OVERVIEW
- Recovery continues at slow pace
  - Comparable to recovery from 1990-91 recession
- Consumers are spending
- What happened to the workers?
- Hispanics account for decline in births
- Signs of life in housing markets
- Mobility remains at decades low

NONFARM EMPLOYMENT
- Historically, deep recessions have been followed by rapid recoveries
  - But financial meltdowns take longer
- Current recovery compares to path following the mild/shallow 1990-91 recession

Recoveries Compared
Nonfarm Employment, AZ

Historically, deep recessions have been followed by rapid recoveries. But financial meltdowns take longer. Current recovery compares to path following the mild/shallow 1990-91 recession.
**Nonfarm Employment**

- Metro Phoenix accounts for most of new jobs created
- Metro Tucson employment is flat

<table>
<thead>
<tr>
<th>State</th>
<th>Job Growth 2012Q1 Y/Y</th>
<th>Net Jobs Created since Aug. 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZ</td>
<td>2.1%</td>
<td>75,000</td>
</tr>
<tr>
<td>PHX</td>
<td>2.6%</td>
<td>69,400</td>
</tr>
<tr>
<td>TUS</td>
<td>-0.4%</td>
<td>800</td>
</tr>
</tbody>
</table>

---

**Nonfarm Jobs, TUS**

Seasonally adjusted

**Nonfarm Job Growth, TUS**

Seasonally adjusted
WHERE ARE THE WORKERS?
- Labor force participation rates are the lowest in three decades
  - Demographics - retiring boomers? Kids staying in school?
  - Displaced/discouraged workers - will they return?
    - No longer employable?

UNEMPLOYMENT STILL HIGH
- AZ’s unemployment rate 8.2% in April
  - 8.1% nationwide
  - 7.1% in PHX and 7.2% in TUS

<table>
<thead>
<tr>
<th></th>
<th>Peak month</th>
<th>Peak Rate</th>
<th>April 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>Oct. 2009</td>
<td>10.0%</td>
<td>8.1%</td>
</tr>
<tr>
<td>AZ</td>
<td>Mar. 2010</td>
<td>10.8%</td>
<td>8.2%</td>
</tr>
<tr>
<td>PHX</td>
<td>Jan. 2010</td>
<td>9.9%</td>
<td>7.1%</td>
</tr>
<tr>
<td>TUS</td>
<td>Jan. 2010</td>
<td>9.5%</td>
<td>7.2%</td>
</tr>
</tbody>
</table>
**POPULATION UPDATE**

- Births have stabilized at a level first reached 12 years ago
  - Hispanics account for most of decline

---

**Births and Deaths, Arizona**

Seasonally adjusted annual rate

---

**Number of Births Annually**

*Arizona*

---

**POPULATION UPDATE**

- Population growth of 0.5% in 2011
  - Improvement in net migration (to near zero)
  - Natural increase is running at 3,600
    - Down from 5,500 in 2007
- Slow growth due to restrained mobility
### Population Gain by Component

#### Metro Tucson, 2000-2011 (000s)

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Annual Growth Rate (%)</th>
<th>Change</th>
<th>Net Migration</th>
<th>Natural Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>848.4</td>
<td>2.3%</td>
<td>19.5</td>
<td>14.6</td>
<td>4.9</td>
</tr>
<tr>
<td>2001</td>
<td>865.7</td>
<td>2.0%</td>
<td>1.0</td>
<td>12.3</td>
<td>5.0</td>
</tr>
<tr>
<td>2002</td>
<td>881.5</td>
<td>1.8%</td>
<td>15.8</td>
<td>11.3</td>
<td>4.6</td>
</tr>
<tr>
<td>2003</td>
<td>897.8</td>
<td>1.8%</td>
<td>16.3</td>
<td>11.4</td>
<td>5.0</td>
</tr>
<tr>
<td>2004</td>
<td>914.0</td>
<td>1.8%</td>
<td>16.2</td>
<td>11.0</td>
<td>5.2</td>
</tr>
<tr>
<td>2005</td>
<td>940.0</td>
<td>2.8%</td>
<td>26.0</td>
<td>20.7</td>
<td>5.3</td>
</tr>
<tr>
<td>2006</td>
<td>959.5</td>
<td>2.1%</td>
<td>19.5</td>
<td>14.2</td>
<td>5.3</td>
</tr>
<tr>
<td>2007</td>
<td>977.3</td>
<td>1.9%</td>
<td>17.8</td>
<td>11.7</td>
<td>6.1</td>
</tr>
<tr>
<td>2008</td>
<td>984.0</td>
<td>0.7%</td>
<td>6.7</td>
<td>1.1</td>
<td>5.7</td>
</tr>
<tr>
<td>2009</td>
<td>984.3</td>
<td>0.0%</td>
<td>0.3</td>
<td>-5.2</td>
<td>5.4</td>
</tr>
<tr>
<td>2010</td>
<td>981.2</td>
<td>-0.3%</td>
<td>-3.1</td>
<td>-7.4</td>
<td>4.3</td>
</tr>
<tr>
<td>2011</td>
<td>985.1</td>
<td>0.5%</td>
<td>4.9</td>
<td>1.3</td>
<td>3.6</td>
</tr>
</tbody>
</table>

