A VUCA Economy: Decoding the Signals

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October 2019
Agenda

1. Economic Outlook and Risks
2. Regional Impact of Trade War
3. Flavor of the Next Recession
4. State of Household Finances
Consumers Driving Growth as Businesses Hold Back

Contributions to % change in real GDP, % qtr/qtr annualized

Source: Moody’s Analytics
The Job Market Continues to Deliver

Millions

- Job Openings
- Unemployed (U3)
- Underemployed (U6)

Values As of Oct 2019:

- 11.3 mil
- 7.2 mil
- 5.7 mil

Sources: BLS, Moody’s Analytics
Initial Claims Remain Favorable

Initial claims for unemployment insurance benefits, ths

*Level consistent with no monthly job growth

Sources: BLS, Moody’s Analytics
Metro Area Business Cycle Index
Status as of August 2019 data

Sources: Moody’s Analytics
Overall Households Look Financially Healthy

As of 2019 Q2

**INCOME**

$16.4 T

Disposable Income

4.7% Growth Yr/Yr

**WEALTH**

$107 T

Net Worth

4.9% Growth Yr/Yr

**DEBT**

$13.3 T

Outstanding Debt

3.8% Growth Yr/Yr
But…

Warning Signs Are Emerging
More Economies are Nearing End of Expansion

Share of metro areas in late-cycle expansion, %

Source: Moody's Analytics
Payroll Growth is Slowing

% change yr ago in employment

Sources: BLS, Moody's Analytics
Recession Odds are Rising

Probability of recession in 12 mo, %, using only...

Source: Moody’s Analytics
Recession Worries are Mounting

U.S. Google search term, 100=peak popularity

Sources: Google Trends, Moody’s Analytics
**Sentiment Will Play a Key Role**

ISM manufacturing index

Source: Moody's Analytics
Consumer Confidence: Actions Don’t Match Words

Sources: The Conference Board, BEA, Moody’s Analytics
Where Are the Flash Points?
A VUCA Economy: Decoding the Signals

Source: Moody’s Analytics
Geopolitical Uncertainty is Surging

Global policy uncertainty index

Sources: Policyuncertainty.com, Moody’s Analytics
Higher Tariffs will Pinch Consumers…Soon

Chinese imported goods subject to tariffs by round, $ bil

- Capital goods
- Intermediate goods
- Consumer goods

Sources: Commerce Department, Moody’s Analytics
Suffering is Across the Board

China Trade War Exposure Index

Source: Moody's Analytics
Manufacturing Hubs Hurt by Indirect Costs

Economic impact of goods tariffs with China, U.S. = 1.0

Sources: BEA, Moody’s Analytics
# Recession Tracker: What to Watch? www.economy.com

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Type</th>
<th>Mo to Recession</th>
<th>Threshold</th>
<th>Risk</th>
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</thead>
<tbody>
<tr>
<td>Unemployment rate - NAIRU</td>
<td>Leading</td>
<td>30 to 36</td>
<td>0</td>
<td>High</td>
</tr>
<tr>
<td>Financial stress index</td>
<td>Leading</td>
<td>11 to 15</td>
<td>&gt;1</td>
<td>Low</td>
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<tr>
<td>Housing permits</td>
<td>Leading</td>
<td>10 to 12</td>
<td>Yr/Yr decline</td>
<td>Moderate*</td>
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<tr>
<td>Yield curve 10-yr minus 3 mo</td>
<td>Leading</td>
<td>8 to 15</td>
<td>0</td>
<td>High</td>
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<tr>
<td>Yield curve 10-yr minus 2-yr</td>
<td>Leading</td>
<td>8 to 14</td>
<td>0</td>
<td>High</td>
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<tr>
<td>TED spread</td>
<td>Leading</td>
<td>7 to 8</td>
<td>&gt;100 basis points</td>
<td>Low</td>
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<tr>
<td>Consumer Confidence</td>
<td>Leading</td>
<td>5 to 10</td>
<td>30 point decline from peak</td>
<td>Low</td>
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<tr>
<td>Jobless claims</td>
<td>Leading</td>
<td>4 to 5</td>
<td>&gt;253k</td>
<td>Low</td>
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<tr>
<td>S&amp;P 500</td>
<td>Leading</td>
<td>3 to 9</td>
<td>20% correction</td>
<td>Low</td>
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<tr>
<td>ISM Manufacturing index</td>
<td>Leading</td>
<td>3 to 6</td>
<td>43.2</td>
<td>Moderate</td>
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<tr>
<td>Net % of banks tightening lending standards on C&amp;I Loans</td>
<td>Leading</td>
<td>1 to 5</td>
<td>&gt;20%</td>
<td>Low</td>
</tr>
<tr>
<td>Hours worked for production workers</td>
<td>Leading</td>
<td>1 to 10</td>
<td>Yr/Yr decline</td>
<td>Moderate</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>Coincident</td>
<td>0</td>
<td>Increase of 0.25%</td>
<td>Low</td>
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<tr>
<td>Core capital goods orders</td>
<td>Coincident</td>
<td>0</td>
<td>Yr/Yr decline</td>
<td>Moderate*</td>
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<tr>
<td>Industrial production</td>
<td>Coincident</td>
<td>0</td>
<td>Yr/Yr decline</td>
<td>Moderate</td>
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<tr>
<td>ISM nonmanufacturing index</td>
<td>Lagging</td>
<td>1</td>
<td>49</td>
<td>Low</td>
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<tr>
<td>Employment</td>
<td>Lagging</td>
<td>2 to 4</td>
<td>Yr/Yr decline</td>
<td>Low</td>
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<tr>
<td>Real GDP</td>
<td>Lagging</td>
<td>3 to 6</td>
<td>&lt; potential growth</td>
<td>Low</td>
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</table>
How Bad Will It Be? Next Recession Shouldn’t Be Severe

Recession Severity Index, composite of key indicators

Source: Moody’s Analytics
How Healthy are Consumer Balance Sheets?
Household Debt Service Burdens Remain Low…

Sources: Federal Reserve, Moody’s Analytics
...But Debt Service Ratios Vary Across Geographies

Total household debt payments, % of disposable income

Sources: Equifax, Moody’s Analytics

<table>
<thead>
<tr>
<th>Color Code</th>
<th>Percentage Range</th>
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<tbody>
<tr>
<td>Red</td>
<td>10.80 – 13.94</td>
</tr>
<tr>
<td>Orange</td>
<td>9.73 – 10.80</td>
</tr>
<tr>
<td>Blue</td>
<td>9.26 – 9.73</td>
</tr>
<tr>
<td>Grey</td>
<td>5.54 – 9.26</td>
</tr>
</tbody>
</table>

2019Q2
Debt Service Ratios Also Vary Across Products

% disposable income

Sources: Federal Reserve, Moody’s Analytics
Household Debt Growth Diverging Across Products

Balances of open accounts, yr/yr % of $

Sources: CreditForecast.com, Moody’s Analytics
No Housing Bust 2.0: Mortgage Lending Is Solid

90-days delinquent, % of outstanding balance, 12-mo MA

Sources: Equifax, Moody’s Analytics
Unsecured Lending Expansion Bears Watching

90-days delinquent, % of outstanding balance, 12-mo MA

Sources: Equifax, Moody’s Analytics
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