

Indiana Economic Forecast Update

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The US economy will sustain above-trend growth

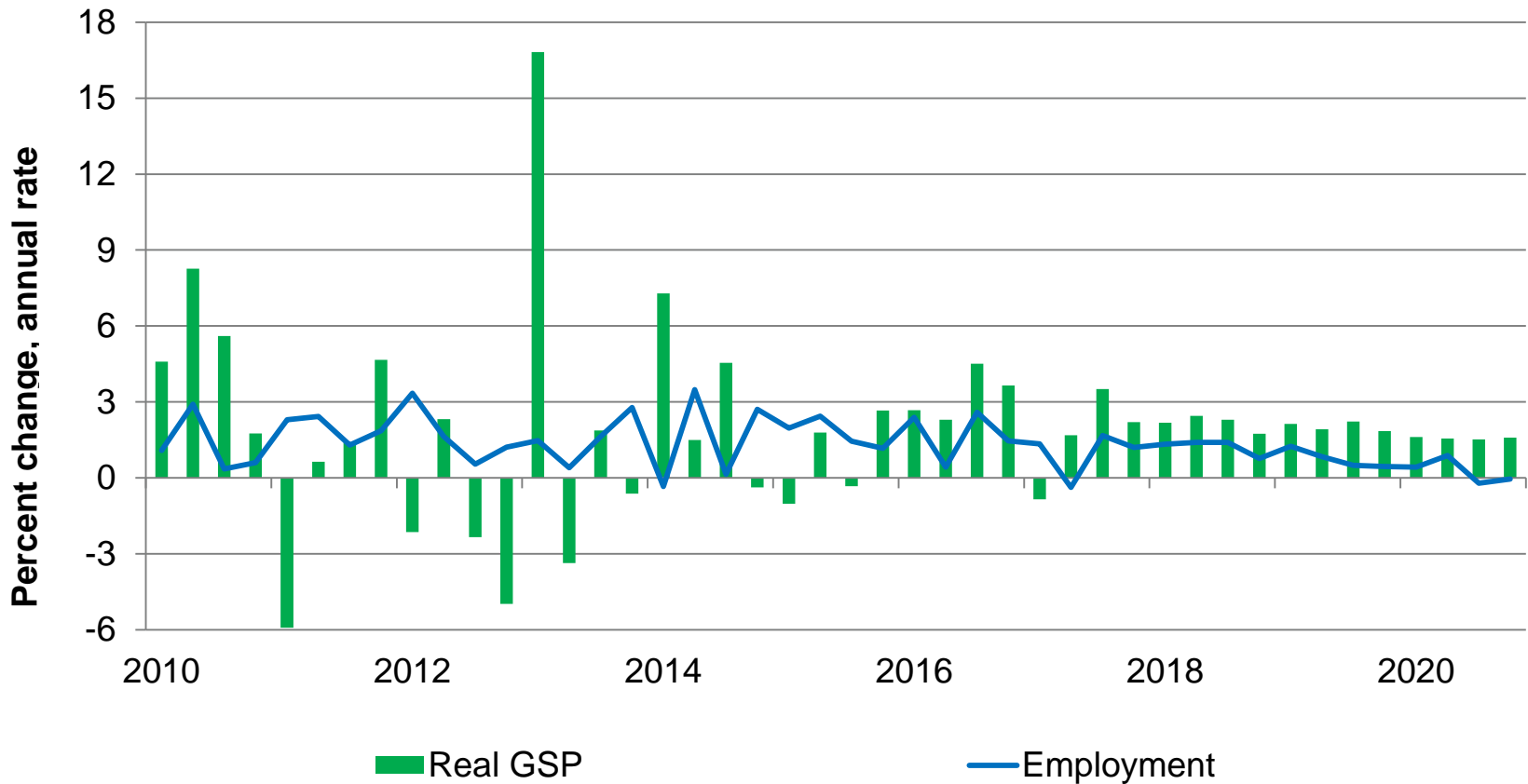
- The US economy began 2017 on a weak note – since then growth has averaged nearly 3.0%.
- With the strong momentum at the end of the year, IHS Markit expects growth in calendar year 2018 to be 2.6%, above the 2.3% in 2017 and well above the 1.5% in 2016.
- Strong economic fundamentals will sustain this above-trend growth.
- Financial conditions remain supportive, household balance sheets are improving, the US dollar is off its peak, and capacity utilization rates are high.
- Moreover, there are no obvious imbalances that could threaten the expansion.
- With trend growth estimated to be around 2.0%, this means the unemployment rate will be pushed below 4.0%.
- If the Republican Tax Cuts and Jobs Act is passed by the full Congress, it would raise growth 0.3 percentage points per year from 2018 to 2020, push down the unemployment rate even lower, and push up interest rates and the dollar even more.

Changes to forecast since April update

- Higher manufacturing employment, production
 - State-level employment data revised higher for Indiana
 - National outlook has improved
 - Demand for durables is improving, especially from fixed business investment
 - Global economy has been much better than expected, from the European Union to emerging markets; this has lowered the dollar, increased exports
- Wage levels for Indiana and the US were revised down for 2016, which lowered the baseline moving forward
- Overall employment growth rate slightly higher, as national economy better than expected

Indiana's real GSP growth outpaces payroll growth, indicating higher productivity

