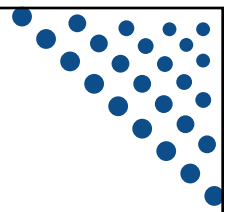




## U.S. Economic Update

# National Economic Education Delegation



- **Vision**

- One day, the public discussion of policy issues will be grounded in an accurate perception of the underlying economic principles and data.

- **Mission**

- NEED unites the skills and knowledge of a vast network of professional economists to promote understanding of the economics of policy issues in the United States.

- **NEED Presentations**

- Are **nonpartisan** and are intended to reflect the consensus of the economics profession.

## Who Are We?

- **Honorary Board: 44 members**

- 2 Fed Chairs: Janet Yellen, Ben Bernanke
- 6 Chairs Council of Economic Advisers
  - o Furman (D), Rosen (R), Bernanke (R), Yellen (D), Tyson (D), Goolsbee (D)
- 3 Nobel Prize Winners
  - o Akerlof, Smith, Maskin

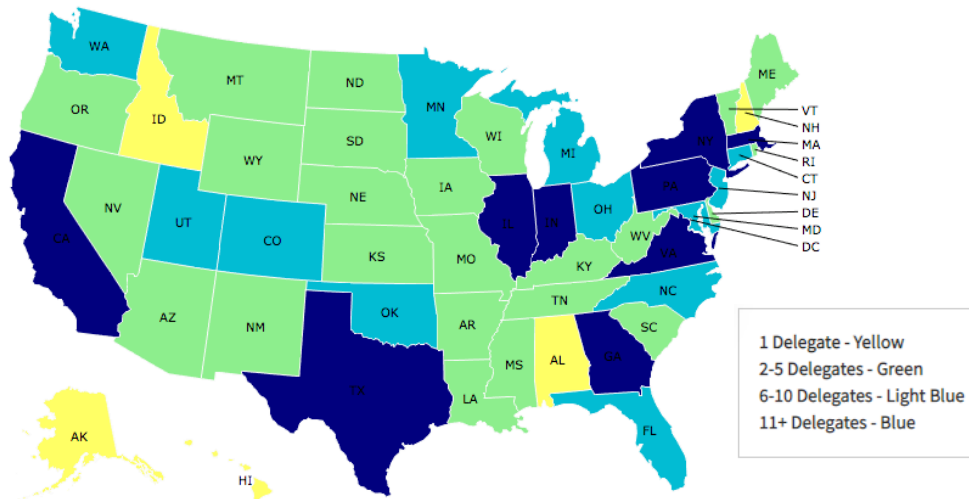
- **Delegates: 365 members**

- At all levels of academia and some in government service
- All have a Ph.D. in economics
- Crowdsource slide decks
- Give presentations

- **Global Partners: 42 Ph.D. Economists**

- Aid in slide deck development

## Where Are We?



## Credits and Disclaimer

- **This slide deck was authored by:**
  - Jon Haveman, Executive Director of NEED
  - Allison Roehling, DePauw University
- **This slide deck was reviewed by:**
  - Jeffrey Frankel, Harvard University
  - Scott Baier, Clemson University
  - Rob Eyler, Sonoma State University
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  - It is, however, inevitable that the presenter will be asked for and will provide their own views.
  - Such views are those of the presenter and not necessarily those of the National Economic Education Delegation (NEED).



## Outline – U.S. Economic Outlook

- **Behavior of GDP**
- **Labor Market**
- **Monetary Policy/Interest Rates**
- **Other Indicators**
- **Summary**



# Behavior of GDP

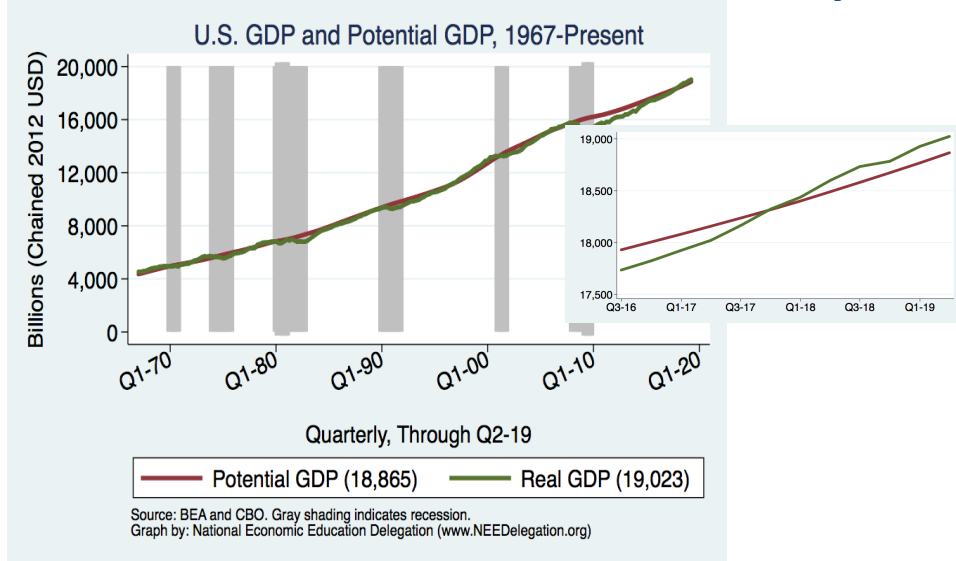


## **GDP** During the Recovery

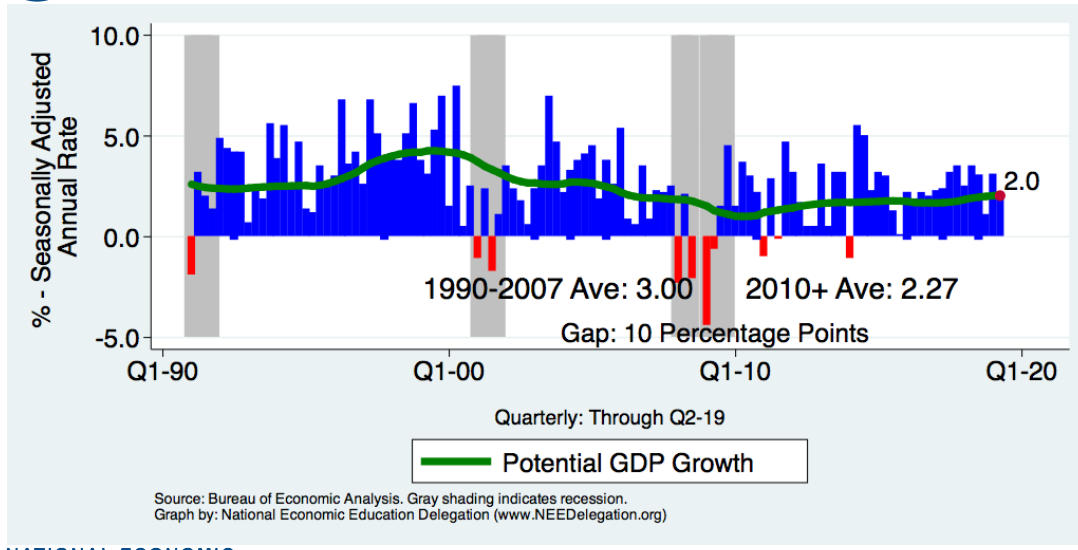
- *Real GDP* is a standard measure of production used by economists to assess the health and well-being of an economy
- *Potential GDP* is the level of production in an economy operating at full employment
- We use potential GDP to get a sense of what production should be in an economy



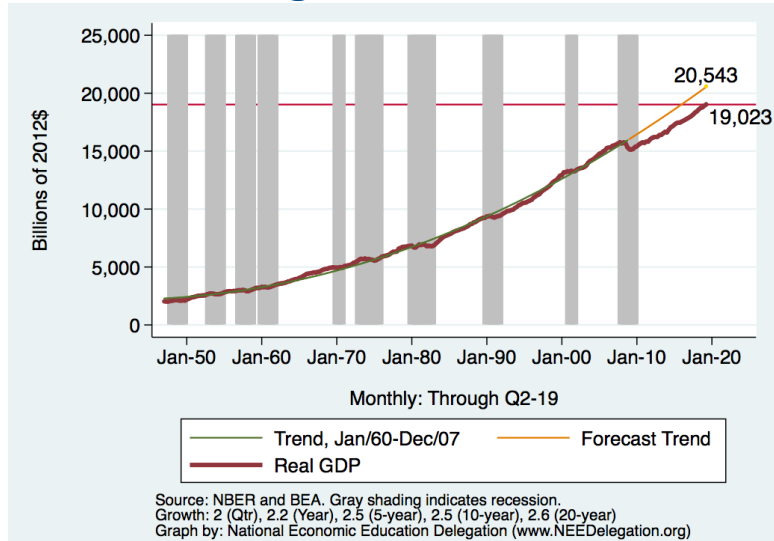
# GDP Trajectory During Economic Recovery



# GDP Growth During Economic Recovery



## GDP Relative to Long-Term Trends



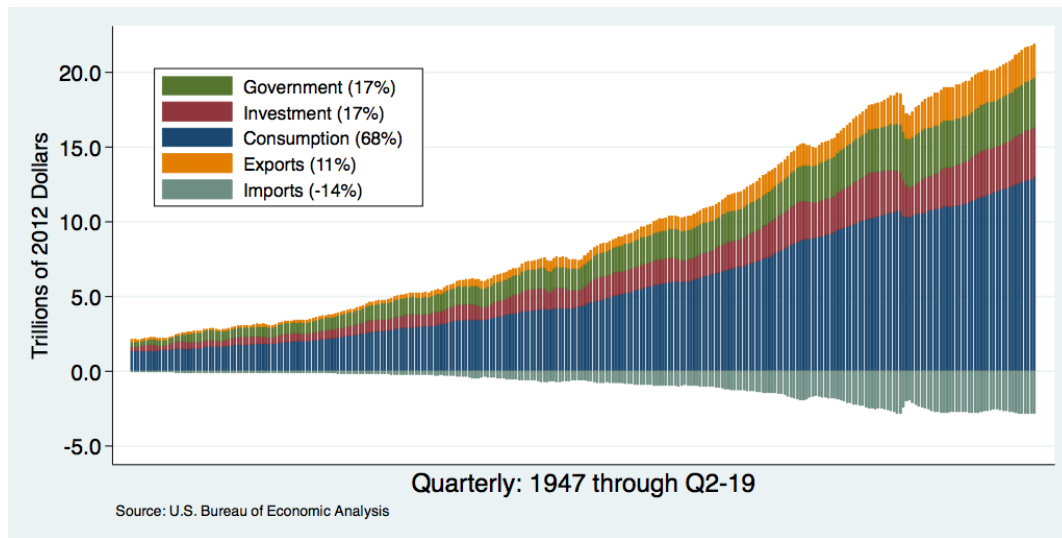
## What Is “Accounting” for the Slow Recovery?

- **Expenditures drive GDP growth.**
  - GDP is the sum of four categories of spending:
    - Consumption
    - Investment
    - Government spending
    - Net Exports: Exports – Imports
- **Production also matters.**
  - Employment
  - Productivity

## A Note on Imports and GDP

- **GDP = Consumption + Investment + Government + Net Exports**
  - Net Exports = Exports – Imports
- **Give the impression that IMPORTS are bad for GDP**
  - They are not.
  - They are merely subtracted from the equation because the measurement of consumption, investment, and government all include imports.
- **Calculating Gross DOMESTIC Production must exclude IMPORTS**
  - It is merely an accounting identity.

## Composition of GDP – Inflation Adjusted



## Composition of GDP

- Slow growth in any of these categories will slow overall GDP growth.
- How does each component contribute to GDP growth pre- vs. post-recession?
- What explains current trends in each component?



## Understanding Contributions to GDP Growth

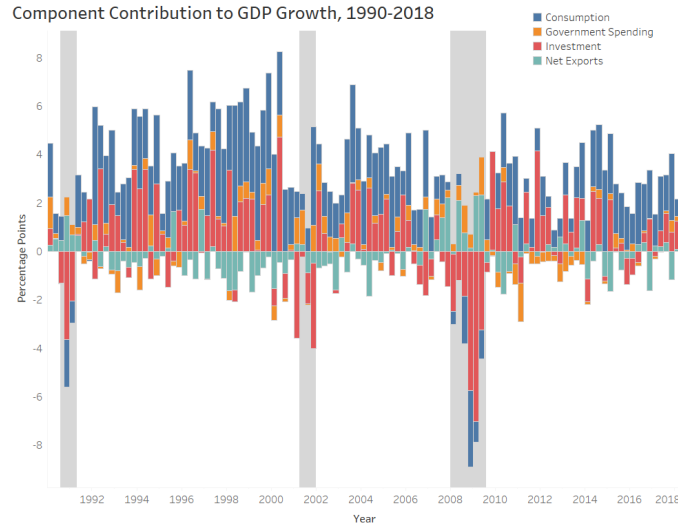
- **GDP Growth is a combination of the growth in its components:**
  - Consumption, Investment, Government, and Net Exports
  - It's a weighted average of these components
- **For example: Consumption**
  - If consumption accounts for **2/3** of the economy,
  - If consumption grew by **3%**,
  - It would cause GDP growth to be **2 percentage points** higher than it would otherwise be

