LIFT OUTLOOK

Spring 2015

INTERINDUSTRY FORECASTING PROJECT
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Inforum Economic Update

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Current Economic Environment

The U.S. economy posted yet another year of modest growth in 2014, the fifth in a row. Real (inflation-adjusted) GDP increased 2.3% in 2014, about the same as the 2.3% performance of 2012 and the 2.2% growth of 2013. The growth was lower than most analysts expected, primarily because of weaker residential investment and net exports.

The biggest disappointment of 2014 was a steep fall in the growth of residential investment. This weakness, which mostly was in housing, appeared as a sharp deceleration to 1.6% from a 2013 increase of 11.9%. Construction activity declined in the first quarter of 2014 because of the harsh winter, but weakness persisted. Of course, the Great Recession had its origins in a housing bubble, so the loss of home equity created a steep downturn and then only sluggish recovery for home construction. Nonetheless, weakness occurred in 2014 as bank lending conditions for housing investment remained tight despite favorable economic conditions, including improved employment, low interest rates, and "pent-up" household formation.

Weakness in the economies of major U.S. trading partners in Asia and Europe worsened over the year, so it is not surprising that real exports grew by a still-sluggish 3.2% in 2014 following 3.0% growth in 2013. Import growth rose to 4.0%, compared to 1.1% in 2013. Despite booming domestic production of energy and declining imports of petroleum, income growth, a strong dollar, and low import prices are supporting a new surge of spending on foreign goods and services.

Other components of GDP did not perform badly. Personal consumption grew by 2.5% in 2014, slightly above the 2.4% growth of 2013. Real nonresidential construction spending accelerated to 8.2% in 2014 compared to a 0.5% decline in 2013. Investment in equipment and software reached 5.8% growth, up from 4.1% a year earlier.

Inflation-adjusted government consumption and investment spending (which includes goods and services but not entitlements) fell overall but, because Congress abandoned sequestration at the beginning of the year, the decline was at a slower rate than in recent years. Federal defense spending fell 2.1% during 2014 after falling 6.6% in 2013. Federal non-defense expenditures contracted just 1.5% in 2014 after a 4.1% decline in 2013. Inflation-adjusted state and local spending rose 1.0%. The reduction of overall real government spending was 0.2%, which followed a 2.0% drop in 2013.

The private sector generally did well in 2014 after a collapse in the first quarter of investment spending and weak personal consumption expenditures. Still, after years of pulling the economy forward despite the drag of declining government spending, the private economy did not bear so much of the load in 2014. Figure 1 shows that GDP accelerated to 4.6% in the second quarter and 5.0% in the third before leveling out at 2.2% in the fourth. A second harsh winter, collapsing oil prices, and a strong dollar again brought growth to a halt in the first quarter of 2015, with both government expenditure and private activity contracting slightly.

Figure 2 shows that in the 12 months from July 2014 to June 2015 non-farm payroll employment expanded by an average of 245,000 jobs per month. Following strong growth in the fourth quarter of 2014, employment growth was mixed over the first six months of 2015. Payrolls expanded by only 119,000 as winter finally ended in March, though February was better with 266,000 and May added another 254,000. With second-quarter average monthly payroll gains of 221,000, employment and economic growth still have momentum going into the second half of 2015.

Figure 1: Quarterly Growth in Real GDP
(Percent)

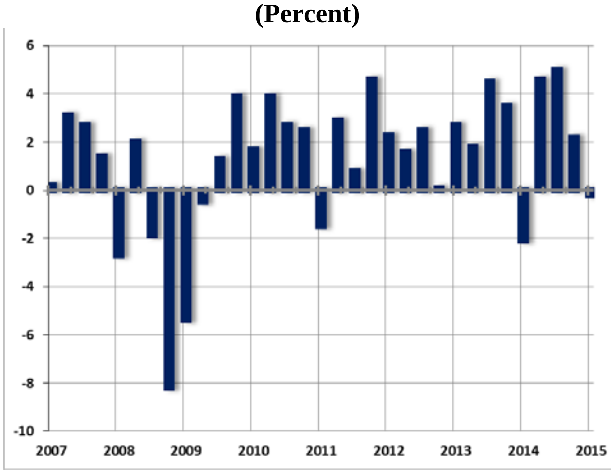
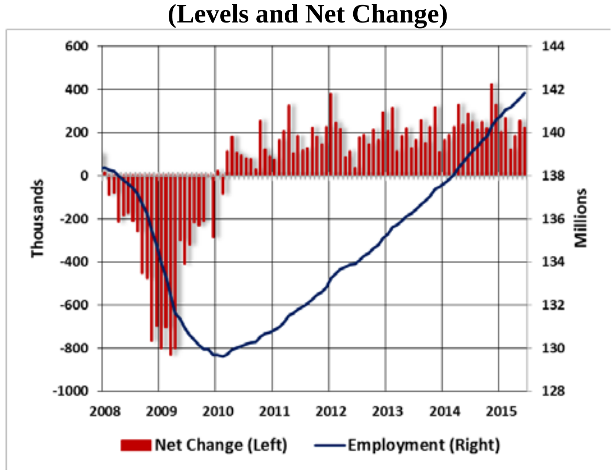


Figure 2: Nonfarm Employment
(Levels and Net Change)



This momentum comes despite years of weak government spending. Figure 3 shows total real government expenditures, including federal, state, and local spending, normalized to 100 in the second quarter of 2009. In contrast to government spending following the troughs of other recessions in the past three decades, where fiscal policies typically were expansionary, overall fiscal policy following the Great Recession was contractionary. Although government spending contributed to economic growth in some quarters, total spending again declined in the last two quarters and remains below 2009 levels.

Despite impressive quarters of growth in 2014 and potential for significant growth in 2015, it is important to remember that although it is almost six years since the trough of the recession in early 2009, the economy still displays symptoms of distress. In particular, we can point to three indicators of continuing problems in the economy.

First, while real GDP finally has regained the level it attained at its previous peak in 2007, Figure 4 shows that it remains about 2.0% below its potential level as measured by the Congressional Budget Office (CBO) in January 2015. In other words, there remains large and persistent productive slack in the U.S. economy.

Table 1: Forecast for Economic Aggregates, Average Annual Percentage Growth Rates[1]

	13-14	14-15	15-16	16-17	17-18	18-20	20-30	30-40
Real (Inflation-Adjusted) Quantities, Average Annual Growth Rates, Percent								
Gross Domestic Product	2.3	2.3	2.9	2.6	2.7	2.5	2.3	2.2
Personal Consumption	2.5	2.9	2.6	2.4	2.3	2.2	2.1	2.1
Durable Goods	6.9	5.6	3.4	3.1	3.0	2.6	2.2	2.2
Nondurable Goods	1.8	1.9	2.1	1.8	1.7	1.6	1.6	1.7
Services	2.1	2.8	2.6	2.5	2.4	2.3	2.2	2.1
Nonresidential Structures	8.2	-1.2	11.8	9.2	4.8	4.9	2.9	2.8
Equipment & Intangibles Investment	5.8	5.4	4.8	2.7	4.0	4.1	3.8	3.9
Residential Investment	1.6	9.2	8.8	5.5	6.0	5.6	3.1	2.8
Exports	3.2	1.5	4.1	4.6	4.5	4.6	4.3	3.4
Imports	4.0	4.9	3.4	2.9	3.0	3.1	3.2	3.2
Government	-0.2	0.6	0.5	0.5	1.1	0.9	1.1	1.2
Federal	-1.9	-1.0	-1.6	-0.9	0.0	0.1	0.6	1.2
Defense	-2.1	-0.3	-1.4	-0.4	0.1	-0.2	0.6	1.1
Nondefense	-1.5	-2.3	-1.8	-1.6	-0.1	0.7	0.7	1.3
State & Local	1.0	1.6	1.8	1.3	1.8	1.4	1.3	1.2
GDP Deflator	1.5	1.2	1.9	1.9	1.8	2.2	2.2	2.4
Consumption Deflator	1.3	0.8	2.1	2.4	1.9	2.4	2.3	2.4
Population	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.6
Labor Force	0.9	0.8	0.7	0.6	0.6	0.6	0.8	0.7
Employment	1.6	1.7	1.0	0.6	0.6	0.7	0.8	0.7
Labor Productivity	0.4	0.3	1.5	1.6	1.9	1.6	1.3	1.3
Potential GDP	1.5	1.7	1.9	2.2	2.3	2.3	2.3	2.3
	2014	**2015**	**2016**	**2017**	**2018**	**2020**	**2030**	**2040**
Unemployment Rate	6.2	5.4	5.1	5.2	5.2	5.2	5.2	5.2
Interest Rates								
Treasury Bills, 3-month	0.0	0.2	1.2	2.5	3.5	3.4	3.4	3.4
Yield, 10 yr. Treasury bonds	2.6	2.3	3.0	3.9	4.2	4.6	4.6	4.6
	2014	**2015**	**2016**	**2017**	**2018**	**2020**	**2030**	**2040**
Nominal Quantities, Billions of Dollars								
Current Account	-467.6	-557.8	-552.8	-510.3	-523.1	-434.3	-410.6	-765.2
(% of GDP)	-2.7	-3.1	-2.9	-2.6	-2.5	-1.9	-1.1	-1.4
Federal Net Borrowing	-615.3	-456.0	-505.4	-576.8	-615.0	-534.9	-237.8	-112.5
(% of GDP)	-3.5	-2.5	-2.7	-2.9	-3.0	-2.3	-0.7	-0.2

[1] Billions of chain-weighted $2009.

