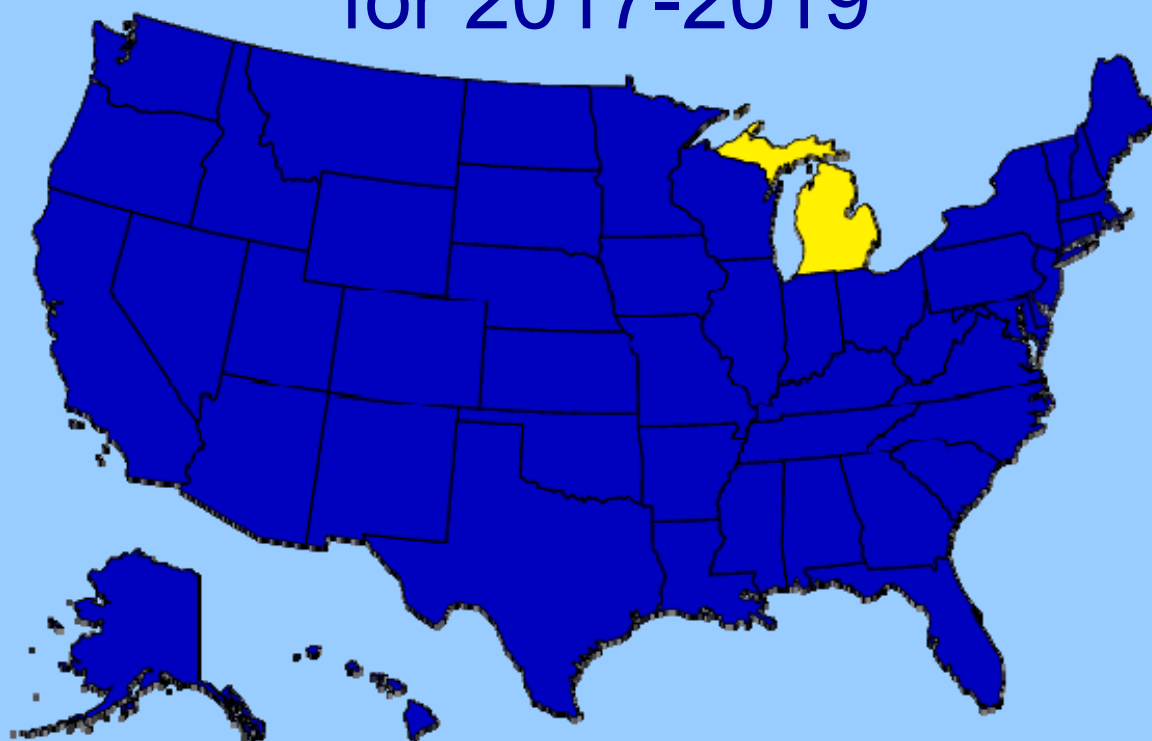


The U.S. and Michigan Outlook for 2017-2019



Consensus Revenue Estimating Conference
Lansing, Michigan
January 12, 2017

The Current State of the Economy

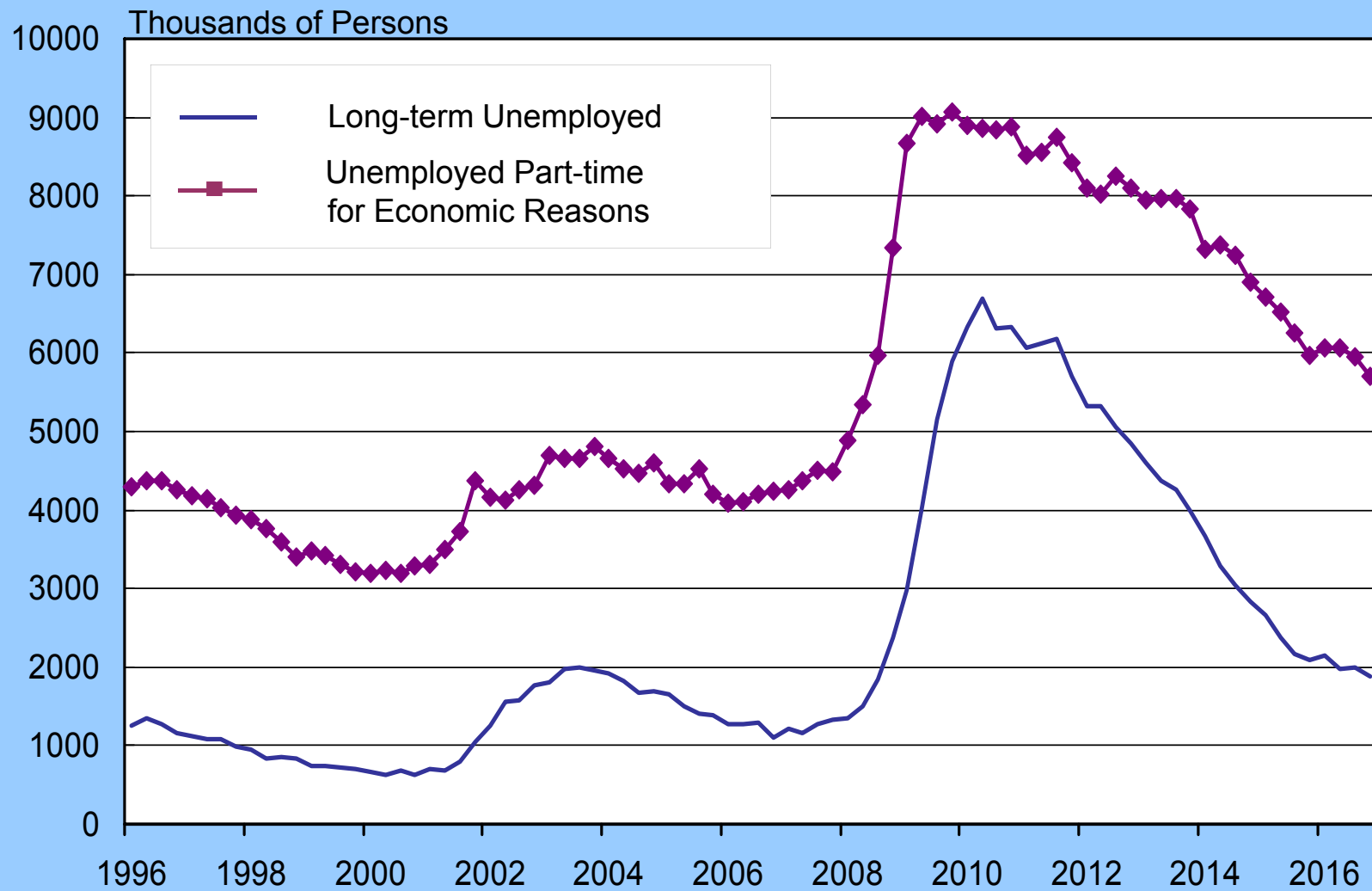
Latest Data

- 2016q3 real GDP growth at 3.5 percent
 - 0.8 percentage points due to temporary export boost
 - 0.6 percentage points due to inventories
- Domestic final sales growth quite tame
 - Grew at 2.1 percent rate in 2016q3
 - Up 1.8 percent over 2015q3
 - 2014q3-2015q3 growth was at 3.0 percent
- Labor market keeps improving despite slow output growth

Labor Market

- Payroll job gains averaged 180,000/month in 2016
 - slightly behind the 2011–15 average of 202,000 jobs.
- Initial unemployment insurance claims relative to labor force keep setting record lows
- Job quits rate back to pre-2008 level
- 12-month growth of private hourly earnings at 2.9 percent - fastest during current expansion
- Several labor market indicators still show considerable slack

