The Greatest Economy

Douglas Meade
University of Maryland
December 12, 2019
The U.S. is the by far the largest economy.

GDP of $19.4 Trillion

24.4% of the World Economy

Several U.S. States’ GDP are the same size as other large countries
**U.S. States’ Economies**

**US States Renamed for Countries with Similar GDPs, 2015**

*GDP (MILLIONS) 2015*

$30,000 - $2,500,000

*Sources: Bureau of Economic Analysis and International Monetary Fund*
U.S. Real Gross Domestic Product – 1970 to Present

Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Economic Analysis

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The Current Expansion is the Longest Ever!

Length of US Economic Expansions

- June 2009 to Current
- Feb 1961 to Dec 1969
- Dec 1982 to July 1990
- Nov 2001 to Dec 2007
- Mar 1975 to Jan 1980
- Oct 1949 to July 1953
- May 1954 to Aug 1957
Historically Low Unemployment Rate
Employment Growth is Strong
Inflation is Stable

**US consumer inflation**
Annual % change

**US core inflation**
Annual % change
Interest Rates are Low

**Effective interest rates**

Federal funds effective interest rate

%  

2010  19

**Mortgage costs**

30-yr fixed mortgage rate

Average prime offer, %

2010  19

%
The Stock Market Is Doing Well!

S&P 500 and Dow Jones Industrial Index
(December 2009 = 100)
Consumer Sentiment is Strong

Index 1966:Q1=100


50 60 70 80 90 100 110 120

1966:Q1=100
Household Incomes Continue to Grow

Median household income, Jan. 2000- Aug. 2019
Seasonally adjusted monthly and in Aug. 2019 dollars

$65,976

$61,772

$55,828

ON THE OTHER HAND ...
This Is Not the Strongest Expansion

Real GDP Growth in Major Postwar Expansions

- 1961.1-1969.4: 52%
- 1982.4-1990.3: 38%
- 2001.4-2007.4: 26%
- 2009.2-2019.3: 19%

Source: US Bureau of Economic Analysis
Labor Force Participation Is Still Low

Labor Force Participation

- Participation %
- Total, Men, Women

Graph shows trends in labor force participation from 1948 to 2019, indicating a decline in participation rates.
Alternative Measure of Unemployment

Unemployment Measures

% of Civilian Labor Force

Jan-95  Jul-96  Jan-98  Jul-99  Jan-01  Jul-02  Jan-04  Jul-05  Jan-07  Jul-08  Jan-10  Jul-11  Jan-13  Jul-14  Jan-16  Jul-17  Jan-19

U6 Rate
Traditional Unemployment Rate
Potential GDP = Labor Force and Productivity
Investment is Relatively Sluggish

Investment Growth In Major Expansions

Years Since Trough

Index = 1.0 at Trough

- 1961.1-1969.4
- 1982.4-1990.3
- 2001.4-2007.4
- 2009.2-2019.3
Productivity Growth Has Not Kept Pace

Business Sector Productivity Growth in Major Postwar Expansions

Negative Impacts of the Trade War

- Higher prices for consumers and producers
  - Higher steel and aluminum prices are hitting domestic producers of equipment, consumer durables and transportation equipment.
  - Expect higher retail prices!

- Reduced exports of U.S. agricultural and capital goods
  - Agriculture: Soybeans and pork
  - Capital goods: All types of machinery, electronics, semiconductors.

- Shifting trade patterns
  - Foreign companies may shift away from U.S. customers and suppliers.
  - The damage from these changes will continue after the trade war ends.
China/US Tariff Timeline

How the US-China trade war has escalated

- Jul 2018: US tariffs $34bn, China tariffs $34bn
- Aug 2018: US tariffs $16bn, China tariffs $16bn
- Sep 2018: US tariffs $200bn at 10%, China tariffs $60bn at 10%
- May 2019: US tariffs $200bn at 25%, China tariffs $60bn at 25%
- Jun 2019: US tariffs $200bn at 25%, China tariffs $60bn at 25%

September 2019 – December 2019:
The US and China have threatened to impose new tariffs and increase existing ones.

Source: BBC research
## Tariffs by Sector

### US exports to China covered by Chinese retaliatory tariffs

- **As of June 1, 2019**
- **Effective September 1, 2019**
- **Effective December 15, 2019**
- **Total US exports to China**

#### Agriculture
- Soybeans: $13.9 billion
- Other farm and fish products: 7.8

#### Manufacturing
- Autos and parts: 14.3
- Wood, paper, and metal products: 14.3
- Mechanical machinery and appliances: 9.3, 0.2
- Chemicals, plastics, and rubber products: 9.1, 1.1
- Optical, medical, and measuring instruments: 9.0, 1.1
- Electrical machinery and equipment: 7.2, 11.7
- Aircraft: 0.2
- Pharmaceuticals: 0.2, 3.8

