick

Figure 5



Source: DataQuick

Figure 6



Source: DataQuick, UCLA Anderson Forecast

will bring more than a foreclosed home as it will be better maintained and shown, but will still be considered something less in value than an owner occupied non-distressed sale. Indeed, what we mean by distressed is that the asset will be sold at a discount.

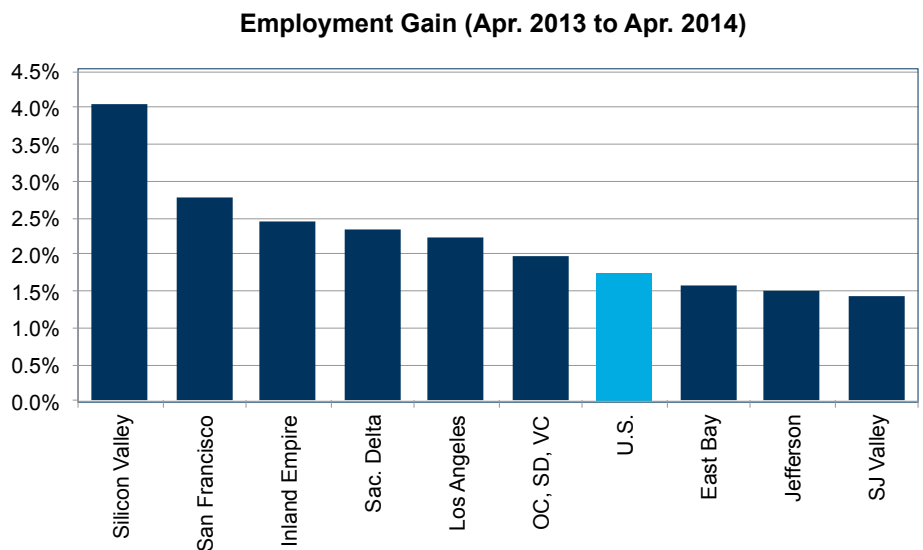
The Geography of Residential Construction

That demand is pushing up prices for homes seems evident. When a new household is formed, typically by splitting an existing household (e.g. children move out, divorce, or roommates go their separate ways), they often look to rental housing as their first stop. This represents an increase in the demand for housing, which ought to be felt all the way up the food chain. Recent stories of record high rents in the Bay Area and Southern California⁴ are good indications of this phenomenon. These increases in rents ought to induce new home construction, but in fact, this is not always the case. The rents have to be high enough and there needs to be some confidence in the continuation of household formation to hold them there after new homes come on the market.

An important component of household formation is job growth. Absent the income to rent or to buy a home, it is difficult to set up a household. In California job growth has been fairly robust over the past year. Indeed most of California has grown at rates exceeding the U.S. The exceptions are the San Joaquin Valley, the East Bay, and the counties closest to the Oregon border (who are with some Oregon counties just now considering secession to form the State of Jefferson.) However, the East Bay and San Joaquin Valley rates of job growth are about at the US average and in the 1.5% range.

But, this widespread job growth in California has not led to widespread construction of new homes. In the Inland Empire, permits issued during the 1st quarter of 2014 grew from the first quarter of 2013 by 1.7%. In San Joaquin County they fell by 9.8% and in the East Bay they fell by nearly 50%. By contrast permits issued in the West Bay (San Francisco and Silicon Valley) grew by 15.3%, Los Angeles by 21.5%, Orange County by 7% and San Diego by 29%. To be sure, these numbers are influenced in part by the timing of the building. A large multi-family housing project can readily swing the magnitude of the numbers. The breakdown

Figure 7



Source: CA EDD, UCLA Anderson Forecast

between multi-family and single-family though shows that this is qualitatively not the case with the exception of Silicon Valley appearing weaker and the Inland Empire appearing stronger in the total permits numbers than perhaps they are.

Job growth then is not strictly correlated with growth in residential construction. Were that the case the Inland Empire and San Joaquin County would not be showing such weak permit numbers. While job growth is important, the key is a combination of job growth and a recovery to a more normal (or more like 2007) level of employment. There are a number of regions in California where there is both solid job growth and a level of employment equal to the previous peak including San Francisco, Silicon Valley and San Diego. In the Inland Empire and Sacramento Delta employment (non-farm payroll plus farm employment) remain around 4% below their previous peak 5 years into the recovery, while Los Angeles and the East Bay are about 2% off peak. As with other aspects of the current economic expansion in California, residential construction and employment remain geographically disparate.

The Forecast

In this essay we considered the recent data on the housing sector; data which suggested a possible hiatus in the pace of residential construction. Were we to have concluded that the data confirmed that hypothesis, a reduction in economic growth on the order of 0.3% or about 50,000 jobs would have been warranted. Fortunately we found the opposite, namely the flat to negative growth in new home sales combined with increasing home prices were a signal that housing markets were returning to normal. While construction is still not a barn burner, and it is still not uniform across the State, we continue with our view that there will be of a recovery in home construction before the end of the forecast horizon.

In the three months since our last forecast the U.S. economy cooled due in part to weather in the East and Mid-West and in part to slower growth in the economies of our international trading partners. Our expectation for the U.S., and therefore for California, is for a rebound from the sluggish first quarter, yielding growth at approximately long run average rates through 2016.

The factors which have driven California employment and income growth to higher rates than the U.S. are still in play. As the world economy improves once again, and as investment by firms in the U.S. grows, California will once again have a disproportionate share of that improvement. Our expectation is for this to occur in the balance of 2014 and to accelerate into 2015 and 2016.

Our forecast for 2014 is for total employment growth (payroll, farm and self employed) of 1.8% and for 2015 and

2016 it is 2.4% and 2.1%, respectively. Non-farm payroll employment will grow similarly, at 2.1% and 2.3% and 2.1% for the three forecast years. Real personal income growth is forecast to be 3.1% in 2014 followed by 4.1% and 4.1% in 2015 and 2016. Unemployment will fall through 2014 and will average approximately 7.7% for this year. In 2015 we expect the unemployment rate to drop to 6.8% on average, a percent higher than our U.S. forecast and thence to 5.9%.

Endnotes

1. <http://www.housingwire.com/articles/29683-with-prices-at-six-year-high-southern-california-home-sales-hit-a-six-year-low>
2. <http://www.labormarketinfo.edd.ca.gov>
3. FHFA.gov
4. See for example:
George Avalos and Pete Cary, "Bay Area Apartment Rents Set Record," *San Jose Mercury News*, April 15, 2014
http://www.mercurynews.com/business/ci_25573285/bay-area-apartment-rents-set-record
Adrian Glick Kudler, "Rents in Los Angeles Shooting up Faster Than San Francisco," *Curbed Los Angeles*, April 23, 2014
http://la.curbed.com/archives/2014/04/rents_in_los_angeles_shooting_up_faster_than_in_san_francisco.php
Jed Kolko, "The Housing Recovery Needs More Than Just Rising Prices," *Trulia Trends*, April 2014
<http://www.trulia.com/trends/2014/05/price-and-rent-monitors-april-2014/>

From China to California: Trans-Pacific Investment in Real Estate

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June 2014

As China's real estate bubble started to deflate earlier this year, the smart money in China increasingly pondered where and what to invest in next. Here is a list of possibilities: (1) Hang in there with China's real estate market? Absolutely not. If you are waiting for a rebound and another round of lucrative capital gain, it is very unlikely to happen. The only questions for China's real estate market are: how deep will it decline? How fast it will decline? And how long will the decline last? Additionally, Finance 101 teaches us that diversification is always a wise way to allocate your investment. (2) China's stock market? No. It has been a dog-eat-dog market for a long time and will likely continue. (3) Hong Kong? No. Any more money flowing in that small and expensive city will likely cause it to explode.

(4) Europe? No. Their integrated monetary system, but independent fiscal and political systems still keep Europeans searching for their soul about the identity of Europe. (5) Australia? No. China is its major commodities buyer so the two economies are closely correlated. That will not lend well to the diversification of the investment. (6) The Middle

East? No. They already have plenty of oil money invested. (7) Japan? Too difficult. (7) Southeast Asia? Too risky. (8) Latin America? Too far away. (9) Africa? Too elementary. (10) Canada? Too cold. The only Canadian city that is not too cold is Vancouver. And, similar to Hong Kong, it has already seen an inflated real estate bubble due to an influx of money.

The best place for China's smart money to invest in is the United States. Let me explain why. First, the U.S. is the largest economy in the world and will continue as such for the next several decades, if not centuries. This big, deep, and integrated market will be able to accommodate the gigantic amounts of Chinese money where Singapore, Switzerland, or Canada cannot. Second, the U.S. has the advanced, enduring, stable and reliable rule of law and the financial system needed to protect property right and value. Third, the U.S. has both the most innovative technology and the most competitive economy which foster long-term growth and asset values. To be sure, the U.S. has its own short-and long-term problems. However, as my colleague David Shulman said: "In all the dirty laundry, U.S. is the cleanest shirt you get."

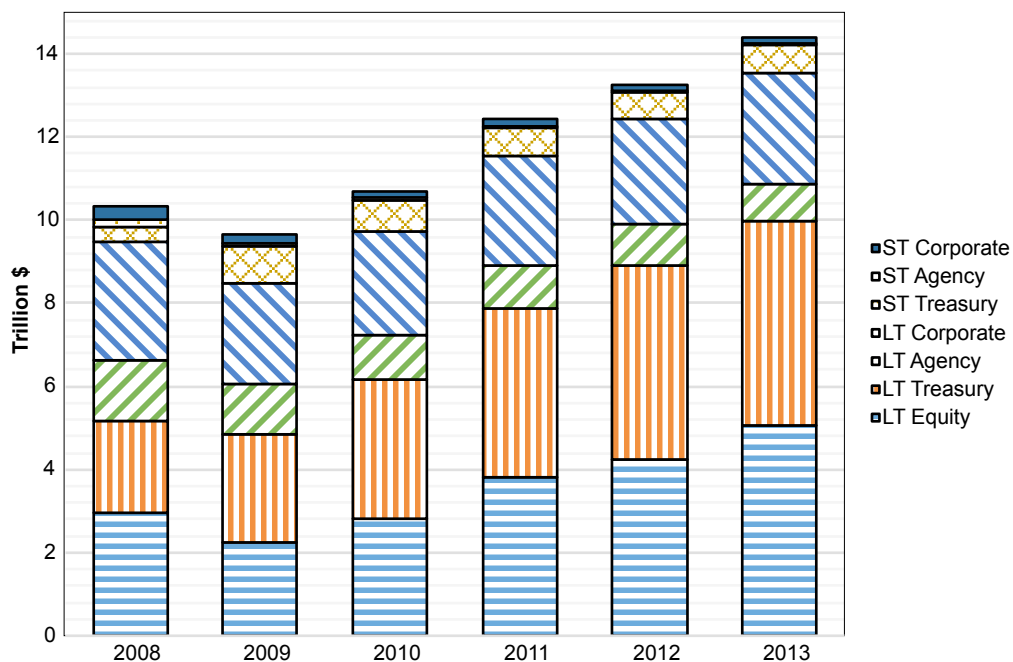
Foreign Portfolio Investment from China

Figure 1 shows foreign residents' portfolio holdings of U.S. securities from 2008 to 2013. Since the financial crisis and Great Recession of 2009, the total amount of portfolio assets have increased from \$9.6 trillion in June 2009 to \$14.4 trillion in June 2013. That is a \$4.1 trillion increase. Most of the portfolios are in long-term U.S. treasury debt, equity, and corporate debt. Figure 2 displays China's portfolios in U.S. securities, and they are predominantly U.S. treasuries. Holdings on agency debt (mortgage-backed securities from Fannie Mae and Freddie Mac) have declined after the financial crisis. As of June 2013, total U.S. securities holdings by China are \$1.74 trillion, following closely behind the largest foreign holder, Japan at \$1.77 trillion.

Foreign Direct Investment from China

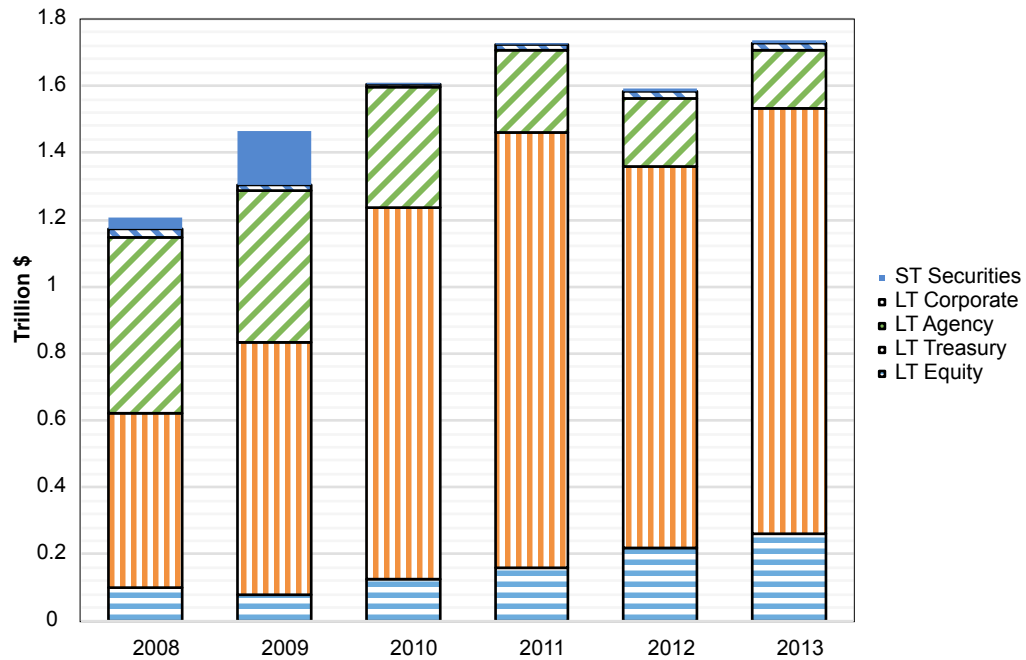
In addition to these foreign portfolio investments, the U.S. also stands as the largest destination country for foreign direct investment (FDI) with \$2.84 trillion of FDI stock in 2013 (historical-cost basis). The FDI inflows from 2009 to 2013 were \$23 billion, \$211 billion, \$223 billion, \$148 billion, and \$188 billion, respectively. Compared to China's tremendous portfolio investment in the U.S., China's FDI in the U.S. seems to be humble. According to the Bureau of Economic Analysis, from 2009 to 2013, China's FDI to the US was \$0.7 billion, \$3.4 billion, \$3.9 billion, \$1.2 billion, and \$2.2 billion, respectively. Thus, the official accumulative FDI position of China to the U.S. reaches only \$12.7 billion in 2013. We think these amounts are underestimated.