### Annual Changes in Population

#### Metro Tucson

**Housing Markets**
- Existing homes sales are buoyant
- Strong investor demand
- Inventories are lean (and near normal)
- 4-mo in TUS
- Construction of new residential units moving upward
Existing Home Sales, MLS
000s units, seas adj annual rate

PHX 110
100
90
80
70
60
50
40
99 00 01 02 03 04 05 06 07 08 09 10 11 12

TUS 20
18
16
14
12
10
8

Housing For Sale Inventory, MLS
seas adj and smoothed, Metro Tucson

active listings

months supply

active listings

months supply

Building Permits, TUS
(seasonally adjusted annual rate)

HOUSING PRICES MOVING UP!

- How much depends on the measure
  - MLS Realtor data, median price of homes sold
    - PHX, up 32% AR over past nine months
    - TUS, up 15% AR over past six months
  - Standard & Poor’s Case-Shiller index
    - PHX, up 9.5% AR over past five months
  - FHFA repeat-sales index
    - PHX, up 6.1% AR past 3 quarters
    - TUS, still declining
Marine J. Vest
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The University of Arizona
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Breakfast With The Economists: Mid-Year Economic Update
June 5, 2012

Home Prices Metro PHX

Median Price of Homes Sold
MLS, Metro Tucson

Home Price Appreciation
FHFA Repeat Sales Index

CONSUMER SPENDING, TUS

- Retail sales grew by 7.3% in 2011
  - Largest since 2005’s 9.2% gain
  - 14.4% in February and 8.0% in January, Y/Y
Restaurant & Bar Sales, TUS
seasonally adjusted annual rate

Retail Sales, TUS
seasonally adjusted annual rate and moving average

CONSUMER SPENDING, TUS
- Restaurant & bar sales grew 3.8% in 2011
- 6.2% in Feb., Y/Y

SALES FORECASTS (% CHG), TUS

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>7.3</td>
<td>4.9</td>
<td>4.6</td>
<td>4.0</td>
<td>4.6</td>
</tr>
<tr>
<td>Restaurant &amp; Bar</td>
<td>3.8</td>
<td>5.1</td>
<td>3.5</td>
<td>4.6</td>
<td>4.5</td>
</tr>
<tr>
<td>Gasoline</td>
<td>24.3</td>
<td>13.8</td>
<td>0.1</td>
<td>-1.7</td>
<td>-1.6</td>
</tr>
<tr>
<td>Food</td>
<td>2.0</td>
<td>3.3</td>
<td>3.4</td>
<td>3.9</td>
<td>4.2</td>
</tr>
<tr>
<td>Total Retail</td>
<td>7.6</td>
<td>5.7</td>
<td>3.7</td>
<td>3.4</td>
<td>3.9</td>
</tr>
</tbody>
</table>
SUMMARY

- Recovery continues at slow pace
  - Employment is barely growing
    - Comparable to early 1990s
  - Population growth remains restrained
  - Consumer spending is outpacing income
- Labor force participation lowest in 3 decades
  - Some workers may not return
- Housing prices are now increasing

THE OUTLOOK

- Pace of recovery slow by historical standards
  - restrained by
    - Tight credit, de-leveraging
    - Housing markets
    - Reduced mobility of population
    - Lack of confidence
    - Cautious spending and hiring
    - Drag from public sector
  - Mid-decade before damage from recession is repaired

IT IS THE NEW WORD DE JOUR

GERALD J. SWANSON, Ph.D.
Professor Emeritus of Economics
Thomas R. Brown Professor in Economics Education
SCHADENFREUDE

ENJOYMENT OBTAINED FROM THE TROUBLES OF OTHERS.

