RSQE FORECASTS

Research Seminar in Quantitative Economics
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For Release: 5/17/2016

# The U.S. Economic Outlook for 2016–2017
# Executive Summary: May 2016

***Rebound Likely, but with Continued Headwinds***

*For the third year in a row economic growth slowed in the first quarter, showing a 0.5 percent annualized rate of expansion. Unlike the past two years, this time it is more difficult to blame lackluster growth on severe weather.*

*Even though the latest quarterly growth rate was low, year-over-year improvement in real GDP registered 1.9 percent. Final sales of domestic product, which excludes inventory investment, grew a relatively robust 2.3 percent. Because major economic fundamentals, such as employment, income growth, interest rates, and asset valuations, remain quite solid, we expect the economy to continue expanding at a moderate pace.*

***The Good…***

*The tightening labor market drew more people into the labor force, temporarily stalling the slide in unemployment. The participation rate defied the downward pull of retiring baby boomers to rise 0.4 percentage points since October 2015. Hourly wage growth seems to be accelerating; over the past six months, the year-over-year growth of average hourly earnings of all private employees has accelerated to the 2.3–2.6 percent range.*

*The progress in reducing the number of long-term unemployed and employed part-time for economic reasons, however, has stalled of late. Both measures have barely improved over their readings six months ago and remain significantly elevated. Overall, the labor market is still improving, but the rate of improvement has slowed.*

*Business indicators suggest continued expansion in the service industry and possibly a change of fortunes in manufacturing. The ISM nonmanufacturing index solidified after a couple of soft readings at the beginning of the year, suggesting faster expansion in the current quarter, while the manufacturing index exceeded 50 in the two latest reports, indicating resumed expansion.*

*Warm weather likely contributed to a jump in first-quarter single-family housing starts, and household formation should support strength in this sector for quite some time. Multi-family housing starts appear to be sputtering, but demographics are still quite favorable for multi-family housing demand. Therefore, we expect multi-family starts to grow in the near term.*

***The Bad…***

*The primary drag on economic growth in the first quarter came from three sources: a correction in inventories, the continued collapse in oil-related investment, and a slowdown in the growth of light vehicle sales.*

*An inventory correction, which deducted about 0.3 percentage points from first-quarter growth, has entered its third quarter. ISM surveys indicate that businesses still judge inventories to be too high.*

*After a strong second half of 2015, the annualized pace of light vehicle sales slipped 0.7 million vehicles to 17.1 million in 2016q1. We expect a modest rebound in sales in the near term, but for the GDP growth contribution from light vehicles to wane as sales top out.*

***And the Ugly***

*The oil-price-driven collapse in investment in new oil and gas exploration continued in 16q1, subtracting around 0.6 percentage points from GDP growth. Despite oil prices rebounding modestly in recent months, the North American rotary rig count continues to slide, suggesting that further declines in investment in exploration are likely.*

***Financial Markets Too Dovish?***

*While inflation has run stubbornly below the Fed's target of two percent, the labor market continues to improve, albeit more slowly than in 2014 and 2015. Labor market tightening may be beginning to translate into upward pressure on wages, which might eventually support core inflation. The downward pressures on inflation from falling oil prices and the appreciation of the dollar are poised to abate or reverse over the coming quarters.*

*Our path for the federal funds rate, while steeper than the path implied by financial markets, remains significantly shallower than the path in the Federal*

*Reserve's most recent Summary of Economic Projections from March, which called for two 25 basis point rate increases in 2016 and four more in 2017. We forecast that the Federal Reserve will next raise the funds rate after its September meeting, to a range of 50–75 basis points. It will then increase the target funds range by roughly 25 basis points every six months thereafter, through the end of 2017.*

***Divided Government Waits on 2016 Elections***

*Divided government has set the federal budget on a glide path, as neither party has the ability to implement its preferred major fiscal reforms. Any deviation from that baseline could have significant ramifications for the trajectory of government spending and taxes.*

*Federal current expenditures on a NIPA basis are expected to grow by 3.3 percent in fiscal 2016. Although defense consumption remains essentially unchanged, nondefense consumption increases, and transfer payments grow 4 percent relative to fiscal 2015. The retirement of baby boomers has contributed to growth in transfer payments in recent years above growth in expenditures as a whole, a trend we see continuing through the end of our forecast. Transfer spending growth is expected to edge up to 4.2 percent in fiscal 2017.*

*The federal deficit as a percent of GDP will decline by one or two tenths of a percentage point per year over our forecast, from 3.4 percent in fiscal 2015 to 3.1 percent in fiscal 2017.*

***The 2016-2017 Outlook***

*On an annual basis, growth during 2016 is projected to average 1.9 percent, rising to 2.6 percent in 2017. Consumption contributes 1.7-1.8 percentage points to growth, and both federal and state and local spending contribute positively to GDP in all forecast quarters.*

*Net exports are a significant headwind to growth beginning in the second half of 2016, to the tune of 0.2-0.3 percentage points, while residential investment boosts output by 0.3 percentage points.*

***Employment and Inflation***

*The unemployment rate is projected to continue decreasing at a slow pace, going from its current level of 5.0 percent to 4.9 percent at the end of 2016 and 4.7 percent at the end of 2017. As labor markets tighten and wage growth accelerates, we project employment growth to slow to 160,000-165,000 jobs per month during 2017.*

*We expect core CPI inflation to accelerate to 2.1 percent in 2016, but retreat slightly in 2017 to 1.9 percent. Increasing oil prices help headline inflation increase to 1.1 percent in 2016 and 2.0 percent in 2017.*

| | Actual | | RSQE Forecast | |
|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2017 |
| GDP (billions of current $) | 17348.1 | 17947.0 | 18475.5 | 19257.2 |
| Real GDP (billions of chained 2009 $) | 15961.7 | 16348.9 | 16652.0 | 17079.4 |
| % change: year-over-year | 2.4 | 2.4 | 1.9 | 2.6 |
| % change: 4th-qtr-to-4th-qtr | 2.5 | 2.0 | 2.1 | 2.5 |
| Nonfarm payroll employment (millions) | 138.9 | 141.8 | 144.4 | 146.4 |
| Civilian unemployment rate (%) | 6.2 | 5.3 | 4.9 | 4.8 |
| Capacity utilization, total industry (%) | 78.2 | 76.7 | 75.5 | 77.2 |
| Inflation (private nonfarm GDP deflator, % change) | 1.5 | 1.0 | 1.0 | 1.5 |
| Inflation (CPI-U, % change) | 1.6 | 0.1 | 1.1 | 2.0 |
| Inflation (core CPI, % change) | 1.7 | 1.8 | 2.1 | 1.9 |
| Light vehicle sales (millions) | 16.4 | 17.3 | 17.6 | 17.8 |
| Private housing starts (thousands) | 1001.0 | 1107.0 | 1193.0 | 1353.0 |
| 3-month Treasury bill rate (%) | 0.0 | 0.1 | 0.4 | 0.9 |
| 10-year Treasury note rate (%) | 2.5 | 2.1 | 1.9 | 2.5 |
| Conventional mortgage rate (%) | 4.2 | 3.9 | 3.7 | 4.1 |
| Real disposable income (billions of chained 2009 $) | 11836.3 | 12239.5 | 12539.5 | 12845.3 |
| % change | 2.7 | 3.4 | 2.5 | 2.4 |
| Corporate profits after tax (billions of current $) | 1693.9 | 1750.6 | 1735.1 | 1827.3 |
| Value of U.S. $ (FRB broad index), % appreciation | 3.1 | 12.6 | 2.5 | –0.6 |
| Current account balance (NIPA basis, billions of current $) | –401.1 | –465.0 | –501.7 | –549.7 |
| Federal surplus (FY, NIPA basis, billions of current $) | –609.7 | –598.0 | –596.6 | –592.0 |

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# The U.S. Economic Outlook for 2016–2017

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## The Current State of the Economy

For the third year in a row economic growth slowed in the first quarter, showing a 0.5 percent annualized rate of expansion. Unlike the past two years, this time it is more difficult to blame lackluster growth on severe weather. In fact, a warm spell, while disruptive in parts of the country, likely lifted economic activity beyond normal in other regions. Even though the latest quarterly growth rate was low, year-over-year improvement in real GDP, final sales of domestic product, and final sales to domestic purchasers remained robust, with readings in the 1.9–2.4 percent range. Because major economic fundamentals, such as employment, income growth, interest rates, and asset valuations, remain quite solid, we expect the economy to continue expanding at a moderate pace.

The primary drag on economic growth in the first quarter came from three sources: a correction in inventories, the collapse in oil-related investment, and a slowdown in the growth of light vehicle sales. We discuss each of these in turn.

An inventory correction, which deducted about 0.3 percentage points from first-quarter growth, has entered its third quarter. ISM surveys indicate that businesses still judge inventories to be too high. Hence, inventory accumulation may continue restraining GDP growth in the second quarter.

The fallout from the oil price collapse intensified in the winter quarter. The level of investment in new oil and gas exploration sank to its lowest quarterly reading in our data since 1958, subtracting around 0.6 percentage points from GDP growth. Despite oil prices rebounding modestly in recent months, the North American rotary rig count continued to slide in April and early May, suggesting that further declines in investment in exploration are likely. Given the markedly lower drilling activity, however, the drag on overall growth is likely to diminish.

After averaging 17.8 million in the last two quarters of 2015, the annualized pace of light vehicle sales slipped to 17.1 million in 2016q1, lowering the growth of final sales of domestic product by more than 0.4 percentage points. We expect a modest rebound in vehicle sales in the near term, supporting growth in the current quarter. Over the forecast horizon, however, we expect the GDP growth contribution from light vehicles to wane, as sales top out.

After a long slide, the headline unemployment rate has stalled around the 5 percent level, but it has done so for a good reason—the improving labor market drew more people into the labor force. The labor force participation rate defied the downward pull of retiring baby boomers to rise 0.4 percentage points since October 2015. At long last, hourly wage growth seems to be accelerating. Over the past six months or so, the year-over-year growth of average hourly earnings of all private employees moved up from the 2.0–2.3 percent range it has been stuck in for several years to the 2.3–2.6 percent range. Average hourly earnings of private production and nonsupervisory employees accelerated from about 2.0 percent year-over-year growth during the first three quarters of 2015 to 2.4 percent during the final quarter of 2015 and to 2.5 percent so far this year. The pace of payroll job growth, however, appears to have softened somewhat in recent months. The January–April average monthly gain, at 192,000 jobs, is down some 37,000 from its 2015 average, but down only 13,000 from the same months in 2015. The progress in reducing the number of long-term unemployed and employed part-time for economic reasons—two direct measures of labor market slack—has stalled. Both measures barely improved over their readings 5–6 months ago and remain significantly elevated. Overall, the labor market is still improving, but the improvement may have slowed enough to raise concerns among monetary policymakers.

Financial conditions have also been improving over the past three months. Risk spreads, which rose through the second half of 2015, peaked in February, and declined substantially since then. Domestic stock market indices rebounded, regaining a significant portion of the ground lost during the turn-of-the-year turbulence. Long-term Treasury yields, however, remain quite low, perhaps reflecting a delayed expected future fed funds rate path and lower term premia (compensation for asset duration risk).

Business indicators suggest continued expansion in the service industry and possibly a change of fortunes in manufacturing. The ISM nonmanufacturing index solidified after a couple of soft readings at the beginning of the year, suggesting faster expansion in the current quarter. After six months at or below 50, the Institute for Supply Management's (ISM) manufacturing index exceeded 50 in the two latest reports.[1] The Federal Reserve's index of industrial production has been sliding since late 2014, driven by a sharp fall in mining and the flattening of manufacturing activity. As a result, the Fed's capacity utilization index lost 4 percentage points and registered below 75 percent utilization in March, around 5 percentage points below its long-term average. This persistently low capacity utilization rate may help explain the lack of inflationary pressures. Recent depreciation of the dollar is likely to help the manufacturing sector, but overall industrial production is likely to remain weak this quarter due to projected declines in domestic oil production.

Single-family housing starts grew at a 20 percent annualized rate in the first quarter, but warm weather may have contributed. Meanwhile, multi-family housing starts appear to be sputtering. After more than 450 thousand multi-family housing starts in 2015q2—the highest quarterly average since 1987—multi-family construction activity has gradually softened and the first quarter of 2016 averaged only 340 thousand starts. The available data on construction permits does not point to a quick rebound to above-400-thousand levels. Demographics, however, are still quite favorable for multi-family housing demand. Therefore, we expect multi-family starts to grow in the near term. Over the past

[1] A reading of 50 indicates a steady level of activity.

twelve months, total housing starts fluctuated in a narrow range between 1,070 and 1,210 thousand starts, a range we do not expect to break away from until the second half of 2016.

The market for existing single-family homes is suffering from lack of inventory, which is constraining sales in several markets. During 2015, the single-family market months' supply readings lagged their year-prior values by as much as 0.4 months—a markedly lower inventory reading. In February–March of this year, inventory appears to have stopped receding, with months' supply almost on par with 2015 levels. Significant further increases either in inventory of existing homes or new home completions are likely to be required for home price inflation to moderate.

Sizable January jumps in the CPI excluding food and energy (core CPI) and the core Personal Consumption Expenditure (PCE) price deflator were not followed up with strong increases in February–March. In fact, March core inflation readings were very weak, suggesting that a significant acceleration of core inflation remains elusive. With food prices down slightly in the first quarter but projected to grow slowly, oil price dynamics are still driving most of the movement of broad-based inflation measures. So far this quarter, oil prices are up considerably, and we project them to creep up further, suggesting that the all-item inflation rate is likely to outpace core inflation in the near term.

Next, we discuss policy assumptions and other key inputs that underlie our current forecast.

## Monetary Policy

At its most recent meeting, in April 2016, the Federal Reserve maintained the target range for the federal funds rate at 25–50 basis points, where it has stood since December 2015. Notably, the statement released by the Federal Open Market Committee (FOMC) after the meeting did not describe the risks to the economic outlook as "nearly balanced," language that preceded the previous interest rate hike. The statement noted the continued improvement in the labor market, but also referenced the slowdown in economic growth and, notably, the shortfall of inflation relative to the Federal Reserve's target. Our interpretation of the statement and the incoming data is that they virtually preclude an increase in the target range at the Committee's next meeting in June. We currently forecast that the Federal Reserve will next raise the funds rate after its September meeting, to a range of 50–75 basis

points. Consistent with our forecast, we project the Fed to increase the target funds range by roughly 25 basis points every six months thereafter, through the end of 2017.

As of the writing of this report, financial markets are projecting an even slower increase in the federal funds rate, assigning a probability of just over one-third that the Fed will raise rates in September. We believe the Fed will raise rates more aggressively than financial markets currently indicate for two main reasons. First, we forecast a rebound in economic growth in the remainder of 2016, with inflation slowly rising in the second half of the year. Second, Federal Reserve officials themselves have stated that they believe the market is underestimating the likely pace of increases. Eric Rosengren, President of the Federal Reserve Bank of Boston, and a noted "monetary dove," recently said:

> While I believe that gradual federal funds rate increases are absolutely appropriate, I do not see that the risks are so elevated, nor the outlook so pessimistic, as to justify the exceptionally shallow interest rate path currently reflected in financial futures markets.

Our path for the federal funds rate, while steeper than the path implied by financial markets, remains significantly shallower than the path in the Federal Reserve's most recent Summary of Economic Projections from March, which called for two 25 basis point rate increases in 2016 and four more in 2017. Although the Federal Reserve has tended to move in the direction of financial market expectations since the most recent recession, we believe that at this point, the Fed and the markets are likely to meet somewhere in the middle.

The Fed's dual mandate requires it to balance labor market conditions with inflationary pressures. While inflation has run stubbornly below the Fed's target of 2 percent, the labor market continues to improve, albeit more slowly than in 2014 and 2015. Importantly, we believe labor market tightening is beginning to translate into upward pressure on wages, which might eventually support core inflation. We also expect the downward pressure on inflation from the recently-concluded decline in oil prices and the appreciation of the dollar to abate, and potentially even reverse, over the coming quarters.

The small uptick in the headline unemployment rate between January and April obscures improvement along some other dimensions in the labor market. The labor force participation rate rose 0.2 percentage points from December 2015 to April 2016. The U-6 unemployment rate, a broad measure that includes the unemployed as well as persons marginally attached to the labor force and those employed part-time for economic reasons, fell 0.2 percentage points in that time, a slower pace than in the recent past, but still welcome progress. Average hourly earnings grew 2.5 percent year-over-year in April, up slightly from the last two readings. Finally, the March job vacancy rate remains at a record high of 3.9 percent, while the rate of voluntary quits continues to trend upwards. These measures lead us to believe that the labor market recovery remains on track despite the slightly disappointing net addition of 160,000 payroll jobs in April and the headline unemployment rate's failure to decline further.

Overall, inflation expectations seem to have firmed modestly during the spring, even as actual inflation has slipped. Core inflation in the Personal Consumption Expenditure (PCE) price deflator, the Fed's price index of choice, ticked down from 1.7 percent year-over-year in January and February to 1.6 percent in March. Headline PCE inflation fell further, from 1.3 percent in January to 1.0 percent in February and 0.8 percent in March. However, the breakeven inflation rate on 5-year Treasury Inflation-Protected Securities rose to 1.5 percent in April from 1.1 percent in February, suggesting firmer inflation expectations for the future. The University of Michigan's Survey of Consumers indicates that consumers' expectations of inflation for the next five years edged up to 2.6 percent in April, up slightly from the historical low of 2.5 percent in March.

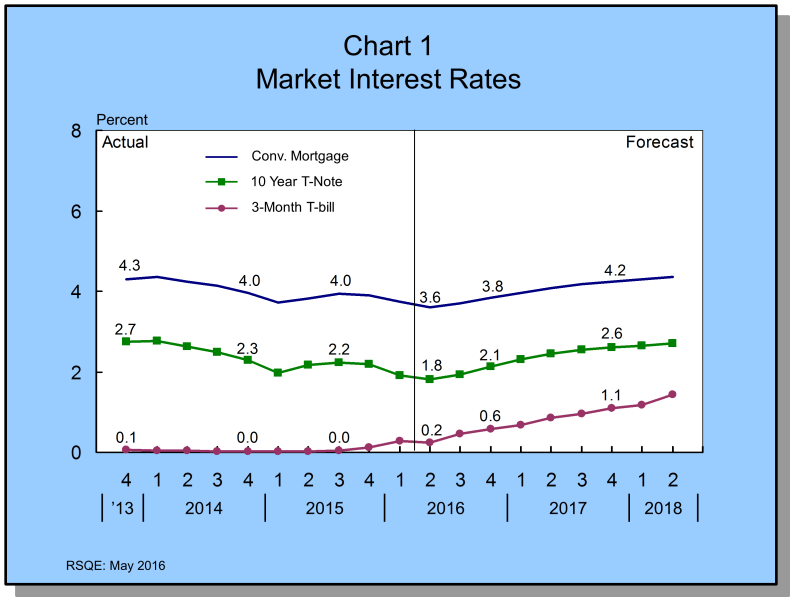



Chart 1 shows our projections for selected key interest rates. The 3-month Treasury bill rate is projected to closely follow the federal funds rate during our

forecast horizon, rising from 0.2 percent in the first quarter of 2016 to 0.6 percent by yearend and 1.1 percent by the end of 2017. The 10-year Treasury bond yield is projected to rise from 1.8 percent in the second quarter of this year to 2.1 percent in the fourth quarter, and to climb to 2.6 percent at the end of 2017. We expect the spread between the 30-year conventional mortgage rate and the 10-year Treasury bond yield to decline from 1.8 percent in the second quarter of this year toward 1.6 percent at the end of 2017. Accordingly, mortgage rates are predicted to rise from 3.6 percent to 4.2 percent in that time.

## Fiscal Policy

With national political attention focused on the presidential campaign, a handful of appropriations bills have quietly made their way through Congress. In April, the Senate passed the Energy Policy Modernization Act and bills reauthorizing the Federal Aviation Administration and the Older Americans Act. These do not constitute significant changes in fiscal policy, but they do involve substantial outlays. We take these bills as examples of low-profile progress along the current fiscal path negotiated between President Obama and then-Speaker Boehner in October 2015, then affirmed by Speaker Ryan in December. Other federal spending will need to be reauthorized for fiscal 2017, and we expect it will be done without much drama. We do not anticipate progress with the proposals in the President's Fiscal Year 2017 budget or with fiscal changes suggested by Republicans in Congress.

We expect the current fiscal stability to persist as long as Republicans control the House of Representatives and there is a Democrat in the White House. Looking further ahead, we think divided government is a likely outcome of the elections in November 2016. With divided government, neither party has the ability to implement its preferred major fiscal reforms. Thus, the short-run fiscal stability could easily be extended, although the threat of brinkmanship and shutdowns will rise after the elections.

The ACA rollout, and its impact on the federal budget, is mostly complete, but federal spending on health care remains a source of uncertainty for several reasons. First, Congress has delayed or paused implementation of particular provisions in ACA such as the so-called Cadillac tax. We expect

that these "delays" will persist beyond our forecast horizon and may even become permanent. Second, the remaining presidential candidates have all stated that they would want to make changes to ACA. These are subject to the usual caveats about campaign promises and presidential agenda-setting, but they are worth noting. Third, we do not know how quickly medical service prices will rise in the coming years. We expect growth in medical prices to remain below 2 percent, but it is possible that the current slowdown has been transitory and growth will resume pre-2010 rates closer to 3 percent.

Table 1 presents data and projections on a National Income and Product Accounts (NIPA) basis for the federal budget. Federal receipts are expected to grow by 3.9 percent in fiscal 2016. With sustained growth in nominal output, tax receipts will also support revenue growth of 4.7 percent in 2017 and 5.8 percent in 2018. We project federal receipts rising from 19 percent of GDP in fiscal 2015 to 19.6 percent in fiscal 2018.

**Table 1**
**Federal Budget, NIPA Basis**
**(Billions of Dollars)**

| | | Forecast | | |
|---|---|---|---|---|
| | FY '15 | FY '16 | FY '17 | FY '18 |
| Current receipts | 3390.2 | 3521.4 | 3686.9 | 3900.0 |
| % change | 4.2 | 3.9 | 4.7 | 5.8 |
| Current expenditures | 3988.2 | 4117.9 | 4278.9 | 4475.7 |
| % change | 3.2 | 3.3 | 3.9 | 4.6 |
| Consumption | 956.1 | 970.8 | 995.7 | 1027.6 |
| % change | 0.1 | 1.5 | 2.6 | 3.2 |
| Transfer payments | 2537.0 | 2637.8 | 2748.4 | 2875.4 |
| % change | 5.2 | 4.0 | 4.2 | 4.6 |
| Surplus (+) or deficit (-) | -598.0 | -596.6 | -592.0 | -575.6 |
| Percent of GDP | -3.4 | -3.3 | -3.1 | -2.9 |

RSQE: May 2016

Federal current expenditures on a NIPA basis are expected to grow by 3.3 percent in fiscal 2016. Although defense consumption remains essentially unchanged, nondefense consumption increases, and transfer payments grow 4 percent relative to fiscal 2015. The retirement of baby boomers has contributed to growth in transfer payments in recent years above growth in expenditures as a whole, a trend we see continuing through the end of our forecast. Transfers are expected to grow by 4.2 percent in fiscal 2017 and 4.6 percent in fiscal 2018.

With revenue growth outpacing expenditure growth, the federal deficit as a percent of GDP will decline by one or two tenths of a percentage point per year over our forecast, from 3.4 percent in fiscal 2015 to 2.9 percent in fiscal 2018.

## Housing Prices

The housing sector continues to improve. Low inventory of homes for sale, combined with an increase in household formation, continue to prop up home prices in the near term. We expect house price appreciation to moderate over our forecast horizon as interest rates rise.

Our preferred measure of house prices—the national seasonally-adjusted S&P/Case-Shiller index—grew by 4.7 percent in nominal terms and 4.6 percent in real terms in 2015. In January and February, the latest months for which we have data, the value of the index increased by 5.3 percent in nominal terms and 4.1 percent in real terms, on a year-over-year basis. To put these numbers in context, the real value of the S&P/Case-Shiller Index rose by 1.6 percent per year over the 1975–2003 pre-housing-bubble period. During the peak "bubble years" of 2004–06, the average growth rate in the real value of the index was approximately 7.5 percent. In real terms, since 2013 the annual growth in housing prices has been far above its long-term average of 1.6 percent, a trend we see moderating but continuing over our forecast horizon.

Another measure of house prices we watch is the Federal Housing Finance Agency's price index, which includes home sales price data for mortgages that are sold to or guaranteed by Fannie Mae and Freddie Mac. The index rose by 5.7 percent in 2015, and is currently averaging 5.8 percent year-over-year for the first two months of 2016. The first quarter of 2016 is on track to be the seventeenth consecutive quarter in which this price index has exceeded its level from a year prior. Both the FHFA and the S&P/Case-Shiller indexes indicate robust gains in house prices.

Supply in the housing market remains relatively tight. The pre-housing-bubble period average of months' supply—the ratio of houses listed for sale to monthly sales volume—in the new single-family home market is just under six months; this measure averaged 5.7 months in the first quarter and is projected to fall slowly to 5.5 months by the end of our forecast horizon. The National Association of Realtors seasonally-adjusted months' supply measure for existing homes averaged 4.6 months for the first quarter of this year, down from the 4.8 months average for 2015. Although both measures point to tightness in housing markets, the March reading for seasonally-adjusted months' supply for existing

homes increased, hinting at a possible upturn in inventory. Nevertheless, we expect brisk house price appreciation in the near term.

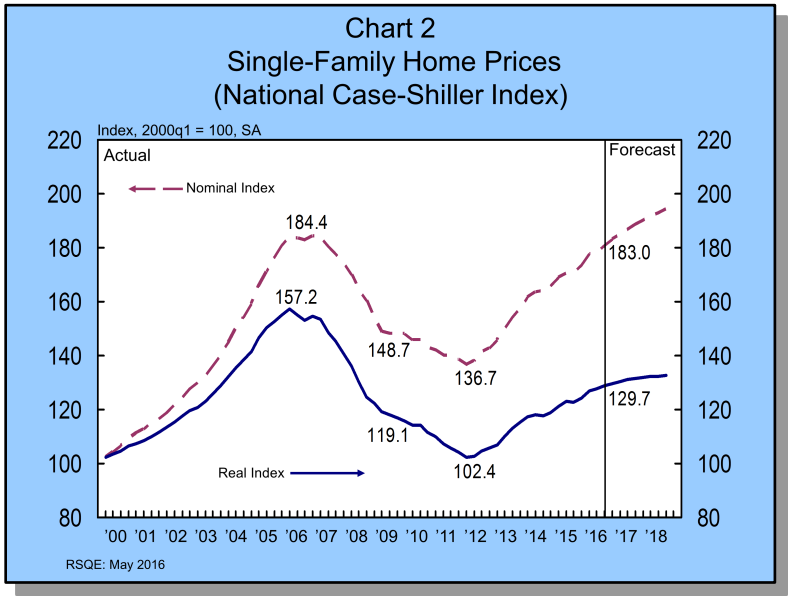



Chart 2 shows the historical and forecast paths of the level of the seasonally adjusted national S&P/Case-Shiller home price index on both a nominal and real basis (deflated by the seasonally adjusted consumer price index). The real value of the index is projected to increase by 3.9 percent in 2016 but decelerate to 2 percent appreciation in 2017, as mortgage rates increase. We expect nominal home prices to increase by 5 percent in 2016 and 4 percent in 2017.

## Oil Prices

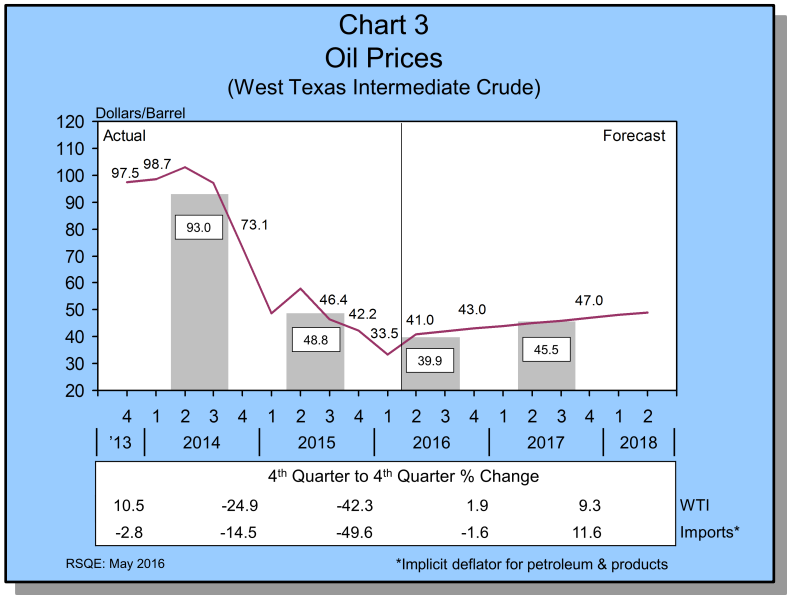
After reaching lows in January and February last seen in 2003, crude prices have trended upwards this spring. The west Texas intermediate (WTI) benchmark has traded above 40 dollars per barrel since mid-April and more recently in the mid-40s, while Brent crude has averaged a 1-dollar-per-barrel premium during that same horizon. Some supply disruptions, including a wildfire in Alberta and a weaker dollar may have contributed to the recent rally, but near- and medium-term fundamentals continue to weigh against rapid appreciation of crude prices.

Excess production above consumption has characterized the global crude market since 2014, coinciding with an unprecedented non-recessionary fall in crude prices. In spite of a relatively bullish price forecast, the U.S. Energy Information Administration forecasts that this global supply glut will continue until at least mid-2017, while leading to continued inventory builds at a rate of 1 million barrels per day (mbd) during 2016. The International Energy Agency (IEA) is slightly more bullish about oil demand, predicting an imbalance of only 0.2 mbd by the end of the year. Nevertheless, sluggish world growth, gradual decarbonization of developed economies, and inventories that continue to rise in the

near term even in bullish scenarios all point to short-term weakness in oil prices and modest increases thereafter.

Domestically, demand for liquid fuels and other petroleum-based products has expanded quite rapidly. Consumption of motor fuel grew by 1.9 percent in 2015 and is on pace to exceed that growth rate in 2016. Meanwhile, domestic crude production has been declining for just over a year and currently sits slightly under 9 mbd; the EIA forecasts average production for 2016 to come in at about 8.6 mbd. As a result, U.S. inventories have crested and are set to begin to decline in the second half of 2016. WTI prices reflect the rising demand for crude combined with lower domestic supply, shrinking the Brent-WTI spread to under 2 dollars per barrel. We foresee this development as an enduring feature of the crude market going forward.

The continuing inventory overhang, combined with a difficult short- and medium-term environment to rebalance supply and demand, imply that global crude prices should stay low throughout our forecast horizon. Chart 3 shows our projected path for the price of WTI on both a quarterly and calendar-year basis. The 2016q2 quarterly average price, at 41 dollars per barrel, is slightly below current (elevated) prices as supply disruptions are expected to be resolved. From there, WTI prices slowly increase throughout the rest of the forecast, as global imbalances gradually unwind. WTI reaches 47 dollars per barrel at the end of 2017.

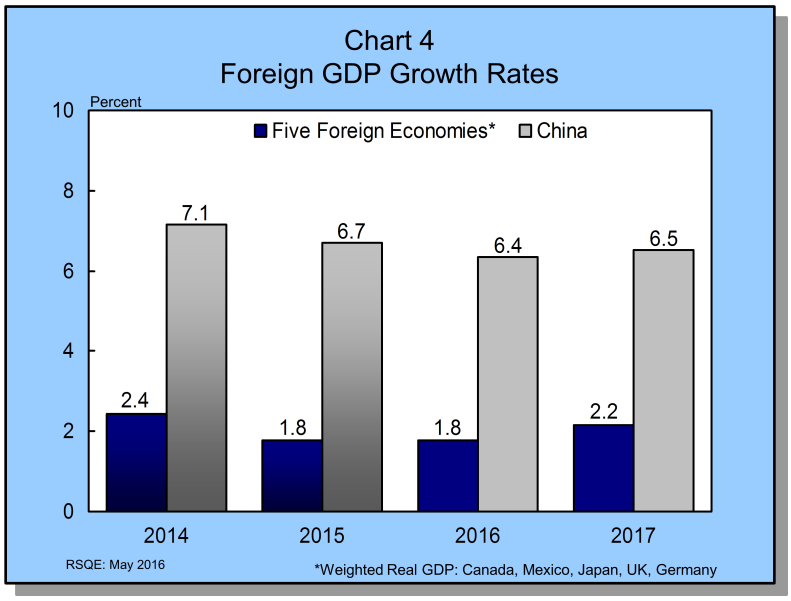



Imported oil prices, which factor heavily into gasoline prices for domestic consumers, decline by 1.6 percent during 2016 after a fall of 49.6 percent during 2015. The cumulative effect of this more rapid decline relative to WTI coincides with the aforementioned narrowing of the Brent-WTI spread.

Imported oil prices increase by 11.6 percent during 2017, roughly in line with expected WTI appreciation.

## Rest-of-World Growth

To gauge demand for U.S. exports, we construct and track a trade-weighted index of real GDP for six of our major export markets: Canada, Mexico, China, Japan, the United Kingdom, and Germany. Chart 4 summarizes the recent history and projections for GDP growth abroad. China's growth has slowed but it remains by far the fastest-growing economy of the six, so it is presented separately from the five other economies in the chart.




During 2015, slowing global growth drove broad-based declines in commodity prices and sent ripples through global stock and bond markets. In 2015, the five countries' composite GDP growth posted its weakest reading since 2009. Canada is the only country in our index for which we project acceleration of growth, so 2016 does not promise a quick turnaround.

Over the past few months, severe concerns about Chinese near-term growth have subsided. The reported first-quarter growth is on track to meet the official 2016 growth target of 6.5 percent to 7 percent. New credit, fixed investment, and retail sales were the main drivers of growth in the first quarter. There are concerns, however, that growth during the recent quarter was mostly a result of easy money and a return to the old ways of boosting growth through fixed investment, which are believed to be unsustainable in the long run. Inflation remains very tame, leaving the People's Bank of China with plenty of room for more monetary stimulus in the near term. Nevertheless, the overall trend of slowing growth is likely to continue. Hence, we expect the Chinese economy to expand by 6.4 percent this year, just below the official target range. In 2017, GDP growth is projected to remain

virtually the same, as recovering world growth helps to temporarily halt the deceleration of the Chinese economy.

Since raising the sales tax rate in the second quarter of 2014, Japan has struggled to gain any economic momentum. The second sales tax hike is now looming, currently scheduled for early 2017. At the moment, Prime Minister Abe is holding firm on the scheduled 2017 sales tax hike; hence, we expect it to go through, preventing economic growth from improving in 2017. The Bank of Japan (BoJ) disappointed some observers in late April by declining to announce a new monetary stimulus, as the bank appeared content to wait on fiscal policymakers to move first. At the same time, the BoJ lowered its estimates of potential GDP growth from 0.5 percent to a 0–0.5 percent range. We expect GDP growth in Japan to stay around 0.4–0.5 percent in 2016–17.