Indiana real GSP and payroll employment



Source: IHS Markit

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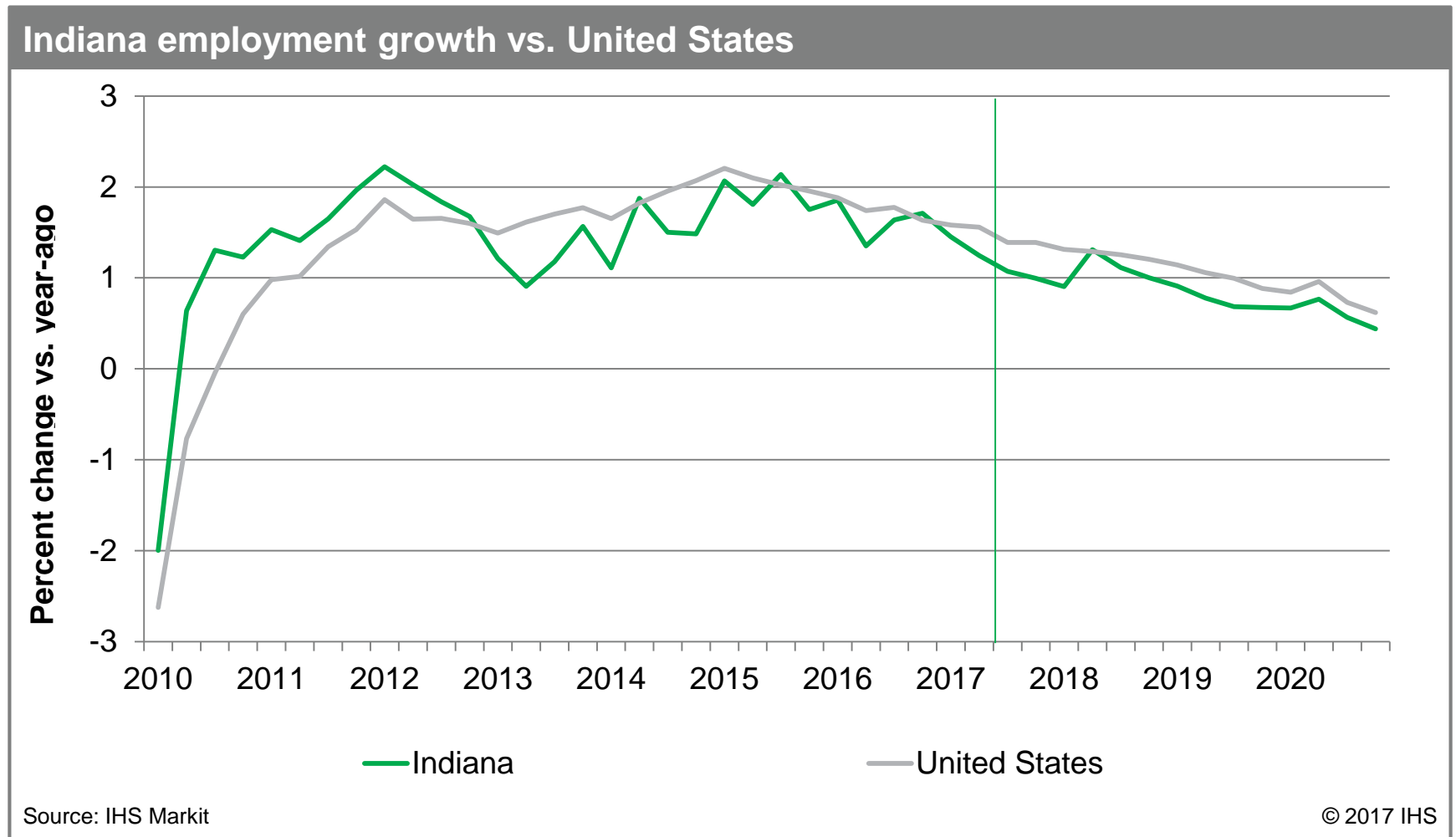
Key economic indicators for Indiana

	2016	2017	2018	2019	2020
<i>Units: Percent change</i>					
Payroll employment	1.6	1.2	1.2	1.0	0.4
Unemployment rate (%)	4.4	3.5	3.3	3.4	3.5
Wage income	3.1	3.7	4.2	4.7	4.5
Personal income	3.3	3.7	4.2	4.8	4.7
Real gross state product	2.5	2.1	2.4	2.1	1.7
Personal consumption exp.	3.6	4.4	3.7	3.9	4.2
Housing starts (thousands)	19.7	19.3	21.1	23.0	23.2
Share of multi-family (%)	21.8	16.4	17.4	16.4	17.6

Source: IHS Markit

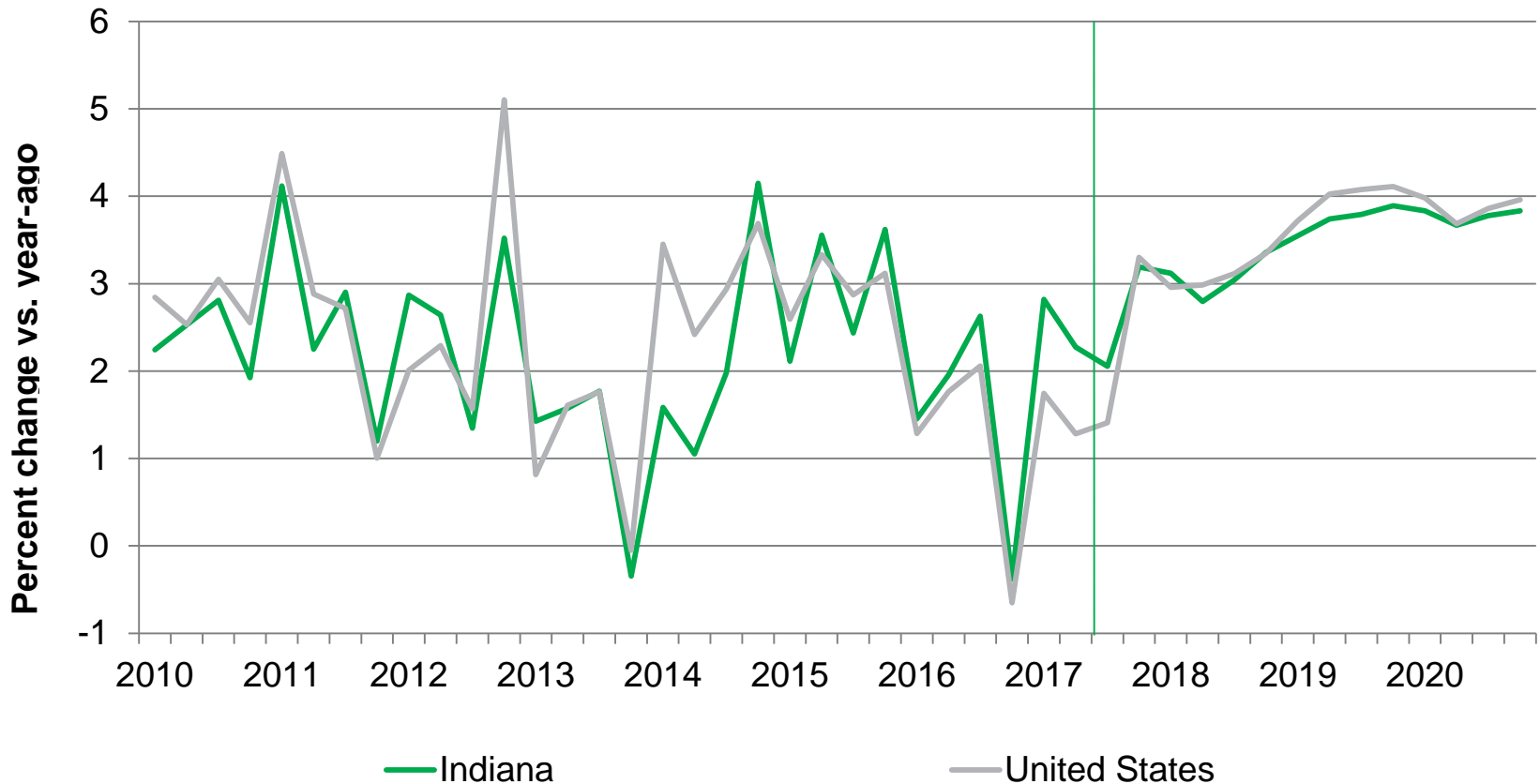
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Indiana's job market remains solid; service sector growing more slowly than national average