Figure 3: Real Government Expenditures
(Index (Recession Trough = 100))

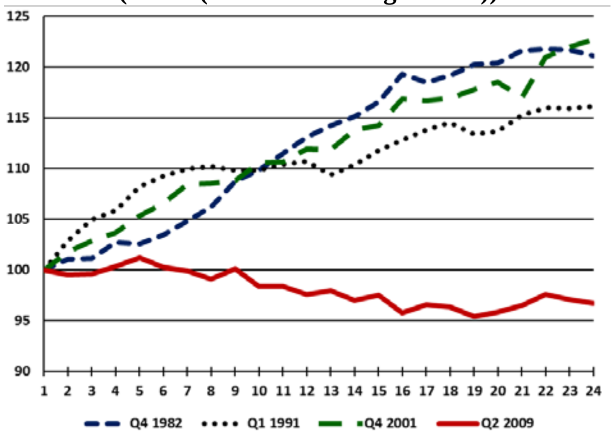
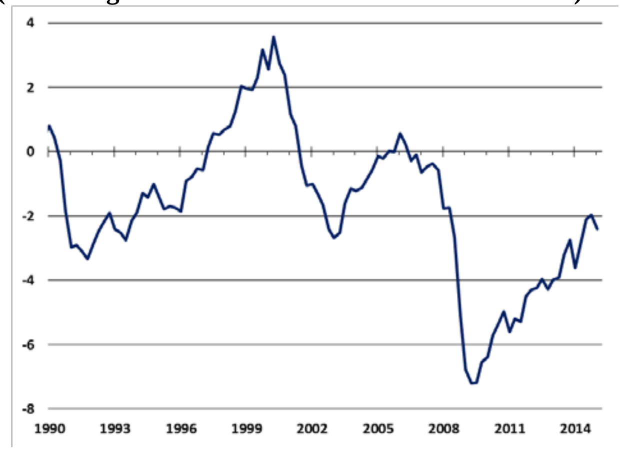


Figure 4: GDP Gap
(Percentage Deviation of GDP from Potential GDP)



Second, partly due to this economic slack, general inflation remains stubbornly low, as is shown in Figure 5. Since 2009, except for a short stretch in 2012, year-on-year core consumer price (Personal Consumption Expenditure PCE deflator) growth consistently has remained below the Federal Reserve's target rate of 2.0%. This is true despite extraordinary monetary policy: a Fed policy interest rate stuck at zero for the sixth straight year and "quantitative easing" (QE) that reached its zenith in 2013 with the Federal Reserve buying $85 billion a month of Treasuries and other securities. The program was tapered through 2014, and it was terminated completely in October. Unfortunately, there is still little sign of rising inflation or vibrant wage growth. Circumstances remain consistent with a "liquidity trap" in which overleveraged consumers and cautious businesses continue to restrain their spending despite low interest rates and ample credit availability.

Finally, and perhaps most distressing from the point of long-term economic health, overall labor participation is at a 30-year low of under 63%. Figure 6 shows that the rate is down from 66% before the recession and 67% in 2000. A substantial proportion—about half—of this reduction was occurring anyway, given the general aging of the workforce. Nonetheless, participation among the 25 to 54 age group fell by over 2.0 points, and income foregone by losing several years of working life for this group will be costly both to them and to the economy. Also, a big part of the labor force reduction is a result of younger people (19 to 24) not working. Some pursue education, but many others are just staying home for lack of opportunity.

Three indicators—a large GDP gap, low inflation, and low participation—are symptoms of an economy still struggling with the repercussions of financial crisis. During 2008–2010, the collapse of asset prices, particularly the prices of homes, resulted in a steep loss in net worth across the economy and particularly in the household sector. Consumers and businesses thus embarked on massive deleveraging to rebuild wealth by reducing expenditures and eschewing new debt. Combined with fiscal contraction, this deleveraging held back economic recovery from 2011 through 2013.

Figure 5: Core Inflation and the Federal Reserve Policy Interest Rate
(Percent)

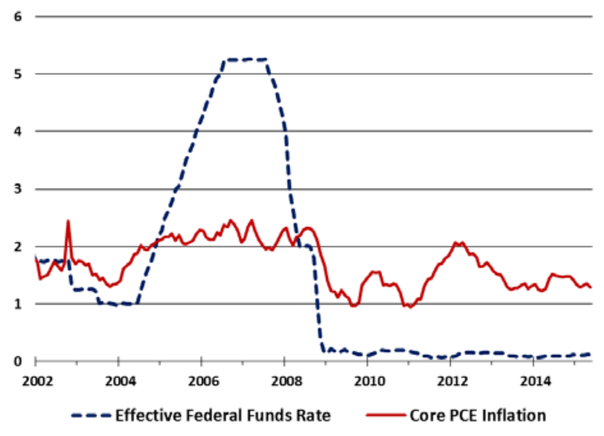
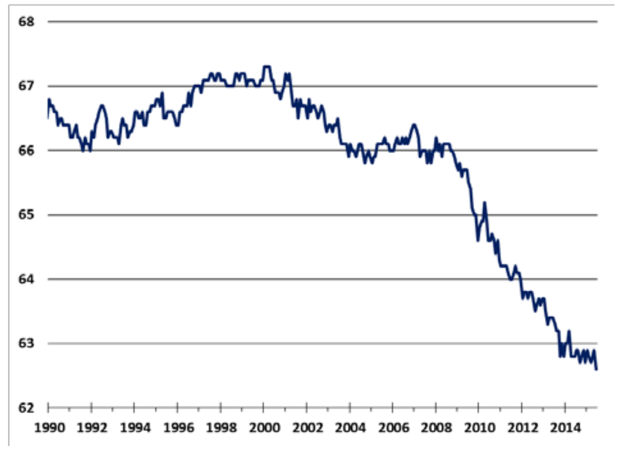


Figure 6: Labor Force Participation Rate
(Percent)



However, this situation is turning around. Figure 7 shows the net worth of households and nonprofit institutions and its two major components—home equity and financial assets (stocks, bonds, businesses, etc.). Since 2009, net financial worth has risen steadily, driven mostly by rising equity prices. Because most financial wealth is held by the relatively wealthy and in retirement accounts, this recovery did not boost current spending very much. More recent growth of home prices, however, means that net home equity edged up toward the end of 2012 and continued to grow through 2014 and into 2015.

Figure 8 shows the course of housing prices over the last 17 years, displaying the monthly Zillow home value index and the year-over-year growth in that index since 1998. For the first time since the middle of 2007, the 12-month growth of housing prices turned positive in July of 2012. Housing prices have decelerated over the last year, but growth still exceeds general inflation. In May 2015, national housing prices were 16.7% higher than in June 2012.

Figure 7: Household Net Worth
(Trillions of Dollars)

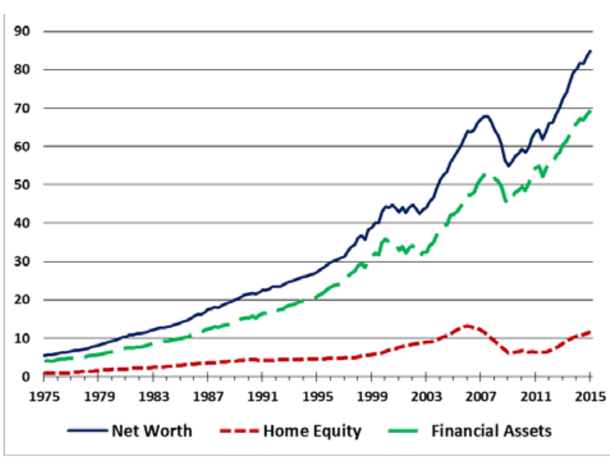
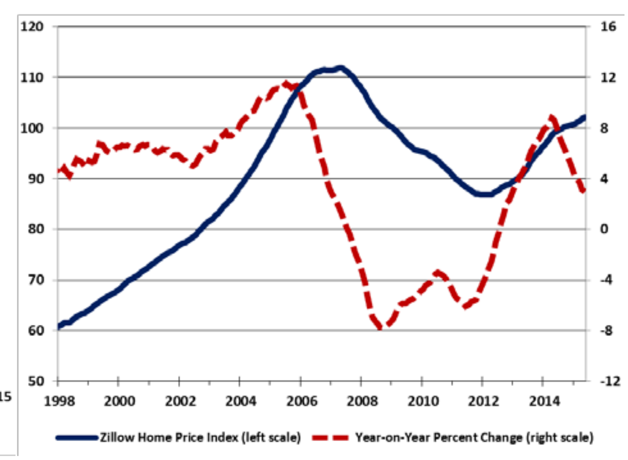


Figure 8: Zillow Home Prices
(Index (Jan 2009 = 100) and
Year-on-Year Percent Change)



The strength of the household balance sheet complements a much-improved debt service ratio, which is shown in Figure 9. After falling from more than 13% in 2008, consumers now devote only about 10% of disposable income to debts, including mortgage payments. This is the lowest rate in more than three decades. A clear demonstration of consumer enthusiasm is found in new car sales. In August and November 2014 and again in March, May, and June 2015, new car and light truck sales topped an annual rate of 17 million units, a level not seen since July 2006 (Figure 10). Demand for new homes also has recovered significantly since the depths of the recession, with housing starts surging from 2010 through 2013 (Figure 11). In 2014, growth was sluggish, and even with years of improvement the number of housing starts is similar to levels seen during the recessions of earlier decades. Still, April 2015 brought 1.165 million starts, the greatest number since November 2007.