This April, Eurostat, the European Commission's statistical agency, began to publish a preliminary GDP growth reading for the euro area on a synchronized schedule with the American GDP release, roughly 30 days after the end of each quarter. The first preliminary euro-area growth report suggested that the 19-country aggregate grew at a 0.6 percent quarterly rate and improved by 1.6 percent year over year. Country detail, still being released one and a half months after the end of the quarter, showed German growth in the first quarter at 2.7 percent at an annual rate, double the rate of expansion late in 2015. First quarter real GDP growth received a sizable boost from consumer spending and government expenditures, likely reflecting a temporary acceleration due to one million refugees being accommodated over the past several months. These growth effects are likely to dissipate later in the year. In 2016, we expect German growth to stay on par with 2015 at 1.4 percent. In 2017, we expect a modest acceleration to 1.6 percent.

Economic growth in the United Kingdom slowed to a 1.6 percent pace in the first quarter of 2016, as solid growth in the services sector did not fully offset the slowdown in the production, construction, and agriculture sectors. Sluggish growth is expected to linger in the near term, especially as some uncertainty about "Brexit"—the upcoming vote on the proposal to leave the European Union,

which we ultimately expect to be rejected—may be delaying investment projects. Annual growth in 2016 is projected at around 2.0 percent, before improving slightly in 2017.

A very preliminary estimate of first-quarter growth released by the Mexican statistical agency showed expansion of 2.7 percent year-over-year, slightly ahead of expectations. Recent data suggest that moderate growth is likely to continue, with retail sales accelerating and offsetting falling net exports. Job growth remains solid, and the index of industrial manufacturing production is still going strong, in an apparent disconnect from manufacturing sector fortunes north of the border. At 2.4 percent, the 2016 annual growth reading is expected to be roughly on par with 2015. In 2017, growth in Mexico is projected to accelerate by a few tenths of a percentage point.

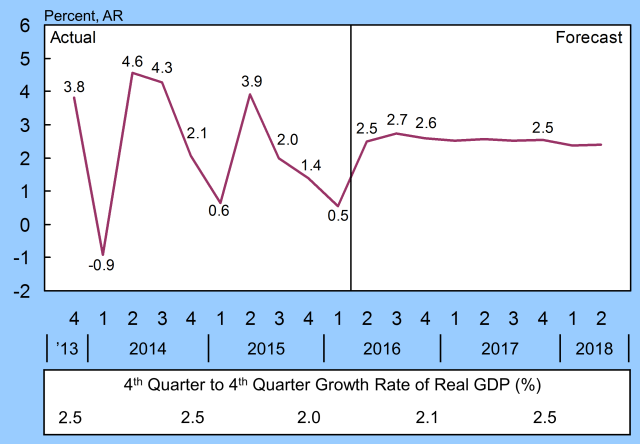
Canadian monthly GDP readings for January and February suggest a solid expansion in the first quarter. Strong domestic retail demand offset declines in net exports, brought about by weak growth in the United States. Activity in Canada's struggling energy sector declined again in February, but the turnaround in oil prices since then is likely to energize this sector and help economic growth later in the year. Overall, the Canadian economy is well-positioned to maintain moderate growth for the rest of 2016, helped by a pick-up in U.S. growth, a still-weak Canadian dollar, and modest fiscal stimulus embedded in the new federal budget. We expect annual growth in Canada to rebound from 1.2 percent in 2015 to 1.6 percent this year, and to exceed 2 percent in 2017.

The five-economy trade-weighted GDP growth rate is projected to stay muted in 2016, at 1.8 percent. In 2017, the five-economy growth rate recovers to average 2.2 percent.

# The Forecast for 2016–2017

There was a spectacular collapse of investment in oil and gas exploration in the first quarter of 2016. Temporarily low light vehicle sales and an inventory drawdown also contributed to slow real GDP growth, with the combined drag from these three effects explaining the bulk of the low first-quarter growth. Abnormally warm weather this winter likely had no significant impact on GDP. With oil prices growing again, we expect the oil-related drag on non-residential fixed investment to dissipate by the second half of 2016. Even with private investment contributing negatively to growth until then, output growth during 2016 is projected to slightly outpace that of 2015, as headwinds from the rest of the world diminish. Plateauing light vehicle sales imply that the average 0.2 percentage points' GDP growth contribution from the vehicle sector during 2010–15 will vanish.

Chart 5
Growth Rate of Real GDP




RSQE: May 2016

- Temporary events caused weakness in the first quarter for the third year in a row.
- Weak light vehicle sales, an inventory correction, and a 21 percent dive in oil and gas exploration investment are behind the slowdown in 2016q1.
- Over the forecast, quarterly growth quickly settles around the 2.5–2.7 percent range.
- On an annual basis, growth during 2016 is projected to average 1.9 percent, down from 2.4 percent in 2015. In 2017, annual growth rebounds to 2.6 percent
- On a Q4-to-Q4 basis, growth during 2016 is about on par with 2015, but weaker than during 2013–14. We do not project a first-quarter slowdown in 2017, so Q4-to-Q4 growth for 2017 improves to 2.5 percent.

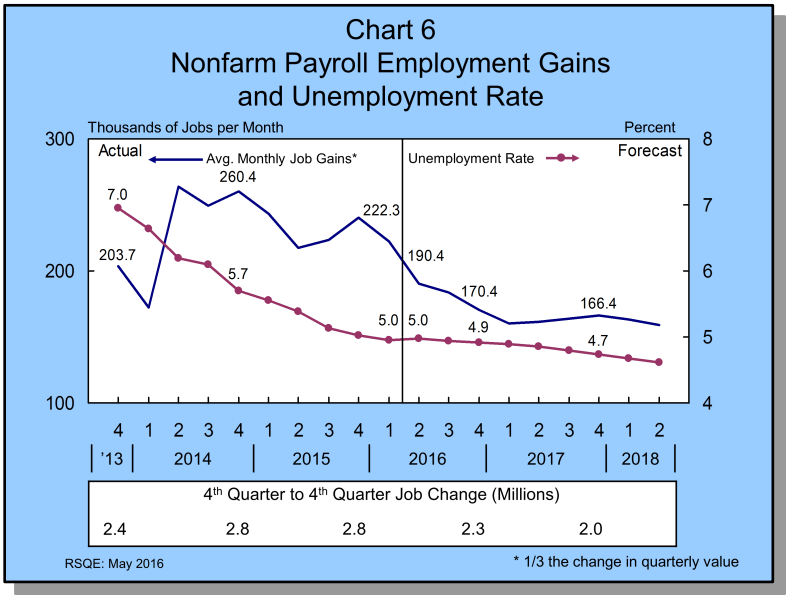
**Table 2**
**Contributions to the Growth of Real GDP**
**(Average quarterly contributions, percentage points at annual rate)**

| | '15 | '16q1 | '16q2 | '16h2 | '17 |
|---|---|---|---|---|---|
| Real GDP (% change, AR) | 2.0 | 0.5 | 2.5 | 2.7 | 2.5 |
| Contributions to real GDP growth | | | | | |
| Final sales to domestic purchasers | 2.5 | 1.2 | 2.8 | 2.7 | 2.8 |
| Consumption | 1.8 | 1.3 | 2.2 | 1.7 | 1.8 |
| Nonresidential fixed investment | 0.2 | -0.8 | 0.0 | 0.4 | 0.4 |
| Residential investment | 0.3 | 0.5 | 0.3 | 0.3 | 0.3 |
| Government purchases | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 |
| Net Exports | -0.6 | -0.3 | 0.2 | -0.2 | -0.3 |
| Inventory investment | 0.0 | -0.3 | -0.5 | 0.1 | 0.0 |

RSQE: May 2016

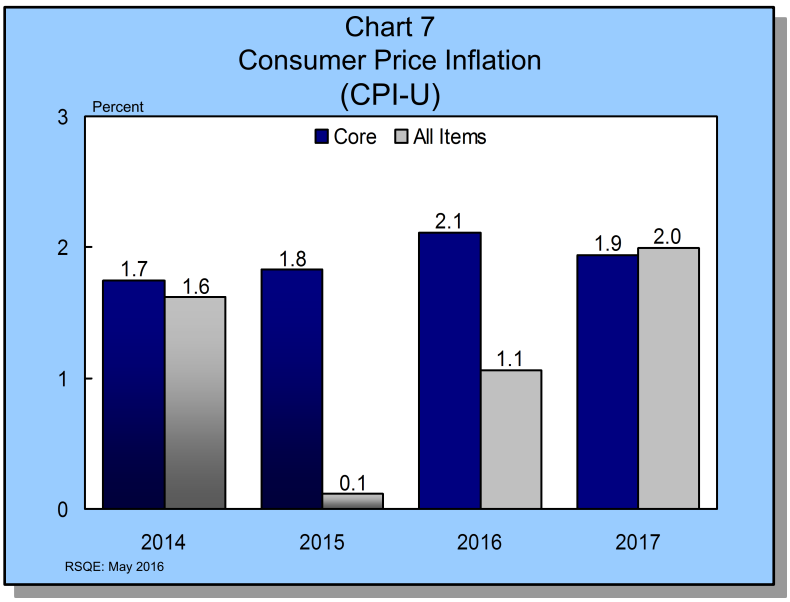
- Consumption expenditures contribute 1.7–1.8 percentage points to growth, except in 16q2 when they are boosted by a rebound in light vehicle sales.
- Residential investment supplies a steady contribution to GDP growth, while nonresidential fixed investment takes until the second half of 2016 to add to growth.
- Both federal and state and local government spending contribute positively to GDP in all forecast quarters.
- Starting in 16q3, net exports subtract 0.2–0.3 percentage points from growth.
- Inventory correction is a drag on growth in the first half of 2016.

At 160,000 jobs, nonfarm payroll employment gains in April were far below market expectations. While these gains are low by historical standards, given demographic trends in labor-force participation rates and population, the economy currently needs only around 120,000 jobs per month to maintain a low and stable unemployment rate. We expect the labor-force participation rate to stay near its current level of 62.8–62.9 percent over our forecast horizon, as a tighter labor market continues to draw some people back into the labor force.



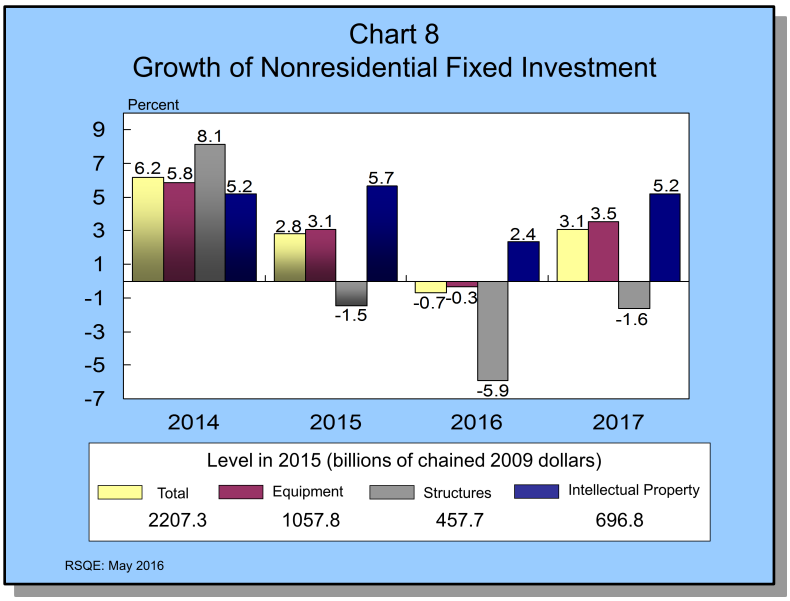

- Employment gains are expected to slow down over 2016, falling from 190,000 jobs per month during 2016q2 to 170,000 jobs in 2016q4. Overall the economy is projected to add 2.3 million jobs during 2016.
- As labor markets tighten and wage growth accelerates, we project employment growth to slow. We expect a slower monthly pace of job gains of 160,000–165,000 per month and the addition of 2.0 million jobs during 2017.
- The unemployment rate is projected to continue decreasing at a slow pace, going from its current level of 5.0 percent to 4.7 percent at the end of 2017.

There is still slack in the economy, allowing inflationary pressures to remain muted. Capacity utilization is currently at 74.8 percent, which is more than 5 percentage points below its historical long run average. The current unemployment rate remains above the Congressional Budget Office's 4.8 percent estimate of the natural rate of unemployment, suggesting that labor market conditions are unlikely to boost inflation in the very near term. As capacity utilization measures increase and the unemployment rate falls, we anticipate inflation will begin to rise moderately.



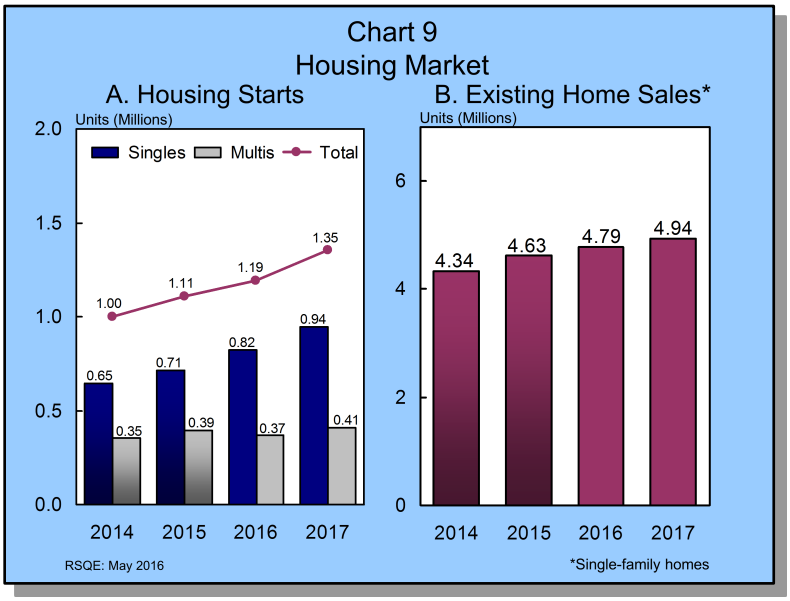

- We expect core CPI inflation to accelerate to 2.1 percent in 2016, but retreat slightly in 2017 to 1.9 percent.
- Headline CPI inflation plummeted in 2015 largely on account of falling commodity prices and the appreciating dollar. As these effects dissipate, we expect headline inflation to pass core inflation in 2017.
- We expect oil prices to increase slowly during our forecast, which helps headline inflation increase to 1.1 percent in 2016 and 2.0 percent in 2017.

Movements in oil-related investment dominate our investment chart for 2015–16. Since the end of 2014, dramatically lower oil prices led to a 75 percent collapse in investment in oil and gas exploration, wiping $100 billion off real GDP in the process, and that is not all. Several equipment categories that benefitted from the shale boom, such as investment in railcars, oilfield and mining machinery, and heavy trucks, also declined considerably during 2015 and early 2016, lowering equipment investment growth. With oil prices rising, we expect the oil-related drag to end soon.



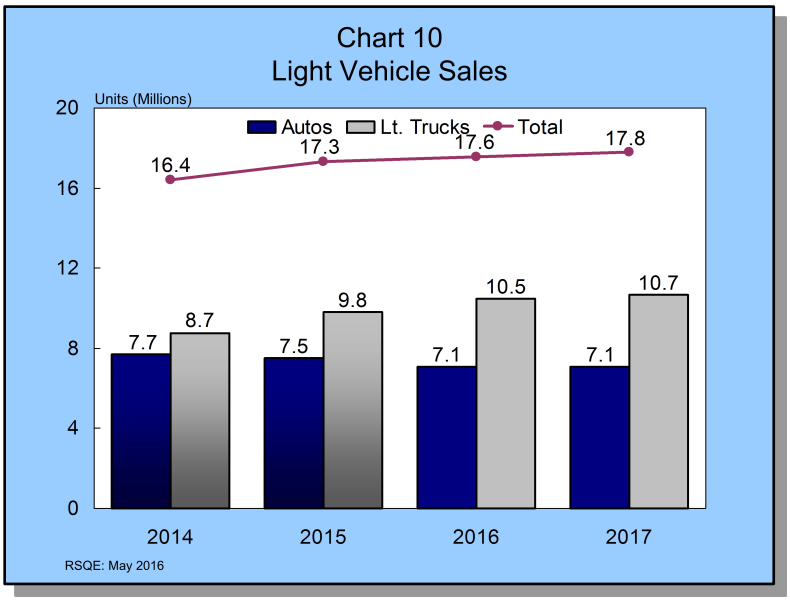

- This year is projected to be weak for non-residential fixed investment, with equipment investment falling by 0.3 percent, investment in structures falling by 5.9 percent. Intellectual property investment grows by 2.4 percent, limiting the decline of the total to only 0.7 percent.
- Total nonresidential fixed investment grows by 3.1 percent in 2017, as all major sub-components pick up the pace.
- Intellectual property investment is the only category that grows throughout the forecast.

Low mortgage rates have helped the recovery in housing markets that began in 2010. We expect mortgage rates to begin rising in 2016 and continue in 2017. The downward pressure exerted by rising rates on new and existing home sales is likely to be counteracted by stronger demand due to faster household formation. Overall, we expect residential construction to remain robust over our forecast horizon. Relative to 2014 and 2015, we anticipate an acceleration of growth in investment and starts for single-family homes and a slight deceleration for multi-family homes.



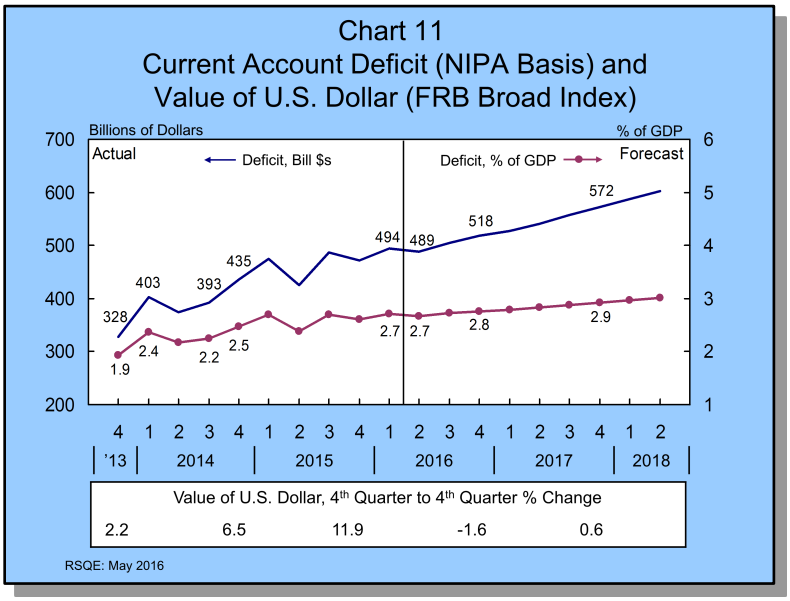

- Annual housing starts grow from 1.11 million in 2015 to 1.19 million in 2016 and 1.35 million in 2017.
- We project growth in single-family housing starts to continue, with the level of starts increasing from 820,000 units in 2016 to 940,000 units in 2017.
- We expect a slight slowdown in the multi-family housing sector in 2016. Average annual multi-family housing starts decrease to 370,000 units in 2016 and then pick up to 410,000 units in 2017.
- The existing single-family home market grows at a steady pace over our forecast horizon, with sales projected to increase to 4.79 million units in 2016 and 4.94 million units in 2017.

We believe that light vehicle sales remain on track to break the all-time record in 2016, despite a relatively soft first four months of the year in which the sales pace averaged 17.2 million units per year. We expect the sales pace to ramp back up to 17.8 million by mid-summer but then to stay essentially flat through the rest of the forecast. The truck share of light vehicle sales, which includes CUVs and SUVS, rose briskly in those four months, crossing the 60-percent level in April. We expect the light truck share growth to decelerate as gas prices continue to rebound.




- We project light vehicle sales to total 17.6 million units in 2016, rising to 17.8 million units in 2017.
- Auto sales decline by 400,000 units in 2016 relative to 2015, but truck sales rise by more than 600,000 units. Auto sales stay flat in 2017 while truck sales gain another 200,000 units.
- We foresee an average truck share of 59.6 percent in 2016 and 60.1 percent in 2017.
- The share of foreign-made vehicles declines slightly over our forecast period, as a declining share of truck imports more than offsets a rising share of auto imports.

The domestic trade balance has worsened in the past two years, reversing its earlier, post-recessionary improvement. This widening deficit coincided with and was at least in part caused by a significant dollar appreciation. Another noteworthy development: a significant deceleration in growth of exports and imports outside of a recession, with exports projected to fall this year. A slowdown in global growth and the associated intermediate goods trade is likely behind this development. Slowing domestic oil production is likely to widen our oil trade deficit, a reversal of the recent trend.




- In 2016–17, a pickup in imports will drive the current account deficit from $489 billion in the current quarter to $572 billion by the end of 2017.
- As a share of GDP, the current account deficit climbs from 2.7 percent in the current quarter to 2.9 percent by the end of 2017.
- During the second half of 2016 the dollar gives back some more of its earlier gains, representing a 1.6 percent decrease year over year. From there it is projected to appreciate slightly as continued domestic expansion boosts interest rates.

## Risks to the Forecast

Our forecast relies on many uncertainties that affect macroeconomic variables. We must weigh more likely outcomes against lower-probability events, the most prominent of which are included as the major risks to our forecast:

Fears over China's rate of deceleration have been somewhat assuaged by recent strength in exports and vehicle sales. The first quarter of the year saw China on track to meet its relatively modest 6.5–7 percent target for 2016. A stall later this year, however, could pressure its currency and further distort the existing trade imbalance between it and the United States, as well as cause further swings in global commodity prices.

The 2016 national elections constitute a medium-term risk to our forecast, both for government spending and for taxes. A deviation in either direction from divided governance could dramatically alter the path of outlays from our current projection, which assumes that the growth in federal expenditures will accelerate gradually and that existing tax law for the most part remains in operation. In addition, a wave election could either boost much-needed state and local infrastructure spending beyond our projections or slow the pace of loosening government purse strings.

The federal funds futures market illustrates the considerable uncertainty about the timing (and pace) of near-term hikes to the policy rate. Our forecast, which assumes a September hike followed by subsequent hikes at a rate of 25 basis points every six months, risks understating the FOMC's timing. An unexpected increase in inflation could cause the Fed to be more aggressive than our forecast, lowering output growth below our projection. Continued economic weakness, however, might force the Fed to hold off until December or later for its next hike and then to move even more slowly than we forecast.

Recent production outages have boosted crude oil prices, but excess global supply continues to plague the crude oil market. The ability of oil producers to manage this challenge is uncertain, and presents both an upward and downward risk to our forecast. If production comes back on line and Iran

continues to increase output, prices could revert to their earlier lows, benefitting consumers at the pump while further hurting domestic production.

The El Niño this year depressed utility consumption and may have temporarily boosted residential and nonresidential construction, which were strong in the beginning of the year. This event masks short-term signals of the pace of economic expansion, leading to a lower confidence level in the near-term outlook.

Constant Adjustments in the RSQE Forecast for 2016–2017

The following adjustments have been used to correct for level drift and/or start-up error:

| | |
|---|---|
| A.AUTOSD | New Car Sales, Domestic |
| A.CDFRN0 | Personal Consumption Expenditures, Furniture |
| A.CDHE09 | Personal Consumption Expenditures, Other Household Equipment |
| A.CDO09 | Personal Consumption Expenditures, Other Durable Goods |
| A.CDREC0 | Personal Consumption Expenditures, Recreational Goods and Vehicles |
| A.CDVO09 | Personal Consumption Expenditures, Motor Vehicles and Parts except New Vehicles |
| A.CNCS09 | Personal Consumption Expenditures, Clothing and Footwear |
| A.CNFC09 | Personal Consumption Expenditures, Fuel Oil and Coal |
| A.CNFD09 | Personal Consumption Expenditures, Food |
| A.CNGO09 | Personal Consumption Expenditures, Gasoline and Oil |
| A.CNO09 | Personal Consumption Expenditures, Other Nondurable Goods |
| A.CSEG09 | Personal Consumption Expenditures, Electricity and Gas Services |
| A.CSO09 | Personal Consumption Expenditures, Other Services |
| A.CURR | Currency |
| A.EMP | Payroll Employment |
| A.EMPHH | Employment, Household Survey |
| A.GDPRW4 | Index of Real GDP, weighted average of Canada, Japan, the United Kingdom, and Germany |
| A.GDPRW5 | Index of Real GDP, weighted average of Canada, Mexico, Japan, the United Kingdom, and Germany |
| A.GDPRW6 | Index of Real GDP, weighted average of Canada, Mexico, China, Japan, the United Kingdom, and Germany |
| A.GINTF | Net interest paid by federal government |
| A.HOUSEX | Existing Single-Family Home Sales |
| A.HSMULT | Multi-Unit Housing Starts |
| A.HSSING | Single-Unit Housing Starts |
| A.IBFID0 | Investment in Intellectual Property Products |
| A.IBFNC0 | Investment in Nonresidential Construction |
| A.IINVO0 | Change in Nonfarm Business Inventories except New Autos and New Trucks |
| A.INCWM0 | Nonresidential Fixed Investment; Mining Exploration, Shafts, and Wells |
| A.IPDIE0 | Investment in Equipment, Industrial Equipment |
| A.IPDOE0 | Investment in Equipment, Other Equipment |
| A.IRCM09 | Residential Construction, Multi-Family Structures |
| A.IRCOS0 | Residential Construction, Other Structures |
| A.IRCS09 | Residential Construction, Single-Unit Structures |
| A.JCAPTO | Index of Industrial Capacity |
| A.JCLH | Compensation per Hour, Private Nonfarm Sector |
| A.JEXRB | Broad Index of the Exchange Value of the Dollar |
| A.JIPTOT | Index of Industrial Production |
| A.JQLH | Output per Hour, Private Nonfarm Sector |
| A.KCAG | Consumption of Government Fixed Capital |
| A.LF | Civilian Labor Force |
| A.M1 | Money Stock, M1 |
| A.M2 | Money Stock, M2 |
| A.MAUTO0 | Imports of New Autos |
| A.MGNOIL | Imports of Goods excluding Petroleum |
| A.MS09 | Imports of Services |
| A.MTRK09 | Imports of New Trucks |
| A.NEWSAL | New Single-Family Homes for Sale |
| A.NEWSOL | New Single-Family Homes Sold |
| A.PCDFRN | Personal Consumption Expenditures (Furniture) Deflator |
| A.PCDHE | Personal Consumption Expenditures (Household Equipment) Deflator |
| A.PCDO | Personal Consumption Expenditures (Other Durable Goods) Deflator |
| A.PCDREC | Personal Consumption Expenditures (Recreational Goods and Vehicles) Deflator |
| A.PCDVO | Personal Consumption Expenditures (Motor Vehicles and Parts except New Vehicles) Deflator |
| A.PCNCS | Personal Consumption Expenditures (Clothing and Footwear) Deflator |
| A.PCNFC | Personal Consumption Expenditures (Fuel Oil and Coal) Deflator |
| A.PCNFD | Personal Consumption Expenditures (Food) Deflator |
| A.PCNGO | Personal Consumption Expenditures (Gasoline and Oil) Deflator |
| A.PCNO | Personal Consumption Expenditures (Other Nondurable Goods) Deflator |
| A.PCPICO | Consumer Price Index, All Items less Food and Energy |
| A.PCPISA | Consumer Price Index, All Items, SA |

| | |
|---|---|
| A.PCROW4 | Consumer Price Index, Weighted Average, Canada, Japan, the United Kingdom, and Germany |
| A.PCSEG | Personal Consumption Expenditures (Electricity and Gas Services) Deflator |
| A.PCSO | Personal Consumption Expenditures (Other Services) Deflator |
| A.PGFD | Federal Government Purchases (Defense) Deflator |
| A.PGFND | Federal Government Purchases (Nondefense) Deflator |
| A.PGSL | State and Local Government Purchases Deflator |
| A.PIID | Non-Residential Business Fixed Investment in Intellectual Property Deflator |
| A.PIPDIE | Investment in Equipment (Industrial Equipment) Deflator |
| A.PIPDIP | Investment in Equipment (Information Processing Equipment) Deflator |
| A.PIPDOE | Investment in Equipment (Other Equipment) Deflator |
| A.PIPDTH | Nonresidential Fixed Investment (New Heavy Trucks) Deflator |
| A.PIPDTL | Nonresidential Fixed Investment (New Light Trucks) Deflator |
| A.PIRCM | Residential Construction (Multi-Unit Structures) Deflator |
| A.PIRCOS | Residential Construction (Other Structures) Deflator |
| A.PIRCPD | Residential Construction (Equipment) Deflator |
| A.PIRCS | Residential Construction (Single-Unit Structures) Deflator |
| A.PMGOIL | Import (Petroleum and Products) Deflator |
| A.PMROWB | Implicit Import Deflator for Nonpetroleum Goods and Services |
| A.POIL | Producer Price Index, Crude Petroleum |
| A.PPI1 | Producer Price Index |
| A.PPNF1 | Private Nonfarm GDP Deflator |
| A.PXG | Export (Goods) Deflator |
| A.PXS | Export (Services) Deflator |
| A.RAAA | Aaa Industrial Bond Rate |
| A.RBAA | Baa Industrial Bond Rate |
| A.RCP | 3-Month Nonfinancial Commercial Paper Rate |
| A.RG05 | 5-Year Government Note Rate |
| A.RG10 | 10-Year Government Note Rate |
| A.RMORT | Conventional Mortgage Rate |
| A.RRG05 | Rate on 5-Year Treasury Inflation-Protected Securities |
| A.RTB | 3-Month Treasury Bill Rate |
| A.RUM | Unemployment Rate, Adult Males |
| A.RVEH48 | Interest Rate on 48-Month New Car Loans at Commercial Banks |
| A.SERVE0 | Gross Domestic Product, Services |
| A.SINVAD | Stock of Inventories, New Domestic Autos |
| A.SINVAF | Stock of Inventories, New Foreign Autos |
| A.SINVT0 | Stock of Inventories, New Trucks |
| A.TIBF | Taxes on Production and Imports, Federal |
| A.TPF | Personal Current Taxes, Federal |
| A.TPSL | Personal Current Taxes, State and Local |
| A.TRKH | Heavy Truck Sales |
| A.TRKLCI | Personal Consumption Expenditures and Nonresidential Fixed Investment, New Light Trucks |
| A.TRKLD | New Light Truck Sales, Domestic |
| A.TSIB | Employer Contributions for Government Social Insurance |
| A.TSIF | Contributions for Government Social Insurance, Federal |
| A.VEHL | Light Vehicle Sales |
| A.XG09 | Exports of Goods |
| A.XS09 | Exports of Services |
| A.YCP | Corporate Profits with Inventory Valuation Adjustment and Capital Consumption Adjustment |
| A.YFP | Proprietors' Income, Farm |
| A.YNFP | Proprietors' Income, Nonfarm |
| A.YOL | Employer Contributions for Employee Pension and Insurance Funds |
| A.YPDIV | Dividend Payments to Persons |
| A.YPINT | Personal Interest Income |
| A.YPWS | Private Wages and Salaries |
| A.YUNB | Unemployment Insurance Benefits |

The following adjustments appear in alternate specifications for the variables (these specifications were not used in the forecast):

| | |
|---|---|
| A.PPI2 | Producer Price Index |
| A.IPDIP0 | Investment in Equipment, Information Processing Equipment |

# U.S. Economic Outlook for 2016-2017

RSQE Forecast, 17 May 2016

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Forecast Based on MQEM
The Michigan Quarterly Econometric Model of the U.S. Economy


RSQE
Research Seminar in Quantitative Economics
The University of Michigan
Ann Arbor, Michigan 48109

RSQE Forecast | **Table 1** | 17 May 2016

Gross Domestic Product in Current Dollars

(Billions of Current Dollars, SAAR)

| | Actual | Forecast | | | | | |
|---|---|---|---|---|---|---|---|
| | 2016q1 | 2016q2 | 2016q3 | 2016q4 | 2017q1 | 2017q2 | 2017q3 |
| GDP | 18221.10 | 18374.32 | 18558.03 | 18748.43 | 18950.11 | 19152.81 | 19357.03 |
| Consumption | 12511.00 | 12659.40 | 12789.83 | 12914.36 | 13045.45 | 13181.11 | 13323.16 |
| Durables | 1337.90 | 1354.10 | 1368.70 | 1380.00 | 1392.29 | 1405.13 | 1418.08 |
| Vehicles & Parts | 440.20 | 446.42 | 452.75 | 455.56 | 459.01 | 462.58 | 465.58 |
| Furn & HH Equipment | 305.30 | 308.57 | 311.38 | 314.63 | 317.90 | 321.23 | 324.69 |
| Rec Goods & Vehicles | 385.00 | 390.56 | 393.51 | 396.49 | 399.68 | 403.13 | 406.95 |
| Other | 207.30 | 208.55 | 211.06 | 213.32 | 215.70 | 218.19 | 220.85 |
| Nondurables | 2632.90 | 2662.41 | 2683.50 | 2706.08 | 2730.17 | 2756.18 | 2783.27 |
| Food | 902.40 | 907.04 | 912.91 | 918.69 | 924.82 | 931.26 | 937.99 |
| Clothing & Footwear | 377.20 | 377.40 | 379.15 | 381.69 | 384.16 | 386.86 | 389.70 |
| Gasoline & Oil | 238.54 | 250.61 | 255.54 | 261.76 | 267.02 | 272.50 | 277.61 |
| Fuel Oil & Coal | 17.01 | 16.15 | 16.69 | 17.02 | 17.31 | 17.60 | 17.88 |
| Other | 1097.60 | 1111.21 | 1119.20 | 1126.92 | 1136.86 | 1147.97 | 1160.08 |
| Services | 8540.30 | 8642.89 | 8737.63 | 8828.28 | 8922.99 | 9019.80 | 9121.82 |
| Private Investment | 3004.50 | 3000.93 | 3041.36 | 3090.14 | 3135.07 | 3185.73 | 3233.05 |
| Nonresidential | 2275.90 | 2276.52 | 2294.62 | 2313.99 | 2335.60 | 2359.95 | 2384.44 |
| Structures | 474.00 | 462.47 | 459.60 | 459.21 | 458.64 | 458.33 | 458.57 |
| Equipment | 1062.20 | 1066.73 | 1078.11 | 1087.35 | 1097.93 | 1110.04 | 1121.25 |
| Info Processing | 326.60 | 328.11 | 331.18 | 334.29 | 337.52 | 340.89 | 344.40 |
| Industrial Equipment | 237.90 | 238.30 | 239.27 | 240.10 | 240.51 | 240.80 | 241.72 |
| New Vehicles | 326.60 | 328.85 | 335.50 | 337.85 | 340.57 | 343.95 | 347.01 |
| Other Equipment | 171.10 | 171.47 | 172.16 | 175.11 | 179.34 | 184.39 | 188.12 |
| Intellectual Property | 739.70 | 747.32 | 756.90 | 767.44 | 779.03 | 791.58 | 804.62 |
| Residential | 659.60 | 676.92 | 693.76 | 713.50 | 734.50 | 756.64 | 777.98 |
| Priv Inventory Change | 69.00 | 47.49 | 52.98 | 62.65 | 64.96 | 69.14 | 70.63 |
| Farm | -3.00 | 0.22 | 0.22 | 0.23 | 0.23 | 0.23 | 0.23 |
| Nonfarm | 72.00 | 47.27 | 52.76 | 62.42 | 64.73 | 68.91 | 70.40 |
| Net Exports | -508.20 | -524.04 | -539.26 | -550.61 | -558.31 | -571.32 | -586.12 |
| Exports | 2170.90 | 2186.86 | 2203.82 | 2221.25 | 2239.70 | 2259.73 | 2280.46 |
| Imports | 2679.10 | 2710.90 | 2743.08 | 2771.86 | 2798.02 | 2831.04 | 2866.58 |
| Government Purchases | 3213.90 | 3238.02 | 3266.09 | 3294.53 | 3327.91 | 3357.29 | 3386.94 |
| Federal | 1235.20 | 1243.53 | 1251.29 | 1259.21 | 1271.86 | 1280.30 | 1288.79 |
| Defense | 740.90 | 745.39 | 749.49 | 753.58 | 760.59 | 764.74 | 768.91 |
| Nondefense | 494.30 | 498.13 | 501.79 | 505.63 | 511.27 | 515.56 | 519.88 |
| State & Local | 1978.70 | 1994.50 | 2014.80 | 2035.32 | 2056.05 | 2076.99 | 2098.15 |
| ADDENDA | | | | | | | |
| GDP Deflator (2009=100) | 110.48 | 110.72 | 111.08 | 111.51 | 112.01 | 112.49 | 112.98 |
| Unemployment Rate (%) | 4.95 | 4.98 | 4.94 | 4.91 | 4.89 | 4.85 | 4.80 |