Higher productivity, fewer available workers will translate into higher wages

Indiana wage growth vs. United States

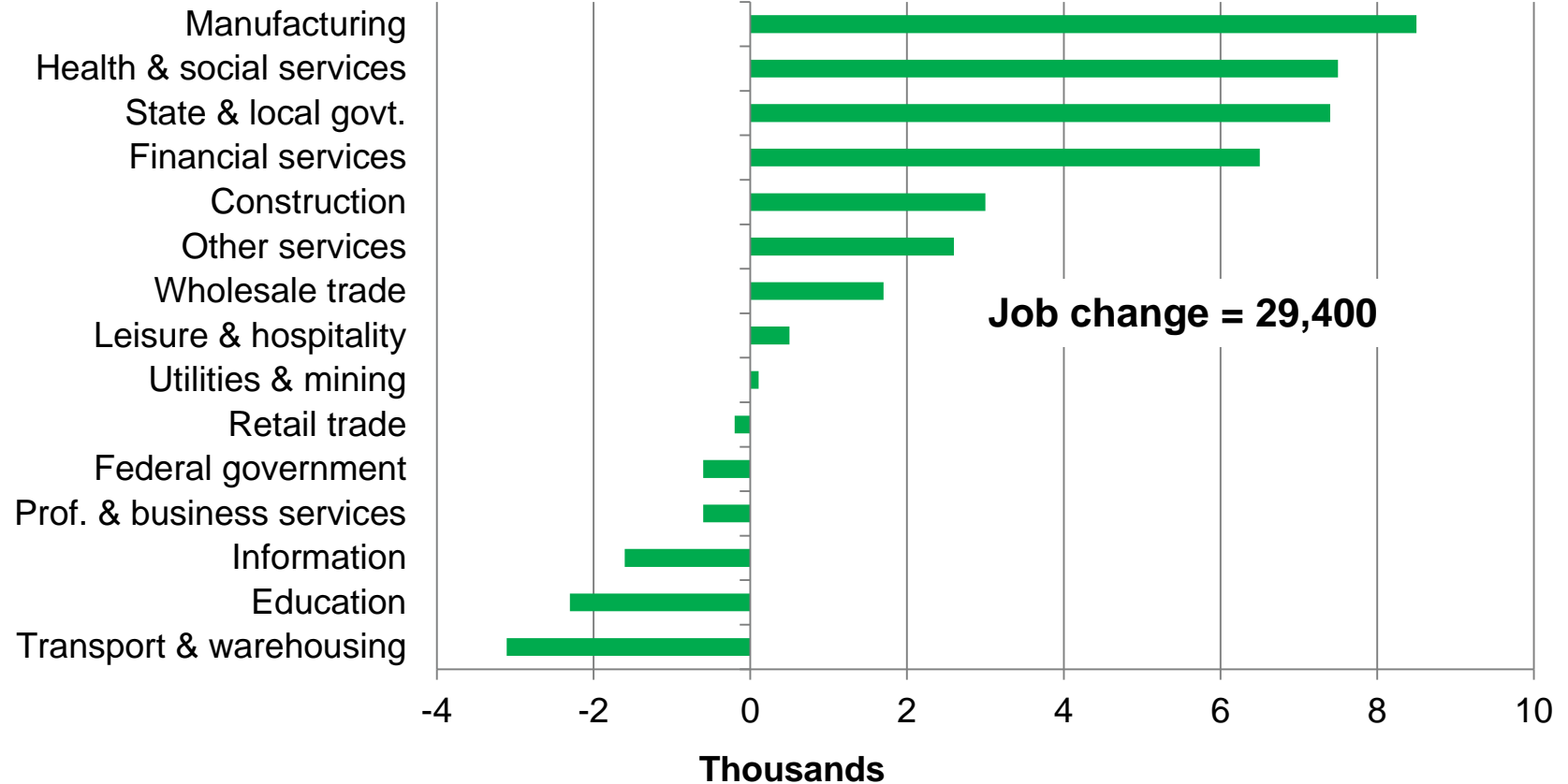


Source: IHS Markit

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Manufacturing sector remains the leader in state job growth