$$2\% = 2/3 * 3\%$$

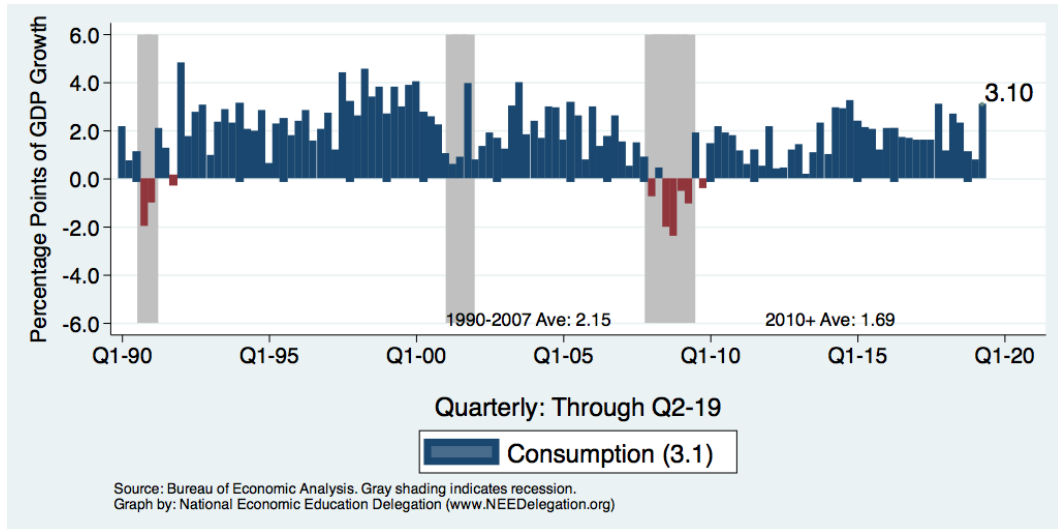




# Contributions to GDP Growth

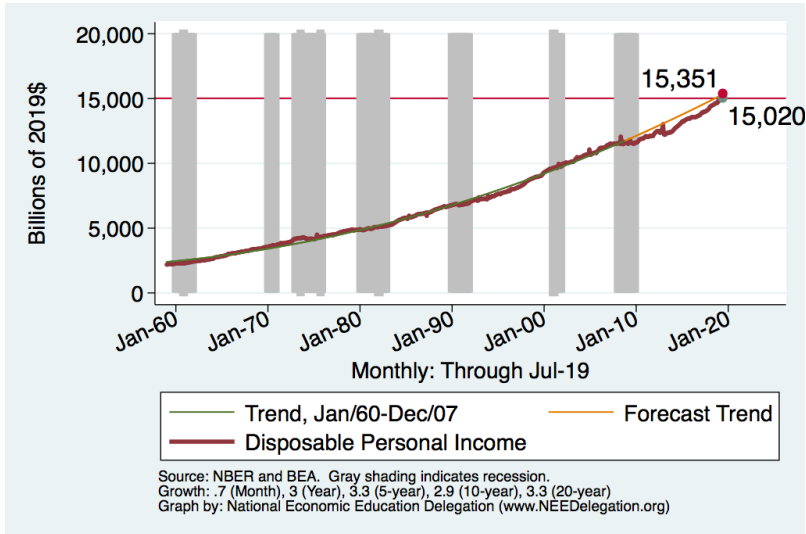


# Contribution to GDP Growth: Consumption

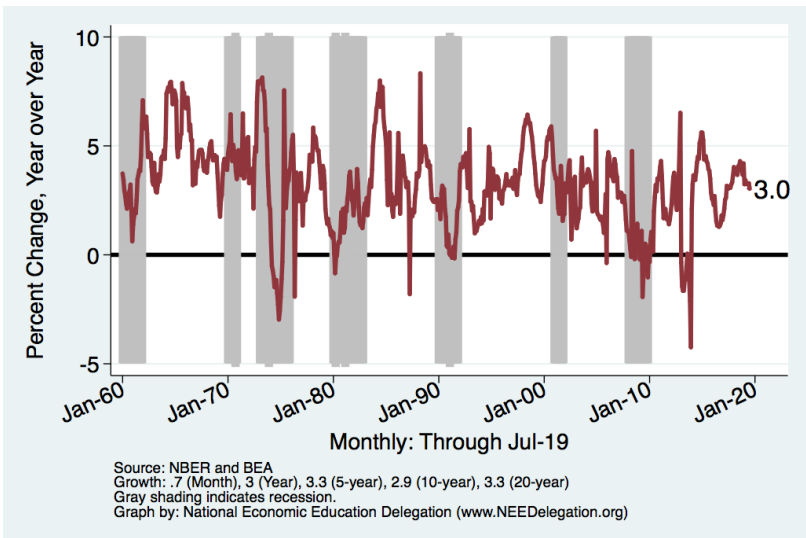


Source: Bureau of Economic Analysis. Gray shading indicates recession.  
Graph by: National Economic Education Delegation ([www.NEEdelegation.org](http://www.NEEdelegation.org))

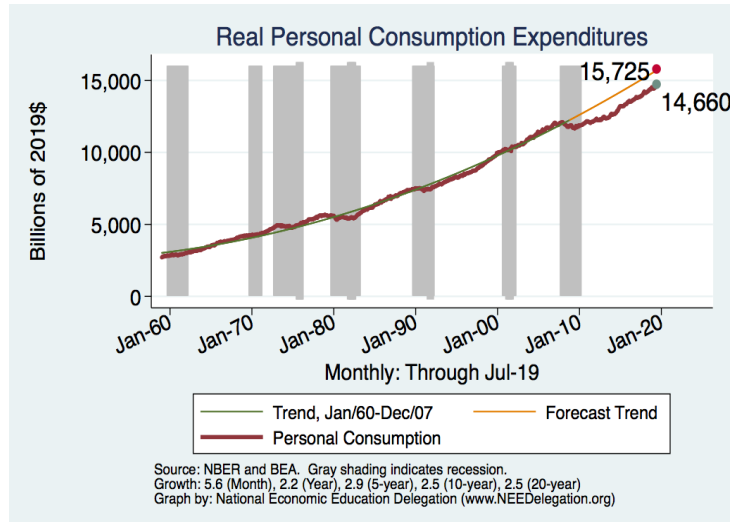
## Real Disposable Personal Income



## Real Disposable Personal Income - Growth



## Personal Consumption Expenditures



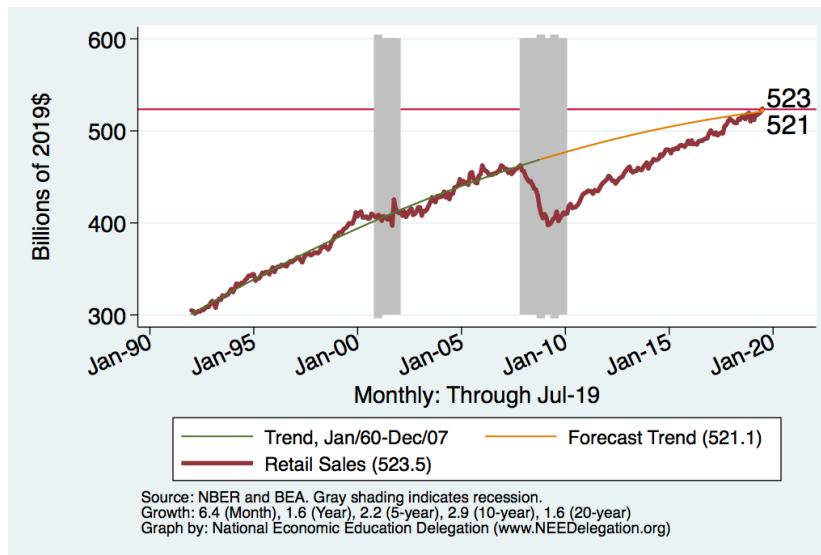
## Personal Consumption Expenditures

- **Consumption has been slow to recover.**
  - Pre-crisis average contribution of consumption expenditures is 2.15 percentage points.
  - Post-crisis contribution is 1.64 percentage points.
- **In other words, its contribution to GDP growth is down 24%.**

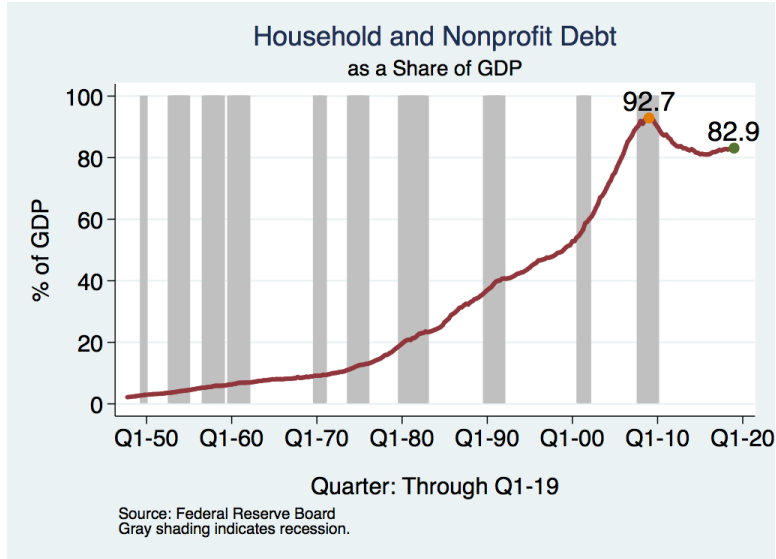
## Explaining Consumption Expenditures

- Retail sales, household debt, and personal savings help explain changes in consumption expenditures.
- Lower levels of retail sales and household debt and higher savings should be correlated with lower levels of consumption expenditure.

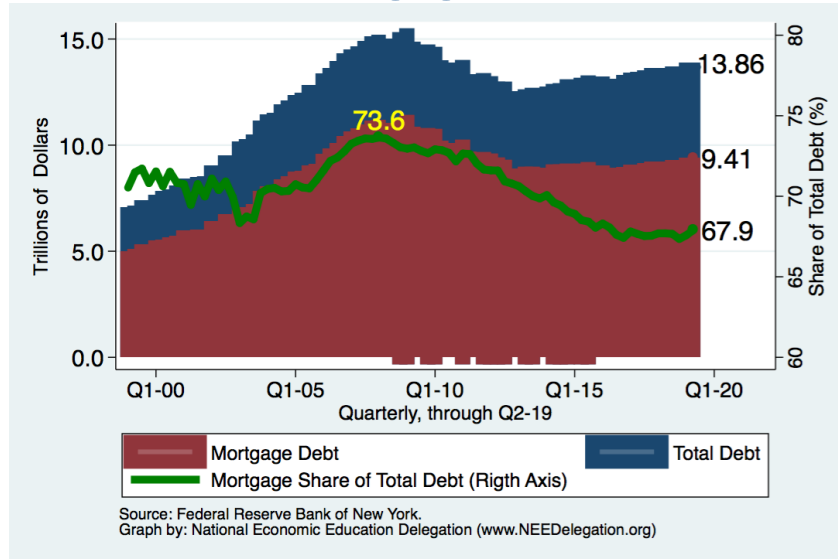
## Retail Sales



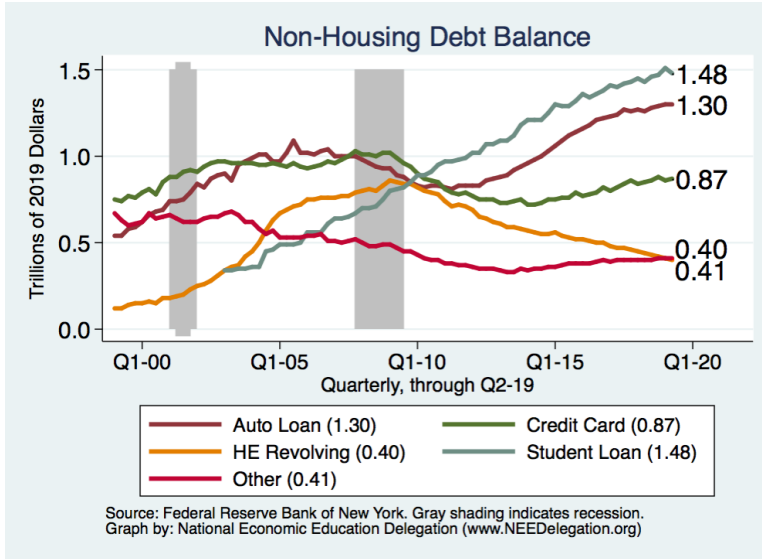
# Household Debt as a Share of GDP



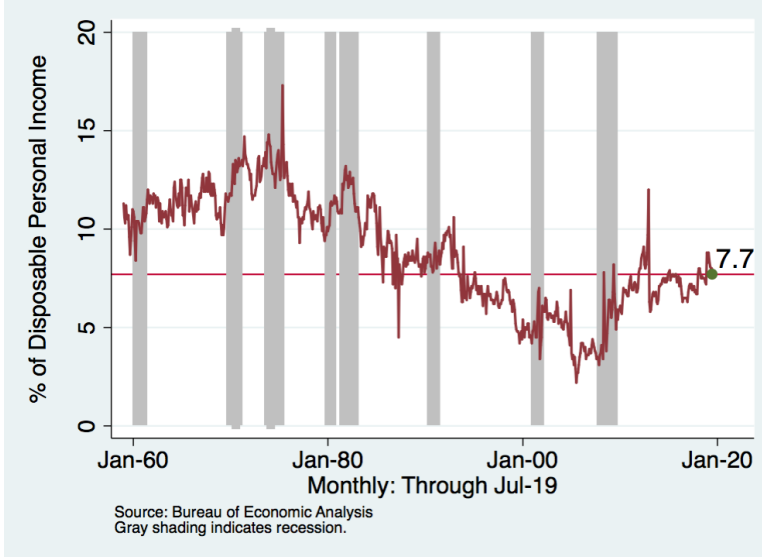
# Household Debt: Mortgages



# Household Debt: Other Sources



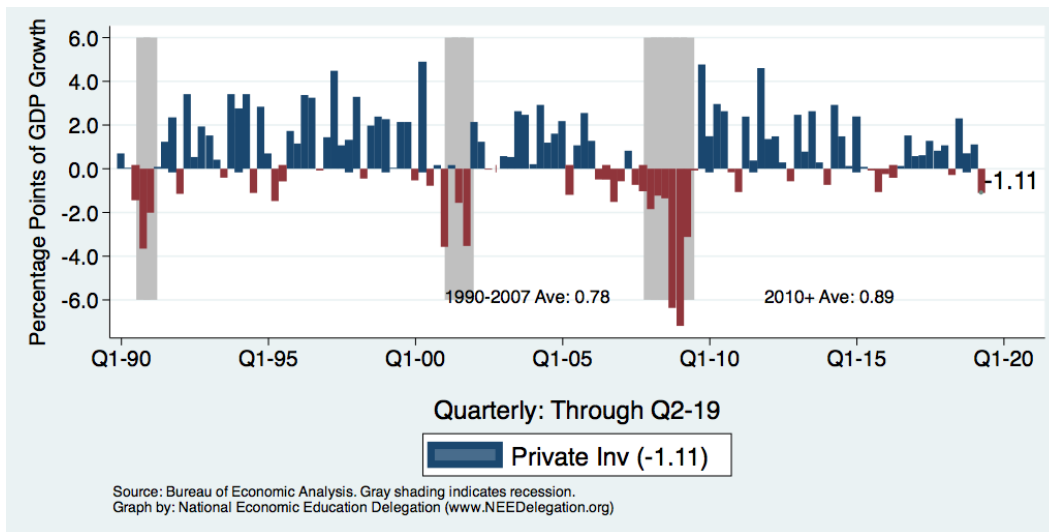
# Personal Savings



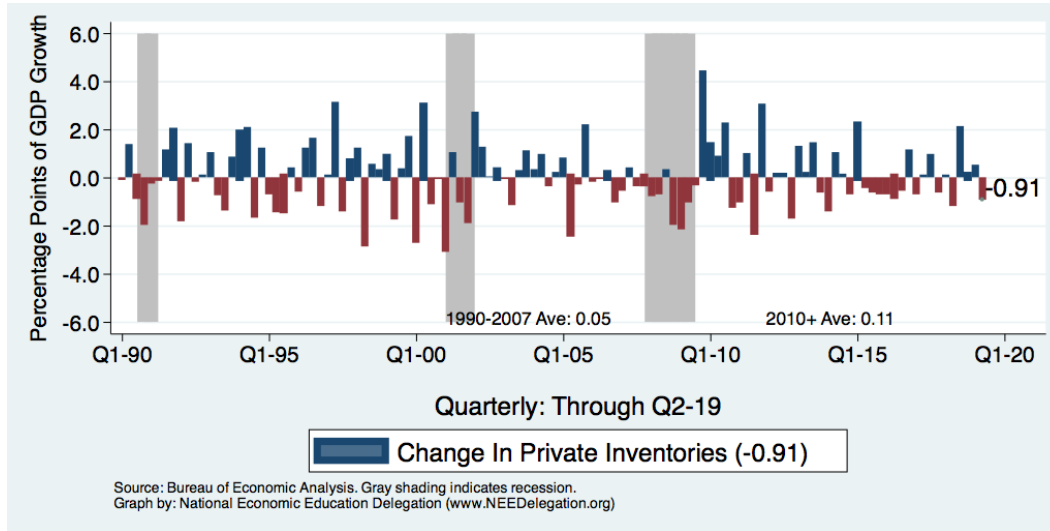
# Investment Expenditures

- Investment expenditures are composed of residential and non-residential spending.
- Residential spending refers to purchases of new homes.
- Non-residential spending refers to capital purchases and new inventory accumulation.
  - Tools, machinery, new factories, commercial real estate.

