

THE U.S. AND MICHIGAN OUTLOOK FOR 2019–2021

**PREPARED FOR PRESENTATION AT THE
CONSENSUS REVENUE ESTIMATING CONFERENCE**

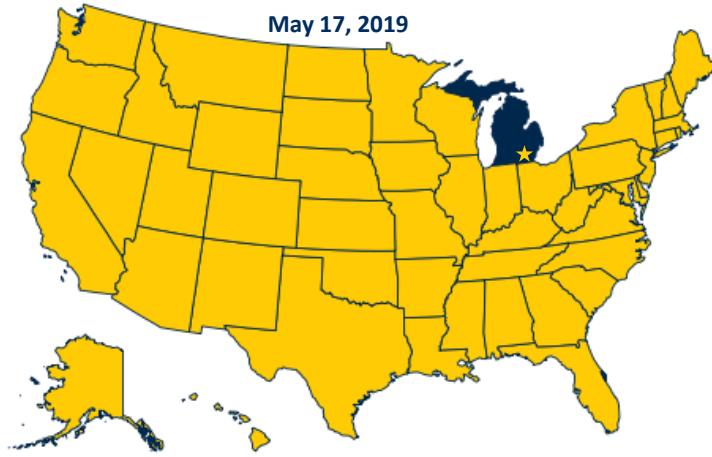
**LANSING, MICHIGAN
MAY 17, 2019**

BY

**JACOB BURTON
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DANIIL MANAENKOV
MICHAEL MCWILLIAMS
ADITI THAPAR**

**The U.S. and Michigan Outlook for 2019–2021
Consensus Revenue Estimating Conference
Lansing, Michigan**

May 17, 2019

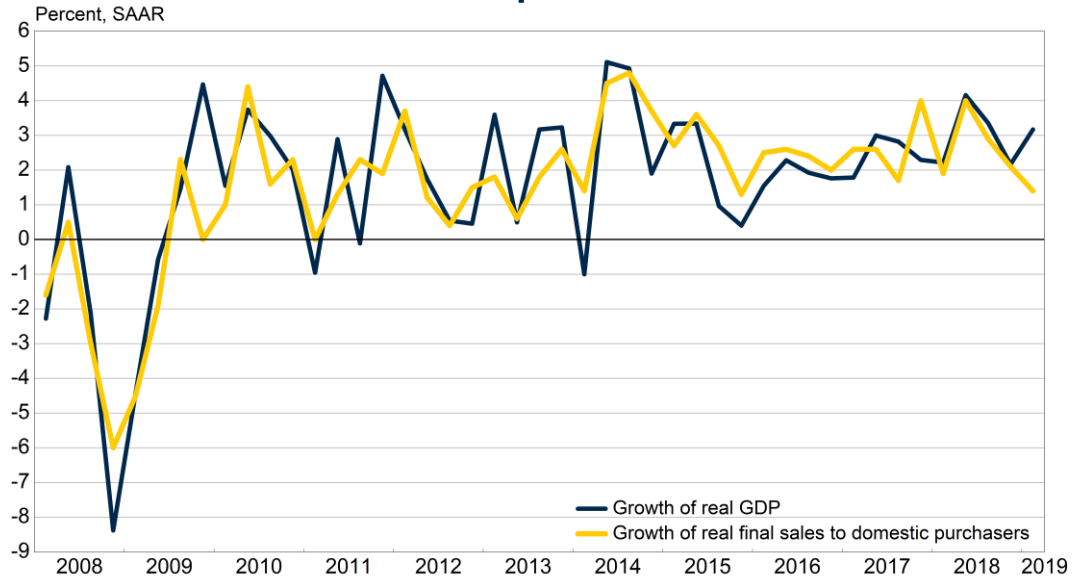


Research Seminar in Quantitative Economics

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Current State of the Economy

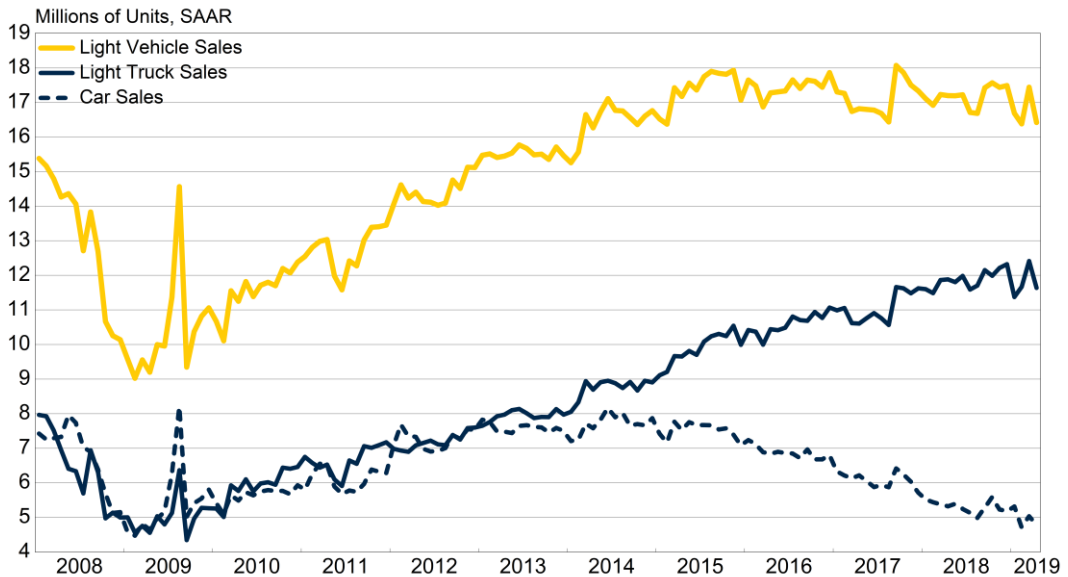
Real Output Growth



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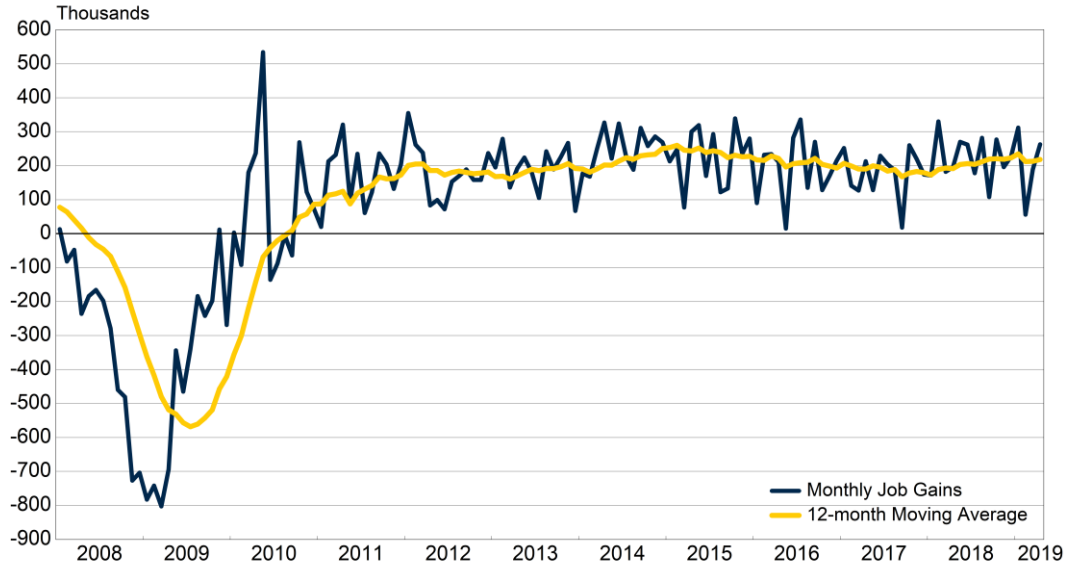
Vehicle Sales: Weak Start to 2019



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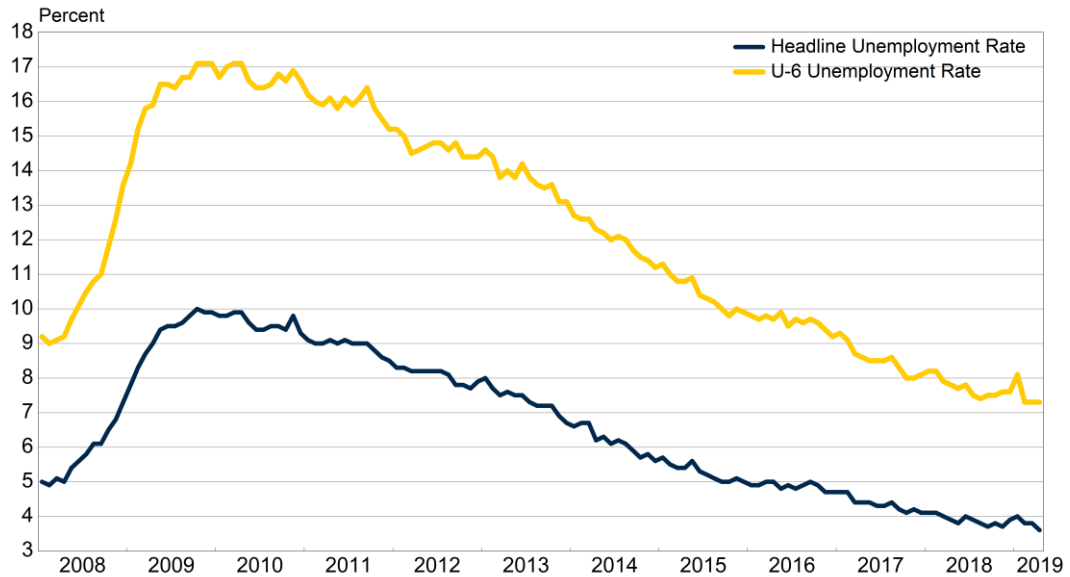
Solid Monthly Payroll Job Gains