Change in Indiana payroll employment, Oct 2016 - Oct 2017

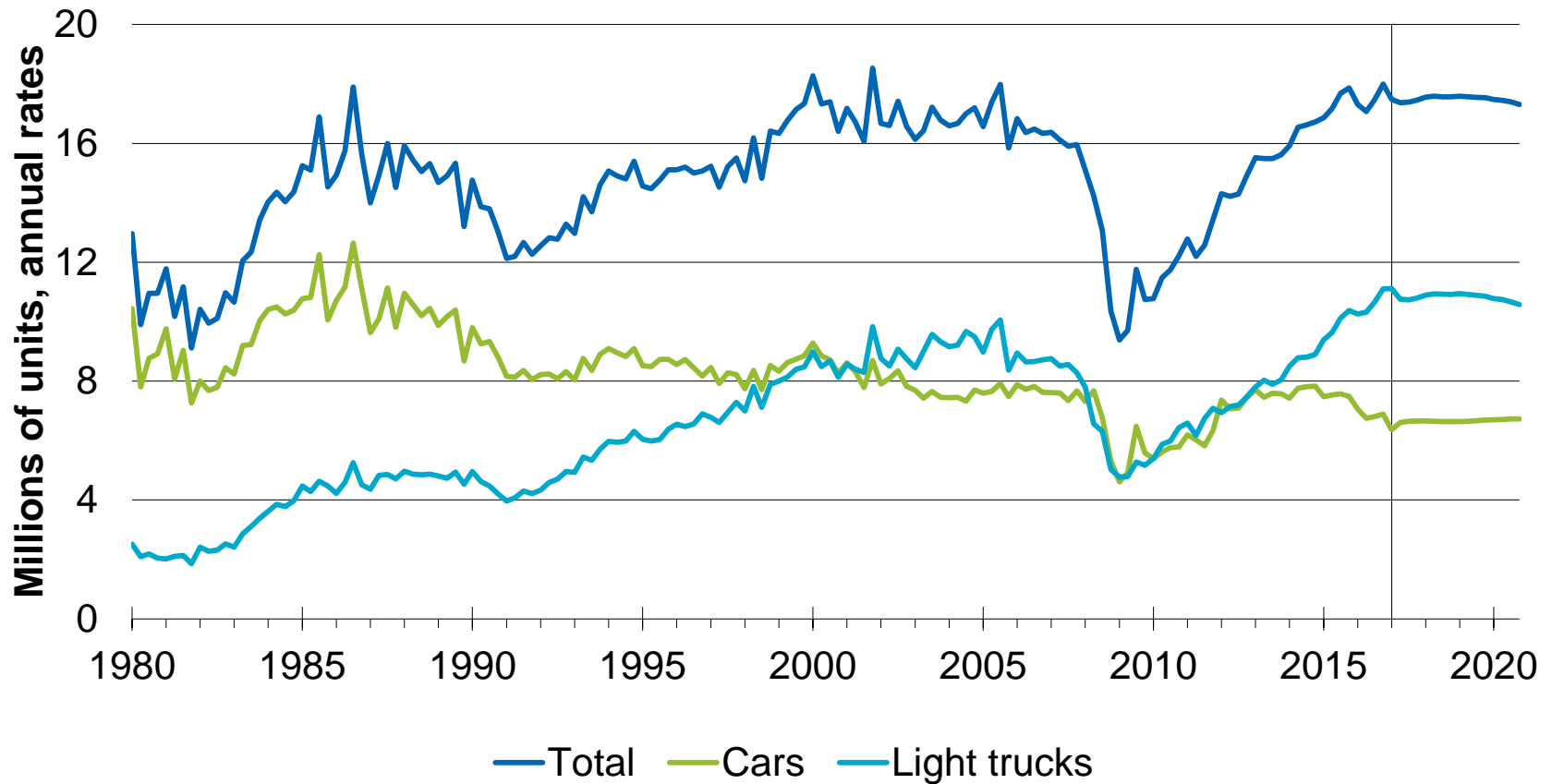


Source: IHS Markit

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Peak in vehicle sales will limit further gains in auto manufacturing sector, a major Indiana employer