#### Other
- Petroleum: 3.4, 3.2, 6.6
- All other goods: 12.7, 0.5, 21.1
Import Tariffs

### U.S. Imports Affected by Tariffs Recently Imposed by the United States

**Billions of Dollars**

<table>
<thead>
<tr>
<th>Category of Goods</th>
<th>Value of Imports in 2017</th>
<th>Tariff on Solar Panels</th>
<th>Tariff on Washing Machines</th>
<th>Tariff on Steel</th>
<th>Tariff on Aluminum</th>
<th>Tariffs on Chinese Goods</th>
<th>All Recent Tariffs</th>
<th>Share of Category Affected by Tariffs (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food, Feed, and Beverages</td>
<td>138</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>3.6</td>
</tr>
<tr>
<td>Industrial Supplies and Materials</td>
<td>507</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>9</td>
<td>34</td>
<td>57</td>
<td>11.2</td>
</tr>
<tr>
<td>Capital Goods, Except Automotive</td>
<td>641</td>
<td>6</td>
<td>*</td>
<td>2</td>
<td>*</td>
<td>116</td>
<td>125</td>
<td>19.5</td>
</tr>
<tr>
<td>Automotive Vehicles, Parts, and Engines</td>
<td>359</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>19</td>
<td>19</td>
<td>5.4</td>
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<tr>
<td>Consumer Goods</td>
<td>602</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>*</td>
<td>55</td>
<td>57</td>
<td>9.5</td>
</tr>
<tr>
<td>Other Goods</td>
<td>95</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>*</td>
<td>**</td>
</tr>
<tr>
<td>Total</td>
<td>2,342</td>
<td>7</td>
<td>2</td>
<td>16</td>
<td>9</td>
<td>229</td>
<td>263</td>
<td>11.2</td>
</tr>
</tbody>
</table>

| Share of Total Imports (Percent) | 100.0   | 0.3  | 0.1  | 0.7   | 0.4   | 9.8 | 11.2 | n.a. |

Source: Congressional Budget Office, using information from the Census Bureau and the Office of the U.S. Trade Representative.

n.a. = not applicable; * = between zero and $500 million; ** = between zero and 0.05 percent.
### Impacts of Tariffs on Exports

<table>
<thead>
<tr>
<th>Category of Goods</th>
<th>Value of Exports in 2017</th>
<th>Tariffs Imposed by China</th>
<th>Tariffs Imposed by Rest of World</th>
<th>All Recent Tariffs</th>
<th>Share of Category Affected by Tariffs (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food, Feed, and Beverages</td>
<td>133</td>
<td>20</td>
<td>1</td>
<td>21</td>
<td>15.9</td>
</tr>
<tr>
<td>Industrial Supplies and Materials</td>
<td>465</td>
<td>35</td>
<td>2</td>
<td>37</td>
<td>8.0</td>
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<tr>
<td>Capital Goods, Except Automotive</td>
<td>533</td>
<td>23</td>
<td>*</td>
<td>23</td>
<td>4.3</td>
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<tr>
<td>Automotive Vehicles, Parts, and Engines</td>
<td>158</td>
<td>22</td>
<td>*</td>
<td>22</td>
<td>14.2</td>
</tr>
<tr>
<td>Consumer Goods</td>
<td>198</td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>3.5</td>
</tr>
<tr>
<td>Other Goods</td>
<td>60</td>
<td>*</td>
<td>0</td>
<td>0</td>
<td>**</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,546</strong></td>
<td><strong>104</strong></td>
<td><strong>6</strong></td>
<td><strong>110</strong></td>
<td><strong>7.1</strong></td>
</tr>
</tbody>
</table>

**Share of Total Exports (Percent)**

| Share of Total Exports (Percent) | 100.0 | 6.7 | 0.4 | 7.1 | n.a. |

Source: Congressional Budget Office, using information from the Census Bureau and the Office of the U.S. Trade Representative.

n.a. = not applicable; * = between zero and $500 million; ** = between zero and 0.05 percent.
Sectoral Impacts

- **Agriculture** - China has imposed tariffs on soybeans, pork, and other products. Not only farmers, but agricultural equipment companies have been affected.

- **Motor Vehicles** – Manufacturers rely on a global auto and auto parts supply chain, which has been significantly disrupted.

- **Electronics and Tech** – The nexus of supplier relationships between China, the US and other countries is even thicker in these industries. Putting Huawei on the restricted entity list puts the US semiconductor and electronic components industries at risk.

- **Retail** - Retailers in electronics, household appliances and apparel will need to raise prices after December, or suffer lower profits.

- **Services** – Companies providing services to manufacturers, as well as logistics and transportation service companies are feeling the pinch.
Slowing of Global Trade

IMPORT AND EXPORT VOLUME
Change from one year prior
- Imports  Exports

WORLD
- 20%
- 10%
- 0%
- -10%
- -20%
2016 2018

UNITED STATES
- 20%
- 10%
- 0%
- -10%
- -20%
2016 2018

CHINA
- 20%
- 10%
- 0%
- -10%
- -20%
2016 2018

UNITED KINGDOM
- 20%
- 10%
- 0%
- -10%
- -20%
2016 2018

GERMANY
- 20%
- 10%
- 0%
- -10%
- -20%
2016 2018

FRANCE
- 20%
- 10%
- 0%
- -10%
- -20%
2016 2018

SOUTH KOREA
- 20%
- 10%
- 0%
- -10%
- -20%
2016 2018

JAPAN
- 20%
- 10%
- 0%
- -10%
- -20%
2016 2018

Source: United Nations Conference on Trade and Development
Manufacturing is Slowing