GOOD NEWS – OUR ECONOMY IS GROWING


UNEMPLOYMENT

A puzzling picture.

May 2012 unemployment rate = 8.2%
December 2011 unemployment rate = 8.5%

Number unemployed = 12.5 million
Serious problem
Unemployed 27 months or more = 5.4 million
Not changing
6.3 million discouraged workers

Participation rate =
% population over age of 16 in labor force

May 2012 63.8%
January 2001 67.2%

Employment rate =
% of population over the age of 16 employed

May 2012 58.6%
January 2001 64.4%
Breakfast With The Economists: Mid-Year Economic Update

June 5, 2012

**UNEMPLOYMENT**

<table>
<thead>
<tr>
<th>Participation Rate</th>
<th>Employment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than H.S.</td>
<td>45.2% 39.8%</td>
</tr>
<tr>
<td>H.S. no college</td>
<td>59.2% 54.5%</td>
</tr>
<tr>
<td>Some college</td>
<td>69.0% 63.7%</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>76.2% 73.2%</td>
</tr>
</tbody>
</table>

**UNEMPLOYMENT**

- Job Losers: 4.5%
- Job Leavers: 0.6%
- Reentrants: 2.2%
- New Entrants: 0.9%
- Total unemployment: 8.2%

**WHO IS HIRING?**

- HEALTH CARE
- TRANSPORTATION
- WHOLESALE
- MANUFACTURING

**WHO IS NOT HIRING?**

- CONSTRUCTION
- STATE & LOCAL GOVERNMENTS

**GDP GROWTH**

<table>
<thead>
<tr>
<th>UNDERPERFORMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 GDP Q1 -6.4% Q1 3.7% Q1 0.4%</td>
</tr>
<tr>
<td>Q2 -0.7% Q2 1.7% Q2 1.3%</td>
</tr>
<tr>
<td>Q3 1.6% Q3 2.5% Q3 1.8%</td>
</tr>
<tr>
<td>Q4 5.0% Q4 2.3% Q4 3.0%</td>
</tr>
</tbody>
</table>

Growth for 2011 = 1.7%
1ST QUARTER 2012 1.9%
NO INFLATIONARY EXPECTATIONS

DESPITE MASSIVE INJECTION OF MONEY INTO THE ECONOMY BY THE FEDERAL RESERVE BANK - OVER 2 TRILLION DOLLARS

NOVEMBER 2011 = 3.0%
DECEMBER 2011 = 3.2%
JANUARY 2012 = 2.9%
FEBRUARY 2012 = 2.9%
MARCH 2012 = 2.9%
APRIL 2012 = 2.3%

FEDERAL RESERVE’S TARGET RATE IS 2%

= C+I+G+X

CONSUMER SPENDING
INVESTMENT SPENDING
GOVERNMENT SPENDING
NET EXPORTS = EXPORTS-IMPORTS

SAVINGS DOWN
CONFIDENCE STILL LOW
REAL WAGES STAGNANT
NEGATIVE ELECTION YEAR POLITICS -
BREAKFAST WITH THE ECONOMISTS: MID-YEAR ECONOMIC UPDATE

MID-YEAR ECONOMIC UPDATE

June 5, 2012

Marshall J. Vest
Eller College of Management
The University of Arizona
mvest@eller.arizona.edu

BUSINESS CONFIDENCE IS UP
BUSINESS PROFITS ARE GOOD
BUSINESSES HAVE LOTS OF CASH
BUSINESSES STILL FACE LOTS OF UNCERTAINTY

EXPORTS HAVE BEEN A DRIVING FORCE IN OUR ECONOMIC RECOVERY

EXPORTS ACCOUNT FOR 14% OF OUR GDP

EXPORTS-IMPORTS TRADE DEFICIT FOR 2011 $560 BILLION

U.S. BOUGHT $560 BILLION MORE IN GOODS AND SERVICES THAN IT PRODUCED

HOW ARE THESE COUNTRIES DOING?
FISCAL POLICY
FALLING OF THE FISCAL CLIFF
JANUARY 2, 2013

Two months after election

MASSIVE SPENDING CUTS

MASSIVE TAX INCREASES

FISCAL POLICY
MORE FUN TO COME!