Underemployed and Long-term Unemployed



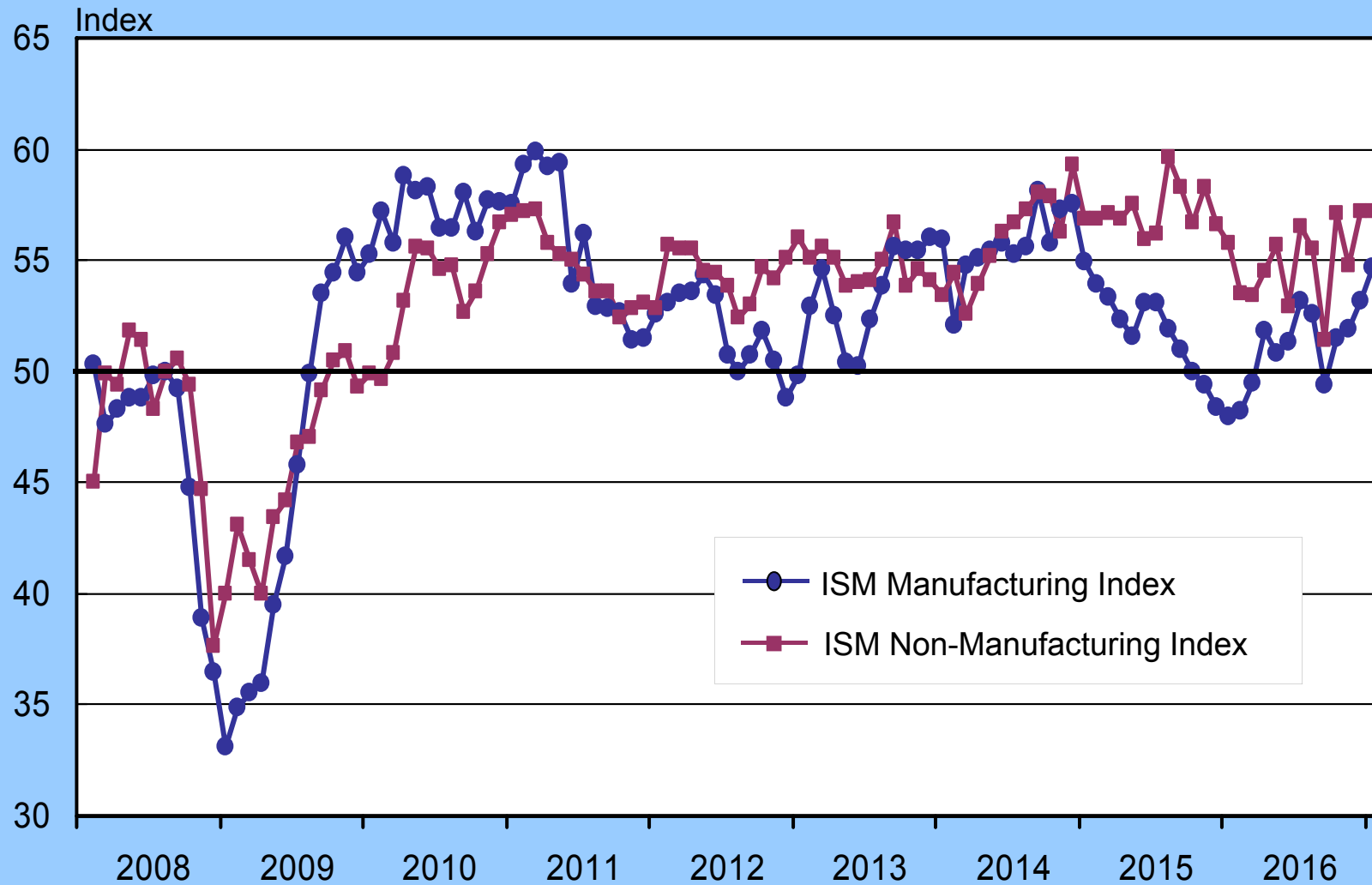
Light Vehicle Sales



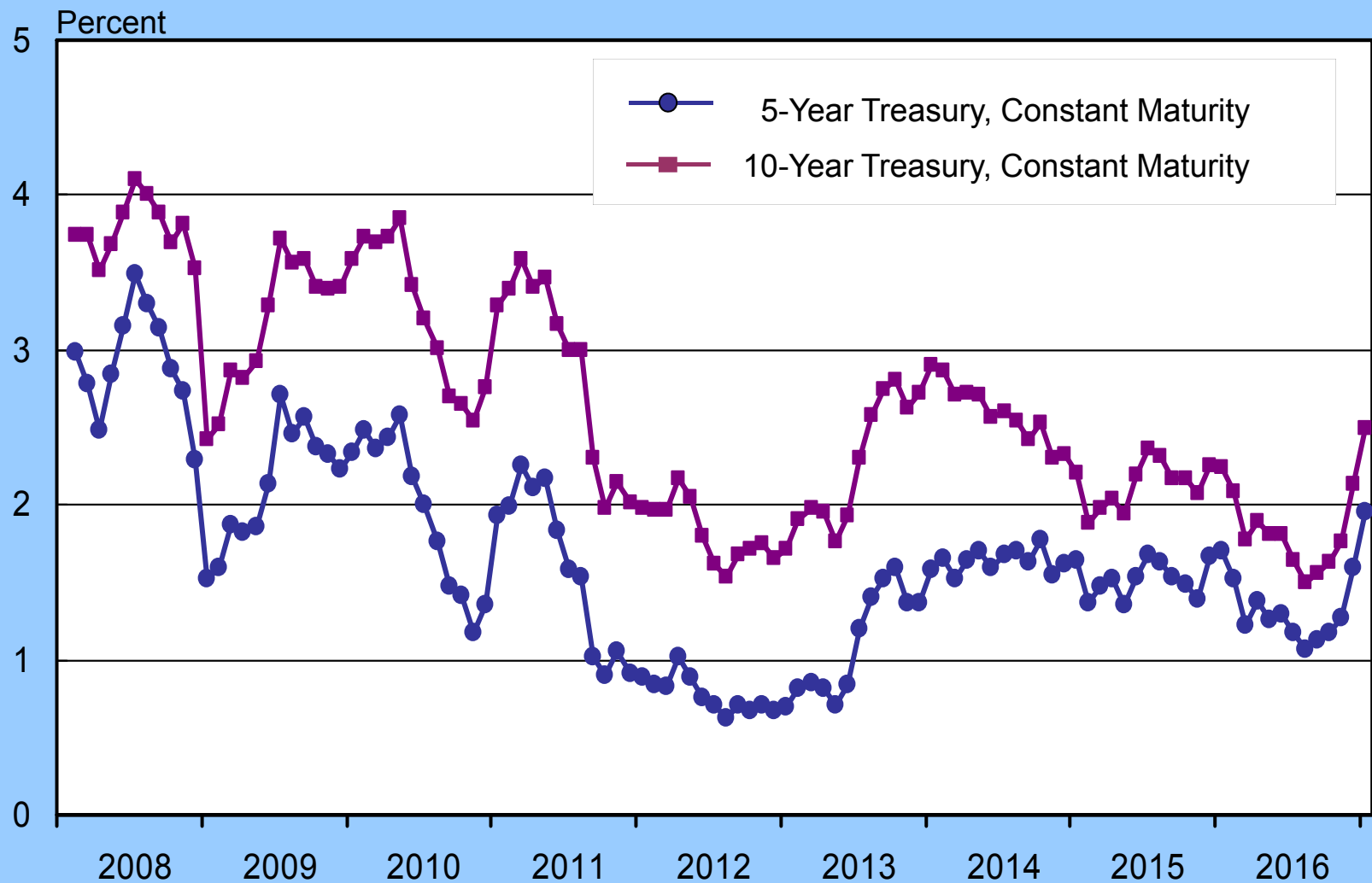
Latest Data

- Light vehicle sales set a new record in 2016, but may have peaked
- Fed's Manufacturing Industrial Production index flat during 2016
- ISM Manufacturing and Nonmanufacturing indexes show expansion, improved in November-December
- Long-term interest rates up sharply since early November
- The value of the dollar jumped, approaching post-Bretton Woods era high
- Sentiment indexes rose sharply in recent months

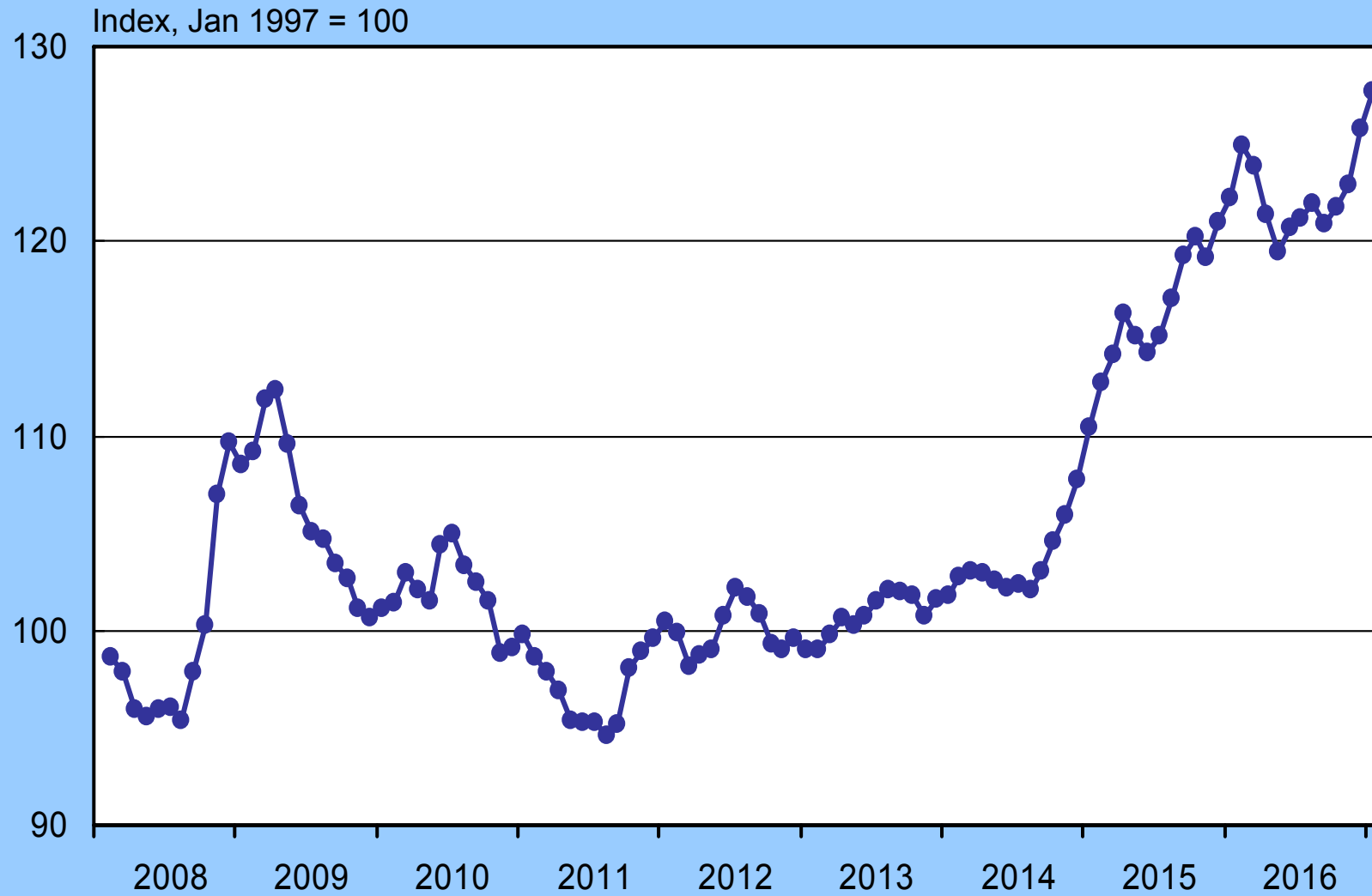
Institute of Supply Management Manufacturing and Non-Manufacturing Indexes