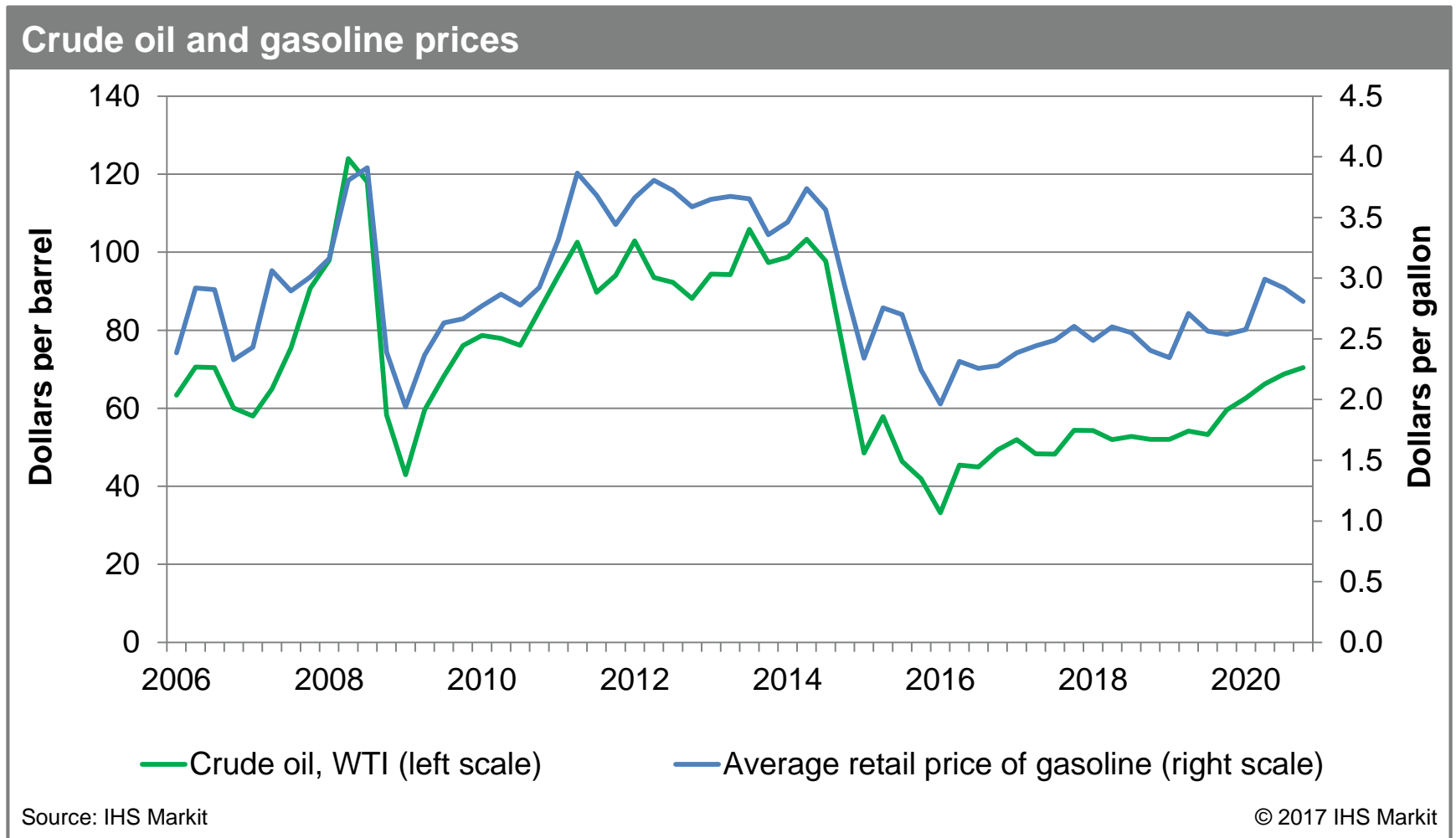
Light-vehicle sales



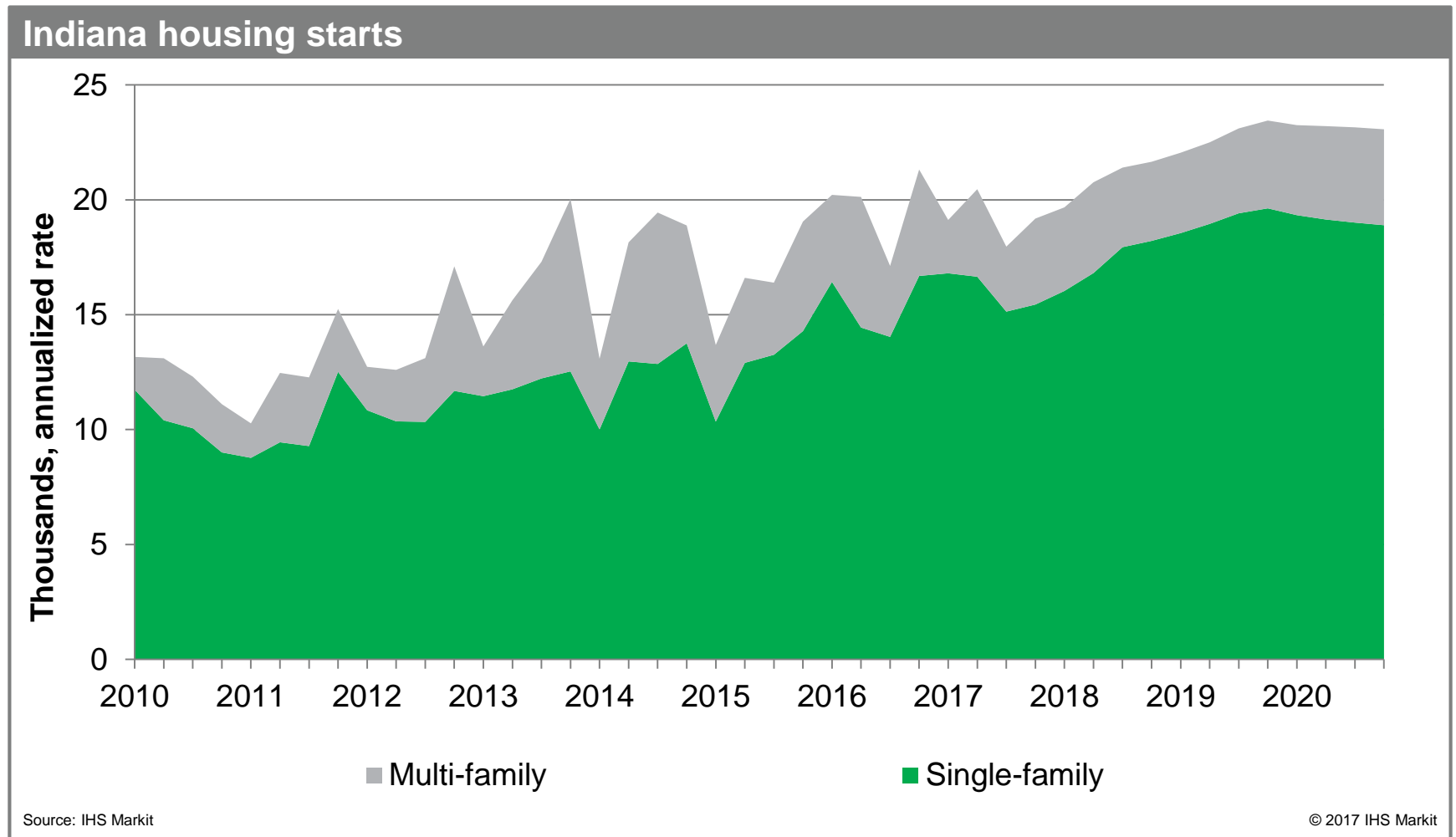
Source: IHS Markit

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Prices in the oil complex continue to rebound

