Welcome.

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Welcome.

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Our world
Global Economic Outlook

Anthony Chan, Ph.D.
Chief Economist, Chase
Global Overview Presentation
Dr. Anthony Chan
November 2017

Global markets continue to enjoy a strong 2017...
U.S. non-U.S. equity markets lead the pack

IMF World Economic GDP Projections
...what lies ahead?

This expansion has been one of the longest on record...
...but cycles don’t die of old age

Economic and Business Research Center
Eller College of Management
University of Arizona
2017 Economic Outlook Luncheon
ebr.eller.arizona.edu

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Global growth is broadening and strengthening...

- The global economy has finally joined the party.
- Investors are now focused on the outlook for emerging markets, Japan, and other emerging economies.
- The strong performance of emerging markets is due to improvements in recent years, particularly in China, India, and some emerging economies.
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Earnings are responding:
- After years of lagging, earnings growth outside the U.S. is strong and positive.
- While the pace of earnings growth will remain slow in 2017, it is expected to pick up in the second half.
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European fundamentals are at their best since 2011

After years of capital flight and commodity-driven weakness, Emerging Markets are rebounding...
Appendix

Definitions of indices and terms

- U.S. GDP (Gross Domestic Product): The total value of all goods and services produced in the United States over a period of time.
- S&P 500: A stock market index that measures the performance of large-cap companies traded on the New York Stock Exchange and NASDAQ.
- NASDAQ Composite: A market capitalization-weighted index of the electronic stock market (NASDAQ).
- US Dollar Index: A price-weighted index that measures the average value of the dollar against a basket of major currencies.
- unemployment rate: The percentage of the labor force that is unemployed and actively looking for work.
- inflation rate: The percentage change in the price level of a basket of goods and services over time.

Appendix

Definitions of indices and terms, continued

- DJIA (Dow Jones Industrial Average): An index of 30 blue chip U.S. stocks.
- S&P Midcap 400: A stock index that tracks the performance of mid-capitalization U.S. stocks.
- NASDAQ: A stock exchange that primarily lists high-growth and high-technology companies.
- FOMC (Federal Open Market Committee): A committee of the Federal Reserve System responsible for conducting monetary policy.
- CPI (Consumer Price Index): A measure of the change in the price level of a basket of goods and services purchased by households.

Appendix

Important information about your investments and potential conflicts of interest

- Investment strategies are generalized and risk of loss is possible. Please consult with your financial advisor before making any investment decision.
- All investments involve risk. Past performance is no guarantee of future results.
- The information provided is for educational purposes only and should not be construed as a guarantee of investment performance or a recommendation to invest.
- The views expressed in this document are those of the authors and do not necessarily reflect the views of the Eller College of Management or the University of Arizona.

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Recent Developments

- Arizona job growth slowed in the third quarter.
  - Preliminary estimates show no growth in Tucson over the year.
- Tucson’s job estimates are likely to be revised up.
  - This will reconcile better with the buzz around town.
- Gains in wages per job remain positive but slow.
  - However, Arizona’s growth is beating the nation.
- Arizona exports to Mexico continue to decline.
  - The dollar remains strong against the peso.
- Arizona and Tucson are forecast to grow next year.
  - Look for continued gains in jobs, income, and population.

Economy Overview

<table>
<thead>
<tr>
<th>Indicator</th>
<th>How Are We Doing?</th>
<th>How Do We Compare?</th>
<th>Recent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSINESS GROWTH</td>
<td>0.4%</td>
<td>FROM 2015 TO 2016</td>
<td>+</td>
</tr>
<tr>
<td>EMPLOYMENT GROWTH</td>
<td>1.3%</td>
<td>FROM 2015 TO 2016</td>
<td>+</td>
</tr>
<tr>
<td>HOUSING AFFORDABILITY</td>
<td>76.3%</td>
<td>PER 2015 DOLLARS</td>
<td>-</td>
</tr>
<tr>
<td>MEDIUM HOUSEHOLD INCOME</td>
<td>$46,162</td>
<td>PER 2015 DOLLARS</td>
<td>+</td>
</tr>
<tr>
<td>PATENTS</td>
<td>17.4</td>
<td>PER 10,000 WORKERS</td>
<td>-</td>
</tr>
<tr>
<td>REAL GDP</td>
<td>0.2%</td>
<td></td>
<td>+</td>
</tr>
</tbody>
</table>
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Wage Growth Per Job
Over The Year, Smoothed

Productivity Is Key
Output Per Worker In 2015

Educational Attainment
Four-Year College Attainment, Population Age 25-64

Arizona Merchandise Exports
January-September Of The Year, 2015 To 2017
### Tucson MSA And U.S. Job Growth

**Annual Percent Change**

- Tucson
- U.S.

![Graph showing annual percent change of Tucson MSA and U.S. job growth](image)

### Tucson MSA Job Gains By Industry

**2016-2019**

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

![Bar chart showing job gains by industry](image)

### Tucson MSA Income And Sales Growth

**Annual Percent Change**

- Retail Sales
- Personal Income

![Graph showing annual percent change of retail sales and personal income](image)

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