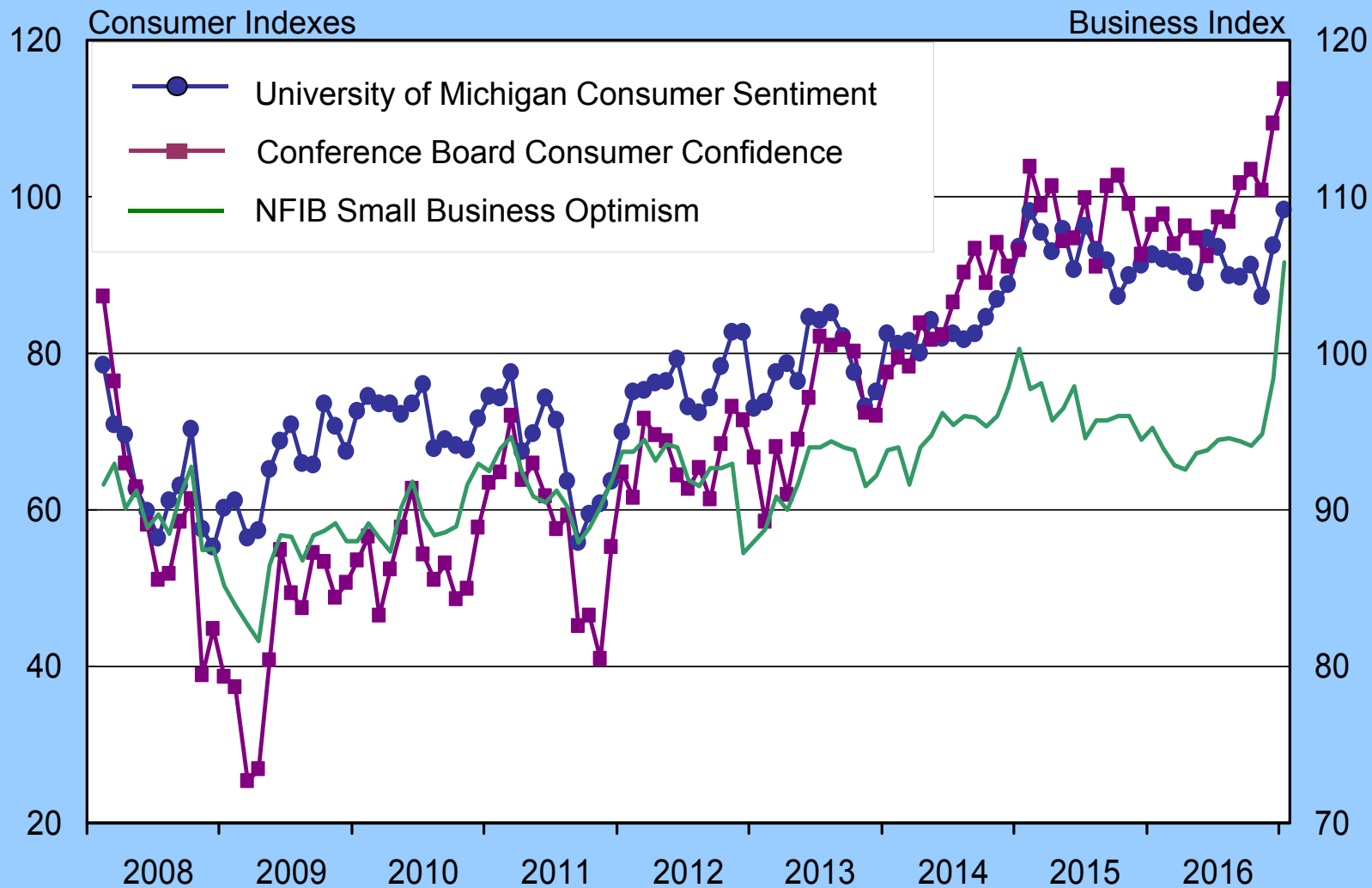
Long-term Interest Rates



Trade-Weighted Value of the Dollar



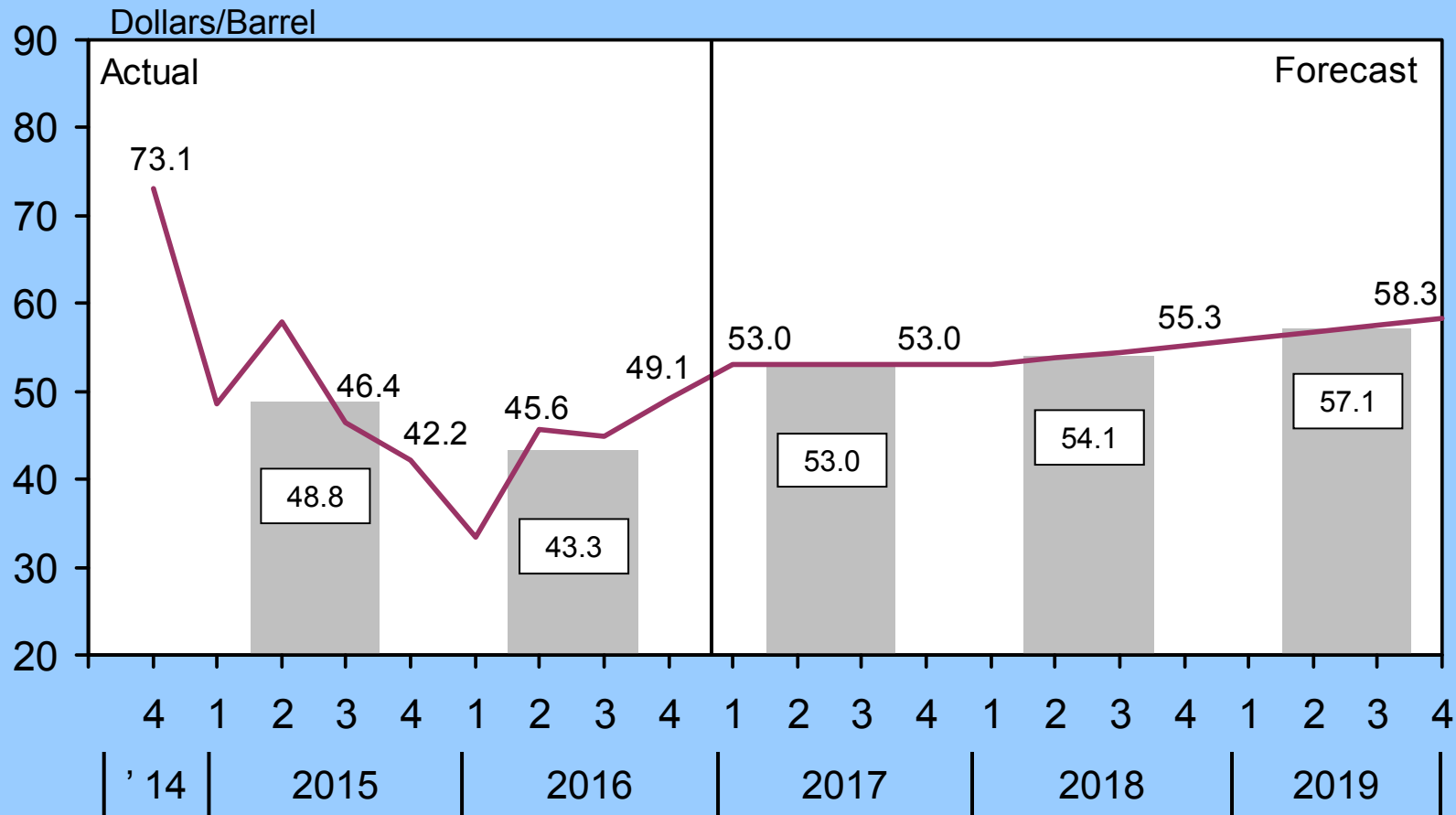
Sentiment Indexes



Key Inputs

Price of Oil

(West Texas Intermediate Crude)



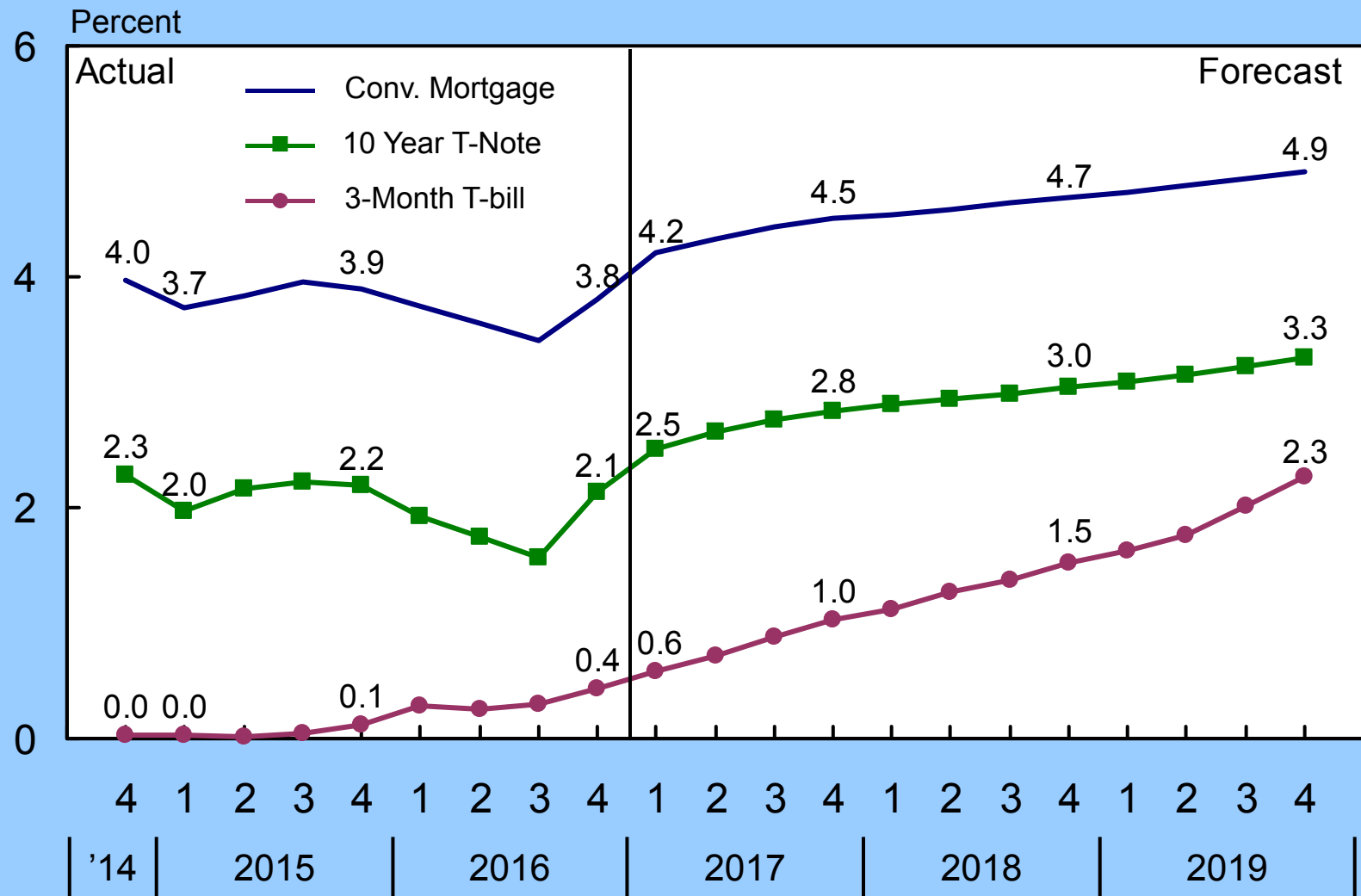
4 th Quarter to 4 th Quarter % Change					
-25.0	-42.3	16.4	7.9	4.2	5.4
-14.7	-49.7	5.5	12.2	4.1	5.5

WTI
Imports*

Monetary Policy

- In December, the Fed increased the target federal funds rate to 50-75bps range
- Motivation:
 - Uptick of core inflation
 - Continued improvement of employment indicators
- Further increases are data-dependent
 - Core inflation was very weak in November
- Path most consistent with our outlook:
 - Two 25 bps fed funds target hikes a year in 2017-18

Market Interest Rates



Fiscal Policy

- End of six years of divided government, major shifts in fiscal path likely
- ACA (Obamacare) repeal legislation seems certain
 - A delay to implementation of the repeal until 2020 is likely
 - Forthcoming repeal will likely slow ACA-related spending in 2018-19
- Sequestration relief beyond 2017 is uncertain
- Lower taxes likely
 - Lower personal and corporate tax trajectories
 - Starting in 2018
- Federal deficit widens by about 1% of GDP by 2019

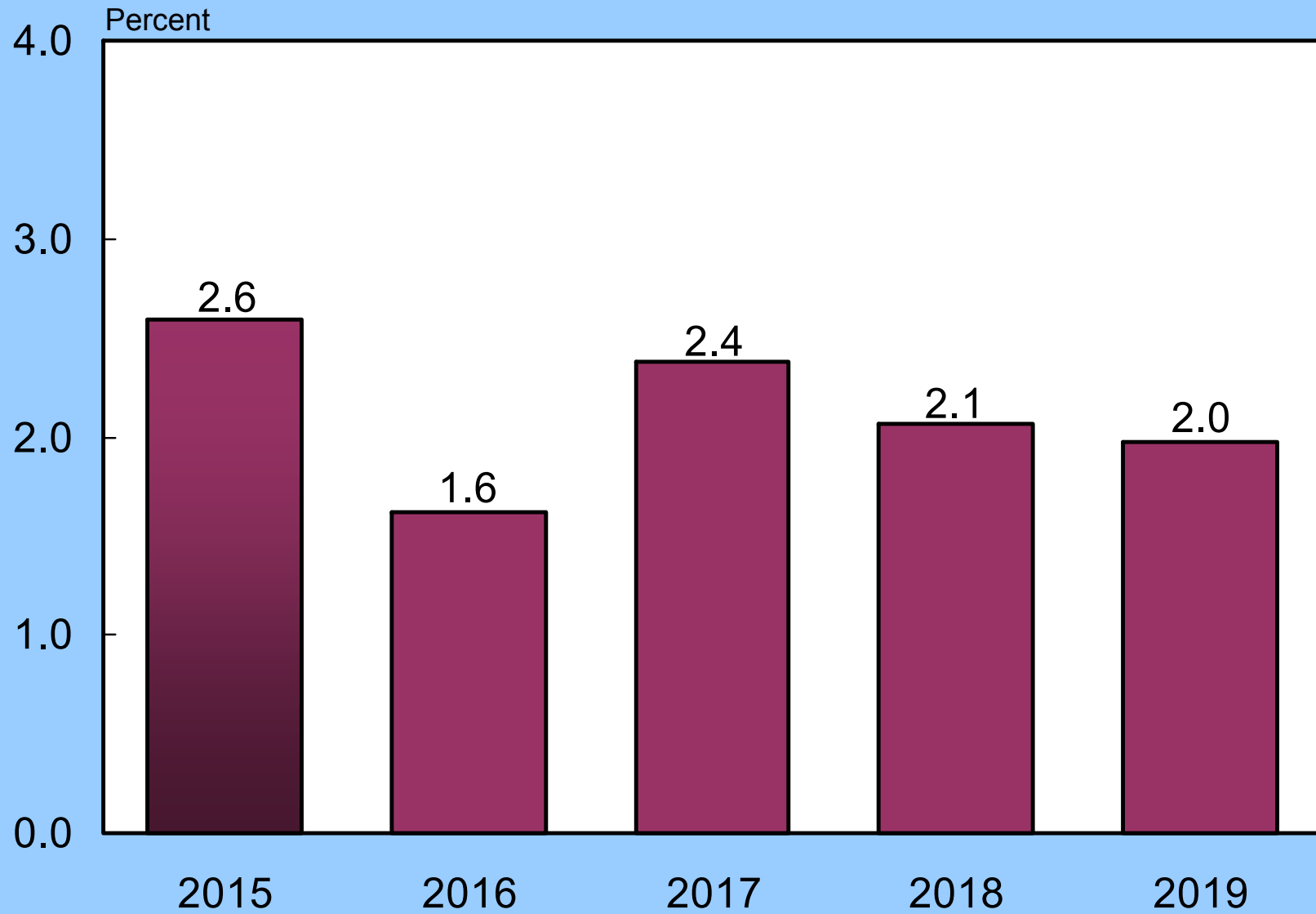
Federal Budget, NIPA Basis

(Billions of Dollars)

			Forecast		
	<u>FY'15</u>	<u>FY'16</u>	<u>FY'17</u>	<u>FY'18</u>	<u>FY'19</u>
Current receipts	3399.2	3494.7	3637.2	3701.3	3763.7
% change	3.8	2.8	4.1	1.8	1.7
Current expenditures	3988.9	4124.0	4306.1	4483.4	4674.3
% change	3.1	3.4	4.4	4.1	4.3
Consumption	958.9	974.2	1004.4	1037.1	1072.4
% change	0.2	1.6	3.1	3.3	3.4
Transfer payments	2538.3	2630.9	2735.4	2829.7	2934.2
% change	5.1	3.6	4.0	3.4	3.7
Surplus (+) or deficit (-)	-589.7	-629.3	-668.9	-782.0	-910.6
Percent of GDP	-3.3	-3.4	-3.5	-3.9	-4.4