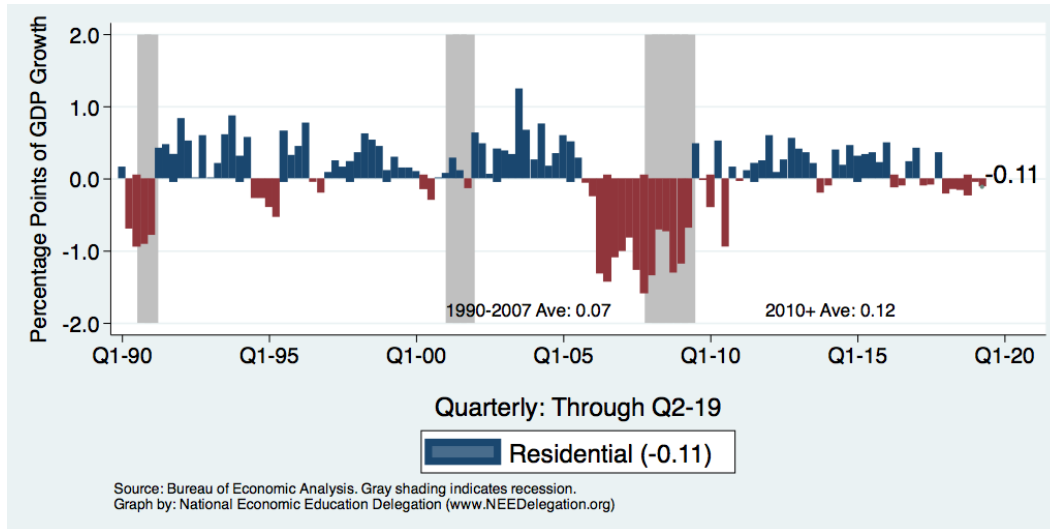
# Contributions to GDP: Private Investment



## Contributions to GDP: Change in Inventories

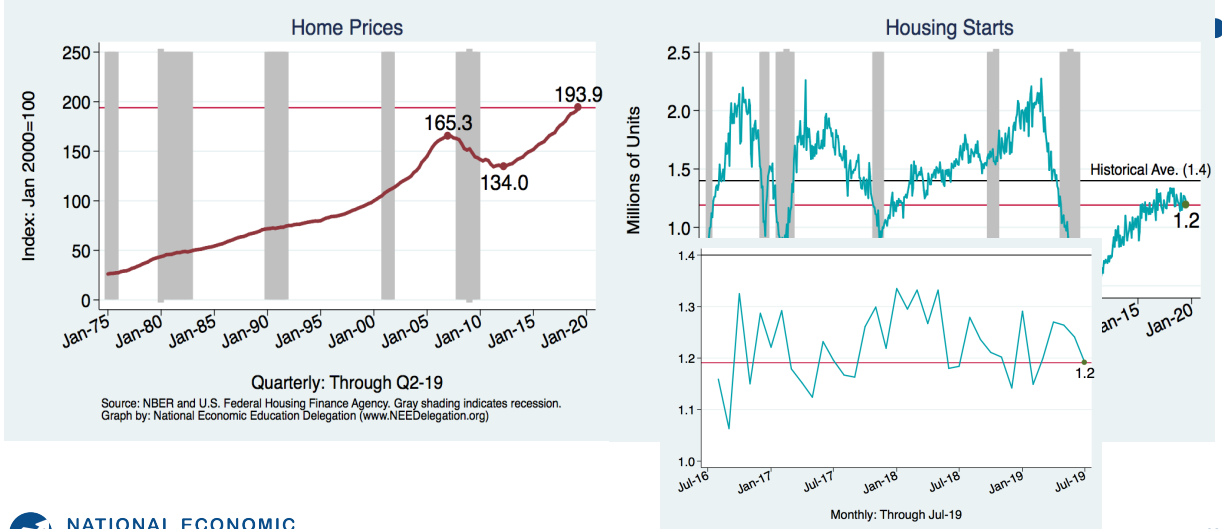


## Contributions to GDP: Residential Investment

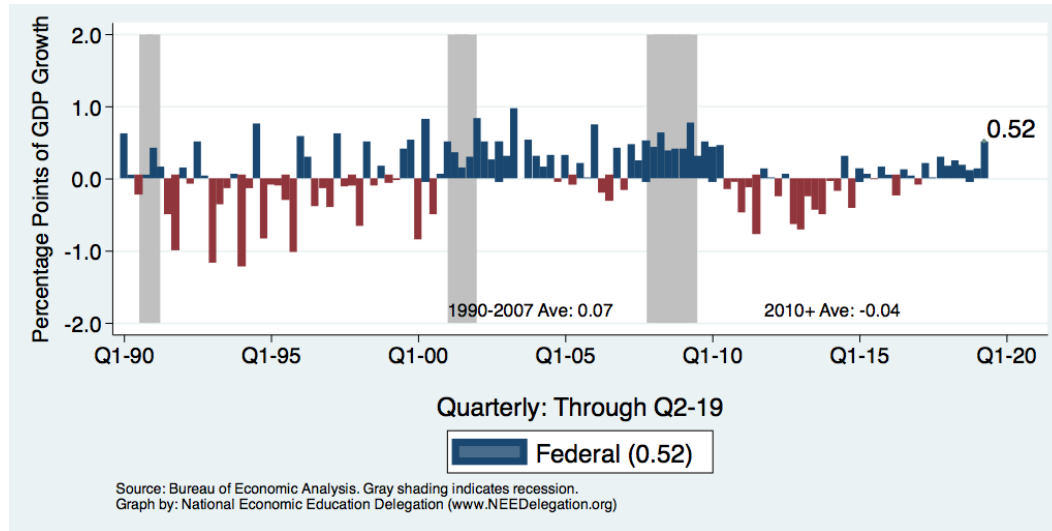




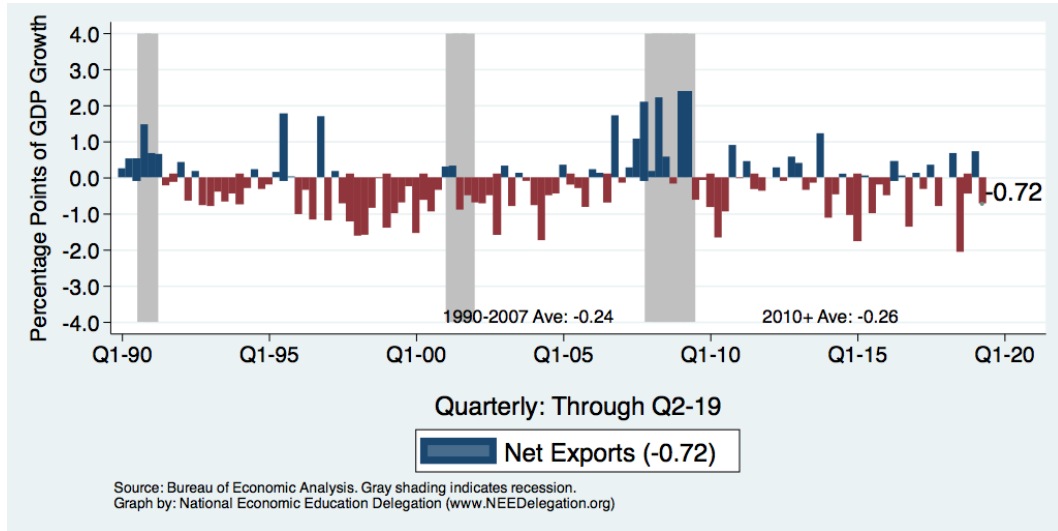
# Home Prices and Housing Starts



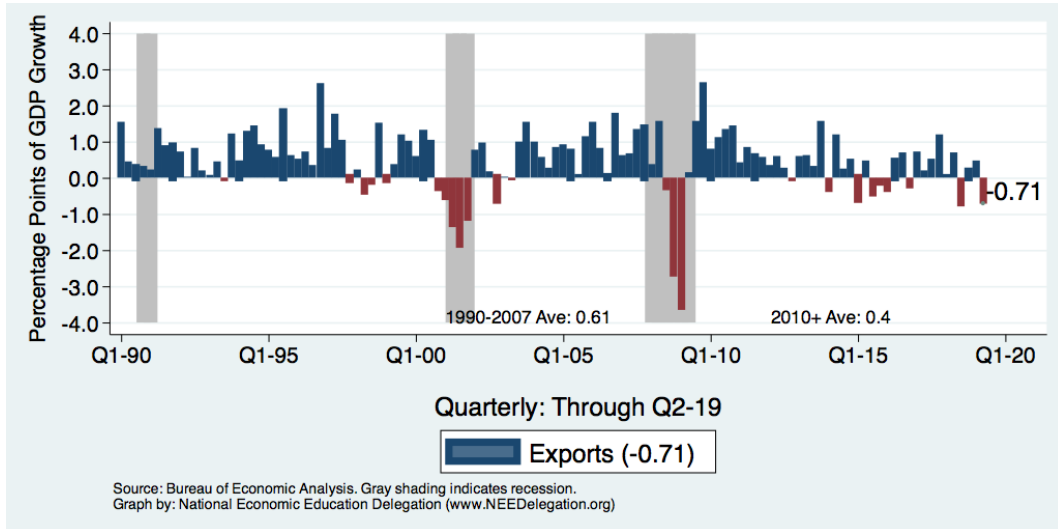
# Contributions to GDP: Government



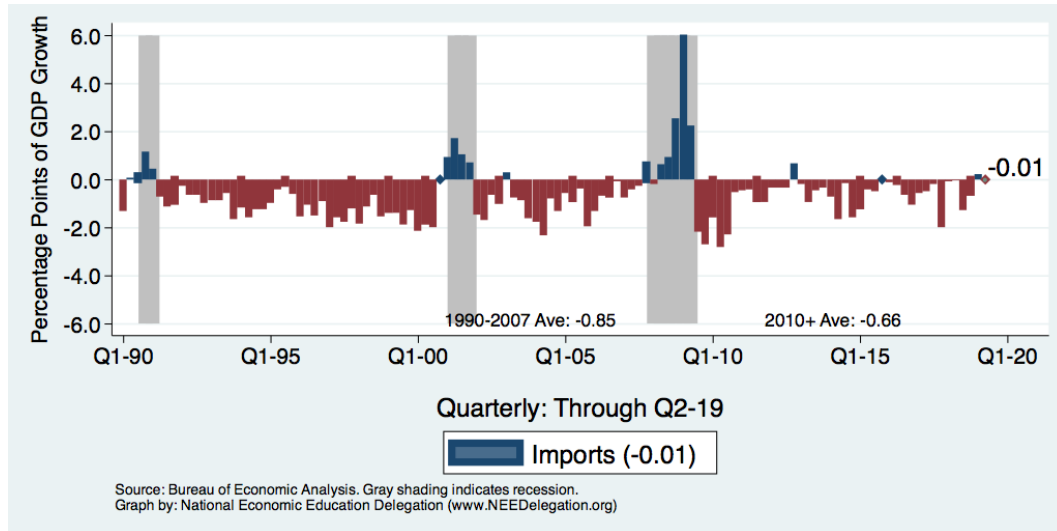
## Contributions to GDP: Net Exports



## Trade's Contribution to GDP: Exports



## Trade's Contribution to GDP: Imports



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## Expenditure Summary

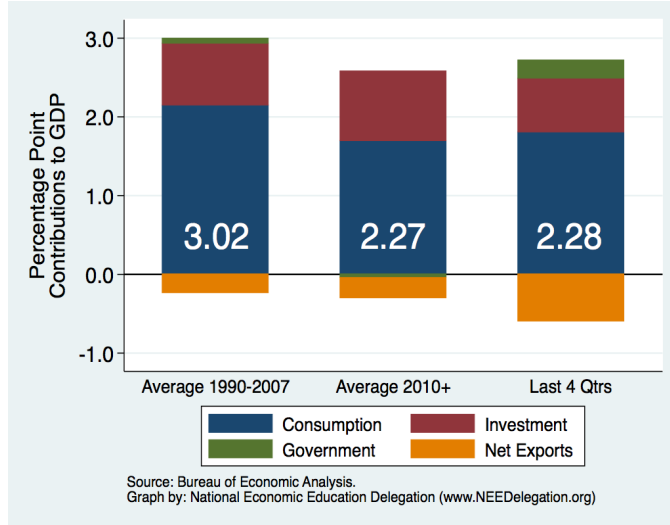
- **Post-recession consumption is down:**
  - Retail sales are returning to trend;
  - Household debt down, but climbing;
  - Personal savings is up.
- **Investment expenditures are contributing more to GDP growth.**
- **Post-recession government spending is down:**
  - But starting to pick up.
- **Net exports are relatively unchanged.**



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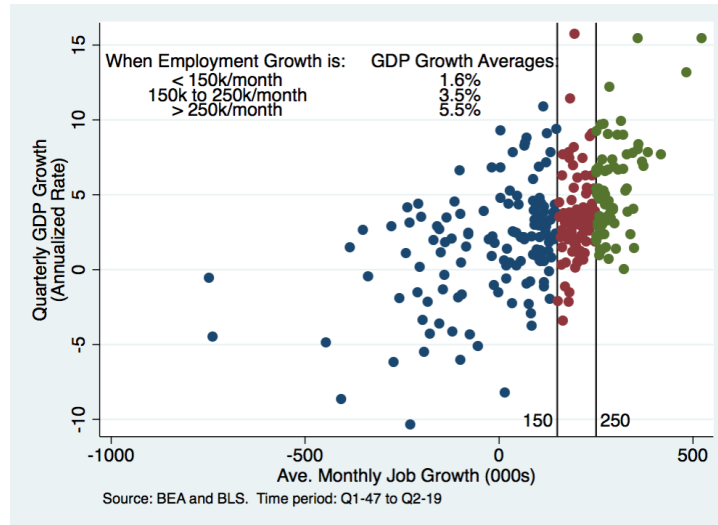
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# Expenditure Summary



# Labor Market

## GDP Growth and Employment Changes



## Production and Employment

- In addition to the previously discussed components of GDP, the labor market is an important indicator of the health of the U.S. economy.
- We'll focus on employment and productivity.
  - Trends in employment and labor force participation.
  - Trend in labor productivity.

