June 2018

U.S. Macroeconomic Outlook Alternative Scenarios

FROM MOODY'S ANALYTICS

Contact Information

Client Services

Representatives are available: 7AM to 6PM EST (12PM-11AM GMT), Mon-Fri.
Email help@economy.com or contact us at a location below:

U.S. & Canada				+1.866.275.3266 or +1.610.235.5299
EMEA	(London)	+44.20.7772.1646	(Prague)	+420.224.222.929
Asia/Pacific				+61.2.9270.8111

Worldwide Offices

West Chester 121 N. Walnut St., Suite 500, West Chester PA 19380	+1.610.235.5000
United Kingdom One Canada Square, Canary Wharf, London E14 5FA	+44.20.7772.5454
Australia Level 10, 1 O'Connell Street, Sydney, NSW, 2000 Australia	+61.2.9270.8111
Prague Washingtonova 17, 110 00 Prague 1, Czech Republic	+420.224.222.929

Events

Economic Outlook Conference

Our flagship event, providing comprehensive insight on all the components that drive macro and regional economies.

Wilmington DE	May 2019

Visit www.economy.com/events for listings, details and registration.

Economic Briefings

Half- and full-day events designed to provide comprehensive insight on the macro and regional economies.

Regional Economic Briefings

Half-day events designed to provide detailed insight into an individual area's current and expected economic conditions.

Speaking Engagements

Economists at Moody's Analytics are available for your engagement. Our team of economists has extensive experience in making presentations on a variety of topics, including: macro outlook, consumer outlook, credit cycles, banking, housing/real estate, stress testing, sovereign credit, and regional economies. Contact us for more information.

Products & Services

This section provides information on a subset of solutions from Moody's Analytics. Visit moodysanalytics.com for a full listing of all solutions offered by the company.

Economic Forecast Databases

Global Macro Forecast Database*
Global Metropolitan Areas Forecast Database
U.S. Macro Forecast Database*
U.S. State Forecast Database*
U.S. Metropolitan Areas Forecast Database*
U.S. State & Metro Detailed Employment Forecast Database
U.S. County Forecast Database
U.S. County Detailed Employment Forecast Database
Case-Shiller® Home Price Indexes* (U.S.)
CreditForecast.com* (U.S.)
Forecasts of RCA CPPI™
Housing Stock Forecast Database (U.S.)

**With Alternative Scenarios*

Economic Historical Databases

Global National & Subnational Database
U.S. National & Regional Database
American Bankers Association Delinquency Database (U.S.)
Case-Shiller® Home Price Indexes (U.S.)
CoreLogic Home Price Indexes (U.S)
CreditForecast.com (U.S.)
LPS Home Price Indexes (U.S.)
National Association of Realtors:
  Pending Home Sales (U.S.)
  Monthly Supply of Homes (U.S.)

Data packages can be customized to clients' geographic areas of interest.

Economic Models & Workstations

Scenario Studio
U.S. Macro & State Model
U.S. Regional Workstation
World Workstation
Moody's CreditCycle™
Moody's AutoCycle™

Economic Research

Economy.com (Global)
Précis® Macro (U.S.)
Précis® Metro (U.S.)
Précis® State (U.S.)
Regional Financial Review®

Economic Advisory Services

Client Presentations
Consumer Credit Analytics
Credit Risk Management
Custom Scenarios
Economic Development Analysis
Market Analysis
Product Line Forecasting
Stress-Testing

THE U.S. MACROECONOMIC OUTLOOK ALTERNATIVE SCENARIOS ARE WRITTEN BY EDWARD FRIEDMAN

Forecast Assumptions

BY MARK ZANDI

Monetary policy

The Federal Reserve is expected to continue steadily normalizing interest rates over the remainder of the decade. The Fed hiked the federal funds rate three times in 2017, and twice so far this year, a quarter percentage point each time. We expect it to hike rates two more times in 2018 and four times in 2019, with the funds rate peaking near 4% by decade's end. The next increase is expected at the September meeting of the Federal Open Market Committee.

Behind this expected normalization in monetary policy is an economy operating beyond full employment. Both the unemployment rate at 3.8% and the 7.6% underemployment rate are below our estimates of the natural rate. The labor market is expected to tighten substantially more. And with deficit-financed tax cuts and government spending increases hitting, the labor market threatens to overheat.