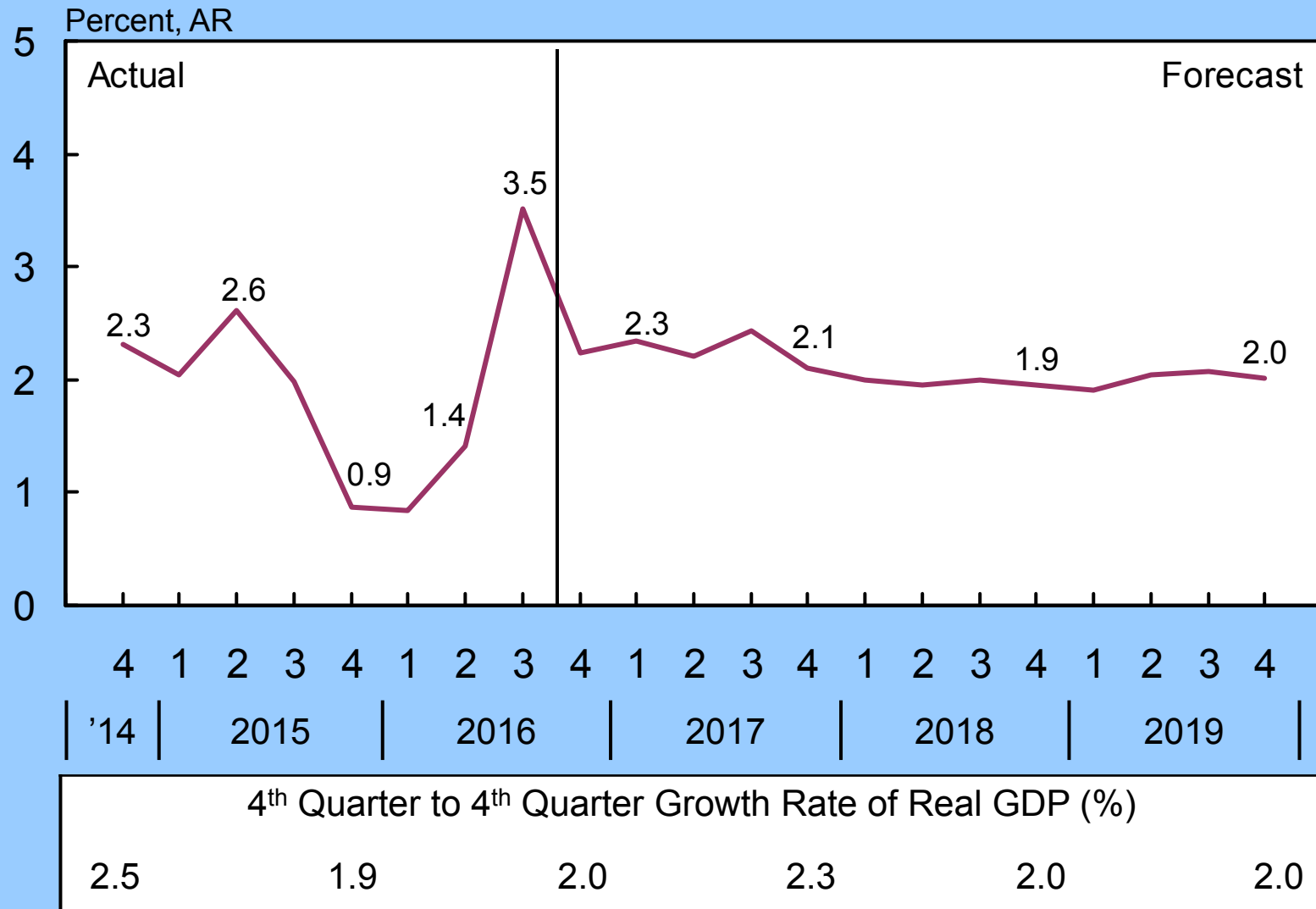
RSQE Forecast

Real GDP Growth

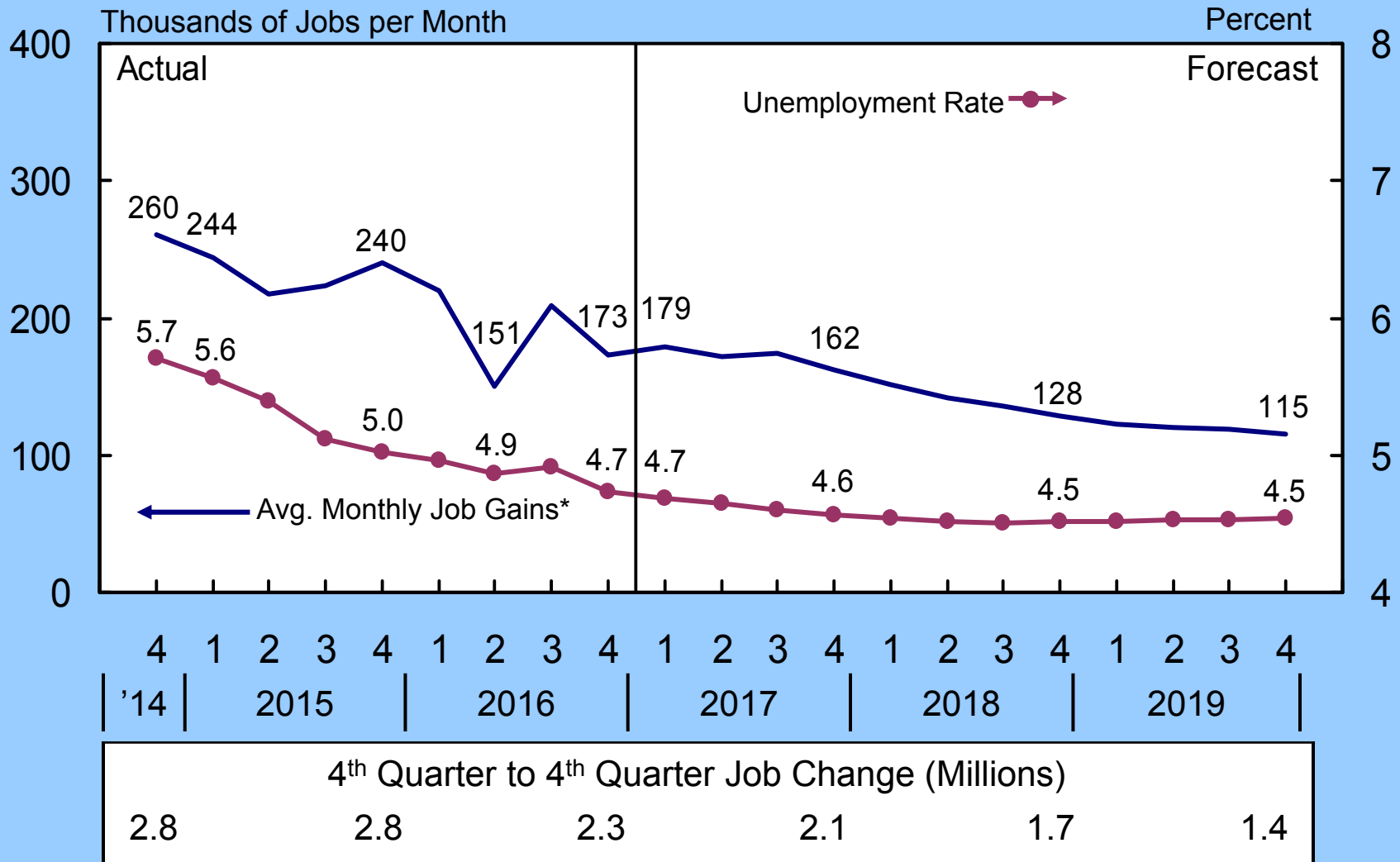


RSQE: January 2017

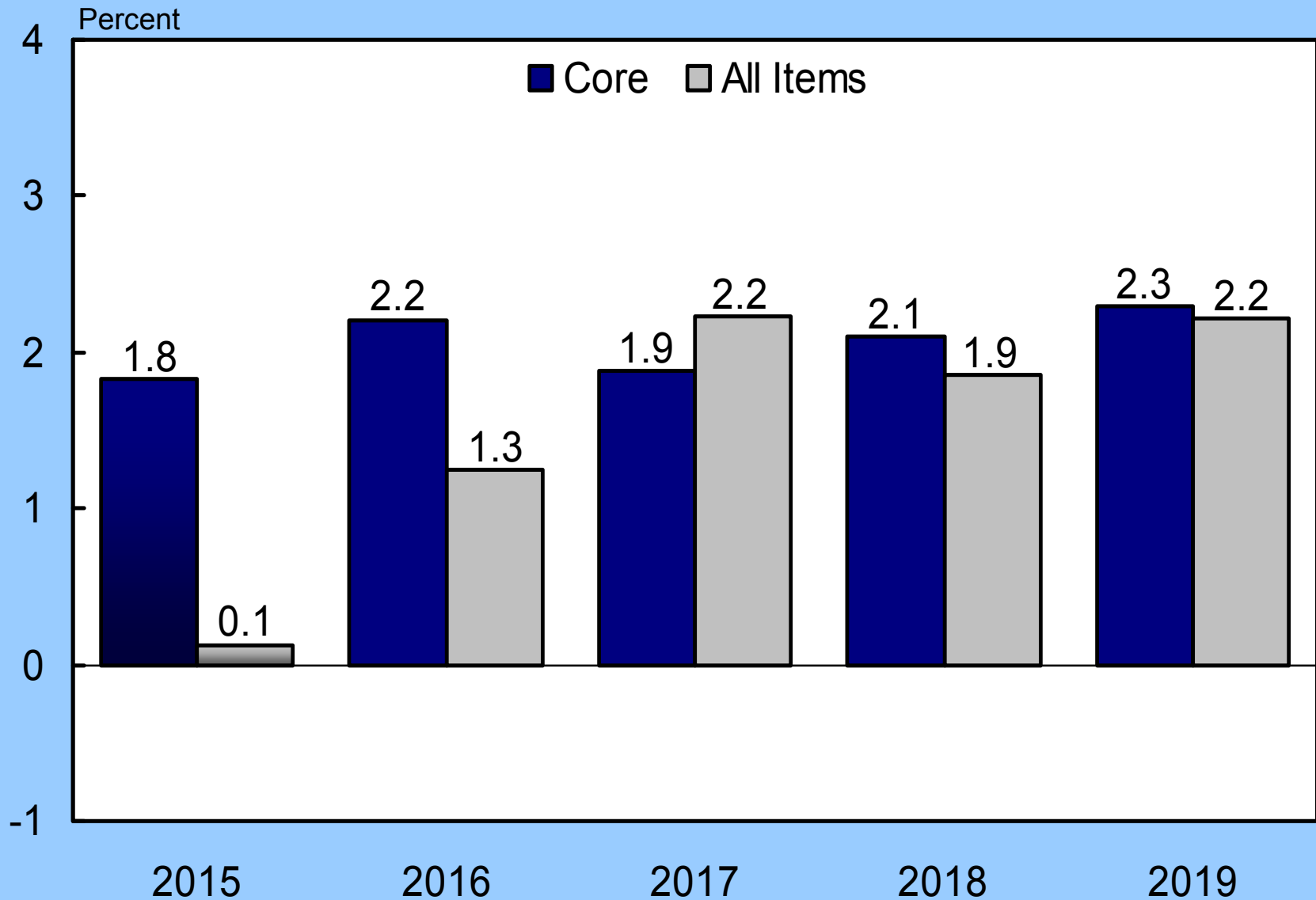
Growth Rate of Real GDP



Nonfarm Payroll Employment Gains and Unemployment Rate



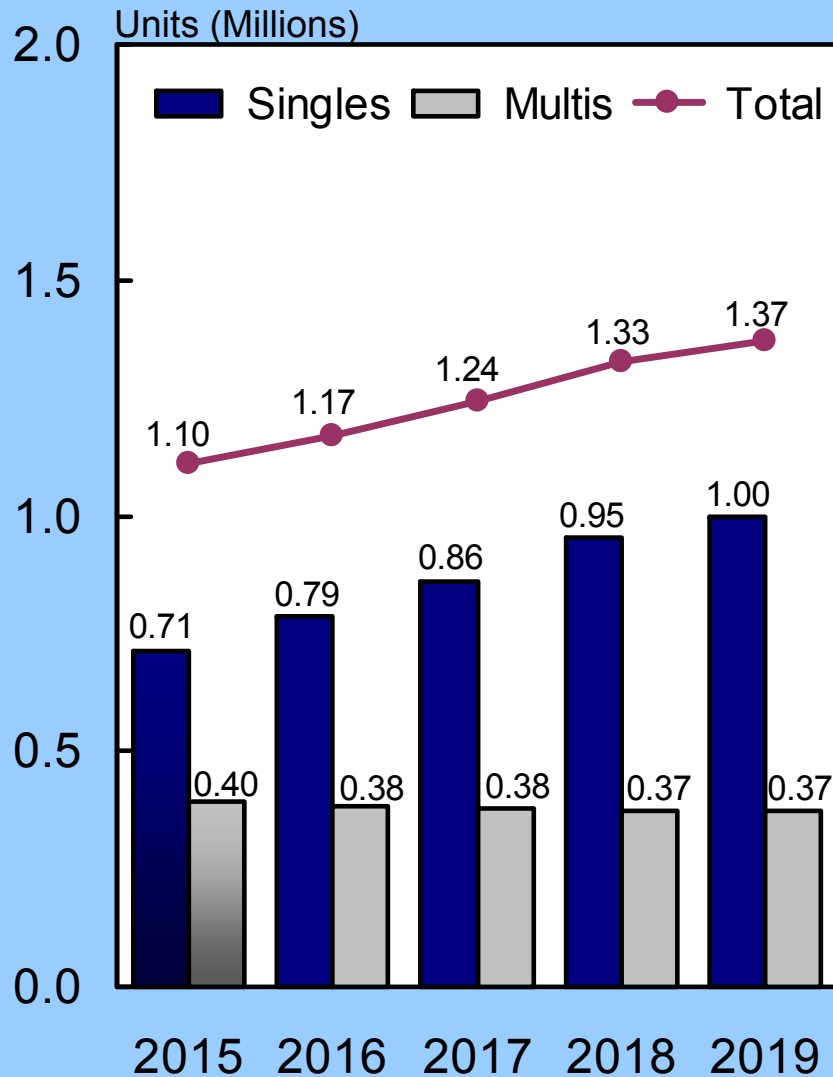
Consumer Price Inflation (CPI-U)