Figure 1 Total Foreign Residents' Holdings of the U.S. Securities



Source: U.S. Department of the Treasury. The annual report is as of June 30 of each year.

Figure 2 China's Holdings of U.S. Securities

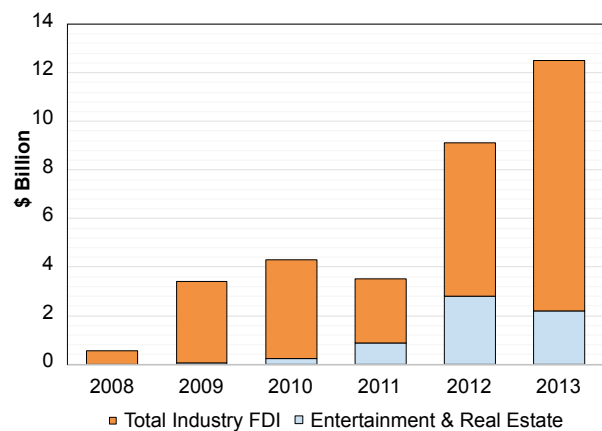


Source: U.S. Department of the Treasury. The annual report is as of June 30 of each year.

Using a more detailed investigation, Rhodium Group’s China Investment Monitor might provide a more accurate estimation of China’s FDI in the U.S. As shown in Figure 3, China’s FDI investment in the U.S. from 2009 to 2013 was \$3.4 billion, \$4.3 billion, \$3.5 billion, \$9.1 billion, and \$12.5 billion, respectively. The accumulated FDI stock reached \$36.5 billion in 2013. Within the FDI, the entertainment & real estate industry investment was \$0.06 billion, \$0.2 billion, \$0.89 billion, \$2.8 billion, and \$2.2 billion from 2009 to 2013, respectively. Apparently, real estate investment is gaining its share among China’s FDI as the U.S. real estate market recovers.

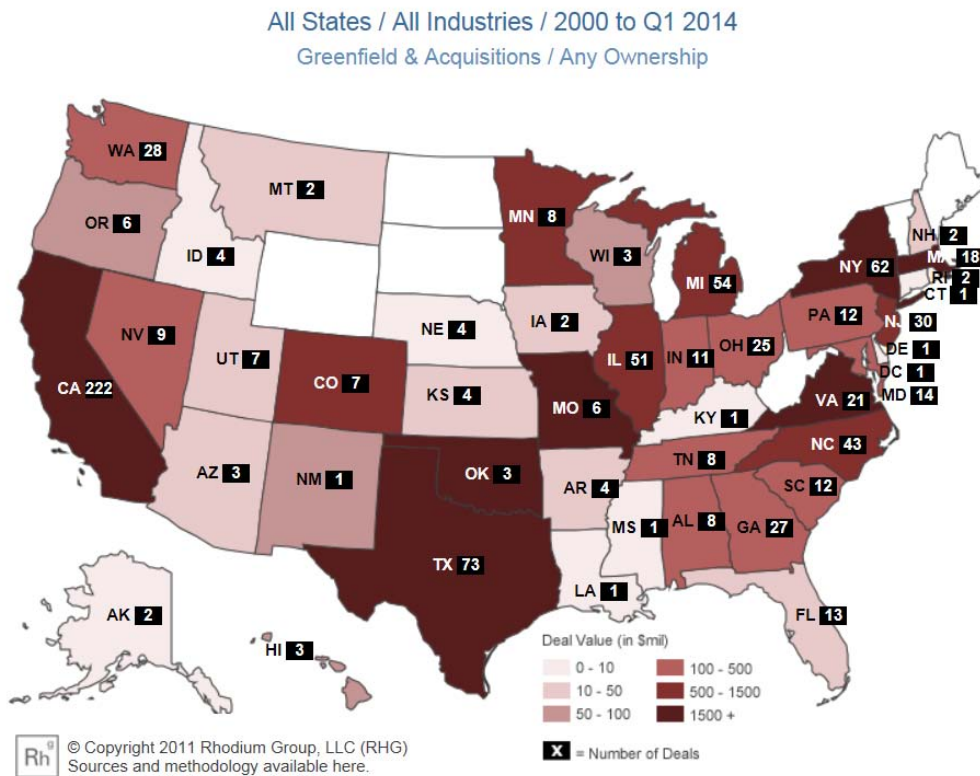
Figure 4 presents the number of Chinese FDI deals in U.S. states. Between 2000 and 2014Q1, China made 222 deals through greenfield investments or acquisitions in California, 73 deals in Texas, and 62 in New York. Note

Figure 3 China's Foreign Direct Investment in the U.S.



Source: China Investment Monitor from Rhodium Group

Figure 4 Number of China's Foreign Direct Investment Deals in the U.S. by State from 2000 to 2014



Source: China Investment Monitor from Rhodium Group

that China's huge U.S. Treasury debt (\$1.272 trillion) pays low interest. Thus, despite its significant net foreign asset position of \$1.97 trillion, China paid \$60 billion to the rest of the world in 2013. It would be wise for the People's Bank of China to relocate more FDI or other equity investment and fewer Treasury debts.

Individual Investment from China

In addition to the above government and corporate investments from China, we have all heard anecdotal stories from newspapers and realtors about Chinese investors bringing in cash to buy homes in New York, Los Angeles and other major U.S. cities or to invest in the EB-5 program (i.e., invest \$500,000 and create a certain number of jobs) in order to gain U.S. permanent residence. How real is that? It is very real. According to the U.S. State Department, the number of EB-5 visas issued to the Chinese reached 6,895 in 2013, which was a sharp increase from the 1,000 in 2010. Furthermore, Chinese nationality accounts for 80% of all EB-5 visas issued in 2012 and 2013.

Among the approved 615 cases of EB-5 regional centers, 122 regional centers (20%) are located in California. It is not surprising for California to be China's preferred investment location for three reasons: (1) California is a nice place to live and retire, especially for the rich. (2) California is one of the closest states to China. (3) California already has one of the largest percentages of Asian immigrants.¹

Real Estate Markets in Shanghai and Los Angeles

In the beginning, we suggested that the Chinese real estate bubble is going to deflate for a prolonged period of time. Why? By and large, the price-to-income ratios and price-to-rent ratios of homes in Chinese cities are three times higher than those in the U.S. today. And vacancy rates are at least 30% nationwide. China's current bubble is bigger than Japan's in 1990 and the U.S.'s in 2007.² Therefore, it will be wise to relocate investment from the Chinese real estate market to the U.S. real estate market. Let me provide illustrative examples from across the Pacific Ocean. Table 1 lists specifications of two typical two-bedroom condos from nice neighborhoods, one in Shanghai and one in Los Angeles.

A decent condo costs a lot in both Shanghai and Los Angeles because both units are in an ideal city and a convenient location. In Table 1, we can see that the Shanghai condo was sold for \$995,000 and the L.A. condo was sold for \$830,000 in March 2014. However, when we take a closer look, we find that the properties are quite different. The Shanghai condo is smaller (1,248 sf) than the L.A. condo (2,116 sf). Thus, Shanghai’s price per square foot is almost twice as much as L.A.’s. Second, the monthly rent for the Shanghai condo (\$1,400) is much lower than L.A.’s (\$3,300). Thus, the price to rent ratio is 59 in Shanghai while it is 21 in L.A. If you think L.A. housing prices are expensive, Shanghai’s housing prices would be unfathomable.

And it is puzzling how an average Chinese household in Shanghai with a per capita GDP of \$14,500 can afford a condo that cost nearly \$1 million. In other words, it is evident that the housing bubble cannot go on and escalated home prices are not based on realistic rent/income flow but based on speculative capital gain of the future? When China’s home prices turned around this year, the speculative expectations were gone. The deflating real estate price will continue until it is closer to the fundamentals.

Table 1 also explains why we have seen many smart Chinese investors bring in cash to buy properties in Los Angeles over the past two years. Because it is a much better deal to be a landlord in L.A. collecting \$3,000 monthly rent rather than one in Shanghai collecting \$1,400. We suggest that commercial real estate in China move in tandem with residential real estate simply because most of China’s business booms in the past several years have been related to or driven by residential real estate.

Where to Invest in the United States?

The next question is, where should smart Chinese money invest in the U.S.? The most important factor is that the city should have a sizable market to provide the sufficient depth and liquidity for small and big international investors. We use the percentage of the real estate industry’s GDP for major metros in the nation to extrapolate the commercial and residential real estate values (current cost) as shown in Table 2. The real estate business GDP (including rental and leasing) in the U.S. is about \$1.84 trillion, in which New York metro takes 12% of the market share, L.A. metro has 7.3%, followed by Chicago’s 4.4%, Washington DC’s 3.7% and San Francisco’s 3.2%.

In 2013, the total commercial real estate asset value in the U.S. (in current cost) was about \$6.89 trillion and the total residential real estate value was about \$16.26 trillion. Based on our extrapolation,³ New York has \$825 billion value of commercial properties (current cost) and \$1.75 trillion value of residential properties in 2013. L.A. has \$505 billion value of commercial properties and \$1.07 trillion of residential properties. That said, these two largest metros are ideal destinations for Chinese money in commercial and residential real estate.

Table 2 also presents the vacancy rates for commercial properties, provided by the National Association of Realtors. Low vacancy rates might predict higher growth for rents in the future. The multifamily market has a much lower vacancy rate than the office market nationwide. As shown in Appendix A, in major metros, such as New York,

Table 1 Two-Bedroom Condos in Shanghai and Los Angeles

	Shanghai	Los Angeles
Condo Sold Price (US\$) in March 2014	995,184	830,000
Square Foot	1,248	2,116
Price per Square Foot	797	392
Monthly Rent (US\$)	1,400	3,300
Price to Rent Ratio	59	21
Year Built	2004	2001
Location	Pudong	West L.A.
GDP per Capita (US\$)	14,500	59,500
Land Ownership	70 years	Infinite

Sources: Soufun.com and Zillow.com

FROM CHINA TO CALIFORNIA: TRANS-PACIFIC INVESTMENT IN REAL ESTATE

Table 2 Real Estate Industry Size and Asset Values, Vacancy Rate for the 30 Largest Metros

Metro / Nation	Real Estate GDP	2013 Real Estate Asset Value (Billion \$)			Commercial Real Estate Vacancy Rate (%)		
		Commercial	Residential	Office	Industrial	Retail	Multifamily
New York	12.0%	825,484	1,754,434	9.5			2.3
Los Angeles	7.3%	504,797	1,072,866	15.2	3.8	5.7	3.2
Chicago	4.4%	300,827	639,361	18.4	8.8	10.7	3.5
Washington	3.7%	252,382	536,397	10.2			4.6
San Francisco	3.2%	220,730	469,126	12.8	10.8	3.1	3.1
Philadelphia	2.9%	199,910	424,877	13.9	9.7	9.1	3.5
Boston	2.9%	197,205	419,127	13.3	18.2	6	3.7
Miami	2.8%	194,256	412,860	17	5.8	6.8	3.5
Dallas	2.6%	177,908	378,116	22.6	12.4	12.4	5.2
Seattle	2.1%	145,401	309,027	13.5	5.9	6.7	4.2
Houston	2.0%	134,940	286,794	14.2	7.5	11.8	6.4
Minneapolis	1.8%	123,444	262,361	16.5	7.1	11	2.3
Phoenix	1.7%	116,398	247,386	24.6	10.8	10.1	4.9
San Diego	1.7%	115,648	245,791	15.3	6.5	6.1	2.5
Detroit	1.5%	103,379	219,715	25	11.6	11.7	3.5
Denver	1.3%	87,609	186,199	16.8	7.6	10.7	4
Baltimore	1.2%	83,857	178,225	15.7	11.6	6.6	3.2
Orlando	1.2%	83,681	177,850	17.4	11	11.7	5.1
San Jose	1.1%	78,919	167,731	18.4	16.9	5.2	2.8
Stamford	1.0%	71,693	152,372	16.9			2.1
Portland	1.0%	65,832	139,916	13.2	7.7	7.9	3.2
Charlotte	0.9%	64,377	136,822	17.2	12.4	9.9	5.3
Indianapolis	0.9%	61,165	129,996	19.1	9.2	14.6	5.4
Cleveland	0.9%	59,405	126,257	22.9	8.5	15.2	3.2
Tampa	0.9%	58,869	125,116	21.1	7.5	11	4.2
Pittsburgh	0.9%	58,805	124,981	16	8.9	7.7	3.1
Riverside	0.8%	56,681	120,467	22.6	6.1	9.4	3.2
Sacramento	0.8%	51,676	109,830	20.6	12.3	11.9	3.6
Las Vegas	0.7%	51,046	108,490	25.5		12.2	5
Milwaukee	0.7%	50,018	106,305	18.6		12.3	3.3

Sources: Bureau of Economic Analysis' Regional Economic Accounts and Fixed Assets Accounts Table, February 2014.

Sources: Bureau of Economic Analysis' Regional Economic Accounts and Fixed Assets Accounts Table, February 2014.