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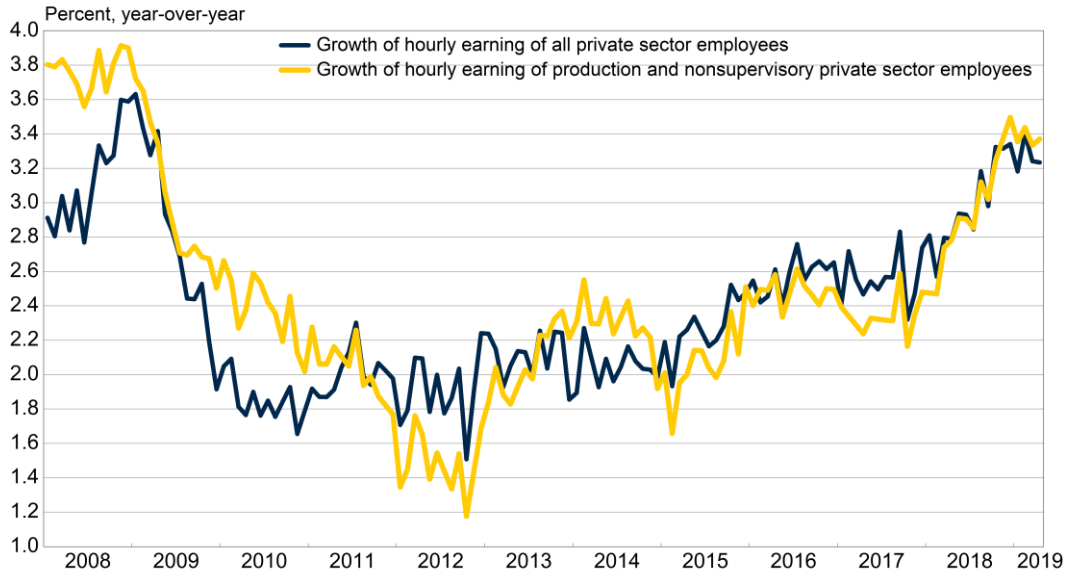
Unemployment Rates: Likely Still Trending Down



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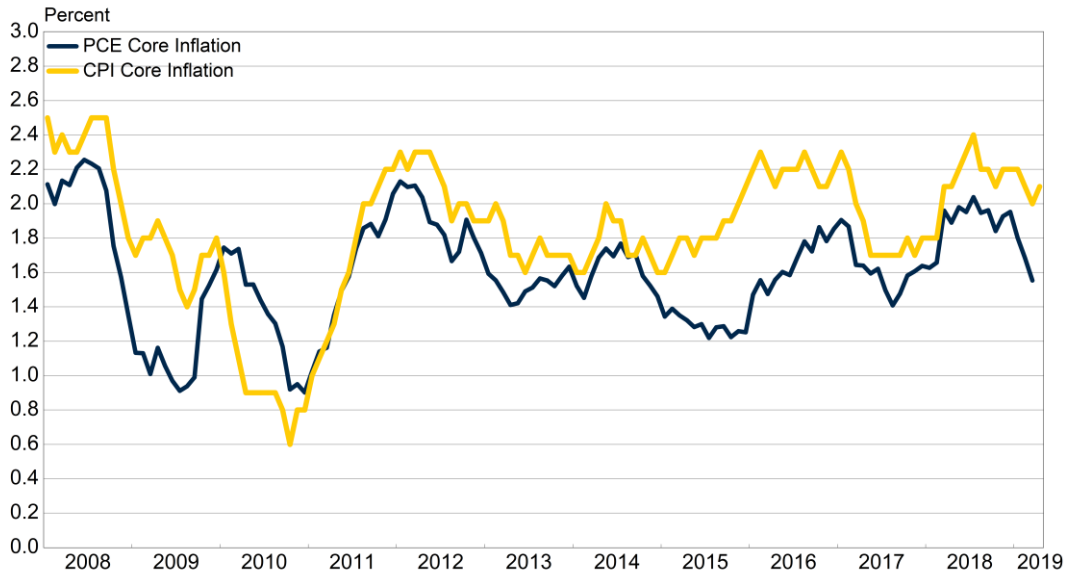
Wage Growth No Longer Accelerating



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Concerning Fall in Core PCE Inflation



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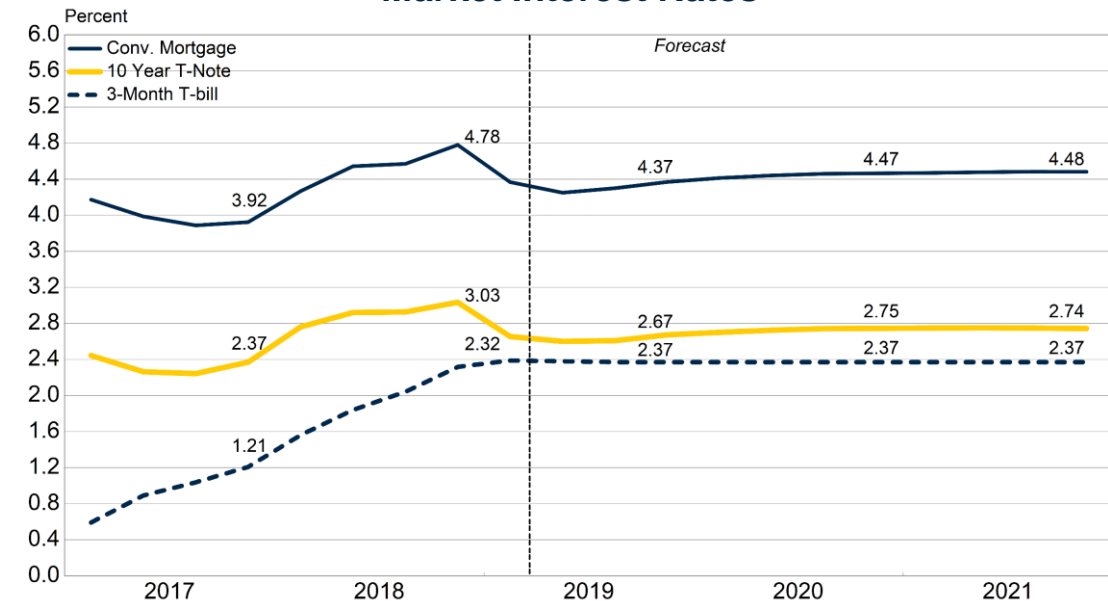
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Key Inputs into the Forecast

Monetary Policy: Quite a Dovish Tilt

- Latest fed funds 25bps rate range hike in December 2018
- New key information since then: core inflation slowed, labor market still strong with a hint of weakness
- Major changes in expected policy path since December:
 - December '18 “dot plot”: Three more 25bps hikes in 2019–2021
 - March '19 “dot plot”: No hikes in 2019, one more 25bps hike in 2020–2021
- Fed to stop winding down its balance sheet by September
- Markets see a high chance of two 25bps rate cuts in 2019–2020
- We project flat fed funds rate path for 2019–2021

Market Interest Rates



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Fiscal Policy

- No major legislation expected from Congress
 - Infrastructure deal talks are in very early stages
 - Judicial action with fiscal implications possible: Obamacare challenge
- Budget Control Act of 2011 still in place for fiscal 2020–2021:
 - \$120 billion in sequestration cuts without Congressional action
- Debt ceiling reinstated on March 2nd.
 - “Extraordinary measures” can last until September-October, per CBO
- NIPA government spending still ramping up due to fiscal 2018–2019

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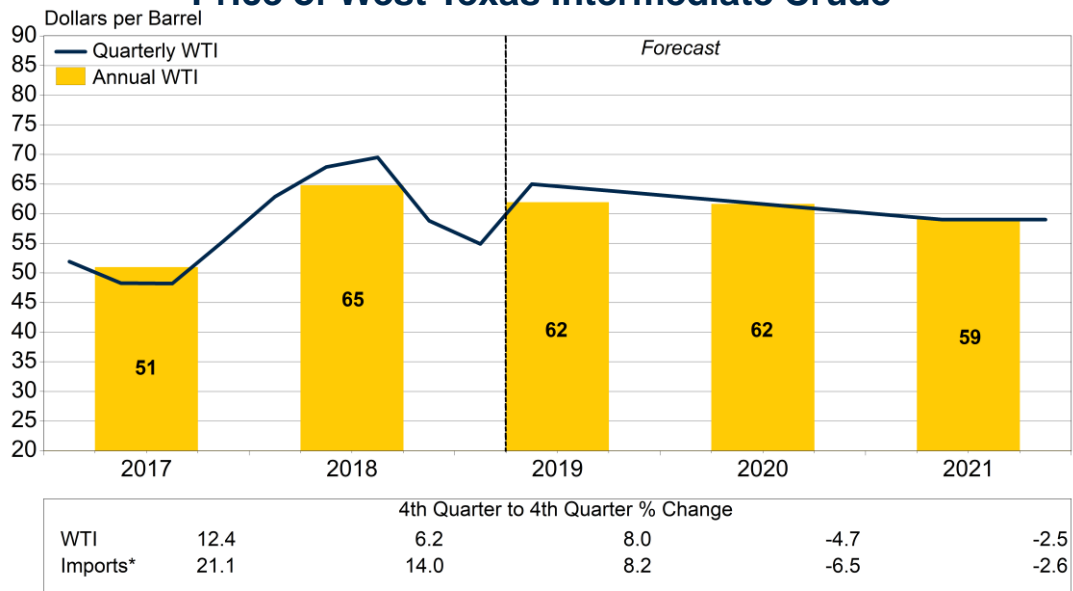
Federal Budget, NIPA Basis (Billions of Dollars)

