Welcome.

Paulo Goes
Dean, Eller College of Management

Welcome.

Noreen Bishop
Managing Director, Market Manager, Arizona
J.P. Morgan Private Bank

Our region
Outlook for Tucson

George W. Hammond, Ph.D.
Director, Economic and Business Research Center
What You Need To Know

► Arizona’s job growth was steady last year
► Phoenix jobs rose rapidly
► Tucson employment gains accelerated
► Arizona’s wage growth is gaining momentum
► And will likely accelerate further
► House prices and permits increased last year
► But real house prices are well below the peak
► Dollar/Peso exchange rate has declined a little
► But is still elevated
► Arizona exports to Mexico and Canada are down
► Arizona and Tucson are well positioned to continue to grow

Tucson MSA Job Growth

Job Growth In Selected MSAs

Arizona Regional Job Growth
Tucson MSA Job Growth By Industry

Over-The-Year Growth, First Quarter 2017

- Professional and Business Services: $43,851
- Government: $35,282
- Trade, Transportation and Utilities: $53,559
- Natural Resources and Mining: $43,105
- Other Services: $41,299
- Information: $62,792
- Construction: $51,702
- Financial Activities: $41,905
- Manufacturing: $31,305
- Education and Health Services: $66,157
- Leisure and Hospitality: $61,305
- Avg. Wages per Worker: $43,851 in 2015

Job Replacement Rates

Through March 2017

- Percent of jobs lost during the Great Recession that have been replaced:
  - Phoenix MSA: 131.8
  - Tucson MSA: 60.2
  - Rest of State: 57.9
  - Arizona: 117.0
  - US: 185.3

Arizona And U.S. Wage Growth

Wages Per Worker, Over-The-Year, Smoothed

- Arizona: Red Line
- U.S.: Dashed Blue Line

Occupational Wages

Median Wage For All Occupations

- Arizona: 38.4
- U.S.: 32.7
**Arizona-Mexico Tourism Cost Index**

Tucson MSA: Lodging, Gasoline, Food Away From Home  
[azmex.eller.arizona.edu](http://azmex.eller.arizona.edu)

![Graph](image1.png)

**Policies of the New Administration?**

- International trade
  - Retreat from free trade, renegotiate NAFTA, tariffs, etc.
- Immigration
  - The Wall, deport undocumented immigrants
- Fiscal Stimulus
  - Restructure tax policy, increase infrastructure investment and defense spending
- Regulation
  - Roll back ACA and Dodd-Frank
  - Spur energy development

**U.S. Real GDP And Unemployment**

IHS Markit, April 2017

![Graph](image2.png)

**Tucson MSA And U.S. Job Growth**

Annual Percent Change

![Graph](image3.png)
**Tucson MSA Job Growth By Industry**

*Change From 2016-2019*

- Education and Health Services
- Leisure and Hospitality
- Professional and Business Services
- Manufacturing
- Trade, Transportation and Utilities
- Construction
- Government
- Financial Activities
- Information
- Other Services
- Mining and Logging

**Tucson MSA Alternative Scenarios**

*Job Growth Rates*

**Economic and Business Research Center**

**National, State, and Local Recognition**

- **Keep up with the latest data and analysis from the Economic and Business Research Center!**
  - Economic and Business Research Center: ebr.eller.arizona.edu
  - Arizona-Mexico Economic Indicators: azine.eller.arizona.edu
  - Making Action Possible Dashboard: map2dashboard.arizona.edu
  - Arizona's Economy Magazine: azconomy.eller.arizona.edu
  - Arizona's Economy smartphone app: available free at the App Store and Google Play

- **Join the Forecasting Project!**
  - forecast.eller.arizona.edu
  - Benefits of membership include:
    - In-depth economic forecasts, models, and analysis provided on a quarterly basis for the U.S., Arizona, Phoenix, and Tucson metropolitan areas.
    - Five meetings per year with Eller College economists, other resources, and modelers.
    - Quarterly reports on existing models and sub-models of hundreds of economic indicators.
    - Access to the Forecasting Project website for easy downloading of data, reports, presentations, and real-time analysis.
    - Definitive national, state, and local datasets and cloud-based data management systems to better use and visualize economic data for your organization.
    - Consulting on issues related to corporate economics and forecasting.
Our world
U.S. Economic Outlook