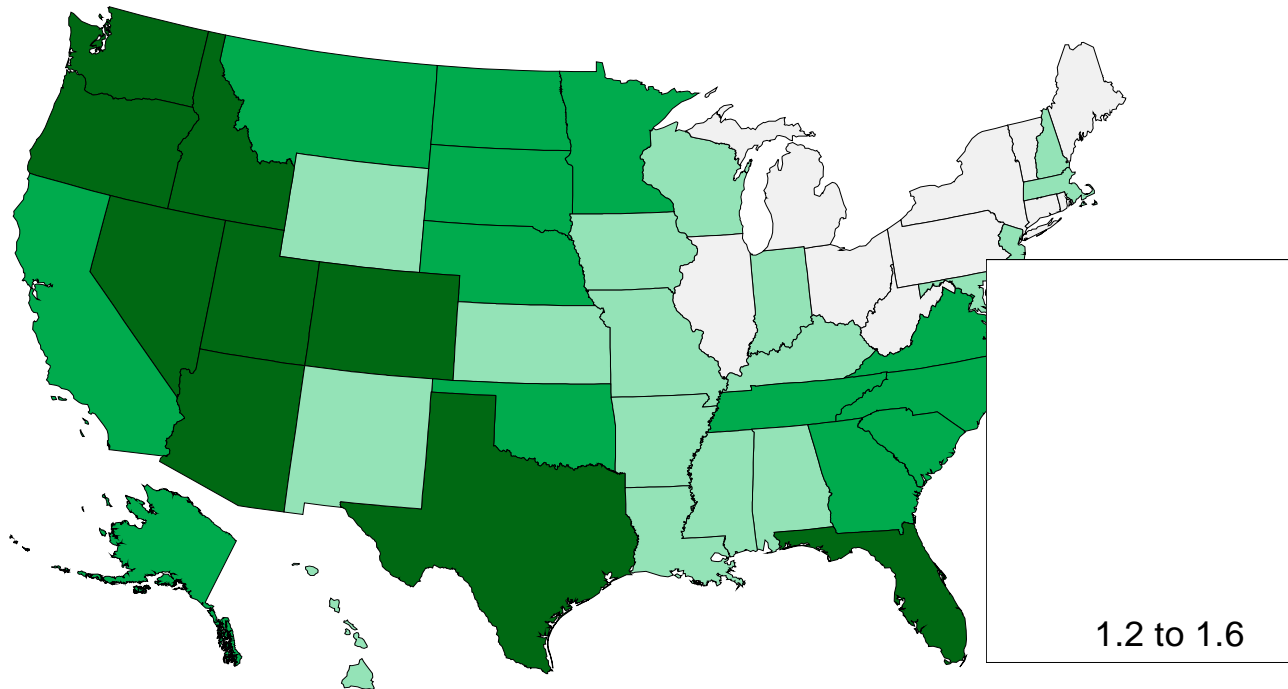


Home-building increasing steadily in Indiana, with gains coming more from single-family homes



Indiana population growth relatively slow, but outpacing most neighboring states

Population growth through 2022

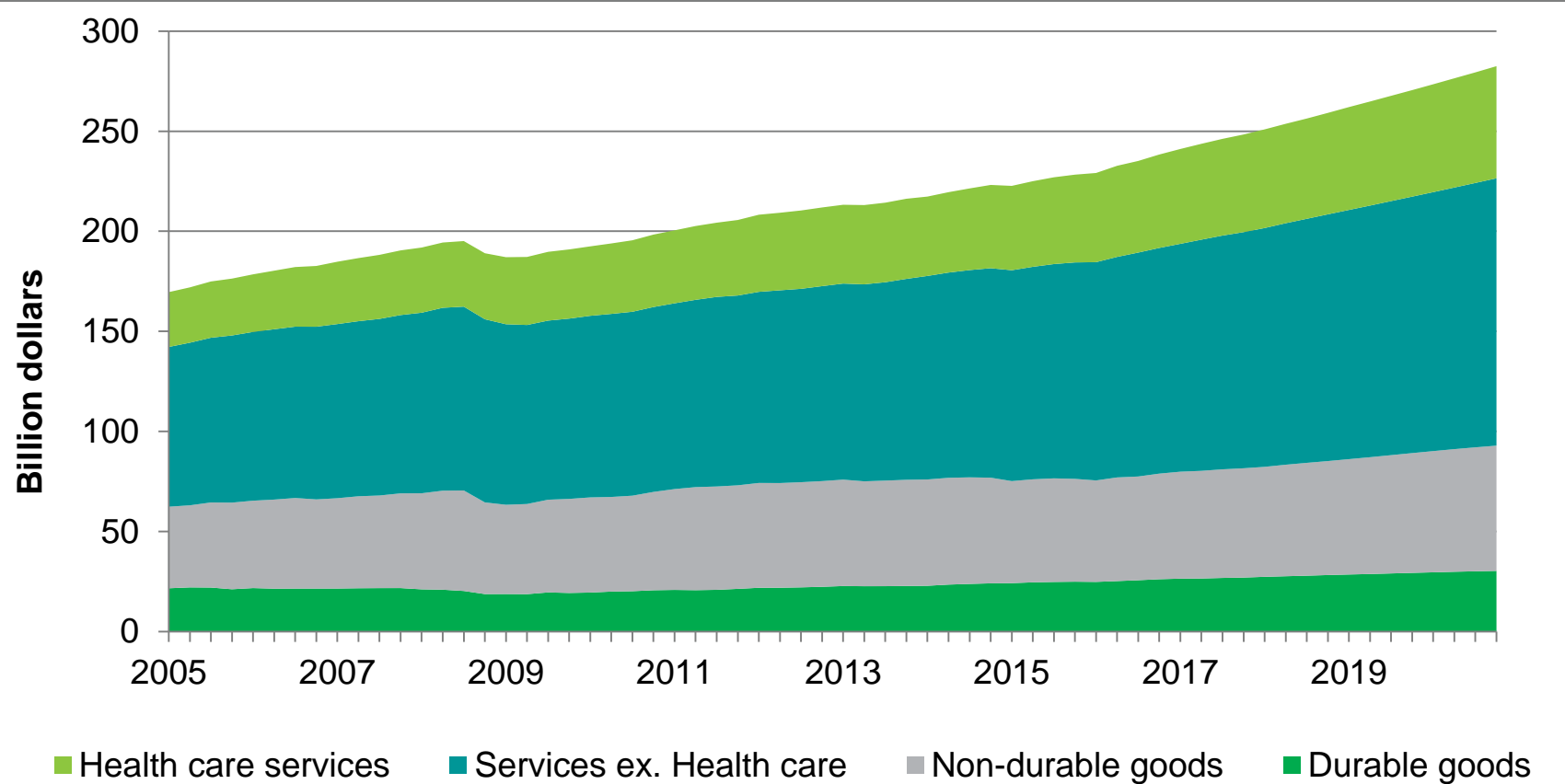


Source: IHS Markit

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Personal consumption expenditures continue trend toward services