	2017	2018	FY Forecast		
			2019	2020	2021
Current receipts	3554.0	3491.4	3593.5	3737.3	3918.7
% change	2.3	-1.8	2.9	4.0	4.9
Current expenditures	4218.1	4423.3	4688.2	4905.5	5123.3
% change	2.8	4.9	6.0	4.6	4.4
Consumption	981.7	1019.9	1070.3	1108.2	1129.6
% change	1.9	3.9	4.9	3.5	1.9
Transfer payments	2707.4	2809.1	2980.1	3117.6	3246.5
% change	2.7	3.8	6.1	4.6	4.1
Surplus (+) or deficit (-)	-664.1	-931.9	-1094.7	-1168.2	-1204.7
Percent of GDP	-3.4	-4.6	-5.2	-5.3	-5.3

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Price of West Texas Intermediate Crude

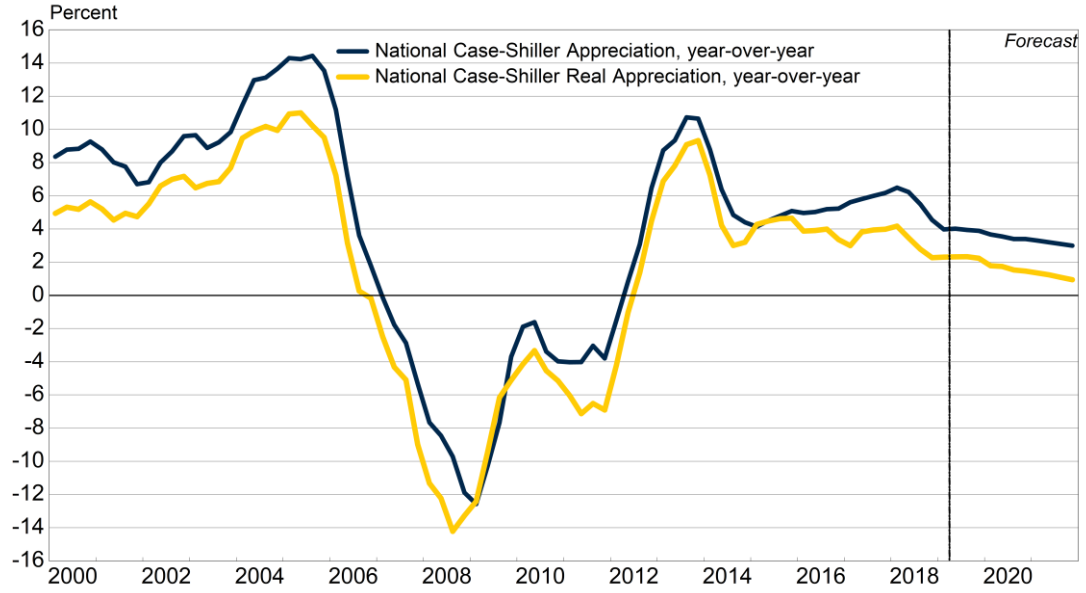


*Implicit deflator for petroleum & products

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Single-Family Home Price Appreciation

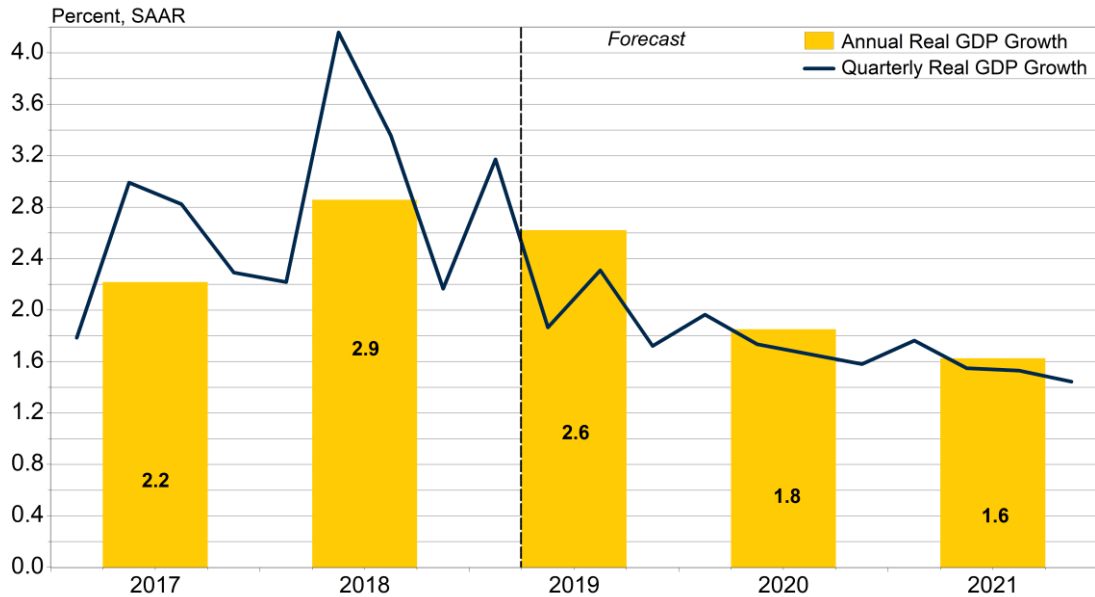


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U.S. Forecast for 2019–2021

Real GDP Growth



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Contributions to the Growth of Real GDP

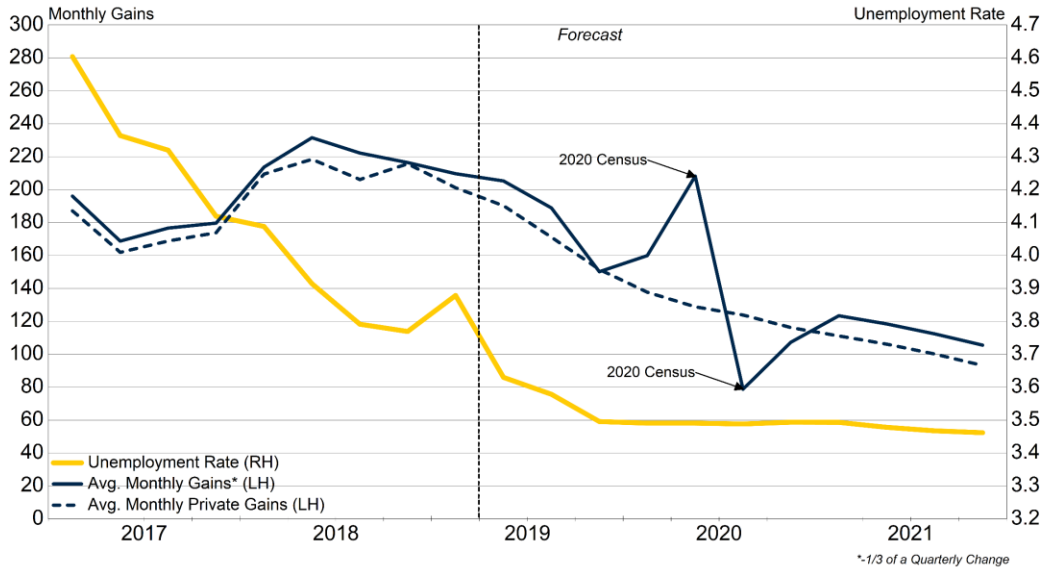
(Average quarterly contributions, percentage points at annual rate)

	'19Q1	'19Q2	'19H2	'20	'21
Real GDP (% change, AR)	3.2	1.9	2.0	1.7	1.6
Contributions to real GDP growth					
Final sales to domestic purchasers	1.5	2.6	2.4	2.0	1.9
Consumption	0.8	1.9	1.5	1.5	1.4
Nonresidential fixed investment	0.4	0.2	0.5	0.4	0.3
Residential investment	-0.1	-0.1	0.0	0.1	0.1
Government purchases	0.4	0.6	0.2	0.1	0.1
Net exports	1.0	0.1	-0.2	-0.2	-0.2
Inventory investment	0.6	-0.8	-0.2	-0.1	-0.0

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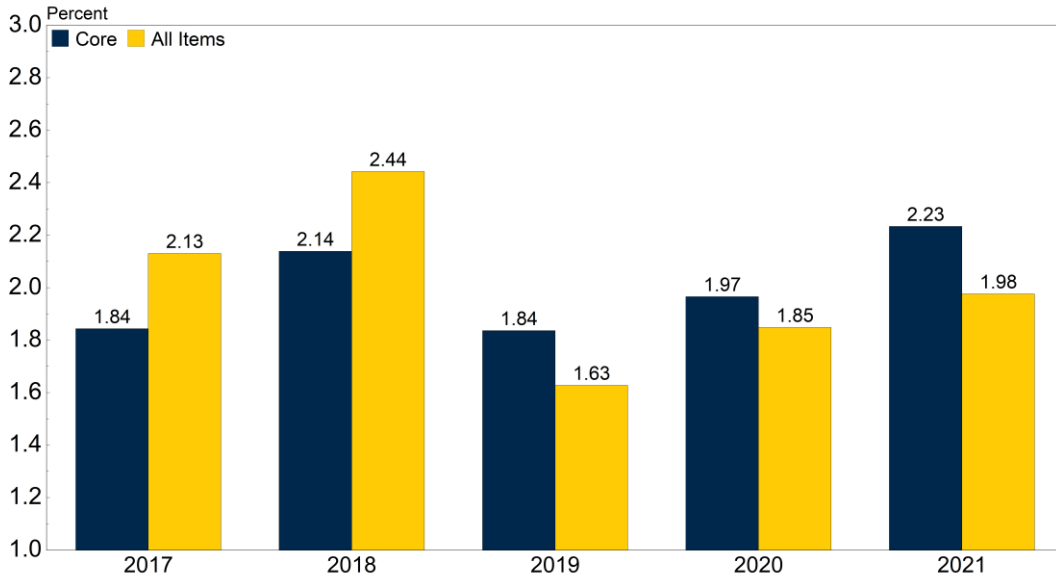
Nonfarm Payroll Employment Gains and Unemployment Rate