RSQE: January 2017

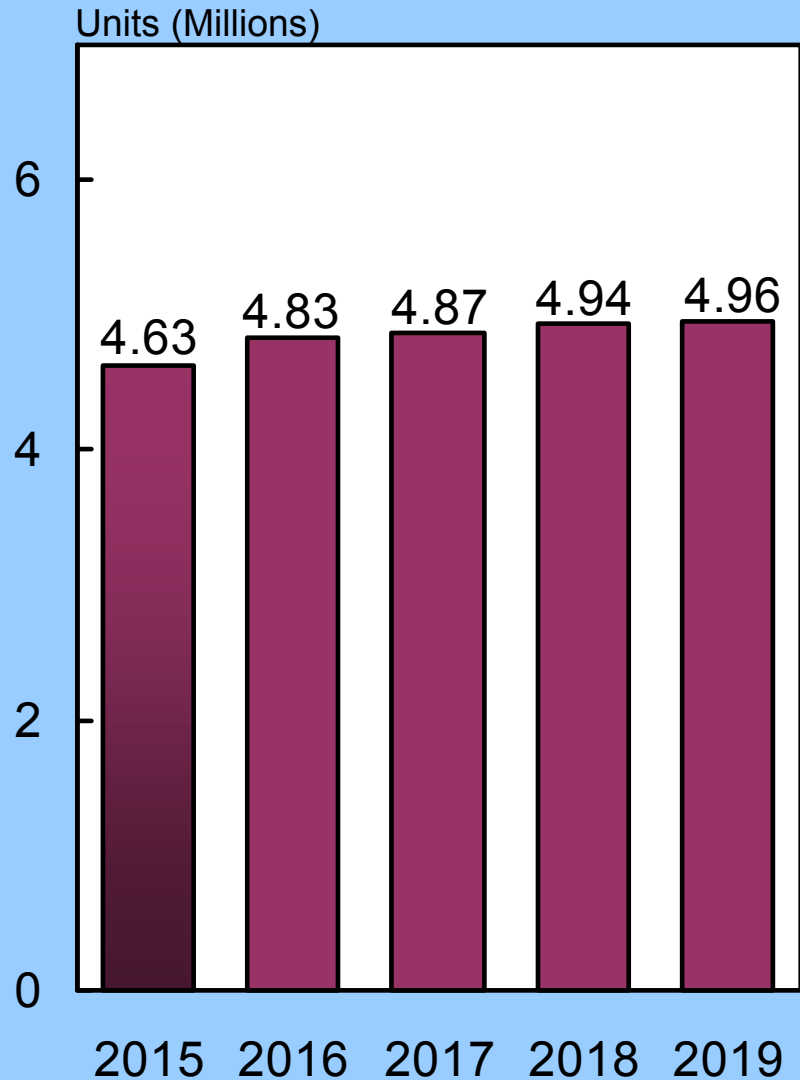
Housing Market

A. Housing Starts



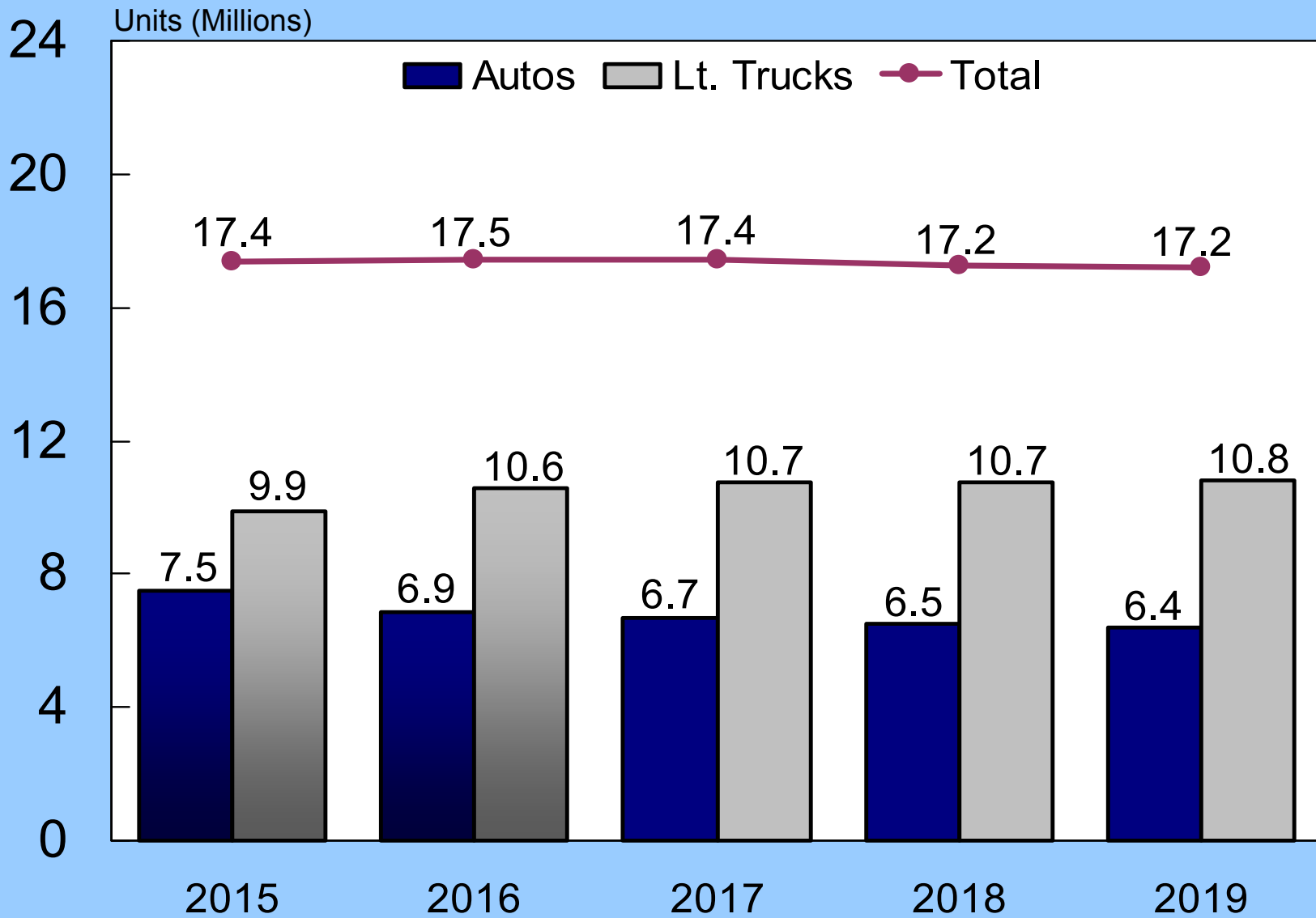
RSQE: January 2017

B. Existing Home Sales*



*Single-family homes

Light Vehicle Sales

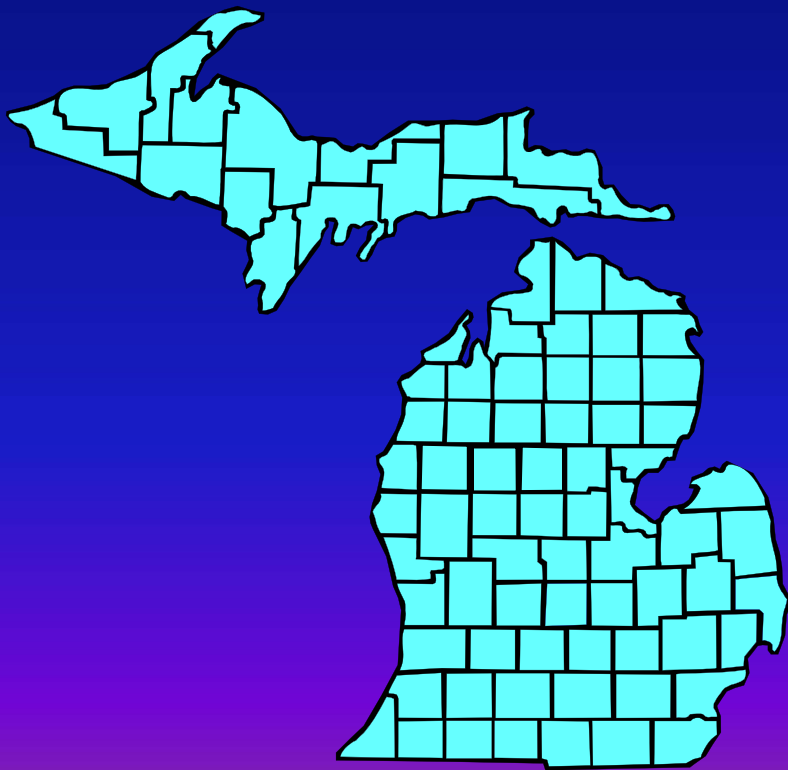


Risks to the Outlook

- Fiscal path very uncertain
 - Taxes, infrastructure, ACA
- Monetary policy
 - Janet Yellen's term up in January 2018
- Trade policy
- World economic growth
- Commodity prices
- Abnormal weather



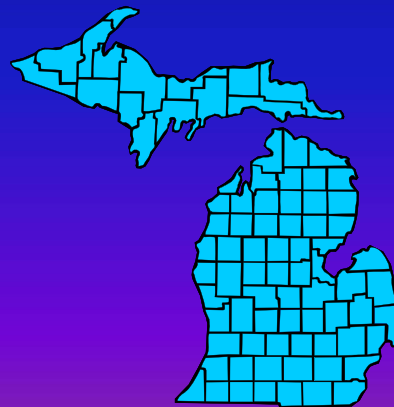
THE MICHIGAN ECONOMIC OUTLOOK FOR 2017–2019



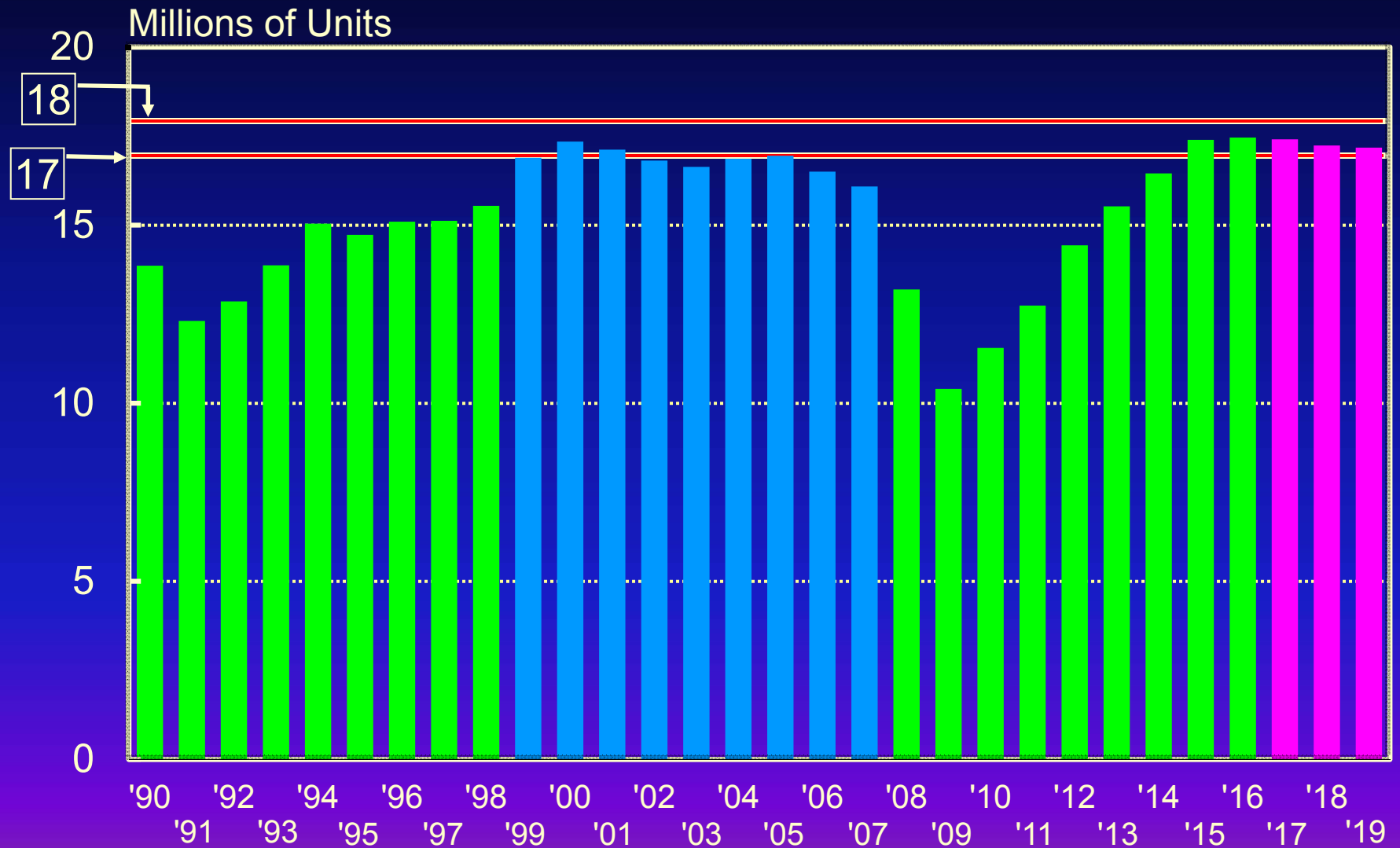
GABRIEL M. EHRLICH
GEORGE A. FULTON
MICHAEL R. McWILLIAMS