Los Angeles, Bay Area, and Washington D.C., the vast areas include high-rent (above \$2,000 monthly) zip codes. In addition, Appendix B shows that the majority of the wealthiest 1% are concentrated in these metros. For instance, 7% of households live in New York while 15% of the wealthy households (households in the top 1% of housing wealth among the nation) live in the same metro. 4.2% of households live in L.A. while 12.3% of wealthy households live in the same metro. Therefore, for those rich Chinese investors who want to be neighbors of global millionaires, these cities are the place to go.

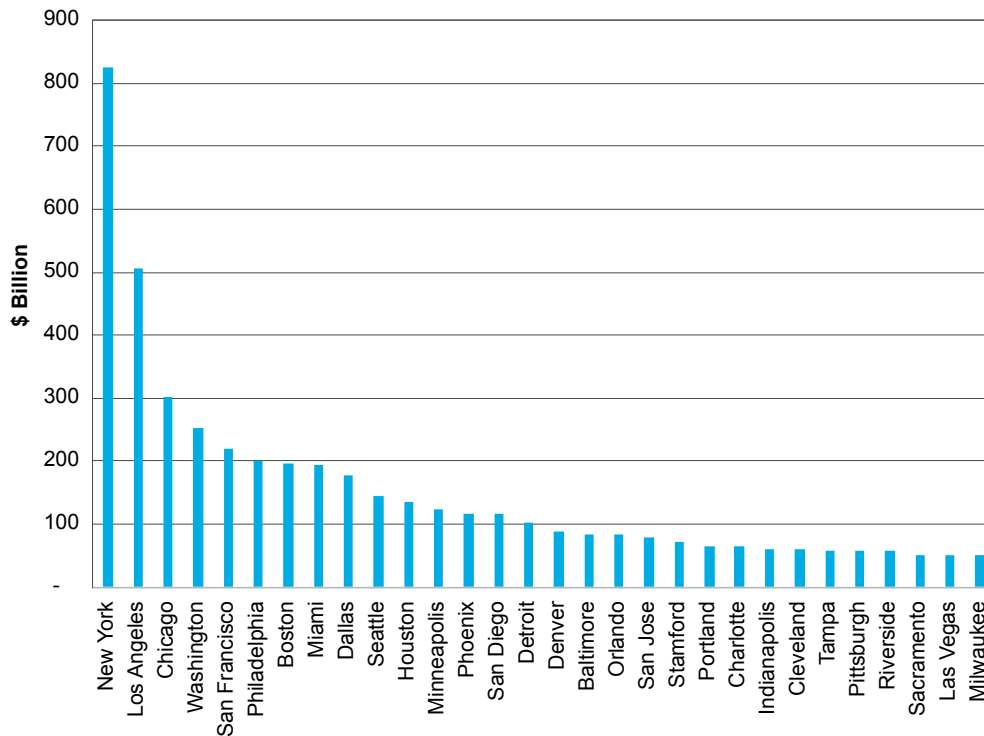
The vacancy rates for industrial and retail markets vary across cities. For the largest markets, New York and Washington DC have relatively low office vacancy rates. L.A., San Francisco, Philadelphia, Boston, Seattle, and Houston have moderate vacancy rates. Chicago, Miami, and Dallas have higher vacancy rates. L.A. has the lowest vacancy rate

for the industrial market and a low vacancy rate for the retail market. In summary, in addition to its beautiful weather and its close proximity to the ocean, L.A. would be an ideal city for Chinese real estate investors based on its size, geographic location, and significant and vibrant Chinese communities.

Conclusion

Take away points are: It will be wise to relocate investment from China, a real estate market with low expected return and high risk, to the U.S., a market with a higher long-term return. Among the U.S. markets, large cities, such as New York, Los Angeles, SF/SJ, and Washington D.C. are good destinations in which to invest because of their depth and liquidity. For Chinese investors, West Coast cities: Los Angeles, San Francisco, Seattle, etc. are ideal locations because of their geographic advantage (e.g. direct flights), mild weather, and large Asian communities.

Figure Estimated Commercial Real Estate Asset Value for the 30 Largest Metros, 2013



Sources: Bureau of Economic Analysis' Regional Economic Accounts and Fixed Assets Accounts Table

Appendix A

Figures A1 to A4 display the residential monthly rent range based on color darkness for four major markets: New York (including Stamford), Los Angeles, Bay Area

(San Francisco and San Jose), and Washington D.C. The zip code areas covered by medium or dark red colors are those who ask for monthly rent above \$2,000 in 2014. The widespread area of high rent in these metros demonstrates the high demand for properties.

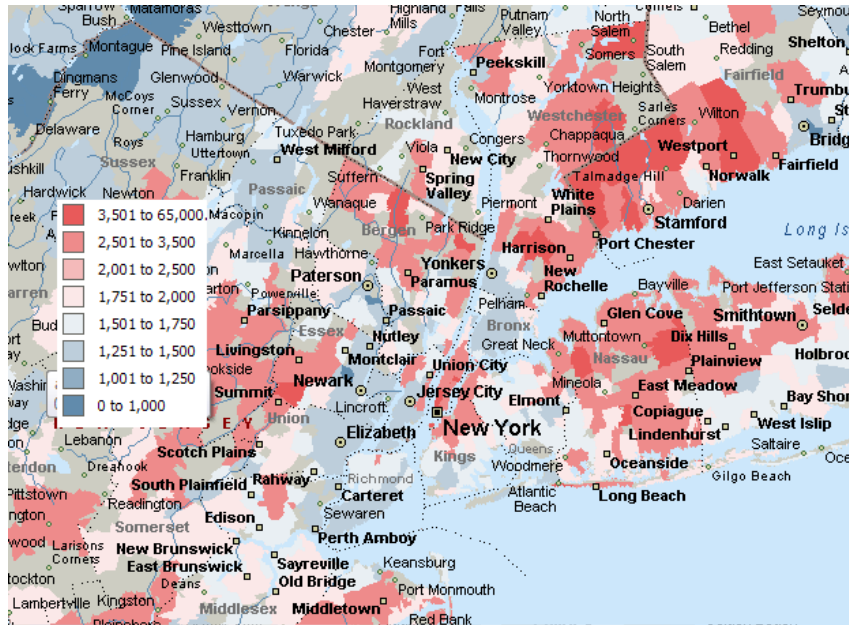


Figure A1

Monthly Rent in 2014 by Zip Codes in New York

Source: Zillow. The darker red color represents higher rent while the darker blue color means lower rent.

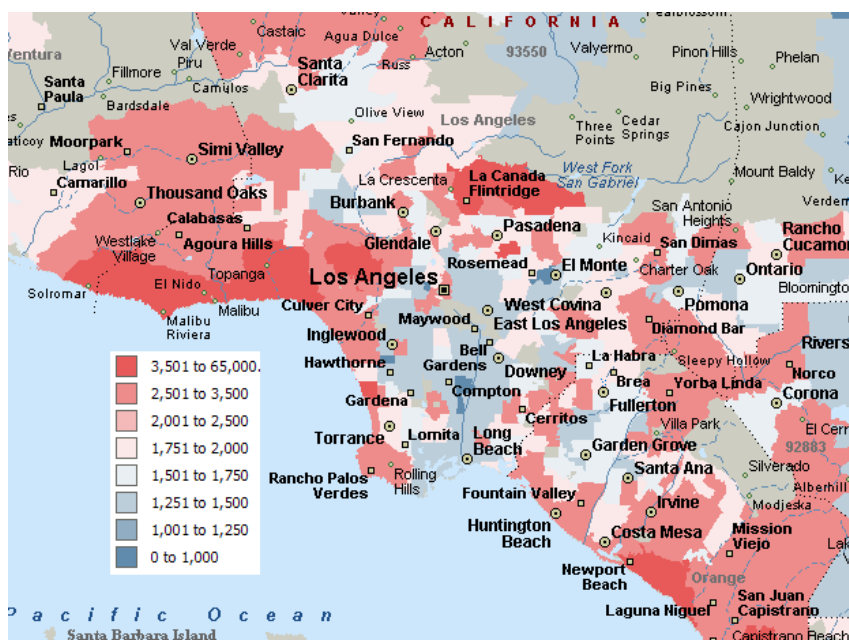


Figure A2

Monthly Rent in 2014 by Zip Codes in Los Angeles

Source: Zillow. The darker red color represents higher rent while the darker blue color means lower rent.

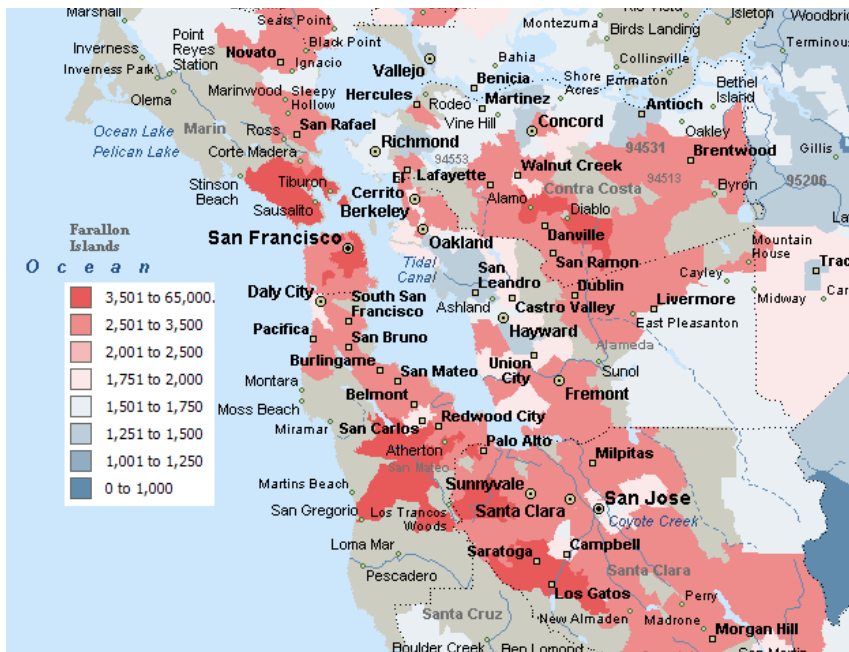


Figure A3

Monthly Rent in 2014 by Zip Codes in Bay Area

Source: Zillow. The darker red color represents higher rent while the darker blue color means lower rent.

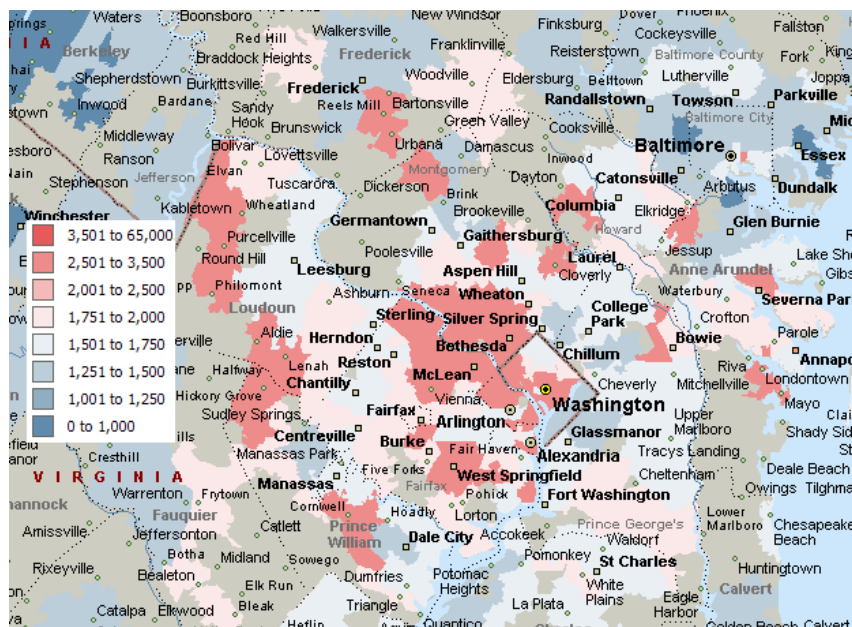


Figure A4

Monthly Rent in 2014 by Zip Codes in Washington D.C.

Source: Zillow. The darker red color represents higher rent while the darker blue color means lower rent.

Appendix B

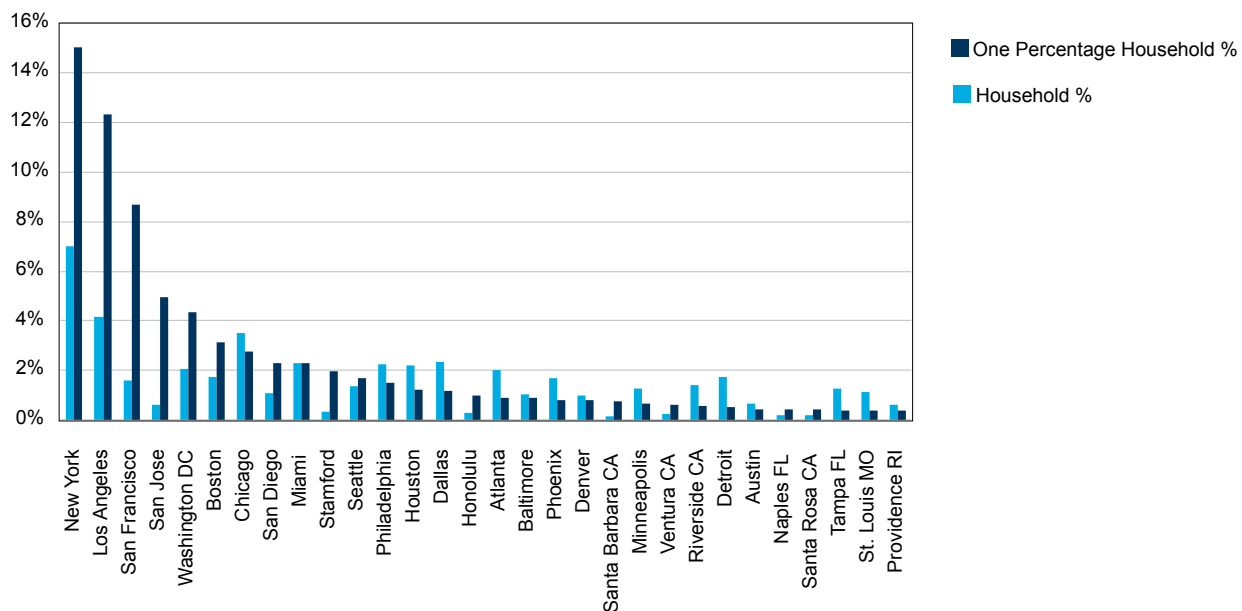
Where is the Wealth of the Wealthiest 1%?