Figure 9: Household Debt Service Payments
(Percentage of Disposable Personal Income)

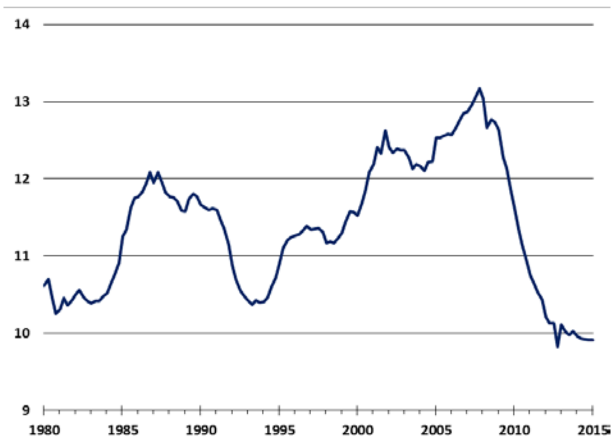
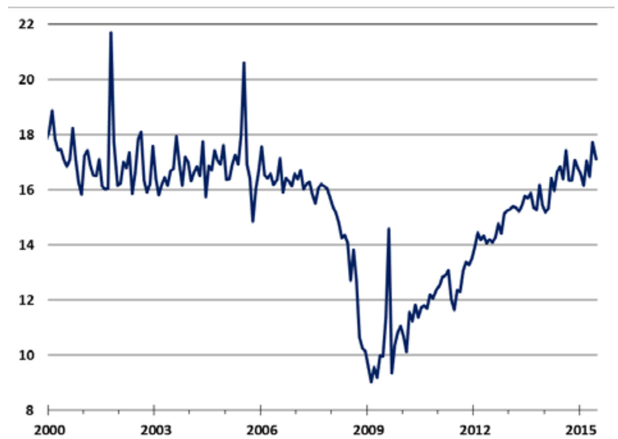


Figure 10: Light Weight Vehicle Sales: Autos & Light Trucks
(Millions, Seasonally Adjusted Annual Rate)



Surging auto sales and improving housing starts encouraged robust industrial production growth in 2014. Figure 12 shows year-on-year growth rates of production. Production slipped in January 2014 when the harsh winter slowed activity overall despite surging production by energy suppliers. That dip was followed, though, by somewhat volatile but mostly solid growth thereafter. The volatile pattern extended into 2015, with 12-month growth rates steadily diminishing over the first six months, though perhaps they began to stabilize late in the second quarter. Along with expanding labor markets, these measures of economic activity suggest that the economy generally has become far healthier and gradually is gaining strength.

While recent news coming from the U.S. economy generally has been good, the conditions of many of its major trading partners range from fair to poor. The biggest, Canada, is in recession. Its policy makers hope that this mostly is a figment of low oil prices and sluggish export demand from its southern neighbor, two conditions which have been mitigated over the last quarter.

Figure 11: Housing Starts
(Thousands)

Figure 12: Industrial Production
(Annualized Percentage Growth)

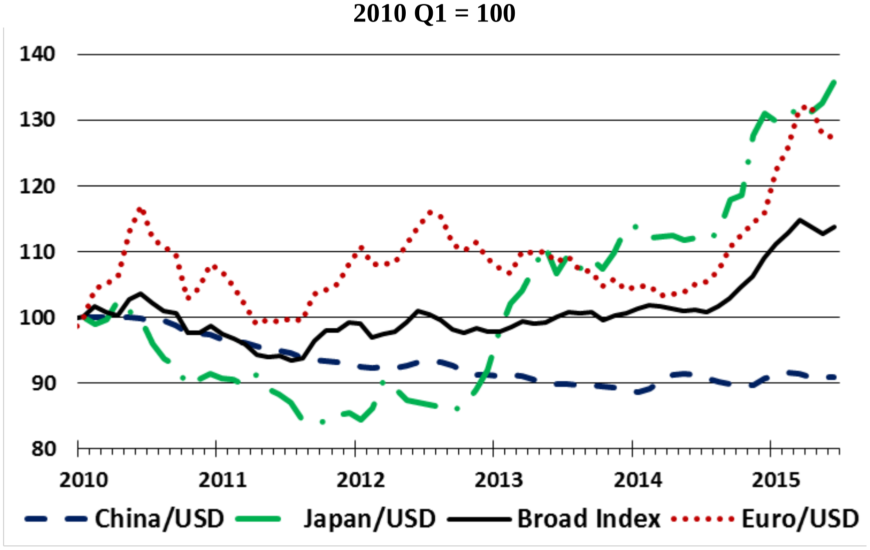
In China, the official growth rate in 2014 was 7.4 percent, down from 7.7 in 2013 and the lowest rate in decades. A slowing rate of economic growth for China is neither unexpected nor undesirable, but the recent turmoil in the country's stock markets suggest that slower growth could lead to an ugly financial correction that might cut growth further and affect world financial markets. Confident in its ability to manipulate the economy, the Chinese government is pressing fiscal, monetary, and regulatory levers designed to stabilize asset prices and economic growth. However, even if China's deceleration proceeds smoothly (and there is growing evidence that it is not), it is coming at a bad time for its trading partners in Asia (especially Japan) because of the poor performance in the European economy.

Meanwhile, in the Eurozone the Greek debt situation has turned into a political debacle. The current muddle undermines chances for more robust recovery from a second bout of recession. Price inflation remains worryingly low. It is not within the scope of this report to detail the evils of chronic deflation, but the biggest worry is that the Eurozone growth will become mired in its clutches, particularly given the contraction of population in many countries. This scenario could lead to another decade of stagnation (similar to that seen by Japan).

To combat this possibility, the European Central Bank (ECB) announced on January 22, 2015 its intention to buy €60 billion per month in securities from March 2015 through September 2016 (or until they see "sustained adjustment in the path of inflation"). While economists hope that this belated use of quantitative easing (QE) will begin to boost domestic inflation and growth expectations, at least in the short term, it will accomplish these objectives mostly through a sharp depreciation of the Euro (Figure 13), which is already boosting export growth in the region. The initial result of monetary loosening is that recent news from Europe is encouraging as most economies are growing again. The Euro area as a whole should grow by more than 1.0% in 2015, up from 0.9% in 2014. New weakness in the yen means that the Japanese economy also could enjoy an export-led and money-juiced recovery in 2015 to 1.5% growth compared to 0.0% in 2014.

Figure 13 shows the evolution of exchange rates over the past five years. Since September, the dollar has strengthened 15.1% versus the euro and 15.2% against the yen. Interestingly, the Chinese renminbi mostly has followed the dollar upward, depreciating only 1.1% versus the greenback. These currency realignments, in turn, will have important implications for the U.S. economy. Indeed, the current relative fortunes of the large global economies greatly resemble the last few years of the 1990s. At that time, the United States was the only major economy growing briskly. Asia, which had expanded sharply in the first part of the decade, descended into financial crisis. Europe, particularly Germany, was preoccupied with integrating much of central and southern Europe, not only in the political union but also into the common currency area. Japan was simply depressed. Capital flew into the United States, and the dollar appreciated strongly against all major currencies from 1995 through 2002.

Figure 13: Foreign Exchange Rates
2010 Q1 = 100



It was common then to refer to America as the only fully functioning driver for the global economy. Eventually, the U.S. experienced a relatively short and shallow recession in 2001. The effects of capital inflow and dollar appreciation, however, had far more durable consequences on the evolution of the economy. First of all, U.S.-based manufacturing contracted sharply, and most of those activities never returned even after years of subsequent dollar depreciation. Second, and even more tragically, the inflow of cheap capital was an important ingredient in the toxic soup of sub-prime lending that would underlay the financial crisis of 2008.

Therefore, any optimism for the U.S. economy over the next few years must be tempered with the knowledge that the rest of the global economy actually is quite fragile, and adverse developments there could undermine current momentum at any time. In any case, U.S. farmers, oil producers, manufacturers, and other trade-dependent firms will be working against a relative strong U.S. dollar, especially versus the euro and yen. On the other hand, the financial sector will profit from new market volatility.

The Macroeconomic Outlook

From an economic point of view, the year 2015 still holds potential for solid growth, though expectations have tempered somewhat following a difficult first quarter. According to our current projection shown in Table 1, growth will be about the same as seen in 2014 at 2.3%, or perhaps a little better. Such growth is above potential growth rates of about 2.0% and therefore indicates that the economy finally but slowly is escaping the lingering effects of the Great Recession and the overhang of economic slack.

The biggest factor supporting a durable uptick in economic expansion is the momentum created by strong job growth. In 2014, total employment rose by 1.6%, following 1.7% annual gains in 2012 and 2013. Furthermore, in the fourth quarter of 2014, average monthly payroll employment gains were 324,000, the fastest pace since 1999, and though winter brought weaker rates of 195,000 per month in the first quarter of 2015, hiring strengthened to 221,000 per month in the second quarter. The income flowing from new jobs improves household balance sheets and boosts purchases of new vehicles, housing and other goods and services. In turn, improved final demand encourages businesses to invest in capital equipment and facilities. Finally, fiscal contraction will be minimal this year, and government expenditures should stabilize over the coming years.

Also supporting favorable growth is a big change in energy markets. U.S. production of crude oil has risen quickly since 2008 and natural gas production has sustained rapid growth since 2005. The nation now is among the top three both for crude oil production and for natural gas production. The energy sector has seen consistent and strong capital investment since 2009, and new exploration, development, production, and ancillary activities create well-paid jobs. Though lower oil and gas prices will continue to discourage investment a bit in the short term, the energy renaissance is durable and should help to boost the U.S. economy for at least the rest of the decade.