RSQE Forecast

**Table 1**

17 May 2016

Gross Domestic Product in Current Dollars

(Billions of Current Dollars, SAAR)

| | Forecast | Calendar Years | | | Percent Changes | |
|---|---|---|---|---|---|---|
| | 2017q4 | 2015 | 2016 | 2017 | 2015-2016 | 2016-2017 |
| GDP | 19568.98 | 17947.00 | 18475.47 | 19257.23 | 2.94 | 4.23 |
| Consumption | 13471.20 | 12271.90 | 12718.65 | 13255.23 | 3.64 | 4.22 |
| Durables | 1430.88 | 1328.68 | 1360.18 | 1411.59 | 2.37 | 3.78 |
| Vehicles & Parts | 468.66 | 456.58 | 448.73 | 463.96 | -1.72 | 3.39 |
| Furn & HH Equipment | 327.90 | 298.93 | 309.97 | 322.93 | 3.69 | 4.18 |
| Rec Goods & Vehicles | 410.82 | 371.28 | 391.39 | 405.14 | 5.42 | 3.51 |
| Other | 223.49 | 201.88 | 210.06 | 219.56 | 4.05 | 4.52 |
| Nondurables | 2811.88 | 2650.13 | 2671.22 | 2770.38 | 0.80 | 3.71 |
| Food | 945.05 | 896.80 | 910.26 | 934.78 | 1.50 | 2.69 |
| Clothing & Footwear | 392.66 | 376.40 | 378.86 | 388.34 | 0.65 | 2.50 |
| Gasoline & Oil | 282.89 | 285.55 | 251.61 | 275.01 | -11.89 | 9.30 |
| Fuel Oil & Coal | 18.18 | 21.08 | 16.72 | 17.74 | -20.71 | 6.13 |
| Other | 1173.10 | 1070.30 | 1113.73 | 1154.50 | 4.06 | 3.66 |
| Services | 9228.44 | 8293.03 | 8687.28 | 9073.26 | 4.75 | 4.44 |
| Private Investment | 3279.54 | 3020.65 | 3034.23 | 3208.35 | 0.45 | 5.74 |
| Nonresidential | 2410.61 | 2301.88 | 2290.26 | 2372.65 | -0.50 | 3.60 |
| Structures | 460.62 | 497.15 | 463.82 | 459.04 | -6.70 | -1.03 |
| Equipment | 1132.63 | 1076.08 | 1073.60 | 1115.46 | -0.23 | 3.90 |
| Info Processing | 348.01 | 322.65 | 330.04 | 342.70 | 2.29 | 3.84 |
| Industrial Equipment | 243.19 | 233.80 | 238.89 | 241.56 | 2.18 | 1.11 |
| New Vehicles | 349.70 | 315.05 | 332.20 | 345.31 | 5.44 | 3.94 |
| Other Equipment | 191.74 | 204.60 | 172.46 | 185.90 | -15.71 | 7.79 |
| Intellectual Property | 817.36 | 728.60 | 752.84 | 798.15 | 3.33 | 6.02 |
| Residential | 797.60 | 609.53 | 685.95 | 766.68 | 12.54 | 11.77 |
| Priv Inventory Change | 71.33 | 109.25 | 58.03 | 69.01 | NA | NA |
| Farm | 0.23 | 6.20 | -0.58 | 0.23 | NA | NA |
| Nonfarm | 71.09 | 103.05 | 58.61 | 68.78 | NA | NA |
| Net Exports | -599.39 | -528.90 | -530.53 | -578.79 | NA | NA |
| Exports | 2304.31 | 2253.43 | 2195.71 | 2271.05 | -2.56 | 3.43 |
| Imports | 2903.71 | 2782.33 | 2726.23 | 2849.84 | -2.02 | 4.53 |
| Government Purchases | 3417.62 | 3183.35 | 3253.14 | 3372.44 | 2.19 | 3.67 |
| Federal | 1298.10 | 1224.60 | 1247.31 | 1284.76 | 1.85 | 3.00 |
| Defense | 773.86 | 740.75 | 747.34 | 767.02 | 0.89 | 2.63 |
| Nondefense | 524.24 | 483.85 | 499.96 | 517.74 | 3.33 | 3.56 |
| State & Local | 2119.52 | 1958.75 | 2005.83 | 2087.68 | 2.40 | 4.08 |
| ADDENDA | | | | | | |
| GDP Deflator (2009=100) | 113.51 | 109.77 | 110.95 | 112.75 | 1.07 | 1.62 |
| Unemployment Rate (%) | 4.73 | 5.27 | 4.94 | 4.82 | NA | NA |

RSQE Forecast

**Table 2**

17 May 2016

Gross Domestic Product in Chained Dollars

(Billions of Chained (2009) Dollars, SAAR)

| | Actual | Forecast | | | | | |
|---|---|---|---|---|---|---|---|
| | 2016q1 | 2016q2 | 2016q3 | 2016q4 | 2017q1 | 2017q2 | 2017q3 |
| GDP | 16492.70 | 16594.78 | 16706.84 | 16813.67 | 16918.38 | 17026.07 | 17132.45 |
| Consumption | 11383.20 | 11473.79 | 11548.08 | 11613.36 | 11682.51 | 11754.48 | 11831.23 |
| Durables | 1489.40 | 1516.33 | 1540.02 | 1559.03 | 1578.67 | 1598.54 | 1618.28 |
| Vehicles & Parts | 397.20 | 403.70 | 409.65 | 411.90 | 414.65 | 417.49 | 419.81 |
| Furn & HH Equipment | 356.10 | 361.29 | 366.55 | 372.67 | 378.80 | 384.89 | 391.08 |
| Rec Goods & Vehicles | 559.30 | 574.28 | 584.94 | 595.29 | 605.60 | 616.05 | 626.91 |
| Other | 205.30 | 207.61 | 210.42 | 212.67 | 214.96 | 217.32 | 219.82 |
| Nondurables | 2457.60 | 2471.02 | 2478.44 | 2485.67 | 2494.81 | 2505.15 | 2516.51 |
| Food | 815.40 | 818.14 | 819.34 | 820.11 | 821.08 | 822.32 | 823.71 |
| Clothing & Footwear | 359.70 | 360.39 | 362.31 | 364.82 | 367.24 | 369.83 | 372.53 |
| Gasoline & Oil | 268.54 | 271.62 | 272.84 | 274.31 | 275.69 | 277.02 | 278.40 |
| Fuel Oil & Coal | 20.33 | 19.27 | 19.23 | 19.12 | 19.07 | 19.03 | 19.02 |
| Other | 1004.10 | 1012.28 | 1015.50 | 1018.28 | 1022.85 | 1028.22 | 1034.27 |
| Services | 7464.50 | 7517.72 | 7563.67 | 7604.85 | 7647.54 | 7691.70 | 7739.64 |
| Private Investment | 2827.20 | 2820.56 | 2854.18 | 2893.20 | 2927.45 | 2964.56 | 2997.59 |
| Nonresidential | 2179.90 | 2181.76 | 2199.25 | 2216.25 | 2234.12 | 2252.53 | 2270.20 |
| Structures | 438.20 | 429.48 | 427.76 | 427.27 | 425.89 | 424.19 | 422.60 |
| Equipment | 1042.70 | 1047.59 | 1058.90 | 1067.67 | 1077.56 | 1087.58 | 1096.42 |
| Info Processing | 347.20 | 348.94 | 352.45 | 355.99 | 359.57 | 363.18 | 366.83 |
| Industrial Equipment | 223.30 | 223.55 | 224.19 | 224.51 | 224.36 | 223.87 | 223.82 |
| New Vehicles | 296.20 | 297.57 | 302.75 | 304.28 | 306.25 | 308.03 | 309.73 |
| Other Equipment | 183.40 | 184.99 | 187.08 | 190.63 | 195.29 | 200.59 | 204.34 |
| Intellectual Property | 702.40 | 708.47 | 716.61 | 725.45 | 734.96 | 745.22 | 755.77 |
| Residential | 566.70 | 578.54 | 589.61 | 602.73 | 616.52 | 630.96 | 644.40 |
| Priv Inventory Change | 60.90 | 41.17 | 45.70 | 53.77 | 55.47 | 58.75 | 59.72 |
| Farm | -0.90 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 |
| Nonfarm | 62.70 | 40.96 | 45.49 | 53.56 | 55.27 | 58.54 | 59.51 |
| Net Exports | -566.60 | -559.47 | -567.15 | -576.82 | -585.79 | -599.33 | -614.79 |
| Exports | 2096.70 | 2099.77 | 2110.43 | 2123.00 | 2139.22 | 2156.52 | 2174.10 |
| Imports | 2663.30 | 2659.24 | 2677.58 | 2699.81 | 2725.01 | 2755.84 | 2788.89 |
| Government Purchases | 2878.90 | 2890.24 | 2902.46 | 2914.98 | 2925.52 | 2937.61 | 2949.33 |
| Federal | 1113.80 | 1119.70 | 1124.69 | 1129.26 | 1131.89 | 1136.16 | 1140.21 |
| Defense | 676.90 | 680.77 | 683.95 | 686.75 | 688.05 | 690.36 | 692.54 |
| Nondefense | 436.40 | 438.44 | 440.24 | 442.03 | 443.34 | 445.29 | 447.14 |
| State & Local | 1763.50 | 1768.86 | 1776.10 | 1784.02 | 1791.89 | 1799.70 | 1807.36 |
| ADDENDA | | | | | | | |
| Final Sales to Domestic Purchasers | 16989.90 | 17106.40 | 17221.51 | 17329.63 | 17441.14 | 17558.26 | 17678.06 |
| Unemployment Rate (%) | 4.95 | 4.98 | 4.94 | 4.91 | 4.89 | 4.85 | 4.80 |

Note: Detailed GDP components do not sum to aggregates due to chain weighting.

RSQE Forecast | **Table 2** | 17 May 2016

Gross Domestic Product in Chained Dollars

(Billions of Chained (2009) Dollars, SAAR)

| | Forecast | Calendar Years | | | Percent Changes | |
|---|---|---|---|---|---|---|
| | 2017q4 | 2015 | 2016 | 2017 | 2015-2016 | 2016-2017 |
| GDP | 17240.56 | 16348.88 | 16652.00 | 17079.36 | 1.85 | 2.57 |
| Consumption | 11910.78 | 11213.30 | 11504.61 | 11794.75 | 2.60 | 2.52 |
| Durables | 1637.60 | 1466.48 | 1526.20 | 1608.27 | 4.07 | 5.38 |
| Vehicles & Parts | 422.18 | 411.25 | 405.61 | 418.53 | -1.37 | 3.19 |
| Furn & HH Equipment | 396.93 | 344.30 | 364.15 | 387.92 | 5.77 | 6.53 |
| Rec Goods & Vehicles | 637.67 | 526.55 | 578.45 | 621.56 | 9.86 | 7.45 |
| Other | 222.27 | 201.98 | 209.00 | 218.59 | 3.48 | 4.59 |
| Nondurables | 2528.53 | 2430.05 | 2473.18 | 2511.25 | 1.77 | 1.54 |
| Food | 825.26 | 808.28 | 818.25 | 823.09 | 1.23 | 0.59 |
| Clothing & Footwear | 375.30 | 359.68 | 361.80 | 371.22 | 0.59 | 2.60 |
| Gasoline & Oil | 279.68 | 266.02 | 271.83 | 277.70 | 2.18 | 2.16 |
| Fuel Oil & Coal | 19.00 | 19.84 | 19.49 | 19.03 | -1.78 | -2.32 |
| Other | 1040.84 | 986.33 | 1012.54 | 1031.55 | 2.66 | 1.88 |
| Services | 7790.01 | 7345.28 | 7537.68 | 7717.22 | 2.62 | 2.38 |
| Private Investment | 3029.20 | 2851.85 | 2848.78 | 2979.70 | -0.11 | 4.60 |
| Nonresidential | 2289.01 | 2209.28 | 2194.29 | 2261.46 | -0.68 | 3.06 |
| Structures | 422.36 | 457.68 | 430.68 | 423.76 | -5.90 | -1.61 |
| Equipment | 1105.53 | 1057.83 | 1054.21 | 1091.77 | -0.34 | 3.56 |
| Info Processing | 370.52 | 342.15 | 351.14 | 365.02 | 2.63 | 3.95 |
| Industrial Equipment | 224.15 | 218.70 | 223.89 | 224.05 | 2.37 | 0.07 |
| New Vehicles | 311.46 | 287.85 | 300.20 | 308.87 | 4.29 | 2.89 |
| Other Equipment | 207.88 | 215.88 | 186.53 | 202.02 | -13.60 | 8.31 |
| Intellectual Property | 765.82 | 696.78 | 713.23 | 750.44 | 2.36 | 5.22 |
| Residential | 656.16 | 529.55 | 584.40 | 637.01 | 10.36 | 9.00 |
| Priv Inventory Change | 60.01 | 97.53 | 50.38 | 58.49 | NA | NA |
| Farm | 0.21 | 5.20 | -0.07 | 0.21 | NA | NA |
| Nonfarm | 59.80 | 93.25 | 50.68 | 58.28 | NA | NA |
| Net Exports | -630.07 | -543.43 | -567.51 | -607.50 | NA | NA |
| Exports | 2194.34 | 2110.08 | 2107.48 | 2166.04 | -0.12 | 2.78 |
| Imports | 2824.41 | 2653.50 | 2674.99 | 2773.54 | 0.81 | 3.68 |
| Government Purchases | 2961.13 | 2858.93 | 2896.65 | 2943.40 | 1.32 | 1.61 |
| Federal | 1144.69 | 1113.23 | 1121.86 | 1138.24 | 0.78 | 1.46 |
| Defense | 695.24 | 680.65 | 682.09 | 691.54 | 0.21 | 1.39 |
| Nondefense | 448.92 | 432.23 | 439.28 | 446.17 | 1.63 | 1.57 |
| State & Local | 1814.66 | 1744.28 | 1773.12 | 1803.40 | 1.65 | 1.71 |
| ADDENDA | | | | | | |
| Final Sales to Domestic Purchasers | 17800.01 | 16788.30 | 17161.86 | 17619.37 | 2.23 | 2.67 |
| Unemployment Rate (%) | 4.73 | 5.27 | 4.94 | 4.82 | NA | NA |

Note: Detailed GDP components do not sum to aggregates due to chain weighting.

Personal Income and its Disposition

(Billions of Current Dollars, SAAR)

| | Actual | Forecast | | | | | |
|---|---|---|---|---|---|---|---|
| | 2016q1 | 2016q2 | 2016q3 | 2016q4 | 2017q1 | 2017q2 | 2017q3 |
| PERSONAL INCOME | 15691.90 | 15824.33 | 15974.21 | 16134.91 | 16300.60 | 16484.01 | 16676.17 |
| Wages & Salaries | 8027.60 | 8099.35 | 8177.51 | 8256.01 | 8339.96 | 8426.61 | 8519.20 |
| Private | 6737.00 | 6800.93 | 6868.51 | 6936.34 | 7005.23 | 7081.00 | 7161.04 |
| Government | 1290.60 | 1298.42 | 1309.00 | 1319.67 | 1334.73 | 1345.61 | 1358.16 |
| Supplements to W&S | 1870.20 | 1885.60 | 1900.81 | 1915.67 | 1942.60 | 1958.10 | 1974.19 |
| For Employee Pension & Ins Funds | 1293.40 | 1305.20 | 1316.68 | 1327.87 | 1339.02 | 1350.29 | 1361.87 |
| For Govt Soc Ins | 576.80 | 580.40 | 584.13 | 587.80 | 603.58 | 607.81 | 612.32 |
| Proprietors' Income | 1413.00 | 1420.60 | 1439.08 | 1463.20 | 1483.81 | 1503.44 | 1522.84 |
| Farm | 49.90 | 49.00 | 49.45 | 50.85 | 52.03 | 53.04 | 53.90 |
| Nonfarm | 1363.10 | 1371.60 | 1389.63 | 1412.35 | 1431.78 | 1450.40 | 1468.94 |
| Rental Income | 684.90 | 696.20 | 703.06 | 709.99 | 713.51 | 717.05 | 720.61 |
| Pers Receipts on Assets | 2194.50 | 2204.40 | 2223.34 | 2245.91 | 2274.47 | 2314.41 | 2359.35 |
| Interest Income | 1321.00 | 1329.00 | 1341.42 | 1357.35 | 1375.77 | 1396.87 | 1419.03 |
| Dividend Income | 873.50 | 875.40 | 881.93 | 888.56 | 898.69 | 917.54 | 940.33 |
| Transfer Payments | 2731.20 | 2755.99 | 2777.24 | 2799.83 | 2839.17 | 2867.47 | 2893.85 |
| Unemployment Benefits | 32.50 | 32.40 | 32.60 | 32.99 | 33.29 | 33.52 | 33.57 |
| Other | 2698.70 | 2723.58 | 2744.64 | 2766.84 | 2805.88 | 2833.95 | 2860.28 |
| Less: Contributions for Social Insurance | 1229.60 | 1237.81 | 1246.83 | 1255.70 | 1292.92 | 1303.08 | 1313.87 |
| Less: PERSONAL TAXES | 2010.00 | 2031.90 | 2052.41 | 2080.26 | 2103.44 | 2135.39 | 2158.77 |
| Equals: DISP PERS INCOME | 13681.90 | 13792.43 | 13921.80 | 14054.65 | 14197.15 | 14348.61 | 14517.40 |
| Less: PERSONAL OUTLAYS | 12969.60 | 13117.62 | 13253.05 | 13382.76 | 13519.21 | 13660.69 | 13808.75 |
| Equals: PERSONAL SAVING | 712.30 | 674.80 | 668.76 | 671.89 | 677.94 | 687.92 | 708.65 |
| ADDENDA | | | | | | | |
| Disposable Personal Income (Bill Chained 2009 $) | 12448.50 | 12500.70 | 12570.14 | 12638.77 | 12713.89 | 12795.62 | 12891.73 |
| Personal Saving Rate (%) | 5.21 | 4.89 | 4.80 | 4.78 | 4.78 | 4.79 | 4.88 |

RSQE Forecast | **Table 3** | 17 May 2016

Personal Income and its Disposition

(Billions of Current Dollars, SAAR)

| | Forecast | Calendar Years | | | Percent Changes | |
|---|---|---|---|---|---|---|
| | 2017q4 | 2015 | 2016 | 2017 | 2015-2016 | 2016-2017 |
| PERSONAL INCOME | 16874.16 | 15340.40 | 15906.34 | 16583.73 | 3.69 | 4.26 |
| Wages & Salaries | 8616.88 | 7823.93 | 8140.12 | 8475.66 | 4.04 | 4.12 |
| Private | 7246.05 | 6555.18 | 6835.69 | 7123.33 | 4.28 | 4.21 |
| Government | 1370.83 | 1268.75 | 1304.42 | 1352.33 | 2.81 | 3.67 |
| Supplements to W&S | 1990.97 | 1830.88 | 1893.07 | 1966.46 | 3.40 | 3.88 |
| For Employee Pension & Ins Funds | 1373.89 | 1264.25 | 1310.79 | 1356.27 | 3.68 | 3.47 |
| For Govt Soc Ins | 617.08 | 566.63 | 582.28 | 610.20 | 2.76 | 4.79 |
| Proprietors' Income | 1542.69 | 1388.33 | 1433.97 | 1513.20 | 3.29 | 5.53 |
| Farm | 54.64 | 59.93 | 49.80 | 53.41 | -16.90 | 7.24 |
| Nonfarm | 1488.05 | 1328.40 | 1384.17 | 1459.79 | 4.20 | 5.46 |
| Rental Income | 724.19 | 656.60 | 698.54 | 718.84 | 6.39 | 2.91 |
| Pers Receipts on Assets | 2404.27 | 2180.48 | 2217.04 | 2338.12 | 1.68 | 5.46 |
| Interest Income | 1442.13 | 1312.33 | 1337.19 | 1408.45 | 1.89 | 5.33 |
| Dividend Income | 962.14 | 868.15 | 879.85 | 929.67 | 1.35 | 5.66 |
| Transfer Payments | 2920.41 | 2662.70 | 2766.06 | 2880.22 | 3.88 | 4.13 |
| Unemployment Benefits | 33.56 | 33.30 | 32.62 | 33.49 | -2.04 | 2.65 |
| Other | 2886.85 | 2629.40 | 2733.44 | 2846.74 | 3.96 | 4.14 |
| Less: Contributions for Social Insurance | 1325.25 | 1202.55 | 1242.48 | 1308.78 | 3.32 | 5.34 |
| Less: PERSONAL TAXES | 2193.50 | 1945.45 | 2043.64 | 2147.78 | 5.05 | 5.10 |
| Equals: DISP PERS INCOME | 14680.65 | 13394.98 | 13862.69 | 14435.96 | 3.49 | 4.14 |
| Less: PERSONAL OUTLAYS | 13963.14 | 12717.55 | 13180.76 | 13737.95 | 3.64 | 4.23 |
| Equals: PERSONAL SAVING | 717.51 | 677.42 | 681.94 | 698.01 | 0.67 | 2.36 |
| ADDENDA | | | | | | |
| Disposable Personal Income (Bill Chained 2009 $) | 12980.13 | 12239.58 | 12539.53 | 12845.34 | 2.45 | 2.44 |
| Personal Saving Rate (%) | 4.89 | 5.06 | 4.92 | 4.84 | NA | NA |

RSQE Forecast | **Table 4** | 17 May 2016

Relation of GDP, GNP, NNP and Personal Income

(Billions of Current Dollars, SAAR)

| | Actual | Forecast | | | | | |
|---|---|---|---|---|---|---|---|
| | 2016q1 | 2016q2 | 2016q3 | 2016q4 | 2017q1 | 2017q2 | 2017q3 |
| Gross Domestic Product | 18221.10 | 18374.32 | 18558.03 | 18748.43 | 18950.11 | 19152.81 | 19357.03 |
| Plus: | | | | | | | |
| Income Receipts from the Rest of the World | 814.00 | 830.00 | 836.16 | 842.36 | 848.61 | 854.90 | 861.24 |
| Less: | | | | | | | |
| Income Payments to the Rest of the World | 631.90 | 638.13 | 644.41 | 650.76 | 657.18 | 663.65 | 670.19 |
| Equals: | | | | | | | |
| Gross National Product | 18403.23 | 18566.19 | 18749.77 | 18940.02 | 19141.54 | 19344.06 | 19548.08 |
| Less: | | | | | | | |
| Consump of Fixed Cap | 2872.40 | 2889.56 | 2908.86 | 2930.58 | 2954.46 | 2980.41 | 3007.78 |
| Private | 2346.50 | 2362.62 | 2380.20 | 2399.72 | 2420.95 | 2443.90 | 2468.01 |
| Government | 525.80 | 526.94 | 528.66 | 530.86 | 533.51 | 536.51 | 539.77 |
| Equals: | | | | | | | |
| Net National Prod | 15530.83 | 15676.64 | 15840.91 | 16009.44 | 16187.08 | 16363.65 | 16540.30 |
| Less: | | | | | | | |
| Statistical Discrepancy | -163.90 | -176.19 | -189.91 | -206.80 | -220.66 | -227.86 | -236.61 |
| Equals: | | | | | | | |
| National Income | 15694.73 | 15852.83 | 16030.82 | 16216.24 | 16407.74 | 16591.50 | 16776.92 |
| Less: | | | | | | | |
| Corporate Profits with IVA & Cap Consump Adjust | 1879.43 | 1926.51 | 1968.59 | 2011.34 | 2058.99 | 2095.94 | 2129.27 |
| Taxes on Production and Imports less Subsidies | 1186.70 | 1196.01 | 1205.46 | 1214.99 | 1212.69 | 1222.84 | 1233.09 |
| Social Ins Contributions | 1229.60 | 1237.81 | 1246.83 | 1255.70 | 1292.92 | 1303.08 | 1313.87 |
| Net Interest | 515.10 | 517.95 | 523.90 | 529.91 | 537.22 | 545.71 | 554.06 |
| Business Transfers (net) | 135.60 | 129.02 | 130.42 | 131.84 | 133.26 | 134.71 | 136.16 |
| Surplus of Govt Enterprises | -18.00 | -18.40 | -18.00 | -16.70 | -14.30 | -12.90 | -12.50 |
| Plus: | | | | | | | |
| Pers Receipts on Assets | 2194.50 | 2204.40 | 2223.34 | 2245.91 | 2274.47 | 2314.41 | 2359.35 |
| Pers Transfer Receipts | 2731.20 | 2755.99 | 2777.24 | 2799.83 | 2839.17 | 2867.47 | 2893.85 |
| Equals: | | | | | | | |
| Personal Income | 15691.90 | 15824.33 | 15974.21 | 16134.91 | 16300.60 | 16484.01 | 16676.17 |

RSQE Forecast | **Table 4** | 17 May 2016

Relation of GDP, GNP, NNP and Personal Income

(Billions of Current Dollars, SAAR)

| | Forecast | Calendar Years | | | Percent Changes | |
|---|---|---|---|---|---|---|
| | 2017q4 | 2015 | 2016 | 2017 | 2015-2016 | 2016-2017 |
| Gross Domestic Product | 19568.98 | 17947.00 | 18475.47 | 19257.23 | 2.94 | 4.23 |
| Plus: | | | | | | |
| Income Receipts from the Rest of the World | 867.63 | 830.48 | 830.63 | 858.09 | 0.02 | 3.31 |
| Less: | | | | | | |
| Income Payments to the Rest of the World | 676.79 | 616.88 | 641.30 | 666.95 | 3.96 | 4.00 |
| Equals: | | | | | | |
| Gross National Product | 19759.81 | 18160.60 | 18664.80 | 19448.37 | 2.78 | 4.20 |
| Less: | | | | | | |
| Consump of Fixed Cap | 3036.34 | 2821.33 | 2900.35 | 2994.75 | 2.80 | 3.25 |
| Private | 2493.07 | 2299.18 | 2372.26 | 2456.48 | 3.18 | 3.55 |
| Government | 543.27 | 522.18 | 528.07 | 538.27 | 1.13 | 1.93 |
| Equals: | | | | | | |
| Net National Prod | 16723.47 | 15339.28 | 15764.46 | 16453.62 | 2.77 | 4.37 |
| Less: | | | | | | |
| Statistical Discrepancy | -246.15 | -195.25 | -184.20 | -232.82 | NA | NA |
| Equals: | | | | | | |
| National Income | 16969.62 | 15534.53 | 15948.66 | 16686.45 | 2.67 | 4.63 |
| Less: | | | | | | |
| Corporate Profits with IVA & Cap Consump Adjust | 2162.09 | 2008.93 | 1946.47 | 2111.57 | -3.11 | 8.48 |
| Taxes on Production and Imports less Subsidies | 1243.59 | 1177.30 | 1200.79 | 1228.05 | 2.00 | 2.27 |
| Social Ins Contributions | 1325.25 | 1202.55 | 1242.48 | 1308.78 | 3.32 | 5.34 |
| Net Interest | 563.49 | 523.80 | 521.71 | 550.12 | -0.40 | 5.44 |
| Business Transfers (net) | 137.63 | 141.15 | 131.72 | 135.44 | -6.68 | 2.82 |
| Surplus of Govt Enterprises | -11.90 | -16.55 | -17.78 | -12.90 | 7.40 | -27.43 |
| Plus: | | | | | | |
| Pers Receipts on Assets | 2404.27 | 2180.48 | 2217.04 | 2338.12 | 1.68 | 5.46 |
| Pers Transfer Receipts | 2920.41 | 2662.70 | 2766.06 | 2880.22 | 3.88 | 4.13 |
| Equals: | | | | | | |
| Personal Income | 16874.16 | 15340.40 | 15906.34 | 16583.73 | 3.69 | 4.26 |

RSQE Forecast | **Table 5** | 17 May 2016

Foreign Transactions in the NIPAs

(Billions of Current Dollars, SAAR)

| | Actual | Forecast | | | | | |
|---|---|---|---|---|---|---|---|
| | 2016q1 | 2016q2 | 2016q3 | 2016q4 | 2017q1 | 2017q2 | 2017q3 |
| RECEIPTS FROM REST OF WORLD | 2984.90 | 3016.86 | 3039.97 | 3063.61 | 3088.31 | 3114.63 | 3141.70 |
| Exports | 2170.90 | 2186.86 | 2203.82 | 2221.25 | 2239.70 | 2259.73 | 2280.46 |
| Goods | 1407.30 | 1415.42 | 1420.01 | 1427.07 | 1435.55 | 1444.28 | 1455.42 |
| Services | 763.60 | 771.45 | 783.81 | 794.18 | 804.15 | 815.44 | 825.04 |
| Income Receipts | 814.00 | 830.00 | 836.16 | 842.36 | 848.61 | 854.90 | 861.24 |
| PAYMENTS TO REST OF WORLD | 3479.20 | 3510.61 | 3550.30 | 3586.66 | 3620.32 | 3661.05 | 3704.36 |
| Imports | 2679.10 | 2710.90 | 2743.08 | 2771.86 | 2798.02 | 2831.04 | 2866.58 |
| Goods | 2169.50 | 2199.53 | 2225.68 | 2248.07 | 2267.93 | 2294.28 | 2322.93 |
| Services | 509.60 | 511.37 | 517.39 | 523.79 | 530.08 | 536.76 | 543.65 |
| Income Payments | 631.90 | 638.13 | 644.41 | 650.76 | 657.18 | 663.65 | 670.19 |
| Taxes & Transfers (net) | 168.20 | 161.59 | 162.81 | 164.03 | 165.12 | 166.36 | 167.59 |
| From Persons | 80.20 | 80.79 | 81.39 | 82.00 | 82.61 | 83.22 | 83.84 |
| From Government | 49.10 | 40.98 | 40.67 | 40.36 | 39.90 | 39.57 | 39.23 |
| From Business | 38.90 | 39.81 | 40.74 | 41.67 | 42.61 | 43.57 | 44.53 |
| BALANCE ON CURRENT ACCOUNT | -494.30 | -488.85 | -505.42 | -518.15 | -527.11 | -541.53 | -557.76 |
| (% of GDP) | -2.71 | -2.66 | -2.72 | -2.76 | -2.78 | -2.83 | -2.88 |

Foreign Transactions in the NIPAs

(Billions of Current Dollars, SAAR)

| | Forecast | Calendar Years | | | Percent Changes | |
|---|---|---|---|---|---|---|
| | 2017q4 | 2015 | 2016 | 2017 | 2015-2016 | 2016-2017 |
| RECEIPTS FROM REST OF WORLD | 3171.94 | 3083.90 | 3026.34 | 3129.15 | -1.87 | 3.40 |
| Exports | 2304.31 | 2253.43 | 2195.71 | 2271.05 | -2.56 | 3.43 |
| Goods | 1467.54 | 1504.93 | 1417.45 | 1450.70 | -5.81 | 2.35 |
| Services | 836.78 | 748.50 | 778.26 | 820.36 | 3.98 | 5.41 |
| Income Receipts | 867.63 | 830.48 | 830.63 | 858.09 | 0.02 | 3.31 |
| PAYMENTS TO REST OF WORLD | 3749.34 | 3558.30 | 3531.69 | 3683.77 | -0.75 | 4.31 |
| Imports | 2903.71 | 2782.33 | 2726.23 | 2849.84 | -2.02 | 4.53 |
| Goods | 2352.92 | 2280.60 | 2210.70 | 2309.51 | -3.07 | 4.47 |
| Services | 550.79 | 501.78 | 515.54 | 540.32 | 2.74 | 4.81 |
| Income Payments | 676.79 | 616.88 | 641.30 | 666.95 | 3.96 | 4.00 |
| Taxes & Transfers (net) | 168.83 | 159.10 | 164.16 | 166.98 | 3.18 | 1.72 |
| From Persons | 84.46 | 79.45 | 81.10 | 83.53 | 2.07 | 3.00 |
| From Government | 38.88 | 42.75 | 42.78 | 39.40 | 0.07 | -7.91 |
| From Business | 45.50 | 36.90 | 40.28 | 44.05 | 9.16 | 9.36 |
| BALANCE ON CURRENT ACCOUNT | -572.49 | -464.98 | -501.68 | -549.72 | NA | NA |
| (% of GDP) | -2.93 | -2.59 | -2.72 | -2.85 | NA | NA |