Inflation is expected to pick up from near its 2% target to a high of closer to 3% by the end of the decade. Fueling the stronger inflation will be the tight labor market, sturdy rent growth, and greater medical care inflation. Somewhat higher oil and other commodity prices will also more than offset any impacts on inflation of an anticipated modest firming of the U.S. dollar.

Normalization of monetary policy also means that the Fed will allow its balance sheet to diminish. The balance sheet swelled to nearly $4.5 trillion in Treasury and mortgage securities as a result of four rounds of quantitative easing. In a full-employment economy, the Fed's balance sheet should be closer to $3 trillion. The Fed has begun to right-size its balance sheet by allowing the securities it owns to mature and prepay. It is expected to take approximately four years to complete the task.

The behavior of bond investors could complicate the job of normalizing monetary policy. The economic outlook is based on a steady but orderly rise in long-term rates, with 10-year Treasury yields rising from just under 3% currently to near 4% by late 2019. This is close to the estimated 4.4% normalized 10-year Treasury yield consistent with an economy at full employment. Long-term yields will not fully normalize until global central banks end their quantitative easing programs, and the Fed's balance sheet shrinks—not likely until early next decade.

Fiscal policy

The federal government's fiscal situation is weakening as the deficit-financed tax cuts and government spending increases kick-in. Those measures ensure that the deficit this fiscal year will be near $800 billion, and well over $1 trillion, equal to 5% of GDP, in fiscal year 2019. Even on a dynamic basis—after accounting for the effects of the tax and spending policies on the economy—the tax cuts and spending increases will add approximately $1.3 trillion to the government's cumulative budget deficits over the next decade. The nation's debt-to-GDP ratio will be more than 3 percentage points higher by the end of President Trump's first term than if there were no change in fiscal policy, and almost 7 percentage points higher in a decade.

Fiscal policy should add approximately 0.7 percentage points to real GDP growth in 2018 and about the same in 2019. But any economic benefit from the lower marginal corporate tax rates will be washed out by the economic cost created by the bigger government debt load and resulting higher interest rates.

U.S. dollar

The real broad trade-weighted U.S. dollar has firmed a bit this year. Behind the recent dollar strength is the strong fiscal-stimulus fueled U.S. economy and somewhat weaker growth overseas, particularly in Europe. Volatile European politics, most notably in Italy and Spain, are also behind the softer euro. The dollar has found further support in the escalating trade tensions between the U.S. and its trading partners, which is supporting a flight-to-quality bid for the dollar.

The dollar is expected to hold firm, and even appreciate a bit more over the coming two years as the Fed steadily normalizes U.S. monetary policy. The Trump administration's anti-trade stance will also support the dollar against currencies of countries with which the U.S. has trade frictions, including the Mexican peso and Canadian dollar.

Despite the ups and downs, on a real broad trade-weighted basis, the U.S. dollar is close to its average value since it began to freely float in the early 1970s, and is near its estimated long-run fair value. Its resilience will ensure that it remains the global economy's principal reserve currency for the foreseeable future.

Energy prices

Oil prices have firmed at close to $65 per barrel from a low of nearly $25 per barrel in early 2016. Prices will remain volatile and may rise a bit more in coming months given the anticipated collapse of the Iranian nuclear deal. Iran produces almost 4 million barrels per day of which 1 million is for export. Not all of this will be curtailed if the U.S. re-imposes sanctions on Iran, but enough will be to impact global oil prices. Also underpinning prices are strong global oil demand, a right-sizing of global oil inventories, and a pullback in energy investment. Rig counts have risen but remain well below the number in operation prior to the break in oil prices several years ago. OPEC has also moved to curtail production, and higher-cost non-OPEC producers in the North Sea and Arctic have downsized their investment.

Despite all this, oil prices are expected to fall back to their long-run equilibrium level of $55 to $60 per barrel by early next year. U.S. shale producers are currently supplying the last barrel of oil to the global marketplace. Brent oil prices should slowly narrow relative to West Texas Intermediate. Natural gas prices will remain low, particularly compared with oil prices, for the next decade.

Exceptionally Strong Growth ("S0") Scenario

This above-baseline scenario is designed so that there is a 4% probability that the economy will perform better than in this scenario, broadly speaking, and a 96% probability that it will perform worse.