Personal consumption expenditures by category, Indiana



Source: IHS Markit

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Bottom line for Indiana

- Wage and salary income continues steady growth, even with downward revision in 2016
 - Gains will need to come from wage rates more than payroll growth as state approaches full employment
- Manufacturing still has some room to grow, even as auto sales level off
 - Out-migration of jobs is an ongoing risks factor, while automation looms
- Continued increase in labor force is key to attracting and retaining employers and sustaining state economic growth
 - This is difficult for states with low population growth
 - Achieved through in-migration and increased participation
- Service sector can be supported by strong education system, attractive business environment
 - High-tech sectors a bright spot in diversifying state's economic base
 - Some sectors are dependent on local population growth as demand base

Forecast track record

	U.S. GDP		Indiana Employment		Indiana Income	
Forecast date	2016	2017	2016	2017	2016	2017
Dec 2015	2.7	3.0	1.5	1.2	4.1	5.0
Dec 2016	1.6	2.3	1.2	0.8	3.4	4.2
Mar 2017	1.6	2.3	1.2	1.0	3.8	4.0
Dec 2017	1.6	2.3	1.6	1.2	3.3	3.7

Source: IHS Markit

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US Economy Appendix

The US economy on a solid growth path

- The US economy has solid momentum after 3.3% annualized real GDP growth in the third quarter. Fourth-quarter growth is estimated at 2.6%.
- Consumer spending continues to drive US economic growth, supported by rising employment, real incomes, and household wealth.
- Business fixed investment will benefit from expanding global markets and an easing of regulatory policies, although commercial building is slowing.
- Increasing household formation by young adults, low supplies of homes for sale, and rising prices will encourage more homebuilding.
- The baseline forecast assumes no significant changes in US tax, infrastructure, healthcare, or international trade policies.
- The Federal Reserve is expected to gradually raise the federal funds rate to a high of 3.2% in 2021, overshooting its long-run equilibrium of 2.75%.

US economic growth rebounds in 2017 and 2018, as investment leads the way

Real GDP and its components

Percent change	2016	2017	2018	2019
Real GDP	1.5	2.3	2.6	2.3
Consumption	2.7	2.7	2.5	2.3
Residential investment	5.5	1.2	2.3	6.1
Business fixed investment	-0.6	4.7	4.1	4.0
Federal government	0.0	-0.2	-0.3	-0.1
State & local government	1.2	0.0	0.9	1.0
Exports	-0.3	3.1	4.3	3.9
Imports	1.3	3.4	4.0	3.9

Source: IHS Markit

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Job growth slows as US approaches full employment, while inflation rises moderately

Key indicators

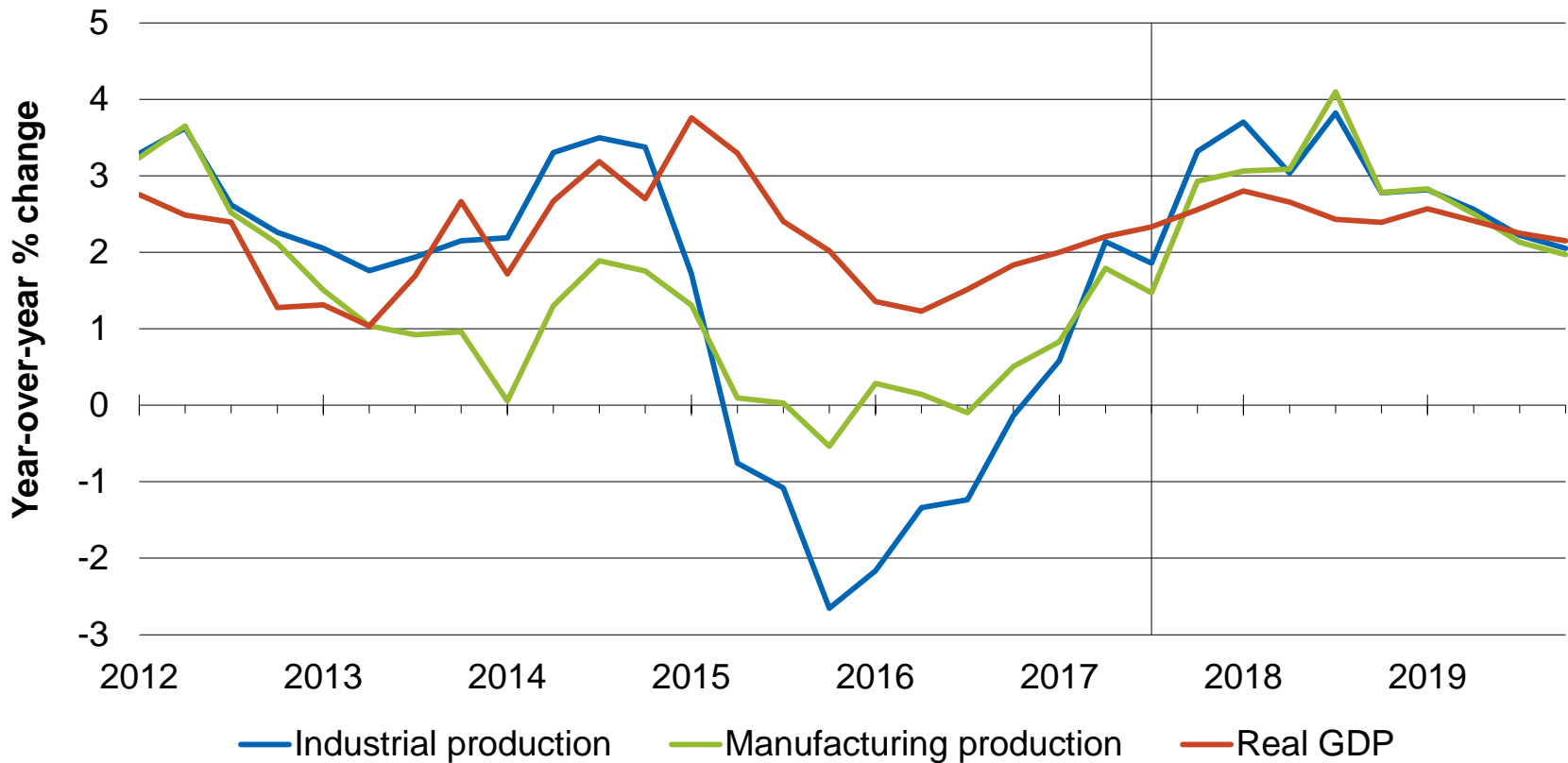
Percent change	2016	2017	2018	2019
Industrial production	-1.2	2.0	3.3	2.5
Payroll employment	1.8	1.5	1.5	1.3
Light-vehicle sales (Million units)	17.5	17.1	17.1	17.1
Housing starts (Millions)	1.18	1.20	1.27	1.39
Consumer Price Index	1.3	2.1	1.8	2.1
Core CPI	2.2	1.9	2.0	2.2
Brent crude oil price (USD/barrel)	44	54	56	58
Federal funds rate (%)	0.4	1.0	1.8	2.3
10-year Treasury yield (%)	1.8	2.3	2.8	3.4