The plunge of petroleum prices has been dramatic, with world oil prices plummeting from $100 per barrel at the beginning of 2014 to $60 by the end of the year. While much of this fall can be attributed to weak petroleum demand in Asia and Europe, the surge in U.S. supply also is a contributing factor. In any case, average retail gasoline prices have fallen to below $2.50 per gallon from $3.50 per gallon, putting about $750 back into the average household's discretionary budget for 2015.

GDP growth will remain around 2.3% in 2015 and before rising to about 3.0% in 2016. This growth will be driven by the consumer and private business sectors, as government expenditures and net exports will make only small contributions to growth through 2017.

Total employment grew at 1.6% in 2014 and unemployment continued to fall gradually, reaching 5.6% in December and 5.3% in June 2015. Employment will grow by another 1.7% in 2015, a net increase of 2.5 million jobs. The projections are similarly optimistic for the following two years. Unemployment will average well below 6.0% in 2015 and beyond.

Stronger balance sheets, better job formation, and pent-up demand will drive healthy growth for household consumption. Figure 14 shows consumer sentiment in January 2015 at the highest level in more than a decade, and after falling through May, consumer sentiment again improved substantially in June. Following growth of about 2.5% in both 2013 and 2014, inflation-adjusted consumer spending will expand at 2.9% in 2015. Spending is paced by moderate growth for nondurables and services, with spending decelerating but with higher growth remaining for durable goods. Personal consumption will continue to grow in 2016 and 2017, expanding at about 2.5%

per year. Growth in consumer durables spending will remain strong, albeit with lower rates than seen in the past three years.

After years of contraction, housing investment led the economy by growing 11.9% in 2013, but it managed only a feeble expansion of 1.6% in 2014. Housing should lead again in 2015 with growth around 9.0%. Job growth, pent-up demand, better credit worthiness, and continued low, though climbing, mortgage rates will support recovery.

After contracting by 0.5% in 2013, real spending for non-residential structures grew by 8.2% in 2014. Because of the large fall in oil prices, drilling and other oil field development will contract substantially, driving nonresidential structures growth to negative territory in 2015. Other categories such as commercial and health care building are doing much better, so growth will revive to around 10% for 2016 and 2017. Private equipment and software spending, which rose by 5.8% in 2014, will rise by 5.4% in 2015, 4.8% in 2016, and 2.7% in 2017.

Export growth strengthened slightly to 3.2% in 2014, following 3.0% growth in 2013. Exports remain a positive contributor to overall expansion, but growth remains subdued due to continued weakness in Europe and Japan. Export growth in coming years is dependent on new and robust growth in European and Asian trading markets.

Figure 15 displays the Federal Reserve's Broad Currency Index, revealing a downward (depreciating) trend over the decade from 2001 to 2011. Over the past several years, however, the dollar strengthened considerably and will continue to do so in 2015. Nevertheless, after weak gains of 1.5% in 2015, an increase in export volume above 4.0% in 2016 and 2017 is projected. The strengthening dollar drove real import growth to 4.0% in 2014, widening the trade deficit, and growth will reach 4.9% in 2015 before decelerating to about 3.0% in 2016 and 2017.

Figure 14: University of Michigan Index of Consumer Sentiment,
(1966=100)

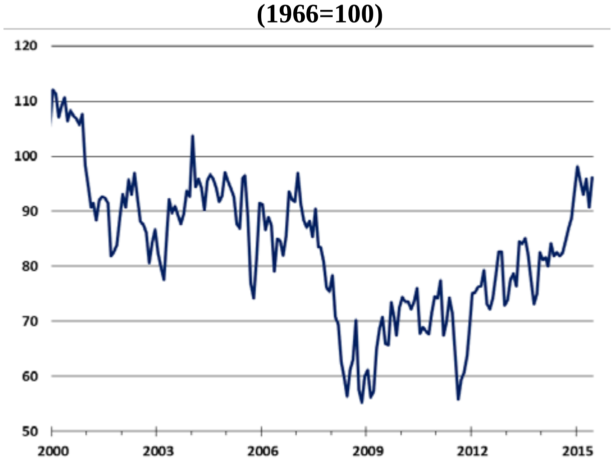
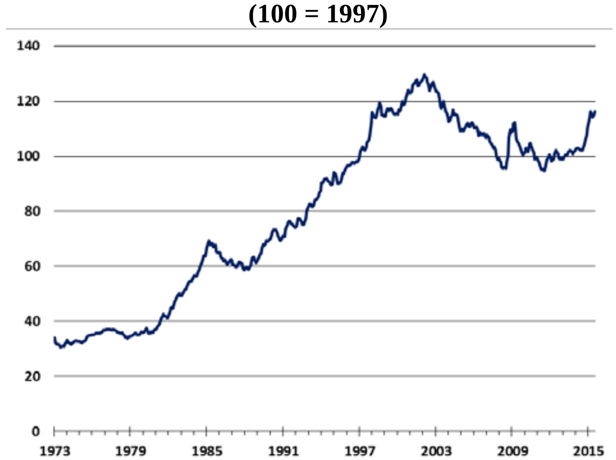


Figure 15: Federal Reserve Broad Currency Index
(100 = 1997)



Despite a federal bipartisan compromise on fiscal policy, total inflation-adjusted government consumption and investment spending contracted in 2014, creating a drag on overall growth. Real federal defense spending fell by another 2.1% in 2014, and real non-defense spending fell by 1.5% compared to the levels in 2013. Growth of federal real spending will remain negative through

2017. State and local government spending began to see positive real growth in 2013, at 0.5%, with slightly higher growth in 2014 of 1.0%. This partially offset federal fiscal contractions in 2013 and 2014, and total government spending growth will turn slightly positive in 2015 (0.6%). While the belief is that it will remain positive in 2016, real government spending is likely to be sluggish for the foreseeable future.

Risks to the Outlook

Downside Risks

Deflation. The biggest threat comes from deflation abroad and continued slow wage growth in America. Deflation severely undermines economic growth because it induces consumers and businesses to put off expenditures, increases the burden of household, corporate, and government debt, and, given downward wage rigidities, because it distorts labor markets. While the Federal Reserve would like to "normalize" monetary policy with positive interest rates in the coming months, the risk is that it could act too quickly and undermine a still-fragile recovery.

Political Paralysis. Notwithstanding the November 2014 election results, Congress remains in a state of political paralysis. It is most likely that important policy imperatives on tax reform, discretionary spending levels and allocations, and entitlement reductions will not be debated meaningfully or acted upon until at least 2017. Business and consumer planning continues to be hampered by the uncertainties surrounding long-run federal fiscal policy, undermining capital investment and household financial stability.

International Crises. Trouble in the Ukraine, Syria, Nigeria, Venezuela, and elsewhere could flare up quickly to disrupt international energy markets and other trade flows. Gasoline prices, shown in Figure 16, rose over the previous year to reach $3.69 per gallon in June 2014, though collapsing petroleum prices brought gasoline prices to $2.54 by December before recovering somewhat to $2.80 in June 2015. Still, if tensions worsen in the Ukraine so that Russian oil and natural gas exports become constrained, or if ISIS disrupts production in the Middle East or Africa, then world energy prices could rise substantially despite increased energy production in the U.S. China is another source of uncertainty. Unwinding years of financial excess will continue to depress domestic demand, and a sharp contraction of growth would spread problems throughout the global economy.

Upside Risks

Higher Wages. Economists hope that, at some point, labor market pressures will spark real wage increases and that these will act as a salve for economic weakness. Higher wages will help to reduce the burden of household debt and stimulate household consumption. Higher wages also will help government revenues across the board, freeing funds to spend on infrastructure, education, and other public investment projects. With unemployment at 5.3% in June, wage pressure could begin to rise as the real economy builds steam.

Greater corporate investment. Many corporations have realized healthy profitability over the past few years, but so far most have been reluctant to spend those profits on new capital investment in the United States. Energy producers are an important exception, but recent low energy prices discouraged investment there too. Faster economic growth will loosen wallets, and a quickening of domestic investment will improve U.S. growth and employment formation. Even investments outside of the U.S. could drive the export of machinery and other goods.

Boosted Infrastructure Investment. Lost in the political theater in Washington is the fact that the federal deficit has fallen rapidly to around 3.1% of GDP in 2014 from 10.2% in 2009. There is hope, therefore, that the public sector at all levels could begin to expand investments on long-neglected infrastructure, particularly for roads and highways.