The upside scenario, "Exceptionally Strong Growth," is based on the assumption that the combination of tax reform, the large gains in corporate earnings, and the cumulative rise in the stock market since late 2016 leads to a greater than expected rise in business investment. The increase in capital per worker leads to significant, persistent additional growth in labor productivity. Further, the policies of the Trump administration do not trigger a trade war. Solid gains in U.S. employment and rising productivity cause wage rates to rise, boosting household incomes and spending more than expected.

The U.K. and the EU reach a mutually advantageous agreement on the U.K.'s departure from the EU, and as a result, euro zone expansion accelerates substantially, far faster than in the baseline projection. This drives additional increases in U.S. exports and therefore investment. The stronger than anticipated global growth raises the demand for oil, pushing prices above $90 per barrel by mid-2019.

The 10-year Treasury yield rises higher than in the baseline, to above 5%, because of the stronger growth and inflation that is faster than in the baseline. To address the rising price pressures, the Federal Reserve raises the federal funds rate more than in the baseline to a peak above 5% by the end of 2019. The higher interest rates cause the economy to decelerate at that point, but expansion remains faster than in the baseline. Longer term, the additional investment increases the capital stock more than expected, pushing real GDP above baseline levels because of increased productivity.

The stronger near-term growth in real GDP results in additional hiring compared with the baseline, and the unemployment rate declines to less than 3% throughout 2019.

Real GDP is several percentage points faster than in the baseline over the next two years. On an annual average basis, real GDP growth is 4.2% in 2018 and 5.8% in 2019, compared with 3% and 2.7%, respectively, in the baseline.

Stronger Near-Term Growth (“S1”) Scenario

This above-baseline scenario is designed so that there is a 10% probability that the economy will perform better than in this scenario, broadly speaking, and a 90% probability that it will perform worse.

The upside scenario, “Stronger Near-Term Growth,” is based on the assumption that tax reform and the better than expected increase in the stock market and gains in corporate earnings in 2017 into 2018 lift business sentiment more than anticipated, leading to a greater than expected rise in business investment. Further, the policies of the Trump administration support faster than expected growth without triggering a trade war. Additionally, the persistent gains in U.S. employment put upward pressure on wage rates, boosting household incomes, consumer confidence, spending and house prices more than expected, and the rise in the stock market also supports spending.

The U.K. and the EU quickly agree on a compromise that results in a relatively painless departure of the U.K. from the EU. As a result, the euro zone recovers significantly faster than the baseline projection, lifting U.S. exports and therefore nonresidential investment all the more. The stronger than anticipated global growth raises the demand for oil, pushing prices to nearly $80 per barrel by early 2019.

The Federal Reserve accelerates the process of normalizing monetary policy compared with the baseline. The 10-year Treasury yield rises higher than in the baseline because of the stronger growth, inflation that is faster than in the baseline, and the prospect of a larger federal deficit. The Fed raises the federal funds rate more quickly than in the baseline between mid-2018 and mid-2019, and the level remains higher than in the baseline until it hits a peak of nearly 5% in the second half of 2019. The higher interest rates cause the economy to decelerate at that point, but growth remains faster than in the baseline. Longer term, the additional investment increases the capital stock more than expected, leading to real GDP elevated above baseline levels because of increased productivity.

The stronger near-term growth in real GDP results in additional hiring compared with the baseline so that the unemployment rate declines somewhat more. Whereas the unemployment rate is 3.3% a year from now in the baseline, it drops to 3% in S1.

Real GDP is nearly 2 percentage points faster than in the baseline over the coming year. On an annual average basis, real GDP growth is 3.5% in 2018 and 4.2% in 2019, compared with 3% and 2.7%, respectively, in the baseline.

Slower Near-Term Growth ("S2") Scenario

In this slow-growth scenario, there is a 75% probability that economic conditions will be better, broadly speaking, and a 25% probability that conditions will be worse.

The downside 25% scenario, "Slower Near-Term Growth," begins as the stock market sells off. Financial market volatility rises as investors worry that the stock market has been overvalued, that inflation will rise, and that the Fed will respond aggressively. Concern builds about the administration's trade policies and that tax reform may not yield the anticipated growth. The Treasury bond market temporarily weakens more than expected. Markets increasingly believe that the U.K.'s departure from the EU would ultimately result in a drop in cross-border trade.