January 12, 2017

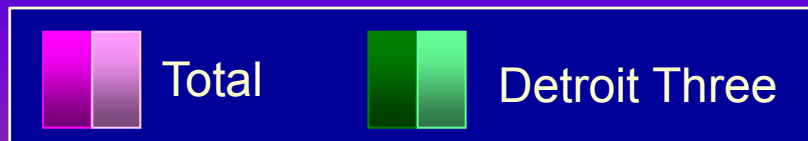
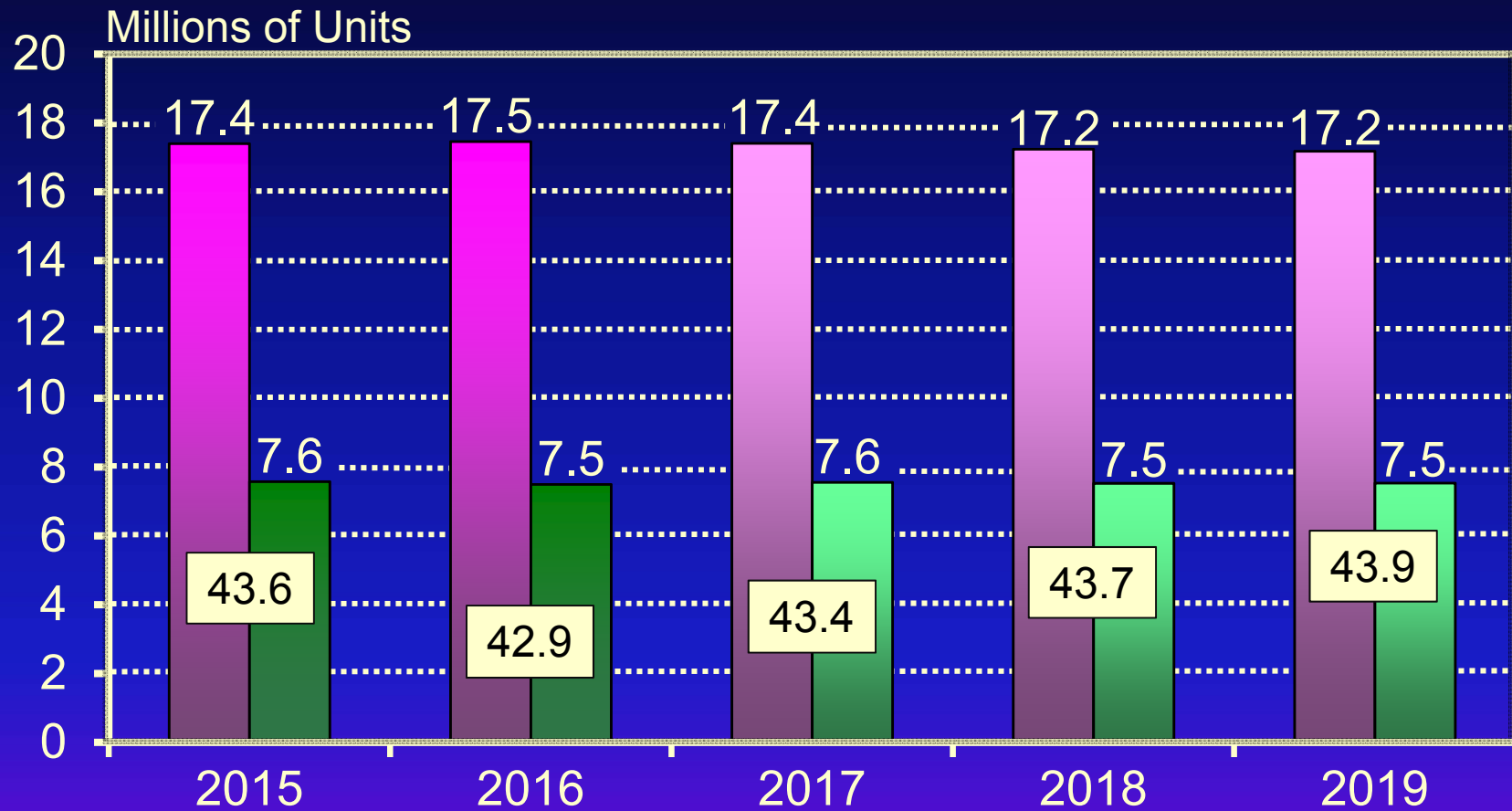
Motor Vehicle Industry Revisited



U.S. Light Vehicle Sales, 1990–2019

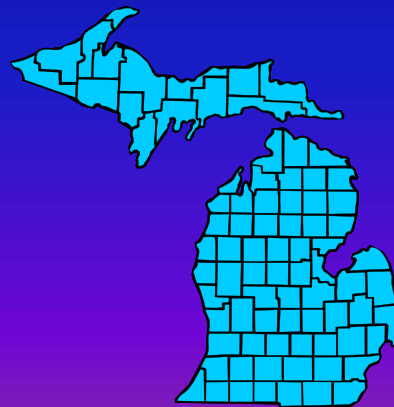


U.S. Light Vehicle Sales Total vs. Detroit Three, 2015–19



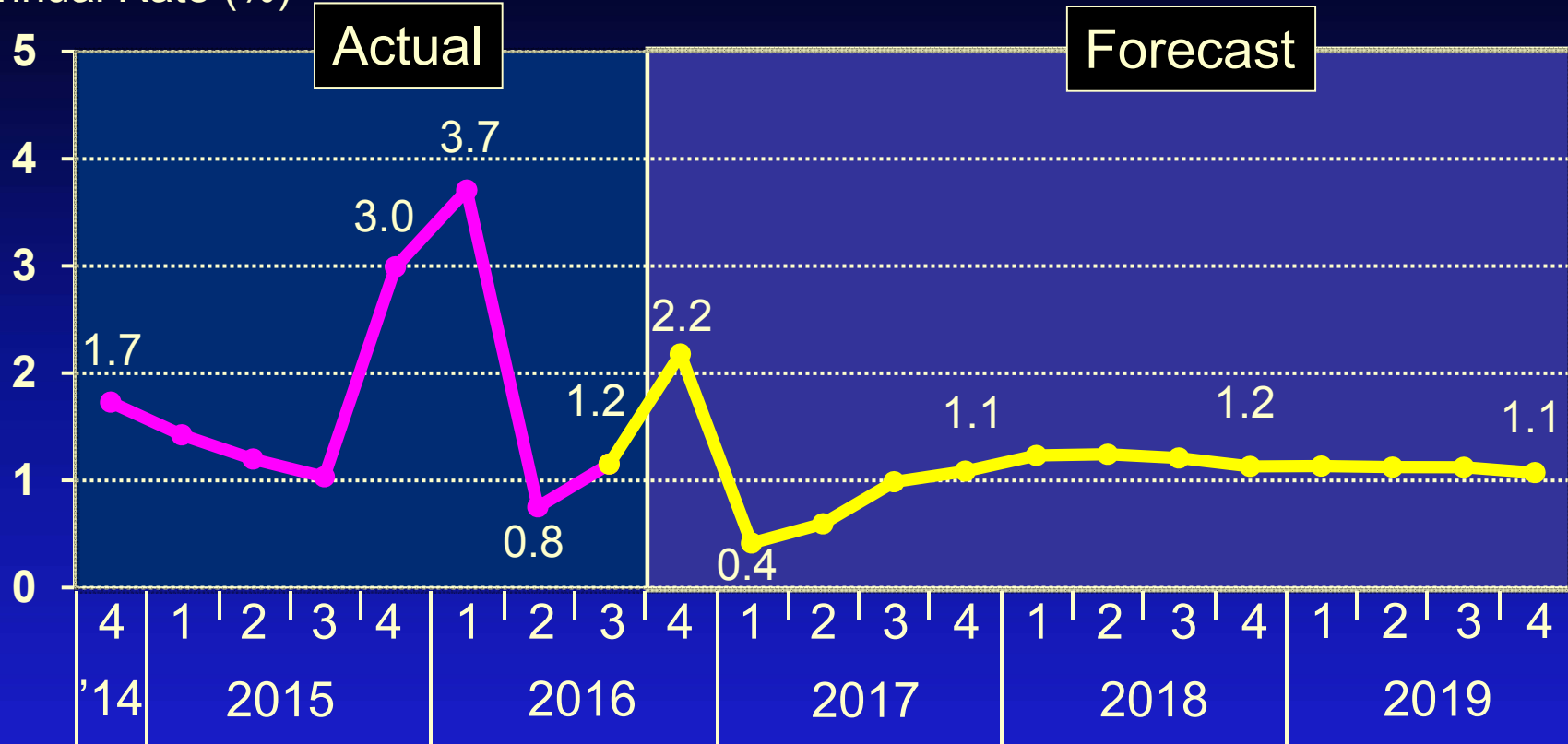
Annual % Detroit Three market share

Michigan Outlook



Michigan Wage and Salary Employment Growth

Annual Rate (%)



4th Quarter to 4th Quarter Growth Rate (%)