Supplementary Data

(SAAR Where Applicable)

| | Actual | Forecast | | | | | |
|---|---|---|---|---|---|---|---|
| | 2016q1 | 2016q2 | 2016q3 | 2016q4 | 2017q1 | 2017q2 | 2017q3 |
| GDP Deflator (2009=100) | 110.48 | 110.72 | 111.08 | 111.51 | 112.01 | 112.49 | 112.98 |
| PCE Deflator (2009=100) | 109.91 | 110.33 | 110.75 | 111.20 | 111.67 | 112.14 | 112.61 |
| CPI-U (nsa, 1982-84=100) | 237.39 | 239.82 | 240.67 | 240.25 | 241.82 | 244.52 | 245.59 |
| PPI ('82=100) | 189.93 | 191.45 | 192.32 | 193.43 | 194.46 | 195.54 | 196.63 |
| Value of US $(1/97=100) | 123.56 | 119.18 | 119.00 | 118.96 | 119.17 | 119.33 | 119.46 |
| Housing Starts (Thous) | 1133.33 | 1159.94 | 1217.48 | 1262.68 | 1302.53 | 1339.00 | 1371.97 |
| PRIVATE NONFARM SECTOR | | | | | | | |
| Price Deflator (2009=100) | 109.59 | 109.86 | 110.17 | 110.56 | 110.99 | 111.46 | 111.94 |
| Output/Hour ('92=100) | 105.86 | 106.10 | 106.52 | 106.93 | 107.36 | 107.76 | 108.15 |
| Compensation/Hour ('92=100) | 116.09 | 116.81 | 117.49 | 118.16 | 119.00 | 119.78 | 120.62 |
| Unit Labor Cost ('92=100) | 109.67 | 110.10 | 110.31 | 110.50 | 110.85 | 111.15 | 111.54 |
| INDUSTRIAL SECTOR | | | | | | | |
| Industrial Prod (2002=100) | 103.99 | 103.77 | 104.30 | 105.24 | 106.28 | 107.38 | 108.47 |
| Capacity Utilization Rate (%) | 75.29 | 75.10 | 75.44 | 76.02 | 76.58 | 77.08 | 77.46 |
| EMPLOYMENT | | | | | | | |
| Payroll Employment (Mill) | 143.54 | 144.11 | 144.66 | 145.17 | 145.65 | 146.14 | 146.63 |
| Household Employment (Mill) | 150.98 | 151.20 | 151.78 | 152.26 | 152.66 | 153.06 | 153.48 |
| Unemployment Rate, Total (%) | 4.95 | 4.98 | 4.94 | 4.91 | 4.89 | 4.85 | 4.80 |
| Adult Men (%) | 4.50 | 4.57 | 4.54 | 4.53 | 4.51 | 4.48 | 4.41 |
| MONETARY SECTOR | | | | | | | |
| Federal Funds Rate (%) | 0.36 | 0.38 | 0.42 | 0.63 | 0.67 | 0.88 | 0.92 |
| 3-Mo Treasury Bill Rate (%) | 0.29 | 0.24 | 0.45 | 0.58 | 0.67 | 0.85 | 0.95 |
| 5-Year TIPS Rate (%) | 0.14 | -0.25 | -0.09 | 0.14 | 0.39 | 0.58 | 0.72 |
| 5-Year Govt Rate (%) | 1.37 | 1.26 | 1.43 | 1.68 | 1.92 | 2.11 | 2.23 |
| 10-Year Govt Rate (%) | 1.92 | 1.81 | 1.93 | 2.12 | 2.31 | 2.45 | 2.55 |
| Aaa Rate, Industrials (%) | 3.93 | 3.62 | 3.65 | 3.72 | 3.80 | 3.86 | 3.91 |
| Conv Mortgage Rate (%) | 3.74 | 3.60 | 3.71 | 3.83 | 3.97 | 4.08 | 4.17 |
| M1 (Billions of $) | 3147.40 | 3185.95 | 3213.77 | 3236.01 | 3254.39 | 3268.55 | 3280.13 |
| M2 (Billions of $) | 12568.60 | 12733.13 | 12864.92 | 12996.57 | 13129.47 | 13254.51 | 13370.31 |
| Par Value of Privately Held Government Debt (Bill $) | 11088.40 | 10954.95 | 11128.78 | 11389.26 | 11538.98 | 11424.87 | 11599.62 |
| VEHICLE SALES | | | | | | | |
| Light Vehicles (Mill) | 17.11 | 17.49 | 17.82 | 17.83 | 17.83 | 17.81 | 17.76 |
| Autos (Mill) | 7.03 | 7.00 | 7.17 | 7.16 | 7.14 | 7.11 | 7.08 |
| Domestic (Mill) | 5.31 | 5.21 | 5.38 | 5.37 | 5.35 | 5.33 | 5.30 |
| Imports (Mill) | 1.71 | 1.79 | 1.79 | 1.79 | 1.79 | 1.78 | 1.77 |
| Import Share (%) | 24.37 | 25.54 | 24.95 | 25.00 | 25.03 | 25.05 | 25.07 |
| Light Trucks (Mill) | 10.09 | 10.49 | 10.65 | 10.67 | 10.69 | 10.69 | 10.68 |
| Domestic (Mill) | 8.19 | 8.50 | 8.66 | 8.68 | 8.71 | 8.72 | 8.73 |
| Imports (Mill) | 1.90 | 1.99 | 1.99 | 1.99 | 1.98 | 1.97 | 1.96 |
| Import Share (%) | 18.84 | 18.99 | 18.70 | 18.62 | 18.49 | 18.41 | 18.34 |

Supplementary Data

(SAAR Where Applicable)

| | Forecast | Calendar Years | | | Percent Changes | |
|---|---|---|---|---|---|---|
| | 2017q4 | 2015 | 2016 | 2017 | 2015-2016 | 2016-2017 |
| GDP Deflator (2009=100) | 113.51 | 109.77 | 110.95 | 112.75 | 1.07 | 1.62 |
| PCE Deflator (2009=100) | 113.10 | 109.44 | 110.55 | 112.38 | 1.02 | 1.65 |
| CPI-U (nsa, 1982-84=100) | 245.32 | 237.02 | 239.53 | 244.31 | 1.06 | 2.00 |
| PPI ('82=100) | 197.87 | 193.82 | 191.78 | 196.12 | -1.05 | 2.26 |
| Value of US $(1/97=100) | 119.65 | 117.28 | 120.17 | 119.40 | 2.47 | -0.64 |
| Housing Starts (Thous) | 1399.78 | 1107.33 | 1193.36 | 1353.32 | 7.77 | 13.40 |
| PRIVATE NONFARM SECTOR | | | | | | |
| Price Deflator (2009=100) | 112.46 | 109.00 | 110.04 | 111.71 | 0.96 | 1.52 |
| Output/Hour ('92=100) | 108.53 | 106.01 | 106.35 | 107.95 | 0.32 | 1.50 |
| Compensation/Hour ('92=100) | 121.54 | 114.35 | 117.14 | 120.23 | 2.44 | 2.64 |
| Unit Labor Cost ('92=100) | 111.98 | 107.87 | 110.14 | 111.38 | 2.11 | 1.12 |
| INDUSTRIAL SECTOR | | | | | | |
| Industrial Prod (2002=100) | 109.54 | 105.22 | 104.33 | 107.92 | -0.85 | 3.44 |
| Capacity Utilization Rate (%) | 77.76 | 76.68 | 75.46 | 77.22 | NA | NA |
| EMPLOYMENT | | | | | | |
| Payroll Employment (Mill) | 147.13 | 141.83 | 144.37 | 146.39 | 1.79 | 1.40 |
| Household Employment (Mill) | 153.91 | 148.84 | 151.56 | 153.28 | 1.83 | 1.14 |
| Unemployment Rate, Total (%) | 4.73 | 5.27 | 4.94 | 4.82 | NA | NA |
| Adult Men (%) | 4.34 | 4.89 | 4.53 | 4.43 | NA | NA |
| MONETARY SECTOR | | | | | | |
| Federal Funds Rate (%) | 1.13 | 0.13 | 0.45 | 0.90 | NA | NA |
| 3-Mo Treasury Bill Rate (%) | 1.10 | 0.05 | 0.39 | 0.89 | NA | NA |
| 5-Year TIPS Rate (%) | 0.81 | 0.16 | -0.01 | 0.62 | NA | NA |
| 5-Year Govt Rate (%) | 2.30 | 1.53 | 1.44 | 2.14 | NA | NA |
| 10-Year Govt Rate (%) | 2.61 | 2.14 | 1.95 | 2.48 | NA | NA |
| Aaa Rate, Industrials (%) | 3.95 | 3.89 | 3.73 | 3.88 | NA | NA |
| Conv Mortgage Rate (%) | 4.24 | 3.85 | 3.72 | 4.12 | NA | NA |
| M1 (Billions of $) | 3288.11 | 3037.48 | 3195.78 | 3272.80 | 5.21 | 2.41 |
| M2 (Billions of $) | 13469.04 | 12070.55 | 12790.81 | 13305.83 | 5.97 | 4.03 |
| Par Value of Privately Held Government Debt (Bill $) | 11862.01 | 10650.62 | 11140.35 | 11606.37 | 4.60 | 4.18 |
| VEHICLE SALES | | | | | | |
| Light Vehicles (Mill) | 17.72 | 17.33 | 17.56 | 17.78 | 1.34 | 1.24 |
| Autos (Mill) | 7.04 | 7.51 | 7.09 | 7.09 | -5.57 | 0.10 |
| Domestic (Mill) | 5.28 | 5.60 | 5.32 | 5.32 | -5.00 | -0.02 |
| Imports (Mill) | 1.77 | 1.91 | 1.77 | 1.78 | -7.26 | 0.46 |
| Import Share (%) | 25.06 | 25.42 | 24.96 | 25.05 | NA | NA |
| Light Trucks (Mill) | 10.68 | 9.82 | 10.47 | 10.69 | 6.62 | 2.02 |
| Domestic (Mill) | 8.72 | 8.06 | 8.51 | 8.72 | 5.61 | 2.53 |
| Imports (Mill) | 1.95 | 1.77 | 1.97 | 1.96 | 11.21 | -0.18 |
| Import Share (%) | 18.28 | 17.95 | 18.79 | 18.38 | NA | NA |

Federal Government Receipts and Expenditures

(Billions of Current Dollars, SAAR)

| | Actual | Forecast | | | | | |
|---|---|---|---|---|---|---|---|
| | 2016q1 | 2016q2 | 2016q3 | 2016q4 | 2017q1 | 2017q2 | 2017q3 |
| CURRENT RECEIPTS | 3508.30 | 3539.46 | 3576.81 | 3618.22 | 3670.09 | 3706.91 | 3752.42 |
| Tax Receipts | 2175.70 | 2208.81 | 2235.57 | 2265.62 | 2271.72 | 2303.87 | 2336.94 |
| Personal Tax | 1590.30 | 1607.23 | 1627.31 | 1648.47 | 1664.37 | 1688.38 | 1713.79 |
| Taxes on Production and Imports | 143.00 | 144.87 | 146.97 | 149.11 | 139.13 | 141.33 | 143.53 |
| Corporate Income Tax | 417.00 | 430.88 | 435.02 | 441.31 | 441.04 | 446.52 | 451.51 |
| Taxes from Rest of World | 25.40 | 25.83 | 26.27 | 26.72 | 27.18 | 27.64 | 28.11 |
| Social Ins Contributions | 1216.00 | 1224.99 | 1234.06 | 1242.98 | 1280.38 | 1290.59 | 1301.44 |
| Receipts on Assets | 54.00 | 52.35 | 52.84 | 53.33 | 58.62 | 51.01 | 51.52 |
| Transfer Receipts | 68.30 | 59.50 | 60.24 | 61.00 | 61.76 | 62.54 | 63.33 |
| From Business | 41.50 | 37.00 | 37.63 | 38.27 | 38.93 | 39.59 | 40.27 |
| From Persons | 26.80 | 22.50 | 22.61 | 22.72 | 22.84 | 22.95 | 23.06 |
| Surplus of Govt Enterprises | -10.60 | -11.10 | -10.80 | -9.60 | -7.30 | -6.00 | -5.70 |
| CURRENT EXPENDITURES | 4102.40 | 4137.90 | 4168.78 | 4204.30 | 4261.31 | 4304.10 | 4346.08 |
| Consumption Expenditures | 966.00 | 972.18 | 977.78 | 983.37 | 993.67 | 999.74 | 1005.84 |
| Defense | 593.60 | 597.00 | 600.00 | 602.98 | 608.87 | 611.89 | 614.93 |
| Nondefense | 372.40 | 375.18 | 377.78 | 380.40 | 384.80 | 387.84 | 390.91 |
| NonCCC | 372.50 | 375.08 | 377.68 | 380.30 | 384.70 | 387.74 | 390.81 |
| Transfers | 2627.90 | 2653.97 | 2675.73 | 2698.85 | 2737.73 | 2765.57 | 2791.49 |
| To Persons | 2007.90 | 2025.97 | 2040.46 | 2056.26 | 2087.78 | 2109.75 | 2129.75 |
| To Rest of World | 79.90 | 73.00 | 73.18 | 73.36 | 73.55 | 73.73 | 73.91 |
| Grants-in-Aid | 540.10 | 555.00 | 562.09 | 569.23 | 576.40 | 582.08 | 587.82 |
| Interest Payments | 448.70 | 451.60 | 454.78 | 461.25 | 468.74 | 477.28 | 486.88 |
| Subsidies | 59.80 | 60.14 | 60.48 | 60.83 | 61.18 | 61.52 | 61.87 |
| NET FEDERAL GOVT SAVING | -594.10 | -598.44 | -591.96 | -586.08 | -591.23 | -597.20 | -593.66 |
| ADDENDA | | | | | | | |
| Receipts | 3508.30 | 3539.46 | 3576.81 | 3618.22 | 3670.09 | 3706.91 | 3752.42 |
| Outlays | 4095.50 | 4132.92 | 4165.53 | 4202.76 | 4261.33 | 4305.56 | 4348.87 |
| Current Expenditures | 4102.40 | 4137.90 | 4168.78 | 4204.30 | 4261.31 | 4304.10 | 4346.08 |
| Gross Investment | 269.20 | 271.35 | 273.51 | 275.84 | 278.19 | 280.56 | 282.95 |
| Less: Consumption of Fixed Capital | 276.10 | 276.32 | 276.76 | 277.38 | 278.17 | 279.11 | 280.16 |
| Receipts Minus Outlays | -587.20 | -593.47 | -588.71 | -584.54 | -591.24 | -598.65 | -596.45 |

RSQE Forecast | **Table 7** | 17 May 2016

Federal Government Receipts and Expenditures

(Billions of Current Dollars, SAAR)

| | Forecast | Fiscal Years | | | Percent Changes | |
|---|---|---|---|---|---|---|
| | 2017q4 | 2015 | 2016 | 2017 | 2015-2016 | 2016-2017 |
| CURRENT RECEIPTS | 3799.35 | 3390.18 | 3521.39 | 3686.91 | 3.87 | 4.70 |
| Tax Receipts | 2370.61 | 2100.75 | 2192.67 | 2294.54 | 4.38 | 4.65 |
| Personal Tax | 1739.85 | 1504.25 | 1598.33 | 1678.75 | 6.25 | 5.03 |
| Taxes on Production and Imports | 145.75 | 141.20 | 144.83 | 143.28 | 2.57 | -1.08 |
| Corporate Income Tax | 456.42 | 431.30 | 424.15 | 445.09 | -1.66 | 4.94 |
| Taxes from Rest of World | 28.59 | 24.00 | 25.35 | 27.41 | 5.63 | 8.13 |
| Social Ins Contributions | 1312.88 | 1178.85 | 1219.76 | 1278.85 | 3.47 | 4.84 |
| Receipts on Assets | 52.03 | 55.55 | 50.87 | 53.62 | -8.42 | 5.39 |
| Transfer Receipts | 64.13 | 56.73 | 63.86 | 62.16 | 12.58 | -2.67 |
| From Business | 40.95 | 34.58 | 40.33 | 39.26 | 16.65 | -2.65 |
| From Persons | 23.18 | 22.15 | 23.53 | 22.89 | 6.22 | -2.70 |
| Surplus of Govt Enterprises | -5.20 | -8.50 | -10.55 | -7.15 | 24.12 | -32.23 |
| CURRENT EXPENDITURES | 4388.56 | 3988.15 | 4117.94 | 4278.95 | 3.25 | 3.91 |
| Consumption Expenditures | 1012.73 | 956.05 | 970.81 | 995.65 | 1.54 | 2.56 |
| Defense | 618.74 | 593.90 | 597.30 | 609.67 | 0.57 | 2.07 |
| Nondefense | 394.00 | 362.15 | 373.51 | 385.99 | 3.14 | 3.34 |
| NonCCC | 393.90 | 362.10 | 373.49 | 385.89 | 3.15 | 3.32 |
| Transfers | 2817.60 | 2536.95 | 2637.75 | 2748.41 | 3.97 | 4.20 |
| To Persons | 2149.89 | 1938.90 | 2014.03 | 2095.89 | 3.88 | 4.06 |
| To Rest of World | 74.10 | 73.70 | 73.70 | 73.64 | -0.01 | -0.08 |
| Grants-in-Aid | 593.61 | 524.35 | 550.02 | 578.88 | 4.90 | 5.25 |
| Interest Payments | 496.00 | 437.43 | 449.57 | 473.53 | 2.78 | 5.33 |
| Subsidies | 62.23 | 57.70 | 59.81 | 61.35 | 3.65 | 2.58 |
| NET FEDERAL GOVT SAVING | -589.21 | -597.98 | -596.55 | -592.04 | NA | NA |
| ADDENDA | | | | | | |
| Receipts | 3799.35 | 3390.18 | 3521.39 | 3686.91 | 3.87 | 4.70 |
| Outlays | 4392.63 | 3979.85 | 4112.24 | 4279.63 | 3.33 | 4.07 |
| Current Expenditures | 4388.56 | 3988.15 | 4117.94 | 4278.95 | 3.25 | 3.91 |
| Gross Investment | 285.37 | 263.43 | 270.51 | 279.39 | 2.69 | 3.28 |
| Less: Consumption of Fixed Capital | 281.30 | 271.73 | 276.22 | 278.70 | 1.65 | 0.90 |
| Receipts Minus Outlays | -593.28 | -589.68 | -590.85 | -592.72 | NA | NA |

RSQE Forecast **Table 8** 17 May 2016

State and Local Government Receipts and Expenditures

(Billions of Current Dollars, SAAR)

| | Actual | Forecast | | | | | |
|---|---|---|---|---|---|---|---|
| | 2016q1 | 2016q2 | 2016q3 | 2016q4 | 2017q1 | 2017q2 | 2017q3 |
| CURRENT RECEIPTS | 2342.20 | 2370.37 | 2387.34 | 2411.28 | 2435.03 | 2459.29 | 2473.50 |
| Tax Receipts | 1581.20 | 1595.69 | 1603.93 | 1619.07 | 1633.99 | 1650.89 | 1657.67 |
| Personal Tax | 419.70 | 424.68 | 425.10 | 431.79 | 439.07 | 447.02 | 444.98 |
| Taxes on Production and Imports | 1104.10 | 1111.78 | 1119.47 | 1127.21 | 1135.24 | 1143.53 | 1151.93 |
| Corporate Income Tax | 57.40 | 59.23 | 59.36 | 60.08 | 59.67 | 60.34 | 60.76 |
| Social Ins Contributions | 19.00 | 19.00 | 19.00 | 19.00 | 19.00 | 19.00 | 19.00 |
| Receipts on Assets | 79.70 | 80.22 | 80.75 | 81.28 | 81.82 | 82.35 | 82.89 |
| Transfer Receipts | 669.70 | 682.76 | 690.86 | 699.03 | 707.23 | 713.95 | 720.74 |
| Federal Grants in Aid | 540.10 | 555.00 | 562.09 | 569.23 | 576.40 | 582.08 | 587.82 |
| From Business (net) | 52.60 | 50.00 | 50.25 | 50.50 | 50.75 | 51.00 | 51.25 |
| From Persons | 77.00 | 77.76 | 78.52 | 79.30 | 80.08 | 80.87 | 81.67 |
| Surplus of Govt Enterprises | -7.40 | -7.30 | -7.20 | -7.10 | -7.00 | -6.90 | -6.80 |
| CURRENT EXPENDITURES | 2491.30 | 2511.61 | 2534.56 | 2557.69 | 2582.01 | 2604.98 | 2628.16 |
| Consumption Expenditures | 1619.30 | 1632.50 | 1648.19 | 1664.03 | 1680.02 | 1696.16 | 1712.47 |
| Transfers | 678.80 | 685.30 | 691.83 | 698.41 | 706.00 | 712.10 | 718.25 |
| Interest Payments | 192.60 | 193.32 | 194.04 | 194.76 | 195.49 | 196.22 | 196.95 |
| Subsidies | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| NET STATE & LOCAL GOVT SAVING | -149.10 | -141.24 | -147.22 | -146.41 | -146.98 | -145.69 | -154.66 |

State and Local Government Receipts and Expenditures

(Billions of Current Dollars, SAAR)

| | Forecast | Fiscal Years | | | Percent Changes | |
|---|---|---|---|---|---|---|
| | 2017q4 | 2015 | 2016 | 2017 | 2015-2016 | 2016-2017 |
| CURRENT RECEIPTS | 2498.75 | 2290.80 | 2375.18 | 2444.78 | 3.68 | 2.93 |
| Tax Receipts | 1675.42 | 1554.93 | 1588.65 | 1640.40 | 2.17 | 3.26 |
| Personal Tax | 453.66 | 404.45 | 421.67 | 440.72 | 4.26 | 4.52 |
| Taxes on Production and Imports | 1160.57 | 1090.35 | 1108.89 | 1139.48 | 1.70 | 2.76 |
| Corporate Income Tax | 61.19 | 60.13 | 58.10 | 60.21 | -3.37 | 3.64 |
| Social Ins Contributions | 19.00 | 18.80 | 18.98 | 19.00 | 0.93 | 0.13 |
| Receipts on Assets | 83.44 | 77.43 | 79.87 | 82.09 | 3.16 | 2.78 |
| Transfer Receipts | 727.59 | 647.58 | 695.08 | 710.24 | 7.34 | 2.18 |
| Federal Grants in Aid | 593.61 | 524.35 | 550.02 | 578.88 | 4.90 | 5.25 |
| From Business (net) | 51.51 | 48.40 | 67.61 | 50.87 | 39.69 | -24.75 |
| From Persons | 82.47 | 74.83 | 77.45 | 80.48 | 3.50 | 3.92 |
| Surplus of Govt Enterprises | -6.70 | -8.38 | -7.40 | -6.95 | -11.64 | -6.08 |
| CURRENT EXPENDITURES | 2651.56 | 2444.50 | 2505.09 | 2593.21 | 2.48 | 3.52 |
| Consumption Expenditures | 1728.92 | 1609.08 | 1629.65 | 1688.17 | 1.28 | 3.59 |
| Transfers | 724.45 | 649.35 | 682.06 | 708.69 | 5.04 | 3.90 |
| Interest Payments | 197.68 | 185.55 | 192.86 | 195.85 | 3.94 | 1.55 |
| Subsidies | 0.50 | 0.50 | 0.50 | 0.50 | 0.00 | 0.00 |
| NET STATE & LOCAL GOVT SAVING | -152.81 | -153.68 | -129.91 | -148.43 | NA | NA |

| | A.AUTOSD | A.CDFRN0 | A.CDHE09 | A.CDO09 | A.CDREC0 | A.CDVO09 | A.CNCS09 | A.CNFC09 | A.CNFD09 | A.CNGO09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q2 | 0.053 | -2.491 | 0.509 | -0.617 | -0.738 | -1.810 | -4.859 | -0.968 | -4.309 | 1.574 |
| 2016q3 | 0.150 | -1.900 | -0.300 | -0.400 | -3.000 | -0.800 | -1.000 | 0.000 | -4.500 | 0.000 |
| 2016q4 | 0.120 | -1.400 | -0.300 | -0.200 | -3.000 | -0.800 | -0.200 | 0.000 | -4.500 | 0.000 |
| 2017q1 | 0.120 | -1.400 | -0.300 | -0.200 | -3.000 | -0.800 | -0.200 | 0.000 | -4.500 | 0.000 |
| 2017q2 | 0.120 | -1.400 | -0.300 | -0.200 | -3.000 | -0.800 | -0.200 | 0.000 | -4.500 | 0.000 |
| 2017q3 | 0.120 | -1.400 | -0.300 | -0.200 | -3.000 | -0.800 | -0.200 | 0.000 | -4.500 | 0.000 |
| 2017q4 | 0.120 | -1.400 | -0.300 | -0.200 | -3.000 | -0.800 | -0.200 | 0.000 | -4.500 | 0.000 |

| | A.CNO09 | A.CSEG09 | A.CSO09 | A.CURR | A.EMP | A.EMPHH | A.GINTF | A.HOUSEX | A.HSMULT | A.HSSING |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q2 | 9.122 | -9.506 | 9.545 | 5.000 | -0.018 | -0.236 | -3.900 | -275.360 | 74.604 | -30.486 |
| 2016q3 | 4.500 | -8.000 | -5.000 | 5.000 | 0.000 | 0.100 | -3.900 | -290.000 | 85.000 | 0.000 |
| 2016q4 | 4.500 | -8.000 | -4.000 | 5.000 | 0.000 | 0.030 | -3.000 | -225.000 | 87.000 | 16.000 |
| 2017q1 | 4.500 | -8.500 | -3.000 | 5.000 | 0.000 | -0.030 | -2.000 | -210.000 | 89.000 | 30.000 |
| 2017q2 | 4.500 | -9.000 | -2.000 | 5.000 | 0.000 | -0.030 | -1.000 | -200.000 | 91.000 | 30.000 |
| 2017q3 | 4.500 | -9.500 | -1.000 | 5.000 | 0.000 | -0.030 | 0.000 | -190.000 | 93.000 | 30.000 |
| 2017q4 | 4.500 | -10.000 | 0.000 | 5.000 | 0.000 | -0.030 | 0.000 | -180.000 | 95.000 | 30.000 |

| | A.IBFID0 | A.IBFNC0 | A.IINVO0 | A.INCWM0 | A.IPDIE0 | A.IPDOE0 | A.IRCM09 | A.IRCOS0 | A.IRCS09 | A.JCAPTO |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q2 | -0.700 | 8.500 | -4.000 | -5.000 | 5.000 | -22.000 | 3.000 | -1.000 | -1.000 | 0.086 |
| 2016q3 | -0.700 | 18.000 | 0.000 | -2.200 | 5.000 | -20.000 | 0.250 | -2.500 | 1.000 | 0.050 |
| 2016q4 | -0.700 | 17.000 | 0.000 | -2.200 | 4.000 | -17.000 | 0.250 | -2.500 | 1.000 | 0.050 |
| 2017q1 | -0.700 | 16.000 | 0.000 | -2.200 | 3.000 | -14.000 | 0.250 | -2.500 | 1.000 | 0.050 |
| 2017q2 | -0.700 | 15.500 | 0.000 | -2.200 | 2.000 | -12.000 | 0.250 | -2.500 | 1.000 | 0.050 |
| 2017q3 | -0.700 | 15.000 | 0.000 | -2.200 | 2.000 | -10.000 | 0.250 | -2.500 | 1.000 | 0.000 |
| 2017q4 | -0.700 | 15.000 | 0.000 | -2.200 | 2.000 | -8.000 | 0.250 | -2.500 | 1.000 | 0.000 |

| | A.JCLH | A.JEXRB | A.JIPTOT | A.JQLH | A.KCAG | A.LF | A.M1 | A.M2 | A.MAUTO0 | A.MGNOIL |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q2 | -0.010 | -6.494 | -0.802 | -0.193 | 0.200 | -0.566 | 45.000 | 20.000 | 22.000 | -63.015 |
| 2016q3 | -0.020 | -0.561 | -0.500 | -0.120 | 0.200 | -0.300 | 45.000 | 20.000 | 22.000 | -62.000 |
| 2016q4 | -0.020 | -1.200 | -0.300 | -0.070 | 0.200 | -0.370 | 45.000 | 20.000 | 22.000 | -62.000 |
| 2017q1 | -0.020 | -1.100 | -0.300 | 0.000 | 0.200 | -0.430 | 45.000 | 20.000 | 22.000 | -62.000 |
| 2017q2 | -0.020 | -1.100 | -0.300 | 0.050 | 0.200 | -0.430 | 45.000 | 20.000 | 22.000 | -63.000 |
| 2017q3 | -0.020 | -1.000 | -0.300 | 0.050 | 0.200 | -0.430 | 45.000 | 20.000 | 22.000 | -64.000 |
| 2017q4 | -0.020 | -0.900 | -0.300 | 0.050 | 0.200 | -0.430 | 45.000 | 20.000 | 22.000 | -65.000 |

| | A.MS09 | A.MTRK09 | A.NEWSAL | A.NEWSOL | A.PCDFRN | A.PCDHE | A.PCDO | A.PCDREC | A.PCDVO | A.PCNCS |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q2 | -4.940 | -5.300 | 9.000 | 20.000 | -0.141 | 0.012 | -1.449 | 0.454 | -0.960 | -0.365 |
| 2016q3 | -0.700 | -5.300 | 9.000 | 40.000 | -0.150 | -0.130 | -0.100 | 0.420 | -0.400 | 0.000 |
| 2016q4 | -0.700 | -5.300 | 9.000 | 40.000 | -0.150 | -0.260 | -0.100 | 0.430 | -0.400 | 0.000 |
| 2017q1 | -0.700 | -4.300 | 9.000 | 40.000 | -0.150 | -0.260 | -0.100 | 0.440 | -0.400 | 0.000 |
| 2017q2 | -0.700 | -3.400 | 9.000 | 40.000 | -0.150 | -0.260 | -0.100 | 0.450 | -0.400 | 0.000 |
| 2017q3 | -0.700 | -3.400 | 9.000 | 40.000 | -0.150 | -0.260 | -0.100 | 0.460 | -0.400 | 0.000 |
| 2017q4 | -0.700 | -3.400 | 9.000 | 40.000 | -0.150 | -0.260 | -0.100 | 0.470 | -0.400 | 0.000 |

| | A.PCNFC | A.PCNFD | A.PCNGO | A.PCNO | A.PCPICO | A.PCPISA | A.PCSEG | A.PCSO | A.PGFD | A.PGFND |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q2 | -4.851 | 0.032 | -3.913 | -0.028 | -0.200 | -0.250 | 1.883 | 0.256 | -0.200 | -0.100 |
| 2016q3 | 0.000 | 0.000 | -3.900 | -0.040 | 0.090 | -0.200 | 0.700 | 0.270 | -0.200 | -0.100 |
| 2016q4 | 0.000 | 0.000 | 0.000 | -0.040 | 0.090 | -0.200 | 0.400 | 0.255 | -0.200 | -0.100 |
| 2017q1 | 0.000 | 0.000 | 0.000 | -0.040 | 0.090 | -0.200 | 0.400 | 0.240 | -0.200 | -0.100 |
| 2017q2 | 0.000 | 0.000 | 0.000 | -0.040 | 0.090 | -0.200 | 0.400 | 0.230 | -0.200 | -0.100 |
| 2017q3 | 0.000 | 0.000 | 0.000 | -0.040 | 0.090 | -0.200 | 0.400 | 0.220 | -0.200 | -0.100 |
| 2017q4 | 0.000 | 0.000 | 0.000 | -0.040 | 0.090 | -0.200 | 0.400 | 0.210 | -0.200 | -0.100 |

| | A.PGSL | A.PIID | A.PIPDIE | A.PIPDIP | A.PIPDOE | A.PIPDTH | A.PIPDTL | A.PIRCM | A.PIRCOS | A.PIRCPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q2 | -0.200 | 0.070 | -0.100 | 0.600 | -1.500 | -0.200 | 0.000 | -0.200 | -0.150 | -0.500 |
| 2016q3 | -0.200 | 0.070 | -0.100 | 0.600 | -0.600 | -0.200 | 0.200 | -0.150 | -0.050 | -0.500 |
| 2016q4 | -0.200 | 0.070 | -0.100 | 0.600 | -0.600 | -0.200 | -0.100 | -0.100 | 0.050 | -0.500 |
| 2017q1 | -0.200 | 0.070 | -0.100 | 0.600 | -0.600 | -0.200 | -0.300 | -0.100 | 0.050 | -0.500 |
| 2017q2 | -0.200 | 0.070 | -0.040 | 0.600 | -0.600 | -0.200 | 0.200 | -0.100 | 0.050 | -0.500 |
| 2017q3 | -0.200 | 0.070 | -0.040 | 0.600 | -0.600 | -0.200 | 0.200 | -0.100 | 0.050 | -0.500 |
| 2017q4 | -0.200 | 0.070 | -0.040 | 0.600 | -0.600 | -0.200 | -0.100 | -0.100 | 0.050 | -0.500 |

| | A.PIRCS | A.PMGOIL | A.POIL | A.PPI1 | A.PPI2 | A.PPNF1 | A.PXG | A.PXS | A.RAAA | A.RBAA |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q2 | 0.160 | 1.000 | 7.429 | -0.400 | 0.100 | 0.080 | -0.200 | 0.066 | -0.235 | -0.234 |
| 2016q3 | 0.160 | 0.000 | 0.000 | 0.200 | 0.100 | 0.120 | -0.200 | 0.014 | -0.020 | 0.040 |
| 2016q4 | 0.160 | 0.000 | 0.000 | 0.200 | 0.100 | 0.080 | -0.200 | 0.000 | -0.020 | 0.040 |
| 2017q1 | 0.160 | 0.000 | 0.000 | 0.200 | 0.100 | 0.080 | -0.200 | 0.000 | -0.020 | 0.040 |
| 2017q2 | 0.160 | 0.000 | 0.000 | 0.200 | 0.100 | 0.080 | -0.200 | 0.000 | -0.020 | 0.040 |
| 2017q3 | 0.160 | 0.000 | 0.000 | 0.200 | 0.100 | 0.060 | -0.200 | 0.000 | -0.020 | 0.040 |
| 2017q4 | 0.160 | 0.000 | 0.000 | 0.200 | 0.100 | 0.050 | -0.200 | 0.000 | -0.020 | 0.040 |

| | A.RCP | A.RG05 | A.RG10 | A.RMORT | A.RRG05 | A.RTB | A.RUM | A.RVEH48 | A.SERVE0 | A.SINVAD |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q2 | 0.014 | 0.106 | 0.027 | 0.026 | -0.618 | -0.048 | 0.020 | -0.300 | -6.000 | 2.300 |
| 2016q3 | 0.030 | -0.110 | -0.130 | 0.000 | -0.250 | 0.110 | 0.020 | -0.080 | -6.000 | 2.300 |
| 2016q4 | -0.020 | -0.110 | -0.130 | -0.040 | -0.220 | -0.040 | 0.020 | -0.080 | -6.000 | 2.300 |
| 2017q1 | 0.030 | -0.110 | -0.130 | -0.040 | -0.180 | 0.060 | 0.000 | -0.080 | -6.000 | 2.300 |
| 2017q2 | 0.000 | -0.110 | -0.130 | -0.040 | -0.180 | 0.010 | 0.000 | -0.080 | -6.000 | 2.300 |
| 2017q3 | 0.040 | -0.110 | -0.130 | -0.040 | -0.180 | 0.090 | 0.000 | -0.080 | -6.000 | 2.300 |
| 2017q4 | 0.000 | -0.110 | -0.130 | -0.040 | -0.180 | 0.010 | 0.000 | -0.080 | -6.000 | 2.300 |