The stock market decline causes business sentiment to decrease, reducing growth in business investment to below the pace in the baseline. Further, the decline in wealth diminishes household confidence and gains in consumer spending. Additionally, financial markets worry that the Fed will persist with its near-term plan to raise the federal funds rate despite concerns about growth. Oil prices level off in the low $60 per barrel range, moderately below the timeline in the baseline, because of weaker demand and increased supply.

Real GDP rises more slowly than in the baseline over the next couple of years, and the unemployment rate drifts up over that time to nearly a point higher than in the baseline. However, recession is avoided. House prices rise more slowly than the baseline. Unit car sales decline over the coming year, leaving sales 500,000 units per year below the baseline by mid-2019.

Over the coming year, real GDP growth is approximately 1.5 percentage points lower than in the baseline. To support the economy, the Fed keeps the federal funds rate unchanged for the rest of 2018, in contrast with the increases in the baseline. On an annual average basis, real GDP growth is 2.6% in 2018 and 1.2% in 2019.

Moderate Recession ("S3") Scenario

In this recession scenario, there is a 90% probability that the economy will perform better, broadly speaking, and a 10% probability that it will perform worse.

In the downside 10% scenario, "Moderate Recession," the stock market sells off because of the belief that it was overvalued and that the policies of the Trump administration, particularly regarding international trade, immigration and healthcare, will weaken the U.S. economy. The reduction in wealth causes consumer spending to decline.

Protectionist U.S. policy damages global confidence and weakens international trade. Further, the U.K.'s departure from the EU lowers regional trade more than expected. Additionally, bond investors believe that the Fed will mistakenly continue tightening anyway, causing a brief but sharp selloff in the Treasury bond market.

The euro zone drops back into recession, contributing to the economic and financial stress faced by heavily indebted nations in the region, especially Italy, where investors worry that the new government will not meet its fiscal and debt obligations, and also Greece. These developments lower U.S. exports to Europe. Oil prices fall to a trough in the range of $40 per barrel, reducing investment in exploration.

In the U.S., the declines in financial markets and weaker consumer spending, exports and business investment result in a recession that begins in the third quarter of 2018. The Fed responds by lowering the federal funds rate, ultimately back to less than 0.2%. Corporate bond spreads rise well above the baseline trend, lowering business investment. However, the downturn causes foreign investors to once again see dollar-denominated securities as a safe haven, causing Treasury bond yields to decline again starting in the fourth quarter of 2018. The recession is less severe than the 2008-2009 downturn but lasts through the second quarter of 2019.

The unemployment rate rises during the recession to a peak of 7.3% by the fourth quarter of 2019, causing housing to decline. Reduced federal support to housing relative to that in the 2008-2009 recession contributes to the weakness, as does a decline in mortgage credit availability. House prices, as measured by the National Association of Realtors' median sales price, drop cumulatively by about 10% from the third quarter of 2018 to the fourth quarter of 2019. However, the trough is well above that in 2011 following the Great Recession. Housing starts fall from the first quarter of 2018 and decline more than 40% cumulatively by mid-2019. Unit auto sales decrease starting in the first quarter of 2018 to a trough of less than 14 million units in early 2020. Low capacity utilization in manufacturing and weak demand cause business investment to fall significantly for more than a year.

The recovery begins in the third quarter of 2019. With the economy weak, the Fed keeps the federal funds target rate below 0.2% until late 2020. The cumulative peak-to-trough decrease in real GDP is 2.1%. The percentage change in real GDP is 2.1% on an annual average basis in 2018 and -1.4% in 2019. Reduced business investment lowers productivity so that the level of real GDP remains below the baseline indefinitely.

Protracted Slump ("S4") Scenario

In this recession scenario, there is a 96% probability that the economy will perform better, broadly speaking, and a 4% probability that it will perform worse.

The downside 4% scenario, "Protracted Slump," is caused by multiple factors. First, the stock market falls sharply as investors fear that the stock market is greatly overvalued and that the policies of the Trump administration on international trade, immigration and healthcare will weaken the economy. Escalation of global political tensions in places such as the Middle East adds to the worries. At the same time, bond prices collapse, at first because of concerns about inflation and subsequently because of the concern that deficits will rise greatly. The government puts higher tariffs on Chinese and Mexican imports. Further, the U.K.'s departure from the EU lowers international trade and overall economic activity in Europe and causes other nations to consider leaving the EU. Additionally, the Chinese housing market collapses, with house prices declining sharply. U.S. consumer confidence plummets. Oil prices plunge again, lowering business investment in energy exploration.