1.7 1.7 1.9 0.8 1.2 1.1

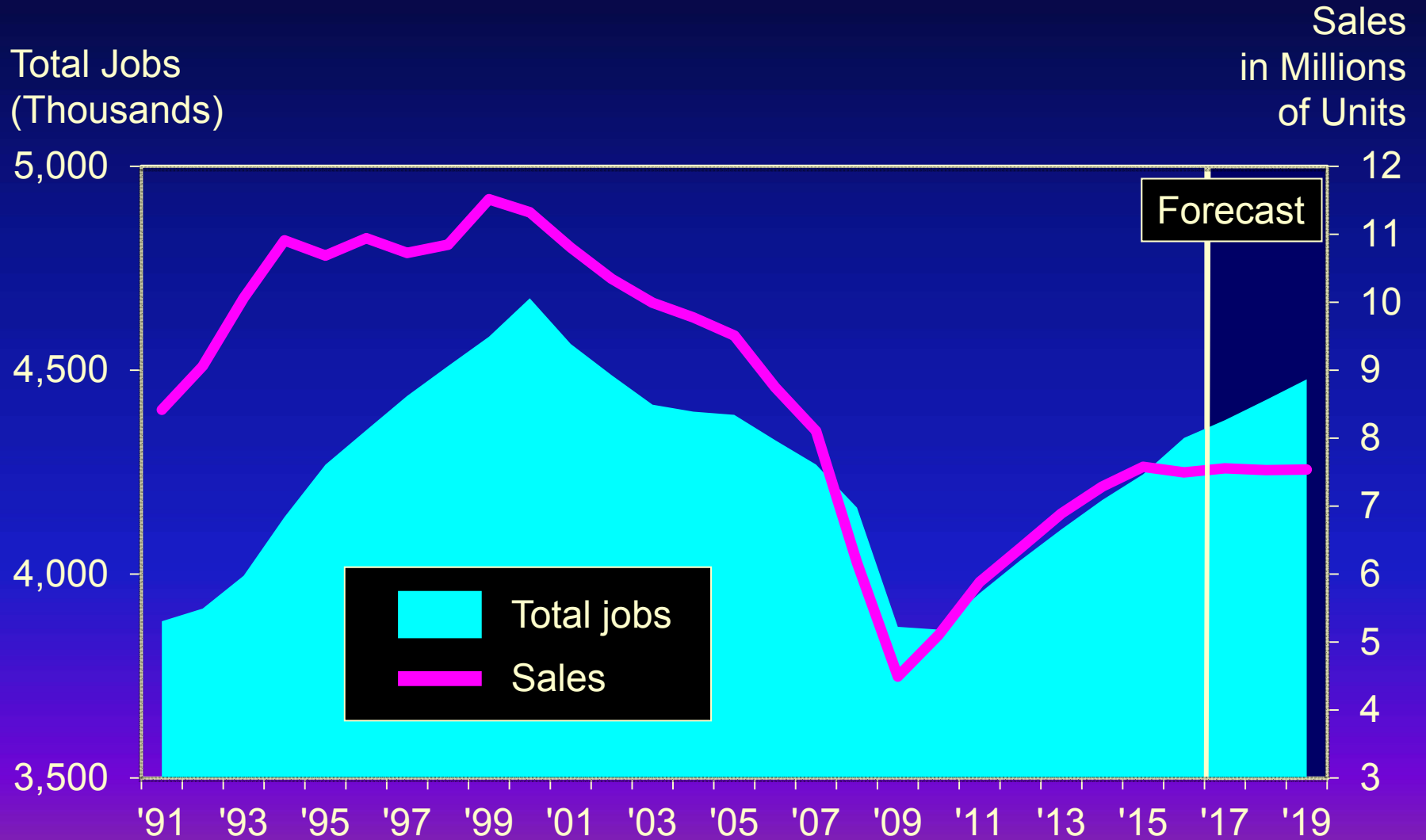
4th Quarter to 4th Quarter Change (Thousands)

70.4 69.8 83.0 33.6 52.9 49.5

Change in Jobs by Industry Sector (Thousands of jobs)

	2014q4 to <u>2015q4</u>	2015q4 to <u>2016q4</u>	2016q4 to <u>2017q4</u>	2017q4 to <u>2018q4</u>	2018q4 to <u>2019q4</u>
Total jobs	70	83	34	53	49
Manufacturing	14	6	-9	-1	-1
Construction	5	7	8	9	8
Prof. & bus. svcs.	14	26	16	18	18
Health svcs.	13	12	7	6	4
Trade, trans., util.	7	0	7	11	9
Government	2	6	0	1	1

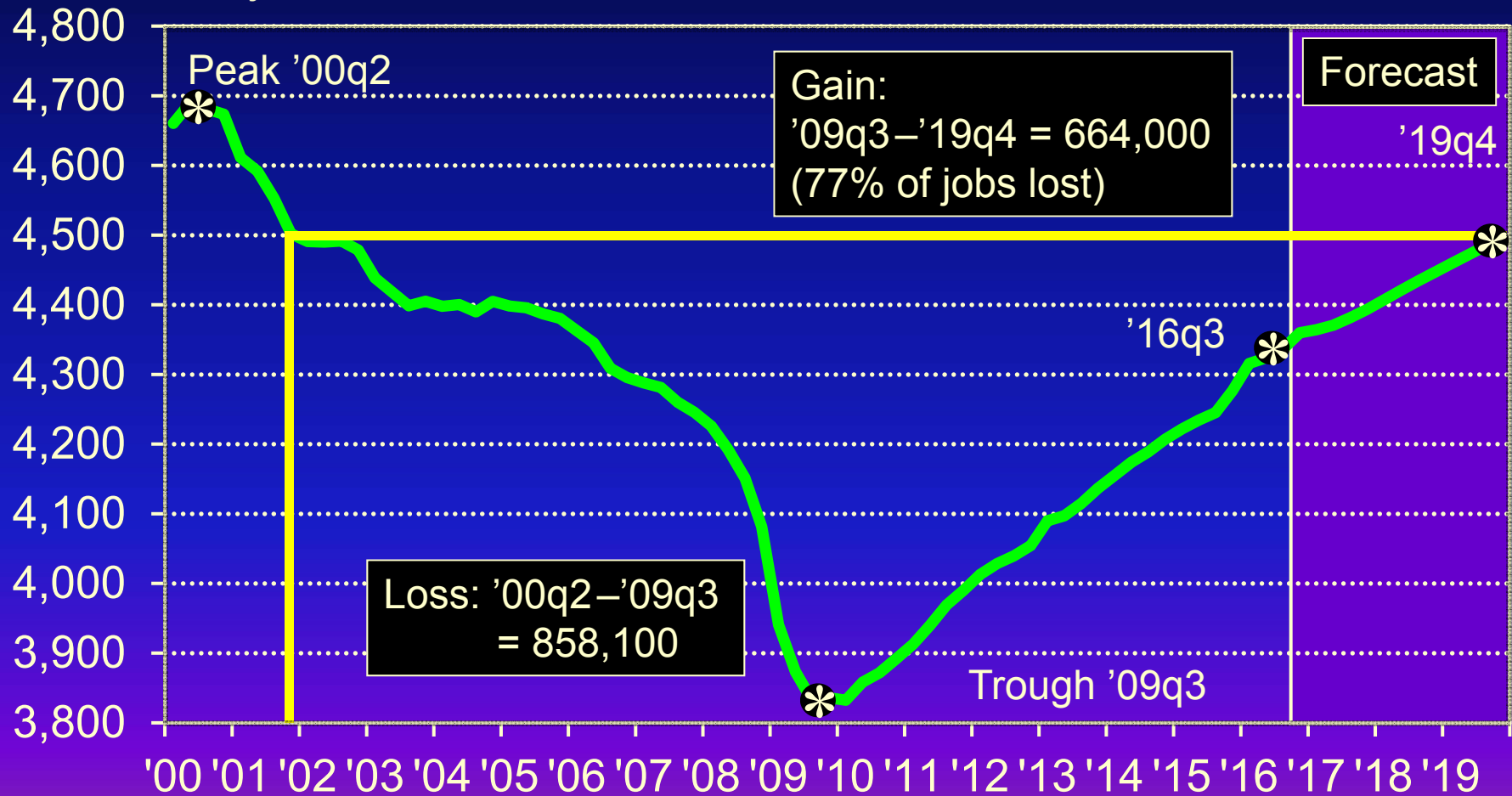
Michigan Total Jobs and Detroit Three Sales of Light Vehicles 1991 to 2019



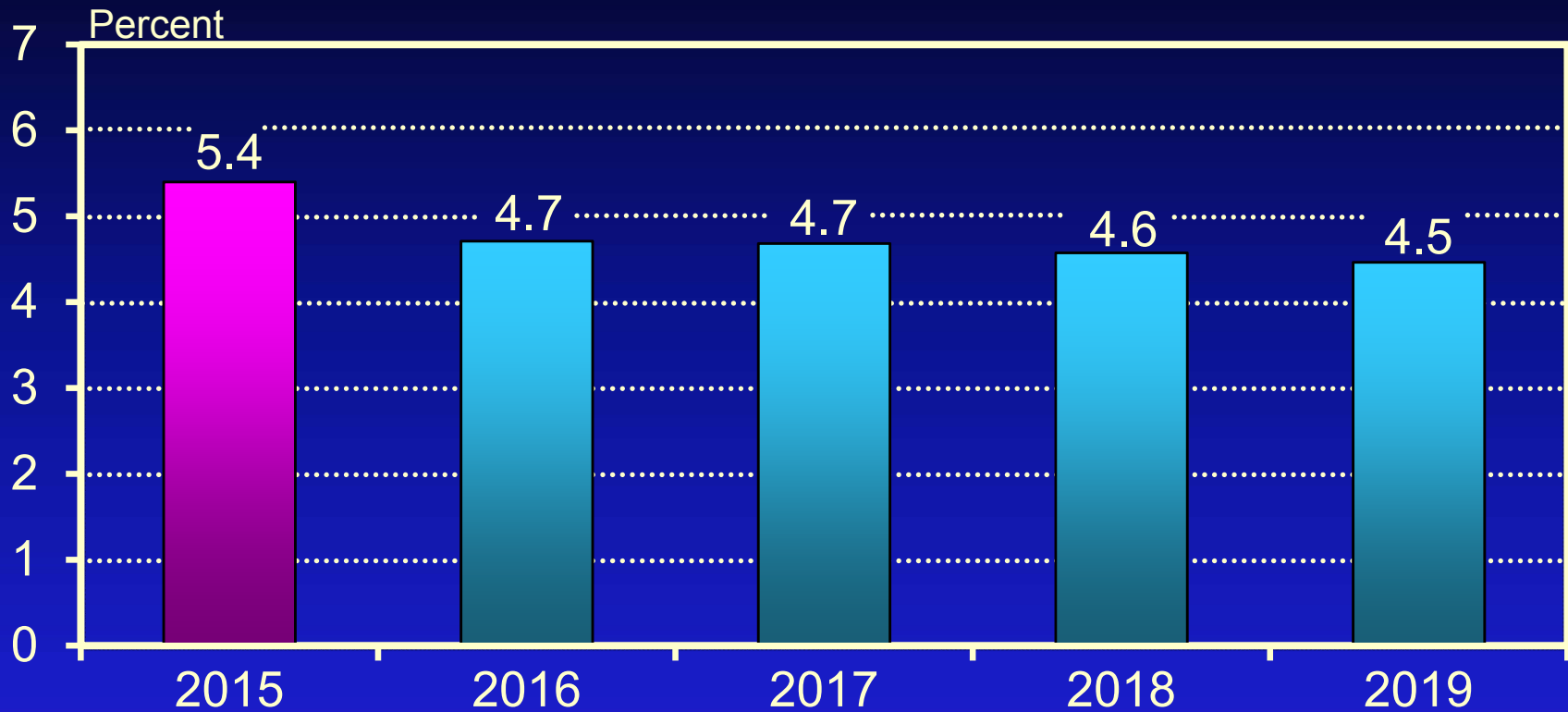
Michigan Wage and Salary Employment

First Quarter of 2000 to Fourth Quarter of 2019

Thousands of jobs

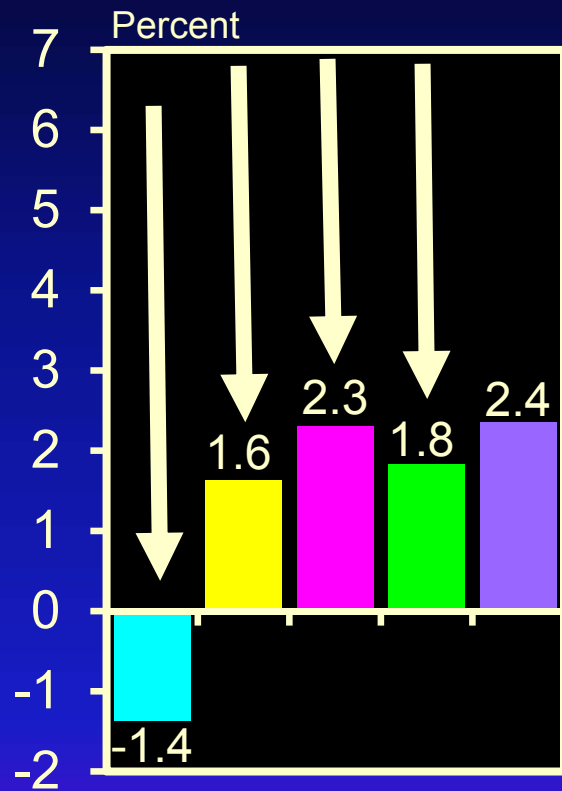


Michigan Unemployment Rate 2015–19

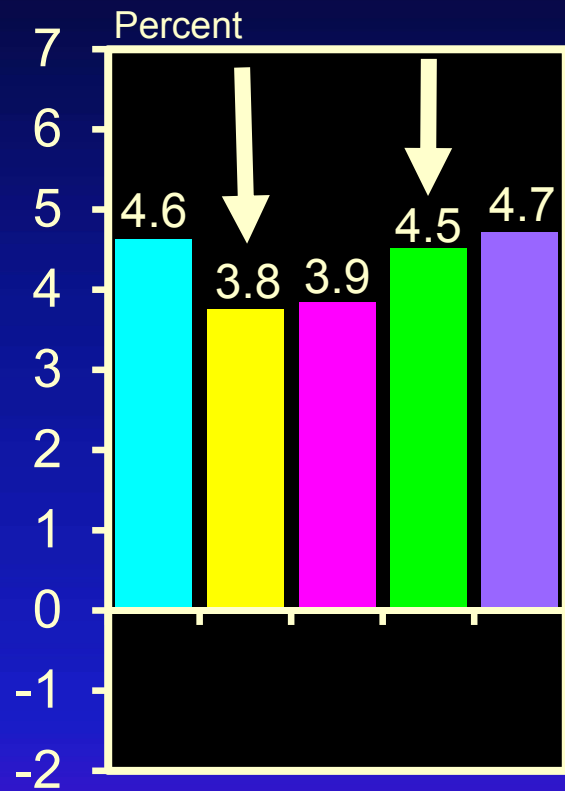


4th Quarter Unemployment Rate				
5.1	4.8	4.7	4.5	4.4
4th Quarter Labor Force Participation Rate				
60.4	61.4	61.2	61.3	61.5