In his popular book, *Capital in the 21st Century* (2014), Tomas Piketty mentions that the richest 10% (upper class) and 1% (dominant class) households of advanced countries accumulate the most significant portion of the national wealth. Inspired by his data, we wanted to see roughly where this wealth is located in the U.S. For this, we made several assumptions: (1) housing wealth is the only measured wealth, and renters do not have any positive worth; (2) mortgages are less than housing asset values and is proportionally distributed across home owners; and (3) rental properties are equally owned by home owners and its value is the same as the owner's occupied property value. Based on these rough assumptions, our back-of-the-envelope calculation shows that the top 1% of the wealthiest American households contain 12% of the nation's wealth and that the top 10% of the wealthiest American households hold 46% of the nation's wealth.⁴ 36% of households (renters) do not have any wealth. These estimates are less unequal than Piketty's conclusions in which he suggests that the dominant class controls 35% of national wealth and the upper class controls 70% of national wealth.

Despite our rough estimate, now, the question we want to ask is: where is this housing wealth located across the country? Table B1 provides some preliminary answers for major metro areas (MSAs). The first column is the metro's household percentage of the nation's where New York is the largest metro (7%) and L.A. is the second largest one (4.2%). The second column is the percentage of household housing wealth in each metro. New York is the largest metro in terms of housing wealth with a percentage of 9.6%. L.A. measures as the second largest metro with 6.2% of housing wealth. This is also bigger than its household percentage. Not surprising because it reconciles our conception that these cities' home prices are higher than the nation's average.

Column 3 is the household percentage of the 1% wealthiest American households in each metro. 15% of the 1% wealth is located in New York, much larger than its 7% households. 12.3% of the 1% wealth is located in L.A., much larger than its 4.2% households. 8.7% of the 1% is in San Francisco. 4.9% of 1% is in Silicon Valley, followed by Washington DC's 4.3%, Boston's 3.1%, and Chicago's 2.7%. Column 4 is the household percentage of the 10% wealthiest American households in each metro. 12.8% of the 10% wealthiest is located in New York, followed by L.A.'s 7.8%, Washington DC's 4.4%, San Francisco's 3.8%, and Boston's 3.4%. In summary, the wealth is concentrated in these largest metros in the U.S. as shown in Figure B1.

Figure B1. The Percentage of Household that are Among the Top 1% of Housing Wealth, 2012



Source: 2012 one-year American Community Survey.

FROM CHINA TO CALIFORNIA: TRANS-PACIFIC INVESTMENT IN REAL ESTATE

Table B1. Metro's Number of Household Percentage of the Nation's

	Household	Whole Wealth	One Percentage Household	Ten Percentage Household	Renter Household
New York	7.0%	9.6%	15.0%	12.8%	8.0%
Los Angeles	4.2%	6.2%	12.3%	7.8%	5.2%
San Francisco	1.6%	3.2%	8.7%	3.8%	1.8%
San Jose	0.6%	1.5%	4.9%	1.6%	0.7%
Washington DC	2.1%	3.3%	4.3%	4.4%	1.8%
Boston	1.7%	2.6%	3.1%	3.4%	1.6%
Chicago	3.5%	3.3%	2.7%	2.9%	2.9%
San Diego	1.1%	1.5%	2.3%	2.0%	1.2%
Miami	2.3%	1.8%	2.3%	1.4%	1.8%
Stamford	0.3%	0.7%	2.0%	0.7%	0.3%
Seattle	1.4%	1.7%	1.7%	1.9%	1.3%
Philadelphia	2.3%	2.3%	1.5%	2.2%	1.7%
Houston	2.2%	1.4%	1.2%	0.9%	1.9%
Dallas	2.4%	1.5%	1.2%	0.9%	2.3%
Honolulu	0.3%	0.6%	1.0%	0.9%	0.3%
Atlanta	2.0%	1.4%	0.9%	1.1%	1.7%
Baltimore	1.1%	1.2%	0.9%	1.4%	0.8%
Phoenix	1.7%	1.1%	0.8%	0.8%	1.4%
Denver	1.0%	1.1%	0.8%	1.1%	0.9%
Santa Barbara, CA	0.1%	0.2%	0.7%	0.2%	0.2%
Minneapolis	1.3%	1.2%	0.7%	1.0%	0.9%
Ventura, CA	0.3%	0.5%	0.6%	0.7%	0.2%
Riverside, CA	1.4%	1.1%	0.6%	1.0%	1.2%
Detroit	1.7%	1.0%	0.5%	0.5%	1.2%
Austin	0.7%	0.5%	0.4%	0.4%	0.7%
Naples, FL	0.2%	0.2%	0.4%	0.2%	0.1%
Santa Rosa, CA	0.2%	0.3%	0.4%	0.4%	0.2%
Tampa, FL	1.3%	0.7%	0.4%	0.4%	1.0%
St. Louis, MO	1.1%	0.8%	0.4%	0.5%	0.8%
Providence, RI	0.6%	0.6%	0.4%	0.5%	0.6%

Source: 2012 one-year American Community Survey. One percent household means that its housing wealth is among top 1% of the U.S. Ten percent household means that its housing wealth is among top 10% of the U.S.

Endnotes

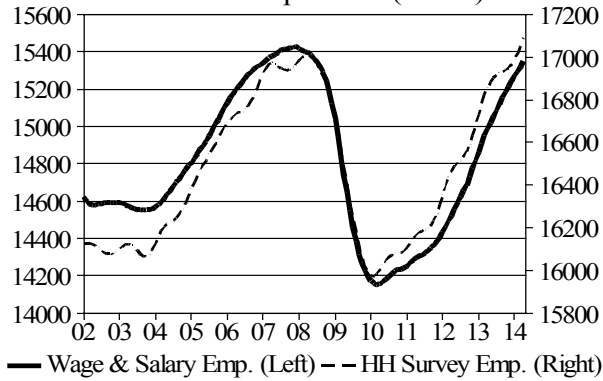
1. *According to U.S. Census 2010, the first three states with largest percentage of Asian and Chinese population are (1) Hawaii (Asian: 39%, Chinese: 4%), California (Asian: 13%, Chinese: 3.4%), and New York (Asian: 7.3%, Chinese: 3%).*
2. *For example, see Fawley and Wen, The Great Chinese Housing Boom, St. Louise Fed Economic Synopses, 2013:13.*
3. *We assume that the capitalization rate is the same across cities and use metro's real estate GDP share to estimate the real estate value given the national real estate asset value.*
4. *American Community Survey provides the owner-occupied units with 8 ranges based on its housing values: less than \$50,000, \$50,000 to \$99,999, \$100,000 to \$149,000, \$150,000 to \$199,000, \$200,000 to \$299,000, \$300,000 to \$499,000, \$500,000 to \$999,999, and \$1,000,000 or more. For each range, we assume the median value as the average home value for each range. For the largest range, we assume that the average home value is \$2,000,000.*

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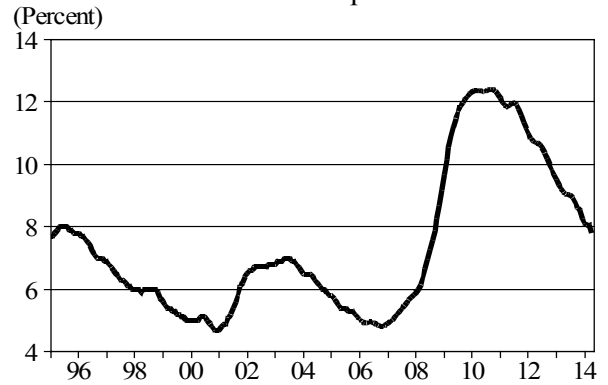
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Charts

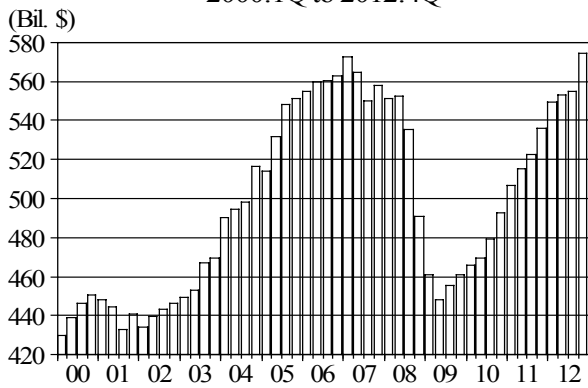
California Employment (6-mo. moving avg.)
Jan. 2002 to April 2014 (Thous.)



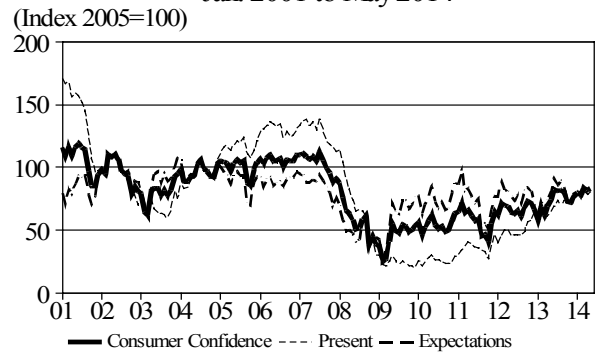
California Unemployment Rate
Jan. 1995 to April 2014



Taxable Sales in California
2000:1Q to 2012:4Q

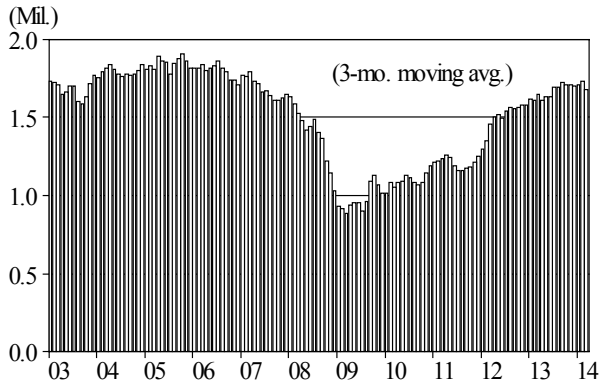


Indexes of Consumer Attitudes
Conference Board
Jan. 2001 to May 2014

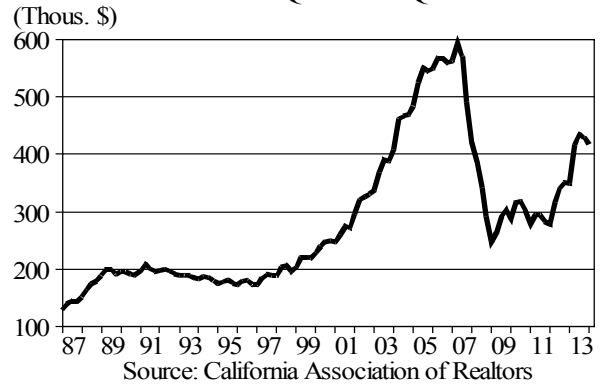


CHARTS - RECENT EVIDENCE

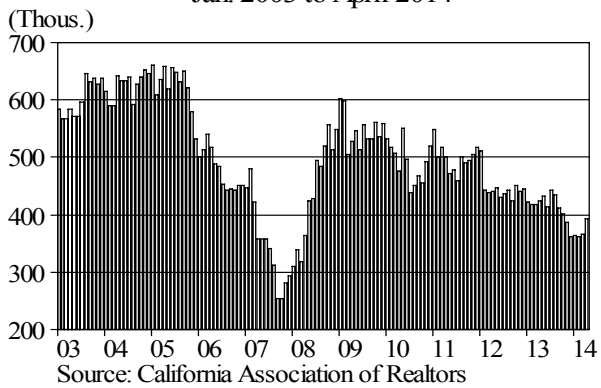
California New Car Registrations
Jan. 2003 to Mar. 2014



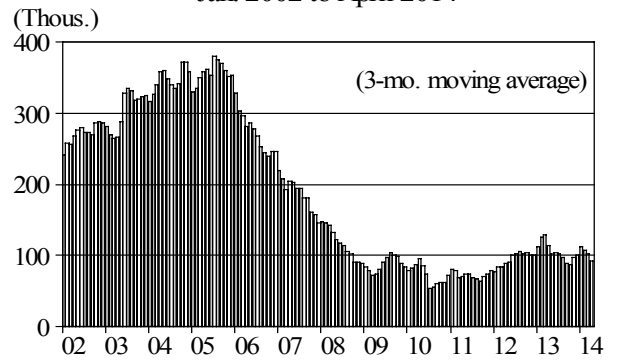
California Existing-Home Prices
1987:Q1 to 2014Q1



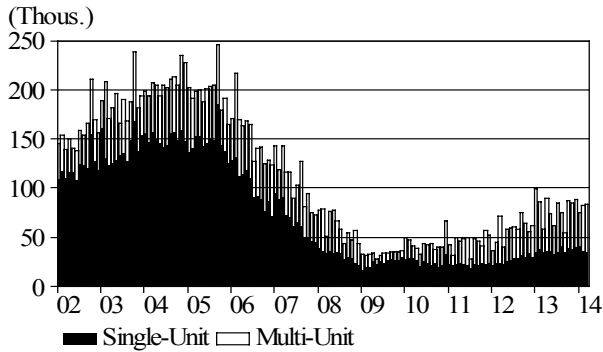
California Existing-Home Sales
Jan. 2003 to April 2014