Figure 16: Average Price of Regular Gasoline
(Dollars per Gallon)

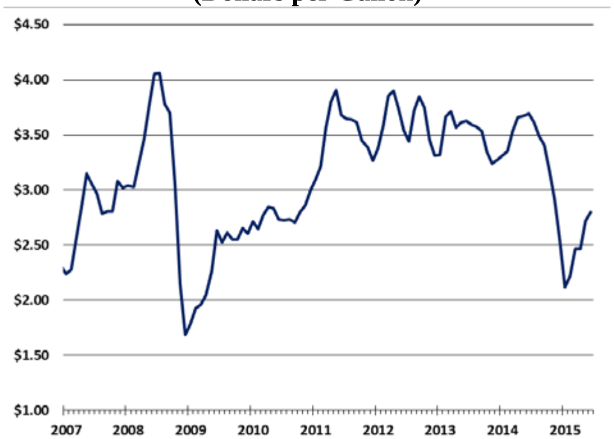
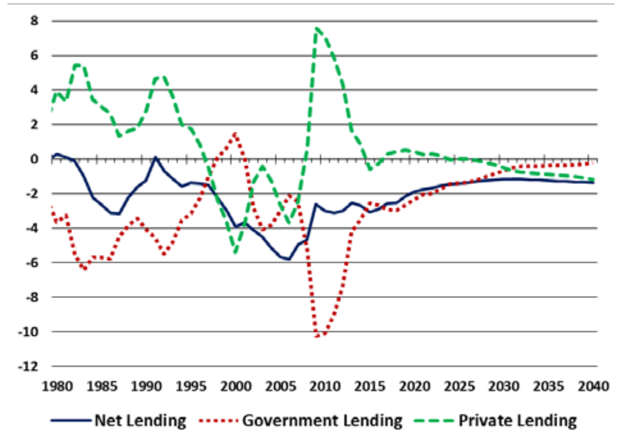


Figure 17: Net Lending
(Shares of Nominal GDP)



Long-Run Macroeconomic Assumptions

We calibrate the LIFT forecast to exhibit long-run sustainability of the economy's basic nominal balances as a percentage of GDP. Figure 17 depicts the long-term trajectories for net lending (or borrowing) as a percentage of GDP for the private sector (including both household and corporate business sectors), the government sector (federal plus state and local), and for the economy as a whole. Each line shows the excess of income over consumption and capital investment expenditures for the sector as a percentage of GDP.[2] The line marked "Net Lending" is equal to the current account deficit, or the economy's net lending abroad, which mostly has been negative over the past four decades. It is the sum of household, business, and government (including state and local governments) net lending.

These balances are the residuals produced by complex processes in the real quantity and price sides of the economy. Each feeds back into the economy and into each of the others in important ways. The first principle to note is how unique was the recent environment. Recession meant that the current account deficit as a percent of GDP fell from almost 6% in 2006 to about 3% in 2011 and about 2.7% in 2014. Substantial deleveraging in the private sector that took place among businesses as well as consumers drove this retrenching. In 2009, the private sector lent, on a net

[2] This figure is different than savings in that it includes expenditures for investment out of savings.

basis, nearly 8% of its current income relative to GDP. The ratio was negative throughout most of preceding decade.

Long-run forecasts of the real economy are guided by Census Bureau projections of population levels and labor force participation rates that are similar to, though slightly higher than, projections by the Bureau of Labor Statistics (BLS) and the Congressional Budget Office (CBO). Together, these largely determine the size of the labor force. The natural rate of unemployment (NAIRU) follows the CBO outlook. The labor force level and NAIRU together determine the full-employment level. Potential growth of real GDP follows CBO projections through the medium term and growth rates remain constant in the long run. The long-run LIFT forecast of the real economy thus converges to these projections of full employment and potential real activity levels.

Overview of the Sectoral Outlook

The recession cut deep, and recovery is not complete

Following several years of decline, construction activity began to recover in 2011. The industry showed strong growth in 2013 before residential activity weakened in 2014 and nonresidential oil exploration construction faltered late in the year. Despite the harsh winter at the start of 2015, residential investment should gain momentum steadily. Sectors that largely depend on government expenditures suffered through the sequester and may continue to face slow growth in years ahead.

Expansion in the Health Care industry

Spending was weak again in 2013 among health care services sectors, though production picked up slowly in 2014. Better growth is expected as newly insured persons begin using their benefits. Health product manufacturing sectors have been growing, and production of drugs picked up speed in 2013 but decelerated in 2014. Nursing home spending is growing steadily.

Job growth resuming in most private sectors

Most private-sector industries experienced job growth in 2013 and 2014. Government employment continues to be weak. In 2015 and beyond, much will depend on resolution of federal fiscal policy problems, though state and local government employment should resume slow growth.

Manufacturing rebounding

Durables manufacturing, machinery, transportation equipment, and metals manufacturing generally will see recovery in the coming years, though federal spending cuts will dampen growth. The strong dollar and weak European markets will temper exports growth, though ultimately exports should gain strength as foreign markets recover. Production in food manufacturing sectors continues modest growth.

The top performers

When ranking industries by output growth for 2014-2020, construction appears near the top. Strong growth continues for natural resource extraction, including oil and natural gas extraction and mining support services. High-tech sectors contribute five of the top 11, including two manufacturing sectors, Computers and peripherals and Communications and AV equipment, and three service sectors: Information and data processing, Computer system design services, and Software.

Bringing up the rear

The bottom ten include industries that have been in decline. At the bottom of list is Tobacco products, with output falling through the forecast period. Some sectors suffer from government spending cuts, notably Search and Navigation equipment. Though environmental concerns threaten domestic coal consumption, rising exports ultimately could raise production levels for Coal mining.

Table 3. OUTPUT AND JOBS BY AGGREGATE INDUSTRY

PRODUCTION, Billions of 2005$

	2014	2015	2016	2017	2020	2030	2040	14-15	15-16	16-17	17-20	20-30	30-40
Agriculture,forestry,fishery	342	344	352	360	384	470	565	0.8	2.3	2.2	2.2	2.0	1.9
Mining	454	466	492	523	595	723	855	2.5	5.5	6.3	4.4	2.0	1.7
Utilities	438	441	443	448	461	510	570	0.7	0.5	1.0	1.0	1.0	1.1
Construction	928	963	1030	1081	1216	1551	1970	3.8	6.9	5.0	4.0	2.5	2.4
Nondurables manufacturing	2336	2352	2397	2436	2573	3052	3601	0.7	1.9	1.6	1.8	1.7	1.7
Durables manufacturing	2285	2304	2354	2394	2584	3219	3947	0.9	2.2	1.7	2.6	2.2	2.1
Trade	2391	2492	2594	2686	2958	3905	5136	4.2	4.1	3.5	3.3	2.8	2.8
Transportation	783	804	832	857	935	1223	1593	2.7	3.5	3.0	2.9	2.7	2.7
Information	1120	1169	1222	1268	1406	1857	2462	4.3	4.6	3.8	3.5	2.8	2.9
Finance,Insurance,Real estate	4815	4968	5122	5277	5709	7195	8913	3.2	3.1	3.0	2.7	2.3	2.2
Professional, business services	3270	3369	3489	3596	3948	5216	6827	3.0	3.6	3.1	3.2	2.8	2.7
Edu, health, social services	2131	2178	2239	2295	2505	3428	4561	2.2	2.8	2.5	3.0	3.2	2.9
Arts, amusements, accomm, food	1039	1064	1095	1121	1188	1387	1609	2.4	2.9	2.4	2.0	1.6	1.5
Other private services	622	640	661	678	725	879	1082	2.8	3.3	2.5	2.3	2.0	2.1
Government and govt enterprises	1917	1929	1941	1952	2020	2275	2575	0.6	0.6	0.6	1.1	1.2	1.2
Miscellaneous	9	9	10	10	11	16	18	0.5	6.5	4.8	4.8	3.0	1.4

JOBS, Millions of persons

	2014	2015	2016	2017	2020	2030	2040	14-15	15-16	16-17	17-20	20-30	30-40
Civilian jobs	152.1	154.6	156.1	157.1	160.3	173.3	185.1	1.7	1.0	0.6	0.7	0.8	0.7
Private sector jobs	129.9	132.4	133.9	134.9	137.9	150.5	162.1	2.0	1.1	0.7	0.7	0.9	0.7
Agriculture, forestry, fishing	2.2	2.2	2.2	2.2	2.3	2.4	2.4	1.5	-0.1	0.4	0.6	0.4	0.3
Mining	0.9	0.9	0.9	1.0	1.0	1.1	1.2	4.0	4.7	3.8	1.8	0.7	0.7
Utilities	0.6	0.5	0.5	0.5	0.5	0.5	0.6	-1.0	-2.7	-1.7	-0.3	0.3	0.5
Construction	8.0	8.4	8.9	9.2	9.8	11.1	12.0	4.6	6.2	3.8	2.1	1.2	0.8
Nondurable manufacturing	4.9	5.0	4.9	4.9	4.9	5.0	5.1	1.2	-1.6	-1.4	0.2	0.3	0.1
Durable manufacturing	7.3	7.3	7.1	7.0	6.9	6.7	6.3	-0.9	-1.8	-1.3	-0.4	-0.4	-0.5
Wholesale trade	6.1	6.3	6.4	6.5	6.7	7.3	7.8	3.1	2.4	1.1	0.8	0.9	0.6
Retail trade	16.7	17.2	17.4	17.4	17.1	17.3	17.4	3.1	1.1	-0.2	-0.5	0.1	0.1
Transportation	5.0	5.1	5.2	5.3	5.3	5.7	6.0	2.9	1.7	0.9	0.3	0.7	0.5
Information	2.8	2.9	2.9	2.9	3.0	2.9	2.8	1.5	1.1	0.3	0.4	-0.2	-0.2
Finance, insurance, real estate	8.8	8.9	9.0	9.0	9.2	9.9	10.4	1.2	0.8	0.7	0.7	0.7	0.5
Professional, business services	21.2	21.6	21.8	22.1	22.6	24.9	27.1	2.0	1.2	1.0	0.8	1.0	0.9
Edu, health, social services	22.5	22.9	23.3	23.5	24.2	28.7	33.0	1.9	1.6	0.9	1.0	1.7	1.4
Arts and recreation	2.5	2.4	2.4	2.5	2.5	2.7	2.8	-1.3	0.4	0.5	0.8	0.7	0.4
Accommodation and food services	12.5	12.8	12.8	12.9	13.5	14.8	15.9	2.2	0.2	0.7	1.4	1.0	0.7
Other services, except govt	8.0	8.0	7.9	8.0	8.3	9.7	11.3	0.1	-0.4	0.8	1.5	1.5	1.5
Fed government enterprises	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.3	0.6	0.1	-0.1	-0.1	0.1
Fed general government	2.2	2.2	2.2	2.2	2.1	2.2	2.2	-0.7	-0.3	-0.3	-0.3	0.1	0.2
S&L government enterprises	1.1	1.1	1.1	1.1	1.1	1.1	1.2	0.5	0.9	0.5	0.4	0.2	0.2
S&L general government	18.1	18.1	18.1	18.2	18.3	18.6	18.8	0.1	0.1	0.1	0.2	0.2	0.1