## Labor Market Conditions

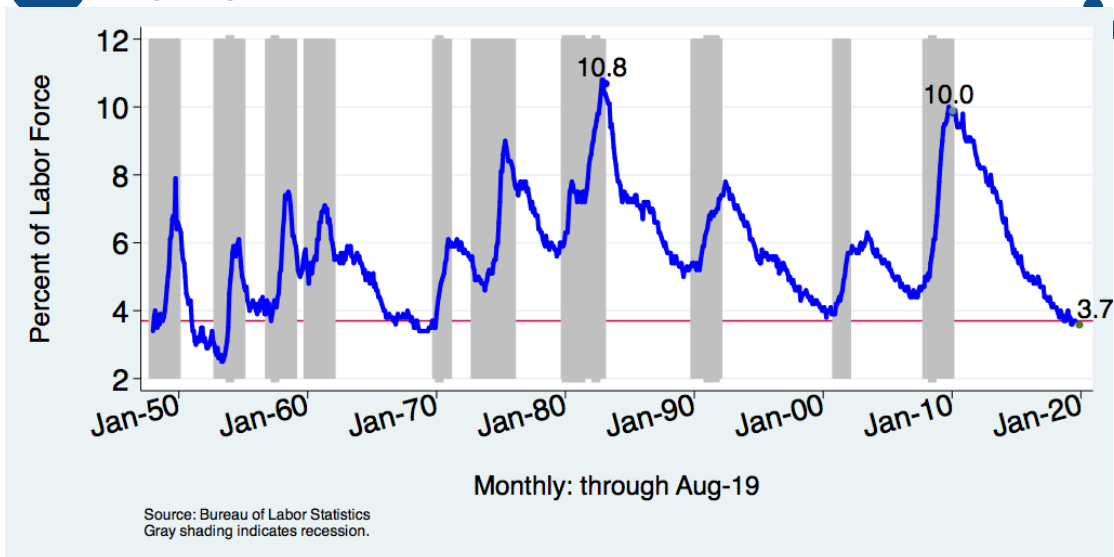
- Unemployment rate is low, 3.7%, a level not seen since the 1960s.
- Natural rate of unemployment is estimated to be 4.5% - 5.5%.
- Monthly employment gains have averaged 141,000 jobs over the last six months.
  - This measure has been declining throughout 2019.
- **Recent Labor Market Concerns:**
  - Low employment-to-population ratio
  - Falling labor force participation
  - Slow wage growth



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## Unemployment Rate



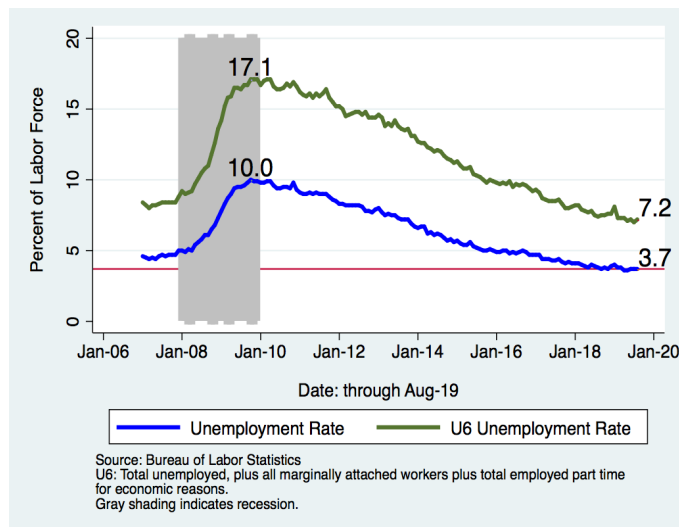
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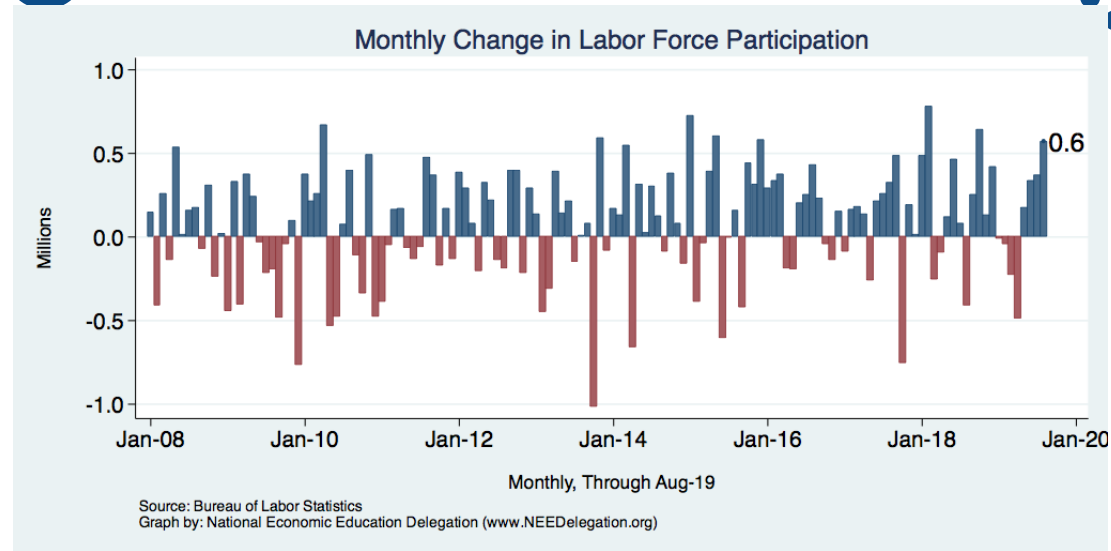
# How is the Unemployment Rate Calculated?

- It is not a simple thing: 
$$UR = \frac{\# \text{ Unemployed}}{\text{Labor Force}} * 100$$
- Why is that not simple?
  - Because it can go up or down for a variety of reasons:
    - o If the labor force shrinks – UR goes down
    - o If employment grows – UR goes up
  - Not all employment is created equally
- Not a good indicator of the overall well being of the US economy