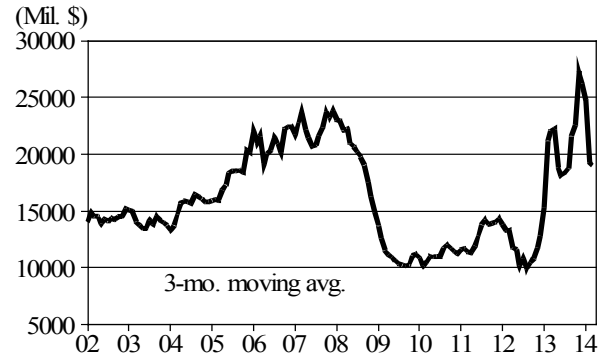
New One-Family Houses Sold
Western Region
Jan. 2002 to April 2014



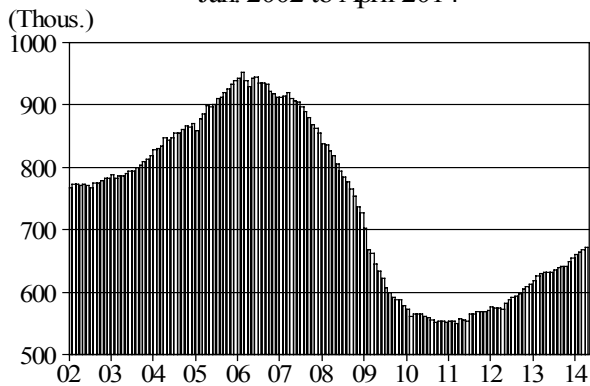
New Residential Units Through California Building Permits Jan. 2002 to Mar. 2014



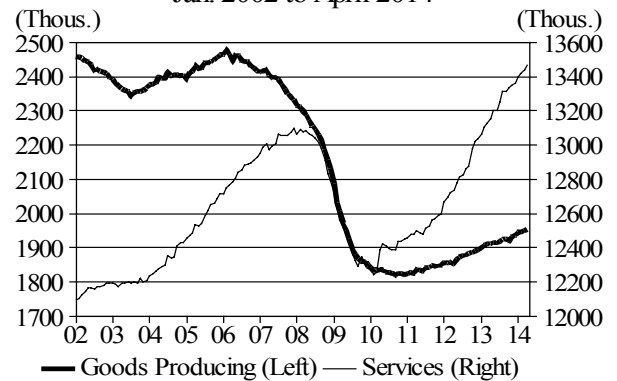
Building Permit Valuations Total Nonresidential Jan. 2002 to Mar. 2014



California Construction Employment Jan. 2002 to April 2014

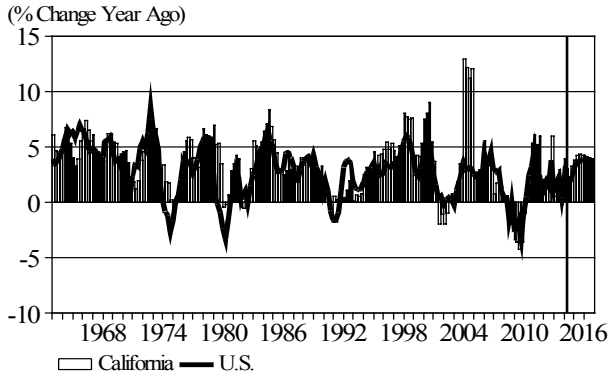


California Employment by Sector Jan. 2002 to April 2014

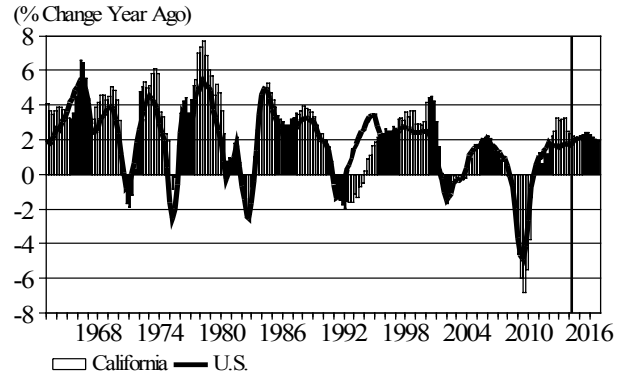


CHARTS - FORECAST

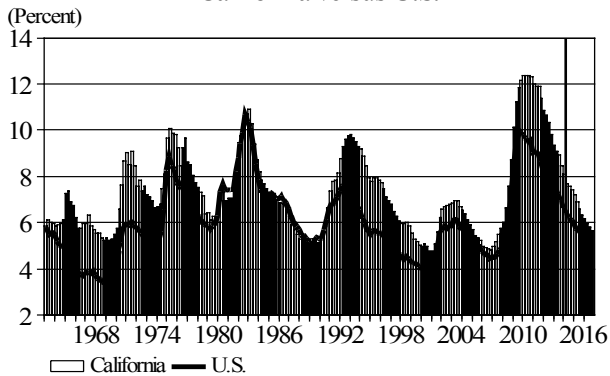
Real Personal Income
California versus U.S.



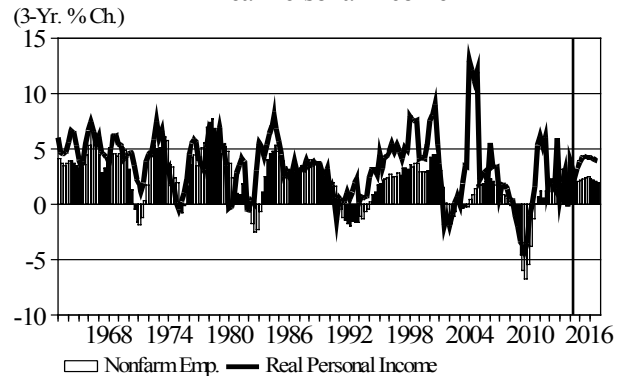
Nonfarm Employment
California versus U.S.

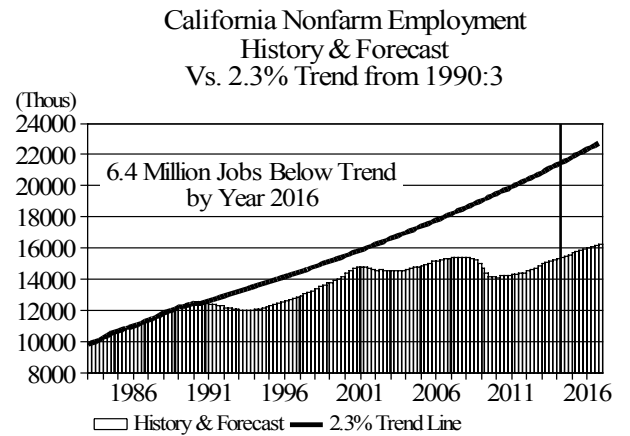
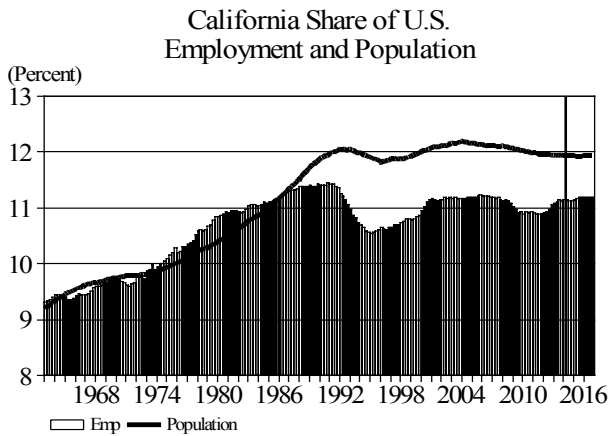
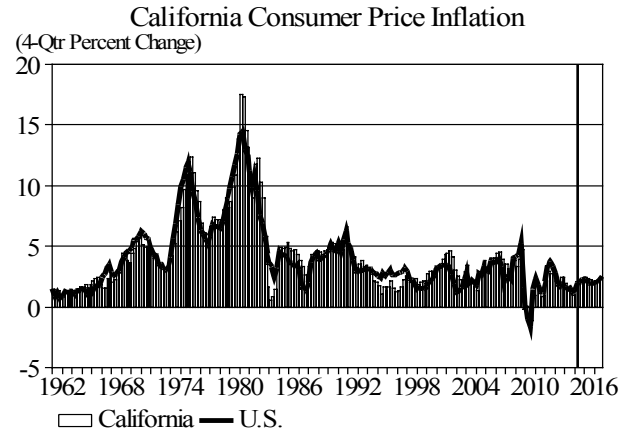
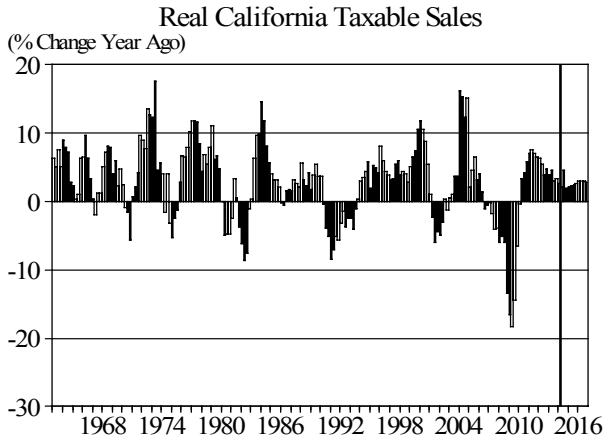


Rates of Unemployment
California versus U.S.

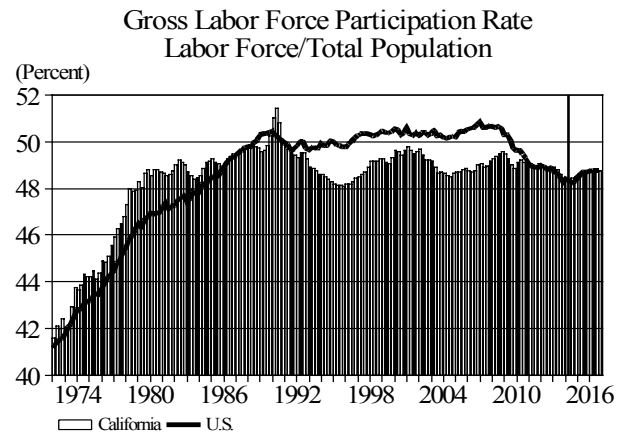
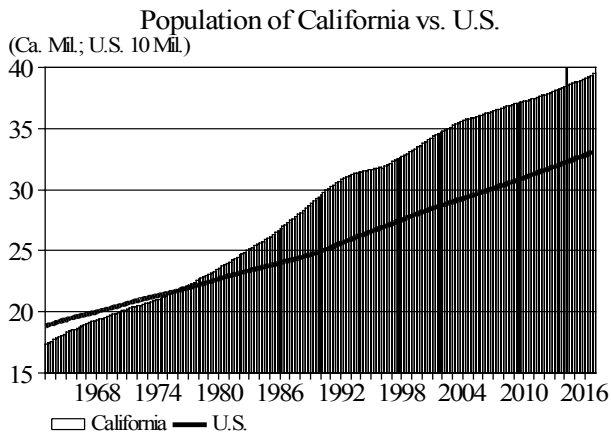
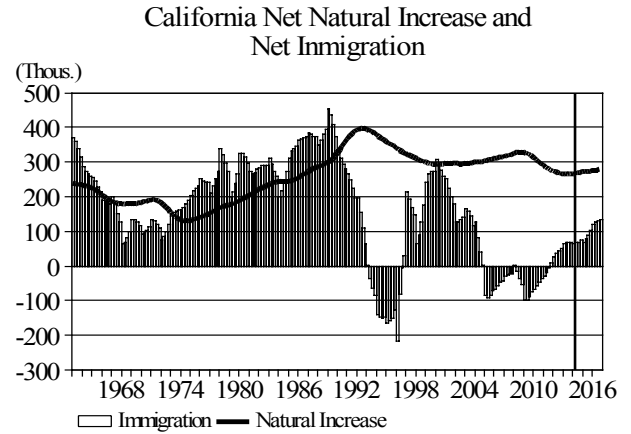
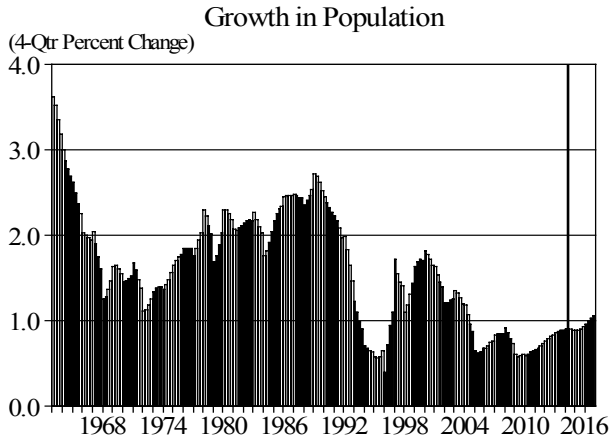