| | A.SINVAF | A.SINVT0 | A.TIBF | A.TPF | A.TPSL | A.TRKH | A.TRKLCI | A.TRKLD | A.TSIB | A.TSIF |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q2 | 1.400 | -1.000 | 1.400 | 6.000 | -3.000 | 0.003 | -6.000 | -0.021 | -0.780 | -1.325 |
| 2016q3 | 0.700 | -1.000 | 1.400 | 6.000 | 1.000 | 0.005 | -3.000 | -0.040 | -1.000 | -1.500 |
| 2016q4 | 0.000 | -1.000 | 1.400 | 6.000 | 1.000 | 0.005 | -2.000 | -0.040 | -1.000 | -1.500 |
| 2017q1 | 0.000 | -1.000 | 1.400 | 6.000 | 1.000 | 0.004 | -2.000 | -0.040 | -1.000 | -1.500 |
| 2017q2 | 0.000 | -1.000 | 1.400 | 6.000 | 1.000 | 0.003 | -2.000 | -0.040 | -1.000 | -1.500 |
| 2017q3 | 0.000 | -1.000 | 1.400 | 6.000 | 1.000 | 0.003 | -2.000 | -0.040 | -1.000 | -1.500 |
| 2017q4 | 0.000 | -1.000 | 1.400 | 6.000 | 1.000 | 0.003 | -2.000 | -0.040 | -1.000 | -1.500 |

| | A.VEHL | A.XG09 | A.XS09 | A.YCP | A.YFP | A.YNFP | A.YOL | A.YPDIV | A.YPINT | A.YPWS |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q2 | -0.247 | -17.606 | -6.993 | -21.500 | 1.317 | -7.668 | -1.478 | 9.096 | 3.951 | -12.401 |
| 2016q3 | 0.395 | 3.500 | -9.000 | -21.500 | 2.500 | -3.500 | -1.800 | -9.000 | 0.000 | 0.000 |
| 2016q4 | 0.500 | 3.500 | -4.500 | -21.500 | 3.500 | 0.000 | -1.800 | -1.000 | 0.000 | 3.500 |
| 2017q1 | 0.200 | 3.500 | -4.500 | -21.500 | 3.500 | 0.000 | -1.800 | -5.000 | 0.000 | 3.500 |
| 2017q2 | 0.100 | 3.500 | -4.500 | -21.500 | 3.500 | 0.000 | -1.800 | -5.000 | 0.000 | 3.500 |
| 2017q3 | 0.050 | 3.500 | -4.500 | -21.500 | 3.500 | 0.000 | -1.800 | -5.000 | 0.000 | 3.500 |
| 2017q4 | 0.000 | 3.500 | -4.500 | -21.500 | 3.500 | 0.000 | -1.800 | -5.000 | 0.000 | 3.500 |

| | A.YUNB | S.IPDIP0 |
|---|---|---|
| 2016q2 | -0.616 | 1.000 |
| 2016q3 | 0.300 | 1.000 |
| 2016q4 | 0.300 | 1.000 |
| 2017q1 | 0.300 | 1.000 |
| 2017q2 | 0.300 | 1.000 |
| 2017q3 | 0.300 | 1.000 |
| 2017q4 | 0.300 | 1.000 |

| | AF | AUTB09.U | AUTC09.U | AUTG09.U | AUTOSG | BTRGF | BTRGSL | BTRP | BTRROW | BTTRROW |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 1.422 | 25.285 | 23.424 | 24.194 | 0.124 | 41.500 | 52.600 | 44.500 | -3.000 | 38.900 |
| 2016q2 | 1.418 | 25.285 | 23.424 | 24.179 | 0.128 | 37.000 | 50.000 | 44.721 | -2.700 | 39.815 |
| 2016q3 | 1.415 | 25.285 | 23.424 | 24.164 | 0.132 | 37.631 | 50.248 | 44.943 | -2.400 | 40.739 |
| 2016q4 | 1.411 | 25.285 | 23.424 | 24.149 | 0.136 | 38.273 | 50.498 | 45.166 | -2.100 | 41.672 |
| 2017q1 | 1.408 | 25.332 | 23.468 | 24.134 | 0.140 | 38.926 | 50.748 | 45.390 | -1.800 | 42.614 |
| 2017q2 | 1.404 | 25.380 | 23.512 | 24.118 | 0.144 | 39.590 | 51.000 | 45.615 | -1.500 | 43.566 |
| 2017q3 | 1.401 | 25.427 | 23.556 | 24.134 | 0.145 | 40.265 | 51.253 | 45.842 | -1.200 | 44.527 |
| 2017q4 | 1.397 | 25.475 | 23.600 | 24.149 | 0.147 | 40.952 | 51.508 | 46.069 | -0.900 | 45.498 |

| | D003032 | D01H2 | D01ON | D01Q1 | D01Q3 | D02Q3ON | D033071 | D03Q1 | D03Q2ON | D03Q3ON |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| 2016q2 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| 2016q3 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| 2016q4 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| 2017q1 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| 2017q2 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| 2017q3 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 1.000 |
| 2017q4 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 1.000 |

| | D05ON | D08ON | D09ON | D1 | D2 | D3 | D7080 | D74ON | D7579 | D84Q1 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 1.000 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 |
| 2016q2 | 1.000 | 1.000 | 1.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 |
| 2016q3 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 1.000 | 0.000 | 0.000 |
| 2016q4 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 |
| 2017q1 | 1.000 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 |
| 2017q2 | 1.000 | 1.000 | 1.000 | 0.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 |
| 2017q3 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 1.000 | 0.000 | 0.000 |
| 2017q4 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 |

| | D864962 | D87Q2 | D90ON | D90Q3ON | D9195 | D92ON | D93ON | D94Q1 | D95ON | D95Q2ON |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 0.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 |
| 2016q2 | 0.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 |
| 2016q3 | 0.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 |
| 2016q4 | 0.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 |
| 2017q1 | 0.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 |
| 2017q2 | 0.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 |
| 2017q3 | 0.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 |
| 2017q4 | 0.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 | 0.000 | 1.000 | 1.000 |

| | D96ON | D96Q3ON | D97ON | D98ON | D98Q1 | D98Q3 | D99ON | D99Q4 | DAINC | DAINC1 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 1.000 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 |
| 2016q2 | 1.000 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 |
| 2016q3 | 1.000 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 |
| 2016q4 | 1.000 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 |
| 2017q1 | 1.000 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 |
| 2017q2 | 1.000 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 |
| 2017q3 | 1.000 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 |
| 2017q4 | 1.000 | 1.000 | 1.000 | 1.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 |

| | DASTRIKE | DAUTSTK | DDOCK | DGPAY | DINDTPF | DLVOPEC | DM2831 | DM2832 | DOPEC2 | DPCPICOR |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.200 |
| 2016q2 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.200 |
| 2016q3 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.200 |
| 2016q4 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.200 |
| 2017q1 | 0.000 | 0.000 | 0.000 | 1.000 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.200 |
| 2017q2 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.200 |
| 2017q3 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.200 |
| 2017q4 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.200 |

| | DPOP16 | DPRE75 | DPRE81 | DPROP13 | DRMORT | DSEAS1 | DSEAS2 | DSEAS3 | DSLDEBT | DSPRD |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 2016q2 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 |
| 2016q3 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 |
| 2016q4 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -1.000 | -1.000 | -1.000 | 0.000 | 0.000 |
| 2017q1 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 2017q2 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 | 0.000 |
| 2017q3 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.000 | 0.000 |
| 2017q4 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | -1.000 | -1.000 | -1.000 | 0.000 | 0.000 |

| | DTAX86 | DTIBF | DTPF | DTSIF | DUBEXT | DVRALED | DYDADJ | EGOVCIV | GAID | GCSF |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 0.000 | -2.000 | 5.000 | 0.000 | 0.000 | 0.000 | 0.000 | 22.068 | 540.100 | -10.600 |
| 2016q2 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 22.087 | 555.000 | -11.100 |
| 2016q3 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 22.142 | 562.085 | -10.800 |
| 2016q4 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 22.197 | 569.232 | -9.600 |
| 2017q1 | 0.000 | -12.200 | 2.000 | 8.600 | 0.000 | 0.000 | 0.000 | 22.252 | 576.404 | -7.300 |
| 2017q2 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 22.308 | 582.083 | -6.000 |
| 2017q3 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 22.391 | 587.819 | -5.700 |
| 2017q4 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 22.475 | 593.611 | -5.200 |

| | GCSSL | GDIVF | GDIVSL | GFCCC | GFDC | GFDI | GFNDI | GFOC | GINTSL | GOLD |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -7.400 | 18.700 | 4.900 | -0.100 | 593.600 | 147.300 | 121.900 | 372.500 | 192.600 | 11.041 |
| 2016q2 | -7.300 | 16.579 | 4.960 | 0.100 | 597.000 | 148.393 | 122.953 | 375.081 | 193.318 | 11.041 |
| 2016q3 | -7.200 | 16.579 | 5.021 | 0.100 | 600.000 | 149.493 | 124.015 | 377.679 | 194.039 | 11.041 |
| 2016q4 | -7.100 | 16.579 | 5.083 | 0.100 | 602.978 | 150.602 | 125.237 | 380.295 | 194.763 | 11.041 |
| 2017q1 | -7.000 | 21.379 | 5.145 | 0.100 | 608.870 | 151.719 | 126.471 | 384.702 | 195.489 | 11.041 |
| 2017q2 | -6.900 | 13.263 | 5.208 | 0.100 | 611.892 | 152.844 | 127.717 | 387.743 | 196.218 | 11.041 |
| 2017q3 | -6.800 | 13.263 | 5.272 | 0.100 | 614.929 | 153.978 | 128.976 | 390.809 | 196.950 | 11.041 |
| 2017q4 | -6.700 | 13.263 | 5.337 | 0.100 | 618.737 | 155.120 | 130.246 | 393.898 | 197.684 | 11.041 |

| | GOVTRK09 | GRAF | GRASL | GSLC | GSLI | GTRFROW | GTROF | GTRSL | HTRGF | HTRGSL |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 15.300 | 54.000 | 79.700 | 1619.300 | 359.400 | 79.900 | 1975.400 | 678.800 | 26.800 | 77.000 |
| 2016q2 | 15.414 | 52.355 | 80.223 | 1632.497 | 362.000 | 73.000 | 1993.569 | 685.295 | 22.500 | 77.759 |
| 2016q3 | 15.528 | 52.837 | 80.750 | 1648.186 | 366.617 | 73.182 | 2007.867 | 691.830 | 22.612 | 78.525 |
| 2016q4 | 15.643 | 53.325 | 81.281 | 1664.026 | 371.293 | 73.364 | 2023.269 | 698.406 | 22.724 | 79.299 |
| 2017q1 | 15.759 | 58.621 | 81.815 | 1680.018 | 376.028 | 73.547 | 2054.487 | 706.001 | 22.837 | 80.080 |
| 2017q2 | 15.876 | 51.007 | 82.353 | 1696.164 | 380.824 | 73.730 | 2076.231 | 712.099 | 22.950 | 80.869 |
| 2017q3 | 15.994 | 51.515 | 82.895 | 1712.466 | 385.681 | 73.914 | 2096.185 | 718.250 | 23.064 | 81.666 |
| 2017q4 | 16.112 | 52.031 | 83.440 | 1728.923 | 390.600 | 74.098 | 2116.331 | 724.453 | 23.178 | 82.471 |

| | HTRROW | IINVFC | IINVFC09 | IVA | JICS | KCACFAC | KCCA | KTR | MGOILFAC | MNA.Q |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 80.200 | -3.100 | -1.000 | 30.000 | 91.570 | 65.810 | -323.000 | 0.000 | 1.386 | 0.479 |
| 2016q2 | 80.795 | 0.322 | 0.300 | -20.000 | 90.000 | 65.810 | -322.000 | 0.000 | 1.363 | 0.487 |
| 2016q3 | 81.394 | 0.324 | 0.300 | -5.000 | 90.100 | 65.810 | -321.000 | 0.000 | 1.363 | 0.495 |
| 2016q4 | 81.998 | 0.326 | 0.300 | -5.000 | 90.200 | 65.810 | -320.000 | 0.000 | 1.363 | 0.500 |
| 2017q1 | 82.606 | 0.328 | 0.300 | -5.000 | 90.300 | 65.810 | -267.000 | 0.000 | 1.356 | 0.505 |
| 2017q2 | 83.219 | 0.330 | 0.300 | -5.000 | 90.400 | 65.810 | -266.000 | 0.000 | 1.349 | 0.510 |
| 2017q3 | 83.836 | 0.332 | 0.300 | -5.000 | 90.500 | 65.810 | -265.000 | 0.000 | 1.343 | 0.515 |
| 2017q4 | 84.458 | 0.334 | 0.300 | -5.000 | 90.600 | 65.810 | -264.000 | 0.000 | 1.336 | 0.517 |

| | MYFAC | PAUTO | PAUTOD.F | PBRENT | PCCHIWT | PCMEXWT | PCSMC | PCTRKL | PFARM | PHCS |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 631.900 | 144.403 | 0.860 | 33.697 | 14.529 | 33.054 | 110.750 | 156.485 | 106.583 | 178.580 |
| 2016q2 | 638.126 | 144.403 | 0.861 | 42.500 | 14.529 | 33.054 | 111.070 | 156.914 | 107.243 | 180.772 |
| 2016q3 | 644.414 | 144.403 | 0.862 | 44.000 | 14.529 | 33.054 | 111.429 | 157.343 | 107.907 | 182.990 |
| 2016q4 | 650.764 | 144.583 | 0.863 | 45.000 | 14.529 | 33.054 | 111.790 | 157.833 | 108.575 | 184.793 |
| 2017q1 | 657.176 | 144.764 | 0.864 | 46.500 | 14.529 | 33.054 | 112.276 | 158.324 | 109.248 | 186.614 |
| 2017q2 | 663.651 | 144.944 | 0.865 | 47.500 | 14.529 | 33.054 | 112.764 | 158.816 | 109.924 | 188.453 |
| 2017q3 | 670.191 | 145.125 | 0.866 | 49.000 | 14.529 | 33.054 | 113.254 | 159.310 | 110.605 | 189.851 |
| 2017q4 | 676.794 | 145.306 | 0.866 | 50.000 | 14.529 | 33.054 | 113.746 | 159.806 | 111.290 | 191.259 |

| | PIINVNF | PNGAS | POP | POTHRCRU | PROWBDIF | PSINVF | PSINVNF | PTRKH | PWTI | QUARTER |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 114.833 | 88.633 | 323.242 | 270.533 | 0.005 | 123.906 | 108.169 | 222.494 | 33.453 | 2016.100 |
| 2016q2 | 115.403 | 92.766 | 323.852 | 273.000 | 0.000 | 124.673 | 108.706 | 223.598 | 41.000 | 2016.200 |
| 2016q3 | 115.976 | 97.093 | 324.498 | 274.355 | 0.001 | 125.445 | 109.245 | 224.708 | 42.000 | 2016.300 |
| 2016q4 | 116.551 | 101.621 | 325.144 | 275.717 | 0.001 | 126.222 | 109.788 | 225.823 | 43.000 | 2016.400 |
| 2017q1 | 117.130 | 104.541 | 325.793 | 277.085 | 0.001 | 127.004 | 110.332 | 226.944 | 44.000 | 2017.100 |
| 2017q2 | 117.711 | 107.545 | 326.442 | 278.460 | 0.001 | 127.790 | 110.880 | 228.070 | 45.000 | 2017.200 |
| 2017q3 | 118.295 | 110.636 | 327.088 | 279.842 | 0.001 | 128.581 | 111.430 | 229.202 | 46.000 | 2017.300 |
| 2017q4 | 118.882 | 113.815 | 327.735 | 281.231 | 0.001 | 129.378 | 111.983 | 230.340 | 47.000 | 2017.400 |

| | RAAACORP | RAUTB.BC | RDIS | RDISPC | RFFLED | RFFX | RGDPROW4 | RGDPROW5 | RGDPROW6 | RGRW10DIF |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 0.000 | 54.731 | 0.000 | 1.000 | 0.380 | 0.360 | 1.472 | 1.835 | 3.263 | -1.027 |
| 2016q2 | 0.000 | 54.831 | 0.000 | 0.880 | 0.422 | 0.380 | 1.533 | 1.872 | 4.703 | -0.845 |
| 2016q3 | 0.000 | 54.931 | 0.000 | 0.922 | 0.630 | 0.422 | 1.529 | 1.789 | 3.989 | -0.883 |
| 2016q4 | 0.000 | 55.031 | 0.000 | 1.130 | 0.672 | 0.630 | 1.902 | 2.024 | 4.127 | -0.950 |
| 2017q1 | 0.000 | 55.131 | 0.000 | 1.172 | 0.880 | 0.672 | 2.273 | 2.441 | 4.314 | -1.025 |
| 2017q2 | 0.000 | 55.231 | 0.000 | 1.380 | 0.922 | 0.880 | 1.501 | 2.030 | 4.106 | -1.012 |
| 2017q3 | 0.000 | 55.331 | 0.000 | 1.422 | 1.130 | 0.922 | 2.021 | 2.370 | 4.296 | -0.958 |
| 2017q4 | 0.000 | 55.431 | 0.000 | 1.630 | 1.172 | 1.130 | 2.106 | 2.511 | 4.380 | -0.958 |

| | RIPDIP0 | RITL.CI0 | RLFSEC | RPCCHI | RPCMEX | RPCROW4 | RPMROWB | RPOP16 | RPOP20 | RPOP65 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -6.306 | 49.235 | 48.620 | 7.353 | 4.804 | 0.362 | 6.838 | 1.340 | 1.353 | 2.591 |
| 2016q2 | 2.000 | 48.300 | 48.600 | -1.000 | 2.000 | 2.688 | -11.000 | 0.968 | 0.966 | 3.251 |
| 2016q3 | 4.000 | 48.450 | 48.623 | 1.500 | 2.000 | 1.610 | -0.700 | 1.012 | 1.057 | 3.453 |
| 2016q4 | 4.000 | 48.600 | 48.623 | 2.250 | 3.000 | 0.691 | 0.000 | 1.012 | 1.057 | 3.453 |
| 2017q1 | 4.000 | 48.750 | 48.623 | 2.250 | 3.200 | 1.876 | 0.000 | 1.012 | 1.057 | 3.453 |
| 2017q2 | 4.000 | 48.900 | 48.623 | 2.250 | 3.200 | 1.924 | 0.000 | 1.012 | 1.057 | 3.453 |
| 2017q3 | 4.000 | 49.050 | 48.623 | 2.250 | 3.200 | 1.958 | 0.000 | 0.958 | 1.038 | 3.497 |
| 2017q4 | 4.000 | 49.200 | 48.623 | 2.250 | 3.200 | 1.959 | 0.000 | 0.958 | 1.038 | 3.497 |

| | RROW3DIF | RTRKL.V | SDR | SP500 | SUBF | SUBSL | TCO | TDEPRQ | TIMET | TITCR |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -0.048 | 58.942 | 5.200 | 1948.324 | 59.800 | 0.500 | 47.728 | 0.286 | 249.000 | 0.000 |
| 2016q2 | -0.029 | 59.982 | 5.200 | 2065.000 | 60.141 | 0.500 | 47.906 | 0.286 | 250.000 | 0.000 |
| 2016q3 | -0.242 | 59.775 | 5.200 | 2090.226 | 60.484 | 0.500 | 48.085 | 0.286 | 251.000 | 0.000 |
| 2016q4 | -0.376 | 59.850 | 5.200 | 2125.882 | 60.829 | 0.500 | 48.264 | 0.286 | 252.000 | 0.000 |
| 2017q1 | -0.447 | 59.950 | 5.200 | 2162.147 | 61.175 | 0.500 | 48.444 | 0.286 | 253.000 | 0.000 |
| 2017q2 | -0.579 | 60.050 | 5.200 | 2199.030 | 61.524 | 0.500 | 48.625 | 0.286 | 254.000 | 0.000 |
| 2017q3 | -0.623 | 60.150 | 5.200 | 2236.542 | 61.875 | 0.500 | 48.806 | 0.286 | 255.000 | 0.000 |
| 2017q4 | -0.663 | 60.250 | 5.200 | 2274.694 | 62.228 | 0.500 | 48.988 | 0.286 | 256.000 | 0.000 |

| | TPNS | TRKH09.U | TROWF | TRROWF | TRROWSL | TSIFR | TSISL | URX | VROWN | WCEIL |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 0.000 | 102.212 | 25.400 | 4.900 | 0.000 | 0.153 | 19.000 | 2393.003 | 1.887 | 118.500 |
| 2016q2 | 0.000 | 103.000 | 25.833 | 4.900 | 0.000 | 0.153 | 19.000 | 2293.003 | 1.877 | 118.500 |
| 2016q3 | 0.000 | 102.700 | 26.274 | 4.900 | 0.000 | 0.153 | 19.000 | 2193.003 | 1.867 | 118.500 |
| 2016q4 | 0.000 | 102.400 | 26.722 | 4.900 | 0.000 | 0.153 | 19.000 | 2093.003 | 1.857 | 118.500 |
| 2017q1 | 0.000 | 102.100 | 27.178 | 4.900 | 0.000 | 0.153 | 19.000 | 1993.003 | 1.847 | 127.100 |
| 2017q2 | 0.000 | 101.800 | 27.642 | 4.900 | 0.000 | 0.153 | 19.000 | 1893.003 | 1.837 | 127.100 |
| 2017q3 | 0.000 | 101.500 | 28.113 | 4.900 | 0.000 | 0.153 | 19.000 | 1843.003 | 1.827 | 127.100 |
| 2017q4 | 0.000 | 101.200 | 28.593 | 4.900 | 0.000 | 0.153 | 19.000 | 1793.003 | 1.817 | 127.100 |

| | WUSMIN | XAUTO09 | XTRK09 | XYFAC | YGWS | YPRENT | YUNBEXT |
|---|---|---|---|---|---|---|---|
| 2016q1 | 7.250 | 38.000 | 26.100 | 814.000 | 1290.600 | 684.900 | 0.000 |
| 2016q2 | 7.250 | 39.000 | 26.100 | 830.000 | 1298.423 | 696.200 | 0.000 |
| 2016q3 | 7.250 | 39.289 | 26.100 | 836.156 | 1309.003 | 703.060 | 0.000 |
| 2016q4 | 7.250 | 39.581 | 26.100 | 842.358 | 1319.672 | 709.988 | 0.000 |
| 2017q1 | 7.250 | 39.874 | 26.294 | 848.606 | 1334.729 | 713.511 | 0.000 |
| 2017q2 | 7.250 | 40.170 | 26.489 | 854.900 | 1345.611 | 717.052 | 0.000 |
| 2017q3 | 7.250 | 40.468 | 26.685 | 861.241 | 1358.161 | 720.611 | 0.000 |
| 2017q4 | 7.250 | 40.768 | 26.883 | 867.629 | 1370.831 | 724.187 | 0.000 |

| | AUTOS | AUTOSB | AUTOSC | AUTOSD | AUTOSF | BALCA | C | C09 | CCORE | CCORE09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 7.482 | 3.971 | 3.372 | 5.635 | 1.847 | -472.400 | 12444.700 | 11330.700 | 11038.300 | 10036.100 |
| 2016q1 | 7.025 | 3.777 | 3.125 | 5.313 | 1.712 | -494.300 | 12511.000 | 11383.200 | 11136.600 | 10073.700 |
| 2016q2 | 7.000 | 3.768 | 3.104 | 5.213 | 1.787 | -488.851 | 12659.400 | 11473.787 | 11267.791 | 10158.524 |
| 2016q3 | 7.168 | 3.865 | 3.171 | 5.380 | 1.788 | -505.425 | 12789.832 | 11548.075 | 11385.178 | 10227.827 |
| 2016q4 | 7.158 | 3.864 | 3.158 | 5.369 | 1.789 | -518.151 | 12914.365 | 11613.364 | 11496.593 | 10289.804 |
| 2017q1 | 7.142 | 3.860 | 3.142 | 5.354 | 1.788 | -527.107 | 13045.448 | 11682.506 | 11615.831 | 10356.356 |
| 2017q2 | 7.114 | 3.850 | 3.121 | 5.332 | 1.782 | -541.527 | 13181.107 | 11754.476 | 11739.239 | 10425.708 |
| 2017q3 | 7.079 | 3.836 | 3.097 | 5.304 | 1.774 | -557.761 | 13323.163 | 11831.226 | 11869.007 | 10499.669 |
| 2017q4 | 7.044 | 3.823 | 3.074 | 5.279 | 1.765 | -572.493 | 13471.205 | 11910.780 | 12004.026 | 10576.371 |

| | CD | CD09 | CDFE | CDFE09 | CDFRN09 | CDHE09 | CDO | CDO09 | CDREC | CDREC09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 1346.900 | 1495.500 | 302.900 | 352.300 | 114.752 | 237.548 | 205.000 | 206.900 | 383.700 | 548.000 |
| 2016q1 | 1337.900 | 1489.400 | 305.300 | 356.100 | 114.585 | 241.515 | 207.300 | 205.300 | 385.000 | 559.300 |
| 2016q2 | 1354.101 | 1516.332 | 308.566 | 361.289 | 115.599 | 245.689 | 208.552 | 207.608 | 390.564 | 574.275 |
| 2016q3 | 1368.702 | 1540.016 | 311.379 | 366.553 | 117.280 | 249.273 | 211.060 | 210.424 | 393.512 | 584.936 |
| 2016q4 | 1380.001 | 1559.033 | 314.631 | 372.671 | 119.355 | 253.316 | 213.318 | 212.668 | 396.489 | 595.289 |
| 2017q1 | 1392.287 | 1578.671 | 317.901 | 378.796 | 121.288 | 257.508 | 215.696 | 214.962 | 399.676 | 605.597 |
| 2017q2 | 1405.127 | 1598.538 | 321.232 | 384.885 | 123.155 | 261.730 | 218.186 | 217.318 | 403.128 | 616.053 |
| 2017q3 | 1418.075 | 1618.279 | 324.690 | 391.080 | 125.038 | 266.041 | 220.855 | 219.816 | 406.950 | 626.914 |
| 2017q4 | 1430.878 | 1637.597 | 327.904 | 396.928 | 126.771 | 270.158 | 223.493 | 222.266 | 410.821 | 637.670 |

| | CDV | CDV09 | CDVA | CDVA09 | CDVO09 | CDVT | CDVT09 | CGDIS | CGDISR4 | CN |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 455.300 | 410.600 | 81.800 | 78.000 | 160.700 | 192.900 | 171.900 | 2361.500 | 4.334 | 2664.600 |
| 2016q1 | 440.200 | 397.200 | 77.100 | 73.200 | 164.800 | 179.500 | 159.200 | 2372.400 | 4.580 | 2632.900 |
| 2016q2 | 446.418 | 403.701 | 76.559 | 72.709 | 164.012 | 188.795 | 166.981 | 2396.290 | 3.961 | 2662.409 |
| 2016q3 | 452.751 | 409.647 | 78.216 | 74.279 | 166.125 | 191.876 | 169.243 | 2414.304 | 3.171 | 2683.496 |
| 2016q4 | 455.563 | 411.899 | 77.979 | 73.966 | 167.723 | 193.571 | 170.209 | 2433.050 | 3.030 | 2706.080 |
| 2017q1 | 459.013 | 414.652 | 77.824 | 73.731 | 169.498 | 195.560 | 171.423 | 2454.295 | 3.452 | 2730.174 |
| 2017q2 | 462.581 | 417.494 | 77.536 | 73.370 | 171.715 | 197.298 | 172.409 | 2477.367 | 3.383 | 2756.179 |
| 2017q3 | 465.580 | 419.812 | 77.187 | 72.952 | 173.644 | 198.840 | 173.216 | 2502.280 | 3.644 | 2783.266 |
| 2017q4 | 468.660 | 422.181 | 76.848 | 72.544 | 175.620 | 200.382 | 174.017 | 2527.976 | 3.902 | 2811.884 |

| | CN09 | CNCS | CNCS09 | CNFC | CNFC09 | CNFD | CNFD09 | CNGO | CNGO09 | CNO |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 2451.500 | 376.600 | 361.700 | 18.247 | 19.354 | 899.900 | 809.400 | 276.629 | 266.917 | 1093.300 |
| 2016q1 | 2457.600 | 377.200 | 359.700 | 17.007 | 20.328 | 902.400 | 815.400 | 238.536 | 268.535 | 1097.600 |
| 2016q2 | 2471.023 | 377.398 | 360.385 | 16.150 | 19.272 | 907.037 | 818.136 | 250.615 | 271.616 | 1111.210 |
| 2016q3 | 2478.440 | 379.153 | 362.312 | 16.692 | 19.225 | 912.913 | 819.343 | 255.538 | 272.844 | 1119.200 |
| 2016q4 | 2485.668 | 381.692 | 364.821 | 17.022 | 19.119 | 918.688 | 820.111 | 261.758 | 274.311 | 1126.920 |
| 2017q1 | 2494.809 | 384.159 | 367.238 | 17.308 | 19.075 | 924.820 | 821.077 | 267.024 | 275.693 | 1136.863 |
| 2017q2 | 2505.150 | 386.857 | 369.831 | 17.597 | 19.033 | 931.255 | 822.317 | 272.505 | 277.016 | 1147.965 |
| 2017q3 | 2516.508 | 389.702 | 372.529 | 17.884 | 19.022 | 937.986 | 823.709 | 277.610 | 278.396 | 1160.083 |
| 2017q4 | 2528.532 | 392.658 | 375.299 | 18.180 | 19.003 | 945.054 | 825.259 | 282.892 | 279.681 | 1173.100 |

| | CNO09 | CS | CS09 | CSEG | CSEG09 | CSO | CSO09 | CURR | DISC | DLPX |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 1004.300 | 8433.100 | 7415.000 | 211.617 | 209.462 | 8221.483 | 7205.538 | 1337.800 | 1.004 | -0.014 |
| 2016q1 | 1004.100 | 8540.300 | 7464.500 | 216.439 | 216.633 | 8323.861 | 7247.867 | 1359.000 | 1.003 | -0.014 |
| 2016q2 | 1012.276 | 8642.889 | 7517.719 | 217.807 | 217.640 | 8425.082 | 7300.080 | 1385.105 | 1.003 | 0.006 |
| 2016q3 | 1015.502 | 8737.635 | 7563.665 | 219.511 | 220.123 | 8518.123 | 7343.543 | 1411.319 | 1.004 | 0.003 |
| 2016q4 | 1018.282 | 8828.283 | 7604.855 | 220.304 | 221.310 | 8607.980 | 7383.545 | 1437.585 | 1.004 | 0.002 |
| 2017q1 | 1022.855 | 8922.987 | 7647.540 | 220.464 | 221.636 | 8702.523 | 7425.905 | 1464.751 | 1.005 | 0.001 |
| 2017q2 | 1028.222 | 9019.802 | 7691.703 | 220.511 | 221.778 | 8799.290 | 7469.925 | 1491.709 | 1.005 | 0.001 |
| 2017q3 | 1034.268 | 9121.822 | 7739.642 | 220.675 | 221.877 | 8901.147 | 7517.765 | 1519.113 | 1.006 | 0.001 |
| 2017q4 | 1040.840 | 9228.442 | 7790.008 | 221.053 | 221.983 | 9007.390 | 7568.024 | 1547.132 | 1.006 | 0.001 |

| | EGOV | EMP | EMPHH | FS | FS09 | FSA09 | FSAD09 | FSAF09 | FSDP | FSDP09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 23.456 | 142.872 | 149.523 | 18077.900 | 16385.000 | 180.400 | 135.651 | 44.453 | 18592.300 | 16940.000 |
| 2016q1 | 23.490 | 143.539 | 150.979 | 18152.100 | 16420.700 | 171.700 | 129.394 | 41.695 | 18660.300 | 16989.900 |
| 2016q2 | 23.505 | 144.110 | 151.199 | 18326.825 | 16543.014 | 171.078 | 126.950 | 43.533 | 18850.862 | 17106.396 |
| 2016q3 | 23.557 | 144.660 | 151.785 | 18505.044 | 16650.660 | 175.195 | 131.019 | 43.556 | 19044.304 | 17221.506 |
| 2016q4 | 23.608 | 145.172 | 152.263 | 18685.777 | 16749.565 | 174.958 | 130.749 | 43.580 | 19236.390 | 17329.632 |
| 2017q1 | 23.660 | 145.653 | 152.658 | 18885.148 | 16852.546 | 174.901 | 130.645 | 43.624 | 19443.461 | 17441.144 |
| 2017q2 | 23.712 | 146.137 | 153.063 | 19083.670 | 16956.968 | 174.551 | 130.343 | 43.574 | 19654.988 | 17558.264 |
| 2017q3 | 23.792 | 146.629 | 153.482 | 19286.397 | 17062.325 | 174.003 | 129.908 | 43.455 | 19872.514 | 17678.057 |
| 2017q4 | 23.872 | 147.128 | 153.905 | 19497.651 | 17170.089 | 173.474 | 129.520 | 43.309 | 20097.044 | 17800.010 |

| | FSO09 | FST09 | G | G09 | GAUTO09 | GCBDD | GCE | GDEBTM | GDEBTP | GDP |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 5903.800 | 386.100 | 3203.900 | 2870.600 | 104.900 | 3.200 | 54.541 | 12015.265 | 10923.854 | 18164.800 |
| 2016q1 | 5917.600 | 375.200 | 3213.800 | 2878.900 | 104.700 | 3.100 | 54.943 | 12282.218 | 11088.403 | 18221.100 |
| 2016q2 | 5973.453 | 384.689 | 3238.023 | 2890.242 | 106.936 | 3.135 | 55.240 | 12213.496 | 10954.948 | 18374.318 |
| 2016q3 | 6018.936 | 389.798 | 3266.090 | 2902.463 | 109.093 | 2.816 | 55.568 | 12321.022 | 11128.777 | 18558.027 |
| 2016q4 | 6068.944 | 392.423 | 3294.531 | 2914.978 | 108.627 | 2.461 | 55.899 | 12484.597 | 11389.258 | 18748.426 |
| 2017q1 | 6120.917 | 395.642 | 3327.909 | 2925.518 | 109.547 | 2.509 | 56.413 | 12546.367 | 11538.977 | 18950.109 |
| 2017q2 | 6172.572 | 398.611 | 3357.285 | 2937.608 | 109.270 | 2.496 | 56.748 | 12395.322 | 11424.874 | 19152.807 |
| 2017q3 | 6221.784 | 401.399 | 3386.938 | 2949.331 | 108.710 | 2.254 | 57.086 | 12540.995 | 11599.617 | 19357.029 |
| 2017q4 | 6269.950 | 404.197 | 3417.624 | 2961.126 | 108.418 | 1.966 | 57.425 | 12783.827 | 11862.014 | 19568.979 |