The euro zone drops back into a deep recession as the burden of fiscal austerity squeezes the financial systems of heavily indebted nations, once again threatening the existence of the single-currency area. In particular, the tough stance of the new government and the high volume of nonperforming loans in Italy puts that nation at risk of leaving. Greece, already in a weakened state from years of austerity, is forced out of the euro zone. The U.S. banking system is strained as a result of its ties to the European banks, significantly shrinking credit availability.

The combination of global financial market stress and the drop-off in U.S. exports and business investment precipitates a deep recession beginning in the third quarter of 2018. After the initial drop in bond markets, foreign investors again see the dollar as a safe haven. The Fed lowers the federal funds rate ultimately back to less than 0.2%. However, the impasse among U.S. policymakers prevents a federal fiscal policy response to stem the downturn. Consumer sentiment and spending decrease sharply. Rising unemployment causes consumers to pull back on their spending. Unit auto sales decline steadily throughout the second half of 2018 and 2019 to a trough of less than 11 million, compared with the baseline pace of 16 million. Corporate bond spreads rise significantly above baseline levels, causing business investment to drop sharply throughout 2019 and much of 2020.

The unemployment rate rises to a peak of 9.6% in late 2020 and remains above 9% throughout 2021. Delinquencies and foreclosures rise again, federal support to housing is more limited than in the 2008-2009 recession, and mortgage credit availability dries up. This leads to a cycle of house price declines, resulting in a cumulative drop of 20% from the third quarter of 2018 through mid-2020. Housing starts also fall, cumulatively decreasing by more than 60% by mid-2020. The recovery in homebuilding is slow until 2022. In this deep slump, which lasts until the first quarter of 2020, real GDP declines a cumulative 4.6% peak to trough. On an annual average basis, the percentage change in real GDP is 2% in 2018 and -2.9% in 2019. Inflation is negative in mid-2018 to early 2019. To prevent the economy from sliding further, the Fed keeps interest rates near 0% through the end of 2022.

Below-Trend Long-Term Growth ("S5") Scenario

With this low-performance long-term scenario, there is a 96% probability that the economy will perform better, broadly speaking, and a 4% probability that it will perform worse.

In the downside 4% scenario, "Below-Trend Long-Term Growth," U.S. expansion continues in 2018, but the rate is below the baseline pace as the economic policies of the Trump administration on immigration, international trade and healthcare increase uncertainty among businesses and households alike. In addition, wage increases are slower than in the baseline, leaving households cautious about spending.

However, whereas other downside scenarios feature at least some demand-driven recovery, the pace of growth remains below that of the baseline for an extended time for several reasons. Households engage in precautionary saving and therefore less spending. Stock prices are lower than in the baseline. Capital accumulation and productivity gains are lower than in the baseline, owing to lower business investment.

Real GDP growth is lower than in the baseline over the next decade, and the level of real GDP is permanently lower than in the baseline. On an annual average basis, real GDP increases 2.8% in 2018 and 1.6% in 2019.

The unemployment rate drifts back up to a percentage point above the baseline, reaching 5% by 2020, and remains there for years. The dislocation in the labor market hampers the typical long-term pattern of advances in worker productivity, as employees find fewer opportunities to develop their skills while on the job. The result is productivity growth that is below the long-run trend for a decade.

Stagflation ("S6") Scenario

In this stagflation scenario, there is a 90% probability that the economy will perform better, broadly speaking, and a 10% probability that it will perform worse.

The downside 10% scenario, "Stagflation," assumes that a wage-price spiral develops more quickly than expected as the U.S. economy hits full employment. Additionally, global oil demand rebounds faster than expected, and as a result, oil prices rebound sharply, ultimately reaching $87 per barrel by early 2019. Pressures on core consumer prices increase as unit labor costs accelerate, the higher oil prices push up the costs of delivering goods and services, and trade disruptions increase import costs.

Yields on 10-year Treasury securities rise to above 5% by the end of 2018 as a result of inflation expectations and Fed tightening. The Federal Reserve begins to fight inflation aggressively and increases the fed funds rate ultimately to more than 5% by early 2019. The economy weakens substantially and drops into recession in the first quarter of 2019. Forced to make a choice in the stagflation environment, the Fed keeps interest rates high to fight inflation, and as a result, the downturn persists through the fourth quarter of 2019. The jobless rate rises to a peak of 7.7% in mid-2020.