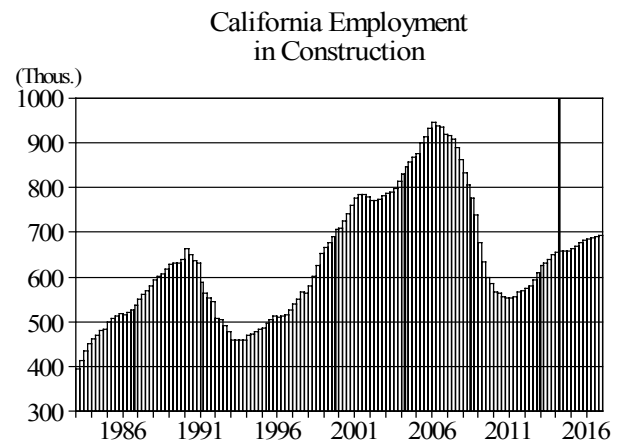
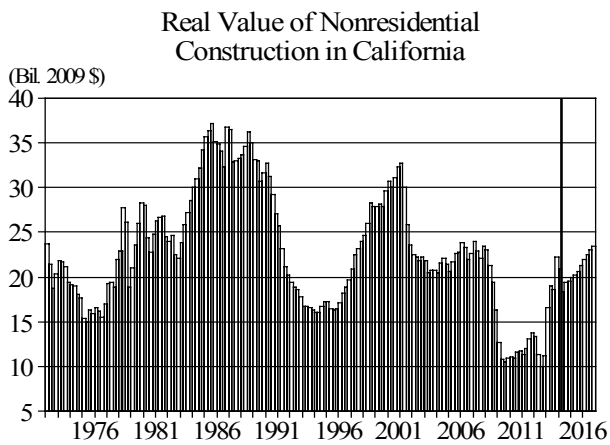
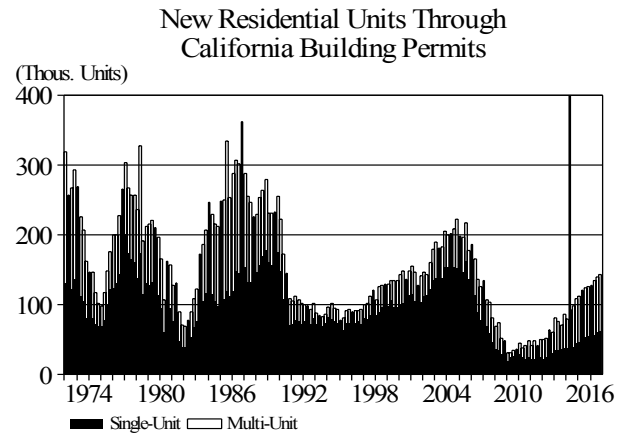
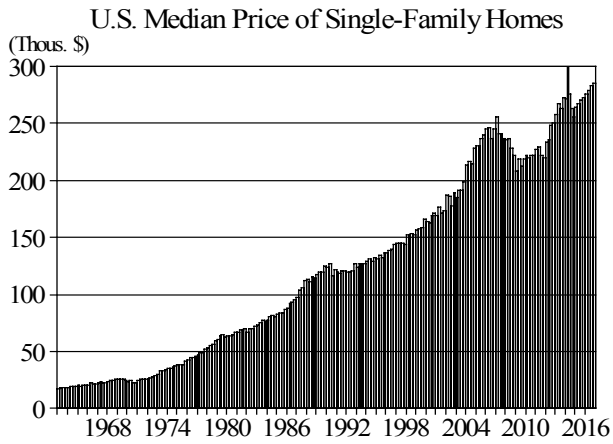
California Employment versus
Real Personal Income





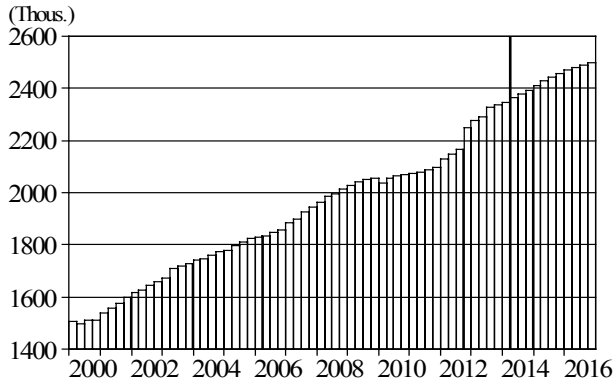
CHARTS - FORECAST



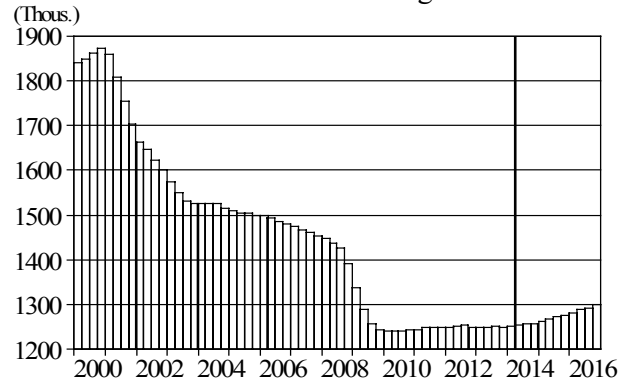


CHARTS - FORECAST

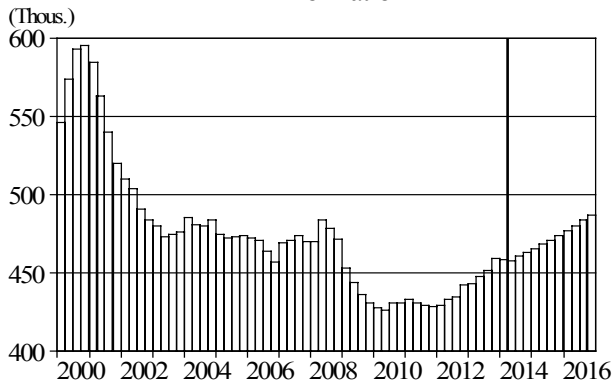
California Employment
in Education and Health Services



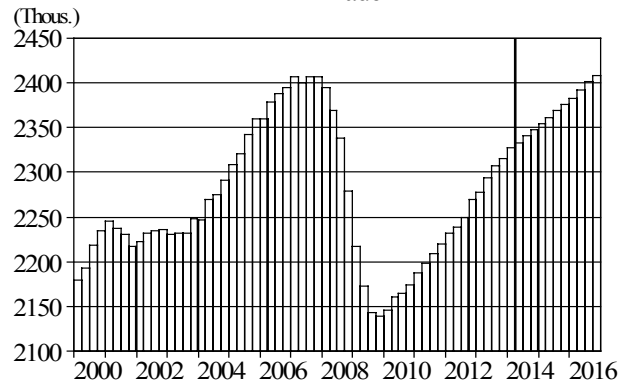
California Employment
in Manufacturing



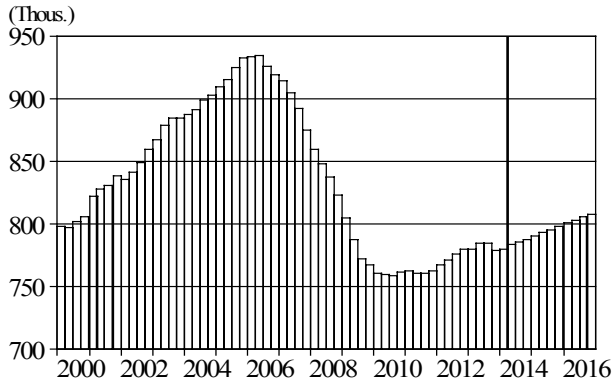
California Employment
in Information



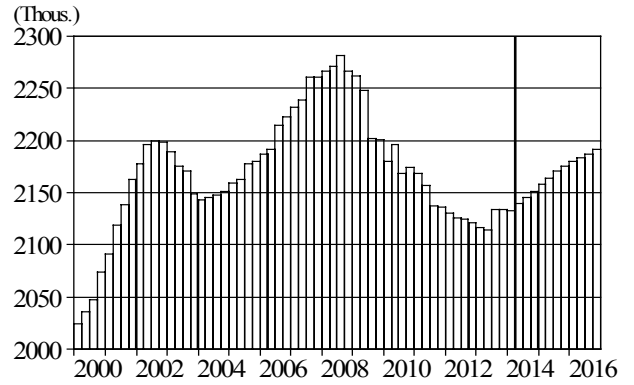
California Employment
in Trade



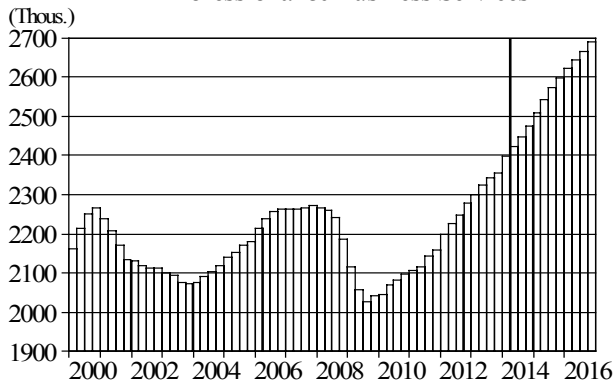
California Employment
in Financial Activities



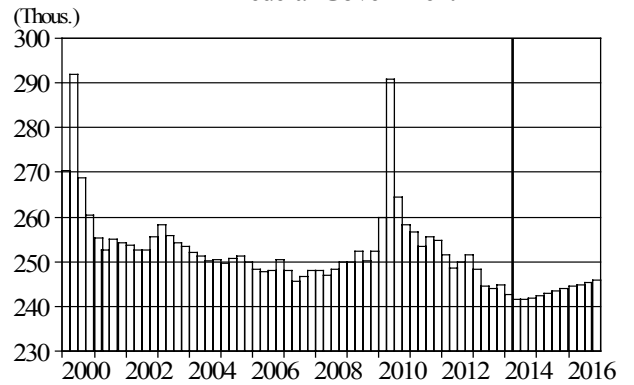
California Employment
in State and Local Government



California Employment
in Professional & Business Services



California Employment
in Federal Government



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Tables

FORECAST TABLES - SUMMARY

Table 1. Summary of the UCLA Forecast for California

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Personal Income, Taxable Sales, and Price Inflation (%Change)										
Personal Income (Bil.\$)	1499.5	1564.4	1596.3	1536.4	1579.1	1683.2	1768.0	1817.0	1907.7	2029.9	2156.3
Calif. (% Ch)	7.4	4.3	2.0	-3.7	2.8	6.6	5.0	2.8	5.0	6.4	6.2
U.S.(% Ch)	7.3	5.3	3.6	-2.8	2.9	6.1	4.2	2.8	3.7	5.6	5.9
Pers. Income (Bil. 2009\$)	1582.8	1604.8	1595.5	1536.4	1559.2	1630.2	1676.3	1698.3	1750.6	1823.0	1897.1
Calif. (% Ch)	3.9	1.4	-0.6	-3.7	1.5	4.6	2.8	1.3	3.1	4.1	4.1
U.S. (% Ch)	4.6	2.7	0.6	-2.7	1.2	3.6	2.3	1.7	2.2	3.8	3.7
Taxable Sales (Bil.\$)	559.5	561.3	532.4	456.6	477.0	520.2	558.0	587.5	614.4	641.9	674.0
(% Ch)	4.3	0.3	-5.2	-14.2	4.5	9.1	7.3	5.3	4.6	4.5	5.0
(Bil. 2009\$)	590.6	575.9	532.1	456.5	470.9	503.7	529.1	548.4	563.4	576.4	593.0
(% Ch)	0.9	-2.5	-7.6	-14.2	3.1	7.0	5.0	3.7	2.7	2.3	2.9
Consumer Prices (% Ch)	3.9	3.3	3.4	-0.3	1.3	2.6	2.2	1.5	2.0	2.3	2.3
	Employment and Labor Force (Household Survey, % Change)										
Employment	1.4	0.9	-0.4	-4.3	-0.6	1.1	2.1	2.1	1.8	2.4	2.1
Labor Force	0.8	1.3	1.6	0.1	0.6	0.5	0.6	0.4	0.4	1.3	1.2
Unemployment Rate (%)	4.9	5.3	7.2	11.3	12.3	11.8	10.4	8.9	7.7	6.8	5.9
U.S.	4.6	4.6	5.8	9.3	9.6	8.9	8.1	7.4	6.4	5.7	5.4
	Nonfarm Employment (Payroll Survey, % Change)										
Total Nonfarm	1.8	0.8	-1.1	-5.7	-1.1	1.0	2.4	3.0	2.1	2.3	2.1
Calif.	1.8	1.1	-0.6	-4.3	-0.7	1.2	1.7	1.7	1.9	2.0	1.9
U.S.	3.2	-4.4	-11.7	-20.9	-10.2	0.2	5.1	7.9	3.3	2.3	2.4
Construction	-1.0	-1.7	-2.7	-10.0	-3.1	0.5	0.3	-0.1	0.4	1.2	1.6
Nondurable Goods	-0.6	-1.1	-2.0	-8.1	-2.5	-0.4	0.3	-0.1	-1.1	1.1	2.0
Durable Goods	-1.2	-2.1	-3.0	-11.2	-3.5	1.0	0.3	-0.1	1.2	1.2	1.4
Trans. Warehousing & Util	1.8	2.3	-0.5	-6.0	-1.8	1.7	2.7	3.4	3.2	2.6	2.1
Trade	2.0	1.1	-2.5	-7.5	-0.3	2.0	2.0	2.3	1.7	1.2	1.3
Information	-1.6	1.1	1.1	-7.3	-2.8	0.4	1.0	3.5	2.2	2.1	2.6
Financial Activities	0.8	-3.4	-6.1	-7.0	-2.9	0.2	1.5	1.1	0.2	1.3	1.3
Professional Busi. Serv.	3.8	1.0	-1.2	-7.9	0.6	2.8	5.0	4.1	4.5	4.9	3.9
Edu. & Health Serv.	2.3	3.8	4.0	2.7	0.6	1.3	4.2	6.2	2.7	2.7	2.0
Leisure & Hospitality	3.0	2.7	0.8	-4.4	-0.1	2.3	4.1	4.5	2.3	2.5	2.5
Other Services	0.3	1.0	-0.2	-4.9	-0.3	1.8	2.2	2.1	2.6	3.1	3.2
Federal Gov't	-0.7	-0.6	0.5	1.1	6.8	-4.9	-1.8	-2.0	-1.4	0.5	0.8
State & Local Gov't	1.6	2.0	1.0	-1.9	-2.2	-1.4	-1.1	-0.0	0.8	1.2	0.8
	Nonfarm Employment (Payroll Survey, Thous.)										
Total Nonfarm	15284	15411	15243	14373	14211	14358	14706	15148	15472	15831	16161
Construction	934	893	788	624	560	561	590	636	657	673	689
Manufacturing	1490	1464	1425	1282	1242	1248	1252	1251	1255	1270	1291
Nondurable Goods	543	536	526	483	471	469	471	470	465	470	479
Durable Goods	948	928	900	799	771	779	781	781	790	800	812
Trans. Warehousing & Util	496	508	505	475	466	474	487	504	520	533	544
Trade	2380	2405	2345	2168	2162	2204	2248	2299	2337	2365	2396
Information	466	471	476	441	429	431	435	450	460	470	482
Financial Activities	928	897	842	783	760	762	773	782	784	794	804
Professional Busi. Serv.	2243	2266	2239	2061	2074	2131	2238	2331	2436	2555	2654
Edu. & Health Serv.	1843	1913	1990	2044	2056	2084	2172	2307	2369	2433	2481
Leisure & Hospitality	1519	1560	1573	1503	1502	1536	1599	1671	1710	1753	1796
Other Services	507.0	512.1	511.3	486.2	485.0	493.6	504.7	515.2	528.4	545.0	562.5
Federal Gov't	248.7	247.1	248.4	251.2	268.3	255.2	250.5	245.5	242.0	243.3	245.2
State & Local Gov't	2203.9	2247.9	2271.0	2228.2	2179.9	2149.4	2125.7	2124.8	2142.3	2167.0	2185.4
	Population and Migration										
Net Immigration(Thous)	-53	-24	-25	-89	-51	-11	39	67	69	85	128
Population (Thous)	36247	36553	36856	37077	37309	37570	37872	38205	38549	38899	39294
(% Ch)	0.7	0.8	0.8	0.6	0.6	0.7	0.8	0.9	0.9	0.9	1.0
	Construction Activity										
Residential Building											
Permits (Thous. Un.)	153.1	106.5	60.8	33.2	43.0	44.9	56.8	78.5	95.1	120.9	136.4
Nonres. Permits (Mil. '09\$)	22977	23180	18822	10911	11329	12885	11289	20581	18968	20779	22968