| | GDP09 | GDP09R4 | GDPP | GDPROW4 | GDPROW4Q | GDPROW5 | GDPROW5Q | GDPROW6 | GDPROW6Q | GF |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 16470.600 | 1.976 | 16523.528 | 165.076 | 165.076 | 170.799 | 170.799 | 273.316 | 273.316 | 1235.200 |
| 2016q1 | 16492.700 | 1.950 | 16577.045 | 165.680 | 165.680 | 171.577 | 171.577 | 275.519 | 275.519 | 1235.200 |
| 2016q2 | 16594.779 | 1.599 | 16723.335 | 166.311 | 166.253 | 172.375 | 172.286 | 278.703 | 278.038 | 1243.526 |
| 2016q3 | 16706.837 | 1.784 | 16896.119 | 166.944 | 166.895 | 173.140 | 173.237 | 281.442 | 281.987 | 1251.287 |
| 2016q4 | 16813.671 | 2.083 | 17075.580 | 167.732 | 167.411 | 174.010 | 174.040 | 284.302 | 284.507 | 1259.212 |
| 2017q1 | 16918.378 | 2.581 | 17262.723 | 168.677 | 168.232 | 175.062 | 175.049 | 287.320 | 287.543 | 1271.862 |
| 2017q2 | 17026.068 | 2.599 | 17453.806 | 169.306 | 169.333 | 175.944 | 175.803 | 290.225 | 290.248 | 1280.297 |
| 2017q3 | 17132.448 | 2.548 | 17644.096 | 170.155 | 169.843 | 176.977 | 176.932 | 293.293 | 293.479 | 1288.791 |
| 2017q4 | 17240.562 | 2.539 | 17841.630 | 171.044 | 170.758 | 178.078 | 177.991 | 296.453 | 296.572 | 1298.101 |

| | GF09 | GFCCC09 | GFD | GFD09 | GFE | GFND | GFND09 | GFNDC | GFR | GINTF |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 1118.300 | 0.000 | 745.700 | 683.100 | 4062.700 | 489.500 | 434.800 | 368.700 | 3461.000 | 443.200 |
| 2016q1 | 1113.800 | -0.100 | 740.900 | 676.900 | 4102.400 | 494.300 | 436.400 | 372.400 | 3508.300 | 448.700 |
| 2016q2 | 1119.700 | 0.093 | 745.393 | 680.768 | 4137.897 | 498.134 | 438.439 | 375.181 | 3539.457 | 451.605 |
| 2016q3 | 1124.687 | 0.093 | 749.493 | 683.952 | 4168.777 | 501.794 | 440.245 | 377.779 | 3576.815 | 454.785 |
| 2016q4 | 1129.265 | 0.092 | 753.580 | 686.745 | 4204.302 | 505.632 | 442.028 | 380.395 | 3618.221 | 461.246 |
| 2017q1 | 1131.892 | 0.092 | 760.589 | 688.049 | 4261.313 | 511.273 | 443.339 | 384.802 | 3670.087 | 468.736 |
| 2017q2 | 1136.163 | 0.091 | 764.736 | 690.356 | 4304.104 | 515.560 | 445.288 | 387.843 | 3706.906 | 477.278 |
| 2017q3 | 1140.209 | 0.090 | 768.907 | 692.535 | 4346.076 | 519.884 | 447.141 | 390.909 | 3752.420 | 486.877 |
| 2017q4 | 1144.689 | 0.090 | 773.857 | 695.238 | 4388.563 | 524.245 | 448.916 | 393.998 | 3799.349 | 496.000 |

| | GNP | GOVAU09 | GSL | GSL09 | GSLE | GSLR | GTRF | GTRP | GTRUCK09 | HASSETCS |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 18357.500 | 3.100 | 1968.700 | 1750.900 | 2482.900 | 2400.800 | 2593.400 | 2654.100 | 354.500 | 0.032 |
| 2016q1 | 18403.235 | 3.000 | 1978.700 | 1763.500 | 2491.300 | 2342.200 | 2627.900 | 2686.700 | 356.400 | 0.028 |
| 2016q2 | 18566.192 | 3.095 | 1994.497 | 1768.863 | 2511.610 | 2370.370 | 2653.971 | 2711.266 | 358.139 | 0.034 |
| 2016q3 | 18749.769 | 3.190 | 2014.803 | 1776.095 | 2534.556 | 2387.338 | 2675.730 | 2732.293 | 365.688 | 0.035 |
| 2016q4 | 18940.020 | 3.284 | 2035.319 | 1784.019 | 2557.695 | 2411.283 | 2698.855 | 2754.664 | 368.546 | 0.031 |
| 2017q1 | 19141.539 | 3.379 | 2056.047 | 1791.893 | 2582.008 | 2435.033 | 2737.729 | 2793.780 | 370.420 | 0.031 |
| 2017q2 | 19344.056 | 3.473 | 2076.988 | 1799.697 | 2604.981 | 2459.292 | 2765.567 | 2821.853 | 371.489 | 0.033 |
| 2017q3 | 19548.079 | 3.507 | 2098.147 | 1807.355 | 2628.165 | 2473.503 | 2791.487 | 2848.004 | 371.946 | 0.029 |
| 2017q4 | 19759.813 | 3.538 | 2119.523 | 1814.660 | 2651.561 | 2498.748 | 2817.600 | 2874.345 | 372.720 | 0.020 |

| | HINT | HOUSCOMP | HOUSEX | HS | HS1COMP | HSMULT | HSSING | HSUPPLY | I09 | IBF |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 274.100 | 1148.837 | 4583.333 | 1135.333 | 735.857 | 378.667 | 756.667 | 5.537 | 2852.700 | 2309.500 |
| 2016q1 | 274.600 | 1136.813 | 4710.000 | 1133.333 | 764.297 | 341.333 | 792.000 | 5.710 | 2827.200 | 2275.900 |
| 2016q2 | 277.170 | 1144.444 | 4771.000 | 1159.945 | 785.982 | 359.975 | 799.969 | 5.682 | 2820.558 | 2276.520 |
| 2016q3 | 280.684 | 1180.875 | 4819.908 | 1217.484 | 808.965 | 381.562 | 835.922 | 5.582 | 2854.175 | 2294.618 |
| 2016q4 | 284.377 | 1230.261 | 4849.739 | 1262.681 | 837.694 | 398.113 | 864.568 | 5.572 | 2893.197 | 2313.993 |
| 2017q1 | 288.245 | 1274.498 | 4883.378 | 1302.528 | 868.750 | 402.048 | 900.480 | 5.547 | 2927.446 | 2335.602 |
| 2017q2 | 292.548 | 1313.498 | 4926.226 | 1339.002 | 901.856 | 407.059 | 931.942 | 5.505 | 2964.561 | 2359.953 |
| 2017q3 | 297.021 | 1348.870 | 4962.083 | 1371.967 | 932.232 | 412.892 | 959.076 | 5.511 | 2997.590 | 2384.438 |
| 2017q4 | 301.832 | 1380.073 | 4976.409 | 1399.776 | 959.334 | 417.183 | 982.593 | 5.547 | 3029.200 | 2410.613 |

| | IBF09 | IBFID | IBFID09 | IBFNC | IBFNC09 | IBFPD | IBFPD09 | IINV | IINV09 | IINVA09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 2213.000 | 734.600 | 699.400 | 489.500 | 450.700 | 1085.300 | 1066.400 | 86.900 | 78.300 | -8.300 |
| 2016q1 | 2179.900 | 739.700 | 702.400 | 474.000 | 438.200 | 1062.200 | 1042.700 | 69.000 | 60.900 | -0.900 |
| 2016q2 | 2181.758 | 747.319 | 708.471 | 462.472 | 429.482 | 1066.729 | 1047.585 | 47.494 | 41.169 | -2.595 |
| 2016q3 | 2199.247 | 756.905 | 716.608 | 459.598 | 427.760 | 1078.115 | 1058.898 | 52.983 | 45.699 | -2.154 |
| 2016q4 | 2216.248 | 767.437 | 725.445 | 459.206 | 427.274 | 1087.350 | 1067.665 | 62.648 | 53.766 | -1.238 |
| 2017q1 | 2234.117 | 779.030 | 734.964 | 458.644 | 425.889 | 1097.929 | 1077.559 | 64.961 | 55.475 | -0.253 |
| 2017q2 | 2252.529 | 791.584 | 745.216 | 458.333 | 424.192 | 1110.036 | 1087.578 | 69.138 | 58.749 | 0.101 |
| 2017q3 | 2270.202 | 804.618 | 755.766 | 458.569 | 422.602 | 1121.251 | 1096.424 | 70.632 | 59.722 | 0.142 |
| 2017q4 | 2289.009 | 817.358 | 765.820 | 460.620 | 422.360 | 1132.635 | 1105.530 | 71.328 | 60.012 | 0.044 |

| | IINVAD09 | IINVAF09 | IINVF | IINVF09 | IINVNF | IINVNF09 | IINVO09 | IINVT09 | IINVV09 | INCWM09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | -8.000 | -0.300 | 3.500 | 3.100 | 83.400 | 76.000 | 84.600 | -0.300 | -8.600 | 67.000 |
| 2016q1 | -1.200 | 0.300 | -3.000 | -0.900 | 72.000 | 62.700 | 52.900 | 10.700 | 9.800 | 41.000 |
| 2016q2 | -0.230 | -2.365 | 0.222 | 0.207 | 47.272 | 40.962 | 41.700 | 1.857 | -0.738 | 32.484 |
| 2016q3 | -0.848 | -1.306 | 0.224 | 0.207 | 52.759 | 45.492 | 42.074 | 5.572 | 3.417 | 33.192 |
| 2016q4 | -0.029 | -1.210 | 0.226 | 0.208 | 62.423 | 53.558 | 48.312 | 6.485 | 5.247 | 33.973 |
| 2017q1 | 0.220 | -0.473 | 0.228 | 0.208 | 64.734 | 55.267 | 49.284 | 6.235 | 5.982 | 34.899 |
| 2017q2 | 0.260 | -0.159 | 0.230 | 0.209 | 68.908 | 58.540 | 52.470 | 5.968 | 6.070 | 35.840 |
| 2017q3 | 0.202 | -0.060 | 0.232 | 0.210 | 70.401 | 59.513 | 54.536 | 4.834 | 4.976 | 36.885 |
| 2017q4 | 0.089 | -0.045 | 0.234 | 0.210 | 71.094 | 59.802 | 55.960 | 3.798 | 3.842 | 37.944 |

| | IPDAU | IPDAU09 | IPDIE | IPDIE09 | IPDIP | IPDIP09 | IPDOE09 | IPDTH | IPDTH09 | IPDTL |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 104.100 | 99.300 | 240.000 | 224.900 | 331.600 | 352.900 | 197.600 | 52.800 | 47.000 | 170.500 |
| 2016q1 | 100.400 | 95.500 | 237.900 | 223.300 | 326.600 | 347.200 | 183.400 | 52.300 | 46.200 | 173.900 |
| 2016q2 | 100.178 | 95.274 | 238.303 | 223.551 | 328.106 | 348.940 | 184.991 | 52.486 | 46.197 | 176.188 |
| 2016q3 | 102.739 | 97.726 | 239.272 | 224.186 | 331.185 | 352.447 | 187.085 | 52.298 | 45.867 | 180.464 |
| 2016q4 | 102.839 | 97.708 | 240.095 | 224.511 | 334.287 | 355.989 | 190.626 | 52.114 | 45.542 | 182.901 |
| 2017q1 | 103.045 | 97.792 | 240.510 | 224.359 | 337.518 | 359.567 | 195.289 | 52.037 | 45.312 | 185.484 |
| 2017q2 | 103.074 | 97.707 | 240.801 | 223.873 | 340.893 | 363.181 | 200.586 | 52.160 | 45.256 | 188.716 |
| 2017q3 | 103.020 | 97.544 | 241.724 | 223.817 | 344.397 | 366.831 | 204.337 | 52.458 | 45.350 | 191.535 |
| 2017q4 | 102.977 | 97.392 | 243.189 | 224.153 | 348.006 | 370.518 | 207.882 | 52.764 | 45.450 | 193.957 |

| | IPDTL09 | IPDTRK | IPDTRK09 | IPDTRO | IPDTRO09 | IRC | IRC09 | IRCM | IRCM09 | IRCOS |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 152.100 | 223.300 | 199.200 | 513.900 | 496.100 | 634.200 | 547.400 | 57.400 | 52.800 | 338.600 |
| 2016q1 | 154.400 | 226.200 | 200.700 | 497.700 | 479.600 | 659.600 | 566.700 | 62.300 | 57.300 | 353.300 |
| 2016q2 | 155.999 | 228.674 | 202.295 | 500.320 | 482.560 | 676.919 | 578.545 | 65.127 | 59.786 | 360.324 |
| 2016q3 | 159.065 | 232.762 | 205.027 | 507.658 | 489.838 | 693.764 | 589.607 | 65.654 | 60.154 | 365.555 |
| 2016q4 | 160.937 | 235.015 | 206.570 | 512.967 | 494.904 | 713.500 | 602.730 | 66.379 | 60.688 | 370.359 |
| 2017q1 | 163.060 | 237.521 | 208.460 | 519.901 | 501.541 | 734.502 | 616.519 | 67.282 | 61.295 | 375.643 |
| 2017q2 | 164.986 | 240.876 | 210.326 | 528.341 | 508.620 | 756.643 | 630.955 | 68.162 | 61.823 | 381.535 |
| 2017q3 | 166.756 | 243.992 | 212.189 | 535.130 | 514.071 | 777.975 | 644.397 | 69.208 | 62.457 | 387.257 |
| 2017q4 | 168.536 | 246.721 | 214.068 | 541.440 | 519.342 | 797.602 | 656.165 | 70.405 | 63.191 | 392.174 |

| | IRCOS09 | IRCPD | IRCPD09 | IRCS | IRCS09 | JCAPTOT | JCLH | JCLHD | JCUTOT | JEC |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 289.000 | 9.400 | 11.400 | 228.700 | 195.800 | 137.987 | 115.236 | 104.921 | 0.758 | 125.200 |
| 2016q1 | 300.600 | 9.600 | 11.800 | 234.400 | 198.900 | 138.116 | 116.093 | 105.627 | 0.753 | 125.906 |
| 2016q2 | 304.824 | 9.561 | 11.792 | 241.906 | 204.098 | 138.181 | 116.815 | 105.874 | 0.751 | 126.627 |
| 2016q3 | 307.271 | 9.520 | 11.856 | 253.034 | 212.196 | 138.259 | 117.495 | 106.087 | 0.754 | 127.345 |
| 2016q4 | 309.299 | 9.480 | 11.931 | 267.282 | 222.583 | 138.435 | 118.161 | 106.257 | 0.760 | 128.054 |
| 2017q1 | 311.529 | 9.447 | 12.009 | 282.130 | 233.347 | 138.776 | 119.001 | 106.568 | 0.766 | 128.876 |
| 2017q2 | 314.225 | 9.423 | 12.093 | 297.523 | 244.349 | 139.322 | 119.777 | 106.813 | 0.771 | 129.678 |
| 2017q3 | 316.753 | 9.408 | 12.185 | 312.103 | 254.434 | 140.035 | 120.620 | 107.113 | 0.775 | 130.497 |
| 2017q4 | 318.588 | 9.385 | 12.268 | 325.637 | 263.472 | 140.862 | 121.537 | 107.458 | 0.778 | 131.354 |

| | JEXRB | JIPTOT | JQLH | JQLHT | JULC | KCA | KCAC | KCAG | KCAGF | KCAP |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 120.914 | 104.583 | 106.125 | 1.412 | 108.585 | 2855.700 | 1532.700 | 525.900 | 275.700 | 2329.800 |
| 2016q1 | 123.560 | 103.993 | 105.855 | 1.457 | 109.672 | 2872.400 | 1544.300 | 525.800 | 276.100 | 2346.500 |
| 2016q2 | 119.176 | 103.775 | 106.100 | 1.661 | 110.098 | 2889.556 | 1554.837 | 526.941 | 276.320 | 2362.615 |
| 2016q3 | 119.000 | 104.299 | 106.516 | 1.837 | 110.307 | 2908.858 | 1566.408 | 528.660 | 276.756 | 2380.198 |
| 2016q4 | 118.965 | 105.240 | 106.935 | 1.880 | 110.498 | 2930.579 | 1579.255 | 530.860 | 277.378 | 2399.719 |
| 2017q1 | 119.166 | 106.277 | 107.356 | 1.958 | 110.847 | 2954.462 | 1593.228 | 533.511 | 278.174 | 2420.951 |
| 2017q2 | 119.328 | 107.385 | 107.764 | 1.721 | 111.147 | 2980.408 | 1608.331 | 536.508 | 279.110 | 2443.900 |
| 2017q3 | 119.462 | 108.469 | 108.145 | 1.444 | 111.535 | 3007.779 | 1624.194 | 539.773 | 280.157 | 2468.006 |
| 2017q4 | 119.652 | 109.539 | 108.533 | 1.075 | 111.981 | 3036.342 | 1640.691 | 543.270 | 281.303 | 2493.072 |

| | LCURRENT | LF | M | M09 | M1 | M2 | MAUTNA09 | MAUTO09 | MBASE | MGNOIL |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | -0.245 | 157.432 | 2730.900 | 2662.200 | 3087.200 | 12314.800 | 48.233 | 127.100 | 3835.810 | 2063.600 |
| 2016q1 | -0.250 | 158.837 | 2679.100 | 2663.300 | 3147.400 | 12568.600 | 50.188 | 126.900 | 3898.447 | 2041.500 |
| 2016q2 | -0.280 | 159.124 | 2710.901 | 2659.245 | 3185.954 | 12733.134 | 52.078 | 122.842 | 3840.279 | 2055.488 |
| 2016q3 | -0.284 | 159.665 | 2743.078 | 2677.584 | 3213.774 | 12864.922 | 54.001 | 125.664 | 3776.893 | 2066.557 |
| 2016q4 | -0.287 | 160.128 | 2771.859 | 2699.813 | 3236.011 | 12996.570 | 54.313 | 127.071 | 3743.374 | 2082.655 |
| 2017q1 | -0.288 | 160.502 | 2798.017 | 2725.006 | 3254.388 | 13129.466 | 55.321 | 127.225 | 3612.202 | 2097.581 |
| 2017q2 | -0.291 | 160.870 | 2831.044 | 2755.845 | 3268.555 | 13254.509 | 55.728 | 127.705 | 3551.583 | 2118.758 |
| 2017q3 | -0.295 | 161.213 | 2866.580 | 2788.888 | 3280.132 | 13370.308 | 55.985 | 127.985 | 3529.990 | 2142.588 |
| 2017q4 | -0.298 | 161.546 | 2903.708 | 2824.415 | 3288.108 | 13469.044 | 56.052 | 127.847 | 3546.000 | 2167.463 |

| | MGNOIL09 | MGOIL | MGOIL09 | MNOIL | MNOIL09 | MS | MS09 | MTRK09 | MULT | NEWSALE |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 2025.900 | 161.700 | 219.000 | 2569.300 | 2507.700 | 505.700 | 481.800 | 76.400 | 15.535 | 235.000 |
| 2016q1 | 2016.500 | 128.000 | 228.300 | 2551.100 | 2502.700 | 509.600 | 486.200 | 75.500 | 15.596 | 246.000 |
| 2016q2 | 2016.164 | 144.042 | 224.812 | 2566.859 | 2500.610 | 511.371 | 484.498 | 75.960 | 15.628 | 256.115 |
| 2016q3 | 2027.986 | 159.127 | 226.203 | 2583.951 | 2517.971 | 517.394 | 489.948 | 76.653 | 15.580 | 266.170 |
| 2016q4 | 2043.573 | 165.418 | 227.731 | 2606.441 | 2539.131 | 523.786 | 495.454 | 77.306 | 15.508 | 276.642 |
| 2017q1 | 2062.102 | 170.352 | 228.027 | 2627.665 | 2564.136 | 530.084 | 501.855 | 78.895 | 15.438 | 287.605 |
| 2017q2 | 2086.171 | 175.522 | 228.297 | 2655.521 | 2594.855 | 536.764 | 508.464 | 81.163 | 15.387 | 298.874 |
| 2017q3 | 2112.418 | 180.340 | 228.592 | 2686.239 | 2627.819 | 543.652 | 515.153 | 83.078 | 15.352 | 310.161 |
| 2017q4 | 2140.753 | 185.454 | 228.855 | 2718.253 | 2663.356 | 550.790 | 522.325 | 84.713 | 15.331 | 321.326 |

| | NEWSOLD | NIASF | NIASOUTF | NIASSL | NINT | PC | PCCHI | PCCORE | PCDFE | PCDFRN |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 509.333 | -601.700 | -594.000 | -82.100 | 519.000 | 109.831 | 258.640 | 109.986 | 85.978 | 91.397 |
| 2016q1 | 517.000 | -594.100 | -587.200 | -149.100 | 515.100 | 109.908 | 263.269 | 110.551 | 85.734 | 91.105 |
| 2016q2 | 540.919 | -598.440 | -593.466 | -141.240 | 517.950 | 110.333 | 262.608 | 110.920 | 85.407 | 90.945 |
| 2016q3 | 572.152 | -591.962 | -588.715 | -147.218 | 523.895 | 110.753 | 263.588 | 111.316 | 84.948 | 90.746 |
| 2016q4 | 595.792 | -586.081 | -584.542 | -146.412 | 529.911 | 111.203 | 265.058 | 111.728 | 84.426 | 90.599 |
| 2017q1 | 622.239 | -591.226 | -591.242 | -146.975 | 537.217 | 111.667 | 266.537 | 112.161 | 83.924 | 90.466 |
| 2017q2 | 651.471 | -597.198 | -598.650 | -145.689 | 545.712 | 112.137 | 268.023 | 112.599 | 83.462 | 90.352 |
| 2017q3 | 675.305 | -593.656 | -596.453 | -154.662 | 554.055 | 112.610 | 269.518 | 113.042 | 83.024 | 90.247 |
| 2017q4 | 695.132 | -589.214 | -593.278 | -152.812 | 563.487 | 113.101 | 271.022 | 113.499 | 82.610 | 90.162 |

| | PCDHE | PCDO | PCDREC | PCDV | PCDVA | PCDVO | PCDVT | PCMEX | PCN | PCNCS |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 83.360 | 99.082 | 70.018 | 110.887 | 104.872 | 112.383 | 112.216 | 725.111 | 108.693 | 104.119 |
| 2016q1 | 83.186 | 100.974 | 68.836 | 110.826 | 105.328 | 111.408 | 112.751 | 733.667 | 107.131 | 104.865 |
| 2016q2 | 82.801 | 100.455 | 68.010 | 110.581 | 105.295 | 110.397 | 113.064 | 737.308 | 107.745 | 104.721 |
| 2016q3 | 82.220 | 100.302 | 67.274 | 110.522 | 105.300 | 109.953 | 113.373 | 740.967 | 108.274 | 104.648 |
| 2016q4 | 81.517 | 100.306 | 66.605 | 110.601 | 105.425 | 109.712 | 113.725 | 746.463 | 108.867 | 104.624 |
| 2017q1 | 80.843 | 100.341 | 65.997 | 110.698 | 105.552 | 109.517 | 114.081 | 752.365 | 109.434 | 104.608 |
| 2017q2 | 80.220 | 100.399 | 65.437 | 110.799 | 105.678 | 109.336 | 114.436 | 758.313 | 110.021 | 104.604 |
| 2017q3 | 79.629 | 100.473 | 64.913 | 110.902 | 105.805 | 109.162 | 114.793 | 764.308 | 110.600 | 104.610 |
| 2017q4 | 79.067 | 100.552 | 64.425 | 111.009 | 105.932 | 109.002 | 115.151 | 770.350 | 111.206 | 104.625 |

| | PCNFC | PCNFD | PCNGO | PCNO | PCPI | PCPICORE | PCPISA | PCROW4 | PCROW4Q | PCROW4QR |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 94.280 | 111.181 | 103.639 | 108.862 | 237.233 | 244.119 | 238.097 | 148.075 | 148.075 | -0.608 |
| 2016q1 | 83.663 | 110.670 | 88.829 | 109.312 | 237.386 | 245.751 | 237.911 | 148.209 | 148.209 | 0.362 |
| 2016q2 | 83.801 | 110.866 | 92.268 | 109.773 | 239.816 | 246.769 | 238.926 | 149.195 | 148.402 | 0.522 |
| 2016q3 | 86.822 | 111.420 | 93.657 | 110.211 | 240.666 | 247.881 | 239.980 | 149.792 | 149.755 | 1.510 |
| 2016q4 | 89.035 | 112.020 | 95.424 | 110.669 | 240.253 | 249.055 | 241.158 | 150.050 | 150.073 | 0.751 |
| 2017q1 | 90.736 | 112.635 | 96.855 | 111.146 | 241.816 | 250.275 | 242.361 | 150.749 | 150.303 | 0.677 |
| 2017q2 | 92.452 | 113.248 | 98.372 | 111.646 | 244.516 | 251.523 | 243.616 | 151.469 | 151.008 | 0.688 |
| 2017q3 | 94.021 | 113.874 | 99.718 | 112.165 | 245.594 | 252.794 | 244.897 | 152.205 | 151.701 | 0.614 |
| 2017q4 | 95.670 | 114.516 | 101.148 | 112.707 | 245.319 | 254.091 | 246.237 | 152.945 | 152.418 | 0.560 |

| | PCROW5 | PCROW6 | PCRUDE | PCS | PCSEG | PCSO | PG | PGDP | PGFD | PGFND |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 338.807 | 327.159 | 165.900 | 113.731 | 101.029 | 114.100 | 111.609 | 110.286 | 109.167 | 112.576 |
| 2016q1 | 341.724 | 330.325 | 150.200 | 114.411 | 99.910 | 114.846 | 111.635 | 110.479 | 109.456 | 113.247 |
| 2016q2 | 343.588 | 331.822 | 163.404 | 114.967 | 100.077 | 115.411 | 112.033 | 110.723 | 109.493 | 113.615 |
| 2016q3 | 345.197 | 333.340 | 168.067 | 115.521 | 99.722 | 115.995 | 112.528 | 111.080 | 109.583 | 113.981 |
| 2016q4 | 347.187 | 335.254 | 172.962 | 116.087 | 99.545 | 116.583 | 113.021 | 111.507 | 109.732 | 114.389 |
| 2017q1 | 349.605 | 337.536 | 176.303 | 116.678 | 99.472 | 117.191 | 113.755 | 112.009 | 110.543 | 115.323 |
| 2017q2 | 352.053 | 339.844 | 179.937 | 117.267 | 99.429 | 117.796 | 114.286 | 112.491 | 110.774 | 115.781 |
| 2017q3 | 354.528 | 342.176 | 183.322 | 117.858 | 99.458 | 118.401 | 114.837 | 112.985 | 111.028 | 116.268 |
| 2017q4 | 357.020 | 344.525 | 186.960 | 118.465 | 99.581 | 119.019 | 115.416 | 113.505 | 111.308 | 116.780 |

| | PGI | PGSL | PIBF | PIID | PINC | PIPD | PIPDAU | PIPDIE | PIPDIP | PIPDOE |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 109.458 | 112.435 | 104.360 | 105.044 | 108.615 | 101.773 | 104.834 | 106.714 | 93.964 | 94.383 |
| 2016q1 | 109.227 | 112.200 | 104.402 | 105.316 | 108.182 | 101.863 | 105.131 | 106.538 | 94.067 | 93.293 |
| 2016q2 | 109.248 | 112.756 | 104.343 | 105.483 | 107.681 | 101.827 | 105.147 | 106.599 | 94.029 | 92.690 |
| 2016q3 | 109.402 | 113.440 | 104.337 | 105.623 | 107.443 | 101.815 | 105.130 | 106.729 | 93.967 | 92.021 |
| 2016q4 | 109.664 | 114.086 | 104.410 | 105.788 | 107.474 | 101.844 | 105.251 | 106.941 | 93.904 | 91.862 |
| 2017q1 | 110.028 | 114.742 | 104.543 | 105.996 | 107.691 | 101.890 | 105.372 | 107.199 | 93.868 | 91.831 |
| 2017q2 | 110.467 | 115.408 | 104.769 | 106.222 | 108.049 | 102.065 | 105.493 | 107.562 | 93.863 | 91.926 |
| 2017q3 | 110.961 | 116.089 | 105.032 | 106.464 | 108.511 | 102.264 | 105.614 | 108.000 | 93.884 | 92.063 |
| 2017q4 | 111.501 | 116.800 | 105.312 | 106.730 | 109.059 | 102.452 | 105.735 | 108.492 | 93.924 | 92.236 |

| | PIPDT | PIPDTH | PIPDTL | PIPDTRO | PIRC | PIRCM | PIRCOS | PIRCPD | PIRCS | PM |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 112.098 | 112.340 | 112.097 | 103.588 | 115.854 | 108.712 | 117.163 | 82.456 | 116.803 | 102.582 |
| 2016q1 | 112.706 | 113.203 | 112.630 | 103.774 | 116.394 | 108.726 | 117.532 | 81.356 | 117.848 | 100.596 |
| 2016q2 | 113.040 | 113.614 | 112.942 | 103.680 | 117.004 | 108.934 | 118.207 | 81.081 | 118.525 | 101.943 |
| 2016q3 | 113.527 | 114.021 | 113.453 | 103.638 | 117.665 | 109.143 | 118.968 | 80.300 | 119.245 | 102.446 |
| 2016q4 | 113.770 | 114.431 | 113.648 | 103.650 | 118.378 | 109.378 | 119.742 | 79.458 | 120.082 | 102.669 |
| 2017q1 | 113.941 | 114.843 | 113.752 | 103.661 | 119.137 | 109.766 | 120.580 | 78.668 | 120.906 | 102.679 |
| 2017q2 | 114.525 | 115.257 | 114.383 | 103.877 | 119.920 | 110.252 | 121.421 | 77.921 | 121.761 | 102.729 |
| 2017q3 | 114.988 | 115.673 | 114.859 | 104.097 | 120.729 | 110.809 | 122.258 | 77.203 | 122.666 | 102.786 |
| 2017q4 | 115.254 | 116.091 | 115.084 | 104.255 | 121.555 | 111.417 | 123.098 | 76.506 | 123.594 | 102.807 |

| | PMGNOIL | PMGOIL | PMGROWB | PMNOIL | PMROWB | PMROWBQ | PMROWBQR | PMS | PMSROWB | POIL |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 101.861 | 73.836 | 123.164 | 102.456 | 123.884 | 123.884 | 3.238 | 104.960 | 126.911 | 109.667 |
| 2016q1 | 101.240 | 56.067 | 125.092 | 101.934 | 125.949 | 125.949 | 6.838 | 104.811 | 129.504 | 78.400 |
| 2016q2 | 101.950 | 64.072 | 121.500 | 102.649 | 122.333 | 124.193 | -5.462 | 105.546 | 125.786 | 106.200 |
| 2016q3 | 101.902 | 70.347 | 121.263 | 102.620 | 122.118 | 122.582 | 0.816 | 105.602 | 125.666 | 110.568 |
| 2016q4 | 101.912 | 72.637 | 121.240 | 102.651 | 122.118 | 122.549 | 1.419 | 105.718 | 125.768 | 115.432 |
| 2017q1 | 101.721 | 74.707 | 121.216 | 102.478 | 122.118 | 122.826 | 2.340 | 105.625 | 125.869 | 119.016 |
| 2017q2 | 101.562 | 76.883 | 121.192 | 102.338 | 122.118 | 122.756 | 2.106 | 105.566 | 125.970 | 123.455 |
| 2017q3 | 101.428 | 78.892 | 121.169 | 102.223 | 122.118 | 122.829 | 2.350 | 105.532 | 126.071 | 126.982 |
| 2017q4 | 101.248 | 81.036 | 121.145 | 102.061 | 122.118 | 122.851 | 2.420 | 105.450 | 126.173 | 131.247 |

| | POP16 | POP16AV4 | POP20 | POP65 | PPI | PPI1 | PPI2 | PPNF | PPNF1 | PPNF2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 251.741 | 250.801 | 235.123 | 47.122 | 192.300 | 192.300 | 192.300 | 109.467 | 109.467 | 109.467 |
| 2016q1 | 252.581 | 251.471 | 235.914 | 47.424 | 189.933 | 189.933 | 189.933 | 109.590 | 109.590 | 109.590 |
| 2016q2 | 253.190 | 252.153 | 236.482 | 47.805 | 191.454 | 191.454 | 192.554 | 109.862 | 109.862 | 109.941 |
| 2016q3 | 253.828 | 252.835 | 237.104 | 48.212 | 192.318 | 192.318 | 193.179 | 110.168 | 110.168 | 110.306 |
| 2016q4 | 254.468 | 253.517 | 237.728 | 48.623 | 193.427 | 193.427 | 193.948 | 110.557 | 110.557 | 110.660 |
| 2017q1 | 255.110 | 254.149 | 238.354 | 49.037 | 194.461 | 194.461 | 194.822 | 110.994 | 110.994 | 111.093 |
| 2017q2 | 255.753 | 254.790 | 238.981 | 49.455 | 195.538 | 195.538 | 195.860 | 111.459 | 111.459 | 111.547 |
| 2017q3 | 256.364 | 255.424 | 239.599 | 49.882 | 196.628 | 196.628 | 196.927 | 111.941 | 111.941 | 111.992 |
| 2017q4 | 256.975 | 256.051 | 240.218 | 50.313 | 197.872 | 197.872 | 198.106 | 112.463 | 112.463 | 112.460 |

| | PX | PXG | PXS | R3A | RAAA | RAUTOSF | RBAA | RBAR | RBASE | RCP |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 105.039 | 102.021 | 111.777 | 3.993 | 3.993 | 24.682 | 5.420 | 1.341 | -17.802 | 0.247 |
| 2016q1 | 103.540 | 99.346 | 112.744 | 3.927 | 3.927 | 24.370 | 5.307 | 1.440 | 6.694 | 0.470 |
| 2016q2 | 104.148 | 99.747 | 113.783 | 3.622 | 3.622 | 25.535 | 4.678 | 1.499 | -5.836 | 0.478 |
| 2016q3 | 104.425 | 99.914 | 114.290 | 3.653 | 3.653 | 24.950 | 4.758 | 1.502 | -6.441 | 0.627 |
| 2016q4 | 104.628 | 99.949 | 114.840 | 3.724 | 3.724 | 24.999 | 4.875 | 1.573 | -3.503 | 0.759 |
| 2017q1 | 104.697 | 99.880 | 115.196 | 3.800 | 3.800 | 25.033 | 4.995 | 1.672 | -13.297 | 0.857 |
| 2017q2 | 104.786 | 99.837 | 115.553 | 3.858 | 3.858 | 25.054 | 5.092 | 1.784 | -6.546 | 1.035 |
| 2017q3 | 104.892 | 99.811 | 115.933 | 3.907 | 3.907 | 25.066 | 5.171 | 1.906 | -2.410 | 1.136 |
| 2017q4 | 105.012 | 99.789 | 116.341 | 3.949 | 3.949 | 25.059 | 5.241 | 2.007 | 1.827 | 1.291 |