As a result of the recession and rising unemployment, inflation and inflation expectations begin to subside in 2019, allowing the Fed to begin to reduce the fed funds rate once again. The economy begins to recover in mid-2020.

On an annual average basis, the change in real GDP is 2.7% in 2018 and -0.4% in 2019. Inflation, as measured by the CPI, rises above 6% in late 2018 and early 2019, more than 3 percentage points above the baseline, before beginning to decelerate.

Next-Cycle Recession ("S7") Scenario

This scenario is designed to reflect the fact that recessions periodically occur in the U.S. economy, though the timing is highly uncertain. The probability that the economy will enter this or a similar recession sometime over the next five years is estimated at 10%.

The "Next-Cycle Recession" scenario is constructed to be a benchmark, independent of current business cycle conditions. Since World War II, the U.S. economy has experienced 12 recessions. The longest was the Great Recession, which lasted 18 months; the shortest was six months in 1980. The average duration was 11 months. The shortest expansion between recessions was six months in 1980, and the longest was 120 months from 1991 to 2001. The average duration of expansion was 60 months.

Based on these data, and the especially slow recovery from the 2008-2009 recession, this scenario posits that a recession would begin in the fourth quarter of 2020. Over the course of the following year, the unemployment rate rises to more than 3 percentage points above baseline levels, comparable to all but the worst postwar recessions. The peak unemployment rate in this scenario is 8%. This increase in joblessness is consistent with a fall in real GDP of approximately 2%, the average in postwar recessions.

The causes of the decline are mostly generic in nature but are exacerbated by monetary policy tightening in response to above-trend inflation. Inflation tops out at 4% in late 2019 as oil prices rise ultimately to nearly $20 per barrel above the baseline level. The Fed reins in price growth by raising the fed funds rate to more than 5%, or 150 basis points, above the baseline. The result is broadly weaker aggregate demand, highlighted by a fallout in real estate and financial markets, coincident contraction in consumer and business sentiment and spending, fiscal austerity as government budgets at all levels are squeezed, and declines in international trade.

Consequently, yields on Treasury bonds decline once the recession begins and drop below baseline levels. The stock market drops by about 25% cumulatively, and yield spreads on risky debt widen significantly. Foreclosures increase, house prices on purchase transactions cumulatively drop in the range of 10%, and the pace of new residential and nonresidential construction declines. Likewise, unit car sales fall to a comparable trough. To support the economy, the Federal Reserve eases monetary policy. However, because of long-term federal deficit issues, Congress does not engage in a fiscal stimulus.

The downturn is posited to last a full year, comparable to the postwar average. Consistent with all recessions since 1990, the ensuing recovery is slow for the first year. To support the economy, the Fed keeps policy rates accommodative for a few years after the recovery begins.

Low Oil Price ("S8") Scenario

In this upside scenario, there is a 10% probability that the economy will perform better, broadly speaking, and a 90% probability that it will perform worse.

The upside 10% "Low Oil Price" scenario assumes that the price of West Texas Intermediate drops to about $35 per barrel and remains there for more than three years. In contrast, the baseline presumes slow growth in the price over that time to the range of $60 per barrel, based on the assumption of strengthening global demand for energy. The fundamental basis of this scenario is that prospective increases in supply are larger than anticipated and more than offset the rise in demand. Higher than projected growth in supply from such countries as Iran and Libya would be consistent with this scenario, as would the inability of OPEC to enforce an agreement to reduce supply. A reduction in regulation in the U.S. energy industry by the Trump administration would also contribute to significant unexpected increases in domestic production.

Although the U.S. oil industry is larger than those of most other nations, the country is a net importer of oil, and the nonoil share of the economy is far greater than in such major petroleum producers as Saudi Arabia, Canada, Russia and Venezuela. Consequently, although the lower oil prices cause a decline in oil exploration and production, the effect on the rest of the economy is positive. For one thing, inflation, as measured by the top-line CPI, is a percentage point lower than in the baseline over the coming year.

In terms of real economic activity, lower oil prices have the same effect as a tax cut. Lower gasoline costs increase disposable income available for other consumer spending. Moreover, the reduced energy costs overall increase the profitability of industrial production. As a result, real GDP rises faster from 2018 through 2021. By 2022, the level of real GDP is approximately 1% higher than in the baseline.

However, the energy industry itself contracts, with oil exploration and related employment declining in 2018 and 2019. Oil production also falls somewhat during that time.