FORECAST TABLES - SUMMARY

Table 2. Quarterly Summary of the UCLA Forecast for California

	2014:1	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4	2016:1	2016:2	2016:3	2016:4
Personal Income, Taxable Sales, and Price Inflation (%Change)												
Personal Income (Bil.\$)	1866.3	1893.5	1921.5	1949.6	1984.2	2015.6	2045.4	2074.6	2110.0	2140.3	2171.3	2203.6
Calif.(% Ch)	4.4	6.0	6.1	6.0	7.3	6.5	6.1	5.8	7.0	5.9	5.9	6.1
U.S. (% Ch)	3.5	3.4	5.6	5.3	6.6	5.5	5.6	5.5	6.8	5.7	5.8	6.1
Pers. Income (Bil. 2009\$)	1730.2	1741.6	1757.0	1773.6	1796.0	1814.9	1832.1	1849.0	1872.5	1889.0	1905.4	1921.6
Calif.(% Ch)	2.8	2.7	3.6	3.8	5.1	4.3	3.8	3.7	5.2	3.6	3.5	3.4
U.S. (% Ch)	2.0	1.4	3.6	3.6	4.8	3.7	3.6	3.6	4.5	3.4	3.4	3.4
Taxable Sales (Bil. \$)	605.2	611.0	617.4	624.0	630.5	637.6	645.6	653.8	662.0	670.0	677.9	686.3
(% Ch)	3.8	3.9	4.2	4.4	4.2	4.6	5.1	5.2	5.1	4.9	4.8	5.1
(Bil. 2009\$)	559.5	562.0	564.5	567.7	570.7	574.1	578.3	582.7	587.5	591.3	594.9	598.5
(%Ch)	1.9	1.8	1.8	2.3	2.1	2.4	2.9	3.1	3.3	2.6	2.4	2.5
Consumer Prices (% Ch)	2.0	2.6	2.4	2.3	2.2	2.2	2.2	1.9	2.4	2.5	2.5	2.7
Employment and Labor Force (Household Survey, % Change)												
Employment	2.8	2.1	1.8	1.9	2.6	2.8	2.6	2.2	2.1	2.0	1.9	1.8
Labor Force	1.1	0.4	1.3	1.3	1.7	1.3	1.2	1.2	1.2	1.1	1.2	1.1
Unemployment Rate (%)	8.1	7.7	7.6	7.4	7.2	6.9	6.6	6.3	6.1	6.0	5.8	5.6
U.S.	6.7	6.4	6.2	6.1	6.0	5.7	5.7	5.6	5.5	5.4	5.3	5.3
Total Nonfarm Nonfarm Employment (Payroll Survey, % Change)												
Calif.	2.1	2.0	2.0	2.1	2.5	2.5	2.5	2.2	2.0	1.9	1.9	1.9
U.S.	1.5	2.1	2.7	2.0	1.7	2.2	1.9	1.8	1.8	2.1	2.0	1.8
Construction	4.8	0.6	0.1	0.6	2.7	4.3	4.1	2.6	1.9	1.6	1.8	2.1
Manufacturing	0.7	0.6	0.6	0.7	1.4	1.5	1.6	1.4	1.7	1.9	1.6	1.9
Nondurable Goods	0.9	-0.4	0.2	0.1	1.6	1.9	1.8	1.6	1.8	3.0	1.8	2.0
Durable Goods	0.6	1.2	0.9	1.1	1.2	1.3	1.5	1.3	1.6	1.3	1.4	1.8
Trans. Warehousing & Util.	0.1	5.3	3.2	2.3	2.3	2.3	2.2	2.0	2.2	2.1	2.0	1.9
Trade	2.0	1.0	1.3	1.1	1.3	1.2	1.2	1.2	1.1	1.6	1.5	1.2
Information	-0.6	-0.4	2.5	1.9	2.4	2.3	2.4	2.0	2.8	3.0	2.8	2.8
Financial Activities	0.4	1.9	1.3	1.0	1.2	1.5	1.3	1.4	1.2	1.2	1.3	1.2
Professional Busi. Serv.	7.0	4.3	4.3	4.5	5.5	5.4	4.8	4.0	3.7	3.6	3.3	3.4
Edu. & Health Serv.	2.0	2.4	2.6	2.8	2.9	2.6	2.5	2.5	1.9	1.5	1.5	1.5
Leisure & Hospitality	1.6	2.0	1.9	2.0	2.9	2.6	3.0	2.8	2.2	2.2	2.3	2.2
Other Services	2.9	3.0	2.7	3.2	3.0	3.5	3.1	3.7	3.0	3.1	3.1	3.0
Federal Gov't	-3.1	-2.0	0.0	0.5	0.9	1.1	0.7	0.8	0.8	0.8	0.7	0.8
State and Local Gov't	-0.2	1.2	1.1	1.1	1.3	1.1	1.1	1.0	0.9	0.6	0.7	0.7
Nonfarm Employment (Payroll Survey, Thous.)												
Total Nonfarm	15357	15432	15510	15589	15687	15786	15882	15969	16047	16124	16199	16275
Construction	656	657	657	658	663	670	677	681	684	687	690	694
Manufacturing	1252	1254	1256	1259	1263	1268	1273	1277	1282	1288	1293	1300
Nondurable Goods	465	465	465	465	467	469	471	473	475	479	481	483
Durable Goods	787	790	791	794	796	799	802	804	807	810	813	816
Trans. Warehousing & Util.	512	518	522	526	528	532	535	537	540	543	546	548
Trade	2327	2333	2340	2347	2354	2361	2368	2376	2382	2392	2401	2408
Information	459	458	461	463	466	468	471	474	477	480	484	487
Financial Activities	780	783	786	788	790	793	796	798	801	803	806	808
Professional Busi. Serv.	2397	2422	2448	2475	2508	2542	2572	2597	2621	2644	2665	2688
Edu. & Health Serv.	2347.2	2361.2	2376.4	2392.7	2409.8	2425.6	2440.9	2456.0	2467.3	2476.3	2485.8	2495.0
Leisure & Hospitality	1697.4	1706.0	1714.2	1722.7	1735.0	1746.3	1759.2	1771.6	1781.3	1791.1	1801.4	1811.3
Other Services	522.8	526.6	530.1	534.2	538.2	542.9	547.0	552.0	556.2	560.4	564.6	568.8
Federal Gov't	243	242	242	242	242	243	244	244	245	245	245	246
State and Local Gov't	2133	2139	2145	2151	2158	2164	2170	2175	2180	2184	2187	2191
Population and Migration												
Net Immigration(Thous)	65.8	66.9	69.5	74.1	68.3	78.4	90.1	101.8	119.4	126.8	131.8	135.3
Population (Thous)	38420	38506	38592	38679	38764	38852	38943	39038	39139	39241	39345	39450
(% Ch)	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.1
Construction Activity												
Residential Building												
Permits (Thous. Units)	80.0	93.8	98.3	108.3	112.8	120.1	124.6	126.3	127.8	134.8	139.3	143.8
Nonres.Permits (Mil. '09\$)	17440	19315	19441	19675	20114	20297	21033	21673	22199	22753	23231	23687

Table 3. Personal Income, Taxable Sales, Construction and Population in California

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Aggregates											
(Bil \$)											
Personal Income	1499.5	1564.4	1596.3	1536.4	1579.1	1683.2	1768.0	1817.0	1907.7	2029.9	2156.3
Disposable Income	1302.2	1349.1	1395.3	1375.1	1406.2	1480.9	1549.3	1589.9	1667.3	1776.1	1887.3
(Bil 2009\$)											
Personal Income	1582.8	1604.8	1595.5	1536.4	1559.2	1630.2	1676.3	1698.3	1750.6	1823.0	1897.1
Disposable Income	1374.6	1383.9	1394.6	1375.1	1388.5	1434.3	1468.9	1486.0	1530.0	1595.0	1660.5
(Nominal %Ch)											
Personal Income	7.4	4.3	2.0	-3.7	2.8	6.6	5.0	2.8	5.0	6.4	6.2
Disposable Income	6.7	3.6	3.4	-1.5	2.3	5.3	4.6	2.6	4.9	6.5	6.3
(Real %Ch)											
Personal Income	3.9	1.4	-0.6	-3.7	1.5	4.6	2.8	1.3	3.1	4.1	4.1
Disposable Income	3.3	0.7	0.8	-1.4	1.0	3.3	2.4	1.2	3.0	4.2	4.1
Components of Personal Income (Bil \$)											
Personal Income	1499.5	1564.4	1596.3	1536.4	1579.1	1683.2	1768.0	1817.0	1907.7	2029.9	2156.3
Wages & Salaries	791.5	834.4	842.9	799.5	814.5	849.7	899.7	930.6	975.9	1022.6	1077.3
Other Labor Income	194.6	200.7	204.8	197.1	203.9	219.1	222.7	226.3	244.2	268.3	291.8
Farm	4.9	7.5	5.2	5.7	6.3	10.5	10.7	11.6	15.8	28.8	40.0
Other Income	448.0	452.5	457.9	415.1	415.3	457.0	483.9	506.7	534.4	572.4	609.7
Transfer Payments	181.6	192.1	210.3	239.9	261.0	261.3	269.6	280.3	286.1	298.7	312.5
Social Insurance	120.9	122.6	124.8	120.8	121.8	114.2	118.1	138.1	148.3	160.4	174.4
Taxable Sales											
Nominal											
Level (Bil \$)	559.5	561.3	532.4	456.6	477.0	520.2	558.0	587.5	614.4	641.9	674.0
%Ch	4.3	0.3	-5.2	-14.2	4.5	9.1	7.3	5.3	4.6	4.5	5.0
Real											
Level (Bil. 2009\$)	590.6	575.9	532.1	456.5	470.9	503.7	529.1	548.4	563.4	576.4	593.0
%Ch	0.9	-2.5	-7.6	-14.2	3.1	7.0	5.0	3.7	2.7	2.3	2.9
New Automobile Sales (Mil Un.)											
New Registrations	1.79	1.68	1.34	0.99	1.11	1.21	1.52	1.68	1.71	1.76	1.80
U.S. Sales	16.50	16.09	13.19	10.40	11.55	12.73	14.44	15.49	16.09	16.34	16.54
Construction Activity											
Residential Building Permits (Thous.)											
Total	153.1	106.5	60.8	33.2	43.0	44.9	56.8	78.5	95.1	120.9	136.4
Single-Family	101.6	66.2	31.6	24.0	25.0	22.3	27.3	36.3	40.4	51.3	58.7
Multi-family	51.5	40.3	29.2	9.2	18.0	22.6	29.5	42.2	54.7	69.6	77.8
Nonresidential Permit Valuation											
Nominal (Mil. \$)	21143.7	22630.2	19194.6	10911.7	11199.4	13119.5	11708.8	22013.4	20988.5	23893.2	27396.5
%Ch	15.8	7.0	-15.2	-43.2	2.6	17.1	-10.8	88.0	-4.7	13.8	14.7
Real (Mil. 2009\$)	22977.5	23179.9	18822.3	10911.0	11328.7	12884.8	11288.8	20581.4	18967.8	20779.0	22967.7
%Ch	3.4	0.9	-18.8	-42.0	3.8	13.7	-12.4	82.3	-7.8	9.5	10.5
Population (Thous.)											
Net Immigration	-52.8	-24.2	-25.2	-89.0	-51.2	-11.0	39.0	67.0	69.1	84.7	128.3
Net Natural Increase	314.0	329.9	328.9	310.0	283.0	272.0	264.0	266.0	274.6	274.6	283.5
Population	36246.8	36552.5	36856.2	37077.2	37309.0	37570.0	37872.0	38205.0	38549.3	38899.4	39293.9



The Los Angeles Department of Water and Power (DWP), established at the beginning of the century is the largest municipally-owned utility in the nation. It exists under and by virtue of the Charter of the City of Los Angeles enacted in 1925.