| | REM | RFF | RFFRULE | RG05 | RG10 | RGROW10 | RHSAVE | RLFP | RM2 | RMORT |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 95.289 | 0.160 | 0.476 | 1.587 | 2.190 | 1.121 | 5.000 | 62.537 | 5.225 | 3.900 |
| 2016q1 | 95.500 | 0.360 | 0.491 | 1.373 | 1.920 | 0.893 | 5.200 | 62.886 | 8.502 | 3.740 |
| 2016q2 | 95.434 | 0.380 | 0.697 | 1.263 | 1.812 | 0.967 | 4.893 | 62.848 | 5.340 | 3.599 |
| 2016q3 | 95.465 | 0.422 | 0.693 | 1.428 | 1.933 | 1.050 | 4.804 | 62.903 | 4.205 | 3.710 |
| 2016q4 | 95.467 | 0.630 | 0.726 | 1.677 | 2.120 | 1.170 | 4.781 | 62.926 | 4.157 | 3.833 |
| 2017q1 | 95.490 | 0.672 | 1.002 | 1.925 | 2.309 | 1.284 | 4.775 | 62.915 | 4.153 | 3.969 |
| 2017q2 | 95.525 | 0.880 | 0.956 | 2.106 | 2.448 | 1.436 | 4.794 | 62.901 | 3.864 | 4.081 |
| 2017q3 | 95.587 | 0.922 | 1.262 | 2.228 | 2.546 | 1.588 | 4.881 | 62.884 | 3.541 | 4.170 |
| 2017q4 | 95.659 | 1.130 | 1.254 | 2.304 | 2.611 | 1.653 | 4.887 | 62.864 | 2.987 | 4.241 |

| | RPPERM | RRG05 | RROW3 | RTB | RTBY | RTRKLF | RUG | RUM | RVEH48 | SERVE09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 0.208 | 0.359 | 0.280 | 0.123 | 0.127 | 19.994 | 5.024 | 4.711 | 4.000 | 9914.700 |
| 2016q1 | 0.173 | 0.144 | 0.239 | 0.287 | 0.290 | 18.840 | 4.950 | 4.500 | 4.170 | 9956.200 |
| 2016q2 | 0.139 | -0.255 | 0.208 | 0.236 | 0.240 | 18.988 | 4.981 | 4.566 | 4.024 | 10013.795 |
| 2016q3 | 0.182 | -0.090 | 0.209 | 0.450 | 0.457 | 18.698 | 4.936 | 4.535 | 4.081 | 10066.731 |
| 2016q4 | 0.225 | 0.144 | 0.200 | 0.576 | 0.585 | 18.623 | 4.912 | 4.533 | 4.312 | 10113.240 |
| 2017q1 | 0.282 | 0.389 | 0.226 | 0.672 | 0.683 | 18.494 | 4.887 | 4.510 | 4.524 | 10161.086 |
| 2017q2 | 0.345 | 0.577 | 0.267 | 0.846 | 0.860 | 18.414 | 4.853 | 4.475 | 4.725 | 10211.234 |
| 2017q3 | 0.355 | 0.718 | 0.326 | 0.949 | 0.964 | 18.337 | 4.795 | 4.413 | 4.909 | 10265.139 |
| 2017q4 | 0.373 | 0.811 | 0.432 | 1.095 | 1.114 | 18.280 | 4.729 | 4.341 | 5.055 | 10322.468 |

| | SINV09 | SINVA09 | SINVAD09 | SINVAF09 | SINVF | SINVF09 | SINVNF | SINVNF09 | SINVO09 | SINVT09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 9043.200 | 151.300 | 108.200 | 43.100 | 858.800 | 695.200 | 9104.400 | 8378.400 | 7980.600 | 246.500 |
| 2016q1 | 9104.000 | 150.400 | 107.000 | 43.400 | 860.400 | 694.400 | 9130.800 | 8441.200 | 8033.600 | 257.200 |
| 2016q2 | 9145.169 | 147.805 | 106.770 | 41.035 | 865.989 | 694.607 | 9220.603 | 8482.162 | 8075.300 | 259.057 |
| 2016q3 | 9190.868 | 145.651 | 105.922 | 39.729 | 871.612 | 694.814 | 9316.061 | 8527.654 | 8117.375 | 264.628 |
| 2016q4 | 9244.634 | 144.413 | 105.894 | 38.519 | 877.271 | 695.022 | 9421.098 | 8581.212 | 8165.686 | 271.113 |
| 2017q1 | 9300.109 | 144.160 | 106.114 | 38.046 | 882.968 | 695.230 | 9528.834 | 8636.479 | 8214.970 | 277.348 |
| 2017q2 | 9358.858 | 144.261 | 106.374 | 37.887 | 888.703 | 695.439 | 9641.036 | 8695.018 | 8267.441 | 283.317 |
| 2017q3 | 9418.580 | 144.403 | 106.576 | 37.827 | 894.475 | 695.649 | 9755.191 | 8754.531 | 8321.977 | 288.151 |
| 2017q4 | 9478.592 | 144.447 | 106.665 | 37.782 | 900.286 | 695.859 | 9870.581 | 8814.333 | 8377.937 | 291.949 |

| | SPLONG | SPSHORT | STAT | STKSLA | STKSLAD | STKSLAF | STKSLO | STKSLT | TC | TCF |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 0.092 | 0.026 | -163.900 | 2.516 | 2.393 | 2.909 | 4.055 | 1.915 | 509.900 | 413.700 |
| 2016q1 | 0.055 | -0.019 | -163.900 | 2.628 | 2.481 | 3.123 | 4.073 | 2.057 | 516.300 | 417.000 |
| 2016q2 | 0.031 | -0.022 | -176.194 | 2.592 | 2.523 | 2.828 | 4.056 | 2.020 | 532.627 | 430.877 |
| 2016q3 | 0.017 | 0.008 | -189.913 | 2.494 | 2.425 | 2.736 | 4.046 | 2.037 | 537.518 | 435.018 |
| 2016q4 | 0.006 | 0.037 | -206.801 | 2.476 | 2.430 | 2.652 | 4.036 | 2.073 | 545.162 | 441.309 |
| 2017q1 | 0.019 | 0.058 | -220.663 | 2.473 | 2.437 | 2.616 | 4.026 | 2.103 | 545.132 | 441.044 |
| 2017q2 | 0.026 | 0.067 | -227.857 | 2.479 | 2.448 | 2.608 | 4.018 | 2.132 | 551.917 | 446.516 |
| 2017q3 | 0.047 | 0.075 | -236.615 | 2.490 | 2.461 | 2.611 | 4.013 | 2.154 | 557.990 | 451.507 |
| 2017q4 | 0.061 | 0.066 | -246.152 | 2.498 | 2.471 | 2.617 | 4.009 | 2.167 | 564.015 | 456.422 |

| | TCSL | TIB | TIBF | TIBSL | TP | TPF | TPSL | TRKH | TRKL | TRKL09.U |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 56.400 | 1244.700 | 144.500 | 1100.200 | 1985.700 | 1568.500 | 417.200 | 0.445 | 10.318 | 31.608 |
| 2016q1 | 57.400 | 1247.000 | 143.000 | 1104.100 | 2010.000 | 1590.300 | 419.700 | 0.452 | 10.085 | 31.312 |
| 2016q2 | 59.235 | 1256.647 | 144.871 | 1111.777 | 2031.902 | 1607.226 | 424.677 | 0.449 | 10.492 | 30.993 |
| 2016q3 | 59.361 | 1266.440 | 146.968 | 1119.471 | 2052.409 | 1627.312 | 425.097 | 0.447 | 10.652 | 31.030 |
| 2016q4 | 60.082 | 1276.317 | 149.112 | 1127.205 | 2080.260 | 1648.473 | 431.787 | 0.445 | 10.670 | 31.244 |
| 2017q1 | 59.674 | 1274.366 | 139.129 | 1135.237 | 2103.444 | 1664.370 | 439.075 | 0.444 | 10.691 | 31.497 |
| 2017q2 | 60.335 | 1284.869 | 141.334 | 1143.534 | 2135.394 | 1688.377 | 447.017 | 0.445 | 10.694 | 31.762 |
| 2017q3 | 60.756 | 1295.462 | 143.530 | 1151.932 | 2158.769 | 1713.786 | 444.983 | 0.447 | 10.684 | 32.033 |
| 2017q4 | 61.195 | 1306.319 | 145.750 | 1160.569 | 2193.502 | 1739.846 | 453.656 | 0.449 | 10.676 | 32.301 |

| | TRKLCI09 | TRKLD | TRKLF | TSIB | TSID | TSIF | TSIROW | UCKNC | UCKPDIE | UCKPDIP |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 324.000 | 8.255 | 2.063 | 573.600 | 1217.600 | 1204.000 | 5.300 | 12.404 | 22.684 | 20.754 |
| 2016q1 | 313.600 | 8.185 | 1.900 | 576.800 | 1229.600 | 1216.000 | 5.400 | 12.232 | 22.168 | 20.670 |
| 2016q2 | 322.980 | 8.500 | 1.992 | 580.397 | 1237.806 | 1224.995 | 6.189 | 11.499 | 21.531 | 20.071 |
| 2016q3 | 328.308 | 8.660 | 1.992 | 584.129 | 1246.828 | 1234.062 | 6.234 | 11.559 | 21.987 | 20.133 |
| 2016q4 | 331.146 | 8.683 | 1.987 | 587.799 | 1255.704 | 1242.983 | 6.279 | 11.688 | 22.121 | 20.229 |
| 2017q1 | 334.483 | 8.714 | 1.977 | 603.578 | 1292.918 | 1280.383 | 6.465 | 11.840 | 22.153 | 20.333 |
| 2017q2 | 337.395 | 8.725 | 1.969 | 607.811 | 1303.076 | 1290.591 | 6.515 | 11.985 | 22.026 | 20.423 |
| 2017q3 | 339.972 | 8.725 | 1.959 | 612.318 | 1313.870 | 1301.440 | 6.569 | 12.122 | 22.015 | 20.503 |
| 2017q4 | 342.553 | 8.724 | 1.952 | 617.077 | 1325.252 | 1312.878 | 6.626 | 12.259 | 22.022 | 20.576 |

| | UCKPDOE | UCKPDTH | UR | URNORM | VEHL | X | X09 | XG | XG09 | XS |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 20.063 | 46.587 | 2481.188 | 126.000 | 17.800 | 2216.600 | 2110.300 | 1457.800 | 1428.900 | 758.800 |
| 2016q1 | 19.412 | 46.297 | 2519.685 | 126.682 | 17.110 | 2170.900 | 2096.700 | 1407.300 | 1416.600 | 763.600 |
| 2016q2 | 18.721 | 45.162 | 2421.050 | 128.047 | 17.492 | 2186.864 | 2099.773 | 1415.418 | 1419.009 | 771.446 |
| 2016q3 | 18.957 | 46.291 | 2322.061 | 129.058 | 17.820 | 2203.818 | 2110.431 | 1420.006 | 1421.226 | 783.812 |
| 2016q4 | 19.002 | 46.712 | 2223.352 | 130.349 | 17.828 | 2221.247 | 2122.996 | 1427.069 | 1427.791 | 794.178 |
| 2017q1 | 18.977 | 46.899 | 2122.953 | 129.950 | 17.833 | 2239.705 | 2139.217 | 1435.550 | 1437.280 | 804.155 |
| 2017q2 | 18.824 | 46.702 | 2021.767 | 128.764 | 17.808 | 2259.725 | 2156.519 | 1444.281 | 1446.634 | 815.445 |
| 2017q3 | 18.767 | 46.722 | 1970.980 | 127.977 | 17.763 | 2280.462 | 2174.095 | 1455.418 | 1458.172 | 825.044 |
| 2017q4 | 18.722 | 46.755 | 1920.605 | 127.602 | 17.720 | 2304.315 | 2194.341 | 1467.535 | 1470.635 | 836.780 |

| | XS09 | YCAT | YCBT | YCCF | YCCFNET | YCP | YD | YD09 | YD09ADJ | YDADJ |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 678.900 | 1639.600 | 2149.500 | 2843.300 | 2024.500 | 1890.300 | 13575.400 | 12360.200 | 12360.263 | 13575.400 |
| 2016q1 | 677.300 | 1656.100 | 2172.435 | 2877.400 | 2010.300 | 1879.435 | 13681.900 | 12448.500 | 12448.502 | 13681.900 |
| 2016q2 | 678.000 | 1735.881 | 2268.508 | 2968.718 | 2051.780 | 1926.508 | 13792.427 | 12500.701 | 12500.701 | 13792.427 |
| 2016q3 | 685.812 | 1757.070 | 2294.589 | 3002.479 | 2093.952 | 1968.589 | 13921.802 | 12570.143 | 12570.143 | 13921.802 |
| 2016q4 | 691.553 | 1791.175 | 2336.337 | 3050.431 | 2135.208 | 2011.337 | 14054.647 | 12638.774 | 12638.774 | 14054.647 |
| 2017q1 | 698.073 | 1785.855 | 2330.988 | 3112.083 | 2181.868 | 2058.988 | 14197.154 | 12713.886 | 12713.886 | 14197.154 |
| 2017q2 | 705.687 | 1815.019 | 2366.937 | 3157.350 | 2216.339 | 2095.937 | 14348.613 | 12795.619 | 12795.619 | 14348.613 |
| 2017q3 | 711.657 | 1841.281 | 2399.271 | 3200.476 | 2236.615 | 2129.271 | 14517.402 | 12891.733 | 12891.733 | 14517.402 |
| 2017q4 | 719.245 | 1867.078 | 2431.093 | 3243.769 | 2258.032 | 2162.093 | 14680.654 | 12980.134 | 12980.134 | 14680.654 |

| | YFP | YNFP | YOL | YP | YPADJ | YPADJ09 | YPDIV | YPERM09 | YPINT | YPWS |
|---|---|---|---|---|---|---|---|---|---|---|
| 2015q4 | 57.100 | 1349.700 | 1281.600 | 15561.100 | 12879.300 | 11726.471 | 876.900 | 9818.351 | 1318.300 | 6672.300 |
| 2016q1 | 49.900 | 1363.100 | 1293.400 | 15691.900 | 12973.100 | 11803.599 | 873.500 | 9886.627 | 1321.000 | 6737.000 |
| 2016q2 | 49.000 | 1371.597 | 1305.200 | 15824.329 | 13074.272 | 11849.805 | 875.400 | 9943.416 | 1329.004 | 6800.928 |
| 2016q3 | 49.450 | 1389.631 | 1316.684 | 15974.211 | 13201.559 | 11919.827 | 881.927 | 10001.143 | 1341.416 | 6868.505 |
| 2016q4 | 50.847 | 1412.352 | 1327.875 | 16134.907 | 13338.160 | 11994.466 | 888.561 | 10058.294 | 1357.352 | 6936.336 |
| 2017q1 | 52.034 | 1431.779 | 1339.019 | 16300.599 | 13482.648 | 12074.029 | 898.691 | 10111.819 | 1375.775 | 7005.231 |
| 2017q2 | 53.044 | 1450.396 | 1350.291 | 16484.007 | 13640.367 | 12164.028 | 917.540 | 10169.124 | 1396.868 | 7081.001 |
| 2017q3 | 53.904 | 1468.937 | 1361.871 | 16676.171 | 13809.108 | 12262.755 | 940.326 | 10233.306 | 1419.028 | 7161.041 |
| 2017q4 | 54.639 | 1488.054 | 1373.890 | 16874.156 | 13983.798 | 12363.998 | 962.136 | 10302.476 | 1442.133 | 7246.046 |

| | YT09 | YUNB |
|---|---|---|
| 2015q4 | 125.318 | 32.200 |
| 2016q1 | 117.374 | 32.500 |
| 2016q2 | 99.942 | 32.402 |
| 2016q3 | 101.984 | 32.595 |
| 2016q4 | 103.322 | 32.990 |
| 2017q1 | 100.172 | 33.292 |
| 2017q2 | 110.060 | 33.522 |
| 2017q3 | 129.344 | 33.570 |
| 2017q4 | 136.260 | 33.562 |

| | AUTOS | AUTOSB | AUTOSC | AUTOSD | AUTOSF | BALCA | C | C09 | CCORE | CCORE09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -22.283 | -18.131 | -26.191 | -20.988 | -26.137 | 19.873 | 2.148 | 1.866 | 3.610 | 1.507 |
| 2016q2 | -1.414 | -0.949 | -2.657 | -7.349 | 18.832 | -4.337 | 4.830 | 3.221 | 4.796 | 3.411 |
| 2016q3 | 9.952 | 10.698 | 8.924 | 13.450 | 0.211 | 14.267 | 4.185 | 2.615 | 4.233 | 2.757 |
| 2016q4 | -0.561 | -0.073 | -1.675 | -0.820 | 0.222 | 10.458 | 3.952 | 2.281 | 3.972 | 2.446 |
| 2017q1 | -0.882 | -0.404 | -2.002 | -1.062 | -0.341 | 7.095 | 4.122 | 2.403 | 4.214 | 2.612 |
| 2017q2 | -1.544 | -1.086 | -2.673 | -1.658 | -1.203 | 11.400 | 4.225 | 2.487 | 4.318 | 2.706 |
| 2017q3 | -2.003 | -1.406 | -2.989 | -2.064 | -1.819 | 12.541 | 4.381 | 2.637 | 4.496 | 2.868 |
| 2017q4 | -1.963 | -1.362 | -2.946 | -1.925 | -2.076 | 10.991 | 4.519 | 2.717 | 4.629 | 2.954 |

| | CD | CD09 | CDFE | CDFE09 | CDFRN09 | CDHE09 | CDO | CDO09 | CDREC | CDREC09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -2.646 | -1.622 | 3.207 | 4.385 | -0.581 | 6.849 | 4.564 | -3.058 | 1.362 | 8.507 |
| 2016q2 | 4.932 | 7.432 | 4.349 | 5.957 | 3.588 | 7.095 | 2.439 | 4.574 | 5.907 | 11.148 |
| 2016q3 | 4.383 | 6.396 | 3.696 | 5.957 | 5.942 | 5.964 | 4.896 | 5.537 | 3.054 | 7.635 |
| 2016q4 | 3.343 | 5.031 | 4.243 | 6.845 | 7.268 | 6.646 | 4.350 | 4.333 | 3.061 | 7.270 |
| 2017q1 | 3.609 | 5.135 | 4.223 | 6.738 | 6.638 | 6.785 | 4.534 | 4.386 | 3.254 | 7.108 |
| 2017q2 | 3.740 | 5.130 | 4.258 | 6.587 | 6.299 | 6.722 | 4.697 | 4.456 | 3.499 | 7.088 |
| 2017q3 | 3.737 | 5.032 | 4.376 | 6.595 | 6.260 | 6.753 | 4.984 | 4.677 | 3.847 | 7.241 |
| 2017q4 | 3.661 | 4.861 | 4.019 | 6.118 | 5.658 | 6.334 | 4.866 | 4.534 | 3.859 | 7.041 |

| | CDV | CDV09 | CDVA | CDVA09 | CDVO09 | CDVT | CDVT09 | CGDIS | CGDISR4 | CN |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -12.621 | -12.429 | -21.077 | -22.435 | 10.603 | -25.023 | -26.435 | 1.859 | 24.703 | -4.674 |
| 2016q2 | 5.771 | 6.710 | -2.778 | -2.657 | -1.899 | 22.377 | 21.029 | 4.089 | -44.087 | 4.559 |
| 2016q3 | 5.796 | 6.023 | 8.945 | 8.924 | 5.253 | 6.690 | 5.531 | 3.041 | -58.909 | 3.206 |
| 2016q4 | 2.508 | 2.217 | -1.210 | -1.675 | 3.905 | 3.581 | 2.303 | 3.142 | -16.644 | 3.409 |
| 2017q1 | 3.064 | 2.701 | -0.790 | -1.266 | 4.301 | 4.174 | 2.882 | 3.539 | 68.491 | 3.609 |
| 2017q2 | 3.146 | 2.770 | -1.471 | -1.942 | 5.334 | 3.603 | 2.321 | 3.814 | -7.710 | 3.865 |
| 2017q3 | 2.619 | 2.239 | -1.792 | -2.262 | 4.570 | 3.163 | 1.885 | 4.084 | 34.548 | 3.990 |
| 2017q4 | 2.672 | 2.277 | -1.746 | -2.217 | 4.631 | 3.140 | 1.863 | 4.171 | 31.410 | 4.177 |

| | CN09 | CNCS | CNCS09 | CNFC | CNFC09 | CNFD | CNFD09 | CNGO | CNGO09 | CNO |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 0.999 | 0.639 | -2.194 | -24.535 | 21.701 | 1.116 | 2.998 | -44.713 | 2.447 | 1.583 |
| 2016q2 | 2.203 | 0.210 | 0.764 | -18.687 | -19.223 | 2.071 | 1.349 | 21.846 | 4.670 | 5.053 |
| 2016q3 | 1.206 | 1.873 | 2.156 | 14.115 | -0.955 | 2.617 | 0.591 | 8.093 | 1.820 | 2.907 |
| 2016q4 | 1.172 | 2.705 | 2.798 | 8.155 | -2.204 | 2.554 | 0.375 | 10.098 | 2.169 | 2.788 |
| 2017q1 | 1.479 | 2.611 | 2.676 | 6.883 | -0.909 | 2.697 | 0.472 | 8.293 | 2.030 | 3.576 |
| 2017q2 | 1.668 | 2.839 | 2.854 | 6.849 | -0.866 | 2.813 | 0.605 | 8.466 | 1.932 | 3.964 |
| 2017q3 | 1.826 | 2.975 | 2.951 | 6.701 | -0.245 | 2.923 | 0.679 | 7.707 | 2.008 | 4.290 |
| 2017q4 | 1.925 | 3.069 | 3.008 | 6.786 | -0.386 | 3.048 | 0.755 | 7.831 | 1.859 | 4.564 |

| | CNO09 | CS | CS09 | CSEG | CSEG09 | CSO | CSO09 | CURR | DISC | DLPX |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -0.080 | 5.183 | 2.697 | 9.431 | 14.414 | 5.075 | 2.371 | 6.491 | -0.212 | 5.316 |
| 2016q2 | 3.297 | 4.892 | 2.882 | 2.553 | 1.871 | 4.954 | 2.913 | 7.908 | -0.110 | -97.254 |
| 2016q3 | 1.281 | 4.458 | 2.467 | 3.166 | 4.642 | 4.491 | 2.403 | 7.788 | 0.165 | -95.730 |
| 2016q4 | 1.099 | 4.215 | 2.196 | 1.452 | 2.176 | 4.287 | 2.197 | 7.655 | 0.249 | -71.608 |
| 2017q1 | 1.808 | 4.360 | 2.264 | 0.292 | 0.589 | 4.466 | 2.315 | 7.776 | 0.247 | -98.633 |
| 2017q2 | 2.115 | 4.411 | 2.330 | 0.085 | 0.258 | 4.523 | 2.392 | 7.568 | 0.181 | 161.244 |
| 2017q3 | 2.373 | 4.602 | 2.516 | 0.297 | 0.178 | 4.711 | 2.586 | 7.553 | 0.121 | 111.318 |
| 2017q4 | 2.566 | 4.758 | 2.629 | 0.686 | 0.192 | 4.861 | 2.701 | 7.584 | 0.076 | 55.414 |

| | EGOV | EMP | EMPHH | FS | FS09 | FSA09 | FSAD09 | FSAF09 | FSDP | FSDP09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 0.586 | 1.881 | 3.951 | 1.652 | 0.874 | -17.939 | -17.211 | -22.606 | 1.471 | 1.183 |
| 2016q2 | 0.259 | 1.601 | 0.583 | 3.906 | 3.013 | -1.441 | -7.346 | 18.836 | 4.148 | 2.771 |
| 2016q3 | 0.878 | 1.536 | 1.559 | 3.947 | 2.628 | 9.979 | 13.450 | 0.211 | 4.168 | 2.719 |
| 2016q4 | 0.881 | 1.421 | 1.266 | 3.964 | 2.397 | -0.538 | -0.820 | 0.222 | 4.096 | 2.535 |
| 2017q1 | 0.877 | 1.332 | 1.042 | 4.337 | 2.482 | -0.131 | -0.319 | 0.406 | 4.376 | 2.599 |
| 2017q2 | 0.882 | 1.335 | 1.066 | 4.272 | 2.502 | -0.800 | -0.920 | -0.462 | 4.423 | 2.713 |
| 2017q3 | 1.351 | 1.353 | 1.098 | 4.317 | 2.509 | -1.250 | -1.330 | -1.083 | 4.501 | 2.757 |
| 2017q4 | 1.350 | 1.369 | 1.109 | 4.454 | 2.550 | -1.210 | -1.189 | -1.341 | 4.597 | 2.788 |

| | FSO09 | FST09 | G | G09 | GAUTO09 | GCBDD | GCE | GDEBTM | GDEBTP | GDP |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 0.938 | -10.823 | 1.242 | 1.162 | -0.760 | -11.926 | 2.977 | 9.188 | 6.163 | 1.246 |
| 2016q2 | 3.829 | 10.507 | 3.049 | 1.585 | 8.821 | 4.647 | 2.182 | -2.219 | -4.728 | 3.406 |
| 2016q3 | 3.081 | 5.419 | 3.513 | 1.702 | 8.314 | -34.946 | 2.401 | 3.568 | 6.500 | 4.060 |
| 2016q4 | 3.365 | 2.720 | 3.529 | 1.736 | -1.698 | -41.640 | 2.398 | 5.417 | 9.696 | 4.167 |
| 2017q1 | 3.470 | 3.322 | 4.115 | 1.454 | 3.432 | 8.078 | 3.733 | 1.994 | 5.363 | 4.373 |
| 2017q2 | 3.419 | 3.036 | 3.578 | 1.663 | -1.007 | -2.142 | 2.398 | -4.729 | -3.897 | 4.348 |
| 2017q3 | 3.227 | 2.827 | 3.580 | 1.606 | -2.037 | -33.500 | 2.399 | 4.784 | 6.260 | 4.334 |
| 2017q4 | 3.133 | 2.818 | 3.674 | 1.609 | -1.069 | -42.059 | 2.401 | 7.973 | 9.360 | 4.452 |

| | GDP09 | GDP09R4 | GDPP | GDPROW4 | GDPROW4Q | GDPROW5 | GDPROW5Q | GDPROW6 | GDPROW6Q | GF |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 0.538 | -5.287 | 1.302 | 1.472 | 1.472 | 1.835 | 1.835 | 3.263 | 3.263 | 0.000 |
| 2016q2 | 2.499 | -54.752 | 3.577 | 1.533 | 1.390 | 1.872 | 1.664 | 4.703 | 3.708 | 2.724 |
| 2016q3 | 2.729 | 54.961 | 4.197 | 1.529 | 1.555 | 1.789 | 2.226 | 3.989 | 5.803 | 2.520 |
| 2016q4 | 2.582 | 85.804 | 4.317 | 1.902 | 1.241 | 2.024 | 1.866 | 4.127 | 3.623 | 2.558 |
| 2017q1 | 2.514 | 135.753 | 4.456 | 2.273 | 1.977 | 2.441 | 2.339 | 4.314 | 4.338 | 4.079 |
| 2017q2 | 2.571 | 2.809 | 4.502 | 1.501 | 2.641 | 2.030 | 1.735 | 4.106 | 3.816 | 2.679 |
| 2017q3 | 2.523 | -7.683 | 4.433 | 2.021 | 1.211 | 2.370 | 2.594 | 4.296 | 4.528 | 2.680 |
| 2017q4 | 2.548 | -1.340 | 4.554 | 2.106 | 2.173 | 2.510 | 2.415 | 4.380 | 4.282 | 2.921 |

| | GF09 | GFCCC09 | GFD | GFD09 | GFE | GFND | GFND09 | GFNDC | GFR | GINTF |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -1.600 | NC | -2.550 | -3.581 | 3.966 | 3.980 | 1.480 | 4.075 | 5.580 | 5.057 |
| 2016q2 | 2.136 | -24.372 | 2.448 | 2.306 | 3.506 | 3.138 | 1.882 | 3.020 | 3.600 | 2.615 |
| 2016q3 | 1.793 | -2.449 | 2.219 | 1.884 | 3.019 | 2.972 | 1.657 | 2.799 | 4.289 | 2.847 |
| 2016q4 | 1.638 | -2.434 | 2.199 | 1.644 | 3.452 | 3.095 | 1.630 | 2.799 | 4.711 | 5.805 |
| 2017q1 | 0.934 | -2.419 | 3.773 | 0.761 | 5.535 | 4.537 | 1.192 | 4.715 | 5.858 | 6.656 |
| 2017q2 | 1.518 | -2.523 | 2.199 | 1.348 | 4.078 | 3.397 | 1.770 | 3.199 | 4.074 | 7.491 |
| 2017q3 | 1.432 | -2.389 | 2.199 | 1.269 | 3.958 | 3.397 | 1.675 | 3.199 | 5.002 | 8.290 |
| 2017q4 | 1.581 | -2.492 | 2.600 | 1.570 | 3.968 | 3.397 | 1.597 | 3.199 | 5.097 | 7.709 |

| | GNP | GOVAU09 | GSL | GSL09 | GSLE | GSLR | GTRF | GTRP | GTRUCK09 | HASSETCS |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 1.000 | -12.292 | 2.047 | 2.910 | 1.360 | -9.412 | 5.428 | 5.004 | 2.161 | -41.238 |
| 2016q2 | 3.589 | 13.266 | 3.232 | 1.222 | 3.301 | 4.898 | 4.028 | 3.708 | 1.966 | 98.732 |
| 2016q3 | 4.014 | 12.814 | 4.135 | 1.645 | 3.705 | 2.894 | 3.320 | 3.138 | 8.701 | 14.065 |
| 2016q4 | 4.121 | 12.402 | 4.136 | 1.797 | 3.702 | 4.073 | 3.502 | 3.316 | 3.163 | -37.906 |
| 2017q1 | 4.324 | 12.013 | 4.136 | 1.777 | 3.857 | 3.998 | 5.887 | 5.802 | 2.050 | -4.829 |
| 2017q2 | 4.300 | 11.648 | 4.137 | 1.754 | 3.607 | 4.045 | 4.130 | 4.080 | 1.159 | 36.464 |
| 2017q3 | 4.286 | 3.920 | 4.137 | 1.713 | 3.608 | 2.331 | 3.802 | 3.759 | 0.493 | -41.298 |
| 2017q4 | 4.403 | 3.602 | 4.138 | 1.627 | 3.609 | 4.145 | 3.795 | 3.751 | 0.835 | -77.513 |

| | HINT | HOUSCOMP | HOUSEX | HS | HS1COMP | HSMULT | HSSING | HSUPPLY | I09 | IBF |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 0.732 | -4.121 | 11.521 | -0.703 | 16.379 | -33.978 | 20.028 | 13.114 | -3.528 | -5.694 |
| 2016q2 | 3.797 | 2.712 | 5.282 | 9.728 | 11.841 | 23.702 | 4.086 | -1.952 | -0.936 | 0.109 |
| 2016q3 | 5.168 | 13.354 | 4.164 | 21.368 | 12.220 | 26.232 | 19.226 | -6.809 | 4.853 | 3.218 |
| 2016q4 | 5.368 | 17.808 | 2.499 | 15.697 | 14.980 | 18.512 | 14.428 | -0.756 | 5.582 | 3.421 |
| 2017q1 | 5.552 | 15.178 | 2.804 | 13.233 | 15.675 | 4.013 | 17.679 | -1.810 | 4.820 | 3.788 |
| 2017q2 | 6.108 | 12.813 | 3.556 | 11.680 | 16.137 | 5.080 | 14.725 | -2.945 | 5.169 | 4.236 |
| 2017q3 | 6.257 | 11.215 | 2.943 | 10.218 | 14.168 | 5.855 | 12.165 | 0.456 | 4.532 | 4.215 |
| 2017q4 | 6.638 | 9.579 | 1.160 | 8.358 | 12.146 | 4.223 | 10.175 | 2.604 | 4.285 | 4.464 |

| | IBF09 | IBFID | IBFID09 | IBFNC | IBFNC09 | IBFPD | IBFPD09 | IINV | IINV09 | IINVA09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -5.850 | 2.806 | 1.727 | -12.077 | -10.641 | -8.246 | -8.598 | -60.252 | -63.405 | -99.986 |
| 2016q2 | 0.341 | 4.184 | 3.502 | -9.379 | -7.724 | 1.716 | 1.887 | -77.554 | -79.116 | 6807.993 |
| 2016q3 | 3.245 | 5.230 | 4.674 | -2.463 | -1.594 | 4.338 | 4.390 | 54.882 | 51.821 | -52.491 |
| 2016q4 | 3.128 | 5.683 | 5.025 | -0.340 | -0.454 | 3.470 | 3.353 | 95.478 | 91.606 | -89.082 |
| 2017q1 | 3.264 | 6.181 | 5.353 | -0.489 | -1.290 | 3.949 | 3.758 | 15.606 | 13.334 | -99.826 |
| 2017q2 | 3.337 | 6.603 | 5.697 | -0.270 | -1.584 | 4.484 | 3.772 | 28.304 | 25.780 | -97.422 |
| 2017q3 | 3.175 | 6.751 | 5.784 | 0.206 | -1.492 | 4.103 | 3.293 | 8.932 | 6.793 | 285.782 |
| 2017q4 | 3.355 | 6.485 | 5.428 | 1.801 | -0.229 | 4.123 | 3.364 | 3.998 | 1.957 | -99.093 |

| | IINVAD09 | IINVAF09 | IINVF | IINVF09 | IINVNF | IINVNF09 | IINVO09 | IINVT09 | IINVV09 | INCWM09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -99.949 | 0.000 | -46.022 | -99.290 | -44.452 | -53.675 | -84.712 | NA | 68.621 | -85.977 |
| 2016q2 | -99.866 | 386071.210 | -99.997 | -99.722 | -81.419 | -81.783 | -61.387 | -99.909 | -99.997 | -60.597 |
| 2016q3 | 18462.494 | -90.695 | 3.658 | 1.119 | 55.160 | 52.117 | 3.633 | 8008.910 | 45885.575 | 9.008 |
| 2016q4 | -100.000 | -26.424 | 3.624 | 1.103 | 95.965 | 92.122 | 73.838 | 83.512 | 455.497 | 9.754 |
| 2017q1 | 353025.523 | -97.659 | 3.592 | 1.086 | 15.651 | 13.383 | 8.300 | -14.526 | 69.036 | 11.357 |
| 2017q2 | 95.316 | -98.726 | 3.740 | 1.123 | 28.398 | 25.880 | 28.474 | -16.055 | 5.974 | 11.221 |
| 2017q3 | -63.648 | -97.960 | 3.527 | 1.053 | 8.950 | 6.814 | 16.705 | -56.954 | -54.816 | 12.188 |
| 2017q4 | -96.233 | -67.922 | 3.673 | 1.090 | 3.999 | 1.960 | 10.858 | -61.886 | -64.461 | 11.992 |