Oil prices begin to rise again in 2022, and as a result, overall real GDP growth decelerates to the baseline over the next several years. The assumption is that oil prices rise relative to the CPI and ultimately return to the baseline level by the end of 2028. The basis for this assumption is the historical observation that, although oil prices are highly volatile, over long periods the inflation-adjusted price of oil has trended neither up nor down.

Consensus ("CF") Scenario

This scenario is designed to incorporate the central tendency of a range of baseline forecasts produced by various institutions. Since the result is itself a baseline, by definition the probability that the economy will perform better than this consensus is equal to the probability that it will perform worse.

The "Consensus" scenario is based on the review of a variety of surveys of baseline forecasts of the U.S. economy. These surveys vary in date of latest vintage, number of updates per year, list of variables forecast, duration of forecast, frequency of data (quarterly or annual), and the number of respondents to a survey. In the preparation of the Moody's Analytics consensus forecast, the focus is on the next three to five years, since that is the most typical duration in the surveyed results. The approach is to give greater consideration to whatever forecasts were produced most recently since they will include the most up-to-date historical information and to those variables for which the number of surveyed responses is largest.

Some publicly available surveys are published quarterly including the Philadelphia Federal Reserve Survey of Professional Forecasters https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters/2018/survq118, February 2018) and the Federal Open Market Committee members' range of forecasts (https://www.federalreserve.gov/monetarypolicy/fomcprojtabl20180321.htm, March 2018). Beginning with the August 2017 vintage, Moody's Analytics has included in its review the survey published by Focus Economics. This source provides the medians of projections by upwards of 40 major institutions, including banks and consulting firms, and is published monthly.

The publication of new historical data since the time a survey was published can result in some forecast figures changing simply as a matter of arithmetic. This has been taken into account.

Users of the Moody's Analytics regional scenarios should note the following: The regional scenario associated with the consensus scenario is the result of running it through the regional model. In other words, the "consensus" for any state or metro area is not based on the review of publicly available state-specific forecasts.

About Moody’s Analytics

Moody’s Analytics provides financial intelligence and analytical tools supporting our clients’ growth, efficiency and risk management objectives. The combination of our unparalleled expertise in risk, expansive information resources, and innovative application of technology helps today’s business leaders confidently navigate an evolving marketplace. We are recognized for our industry-leading solutions, comprising research, data, software and professional services, assembled to deliver a seamless customer experience. Thousands of organizations worldwide have made us their trusted partner because of our uncompromising commitment to quality, client service, and integrity.

Concise and timely economic research by Moody’s Analytics supports firms and policymakers in strategic planning, product and sales forecasting, credit risk and sensitivity management, and investment research. Our economic research publications provide in-depth analysis of the global economy, including the U.S. and all of its state and metropolitan areas, all European countries and their subnational areas, Asia, and the Americas. We track and forecast economic growth and cover specialized topics such as labor markets, housing, consumer spending and credit, output and income, mortgage activity, demographics, central bank behavior, and prices. We also provide real-time monitoring of macroeconomic indicators and analysis on timely topics such as monetary policy and sovereign risk. Our clients include multinational corporations, governments at all levels, central banks, financial regulators, retailers, mutual funds, financial institutions, utilities, residential and commercial real estate firms, insurance companies, and professional investors.

Moody’s Analytics added the economic forecasting firm Economy.com to its portfolio in 2005. This unit is based in West Chester PA, a suburb of Philadelphia, with offices in London, Prague and Sydney. More information is available at www.economy.com.

Moody’s Analytics is a subsidiary of Moody’s Corporation (NYSE: MCO). Further information is available at www.moodysanalytics.com.

About Moody’s Corporation

Moody’s Analytics is a subsidiary of Moody’s Corporation (NYSE: MCO). MCO reported revenue of $4.2 billion in 2017, employs approximately 11,900 people worldwide and maintains a presence in 41 countries. Further information about Moody’s Analytics is available at www.moodysanalytics.com.

CONTACT US
For further information contact us at a location below:

U.S./CANADA
+1.866.275.3266

EMEA
+44.20.7772.5454 London
+420.224.222.929 Prague

ASIA/PACIFIC
+852.3551.3077

OTHER LOCATIONS
+1.610.235.5299

Email us: help@economy.com
Or visit us: www.economy.com

Moody's
ANALYTICS