Source: IHS Markit

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Industrial production will rebound as domestic demand strengthens and the inventory investment resumes

Industrial production and real GDP

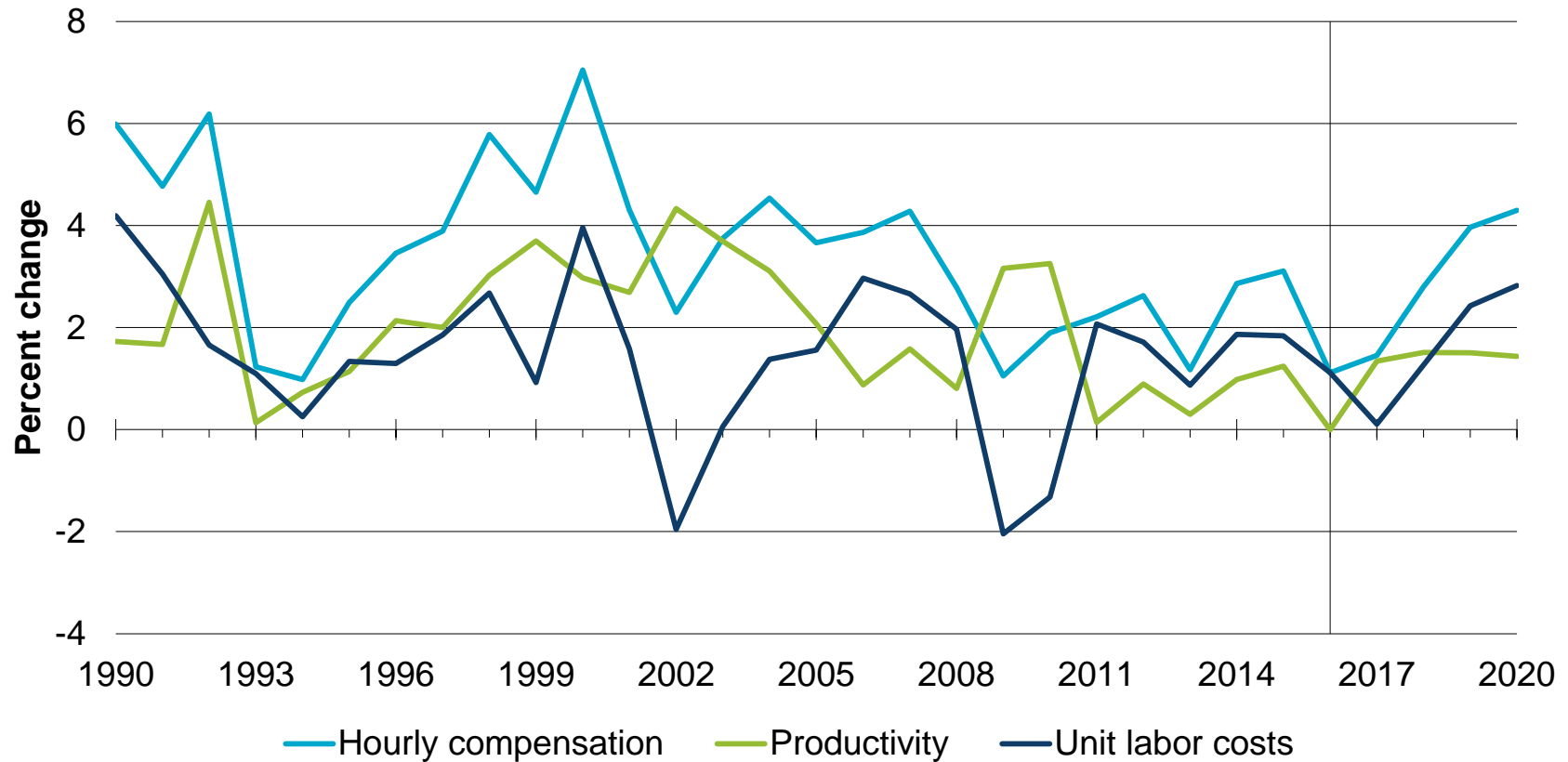


Source: IHS Markit

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Modest growth in productivity means that unit labor costs will rise along with compensation

Private nonfarm sector



Source: IHS Markit

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Risks to the US forecast

Scenario	Characteristics
<p>Recession caused by setback in commercial real estate and declining confidence (Probability = 20%)</p>	<ul style="list-style-type: none"> • Commercial real estate prices and construction turn down. • A drop in confidence weakens the dollar, fueling inflation and driving up long-term interest rates. • Stock prices plummet 16% from early 2018 to early 2019. • Real GDP contracts mildly in the last two quarters of 2018.
<p>Housing bounces back (Probability = 15%)</p>	<ul style="list-style-type: none"> • Housing markets gain strength as household formation by young adults surges. • Higher incomes combine with lower oil prices, inflation, and interest rates to support robust consumer spending. • Stronger global economic growth helps exports.
<p>Baseline forecast (Probability = 65%)</p>	<ul style="list-style-type: none"> • The Federal Reserve gradually raises interest rates. • Current federal tax and spending policies remain in place. • Consumer spending, homebuilding, and business fixed investment post moderate growth. • Global economic growth averages 3.1% in 2017–27.