ADDENDA

Gross Domestic Product, bil 2005$	14177	14484	14902	15290	16492	20633	25604	2.2	2.9	2.6	2.6	2.3	2.2
Labor productivity (GDP/Hr)	55	55	56	57	60	68	77	0.2	1.5	1.6	1.7	1.2	1.3
Civilian Labor Force (millions)	157	158	159	160	163	176	188	0.8	0.7	0.6	0.6	0.8	0.7

Table 4. LABOR INCOME BY INDUSTRY, BILLION $

COMPENSATION OF EMPLOYEES and PROPRIETOR INCOME, Biliions of current $

	2014	2015	2016	2017	2020	2030	2040	14-15	15-16	16-17	17-20	20-30	30-40
All Industries	10387	10815	11379	11905	13691	21578	33817	4.1	5.2	4.6	4.8	4.7	4.6
Agriculture,Forestry,Fishery	137	144	149	154	169	232	326	5.5	3.4	3.2	3.1	3.3	3.4
Mining	124	72	112	127	162	290	524	-41.7	54.7	12.9	8.5	6.0	6.1
Utilities	76	79	81	83	93	130	179	3.9	2.5	2.9	3.7	3.5	3.2
Construction	587	625	682	735	870	1332	1988	6.6	9.1	7.7	5.8	4.4	4.1
Nondurable manufacturing	368	386	392	401	451	664	961	4.8	1.6	2.2	4.0	3.9	3.8
Durable manufacturing	631	644	658	676	745	987	1310	2.0	2.3	2.6	3.3	2.9	2.9
Wholesale and Retail trade	1198	1276	1354	1418	1596	2414	3640	6.5	6.1	4.8	4.0	4.2	4.2
Transportation	339	360	376	393	447	691	1050	6.2	4.4	4.5	4.4	4.4	4.3
Finance,Insurance,Real estate	955	1004	1056	1108	1271	1922	2816	5.1	5.2	4.9	4.7	4.2	3.9
Medical services	1063	1112	1170	1228	1447	2745	4869	4.6	5.2	4.9	5.6	6.6	5.9
Nonmedical services	3170	3319	3491	3660	4228	6714	10686	4.7	5.2	4.9	4.9	4.7	4.8
Government	1740	1793	1858	1924	2212	3456	5469	3.1	3.6	3.6	4.8	4.6	4.7

LABOR INCOME PER JOB (Thousand $)

	2014	2015	2016	2017	2020	2030	2040	14-15	15-16	16-17	17-20	20-30	30-40
All Industries	68.4	70.0	72.9	75.8	85.5	124.6	182.8	2.4	4.2	4.0	4.1	3.8	3.9
Agriculture,Forestry,Fishery	62.8	65.2	67.5	69.4	74.9	98.9	134.0	3.9	3.4	2.8	2.6	2.8	3.1
Mining	144.2	80.8	119.4	129.9	157.1	262.4	441.4	-44.0	47.7	8.8	6.5	5.3	5.3
Utilities	137.0	143.7	151.3	158.4	178.2	243.9	318.2	4.9	5.3	4.7	4.0	3.2	2.7
Contract construction	73.3	74.7	76.7	79.6	88.7	120.5	165.4	1.9	2.7	3.8	3.7	3.1	3.2
Nondurable manufacturing	74.6	77.2	79.7	82.6	92.4	132.4	188.9	3.6	3.2	3.6	3.8	3.7	3.6
Durable manufacturing	86.2	88.7	92.4	96.0	107.2	148.4	206.4	2.9	4.2	3.9	3.7	3.3	3.4
Wholesale and Retail trade	52.5	54.3	56.8	59.4	67.1	98.3	144.7	3.3	4.6	4.6	4.2	3.9	3.9
Transportation	67.9	70.1	72.0	74.5	84.1	121.4	176.1	3.2	2.7	3.5	4.1	3.7	3.8
Finance,Insurance,Real estate	108.5	112.7	117.5	122.4	137.6	194.2	271.4	3.9	4.3	4.2	4.0	3.5	3.4
Medical services	69.1	70.9	73.3	76.1	85.7	129.5	192.4	2.6	3.5	3.7	4.0	4.2	4.0
Nonmedical services	58.7	60.5	63.1	65.7	73.9	107.5	157.9	3.1	4.4	4.1	4.0	3.8	3.9
Government	78.8	81.2	84.0	86.9	99.5	152.7	239.0	3.0	3.5	3.5	4.6	4.4	4.6
REAL LABOR INCOME per JOB Thousands of 2005$	57.4	58.3	59.5	60.4	63.8	74.0	86.0	1.6	2.1	1.5	1.8	1.5	1.5
CHAIN-TYPE PRICE INDEX (2005=100) Consumer expenditures	119.1	120.1	122.6	125.5	134.0	168.3	212.5	0.8	2.1	2.4	2.2	2.3	2.4

Table 5. CORPORATE PROFITS BY AGGREGATE INDUSTRY

Profits, Billions of current $

	2014	2015	2016	2017	2018	2020	2030	2040
Total Corporate Profits	1833	1863	1976	2054	2129	2346	3512	5429
Farm & agricultural services	15	16	16	16	16	17	21	24
Mining	66	-14	20	32	41	64	214	500
Utilities	56	68	60	63	60	64	84	127
Construction	24	24	28	30	32	37	58	82
Nondurable manufacturing	196	215	244	254	259	287	465	760
Durable manufacturing	177	177	186	189	197	211	264	345
Wholesale and retail trade	301	314	317	324	336	353	464	614
Transportation	49	52	47	47	47	48	61	79
Finance, insurance, real estate	650	701	737	763	796	893	1374	2207
Services, non-medical	269	279	283	296	304	324	427	573
Medical services	32	33	37	40	42	47	79	120

Profits, Percent of Production

	2014	2015	2016	2017	2018	2020	2030	2040
Total Profits, Percent of GNP	10.8	10.6	10.7	10.7	10.6	10.6	10.2	10.1
Percent of Gross Output								
Farm & agricultural services	3.0	3.1	3.0	2.9	2.8	2.7	2.3	1.7
Mining	10.3	-2.7	3.3	4.8	5.7	7.6	15.1	20.7
Utilities	12.2	15.0	13.0	12.9	12.0	11.6	10.6	10.7
Construction	2.0	1.9	2.1	2.1	2.1	2.2	2.2	2.0
Nondurable manufacturing	6.4	7.6	8.0	8.0	7.9	8.0	8.3	8.6
Durable manufacturing	6.4	6.4	6.4	6.3	6.3	6.2	5.3	4.8
Wholesale and retail trade	10.8	10.7	10.3	10.0	10.0	9.6	8.1	6.8
Transportation	5.7	6.0	5.2	4.9	4.7	4.4	3.4	2.8
Finance, insurance, real estate	11.4	11.8	11.8	11.7	11.7	11.9	11.8	12.3
Services, non-medical	3.6	3.6	3.5	3.5	3.4	3.3	2.8	2.4
Medical services	1.7	1.7	1.8	1.9	1.9	1.9	1.7	1.5

Table 6. REAL FEDERAL GOVERNMENT DEFENSE EXPENDITURES (Billion $2005 dollars, 2005 NIPA)

