Macroeconomic Conditions and Outlook

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10 Year U.S. GDP Growth Rate

Source: TRADINGECONOMICS.COM | U.S. BUREAU OF ECONOMIC ANALYSIS

U.S. Inflation rate

Projected inflation rate 2019

Source: Federal Reserve Bank of St. Louis | fred.stlouisfed.org

Shaded areas indicate U.S. recessions
Unemployment rate since 1948

Civilian labor force participation increasing since 2014

New Privately Owned Housing Units Started in Thousands of Units – Last 10 Years

New Housing Starts Since 2005 (In Thousands)
New Housing Starts Since 1959

Wage Growth (nonfarm). Percent change from year before ago.

Number in Poverty and Poverty Rate: 1959 to 2018


U.S. Housing Price Index
Dow Jones Daily Close

U.S. Consumer Confidence Index

Federal Funds rate 2007 - 2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Starting Rate</th>
<th>Rate Hike/ Cut</th>
<th>Year Ending Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>4.75%</td>
<td>-0.75%</td>
<td>4.00%</td>
</tr>
<tr>
<td>2008</td>
<td>4.0%</td>
<td>-4.0%</td>
<td>0.25-0.50%</td>
</tr>
<tr>
<td>2015</td>
<td>0.25%</td>
<td>0.25-0.50%</td>
<td>0.25-0.50%</td>
</tr>
<tr>
<td>2016</td>
<td>0.25%</td>
<td>0.50-0.75%</td>
<td>0.50-0.75%</td>
</tr>
<tr>
<td>2017</td>
<td>0.75%</td>
<td>0.75%</td>
<td>1.25-1.5%</td>
</tr>
<tr>
<td>2018</td>
<td>1.5%</td>
<td>1.0%</td>
<td>2.25-2.5%</td>
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<tr>
<td>2019</td>
<td>2.5%</td>
<td>-0.5%</td>
<td>1.75-2.0%</td>
</tr>
<tr>
<td>March 1980</td>
<td>10.25%</td>
<td>9.75%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Remained at 20% until May 1981
So what is with the 2yr/10yr Yield Curve?

Bonds

- **Par Value**
  - The Nominal value of the bond at maturity (typically 1,000 or 100 dollars)

- **Coupon value**
  - The annual interest rate (simple) that the bond pays

- **Yield of a bond**
  - Includes time value of money, the coupon value, maturity, opportunity costs etc.

**Dotcom bubble recession**

- Yield curve inverts and stays inverted nearly 10 basis points for 2 months

- Yield curve inverts nearly 50 basis points and remains inverted for almost 1 year
**Slight and Short Yield Curve Inversion in 2019**

Aug 25th to Aug 30th 5 point inversion

Data from the World Bank

**Major Foreign Holders of Treasury Securities (in billions of dollars)**

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</thead>
<tbody>
<tr>
<td>Total</td>
<td>6630</td>
<td>6636</td>
<td>6538</td>
<td>6433</td>
<td>6473</td>
<td>6374</td>
<td>6324</td>
<td>6269</td>
<td>6199</td>
<td>6200</td>
<td>6225</td>
<td>6278</td>
<td>6254</td>
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<tr>
<td>T-bills</td>
<td>282</td>
<td>279</td>
<td>292</td>
<td>302</td>
<td>313</td>
<td>315</td>
<td>305</td>
<td>310</td>
<td>311</td>
<td>306</td>
<td>316</td>
<td>329</td>
<td>340</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>T Bonds and Notes</td>
<td>3852</td>
<td>3856</td>
<td>3811</td>
<td>3760</td>
<td>3759</td>
<td>3709</td>
<td>3675</td>
<td>3640</td>
<td>3589</td>
<td>3640</td>
<td>3693</td>
<td>3691</td>
<td>3668</td>
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Share of U.S. Debt for Major Holding Countries (in billions)

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<td>6374</td>
<td>6324</td>
<td>6269</td>
<td>6199</td>
<td>6200</td>
<td>6225</td>
<td>6278</td>
<td>6254</td>
</tr>
<tr>
<td>Japan</td>
<td>1131</td>
<td>1123</td>
<td>1101</td>
<td>1064</td>
<td>1078</td>
<td>1069</td>
<td>1065</td>
<td>1040</td>
<td>1036</td>
<td>1019</td>
<td>1028</td>
<td>1030</td>
<td>1035</td>
</tr>
<tr>
<td>China</td>
<td>1110</td>
<td>1113</td>
<td>1110</td>
<td>1113</td>
<td>1120</td>
<td>1130</td>
<td>1126</td>
<td>1132</td>
<td>1121</td>
<td>1138</td>
<td>1151</td>
<td>1165</td>
<td>1171</td>
</tr>
<tr>
<td>The UK</td>
<td>335</td>
<td>341</td>
<td>323</td>
<td>301</td>
<td>317</td>
<td>302</td>
<td>290</td>
<td>288</td>
<td>259</td>
<td>263</td>
<td>276</td>
<td>272</td>
<td>271</td>
</tr>
</tbody>
</table>