With a work force in excess of 9,000, the DWP provides water and electricity to some 3.5 million residents and businesses in a 464-square-mile area.

DWP's operations are financed solely by the sale of water and electric services. Capital funds are raised through the sale of bonds. No tax support is received.

A five-member Board of Water and Power Commissioners establishes policy for the DWP. The Board members are appointed by the Mayor and confirmed by the City Council for five-year terms.



The Los Angeles County Metropolitan Transportation Authority (Metro) is unique among the nation's transportation agencies. It serves as transportation planner and coordinator, designer, builder and operator for one of the country's largest, most populous counties. More than 9 million people – one-third of California's residents – live, work, and play within its 1,433-square-mile service area.

Besides operating over 2,000 coaches in the Metro Bus fleet, Metro also designed, built and now operates over 73 miles of Metro Rail service. The Metro Rail system currently consists of 62 stations and several more are in the planning and/or design stage.

In addition to operating its own services Metro funds 16 municipal bus operators and funds a wide array of transportation projects including bikeways and pedestrian facilities, local road and highway improvements, goods movement, and the popular Freeway Patrol and Call Boxes.

Recognizing that no one form of transit can solve urban congestion problems, Metro's multimodal approach uses a variety of transportation alternatives to meet the needs of the highly diverse population in the region.

Metro's Mission is to insure the continuous improvement of an efficient and effective transportation system for Los Angeles County. In support of this mission, our team members provide expertise and leadership based on their distinct roles: operating transit system elements for which the agency has delivery responsibility, planning the countywide transportation system in cooperation with other agencies, managing the construction and engineering of transportation system components and delivering timely support services to the Metro organization.

Metro was created in the state legislature by Assembly Bill 152 in May 1992. This bill merged the Los Angeles County Transportation Commission (LACTC) and the Southern California Rapid Transit District (RTD) to become the Los Angeles County Metropolitan Transportation Authority. The merger became effective on April 1, 1993.

Metro is governed by a 13-member Board of Directors comprised of: the five Los Angeles County Supervisors, the Mayor of Los Angeles, three Los Angeles mayor-appointed members, four city council members representing the other 87 cities in Los Angeles County and one non-voting member is appointed by the Governor of California.



The nonpartisan Legislative Analyst's Office (LAO) has been providing fiscal and policy advice to the California Legislature for more than 65 years. It is particularly well known for its fiscal and programmatic expertise and nonpartisan analyses relating to the state budget, including making recommendations for operating programs in the most effective and cost-efficient manner possible. Its responsibilities also include making economic and demographic forecasts for California, and fiscal forecasts for state government revenues and expenditures. It also prepares fiscal analyses for all propositions that appear on the California statewide ballot, including bond measures.

For more information about the LAO, please visit our website at www.lao.ca.gov or call us at 916-445-4656.



The Legislature and Governor created the California Research Bureau (CRB) within the California State Library in the 1991 Budget Act. The bureau provides objective, nonpartisan, timely, and confidential research to the Governor's Office, members of both houses of the Legislature, and other state constitutional officers. The Bureau provides these clients with research, policy assistance through written reports and other documents, consultations, seminars, and other training and assistance in preparing legislative proposals. The Bureau has five branches: Environmental and Natural Resources; Education and Human Services; Economics; General Law and Government; and Information Services. It maintains a small office at the State Capitol in Room 5210 to make reference services conveniently available.

City of Hermosa Beach



The Los Angeles Magazine has named Hermosa an "outstanding coastal town" praising many of our businesses and shops. From traditional Surf and Turf to more exotic cuisines, from Comedy to Jazz, Hermosa Beach has many fine dining and entertainment places from which to choose. Our hotel and lodging facilities offer breath taking ocean views and all the comforts of home which are surrounded by a Mecca of restaurants, upscale shops and tourist delights. Come to Hermosa Beach, relax and enjoy the warmth of our hospitality.

The State of California's Department of Finance is responsible for submitting to the State's fiscal year budget to the Governor in January of each year. The Department is part of the State's Executive Branch and part of the Governor's Administration. The Director of Finance is appointed by the Governor and is his chief fiscal advisor. The Director sits as a member of the Governor's cabinet and senior staff. Principal functions include:

Establish appropriate fiscal policies to carry out the Administration's Programs.

Prepare, enact and administer the State's Annual Financial Plan.

Analyze legislation which has a fiscal impact.

Develop and maintain the California State Accounting and Reporting System (CALSTARS).

Monitor/audit expenditures by State departments to ensure compliance with approved standards and policies.

Develop economic forecasts and revenue estimates.

Develop population and enrollment estimates and projections.

Review expenditures on data processing activities of departments.

In addition, the Department of Finance interacts with the Legislature through various reporting requirements, by presenting and defending the Governor's Budget and in the legislature.

The Department interacts with other State departments on a daily basis on terms of administering the budget, reviewing fiscal proposals, establishing accounting systems, auditing department expenditures and communicating the Governor's fiscal policy to departments.



Health Net, Inc. is among the nation's largest publicly traded managed health care companies. Its mission is to help people be healthy, secure and comfortable. The company's health plans and government contracts subsidiaries provide health benefits to approximately 6.7 million individuals across the country through group, individual, Medicare, Medicaid and TRICARE and Veterans Affairs programs. Health Net's behavioral health subsidiary, MHN, provides mental health benefits to approximately 7.0 million individuals in all 50 states. The company's subsidiaries also offer managed health care products related to prescription drugs, and offer managed health care product coordination for multi-region employers and administrative services for medical groups and self-funded benefits programs.

The Employment Development Department's Labor Market Information Division (LMID) regularly collects, analyzes, and publishes information about California's labor market, which has approximately 1,068,000 employers covered by Unemployment Insurance and a civilian labor force of approximately 16.6 million. In addition to employment and unemployment data, LMID provides economic development and planning information; industry and occupational characteristics, trends, and wage information; and social and demographic information. Most of these data are available for the state and counties. Some data are available for other geographic regions as well.

In addition to basic labor market information, the LMID provides technical assistance, training seminars for data users, and standard and customized reports for state and sub-state geographic areas. Labor market information is available electronically and in print.

For more information, visit our website at www.calmis.ca.gov or call 916-262-2162.



The energy industry is changing rapidly and dramatically. As global competition transforms the way companies do business, energy issues are no longer simply local, or even national. At the same time, it's clear that the importance of providing reliable local service has never been more important.

Our heritage at Southern California Edison is based on reliability. For more than 100 years we have provided high-quality, reliable electric service to more than 4.2 million business and residential customers over a 50,000 square mile service area in coastal, central, and southern California.

Of course, recent changes in the California's electric industry have affected us as well. In 1997, as part of the restructuring of the electric industry in our state, SCE sold its 12 fossil fuel generating stations and overhauled nearly every aspect of its business to prepare for the changing environment. While we still own and operate hydro and nuclear power facilities that serve our area, our main role is that of power transmission and distribution. The power needed for our customers is largely purchased from the California Power Exchange and provided by SCE to our customers without a price markup.

At SCE we want you to know that even in times of change, we retain our proven commitment to service, reliability, innovation, and the community.

The Irvine Company is a nearly 150-year-old, privately held best-of-class real estate investment company with operations throughout California. Its management structure is concentrated in two main operating groups: Community Development, an affiliate responsible for the planning and development of all for-sale residential housing communities and other land sales; and the Investment Properties Group, which plans and guides the development, marketing and management of the company's large and diverse statewide portfolio of retail, office, apartment and resort properties.

- The Irvine Company is one of America's most respected and diversified private real estate companies.

- It owns and manages a high-quality investment portfolio of nearly 95 million square feet that includes 116 apartment communities, 484 office buildings, 41 retail centers, and five yacht marinas.

- The portfolio also contains world-class resort properties including Pelican Hill®, which features 204 rooms and suites, 128 villas and two 18-hole championship golf courses overlooking the Pacific Ocean.

- Guided by an unwavering pursuit of excellence, the company is highly respected for its stewardship and master planning of The Irvine Ranch® in Orange County, California.

- Donald Bren is Chairman of the Irvine Company. He oversees a Board of Directors that includes some of the nation's most accomplished and respected business leaders and former public officials.

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Edward E. Leamer
Director

Edward E. Leamer is the Chauncey J. Medberry Professor of Management, Professor of Economics and Professor of Statistics at UCLA. He received a B.A. degree in mathematics from Princeton University and a Ph.D. degree in economics and an M.A. degree in mathematics from the University of Michigan. After serving as Assistant and Associate Professor at Harvard University he joined the University of California at Los Angeles in 1975 as Professor of Economics and served as Chair from 1983 to 1987.

In 1990 he moved to the Anderson Graduate School of Management and was appointed to the Chauncey J. Medberry Chair. Professor Leamer is a Fellow of the American Academy of Arts and Sciences, and a Fellow of the Econometric Society. He is a Research Associate of the National Bureau of Economic Research and a visiting scholar at the International Monetary Fund and the Board of Governors of the Federal Reserve System. Dr. Leamer has published over 100 articles and 4 books. This research has been supported by continuous grants for over 25 years from the National Science Foundation, the Sloan Foundation and the Russell Sage Foundation. His research papers in econometrics have been collected in *Sturdy Econometrics*, published in the Edward Elgar Series of *Economists of the 20th Century*. His research in international economics and econometric methodology has been discussed in a chapter written by Herman Leonard and Keith Maskus in *New Horizons in Economic Thought: Appraisals of Leading Economists*. Recent research interests of Professor Leamer include the North American Free Trade Agreement, the dismantling of the Swedish welfare state, the economic integration of Eastern Europe, Taiwan and the Mainland, and the impact of globalization on the U.S. economy.



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David Shulman
Senior Economist

David Shulman is currently managing member of his own LLC and engages in educational and charitable activities, including being a Distinguished Visiting Professor at Baruch College and a Visiting Professor at the University of Wisconsin. Dr. Shulman is currently a member of NAREIT's Real Estate Investment Advisory Council. He blogs at Shulmaven.blogspot.com. Shulman received a bachelor's degree from Baruch College in 1965, an MBA in 1966 from the Graduate School of Management at UCLA; and his Ph.D. in 1975 with a specialization in Finance.

From 1986 to 1997, Dr. Shulman was employed by Salomon Brothers Inc. in various capacities. He was their director of real estate research from 1987 to 1991 and became Chief Equity Strategist from 1992 to 1997. As Chief Equity Strategist, he was responsible for developing the firm's overall equity market view and maintaining their list of recommended stocks. Dr. Shulman was widely quoted in print and electronic media and he coined the terms "Goldilocks Economy" and "New Paradigm Economy." In 1991, he was named a Managing Director; and in 1990, he won the First Annual Graaskamp Award for Excellence in real estate research from the Pension Real Estate Association.

In March 2005, Dr. Shulman retired from Lehman Brothers, where he was Managing Director and head Real Estate Investment Trust Analyst. Before joining Lehman Brothers in 2000, he was a member and Senior Vice President at Ulysses Management LLC from 1998-1999, an Investment Manager of a private investment partnership and an offshore corporation, whose investment capital approximated \$1 billion at the end of 1999.



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Jerry Nickelsburg
Senior Economist

Jerry Nickelsburg joined the UCLA Anderson Forecast in 2006 as an economist. At the Anderson Forecast he plays a key role in the economic modeling and forecasting of the Los Angeles, Southern California and California economies. He has conducted special studies into the future of manufacturing in Los Angeles, the distribution of income, the economic impact of the writer's strike, the aerospace industry, the undocumented construction and manufacturing labor force, the ports of Los Angeles and Long Beach and the garment industry, focusing on the development of new data and the application of economic theory and statistical methods to sectoral issues. He is a regular presenter at the Los Angeles Mayor's Economic Conference and has been cited in the national and local media including the Financial Times, New York Times, Los Angeles Times, Reuters, Variety, CNBC, NBC, PBS, and L.A. Business Journal.

He received his Ph.D. in economics from the University of Minnesota in 1980 specializing in monetary economics and econometrics. He was formerly a professor of Economics at the University of Southern California and has held executive positions with McDonnell Douglas, Flight Safety International, and Flight Safety Boeing during a fifteen year span in the aviation business.

From 2000 to 2006, he was the Managing Principal of Deep Blue Economics, a consulting firm he founded. He held a position with the Federal Reserve Board of Governors developing forecasting tools, and has advised banks, investors and financial institutions. He has been the recipient of the Korda Fellowship, USC Outstanding Teacher, India Chamber of Commerce Jubilee Lecturer and is a Fulbright Scholar. He has published over 40 articles on monetary economics, econometrics, aviation economics, and industrial organization.



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William Yu
Economist

William Yu joined the UCLA Anderson Forecast in 2011 as an economist. At Forecast he focuses on the economic modeling and forecasting of Los Angeles and other regional economies in California. He also conducts research and forecast on Asian emerging economies, especially China, and their impacts on the US economy. His research interests include a wide range of economic and financial issues, such as time series econometrics, stock, bond and commodity price dynamics, public health, human capital, higher education, and economic sustainability. He has published over a dozen research articles in Journal of Forecasting, International Journal of Forecasting, Journal of International Money and Finance, Journal of Health Care Finance, Journal of Education Finance, Economic Affairs, and Global Economic Review, etc. He has also served as a reviewer for various journals, such as Journal of Money, Credit, and Banking, Journal of Banking and Finance, Japan and the World Economy, and Energy Journal, etc.

He received his bachelor's degree in finance from National Taiwan University in 1995 and was an analyst in Fubon Financial Holding in Taipei from 1997 to 2000. In 2006, he received his Ph.D. degree in economics from the University of Washington where he was also an economics instructor and won two distinguished teaching awards. In 2006, he worked for the Frank Russell Investment Group for Treasury and corporate yields modeling and forecasting. From 2006 to 2011, he served as an assistant and an associate professor of economics at Winona State University where he taught courses including international economics, forecasting methods, intermediate macroeconomics, introductory macroeconomics, money and banking, and Asian economies.