	2014	2015	2016	2017	2020	2030	2040	14-15	15-16	16-17	17-20	20-30	30-40
Consumption expend. & gross invest	612.7	610.9	601.6	598.9	597.0	635.2	705.8	-0.3	-1.5	-0.4	-0.1	0.6	1.1
Consumption expenditures	523.4	521.5	512.0	509.2	506.6	537.0	597.9	-0.4	-1.8	-0.6	-0.2	0.6	1.1
=Value added	307.4	306.8	301.7	300.5	299.4	325.0	373.2	-0.2	-1.7	-0.4	-0.1	0.8	1.4
= Compensation: gen gvt emp	220.9	219.6	215.1	213.4	211.9	232.1	268.4	-0.6	-2.1	-0.8	-0.2	0.9	1.5
= Military	147.2	146.4	143.4	142.2	141.2	154.7	178.9	-0.6	-2.1	-0.8	-0.2	0.9	1.5
+ Civilian	73.6	73.2	71.7	71.1	70.6	77.3	89.4	-0.6	-2.1	-0.8	-0.2	0.9	1.5
+ Consumption: gen gvt CFC	87.6	88.4	87.9	88.5	89.0	93.6	104.3	0.9	-0.5	0.7	0.2	0.5	1.1
+ Intermediate goods and services	219.6	218.3	213.8	212.2	210.7	214.1	223.5	-0.6	-2.1	-0.8	-0.2	0.2	0.4
=Durable goods	34.6	34.4	33.7	33.4	33.2	33.9	35.5	-0.6	-2.1	-0.8	-0.2	0.2	0.5
= Aircraft	16.4	16.4	16.0	15.9	15.8	16.1	16.8	-0.6	-2.1	-0.8	-0.2	0.2	0.5
+ Missiles	2.9	2.9	2.8	2.8	2.8	2.9	3.0	-0.6	-2.1	-0.8	-0.2	0.2	0.5
+ Ships	0.6	0.6	0.6	0.6	0.6	0.6	0.6	-0.6	-2.1	-0.8	-0.2	0.2	0.5
+ Vehicles	1.5	1.5	1.4	1.4	1.4	1.4	1.5	-0.6	-2.1	-0.8	-0.2	0.2	0.5
+ Electronics	5.6	5.6	5.5	5.4	5.4	5.5	5.7	-0.6	-2.1	-0.8	-0.2	0.2	0.5
+ Other durable goods	7.7	7.6	7.5	7.4	7.4	7.5	7.9	-0.6	-2.1	-0.8	-0.2	0.2	0.5
+Nondurable goods	18.3	18.1	17.8	17.6	17.5	17.6	18.0	-0.6	-2.1	-0.8	-0.2	0.1	0.2
= Petroleum products	7.7	7.7	7.5	7.5	7.4	7.5	7.6	-0.6	-2.1	-0.8	-0.2	0.1	0.2
+ Ammunition	2.7	2.7	2.6	2.6	2.6	2.6	2.7	-0.6	-2.1	-0.8	-0.2	0.1	0.2
+ Other nondurable goods	8.6	8.5	8.3	8.3	8.2	8.3	8.4	-0.6	-2.1	-0.8	-0.2	0.1	0.2
+Services	167.0	166.0	162.6	161.3	160.2	162.9	170.6	-0.6	-2.1	-0.8	-0.2	0.2	0.5
= Research and development	35.9	35.7	35.0	34.7	34.5	35.1	36.7	-0.6	-2.1	-0.8	-0.2	0.2	0.5
+ Installation support	31.3	31.1	30.5	30.2	30.0	30.5	32.0	-0.6	-2.1	-0.8	-0.2	0.2	0.5
+ Weapons support	19.6	19.5	19.1	19.0	18.8	19.1	20.0	-0.6	-2.1	-0.8	-0.2	0.2	0.5
+ Personnel support	70.8	70.4	68.9	68.4	67.9	69.1	72.3	-0.6	-2.1	-0.8	-0.2	0.2	0.5
+ Transportation-material	5.5	5.4	5.3	5.3	5.3	5.3	5.6	-0.6	-2.1	-0.8	-0.2	0.2	0.5
+ Travel of persons	4.6	4.6	4.5	4.5	4.5	4.5	4.7	-0.6	-2.1	-0.8	-0.2	0.2	0.5
-Less: Own-account invest	1.7	1.7	1.6	1.6	1.6	1.7	1.9	-0.6	-2.1	-0.8	-0.2	0.6	1.0
-Sales to other sectors	2.9	2.9	2.8	2.8	2.8	2.9	3.3	-0.6	-2.1	-0.8	-0.2	0.5	1.0
Gross investment	89.3	89.4	89.5	89.7	90.4	98.2	107.9	0.1	0.1	0.2	0.2	0.8	1.0
=Equipment and software	84.6	84.7	84.8	84.9	85.4	92.4	101.1	0.1	0.2	0.2	0.2	0.8	0.9
= Aircraft	26.0	26.0	26.1	26.1	26.2	28.4	31.1	0.1	0.2	0.2	0.2	0.8	0.9
+ Missiles	5.6	5.6	5.6	5.6	5.7	6.1	6.7	0.1	0.2	0.2	0.2	0.8	0.9
+ Ships	9.5	9.5	9.5	9.5	9.6	10.4	11.4	0.1	0.2	0.2	0.2	0.8	0.9
+ Vehicles	3.3	3.3	3.3	3.3	3.4	3.6	4.0	0.1	0.2	0.2	0.2	0.8	0.9
+ Electronics and software	16.2	16.2	16.2	16.3	16.4	17.7	19.4	0.1	0.2	0.2	0.2	0.8	0.9
+ Other equipment	23.9	23.9	24.0	24.0	24.2	26.1	28.6	0.1	0.2	0.2	0.2	0.8	0.9
+Structures	5.3	5.3	5.3	5.3	5.5	6.3	7.2	0.1	0.1	0.4	1.0	1.4	1.4

Table 7. RANKING OF OUTPUT GROWTH BY SECTOR (Billions of 2005$)