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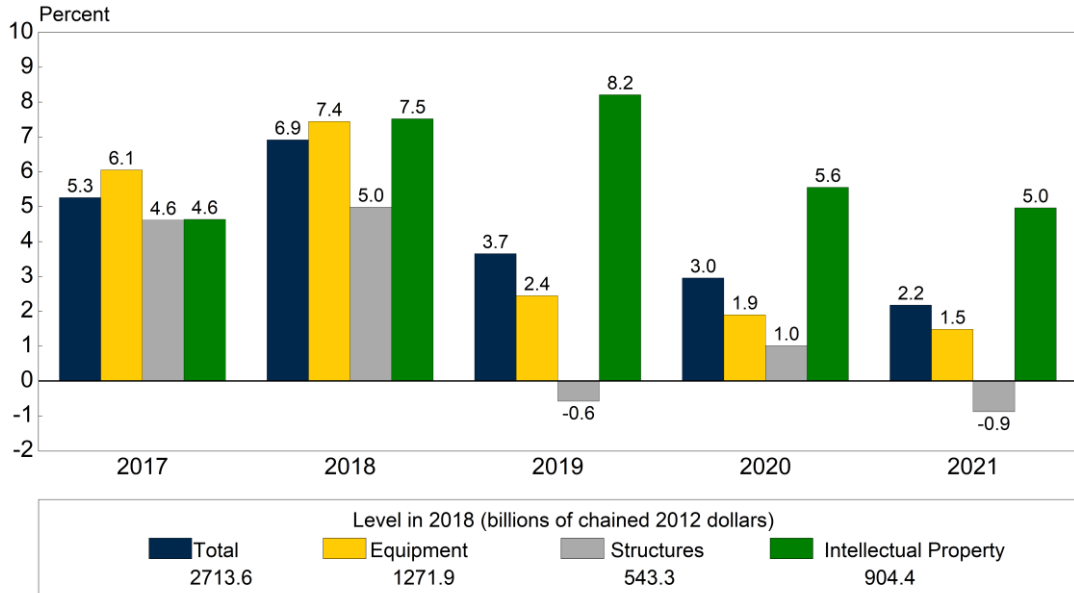
Consumer Price Inflation (CPI-U)



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Growth of Nonresidential Fixed Investment

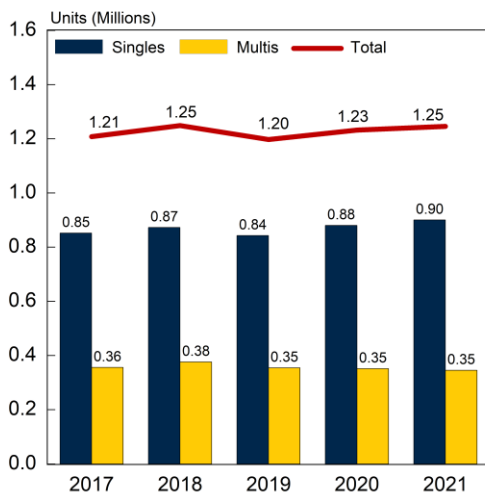


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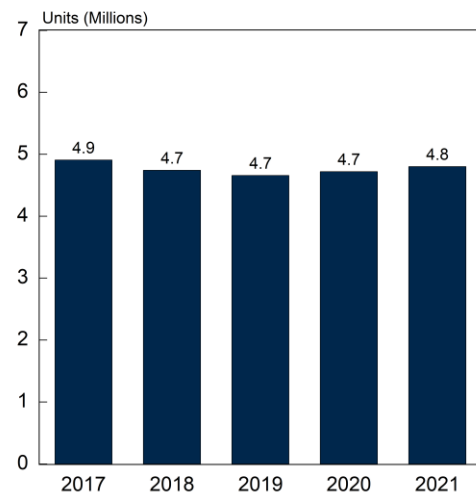
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Housing Market

Housing Starts



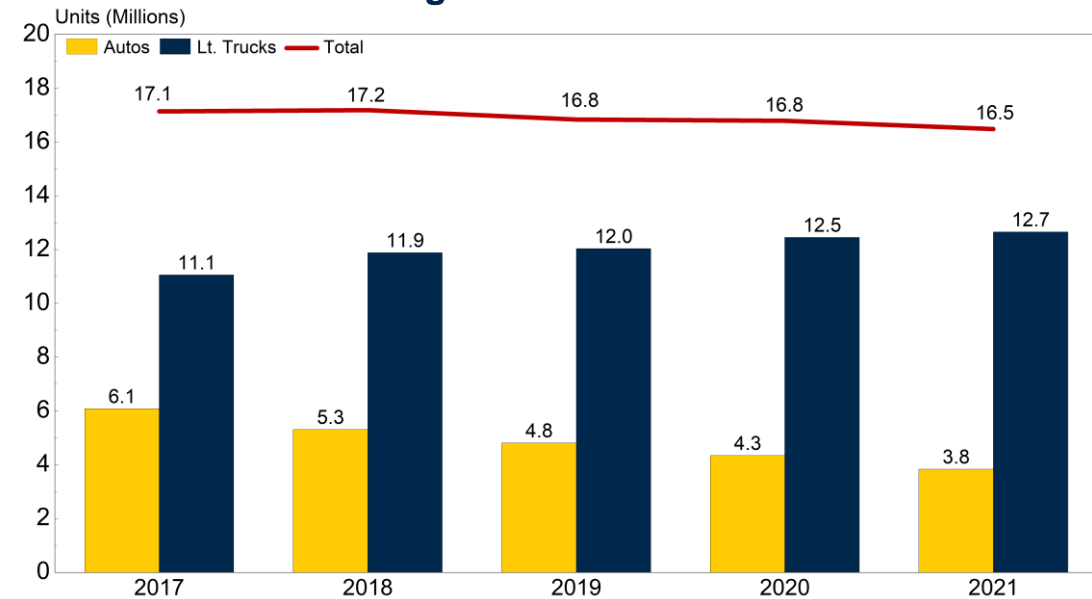
Existing Home Sales



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Light Vehicle Sales



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Risks to Our Outlook

- Balance of risks tilted toward downside
- Trade policy and foreign growth
- Oil prices and geopolitical risks
- Fiscal policy
- Monetary policy
- Abnormal weather

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The Michigan Economic Outlook For 2019–2021



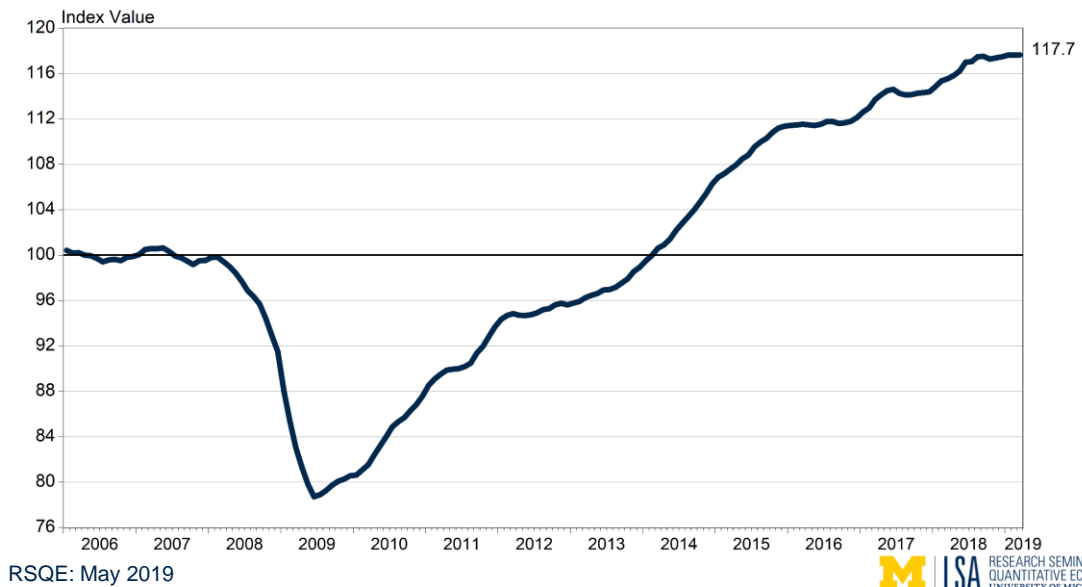
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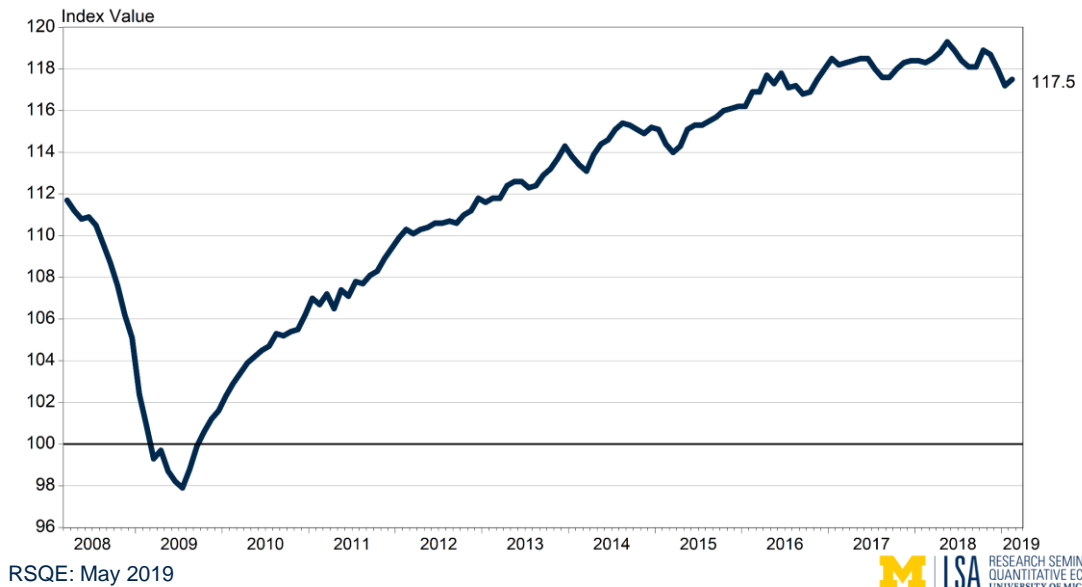