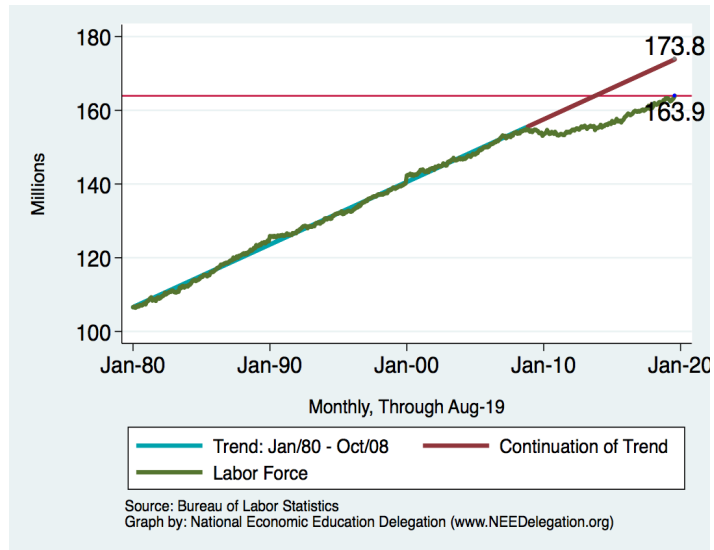
# Unemployment Rate



# UR Driven by Labor Force Participation?

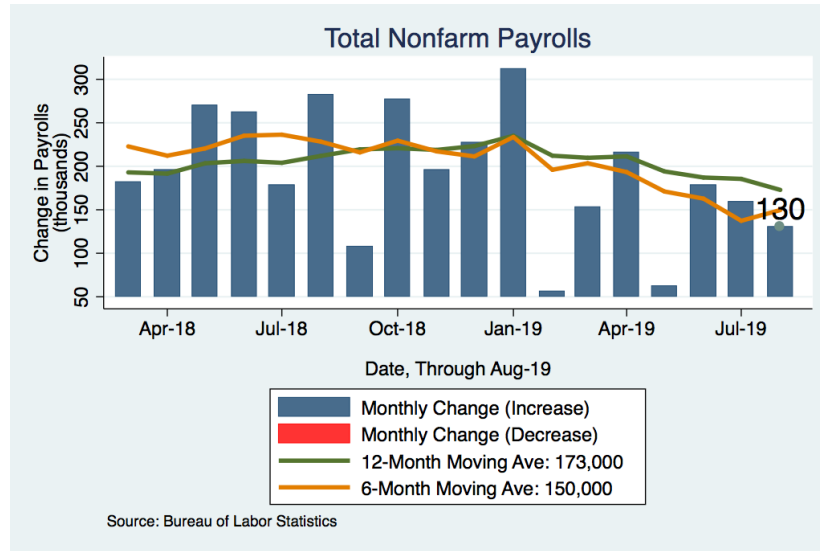


# Labor Force Participation - Below Trend

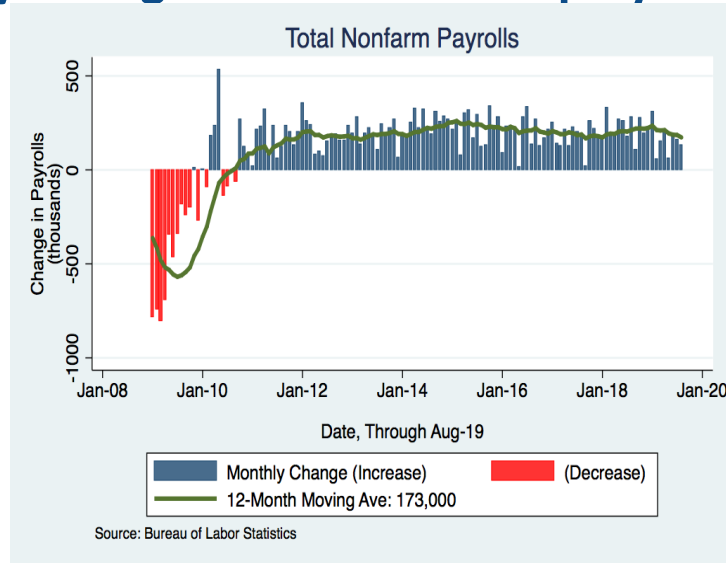




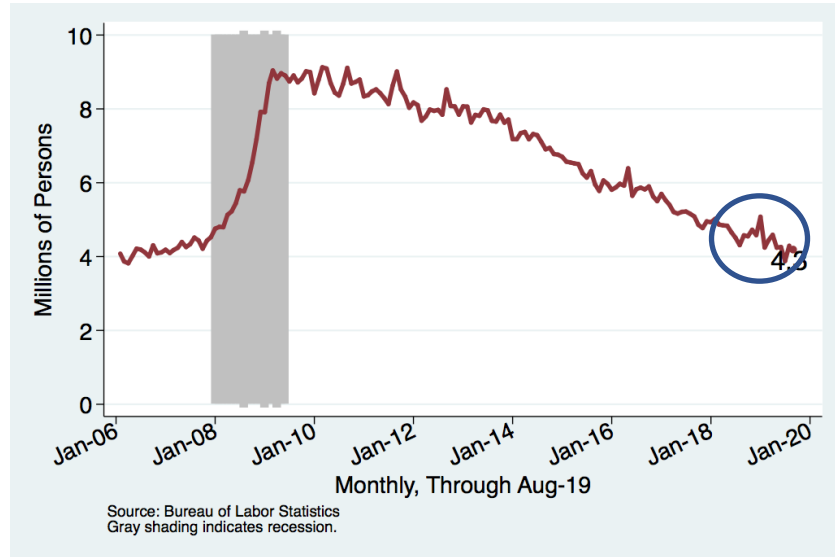
# Monthly Changes in Nonfarm Employment



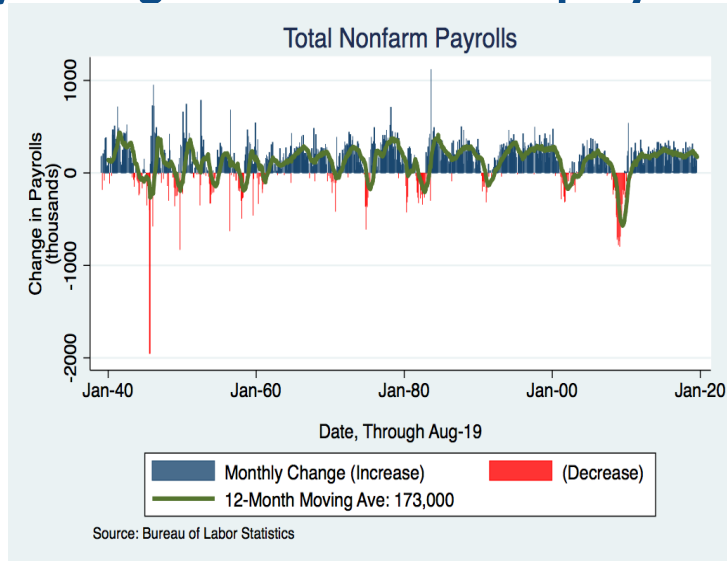
# Monthly Changes in Nonfarm Employment



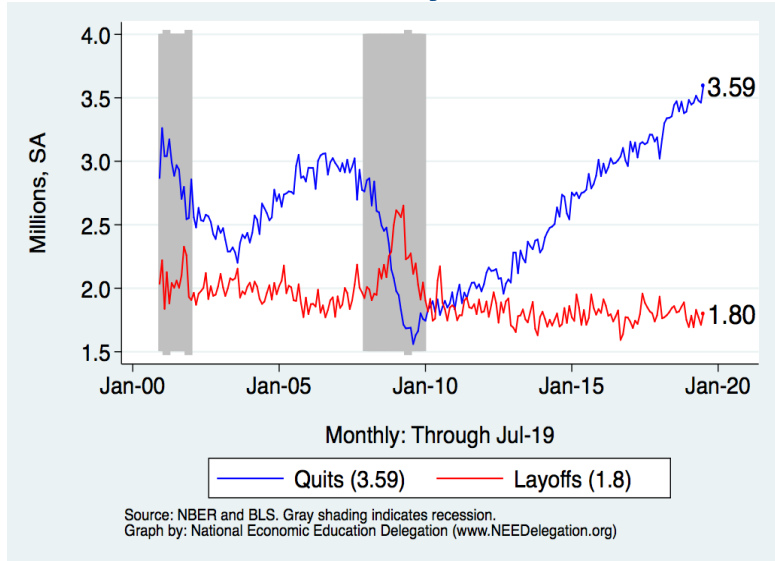
## Part-Time Nonfarm Employment



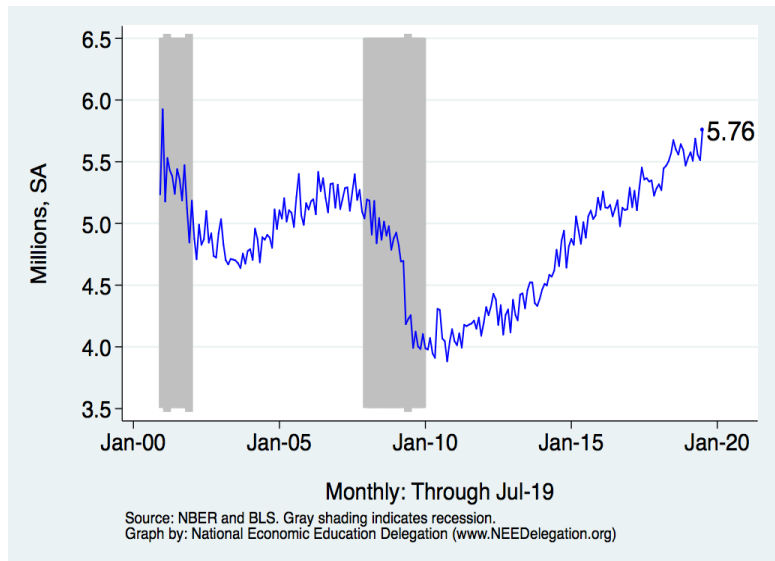
## Monthly Changes in Nonfarm Employment



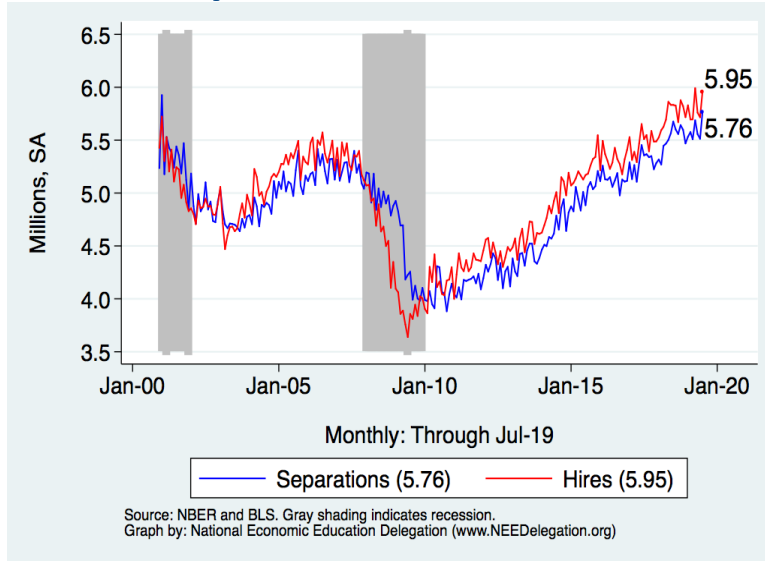
## Separations: Quits and Layoffs



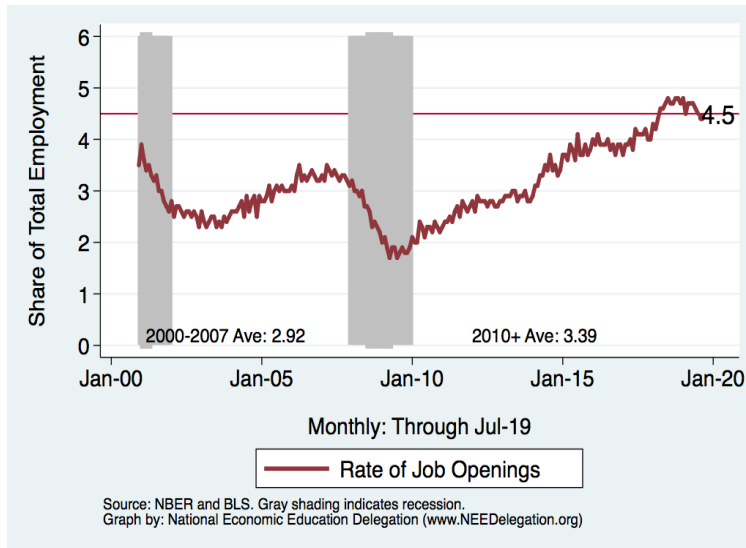
## Job Separations



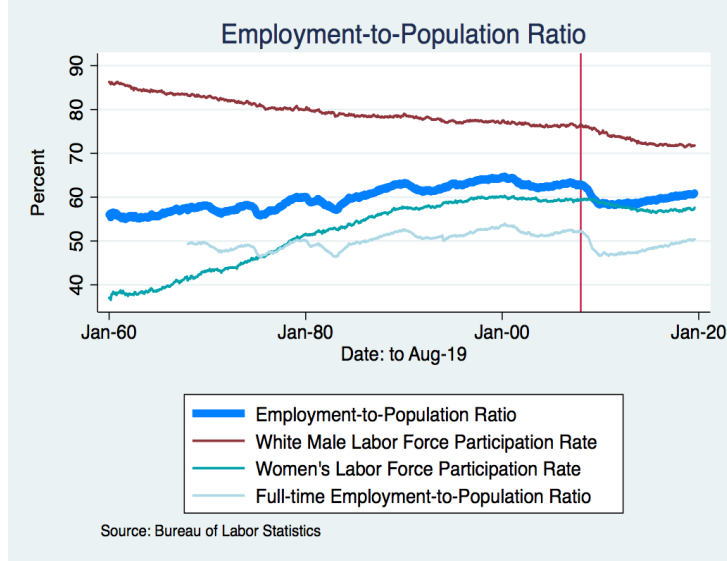
## Job Hires and Separations



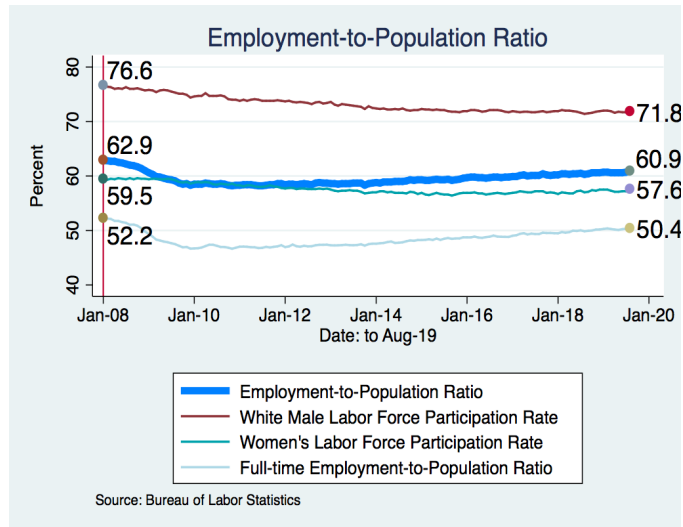
## Job Openings: Share of Total Employment



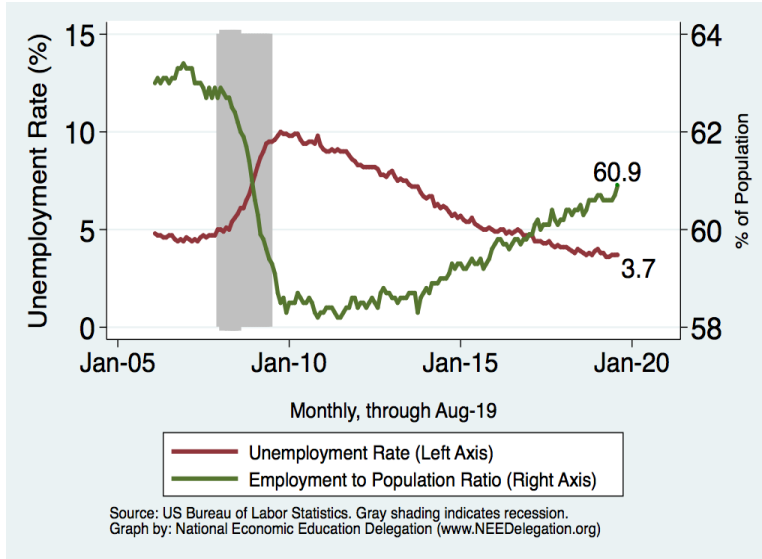
# Employment-to-Population Ratios



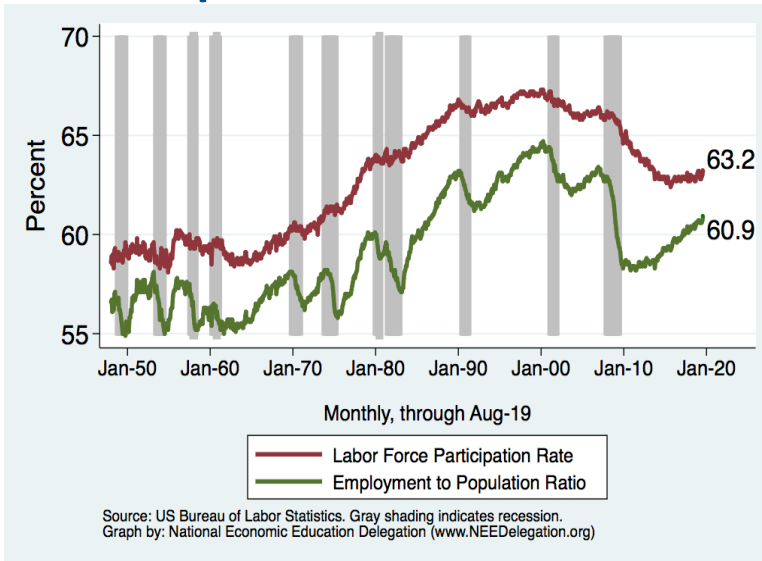
# Employment to Population Ratios – Recent