Activity Ranked by Growth 2014-2020

		2014	2015	2016	2017	2020	2030	2040	14-15	15-16	16-17	17-20	20-30	30-40	14-20
43	Communication & AV equip	41	43	49	51	63	96	134	4.9	14.0	4.0	7.3	4.4	3.3	7.4
9	Mining support act	141	147	161	173	202	270	354	4.8	9.6	7.0	5.3	3.0	2.7	6.2
76	Info & data processing	154	164	175	186	217	347	556	6.3	7.0	6.2	5.2	4.8	4.8	5.9
13	New construction	754	788	853	902	1030	1341	1735	4.4	8.2	5.8	4.5	2.7	2.6	5.3
5	Natural gas extraction	111	112	116	124	146	181	207	1.2	3.5	6.8	5.7	2.2	1.3	4.8
86	Comp sys design services	500	523	548	568	646	935	1323	4.5	4.7	3.8	4.3	3.8	3.5	4.4
78	Secur, invest, funds	741	787	822	857	955	1291	1655	6.2	4.5	4.2	3.7	3.1	2.5	4.3
72	Software	169	175	183	190	216	317	458	3.3	4.7	3.6	4.4	3.9	3.8	4.1
91	Home health care serv	88	90	94	98	111	164	218	2.6	4.2	3.9	4.6	3.9	2.9	4.1
4	Crude oil extraction	140	144	150	161	178	191	203	2.8	4.5	6.9	3.4	0.7	0.6	4.1
42	Computers & periph equip	69	68	70	73	87	126	166	-2.1	3.5	4.1	6.3	3.7	2.8	4.0
61	Wholesale trade	1174	1217	1269	1317	1470	2007	2709	3.6	4.3	3.8	3.7	3.2	3.0	3.8
45	Electromedical apparatus	38	40	41	42	47	70	106	3.2	4.0	2.6	4.0	3.9	4.3	3.6
69	Trans support, couriers	151	156	163	169	187	256	344	3.4	4.2	3.7	3.5	3.2	3.0	3.6
83	Royalties	213	218	227	237	264	349	449	2.3	4.2	4.3	3.6	2.8	2.6	3.6
82	Rental & lease of goods	228	236	247	255	281	366	466	3.7	4.5	3.5	3.2	2.7	2.4	3.6
87	Mgmt of companies & ent	657	676	703	729	810	1106	1466	2.9	4.0	3.6	3.6	3.2	2.9	3.6
73	Movie & sound recording	112	120	127	130	138	167	209	7.3	5.8	2.8	1.8	2.0	2.2	3.5
75	Telecommunications	567	589	612	634	697	855	1030	3.9	4.0	3.6	3.2	2.1	1.9	3.5
26	Resin, synthetic rubber	113	115	120	124	138	201	285	1.9	3.8	3.4	3.8	3.8	3.5	3.4
62	Retail trade	1217	1275	1325	1368	1488	1899	2427	4.8	3.9	3.3	2.8	2.5	2.5	3.4
59	Ophthalmic goods	6	6	6	6	7	10	15	0.5	0.6	3.7	5.0	4.2	3.6	3.3
31	Nonmetallic mineral prod	89	91	95	98	108	137	176	2.3	4.1	3.4	3.2	2.4	2.5	3.3
98	Amusements, gambling	143	149	154	159	173	216	261	4.0	3.6	3.1	2.9	2.2	1.9	3.2
66	Truck transportation	270	279	289	298	326	426	553	3.2	3.8	3.1	3.0	2.7	2.7	3.2
96	Child care & soc assist	149	154	160	165	180	227	289	3.5	3.7	3.3	2.9	2.3	2.5	3.2
38	Vent, heating, AC equip	32	33	34	35	39	49	62	2.7	3.9	2.9	3.1	2.5	2.3	3.1
56	Oth transportation equip	35	36	37	38	42	58	83	3.5	2.7	2.9	3.2	3.4	3.6	3.1
70	Warehousing and storage	67	69	71	74	80	105	137	3.0	3.5	3.0	3.0	2.7	2.7	3.1
22	Wood products	80	82	85	88	95	119	148	2.5	4.1	3.3	2.9	2.3	2.2	3.1
93	Oth ambul health care	192	197	203	209	230	320	429	2.4	3.1	2.8	3.3	3.4	3.0	3.0
85	Prof, sci, & tech serv	1153	1186	1227	1263	1379	1792	2318	2.9	3.4	2.9	3.0	2.7	2.6	3.0
97	Arts, sports, & museums	115	119	123	127	137	171	212	3.4	3.4	2.9	2.7	2.2	2.2	2.9
30	Rubber products	33	34	35	36	40	49	56	2.4	3.3	2.8	3.0	2.1	1.5	2.9
33	Nonferrous metals	115	116	119	123	136	180	214	0.8	3.4	2.8	3.4	2.9	1.7	2.9
74	Cable, TV, and radio	53	55	57	58	63	79	100	2.9	3.5	2.8	2.6	2.3	2.4	2.9
88	Admin & support services	660	679	700	720	782	1009	1293	2.8	3.2	2.7	2.8	2.6	2.5	2.9
8	Nonmetallic mining	18	18	19	20	21	26	32	1.6	3.8	3.1	2.8	2.1	2.1	2.8
104	Private households	15	16	17	17	18	21	24	5.4	4.0	1.9	1.8	1.5	1.3	2.8
94	Hospitals	728	745	767	785	859	1216	1660	2.3	2.9	2.4	3.0	3.5	3.2	2.8
77	Banks, credit, finance	777	805	828	851	916	1156	1451	3.5	2.9	2.8	2.5	2.4	2.3	2.8
92	Physicians, dentists	531	541	555	569	625	872	1161	1.8	2.7	2.3	3.2	3.4	2.9	2.8
60	Misc manufacturing	67	69	70	71	79	97	125	3.0	0.9	2.2	3.4	2.2	2.5	2.7
101	Auto repair & maint	170	175	181	185	199	240	291	3.0	3.4	2.4	2.4	1.9	1.9	2.7
79	Insurance	594	611	629	647	697	895	1140	2.7	2.9	2.9	2.5	2.5	2.4	2.7
63	Air transportation	126	129	133	136	148	195	259	1.7	3.3	2.7	2.7	2.8	2.9	2.6
47	Measuring & ctrl instr	48	49	50	51	57	78	105	0.7	2.3	2.4	3.5	3.3	3.0	2.6
102	Oth rep, personal serv	237	243	251	258	276	336	406	2.4	3.5	2.6	2.3	2.0	1.9	2.6
67	Ground passenger trans	42	42	44	45	48	59	73	2.3	2.5	2.5	2.6	2.1	2.0	2.5
58	Med equip and supplies	85	86	88	89	98	141	198	1.8	1.9	1.4	3.3	3.6	3.5	2.5
99	Accomodation	161	165	171	175	187	219	253	2.4	3.3	2.8	2.1	1.6	1.5	2.5
95	Nursing & res care fac	178	182	184	189	206	297	417	2.0	1.3	2.4	3.0	3.7	3.4	2.5
39	Metalworking machinery	28	29	29	30	33	44	58	1.9	1.8	1.3	3.2	3.0	2.8	2.4
103	Relig, grant, & oth org	200	206	212	217	231	282	361	2.8	3.1	2.5	2.1	2.0	2.5	2.4
80	Real estate	1138	1164	1197	1226	1313	1607	1962	2.3	2.8	2.4	2.3	2.0	2.0	2.4
65	Water transportation	43	44	45	47	50	63	80	2.9	2.6	2.2	2.2	2.4	2.5	2.4
44	Semiconductor & oth elec	139	139	142	146	159	208	260	0.2	2.3	2.4	3.1	2.7	2.3	2.3
106	State & local govt ent	73	75	77	78	83	100	118	2.6	2.9	2.1	2.1	1.8	1.6	2.3
71	Publishing, ex software	65	67	69	70	75	91	109	2.1	2.5	2.5	2.2	1.9	1.8	2.3
81	Owner-occupied dwellings	1124	1147	1172	1204	1284	1530	1789	2.1	2.1	2.8	2.2	1.8	1.6	2.3
1	Crop production	146	147	151	155	166	207	252	1.1	2.6	2.4	2.4	2.2	2.0	2.2
64	Rail transportation	63	64	65	67	72	89	109	1.2	2.5	2.4	2.4	2.2	2.1	2.2
29	Plastic products	142	144	147	150	161	196	240	1.3	2.5	2.0	2.3	2.0	2.1	2.1
41	Oth general purpose mach	82	83	85	86	93	112	139	1.0	2.5	1.5	2.5	1.9	2.1	2.1
28	Other chemicals	344	345	352	359	387	494	630	0.2	2.2	1.9	2.5	2.5	2.5	2.0
7	Metal ore mining	23	23	24	24	26	31	34	0.5	2.7	1.8	2.2	1.7	1.2	1.9
51	Oth elec equip & comp	52	52	54	55	58	66	78	1.6	2.8	1.7	1.8	1.4	1.6	1.9
68	Pipeline transportation	21	21	22	22	24	30	37	0.7	1.8	2.2	2.2	2.2	2.2	1.9
52	Motor vehicles	343	350	357	362	383	450	544	2.1	1.9	1.5	1.9	1.6	1.9	1.9
3	Forest, fish, & ag supp	60	60	62	63	67	79	89	0.4	2.2	2.1	2.2	1.6	1.3	1.9
100	Food serv & drinking	619	631	647	660	692	781	882	1.9	2.5	2.0	1.6	1.2	1.2	1.9
35	Agr, cst, min machinery	92	92	94	95	102	130	160	0.1	2.4	1.1	2.4	2.4	2.1	1.8
34	Fabricated metal prod	277	279	284	289	308	359	406	0.8	2.0	1.6	2.1	1.6	1.2	1.8
12	Water, sewage & oth sys	50	51	52	53	56	64	73	1.5	2.2	1.8	1.8	1.4	1.2	1.8
90	Educational services	264	269	276	281	293	332	385	2.1	2.3	2.0	1.4	1.2	1.5	1.8
36	Industrial machinery	34	34	35	35	38	48	60	0.2	1.4	0.9	2.7	2.4	2.1	1.8
19	Textiles	43	43	45	45	48	56	64	0.4	2.9	1.7	1.9	1.6	1.3	1.8
89	Waste mgmt & remediation	83	84	85	87	92	108	127	1.4	2.0	1.7	1.8	1.6	1.6	1.8
37	Comm & serv machinery	21	21	21	22	23	29	34	-0.3	2.1	1.1	2.5	2.1	1.7	1.7
2	Animal production	136	137	140	142	151	184	224	0.6	2.0	2.0	2.0	2.0	2.0	1.7
57	Furniture	58	60	61	61	64	70	79	4.0	1.3	1.0	1.3	0.9	1.3	1.7
84	Legal services	217	221	226	230	240	267	299	1.9	2.2	1.7	1.4	1.1	1.2	1.7
49	Household appliances	17	18	18	18	19	21	23	3.1	1.5	1.6	1.2	0.8	1.0	1.7
32	Iron and steel	127	127	129	131	139	163	185	-0.3	2.2	1.2	2.1	1.6	1.2	1.6
21	Leather products	8	9	9	9	9	10	12	2.5	0.9	1.5	1.3	1.2	1.3	1.5
15	Dairy, meat, and seafood	243	244	248	252	265	310	362	0.3	1.7	1.7	1.7	1.6	1.6	1.4
20	Apparel	14	14	14	14	15	17	19	2.7	2.4	1.1	0.8	1.2	1.2	1.4
50	Electrical equipment	28	28	28	29	30	35	41	-0.4	1.6	1.1	1.9	1.5	1.4	1.3
23	Paper	141	142	144	146	152	177	201	0.8	1.3	1.2	1.5	1.5	1.3	1.3

Table 7. RANKING OF OUTPUT GROWTH BY SECTOR (Billions of 2005$) (CONTINUED)

Activity Ranked by Growth 2014-2020

		2014	2015	2016	2017	2020	2030	2040	14-15	15-16	16-17	17-20	20-30	30-40	14-20
17	Beverages	99	99	101	102	106	115	123	0.2	1.8	1.6	1.3	0.8	0.7	1.2
40	Engine, turbine equip	40	39	40	40	43	51	61	-1.1	1.6	1.1	1.8	1.9	1.7	1.2
24	Printing	61	62	63	63	66	74	80	1.2	1.4	1.2	1.1	1.2	0.8	1.2
53	Motor vehicle parts	189	189	191	192	202	226	228	-0.1	1.2	0.9	1.7	1.1	0.1	1.2
14	Maintenance & repair cst	173	175	177	180	185	210	235	0.8	1.3	1.4	1.1	1.2	1.1	1.1
16	Other foods	311	312	316	320	332	361	380	0.4	1.2	1.4	1.2	0.9	0.5	1.1
27	Pharmaceuticals	135	137	137	138	144	183	228	1.2	0.4	0.4	1.5	2.4	2.2	1.1
25	Petroleum & coal prod	447	448	454	459	476	526	575	0.2	1.5	1.1	1.2	1.0	0.9	1.1
54	Aerospace prod & parts	153	151	152	154	163	217	283	-1.4	0.3	1.1	2.1	2.9	2.7	1.1
107	General govt industry	1788	1798	1808	1818	1881	2121	2402	0.6	0.6	0.5	1.2	1.2	1.3	0.9
10	Electric utilities	248	251	253	255	261	285	318	1.2	0.8	0.8	0.8	0.9	1.1	0.8
11	Natural gas distribution	140	139	138	140	145	161	180	-0.6	-0.5	1.2	1.1	1.1	1.1	0.5
55	Ship and boat building	22	22	22	22	23	26	31	-1.3	-0.1	0.8	1.2	1.4	1.7	0.5
46	Search, nav equip	43	42	42	42	43	50	62	-0.1	-0.3	-0.1	0.8	1.4	2.2	0.3
105	Post serv & fed govt ent	56	56	56	56	56	54	55	-0.0	0.3	-0.2	-0.3	-0.3	0.2	-0.1
48	Magnetic & optical media	5	5	5	5	5	6	7	-1.4	-0.6	-1.0	0.5	1.5	2.8	-0.2
6	Coal mining	22	21	21	22	22	24	25	-4.0	-1.1	1.9	0.3	0.8	0.6	-0.4
18	Tobacco	33	33	32	32	31	27	23	-1.5	-1.4	-1.3	-1.4	-1.3	-1.5	-1.4