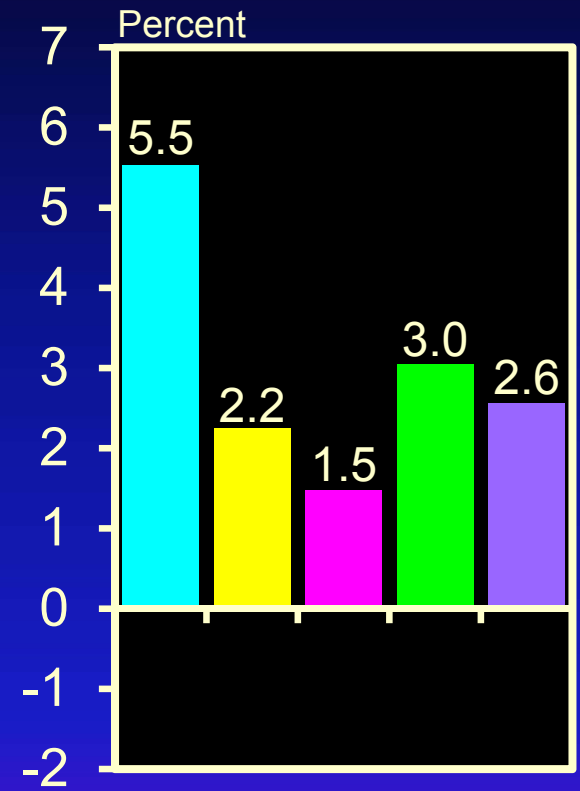
Michigan Inflation and Income Growth



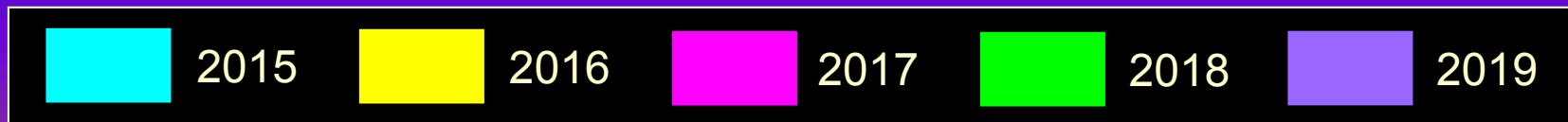
Detroit CPI



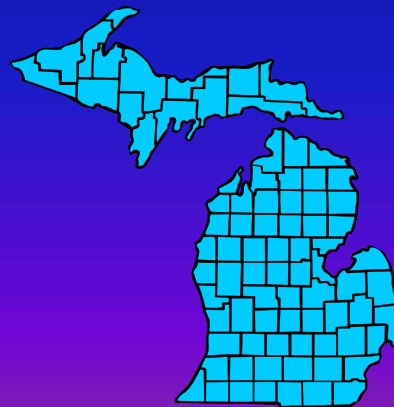
Personal Income



Real Disposable Income



State Revenue Outlook

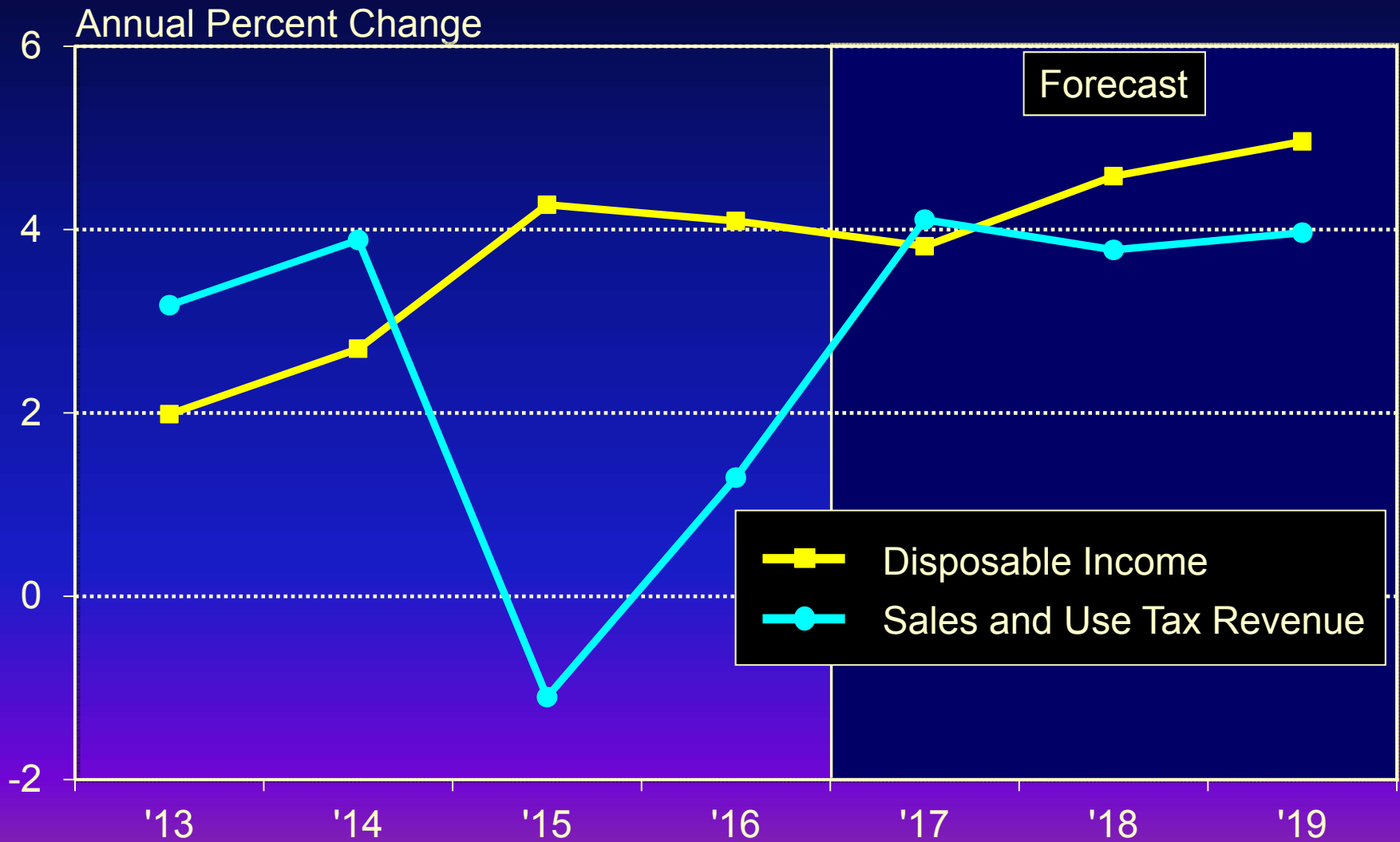


RSQE Forecast – State Revenues by Fiscal Year (Millions of dollars)

	Actual	Forecast		
	2016 ^P	2017	2018	2019
GFGP revenue	10,007	10,325	10,752	10,918
(% change)	(0.1)	(3.2)	(4.1)	(1.5)
Earmarked state SAF revenue	12,112	12,508	12,954	13,435
(% change)	(2.9)	(3.3)	(3.6)	(3.7)

^PPreliminary

Growth of Michigan Disposable Income And Sales and Use Tax Revenue Fiscal 2013-2019



Components of Michigan Sales and Use Tax Revenue Growth Fiscal 2016 (preliminary)

Growth in disposable income	4.1%
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Less:

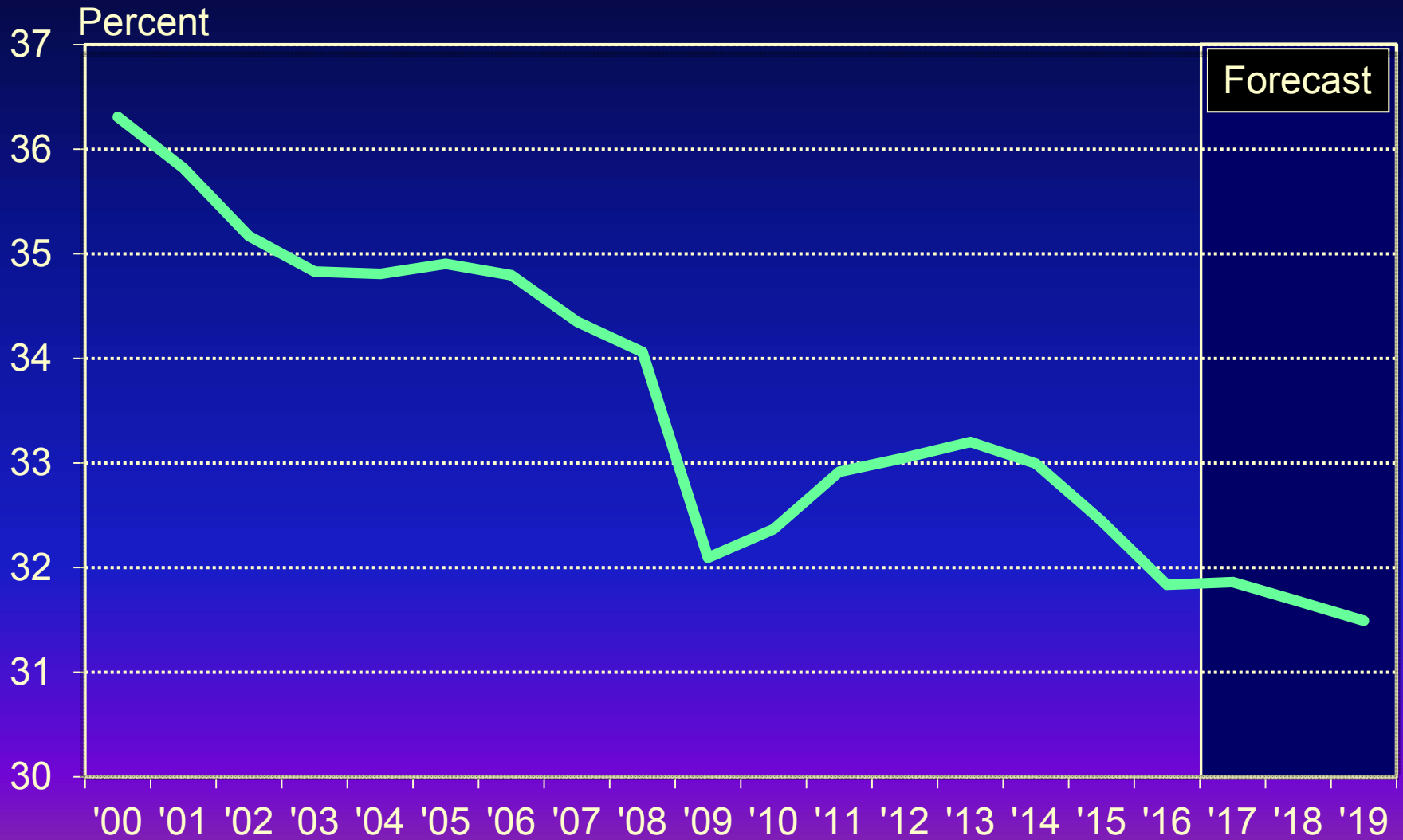
1. Increase in saving rate	0.3%
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2. Decrease in gas prices	1.6%
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3. Shift from goods to services	0.9%
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Growth in sales and use tax revenue	1.3%
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Taxable Share of Michigan Personal Consumption Fiscal 2000-2019



Michigan Outlook Summary

- The job recovery enters its eighth year, and adds 136,000 jobs from yearend 2016 to yearend 2019.
- Job gains average 45,300 per year over that time span, a bit slower than the pace in recent years.
- The continuing recovery is consistent with an expanding U.S. economy, flat to declining vehicle sales, and continued improvement in the housing sector.



www.rsqe.econ.lsa.umich.edu