China’s Share of U.S. Debt 4.9%
Japan’s Share of U.S. Debt 5%
Total Foreign Holdings of U.S. Debt 29.52% (Aug 2019)
Total Foreign Holdings of U.S. Debt 27.85% (Aug 2018)

Trade War impacts on costs of Production?

Data and Chart from BLS https://www.bls.gov/charts/producer-price-index/final-demand-12-month-percent-change.htm

Unprocessed raw materials?

Data and Chart from BLS https://www.bls.gov/charts/producer-price-index/unprocessed-goods-for-intermediate-demand-12-month-percent-change.htm
Outside of "Trade" and "Services", the PPI since the trade tensions has decreased.
A note on steel and aluminum prices

September 27th, 2019, Reuters

LONDON, Sept 27 (Reuters) - Aluminum prices were set for their biggest weekly decline since last October as falling alumina prices and a weak demand outlook dragged the metal used in transport and packaging to its lowest level since January 2017.

Benchmark aluminum traded 0.2% lower at $1,733 a tonne in official rings after touching $1,723.50. It was 3.4% down over the week.

Weaker demand because of slowing industrial activity could push prices slightly lower, said Bank of China International analyst Xiao Fu.

A massive slowdown in Chinese growth

- Slows domestic steel demand
- Steel makers inflexible about production quantities
- Global oversupply

U.S. Trade in Goods by Selected Countries and Areas: 2018

<table>
<thead>
<tr>
<th>Item (1)</th>
<th>Balance</th>
<th>Exports</th>
<th>Imports</th>
<th>Percent of Total Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Balance of Payments Basis</td>
<td>-891,251</td>
<td>1,671,839</td>
<td>2,563,090</td>
<td></td>
</tr>
<tr>
<td>Net Adjustments</td>
<td>-12,548</td>
<td>7,754</td>
<td>20,302</td>
<td></td>
</tr>
<tr>
<td>Total Census Basis</td>
<td>-878,702</td>
<td>1,664,085</td>
<td>2,542,788</td>
<td>100%</td>
</tr>
<tr>
<td>Canada</td>
<td>-19,754</td>
<td>298,728</td>
<td>318,481</td>
<td>15%</td>
</tr>
<tr>
<td>Mexico</td>
<td>-81,517</td>
<td>265,010</td>
<td>346,528</td>
<td>15%</td>
</tr>
<tr>
<td>European Union</td>
<td>-169,296</td>
<td>318,619</td>
<td>487,916</td>
<td>19%</td>
</tr>
<tr>
<td>Pacific Rim Countries Excluding China</td>
<td>-91,394</td>
<td>292,281</td>
<td>383,675</td>
<td>16%</td>
</tr>
<tr>
<td>China</td>
<td>-419,162</td>
<td>120,341</td>
<td>539,503</td>
<td>16%</td>
</tr>
<tr>
<td>South/Central America</td>
<td>41,493</td>
<td>163,782</td>
<td>122,289</td>
<td>7%</td>
</tr>
<tr>
<td>Other Countries</td>
<td>-124,817</td>
<td>170,259</td>
<td>295,077</td>
<td>11%</td>
</tr>
<tr>
<td>Timing Adjustments</td>
<td>-33</td>
<td>21</td>
<td>55</td>
<td></td>
</tr>
</tbody>
</table>