Current State of Michigan's Economy

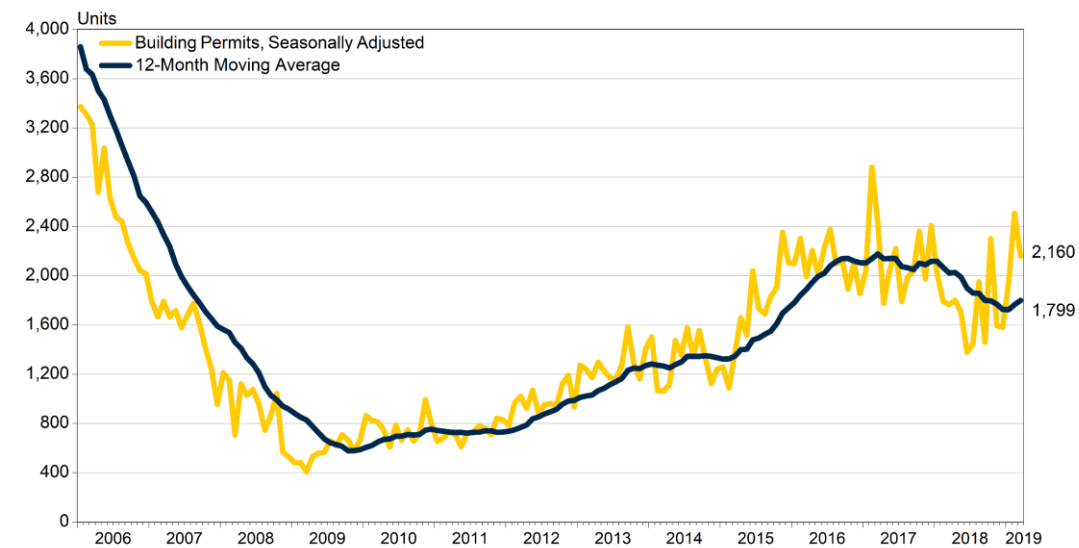
Federal Reserve Bank of Philadelphia State Coincident Index



Comerica Bank Michigan Economic Activity Index



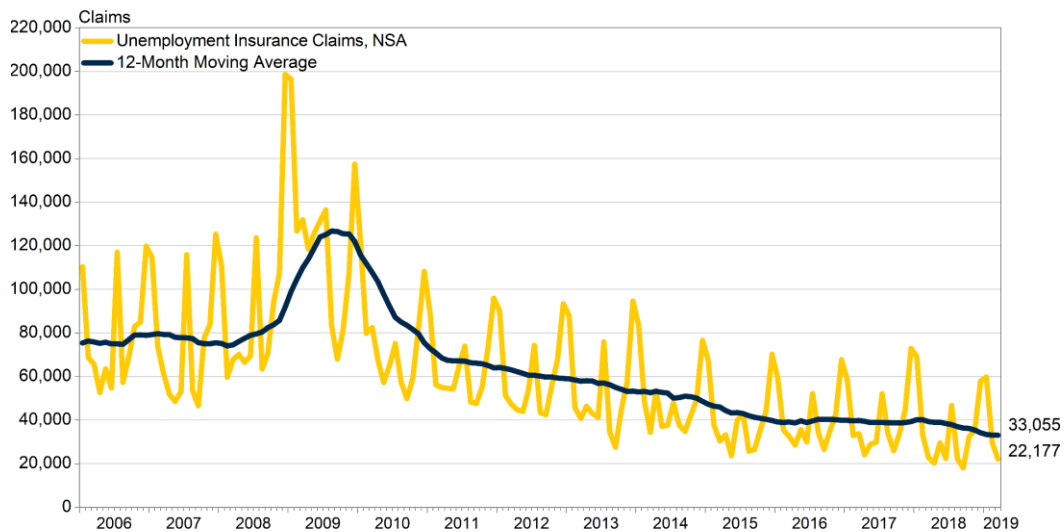
Building Permits



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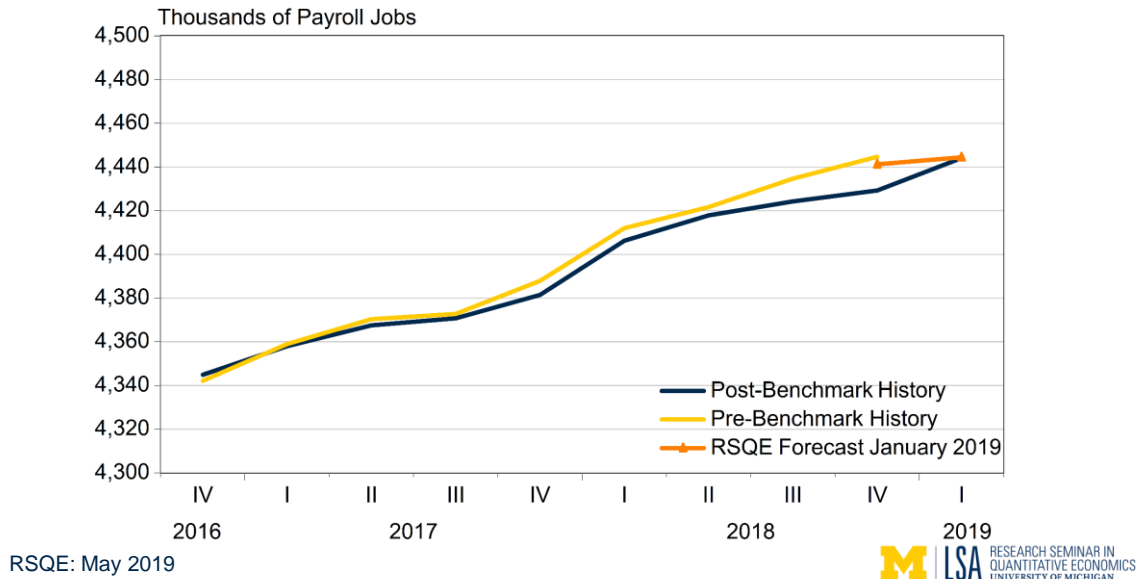
Initial Unemployment Claims



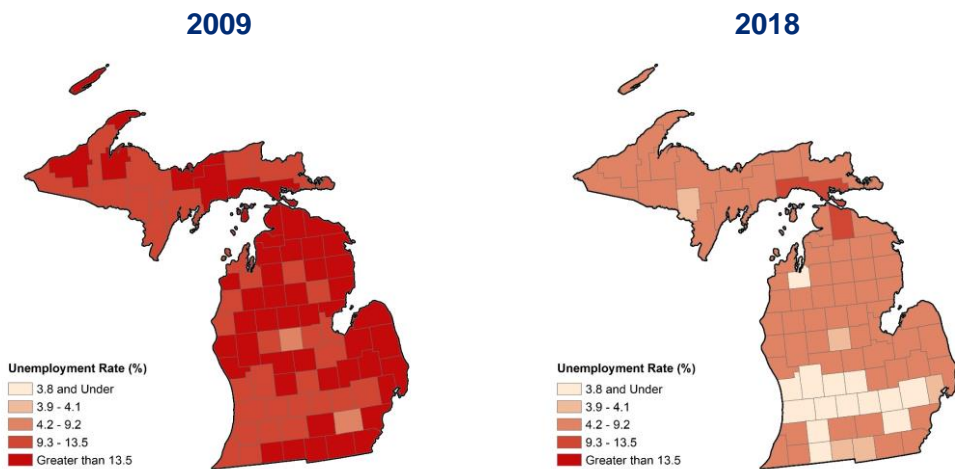
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Michigan Payroll Employment Revisions, 2016q4–2019q1