WE WILL HIT THE DEBT CEILING AGAIN AT THE END OF THIS YEAR

Current Ceiling $16.4 trillion
Current Debt $15.8 trillion

March 2012 deficit = $198.2 billion
A RECORD MONTHLY DEFICIT!

MONETARY POLICY

MOST EXPANSIVE MONETARY POLICY IN THE HISTORY OF THE FEDERAL RESERVE

FUTURE EFFECT OF MONETARY POLICY IS VERY LIMITED

WE HAVE HAD 42 MONTHS OF ZERO INTEREST RATES

CURRENT 30 YEAR FIXED MORTGAGE INTEREST RATE = 3.75%
MONEY POLICY

TREASURY YIELD CURVE
INTEREST RATES TO MATURITY
6 MTH RATE = 0.06%
1YR RATE = 0.18%
5YR RATE = 0.62%
10YR RATE = 1.50%
30YR RATE = 2.54%

REAL INTEREST RATE = NOMINAL INTEREST RATE - INFLATION RATE
CURRENT INFLATION 2.3%

FACT

NEGATIVE INTEREST RATES
TRANSFERS WEALTH FROM SAVERS TO BORROWERS

EUROPEAN DEBT CRISIS

COUNTRIES CAUGHT BETWEEN A ROCK AND A HARD PLACE

SOLUTIONS HOBSON’S CHOICE

- WORK TO MEET CRITERIA
  - SURRENDER BUDGET SOVEREIGNTY
  - HIGHER TAXES
  - MAJOR BUDGET CUTS
  - LIBERALIZATION OF LABOR MARKETS
  - TOLERATE MAJOR RECESSION
- LEAVE THE EURO-ZONE
  - DEFAULT
  - CAPITAL FLIGHT
  - ADOPT OLD CURRENCY
  - DEVALUE OLD CURRENCY
  - TOLERATE MAJOR RECESSION
CONCLUSION
EUROZONE UNEMPLOYMENT AT RECORD HIGH

17 COUNTRIES THAT USE THE EURO ARE
FACING THE HIGHEST UNEMPLOYMENT RATES
IN THE HISTORY OF THE CURRENCY. = 11%

SPAIN 24.3%
GREASE 21.7%
FRANCE 10.0%
ITALY 10.2%
GERMANY 5.4%

CONCLUSION
LESSONS FROM CRISIS
NEVER BECOME A
1. HIGH TAX
2. SLOW GROWTH
3. ENTITLEMENT STATE

BECAUSE THE INEVITABLE DAY OF RECKONING
WILL BE:
1. NASTY
2. PAINFUL
3. AND NOT SHORT

RISKS OF NO SOLUTION
CONTAGION - EUROPEAN UNION (EU)
EXPERIENCES A FINANCIAL CRISIS

A TROUBLED EU MEANS TROUBLE
FOR EVERYONE

ECONOMIC ACTIVITY IS SLOWING
IN SYNIC AROUND THE GLOBE

CONCLUSION
THE EURO CRISIS COULD BECOME OUR CRISIS

WE NEED LONG-TERM
SOLUTIONS TO OUR DEBT AND
DEFICIT PROBLEMS NOW
OUR GOVERNMENT WILL KICK THE DEBT AND DEFICIT PROBLEMS DOWN THE ROAD TO NEXT YEAR.

OUR ECONOMY WILL CONTINUE TO GROW AT A SLOW PACE

OUR UNEMPLOYMENT RATE WILL REMAIN UNACCEPTABLY HIGH

SCHADENFREUDE

OUR ECONOMY IS IN BETTER SHAPE THAN EUROPE’S

HOWEVER -

EINFUHLUNGSVERMOGAN

OUR DEBT AND DEFICIT PROBLEM IS NOT

HAVE A COOL SUMMER

SEE YOU IN DECEMBER

BREAKFAST WITH THE ECONOMISTS: MID-YEAR ECONOMIC UPDATE

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