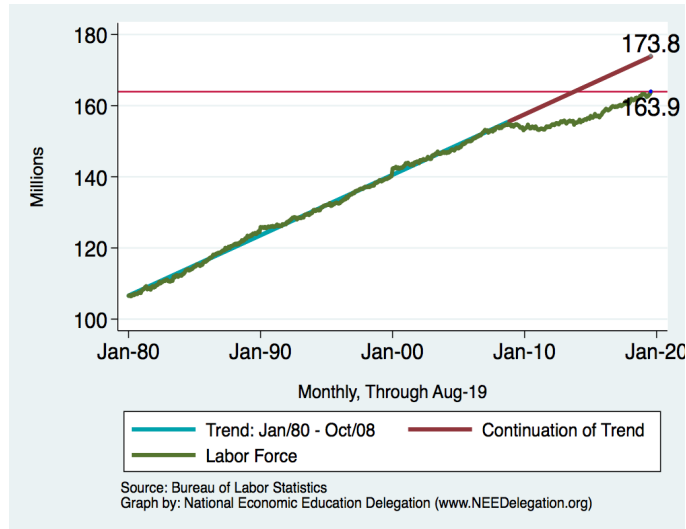
## Slow Employment Recovery



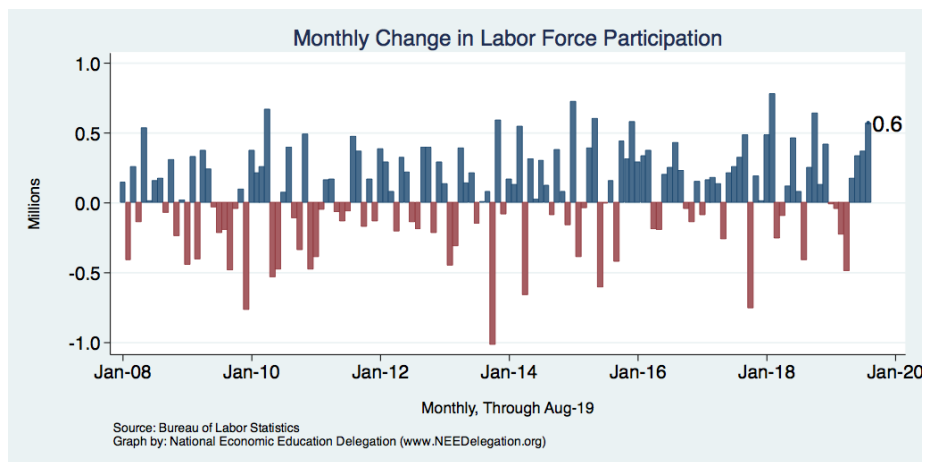
## Labor Force Dropouts



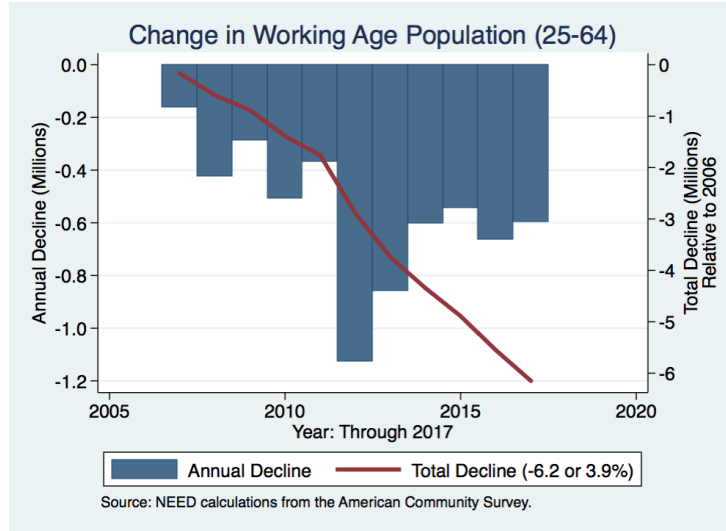
## Trends in Labor Force Participation



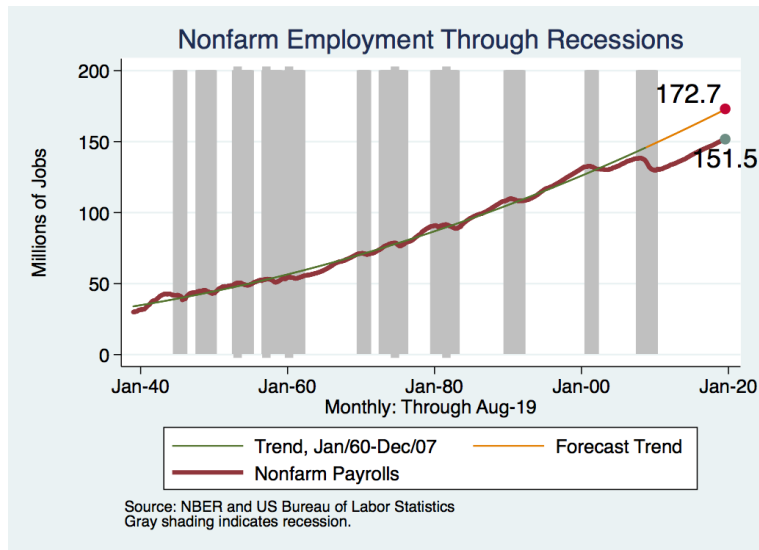
## Labor Force Growth Has Been Uneven



# Baby Boomers Are Retiring!

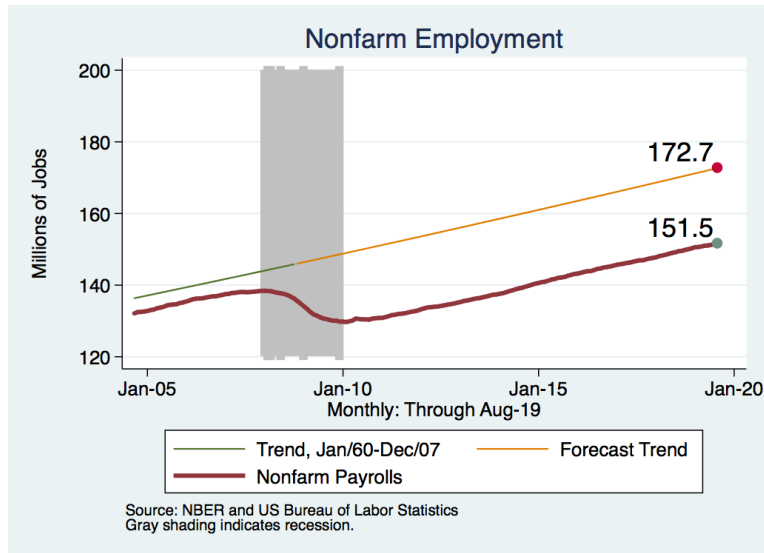


# Employment Growth

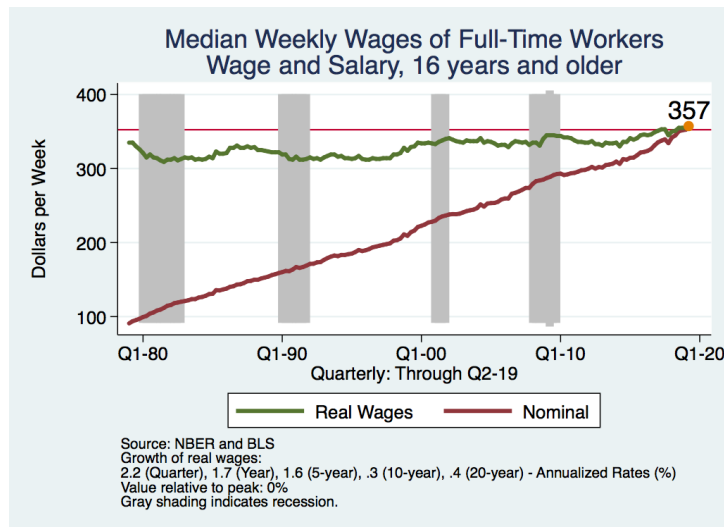




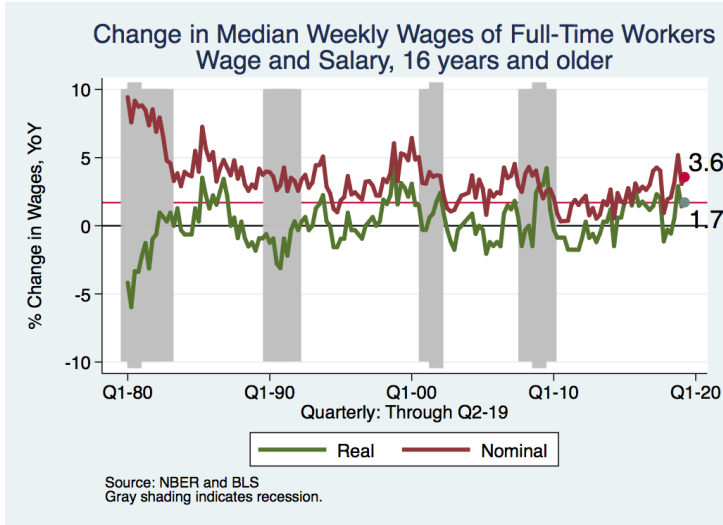
# Employment Gap: Up Close



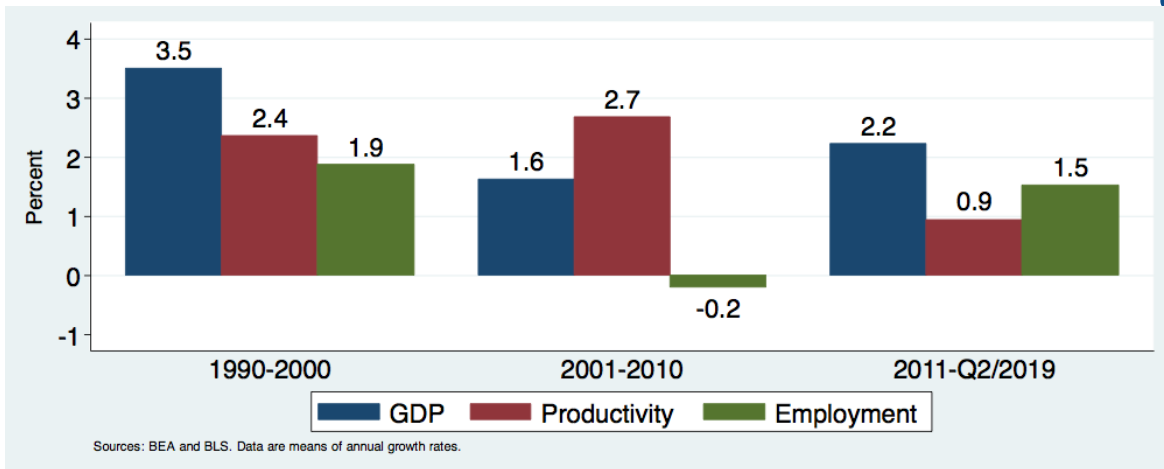
# Wage Growth



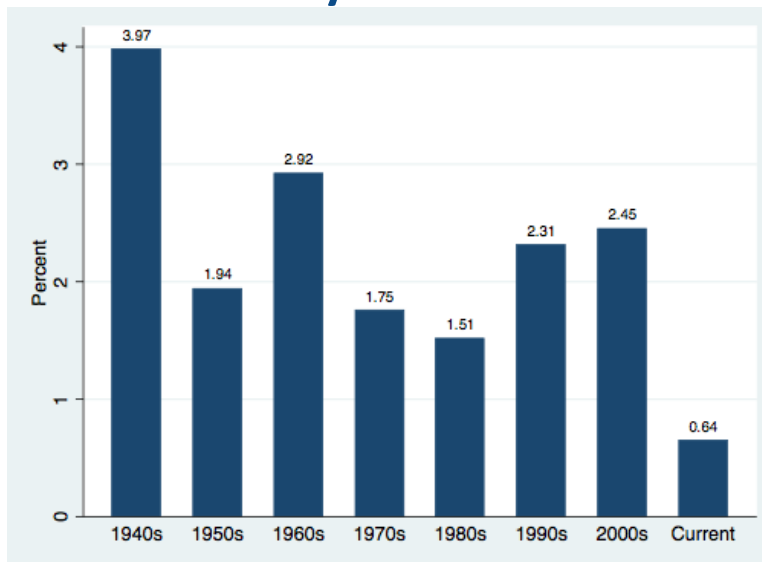
# Wage Growth



# GDP Growth, Productivity, and Employment



## History of Productivity Growth

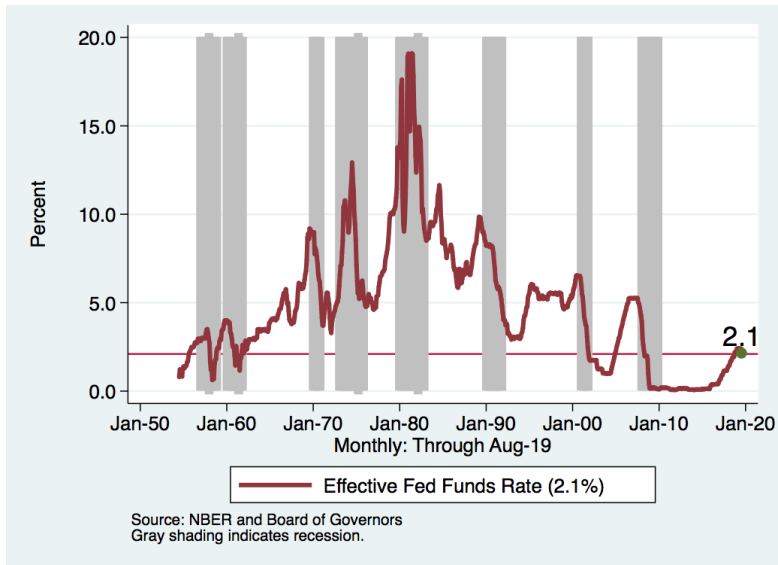


## Summary

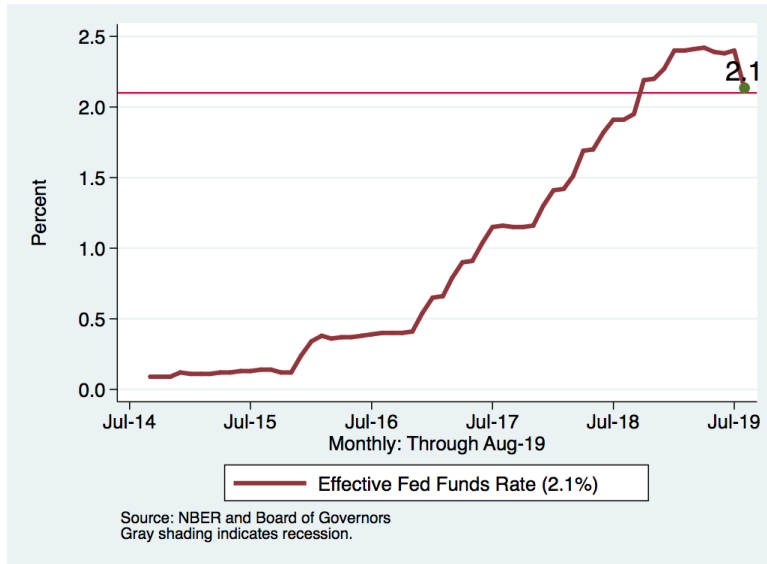
- **GDP growth is primarily fueled by increases in demand for output.**
- **This growth is supported by growth in employment and productivity of the labor force.**
- **Recent years have seen relatively tepid increases in demand for output.**
  - In particular, consumption and government spending have been slow relative to other periods.
- **This tepid growth has led to slow increases in employment.**
  - Although labor markets have tightened, wages have not experienced rapid growth.
- **Productivity growth has played little role in growing GDP.**
  - Why this is so is not immediately clear.