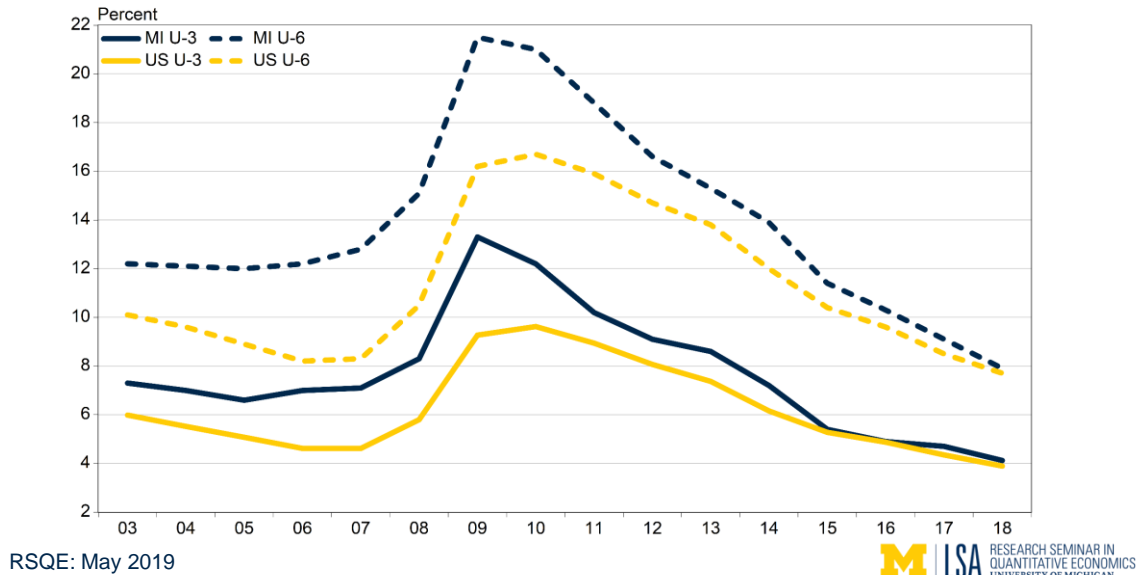
Unemployment Rates by Michigan County



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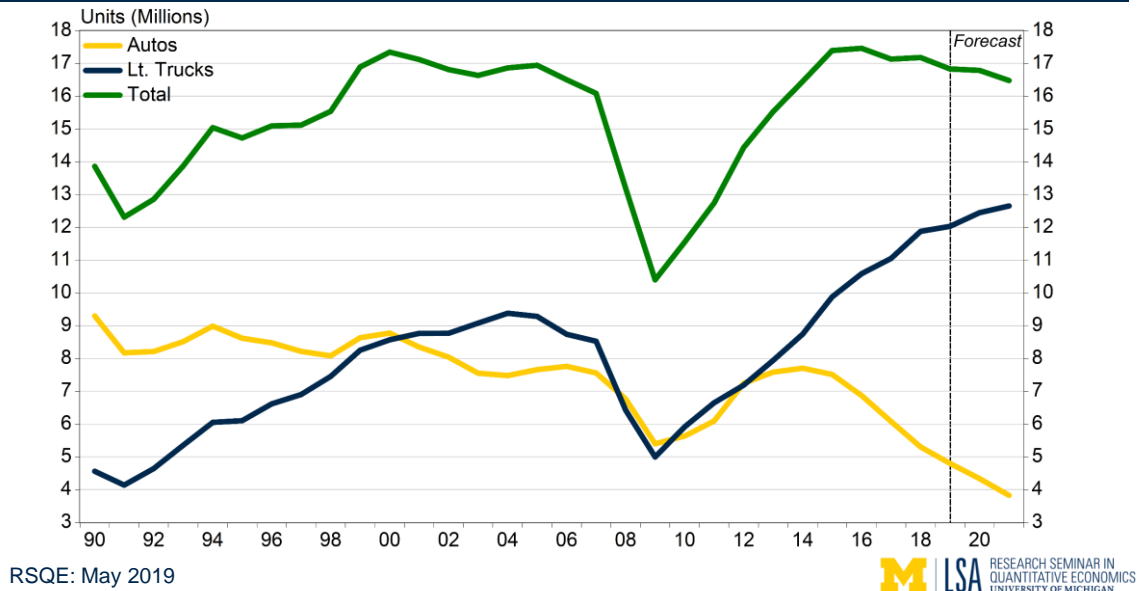
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Alternative Measures of Labor Underutilization, 2003–2018

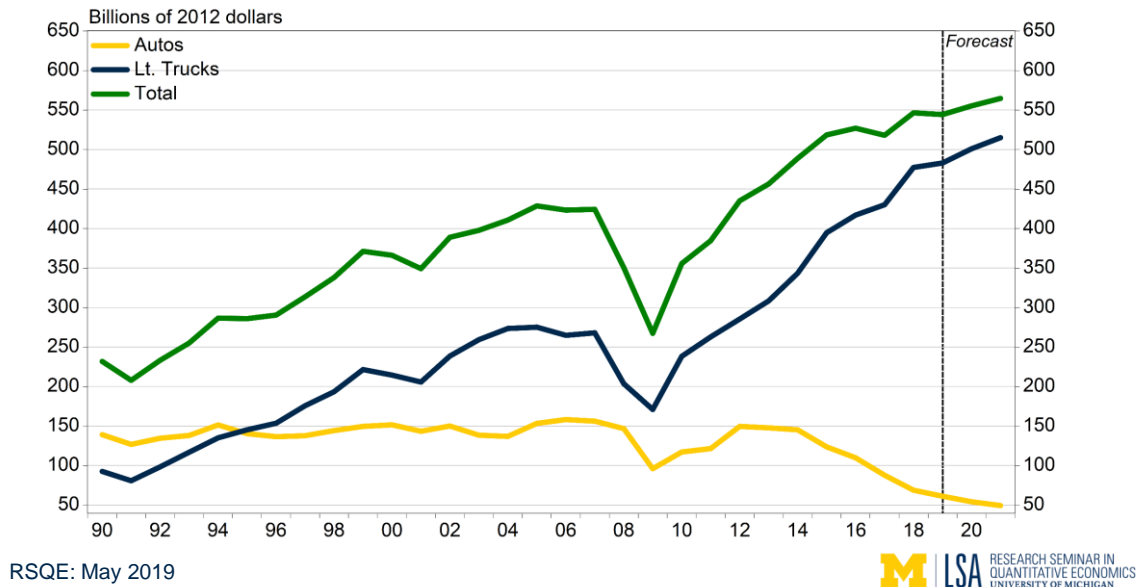


Michigan Economic Outlook

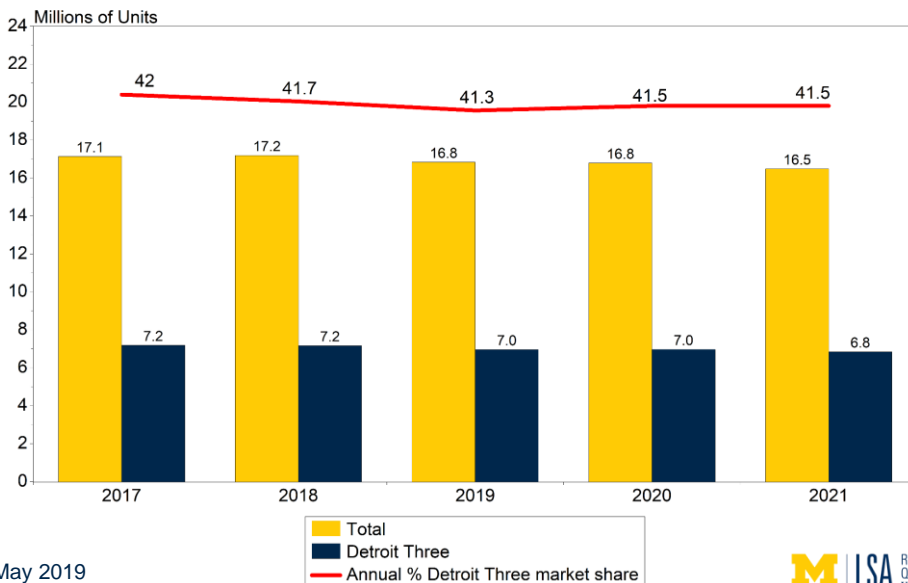
U.S. Light Vehicle Sales, 1990–2021



Real U.S. Light Vehicle Output, 1990–2021



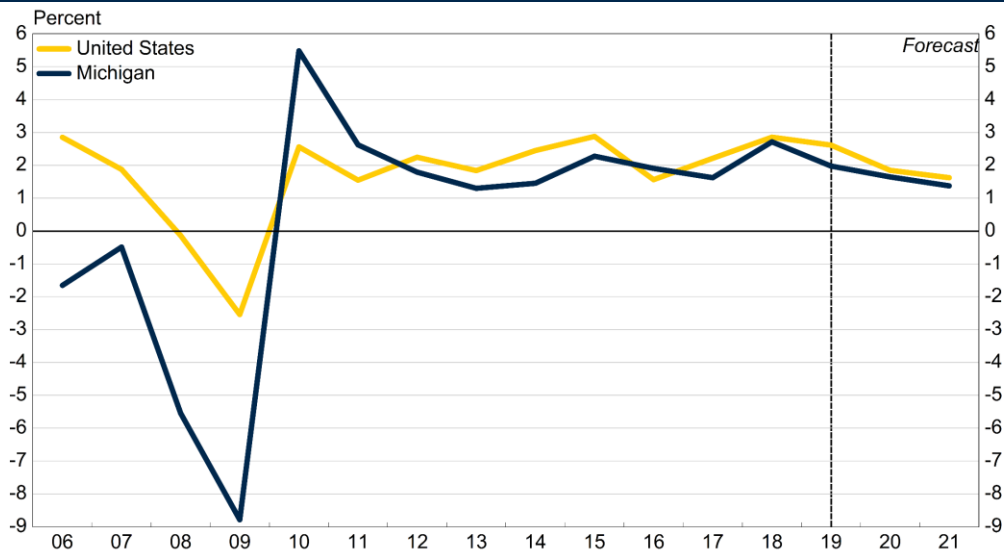
U.S. Light Vehicle Sales Total vs. Detroit Three, 2017–2021



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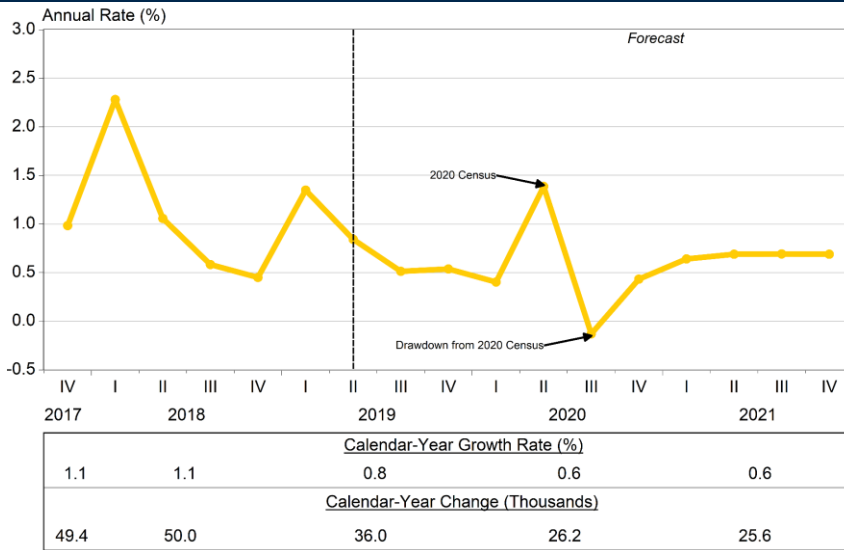
U.S. vs. Michigan Real GDP Growth, 2006–2021