Manufacturing Indices

IPI Index, 2012=100

PMI

IPI  PMI


80  85  90  95  100  105  110  115

30  35  40  45  50  55  60  65


IPI  PMI

Manufacturing Indices

IPI Index, 2012=100

PMI


80  85  90  95  100  105  110  115

30  35  40  45  50  55  60  65


IPI  PMI
Manufacturing Employment by State

Change in manufacturing jobs, January 2019 to July 2019

-9k -3k -1k 0 1k 3k 9k

State won by Trump in 2016 with less than 50% of the vote

The swing state of Wisconsin has lost more than 4,000 positions

Pennsylvania leads in losses: It’s down 8,300 jobs

The Permian shale boom has translated into the strongest job gains of any state, but momentum is flagging
Debt Burden

- **Household Debt** – Still increasing, but interest payments are not large, as a share of income.
- **Corporate Debt** – This continues to increase, with low borrowing rates.
- **Federal Debt** – This is large and growing unsustainably.
Household Debt Service Under Control

Household Debt Service Payments as a Percent of Disposable Income

Source: US Federal Reserve
High Corporate Debt

U.S. corporate debt is now at an all-time high of over 45% of GDP. This could pose risks for profitability and the stock market as interest rates rise.

Source: RealInvestmentAdvice.com

QE: “Quantitative Easing” – The government buys large quantities of bonds to inject funds into the economy.

ZIRP: “Zero Interest Rate Policy” – Maintaining a very low nominal interest rate, as during 2008-2015 in the US.

Source: St. Louis Fed
Federal Debt Per Household

- Federal debt per household was about $4,500 in 1967.
- By 1984, this had tripled to $15,300.
- In 2018, it was about $123 thousand.
- The Inforum Outlook projects it reaching $215 thousand by 2030.
## Official Federal Debt + Unfunded Liabilities

<table>
<thead>
<tr>
<th>Billion of Dollars</th>
<th>Japan</th>
<th>China</th>
<th>Others</th>
<th>U.S. Residents</th>
<th>Trust Funds</th>
<th>NPV of Medicare Liabilities</th>
<th>NPV of Social Security Liabilities</th>
<th>Other Unfunded Liabilities</th>
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</thead>
<tbody>
<tr>
<td>0</td>
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<td>70,000</td>
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<td>80,000</td>
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<td>100,000</td>
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</tr>
</tbody>
</table>

**Notional Net Present Value of Unfunded Liabilities to 2090 under Current Law**

**Debt Held by the Public**

- Japan
- China
- Others
- U.S. Residents
- Trust Funds
- NPV of Medicare Liabilities
- NPV of Social Security Liabilities
- Other Unfunded Liabilities

**Debt Held by the Public + Trust Funds**

- Japan
- China
- Others
- U.S. Residents
- Trust Funds
- NPV of Medicare Liabilities
- NPV of Social Security Liabilities
- Other Unfunded Liabilities

**Debt Held by the Public + Trust Funds + Unfunded Liabilities**

- Japan
- China
- Others
- U.S. Residents
- Trust Funds
- NPV of Medicare Liabilities
- NPV of Social Security Liabilities
- Other Unfunded Liabilities
The Debt Clock

https://www.usdebtclock.org
Recession 2020?

- Two major consensus surveys agree that growth should slow slightly in 2020, probably to 1.8% from 2.3% in 2019. This is still above potential.
- Blue Chip average for probability of recession in 2020 is 35% and 37.4% in 2021. However, there is a high variance on these probabilities, among the economists surveyed.
- On the one hand, the economy is growing moderately, while not overheating. There is no evidence of a bubble that may burst.
- Risks include:
  - Slowing global economy
  - Slower growth due to labor force supply constraints
  - Slowdown in stimulus from TCJA and federal spending increases
  - High level of corporate debt
  - Flattening yield curve
  - Uncertainty about international trade due to tariff threats
- The current expansion is over 10 years old. Growth has been lower than previous expansions, due to slower population, labor force and productivity.
Yield Curve and Recent U.S. Recessions

10-Year Treasury Constant Maturity Minus 2-Year Treasury Constant Maturity

Shaded areas indicate U.S. recessions

Source: Federal Reserve Bank of St. Louis

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What is the Probability of a Recession?

Probability of U.S. Recession, Twelve Months Ahead of Term Spread Readings

Percent (monthly average)
Recap

- The U.S. is enjoying an extended economic expansion
  - Consistently positive GDP and jobs growth
  - Low unemployment rates
  - Favorable inflation and interest rates
  - High consumer confidence
- However, the expansion is slower than past expansions
  - Slower productivity and labor force growth = slow potential
  - Relatively sluggish investment
  - Trade war and other factors hurting manufacturing
  - Debt is increasing rapidly
- When will the next recession be, and what will be the driving factors?
  - Trade war?
  - Interest rate increases?
  - Tax increases?
  - Global slowdown?
Thank you!
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