# Monetary Policy

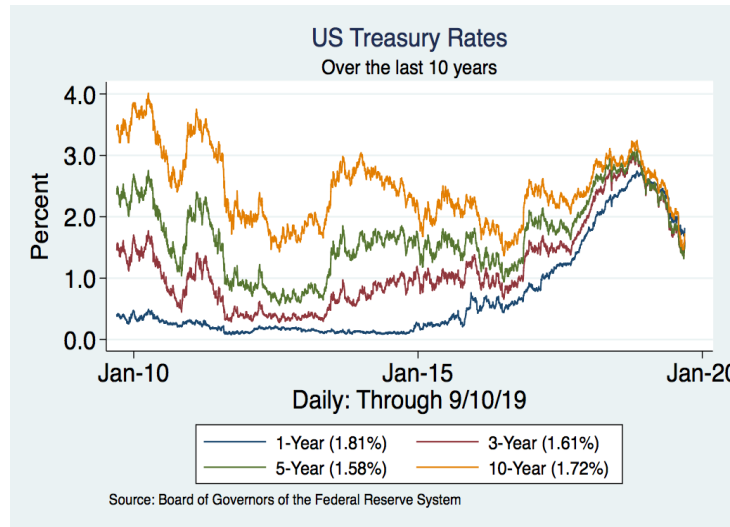
## Federal Funds Rate



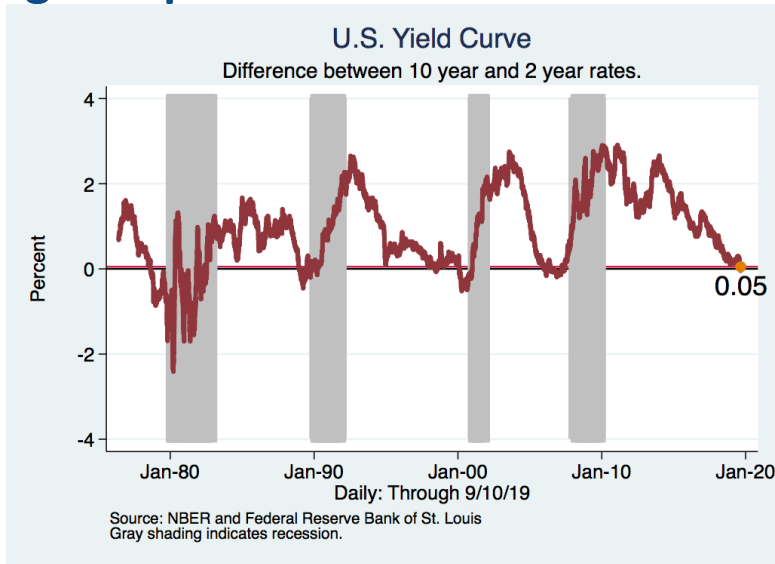
## Federal Funds Rate – Last 5 Years



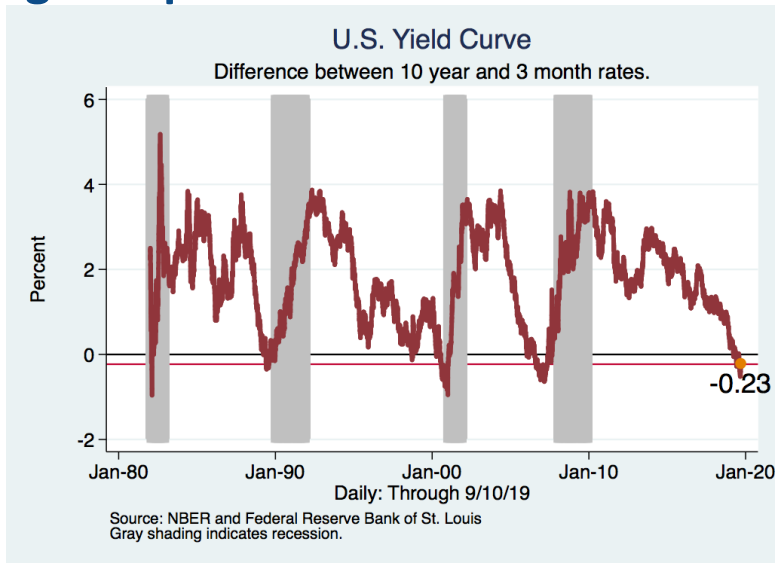
## Treasuries



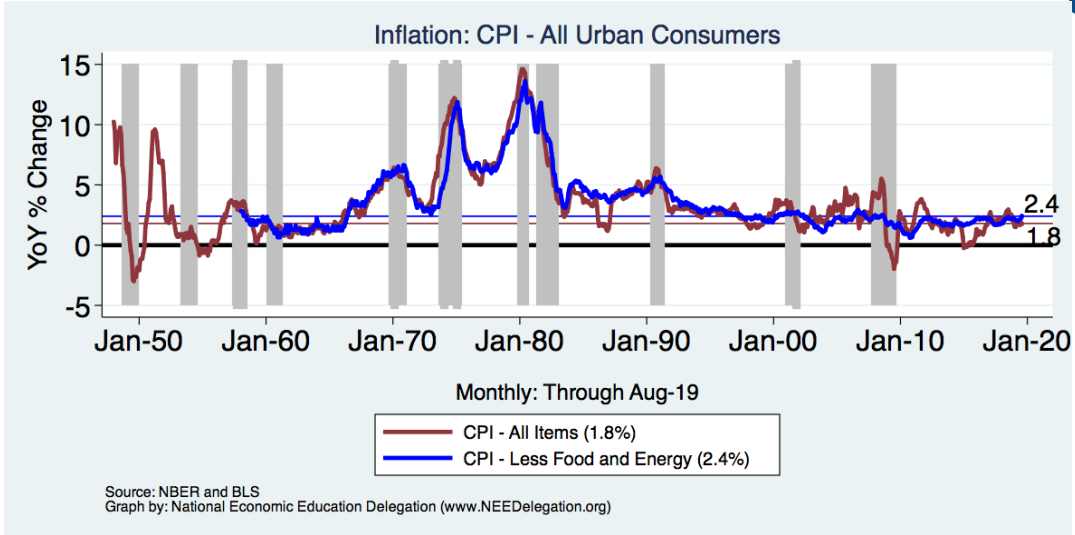
# Alarming Compression of Interest Rates



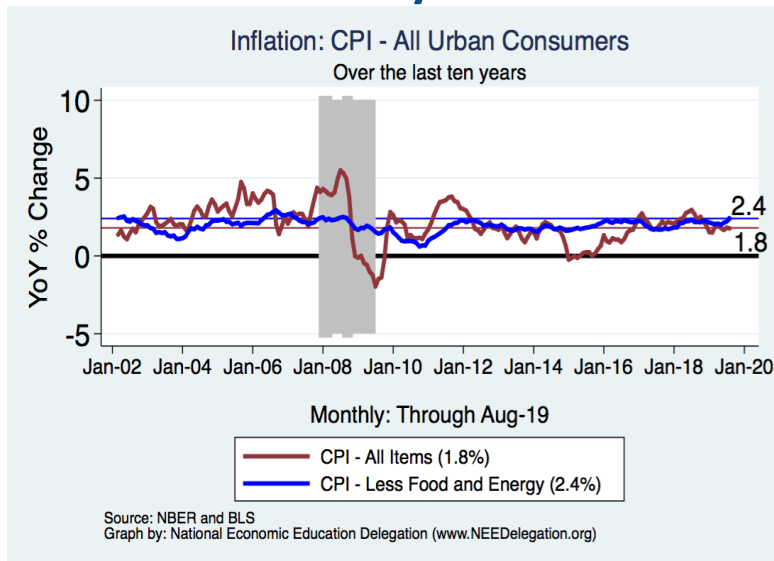
# Alarming Compression of Interest Rates



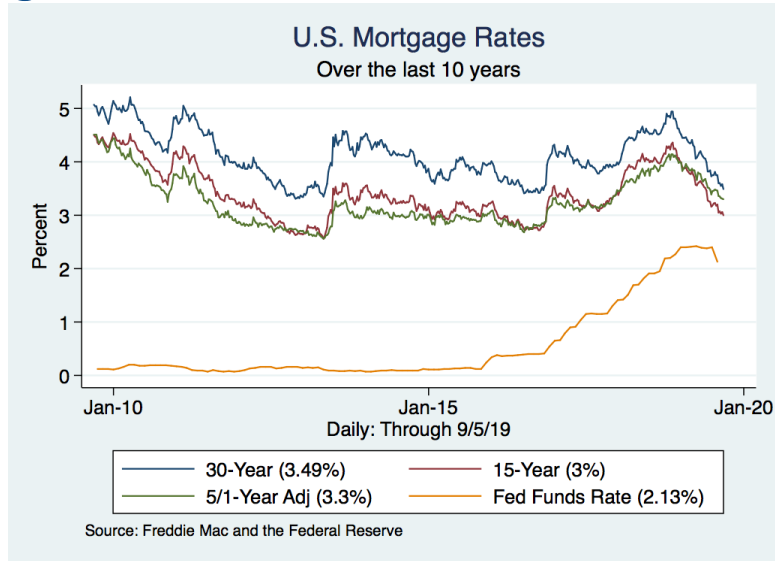
# Inflation



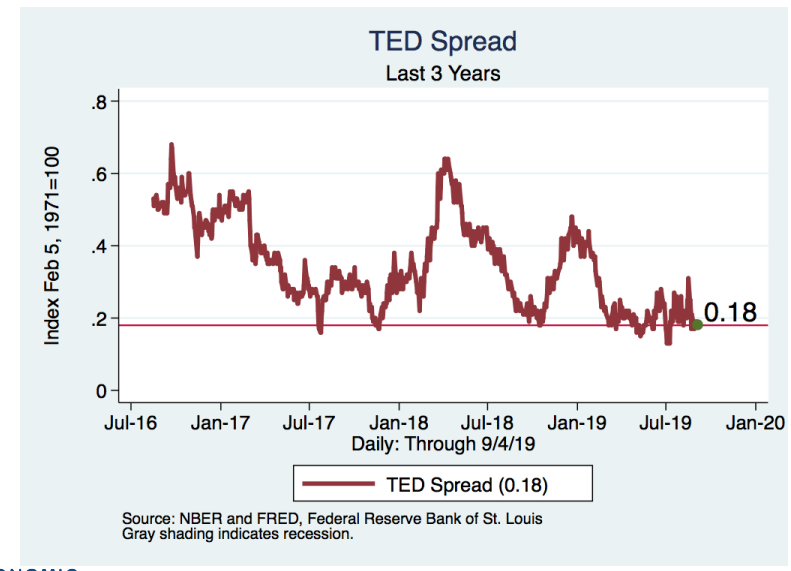
# Inflation – Recent Stability



# Mortgage Rates

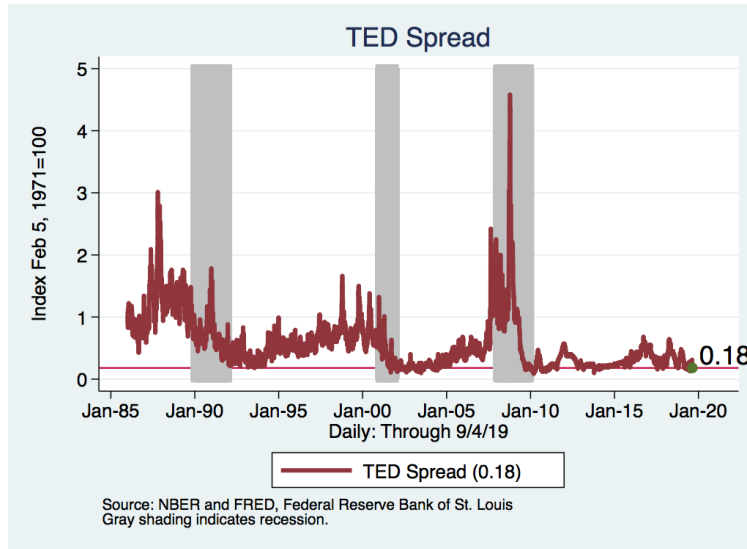


# TED Spread



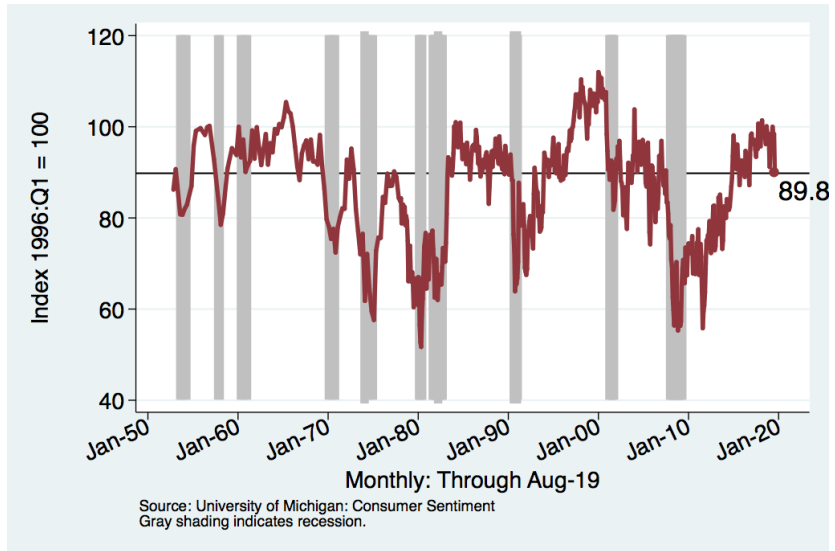


# TED Spread

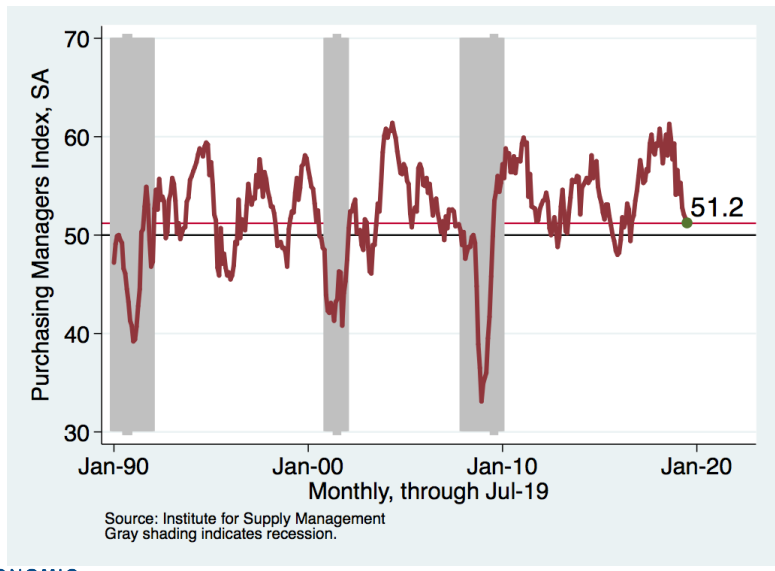


# Other Indicators

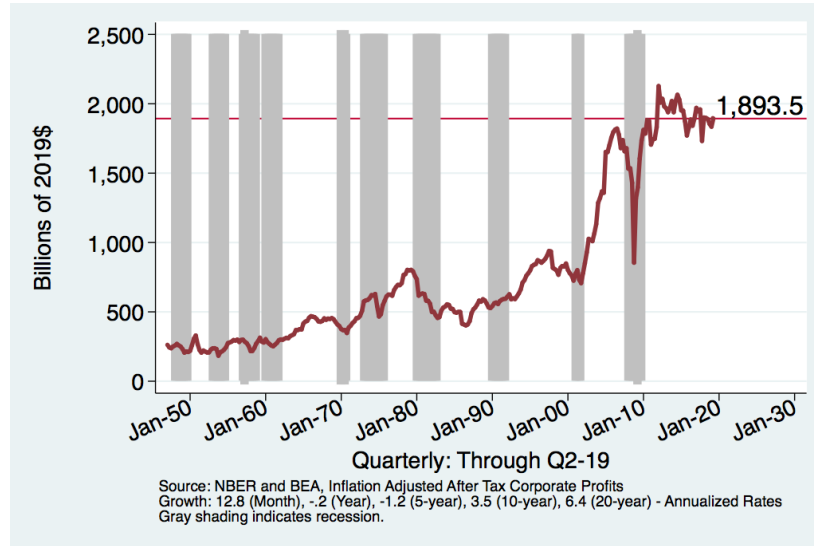
## Consumer Confidence: Waning?



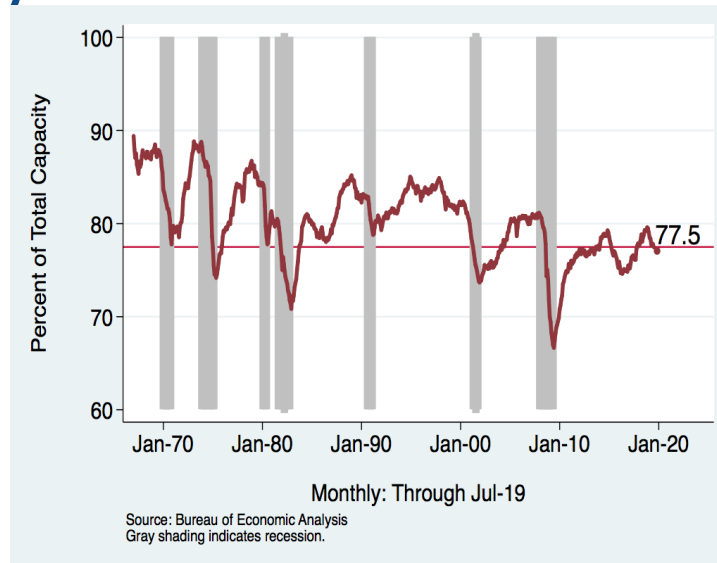
## Producer Confidence: Not What it Used to be!