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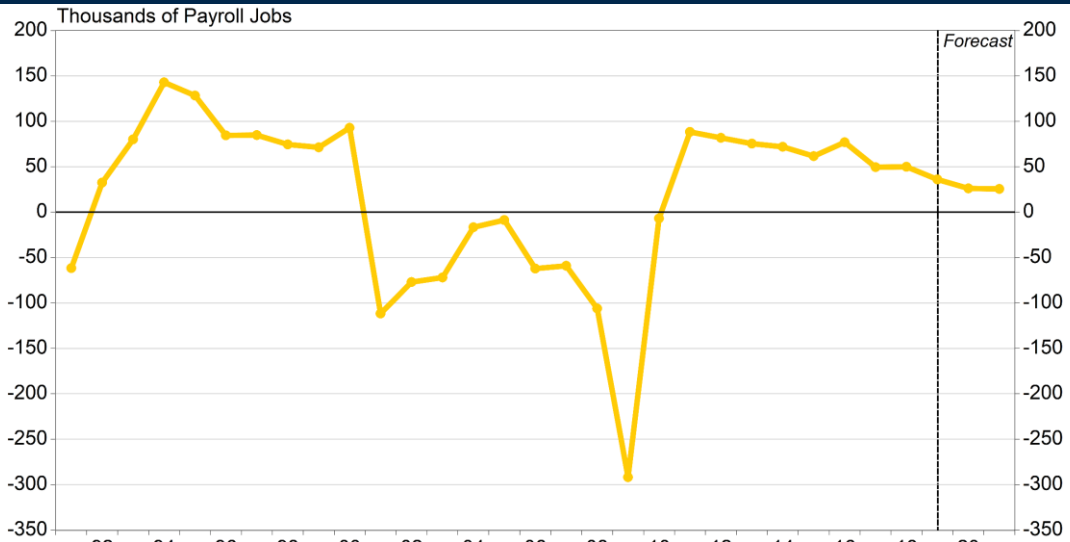
Michigan Wage and Salary Employment Growth



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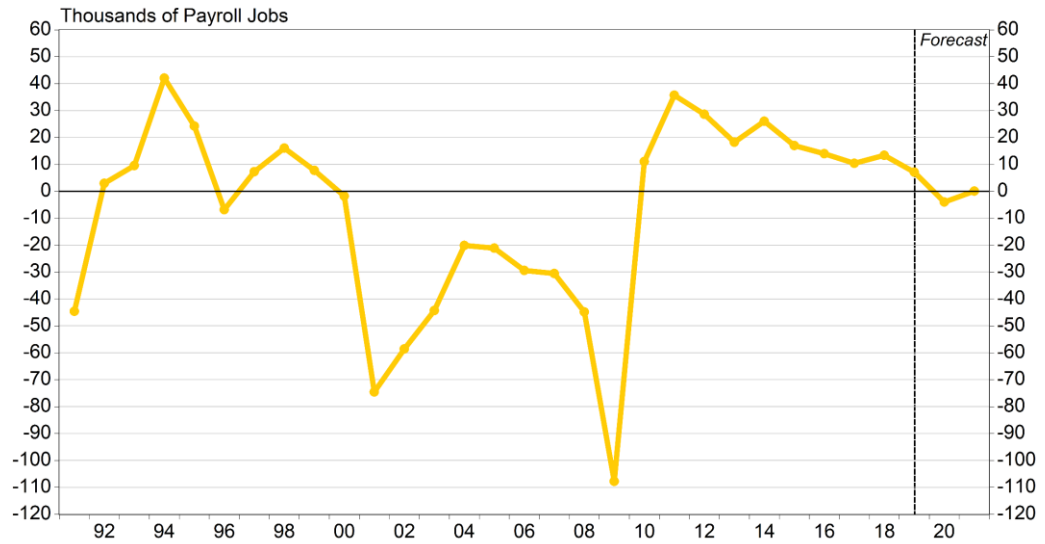
Annual Job Growth in Michigan, 1991–2021



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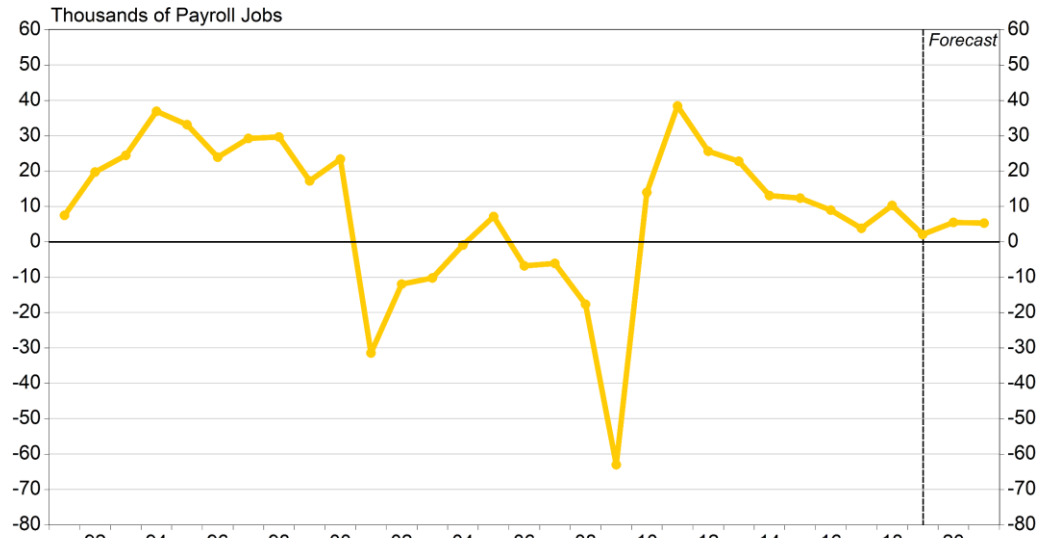
Annual Job Growth in Michigan, 1991–2021 Manufacturing Sector



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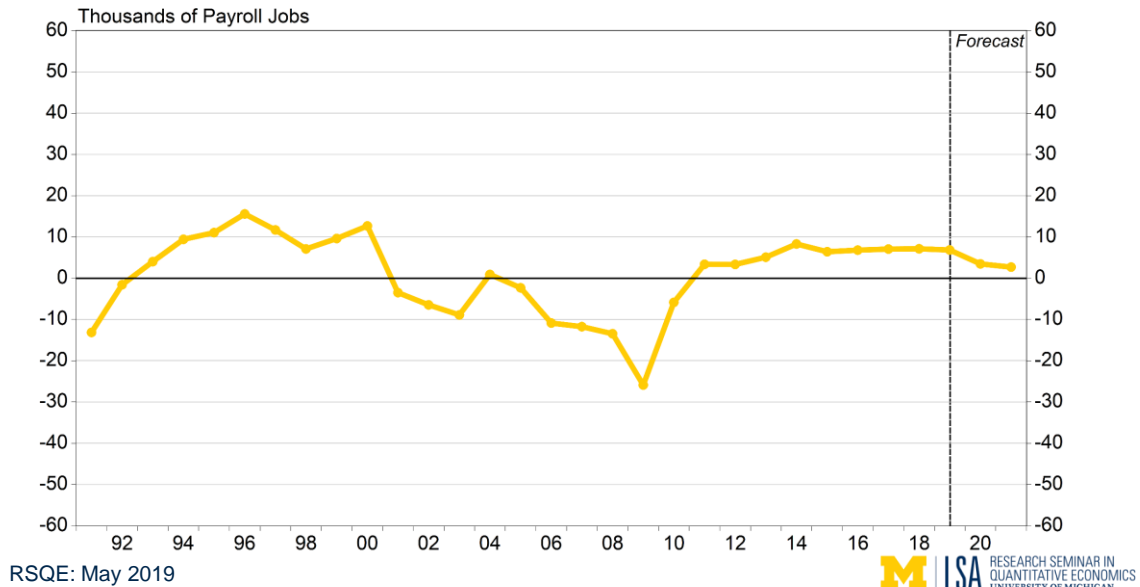
Annual Job Growth in Michigan, 1991–2021 Professional and Business Services Sector