Gary Wagner, Ph.D.
Vice President and Senior Regional Officer
Federal Reserve Bank of Cleveland

Presentation outline

- GDP and the near-term outlook (5 slides)
- Employment & labor market conditions (8 slides)
- Inflation and monetary policy (3 slides)

Near-term outlook remains positive

Growth and forecast for U.S. real GDP
Survey of Professional Forecasters (SPF) Median Forecast

Past expansions have tended to be stronger

GDP growth by sector over last 8 quarters
Average quarterly annualized growth
The dollar remains very strong relative to other currencies

But household balance sheets remain healthy

Confidence is up across the board

Employment & Labor Market Conditions
Payroll employment rebounded in April

**MONTHLY CHANGE IN U.S. PAYROLL EMPLOYMENT**
Black lines indicate annual averages (in thousands)

Source: BLS via Haver Analytics

Payroll Employment Growth from Mar 2016 to Mar 2017

Less than –3%  –3% to –2%  –2% to –1%  –1% to –0.5%  –0.5% to –0.10%  –0.10% to 0.10%  0.10% to 0.50%  0.50% to 1.0%  1.0% to 2.0%  2.0% to 3.0%  More than 3.0%

Source: Calculations from BLS data via Haver Analytics.

Employment growth remains strong in most of the states

*State labels indicate recovery ranking (1 = highest percentage growth)*

Employment growth remains strong in most of the states

**Labor Market Conditions Index**
From FRB Kansas City

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment rate (U3)</td>
<td>Unemployment rate</td>
</tr>
<tr>
<td>Broad unemployment rate (U6)</td>
<td>Percent of firms planning to increase employment (NFIB)</td>
</tr>
<tr>
<td>Unemployment forecast (Blue Chip)</td>
<td>Change in weekly earnings</td>
</tr>
<tr>
<td>Job flows from U to E</td>
<td>Initial claims</td>
</tr>
<tr>
<td>Quits rate</td>
<td>Private nonfarm payroll employment</td>
</tr>
<tr>
<td>Employment-population ratio</td>
<td>Aggregate weekly earnings</td>
</tr>
<tr>
<td>Working part-time for economic reasons</td>
<td>Temporary help employment</td>
</tr>
<tr>
<td>Job orders</td>
<td>Expected job availability (U of Michigan)</td>
</tr>
<tr>
<td>Job losers</td>
<td>Unemployed 27 or more weeks</td>
</tr>
<tr>
<td>Expected job availability index (Conference Board)</td>
<td>Manufacturing employment index (ISM)</td>
</tr>
<tr>
<td>Announced job cuts (Challenger-Gray-Christensen)</td>
<td>Percent of firms with positions not able to fill right now (NFIB)</td>
</tr>
<tr>
<td>Job losers</td>
<td>Expected job availability (Conference Board)</td>
</tr>
</tbody>
</table>
Conditions look very strong nationally...

[Graph showing FRB Kansas City Labor Market Conditions Index]

But compensation seems to be lagging some

[Graph showing compensation comparison]

What should we make of the low productivity estimates?

[Graph showing revisions to productivity growth]

Past revisions suggest productivity is underestimated

[Graph showing relationship between real-time and revisions]
Inflation and Monetary Policy

Inflation expectations have risen over the past year

Most market participants expect only one additional hike

Economic and Business Research Center
Eller College of Management
University of Arizona
Summary

• GDP forecasts have improved of late
  – Weak 2017:Q1 estimates appear to be transitory
  – Household balance sheets remain very healthy

• Broadly speaking, labor market conditions are better than pre-Great Recession conditions
  – However, wage growth has been lagging some
  – Weaker than normal productivity may be the culprit

• Latest guidance from the FOMC points to two additional rate hikes this year
  – A majority of fed funds futures participants expect only one additional hike

A special thank you to JPMorgan Chase & Co.
for sponsoring today’s event.