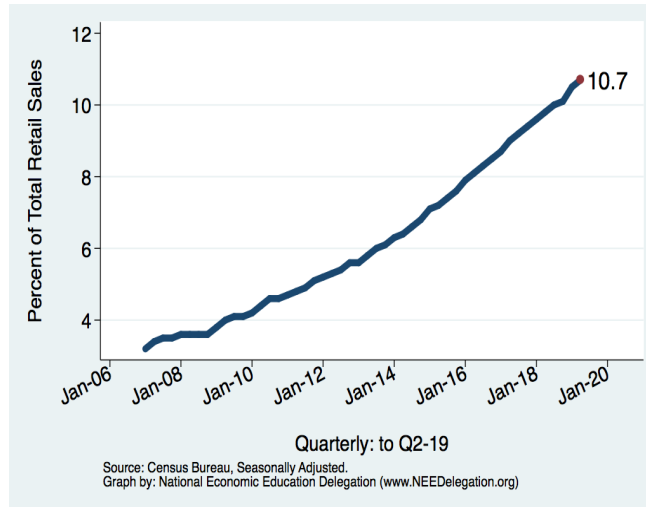
## Corporate Profits – Inflation Adjusted



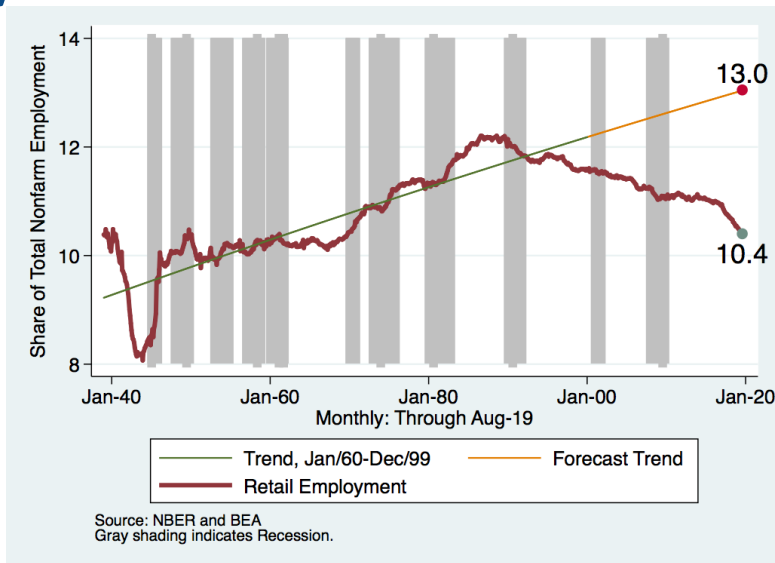
## Capacity Utilization



# E-Commerce Inroads

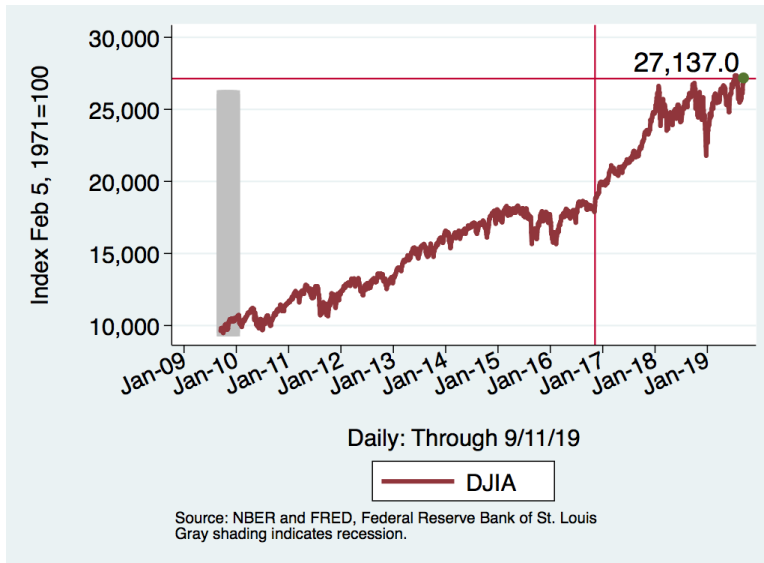


# Employment in Retail Trade

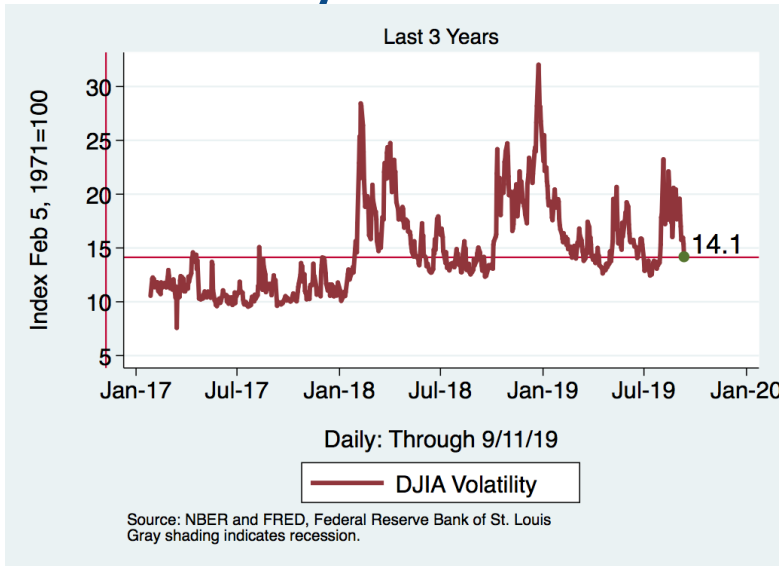


# Stock Markets

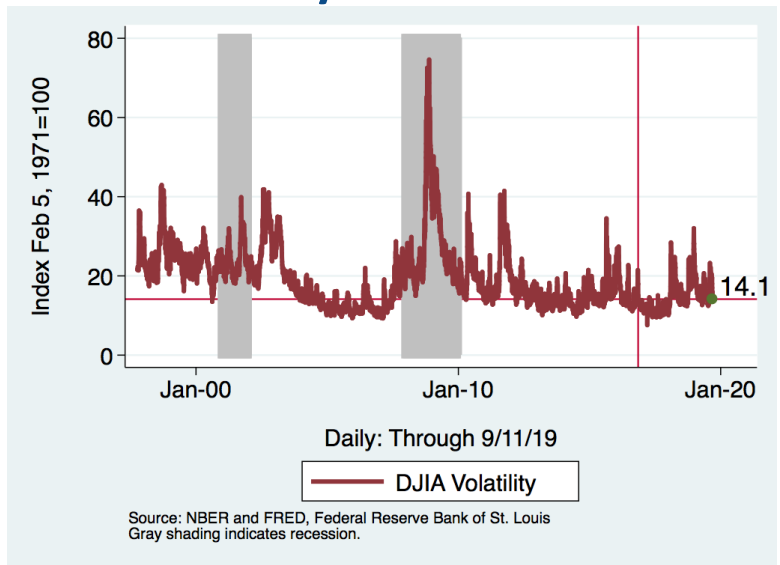
## Dow Jones

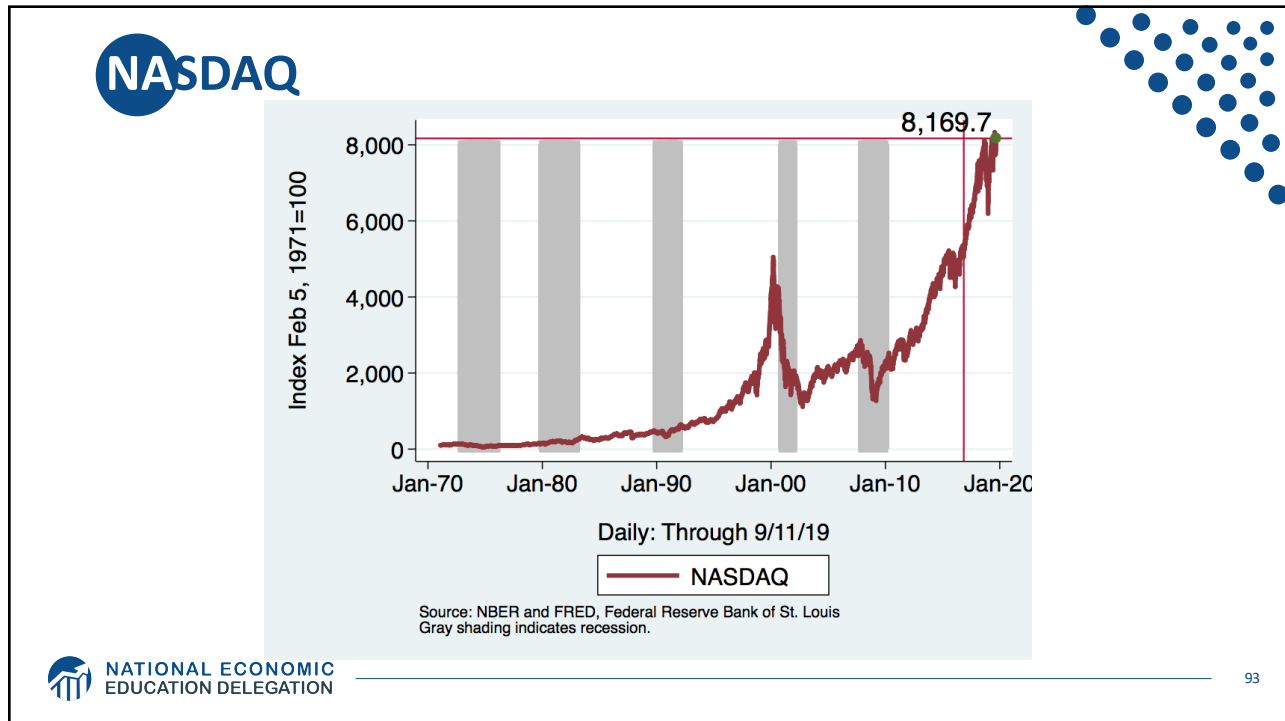


# Dow Jones - Volatility



# Dow Jones - Volatility





**Summary of GDP, Labor Markets and Monetary Policy**

- **Behavior of GDP**
  - Behavior of expenditure components matter.
  - On average, post-recession consumption, government, and export expenditures are contributing less to GDP therefore slowing the recovery.
  - In contrast, investment expenditures are contributing more.
- **Labor Market**
  - Unemployment is low, labor force participation is stagnant
  - Real wages may be starting to grow.
- **Monetary Policy**
  - Interest rates are rising.
  - Policy normalization is underway.

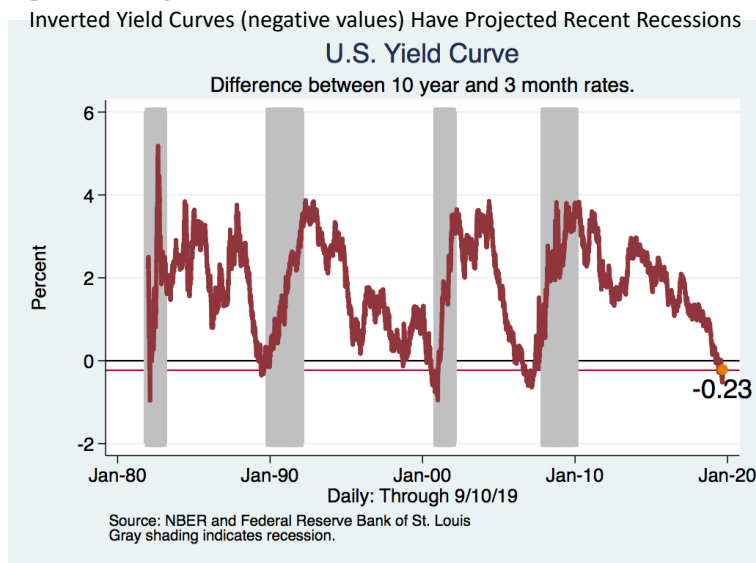
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## Things to Be Worried About

- Yield Curve
- Government Debt
- Growth Abroad
- Income and Wealth Inequality
- Infrastructure
- Savings
- Policy Uncertainty
  - Trade and immigration policy, especially

## Alarming Compression of Interest Rates

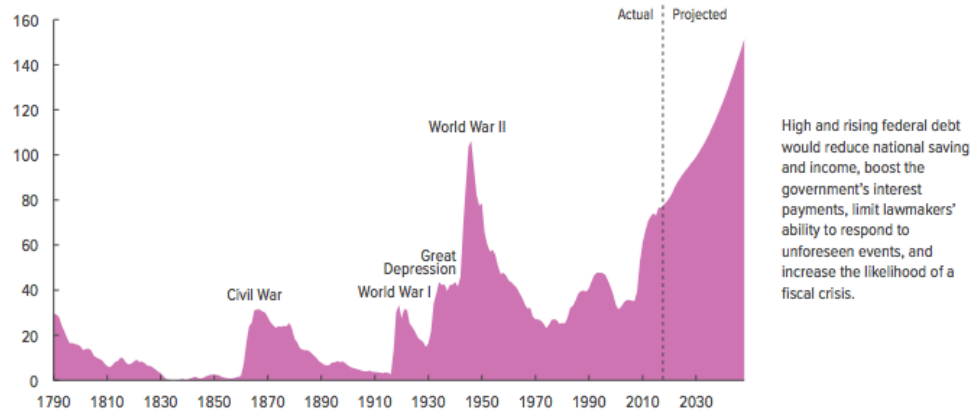




## Federal Government Debt Projections

### Federal Debt Held by the Public

Percentage of Gross Domestic Product



High and rising federal debt would reduce national saving and income, boost the government's interest payments, limit lawmakers' ability to respond to unforeseen events, and increase the likelihood of a fiscal crisis.

Source: Congressional Budget Office.



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## Cautious Outlook

- Job growth remains robust
- Labor force is in decline
- Wage growth, but not too much
- Business investment is robust, but will uncertainty bite?
- Inflation and interest rates remain favorable
- Potential source of concern:
  - Auto and light truck sales are slowing
  - Home building is slowing



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## Overall Summary

- **Tailwinds and headwinds both exist**
  - Economic forecasts for near term are favorable
  - Later 2019 and 2020 forecasts are less sanguine
- **There remains room for the economy to grow**
  - Labor force growth is available
  - Consumption has room to grow, but there is evidence of slowing
  - Business investment may be slowing
  - Return to productivity growth? But how? What's the next big idea?
- **Long term concerns unaddressed**
  - Demographics, climate change
  - Federal government debt
  - International trade policy



Thank you!

## Any Questions?

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