China 10 Year GDP Growth

Source: Tradingeconomics.com | National Bureau of Statistics of China

Top markets for U.S. farm products

Source: Census, 2018 exports
### 2016 U.S. Trade Balance by County/Industry

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Ag and Livestock Products</td>
<td>-1.00</td>
<td>-0.50</td>
<td>0.20</td>
<td>0.50</td>
<td>0.70</td>
</tr>
<tr>
<td>Oil, Gas and Minerals</td>
<td>0.50</td>
<td>-1.00</td>
<td>-2.00</td>
<td>-2.00</td>
<td>-2.00</td>
</tr>
<tr>
<td>Textiles</td>
<td>0.50</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Apparel</td>
<td>-0.20</td>
<td>-0.30</td>
<td>-0.40</td>
<td>-0.50</td>
<td>-0.60</td>
</tr>
<tr>
<td>Chemicals</td>
<td>0.10</td>
<td>0.20</td>
<td>0.30</td>
<td>0.40</td>
<td>0.50</td>
</tr>
<tr>
<td>Plastics &amp; Rubber</td>
<td>0.10</td>
<td>0.20</td>
<td>0.30</td>
<td>0.40</td>
<td>0.50</td>
</tr>
<tr>
<td>Iron and Steel</td>
<td>0.80</td>
<td>1.00</td>
<td>1.20</td>
<td>1.40</td>
<td>1.60</td>
</tr>
<tr>
<td>Fabricated Metal</td>
<td>0.10</td>
<td>0.20</td>
<td>0.30</td>
<td>0.40</td>
<td>0.50</td>
</tr>
<tr>
<td>Machinery</td>
<td>0.30</td>
<td>0.40</td>
<td>0.50</td>
<td>0.60</td>
<td>0.70</td>
</tr>
<tr>
<td>Computer and Electronic Products</td>
<td>0.20</td>
<td>0.30</td>
<td>0.40</td>
<td>0.50</td>
<td>0.60</td>
</tr>
<tr>
<td>Transportation Equipment</td>
<td>0.10</td>
<td>0.20</td>
<td>0.30</td>
<td>0.40</td>
<td>0.50</td>
</tr>
<tr>
<td>Furniture</td>
<td>0.20</td>
<td>0.30</td>
<td>0.40</td>
<td>0.50</td>
<td>0.60</td>
</tr>
<tr>
<td>Food &amp; Food Products</td>
<td>0.10</td>
<td>0.20</td>
<td>0.30</td>
<td>0.40</td>
<td>0.50</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-0.30</td>
<td>-0.40</td>
<td>-0.50</td>
<td>-0.60</td>
<td>-0.70</td>
</tr>
</tbody>
</table>

### U.S. Dollar Index 2006 - October 2019

Source: TradedEconomics.com

### U.S. Balance of Trade 1990-2019

Source: U.S. Census Bureau

### U.S. GDP vs GNP

Source: U.S. Bureau of Economic Analysis
GDP > GNP

- More investment and greater growth domestically than American workers/companies investing and working abroad
  - May occur when domestic growth potential is higher
- Political uncertainty abroad
- Higher productivity possible domestically
- Global economic issues

GNP > GDP

- May occur when
  - Low domestic growth potential relative to other countries
  - Regulation
  - Lower production costs

*Expansions included in 2014–2018 only.
U.S. Bureau of Economic Analysis

OurWorldinData.org/world-population-growth — CC BY

World population by region
U.S. Debt and Deficit Problem

- Current U.S. Debt - 22.9 Trillion Dollars
  - $22,900,000,000,000
  - U.S. population = 329 million
  - U.S. Debt per person = $69,604

- U.S. Labor force 164,000,000
  - $139,634 for everyone in the U.S. Labor Force
Federal Budget Surplus / Deficit 1970 - 2019

CBO’s Debt Projection
- Debt will rise by 2029 to $33.66 Trillion
- 95% of GDP

Raise Taxes Option to Eliminating the Deficit
- In 2018, The U.S. Government spent 4.11 Trillion Dollars
- Deficit was $779 Billion in 2018
  - Roughly bringing in 81% in revenues vs. what is being spent
- 164 million people working in the U.S.
  - Need to raise taxes $4,750 per working person in the U.S. to balance the budget

The cut spending option to Eliminate the Deficit
- $1 Trillion dollar deficit in 2019
- Need to cut spending by 22.4%

Cutting all of these program would yield $1.14 Trillion in Savings

Revenue $3,472 Billion

Spending $4,472 Billion
The Political Problem With Austerity

- There is almost no constituency that truly encourages:
  - Spending cuts on programs they rely on
  - Tax increases for themselves

- We can grow ourselves out of debt but:
  - Eventually the budget needs to balance and;
  - We have to assume a steady GDP growth path
    - And hope interest rates stay low

Concluding Remarks

- Most U.S. specific economic indicators show a robust economy heading into 2020
  - Can the U.S. maintain those numbers in a world economy showing weakness and slower growth?

- Interest rates will be interesting to watch going forward given the recent actions taken by the FED given the strength of the U.S. economy and the weakness in portions of the world economy

- Trade will continue to be a focal point with regards to markets, yields, and consumer sentiment

- The U.S. appears to be on an unsustainable spending path relative to revenues
  - Concern arises especially when we are in the longest expansion in history yet deficits continue to be sizable

Thank You

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