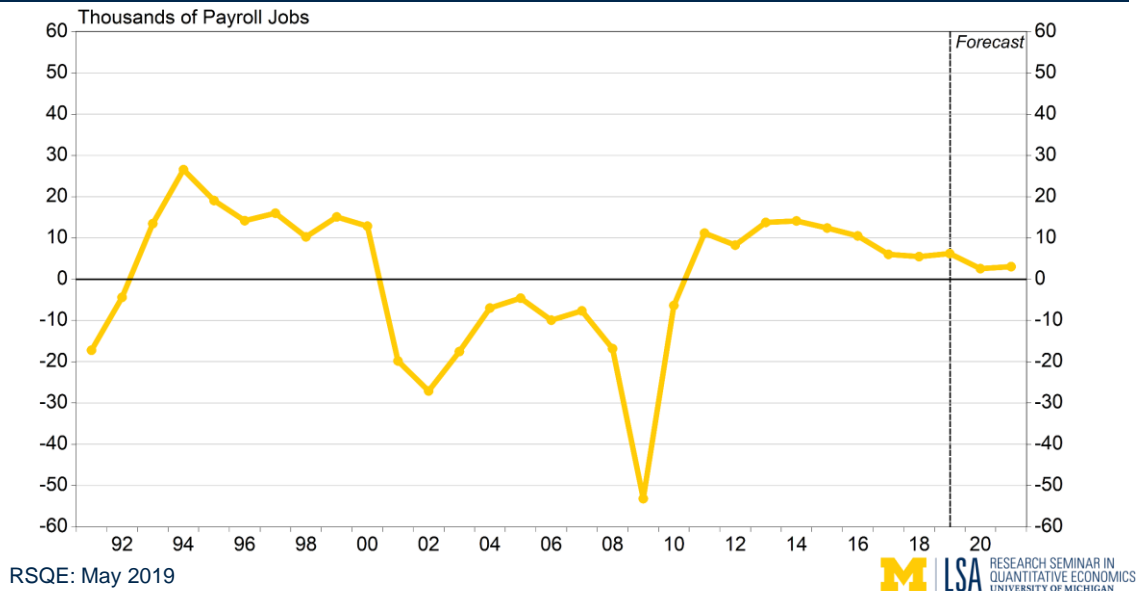
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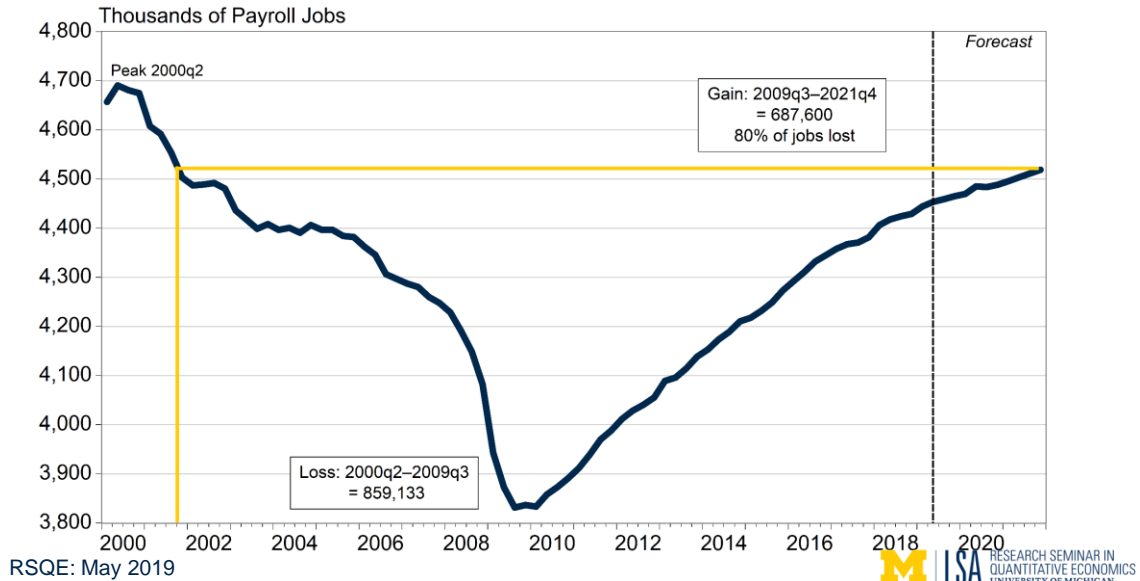
Annual Job Growth in Michigan, 1991–2021 Construction Sector



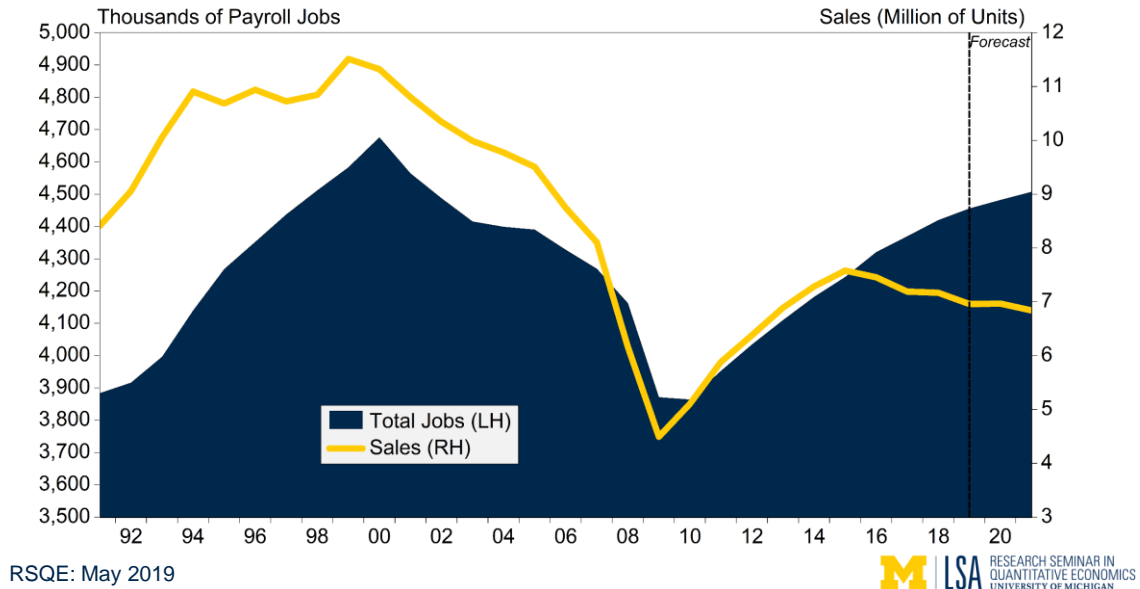
Annual Job Growth in Michigan, 1991–2021 Trade, Transportation, and Utilities Sector



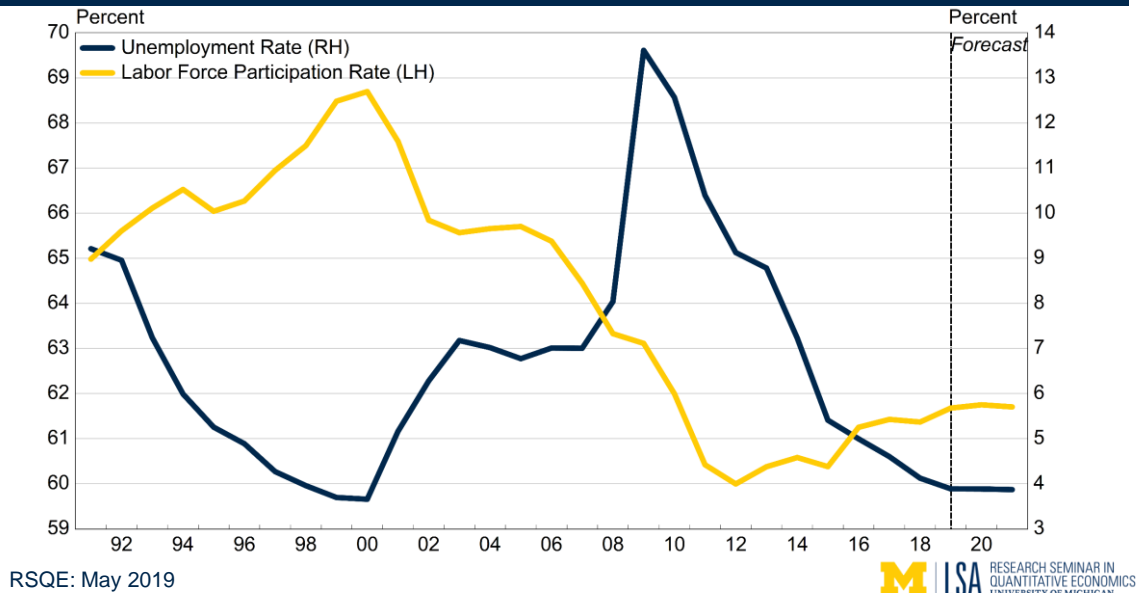
Michigan Wage and Salary Employment First Quarter of 2000 to Fourth Quarter of 2021



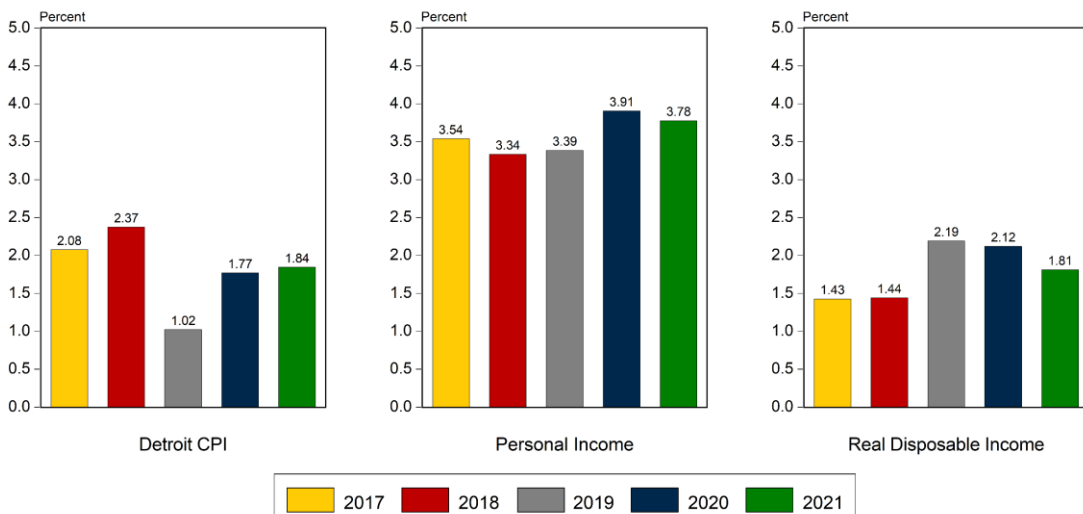
Michigan Total Jobs and Detroit Three Sales of Light Vehicles, 1991–2021



Michigan's Labor Market, 1991–2021



Michigan Inflation and Income Growth, 2017–2021



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Risks to Our Forecast

- International trade situation
 - Trade war with China back on
 - USMCA facing skepticism in Congress
- UAW contract negotiations
 - Current contracts expire in late summer
- National recession
 - Not in our baseline scenario

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