| | IPDAU | IPDAU09 | IPDIE | IPDIE09 | IPDIP | IPDIP09 | IPDOE09 | IPDTH | IPDTH09 | IPDTL |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -13.477 | -14.451 | -3.454 | -2.815 | -5.896 | -6.306 | -25.792 | -3.734 | -6.637 | 8.218 |
| 2016q2 | -0.881 | -0.943 | 0.679 | 0.451 | 1.857 | 2.020 | 3.516 | 1.434 | -0.025 | 5.367 |
| 2016q3 | 10.624 | 10.698 | 1.637 | 1.140 | 3.807 | 4.081 | 4.604 | -1.425 | -2.823 | 10.067 |
| 2016q4 | 0.390 | -0.073 | 1.383 | 0.582 | 3.800 | 4.081 | 7.789 | -1.405 | -2.812 | 5.512 |
| 2017q1 | 0.803 | 0.343 | 0.692 | -0.271 | 3.922 | 4.081 | 10.149 | -0.585 | -2.004 | 5.769 |
| 2017q2 | 0.114 | -0.345 | 0.486 | -0.864 | 4.061 | 4.081 | 11.300 | 0.949 | -0.494 | 7.155 |
| 2017q3 | -0.210 | -0.666 | 1.541 | -0.099 | 4.175 | 4.081 | 7.692 | 2.299 | 0.835 | 6.110 |
| 2017q4 | -0.166 | -0.623 | 2.447 | 0.602 | 4.258 | 4.081 | 7.122 | 2.354 | 0.887 | 5.157 |

| | IPDTL09 | IPDTRK | IPDTRK09 | IPDTRO | IPDTRO09 | IRC | IRC09 | IRCM | IRCM09 | IRCOS |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 6.187 | 5.297 | 3.046 | -12.026 | -12.655 | 17.009 | 14.867 | 38.773 | 38.702 | 18.530 |
| 2016q2 | 4.208 | 4.448 | 3.217 | 2.122 | 2.492 | 10.923 | 8.626 | 19.424 | 18.516 | 8.193 |
| 2016q3 | 8.097 | 7.345 | 5.513 | 5.997 | 6.170 | 10.332 | 7.871 | 3.280 | 2.489 | 5.935 |
| 2016q4 | 4.790 | 3.927 | 3.045 | 4.249 | 4.202 | 11.874 | 9.204 | 4.491 | 3.595 | 5.361 |
| 2017q1 | 5.383 | 4.334 | 3.710 | 5.518 | 5.473 | 12.304 | 9.470 | 5.548 | 4.064 | 5.830 |
| 2017q2 | 4.808 | 5.771 | 3.629 | 6.654 | 5.767 | 12.614 | 9.700 | 5.335 | 3.491 | 6.423 |
| 2017q3 | 4.361 | 5.275 | 3.590 | 5.240 | 4.356 | 11.763 | 8.798 | 6.284 | 4.163 | 6.135 |
| 2017q4 | 4.338 | 4.549 | 3.589 | 4.800 | 4.165 | 10.480 | 7.507 | 7.102 | 4.784 | 5.177 |

| | IRCOS09 | IRCPD | IRCPD09 | IRCS | IRCS09 | JCAPTOT | JCLH | JCLHD | JCUTOT | JEC |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 17.048 | 8.786 | 14.791 | 10.348 | 6.485 | 0.374 | 3.008 | 2.720 | -2.613 | 2.275 |
| 2016q2 | 5.741 | -1.610 | -0.271 | 13.438 | 10.870 | 0.188 | 2.509 | 0.938 | -1.001 | 2.311 |
| 2016q3 | 3.249 | -1.693 | 2.192 | 19.709 | 16.841 | 0.227 | 2.350 | 0.808 | 1.804 | 2.287 |
| 2016q4 | 2.666 | -1.690 | 2.542 | 24.499 | 21.064 | 0.511 | 2.286 | 0.641 | 3.133 | 2.246 |
| 2017q1 | 2.916 | -1.363 | 2.657 | 24.141 | 20.793 | 0.988 | 2.874 | 1.175 | 2.980 | 2.591 |
| 2017q2 | 3.506 | -1.028 | 2.824 | 23.676 | 20.237 | 1.583 | 2.634 | 0.922 | 2.613 | 2.513 |
| 2017q3 | 3.258 | -0.657 | 3.089 | 21.090 | 17.559 | 2.063 | 2.846 | 1.128 | 1.995 | 2.552 |
| 2017q4 | 2.337 | -0.937 | 2.722 | 18.507 | 14.985 | 2.383 | 3.074 | 1.297 | 1.584 | 2.653 |

| | JEXRB | JIPTOT | JQLH | JQLHT | JULC | KCA | KCAC | KCAG | KCAGF | KCAP |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 9.043 | -2.240 | -1.014 | 13.555 | 4.065 | 2.360 | 3.062 | -0.076 | 0.582 | 2.898 |
| 2016q2 | -13.455 | -0.834 | 0.929 | 68.572 | 1.565 | 2.411 | 2.757 | 0.870 | 0.318 | 2.776 |
| 2016q3 | -0.588 | 2.035 | 1.579 | 49.592 | 0.759 | 2.699 | 3.010 | 1.312 | 0.633 | 3.010 |
| 2016q4 | -0.119 | 3.659 | 1.581 | 9.724 | 0.694 | 3.021 | 3.321 | 1.675 | 0.903 | 3.321 |
| 2017q1 | 0.678 | 3.998 | 1.584 | 17.875 | 1.270 | 3.300 | 3.586 | 2.013 | 1.153 | 3.586 |
| 2017q2 | 0.547 | 4.237 | 1.531 | -40.323 | 1.086 | 3.559 | 3.846 | 2.266 | 1.351 | 3.846 |
| 2017q3 | 0.450 | 4.099 | 1.422 | -50.488 | 1.405 | 3.724 | 4.004 | 2.457 | 1.509 | 4.004 |
| 2017q4 | 0.636 | 4.005 | 1.441 | -69.289 | 1.611 | 3.853 | 4.125 | 2.617 | 1.646 | 4.125 |

| | LCURRENT | LF | M | M09 | M1 | M2 | MAUTNA09 | MAUTO09 | MBASE | MGNOIL |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 8.656 | 3.618 | -7.374 | 0.165 | 8.031 | 8.502 | 17.226 | -0.628 | 6.694 | -4.215 |
| 2016q2 | 56.439 | 0.726 | 4.833 | -0.608 | 4.991 | 5.340 | 15.935 | -12.192 | -5.836 | 2.769 |
| 2016q3 | 6.184 | 1.367 | 4.833 | 2.787 | 3.539 | 4.205 | 15.608 | 9.512 | -6.441 | 2.171 |
| 2016q4 | 3.638 | 1.164 | 4.263 | 3.362 | 2.797 | 4.157 | 2.335 | 4.555 | -3.503 | 3.153 |
| 2017q1 | 1.911 | 0.937 | 3.829 | 3.785 | 2.291 | 4.153 | 7.632 | 0.486 | -13.297 | 2.898 |
| 2017q2 | 4.545 | 0.921 | 4.806 | 4.604 | 1.753 | 3.864 | 2.972 | 1.519 | -6.546 | 4.100 |
| 2017q3 | 4.599 | 0.854 | 5.116 | 4.883 | 1.424 | 3.541 | 1.862 | 0.880 | -2.410 | 4.575 |
| 2017q4 | 4.739 | 0.829 | 5.282 | 5.194 | 0.976 | 2.987 | 0.476 | -0.433 | 1.827 | 4.726 |

| | MGNOIL09 | MGOIL | MGOIL09 | MNOIL | MNOIL09 | MS | MS09 | MTRK09 | MULT | NEWSALE |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -1.843 | -60.736 | 18.099 | -2.803 | -0.795 | 3.121 | 3.703 | -4.629 | 1.590 | 20.080 |
| 2016q2 | -0.067 | 60.369 | -5.973 | 2.494 | -0.334 | 1.397 | -1.393 | 2.459 | 0.823 | 17.490 |
| 2016q3 | 2.366 | 48.942 | 2.499 | 2.690 | 2.806 | 4.796 | 4.576 | 3.698 | -1.215 | 16.652 |
| 2016q4 | 3.110 | 16.777 | 2.729 | 3.527 | 3.404 | 5.034 | 4.571 | 3.455 | -1.828 | 16.690 |
| 2017q1 | 3.676 | 12.475 | 0.521 | 3.297 | 3.998 | 4.897 | 5.269 | 8.479 | -1.807 | 16.820 |
| 2017q2 | 4.751 | 12.704 | 0.474 | 4.308 | 4.879 | 5.136 | 5.372 | 12.001 | -1.325 | 16.619 |
| 2017q3 | 5.128 | 11.441 | 0.519 | 4.708 | 5.179 | 5.233 | 5.367 | 9.778 | -0.890 | 15.982 |
| 2017q4 | 5.474 | 11.834 | 0.461 | 4.853 | 5.520 | 5.356 | 5.686 | 8.107 | -0.557 | 15.196 |

| | NEWSOLD | NIASF | NIASOUTF | NIASSL | NINT | PC | PCCHI | PCCORE | PCDFE | PCDFRN |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 6.158 | -4.957 | -4.501 | 987.772 | -2.972 | 0.281 | 7.353 | 2.071 | -1.130 | -1.272 |
| 2016q2 | 19.830 | 2.954 | 4.337 | -19.477 | 2.232 | 1.557 | -1.000 | 1.340 | -1.516 | -0.699 |
| 2016q3 | 25.175 | -4.260 | -3.164 | 18.034 | 4.671 | 1.530 | 1.500 | 1.436 | -2.134 | -0.876 |
| 2016q4 | 17.580 | -3.915 | -2.805 | -2.172 | 4.673 | 1.634 | 2.250 | 1.490 | -2.435 | -0.646 |
| 2017q1 | 18.973 | 3.558 | 4.664 | 1.549 | 5.629 | 1.679 | 2.250 | 1.561 | -2.356 | -0.583 |
| 2017q2 | 20.158 | 4.102 | 5.107 | -3.455 | 6.477 | 1.696 | 2.250 | 1.570 | -2.185 | -0.507 |
| 2017q3 | 15.456 | -2.352 | -1.460 | 27.007 | 6.257 | 1.699 | 2.250 | 1.582 | -2.082 | -0.463 |
| 2017q4 | 12.272 | -2.960 | -2.112 | -4.698 | 6.985 | 1.755 | 2.250 | 1.626 | -1.978 | -0.378 |

| | PCDHE | PCDO | PCDREC | PCDV | PCDVA | PCDVO | PCDVT | PCMEX | PCN | PCNCS |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -0.832 | 7.860 | -6.583 | -0.220 | 1.751 | -3.425 | 1.921 | 4.804 | -5.626 | 2.897 |
| 2016q2 | -1.837 | -2.041 | -4.715 | -0.880 | -0.125 | -3.579 | 1.115 | 2.000 | 2.313 | -0.549 |
| 2016q3 | -2.779 | -0.607 | -4.256 | -0.214 | 0.020 | -1.601 | 1.098 | 2.000 | 1.976 | -0.277 |
| 2016q4 | -3.375 | 0.016 | -3.924 | 0.284 | 0.473 | -0.872 | 1.249 | 3.000 | 2.212 | -0.091 |
| 2017q1 | -3.270 | 0.141 | -3.598 | 0.354 | 0.483 | -0.712 | 1.255 | 3.200 | 2.099 | -0.064 |
| 2017q2 | -3.045 | 0.231 | -3.351 | 0.365 | 0.481 | -0.658 | 1.253 | 3.200 | 2.160 | -0.015 |
| 2017q3 | -2.913 | 0.293 | -3.164 | 0.371 | 0.481 | -0.635 | 1.254 | 3.200 | 2.125 | 0.023 |
| 2017q4 | -2.795 | 0.317 | -2.973 | 0.386 | 0.481 | -0.586 | 1.253 | 3.200 | 2.209 | 0.059 |

| | PCNFC | PCNFD | PCNGO | PCNO | PCPI | PCPICORE | PCPISA | PCROW4 | PCROW4Q | PCROW4QR |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -37.991 | -1.826 | -46.033 | 1.664 | 0.259 | 2.701 | -0.312 | 0.362 | 0.362 | -87.383 |
| 2016q2 | 0.664 | 0.711 | 16.408 | 1.699 | 4.157 | 1.667 | 1.717 | 2.688 | 0.522 | 331.182 |
| 2016q3 | 15.216 | 2.013 | 6.161 | 1.606 | 1.426 | 1.816 | 1.777 | 1.610 | 3.697 | 6891.282 |
| 2016q4 | 10.592 | 2.171 | 7.761 | 1.670 | -0.685 | 1.908 | 1.977 | 0.691 | 0.851 | -93.872 |
| 2017q1 | 7.864 | 2.214 | 6.138 | 1.736 | 2.629 | 1.973 | 2.010 | 1.876 | 0.617 | -34.026 |
| 2017q2 | 7.782 | 2.194 | 6.410 | 1.810 | 4.542 | 2.011 | 2.088 | 1.924 | 1.887 | 6.427 |
| 2017q3 | 6.963 | 2.229 | 5.587 | 1.872 | 1.774 | 2.037 | 2.120 | 1.958 | 1.849 | -36.708 |
| 2017q4 | 7.200 | 2.276 | 5.863 | 1.948 | -0.447 | 2.067 | 2.206 | 1.959 | 1.904 | -30.421 |

| | PCROW5 | PCROW6 | PCRUDE | PCS | PCSEG | PCSO | PG | PGDP | PGFD | PGFND |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 3.489 | 3.927 | -32.812 | 2.413 | -4.357 | 2.641 | 0.093 | 0.702 | 1.063 | 2.406 |
| 2016q2 | 2.200 | 1.825 | 40.080 | 1.958 | 0.671 | 1.982 | 1.434 | 0.888 | 0.135 | 1.307 |
| 2016q3 | 1.887 | 1.842 | 11.911 | 1.942 | -1.411 | 2.039 | 1.780 | 1.296 | 0.329 | 1.293 |
| 2016q4 | 2.325 | 2.316 | 12.169 | 1.975 | -0.709 | 2.045 | 1.762 | 1.545 | 0.546 | 1.441 |
| 2017q1 | 2.816 | 2.751 | 7.955 | 2.050 | -0.295 | 2.103 | 2.622 | 1.813 | 2.989 | 3.306 |
| 2017q2 | 2.830 | 2.764 | 8.503 | 2.034 | -0.172 | 2.080 | 1.883 | 1.733 | 0.839 | 1.598 |
| 2017q3 | 2.841 | 2.773 | 7.739 | 2.034 | 0.119 | 2.071 | 1.943 | 1.767 | 0.919 | 1.694 |
| 2017q4 | 2.842 | 2.774 | 8.178 | 2.075 | 0.493 | 2.103 | 2.032 | 1.857 | 1.014 | 1.772 |

| | PGI | PGSL | PIBF | PIID | PINC | PIPD | PIPDAU | PIPDIE | PIPDIP | PIPDOE |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -0.841 | -0.833 | 0.161 | 1.040 | -1.585 | 0.354 | 1.138 | -0.658 | 0.439 | -4.540 |
| 2016q2 | 0.077 | 1.996 | -0.224 | 0.637 | -1.838 | -0.140 | 0.062 | 0.229 | -0.160 | -2.562 |
| 2016q3 | 0.566 | 2.449 | -0.026 | 0.531 | -0.883 | -0.049 | -0.066 | 0.491 | -0.264 | -2.855 |
| 2016q4 | 0.961 | 2.298 | 0.284 | 0.627 | 0.114 | 0.113 | 0.463 | 0.797 | -0.270 | -0.688 |
| 2017q1 | 1.334 | 2.318 | 0.507 | 0.786 | 0.811 | 0.184 | 0.458 | 0.965 | -0.153 | -0.137 |
| 2017q2 | 1.605 | 2.342 | 0.870 | 0.857 | 1.335 | 0.687 | 0.460 | 1.362 | -0.020 | 0.415 |
| 2017q3 | 1.800 | 2.384 | 1.008 | 0.914 | 1.723 | 0.784 | 0.459 | 1.642 | 0.090 | 0.596 |
| 2017q4 | 1.961 | 2.471 | 1.073 | 1.003 | 2.034 | 0.735 | 0.460 | 1.834 | 0.170 | 0.754 |

| | PIPDT | PIPDTH | PIPDTL | PIPDTRO | PIRC | PIRCM | PIRCOS | PIRCPD | PIRCS | PM |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 2.187 | 3.108 | 1.916 | 0.720 | 1.877 | 0.052 | 1.266 | -5.230 | 3.627 | -7.522 |
| 2016q2 | 1.190 | 1.461 | 1.111 | -0.361 | 2.112 | 0.766 | 2.318 | -1.343 | 2.317 | 5.463 |
| 2016q3 | 1.736 | 1.439 | 1.823 | -0.163 | 2.282 | 0.772 | 2.601 | -3.801 | 2.454 | 1.990 |
| 2016q4 | 0.857 | 1.447 | 0.689 | 0.045 | 2.445 | 0.865 | 2.625 | -4.128 | 2.837 | 0.872 |
| 2017q1 | 0.602 | 1.448 | 0.366 | 0.042 | 2.589 | 1.426 | 2.832 | -3.916 | 2.772 | 0.042 |
| 2017q2 | 2.068 | 1.450 | 2.239 | 0.839 | 2.656 | 1.782 | 2.818 | -3.746 | 2.860 | 0.193 |
| 2017q3 | 1.627 | 1.452 | 1.675 | 0.847 | 2.726 | 2.036 | 2.786 | -3.634 | 3.004 | 0.222 |
| 2017q4 | 0.927 | 1.454 | 0.784 | 0.610 | 2.765 | 2.212 | 2.775 | -3.562 | 3.063 | 0.084 |

| | PMGNOIL | PMGOIL | PMGROWB | PMNOIL | PMROWB | PMROWBQ | PMROWBQR | PMS | PMSROWB | POIL |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -2.416 | -66.753 | 6.409 | -2.022 | 6.838 | 6.838 | 1888.349 | -0.567 | 8.426 | -73.880 |
| 2016q2 | 2.837 | 70.550 | -11.000 | 2.837 | -11.000 | -5.462 | -59.307 | 2.837 | -11.000 | 236.697 |
| 2016q3 | -0.190 | 45.311 | -0.777 | -0.113 | -0.700 | -5.090 | -99.950 | 0.210 | -0.379 | 17.494 |
| 2016q4 | 0.041 | 13.675 | -0.078 | 0.119 | 0.000 | -0.106 | 813.914 | 0.442 | 0.323 | 18.792 |
| 2017q1 | -0.751 | 11.892 | -0.078 | -0.674 | 0.000 | 0.907 | 638.203 | -0.353 | 0.322 | 13.007 |
| 2017q2 | -0.622 | 12.173 | -0.078 | -0.544 | 0.000 | -0.228 | -34.358 | -0.224 | 0.322 | 15.775 |
| 2017q3 | -0.526 | 10.866 | -0.078 | -0.448 | 0.000 | 0.239 | 54.931 | -0.127 | 0.322 | 11.927 |
| 2017q4 | -0.710 | 11.321 | -0.078 | -0.632 | 0.000 | 0.069 | 12.542 | -0.312 | 0.322 | 14.129 |

| | POP16 | POP16AV4 | POP20 | POP65 | PPI | PPI1 | PPI2 | PPNF | PPNF1 | PPNF2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 1.340 | 1.073 | 1.353 | 2.591 | -4.833 | -4.833 | -4.833 | 0.450 | 0.450 | 0.450 |
| 2016q2 | 0.968 | 1.090 | 0.966 | 3.251 | 3.241 | 3.241 | 5.634 | 0.998 | 0.998 | 1.287 |
| 2016q3 | 1.012 | 1.087 | 1.057 | 3.453 | 1.818 | 1.818 | 1.305 | 1.119 | 1.119 | 1.337 |
| 2016q4 | 1.012 | 1.083 | 1.057 | 3.453 | 2.326 | 2.326 | 1.602 | 1.419 | 1.419 | 1.286 |
| 2017q1 | 1.012 | 1.001 | 1.057 | 3.453 | 2.156 | 2.156 | 1.815 | 1.591 | 1.591 | 1.575 |
| 2017q2 | 1.012 | 1.012 | 1.057 | 3.453 | 2.234 | 2.234 | 2.147 | 1.686 | 1.686 | 1.645 |
| 2017q3 | 0.958 | 0.999 | 1.038 | 3.497 | 2.249 | 2.249 | 2.198 | 1.739 | 1.739 | 1.608 |
| 2017q4 | 0.958 | 0.985 | 1.038 | 3.497 | 2.554 | 2.554 | 2.416 | 1.879 | 1.879 | 1.679 |

| | PX | PXG | PXS | R3A | RAAA | RAUTOSF | RBAA | RBAR | RBASE | RCP |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -5.587 | -10.083 | 3.506 | -6.506 | -6.506 | -4.958 | -8.103 | 33.159 | -98.001 | 1217.391 |
| 2016q2 | 2.368 | 1.624 | 3.736 | -27.576 | -27.576 | 20.536 | -39.594 | 17.301 | -42.210 | 7.167 |
| 2016q3 | 1.070 | 0.672 | 1.795 | 3.402 | 3.402 | -8.859 | 7.022 | 0.672 | 48.325 | 196.118 |
| 2016q4 | 0.780 | 0.141 | 1.940 | 8.064 | 8.064 | 0.787 | 10.176 | 20.305 | -91.250 | 114.713 |
| 2017q1 | 0.266 | -0.279 | 1.248 | 8.404 | 8.404 | 0.545 | 10.170 | 27.870 | 20663.059 | 62.499 |
| 2017q2 | 0.338 | -0.169 | 1.245 | 6.261 | 6.261 | 0.346 | 8.024 | 29.661 | -94.128 | 112.737 |
| 2017q3 | 0.408 | -0.105 | 1.320 | 5.113 | 5.113 | 0.187 | 6.399 | 30.268 | -98.163 | 44.909 |
| 2017q4 | 0.455 | -0.088 | 1.418 | 4.446 | 4.446 | -0.115 | 5.452 | 22.948 | -66.992 | 66.880 |

| | REM | RFF | RFFRULE | RG05 | RG10 | RGROW10 | RHSAVE | RLFP | RM2 | RMORT |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 0.890 | 2462.891 | 13.195 | -43.885 | -40.922 | -59.730 | 16.986 | 2.247 | 601.188 | -15.428 |
| 2016q2 | -0.275 | 24.144 | 304.858 | -28.530 | -20.694 | 37.540 | -21.633 | -0.240 | -84.437 | -14.259 |
| 2016q3 | 0.128 | 51.663 | -2.218 | 63.462 | 29.497 | 38.876 | -7.073 | 0.351 | -61.562 | 12.942 |
| 2016q4 | 0.010 | 398.136 | 20.553 | 90.555 | 44.704 | 54.314 | -1.913 | 0.150 | -4.509 | 13.877 |
| 2017q1 | 0.097 | 29.223 | 262.754 | 73.364 | 40.668 | 44.902 | -0.446 | -0.074 | -0.305 | 15.005 |
| 2017q2 | 0.143 | 194.598 | -17.175 | 43.360 | 26.435 | 56.511 | 1.614 | -0.090 | -25.061 | 11.735 |
| 2017q3 | 0.261 | 20.345 | 204.119 | 25.205 | 16.960 | 49.472 | 7.465 | -0.103 | -29.521 | 9.097 |
| 2017q4 | 0.303 | 125.920 | -2.449 | 14.390 | 10.649 | 17.475 | 0.497 | -0.128 | -49.365 | 6.948 |

| | RPPERM | RRG05 | RROW3 | RTB | RTBY | RTRKLF | RUG | RUM | RVEH48 | SERVE09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -52.164 | -97.374 | -46.917 | 2823.200 | 2644.641 | -21.160 | -5.748 | -16.762 | 18.115 | 1.685 |
| 2016q2 | -58.107 | 864.931 | -42.785 | -53.804 | -53.256 | 3.191 | 2.528 | 5.977 | -13.323 | 2.334 |
| 2016q3 | 196.806 | -98.430 | 1.889 | 1218.934 | 1221.795 | -5.986 | -3.571 | -2.647 | 5.877 | 2.131 |
| 2016q4 | 134.347 | 549.507 | -16.593 | 167.350 | 167.691 | -1.592 | -1.935 | -0.210 | 24.588 | 1.861 |
| 2017q1 | 146.421 | 5240.365 | 63.424 | 85.791 | 85.973 | -2.732 | -1.999 | -2.031 | 21.158 | 1.906 |
| 2017q2 | 122.730 | 386.247 | 96.649 | 150.417 | 150.857 | -1.734 | -2.754 | -3.001 | 19.030 | 1.989 |
| 2017q3 | 12.015 | 138.713 | 120.977 | 58.266 | 58.431 | -1.645 | -4.666 | -5.456 | 16.523 | 2.128 |
| 2017q4 | 21.255 | 62.804 | 209.733 | 77.539 | 77.803 | -1.238 | -5.393 | -6.394 | 12.350 | 2.253 |

| | SINV09 | SINVA09 | SINVAD09 | SINVAF09 | SINVF | SINVF09 | SINVNF | SINVNF09 | SINVO09 | SINVT09 |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 2.717 | -2.358 | -4.363 | 2.813 | 0.747 | -0.460 | 1.165 | 3.032 | 2.683 | 18.527 |
| 2016q2 | 1.821 | -6.724 | -0.856 | -20.079 | 2.624 | 0.119 | 3.992 | 1.955 | 2.093 | 2.919 |
| 2016q3 | 2.014 | -5.703 | -3.139 | -12.137 | 2.622 | 0.119 | 4.206 | 2.163 | 2.100 | 8.884 |
| 2016q4 | 2.361 | -3.357 | -0.108 | -11.634 | 2.623 | 0.120 | 4.587 | 2.536 | 2.402 | 10.168 |
| 2017q1 | 2.422 | -0.699 | 0.834 | -4.824 | 2.623 | 0.120 | 4.653 | 2.601 | 2.436 | 9.522 |
| 2017q2 | 2.551 | 0.282 | 0.985 | -1.661 | 2.624 | 0.120 | 4.794 | 2.739 | 2.579 | 8.890 |
| 2017q3 | 2.577 | 0.395 | 0.762 | -0.633 | 2.624 | 0.121 | 4.821 | 2.766 | 2.665 | 7.002 |
| 2017q4 | 2.573 | 0.122 | 0.335 | -0.477 | 2.624 | 0.121 | 4.816 | 2.761 | 2.717 | 5.378 |

| | SPLONG | SPSHORT | STAT | STKSLA | STKSLAD | STKSLAF | STKSLO | STKSLT | TC | TCF |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -86.908 | -72.276 | 0.000 | 18.987 | 15.519 | 32.843 | 1.729 | 32.912 | 5.116 | 3.229 |
| 2016q2 | -89.966 | 87.974 | 33.553 | -5.360 | 7.004 | -32.747 | -1.673 | -6.866 | 13.262 | 13.991 |
| 2016q3 | -91.262 | -98.251 | 34.973 | -14.259 | -14.622 | -12.322 | -0.951 | 3.287 | 3.724 | 3.900 |
| 2016q4 | -98.235 | 44930.904 | 40.603 | -2.834 | 0.718 | -11.830 | -0.932 | 7.251 | 5.811 | 5.911 |
| 2017q1 | 9189.501 | 535.668 | 29.632 | -0.569 | 1.157 | -5.209 | -0.999 | 6.000 | -0.022 | -0.239 |
| 2017q2 | 255.746 | 78.317 | 13.691 | 1.090 | 1.923 | -1.204 | -0.811 | 5.681 | 5.072 | 5.056 |
| 2017q3 | 911.858 | 57.303 | 16.284 | 1.665 | 2.120 | 0.455 | -0.545 | 4.061 | 4.474 | 4.546 |
| 2017q4 | 189.697 | -39.029 | 17.124 | 1.348 | 1.542 | 0.876 | -0.403 | 2.490 | 4.390 | 4.426 |

| | TCSL | TIB | TIBF | TIBSL | TP | TPF | TPSL | TRKH | TRKL | TRKL09.U |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | 7.283 | 0.741 | -4.088 | 1.425 | 4.986 | 5.676 | 2.419 | 6.730 | -8.742 | -3.691 |
| 2016q2 | 13.412 | 3.131 | 5.336 | 2.810 | 4.430 | 4.326 | 4.828 | -3.048 | 17.149 | -4.017 |
| 2016q3 | 0.857 | 3.154 | 5.919 | 2.797 | 4.098 | 5.094 | 0.397 | -1.683 | 6.232 | 0.477 |
| 2016q4 | 4.943 | 3.157 | 5.963 | 2.792 | 5.539 | 5.304 | 6.445 | -1.668 | 0.688 | 2.792 |
| 2017q1 | -2.688 | -0.610 | -24.209 | 2.881 | 4.533 | 3.913 | 6.924 | -0.847 | 0.783 | 3.277 |
| 2017q2 | 4.509 | 3.337 | 6.492 | 2.956 | 6.216 | 5.896 | 7.434 | 0.684 | 0.111 | 3.410 |
| 2017q3 | 2.816 | 3.339 | 6.361 | 2.970 | 4.451 | 6.157 | -1.808 | 2.032 | -0.354 | 3.456 |
| 2017q4 | 2.922 | 3.395 | 6.331 | 3.033 | 6.593 | 6.222 | 8.027 | 2.089 | -0.312 | 3.394 |

| | TRKLCI09 | TRKLD | TRKLF | TSIB | TSID | TSIF | TSIROW | UCKNC | UCKPDIE | UCKPDIP |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -12.234 | -3.363 | -28.052 | 2.250 | 4.001 | 4.047 | 7.763 | -5.433 | -8.786 | -1.606 |
| 2016q2 | 12.512 | 16.294 | 20.888 | 2.518 | 2.696 | 2.992 | 72.550 | -21.906 | -11.021 | -11.099 |
| 2016q3 | 6.764 | 7.765 | -0.127 | 2.596 | 2.948 | 2.994 | 2.948 | 2.123 | 8.750 | 1.241 |
| 2016q4 | 3.502 | 1.060 | -0.915 | 2.537 | 2.878 | 2.923 | 2.878 | 4.529 | 2.467 | 1.921 |
| 2017q1 | 4.092 | 1.421 | -1.970 | 11.178 | 12.392 | 12.590 | 12.392 | 5.316 | 0.576 | 2.081 |
| 2017q2 | 3.528 | 0.508 | -1.625 | 2.835 | 3.180 | 3.227 | 3.180 | 4.971 | -2.281 | 1.789 |
| 2017q3 | 3.091 | 0.018 | -1.993 | 2.999 | 3.355 | 3.405 | 3.355 | 4.674 | -0.183 | 1.562 |
| 2017q4 | 3.072 | -0.034 | -1.546 | 3.146 | 3.510 | 3.562 | 3.510 | 4.582 | 0.124 | 1.444 |

| | UCKPDOE | UCKPDTH | UR | URNORM | VEHL | X | X09 | XG | XG09 | XS |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -12.351 | -2.471 | 6.352 | 2.183 | -14.633 | -7.995 | -2.553 | -13.153 | -3.399 | 2.554 |
| 2016q2 | -13.499 | -9.449 | -14.763 | 4.380 | 9.237 | 2.974 | 0.588 | 2.327 | 0.682 | 4.174 |
| 2016q3 | 5.129 | 10.383 | -15.379 | 3.195 | 7.709 | 3.137 | 2.046 | 1.303 | 0.626 | 6.568 |
| 2016q4 | 0.958 | 3.690 | -15.950 | 4.061 | 0.184 | 3.201 | 2.403 | 2.005 | 1.861 | 5.396 |
| 2017q1 | -0.522 | 1.607 | -16.876 | -1.219 | 0.112 | 3.366 | 3.091 | 2.398 | 2.685 | 5.121 |
| 2017q2 | -3.195 | -1.666 | -17.745 | -3.599 | -0.554 | 3.624 | 3.275 | 2.455 | 2.629 | 5.735 |
| 2017q3 | -1.210 | 0.169 | -9.676 | -2.422 | -1.015 | 3.722 | 3.300 | 3.120 | 3.229 | 4.793 |
| 2017q4 | -0.938 | 0.287 | -9.838 | -1.169 | -0.973 | 4.250 | 3.777 | 3.372 | 3.463 | 5.812 |

| | XS09 | YCAT | YCBT | YCCF | YCCFNET | YCP | YD | YD09 | YD09ADJ | YDADJ |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -0.939 | 4.087 | 4.337 | 4.884 | -2.776 | -2.279 | 3.175 | 2.888 | 2.886 | 3.175 |
| 2016q2 | 0.414 | 20.707 | 18.898 | 13.312 | 8.512 | 10.401 | 3.271 | 1.688 | 1.688 | 3.271 |
| 2016q3 | 4.689 | 4.973 | 4.679 | 4.627 | 8.479 | 9.028 | 3.805 | 2.241 | 2.241 | 3.805 |
| 2016q4 | 3.391 | 7.993 | 7.479 | 6.543 | 8.117 | 8.973 | 3.872 | 2.202 | 2.202 | 3.872 |
| 2017q1 | 3.825 | -1.183 | -0.913 | 8.333 | 9.032 | 9.818 | 4.118 | 2.398 | 2.398 | 4.118 |
| 2017q2 | 4.435 | 6.694 | 6.313 | 5.946 | 6.471 | 7.374 | 4.336 | 2.596 | 2.596 | 4.336 |
| 2017q3 | 3.427 | 5.915 | 5.577 | 5.577 | 3.710 | 6.515 | 4.789 | 3.039 | 3.039 | 4.789 |
| 2017q4 | 4.333 | 5.723 | 5.412 | 5.522 | 3.886 | 6.310 | 4.575 | 2.771 | 2.771 | 4.575 |

| | YFP | YNFP | YOL | YP | YPADJ | YPADJ09 | YPDIV | YPERM09 | YPINT | YPWS |
|---|---|---|---|---|---|---|---|---|---|---|
| 2016q1 | -41.675 | 4.031 | 3.734 | 3.405 | 2.945 | 2.657 | -1.542 | 2.811 | 0.822 | 3.936 |
| 2016q2 | -7.025 | 2.517 | 3.699 | 3.419 | 3.156 | 1.575 | 0.873 | 2.317 | 2.446 | 3.850 |
| 2016q3 | 3.728 | 5.364 | 3.566 | 3.843 | 3.952 | 2.385 | 3.016 | 2.343 | 3.788 | 4.034 |
| 2016q4 | 11.788 | 6.702 | 3.443 | 4.085 | 4.204 | 2.528 | 3.043 | 2.305 | 4.837 | 4.009 |
| 2017q1 | 9.671 | 5.617 | 3.400 | 4.171 | 4.404 | 2.680 | 4.639 | 2.146 | 5.541 | 4.033 |
| 2017q2 | 7.990 | 5.303 | 3.410 | 4.577 | 4.762 | 3.015 | 8.657 | 2.286 | 6.275 | 4.397 |
| 2017q3 | 6.646 | 5.212 | 3.475 | 4.745 | 5.041 | 3.286 | 10.309 | 2.549 | 6.498 | 4.599 |
| 2017q4 | 5.568 | 5.308 | 3.577 | 4.834 | 5.157 | 3.344 | 9.606 | 2.731 | 6.674 | 4.833 |

| | YT09 | YUNB |
|---|---|---|
| 2016q1 | -23.046 | 3.779 |
| 2016q2 | -47.434 | -1.199 |
| 2016q3 | 8.427 | 2.405 |
| 2016q4 | 5.354 | 4.931 |
| 2017q1 | -11.649 | 3.718 |
| 2017q2 | 45.722 | 2.794 |
| 2017q3 | 90.753 | 0.567 |
| 2017q4 | 23.166 | -0.099 |