Economic Update: 2008 & 2009

Presented to:
ATRA 2008 Outlook Conference

By:
Jim Rounds
November 21, 2008
Economics vs. Psychology
Dow Jones Stock Prices
Percent Change Year Ago
1980 – 2008*

Source: www.economy.com

*Data through October 27, 2008
Economic Fundamentals:
United States Real Gross Domestic Product*
Annual Growth 1970 - 2009**
Source: U.S. Bureau of Economic Analysis & Blue Chip Economic Indicators

* Based on chained 2000 dollars.
** 2008 - 2009 are forecasts from the Blue Chip Economic Indicators, October 2008

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Why Do Recessions Occur?

Due to *imbalances*, combined with *shocks*, exacerbated by *bad decisions*.
What have we been contending with this time?

- Credit crisis.
- Excess supply of housing.
- Oil prices?
- Inflation pressure?
How is a recession defined?

It’s not just about GDP!
Recession Indicators:

- Real GDP
- Real Income
- Employment
- Industrial Production
- Wholesale – Retail Sales
Real Gross Domestic Product
Percent Change Quarter Ago, Annualized
1971 – 2008*

Source: Bureau of Economic Analysis

* Data through third quarter 2008
Real Personal Income Net of Government Transfers
Percent Change Quarter Ago, Annualized
1971 – 2008*

Source: Bureau of Economic Analysis

Recession Periods

* Data through second quarter 2008
Real Retail Sales U.S.
Percent Change Year Ago
1973 – 2008*

Source: Federal Reserve

*Data through August 2008
**Three-month moving average
National Employment
Percent Change Month Ago, Annualized (S/A)
1981 – 2008*

Source: U.S. Bureau of Labor Statistics

*Data through September 2008
NBER Recession Indicators

- Real GDP ↓
- Real Income ↑ ; soon to be ➡
- Employment ↓
- Industrial Production ↓
- Wholesale – Retail Sales ↓
The Consumer
**Financial Obligation Ratio**
1980 – 2008
Source: Federal Reserve

**Data through second quarter 2008**

**Ratio of mortgage and consumer debt (including auto, rent and tax payments) to disposable income.**

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Mortgage Equity Withdrawal
as a share of Disposable Income
U.S.: 1971 – 2008*
Source: Bureau of Economic Analysis

* Data through second quarter 2008
Savings Rate
1980 – 2008*
Source: Federal Reserve

*Data through second quarter 2008

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Business: Finally taking it on the chin?
The extent depends on the industry...
The weak dollar actually helped.
US Dollar Trade Weighted Exchange v. Major Currencies (1973 = 100)
1973 – 2008*

Source: The Federal Reserve

Recession Periods

Data through September 2008

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U.S. Real Exports as a Percent of Real GDP
1971 – 2008*

Source: Bureau of Economic Analysis

*Data through second quarter 2008
Predictable Danger Ahead?

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Is credit still tightening?
Net Percentage of Large U.S. Banks Reporting Tougher Standards versus Eased Standards on Residential Mortgage Loans
2007 – 2008q3
Source: Federal Reserve, Board of Governors

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Percentage of Large U.S. Banks Reporting Tougher Standards on Business Loans 1997 – 2008*

Source: Federal Reserve, Board of Governors

* Data as of October 2008 survey.
U.S. Summary:

We **ARE** in a recession, only the exact dates are left to be determined.
U.S. Summary:

The economy will be very weak for the remainder of 2008; not so great in 2009; still below average in 2010.
What’s Happening in Arizona?
Arizona & US Move Together
(Nonfarm Employment Percent Change 1980 - 2008)

U.S.  Arizona
Job Growth 2006

Source: US BLS

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Job Growth 2007

Source: US BLS

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Job Growth Update: Arizona Falls to 48th

YTD September 2008 vs YTD September 2007 - BLS

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Arizona Employment Rank Among 50 States
1979 – 2008 Growth Over Previous Year

Source: Arizona State University

= YTD Sept = 48

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Greater Phoenix
Greater Phoenix Population
Annual Percent Change 1976–2009*

Source: Arizona State University & Department of Commerce, Research Administration

2006 and 2007 are estimates put out by ADES and may be subject to substantial revision.

* 2008 & 2009 forecast is from Elliott D. Pollack & Co.
Phoenix-Mesa MSA Employment*
Annual Percent Change 1975–2009**
Source: Department of Commerce, Research Administration

*Non-agricultural wage & salary employment. Changed from SIC to NAICS reporting in 1990.

** 2008 and 2009 forecast is from Elliott D. Pollack & Co.
Construction Employment: Arizona v. U.S.
Percent Change Year Ago
1991 – 2008*
Source: Bureau of Labor Statistics

- Data through September 2008.

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Thousands of Jobs

55,000 Arizona Construction Jobs Lost Since Summer of 2006

2005

2006

2007

2008

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Greater Tucson
Greater Tucson Population
Annual Percent Change 1976–2007
Source: Arizona Department of Commerce, Research Administration

2006 and 2007 are estimates put out by ADOC and may be subject to substantial revision.
Greater Tucson MSA Employment*
Annual Percent Change 1975–2008**
Source: Department of Commerce, Research Administration

*Non-agricultural wage & salary employment. Changed from SIC to NAICS reporting in 1990.

**2008 & 2009 are forecasts from the University of Arizona

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Greater Phoenix Case Study: Housing
Greater Phoenix Listings
January 2002 - September 2008
Source: AMLS
Greater Phoenix S&P/Case-Schiller Home Price Index**
Percent Change Year Ago
1990 – 2008*
Source: Macro Markets, LLC

*Data through July 2008
**Measures changes in existing single family home prices given a constant level of quality.

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Home Prices Indices
2000 – 2010
Source: Macro Markets, LLC; AMLS

MLS Index  Case-Shiller Index  Trendline (4.0%)

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SUPPLY
In
Greater Phoenix
## Greater Phoenix Permits

Source: R.L. Brown

<table>
<thead>
<tr>
<th>Year</th>
<th>Permits</th>
<th>% chg</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>38,914</td>
<td>7.6%</td>
</tr>
<tr>
<td>2003</td>
<td>47,720</td>
<td>22.6%</td>
</tr>
<tr>
<td>2004</td>
<td>60,872</td>
<td>27.6%</td>
</tr>
<tr>
<td>2005</td>
<td>63,570</td>
<td>4.4%</td>
</tr>
<tr>
<td>2006</td>
<td>42,423</td>
<td>-33.3%</td>
</tr>
<tr>
<td>2007</td>
<td>31,172</td>
<td>-26.5%</td>
</tr>
<tr>
<td>2008YTD(^1)</td>
<td>11,405</td>
<td>-58.1%</td>
</tr>
</tbody>
</table>

\(^1\) Through September 2008
DEMAND
For
Greater Phoenix
Greater Phoenix long-term demographics call for roughly 35,000-40,000 single family units each year.

(It will be less in the next 2-3 years though)
This implies that we could have overbuilt by as many as 75,000 units between 2003 and 2006.

(exact figures depend on the actual population flows)
Single-Family Permits
Greater Phoenix 1975–2007

# Permits

Source: PMHS / RL Brown
Not every region is as overbuilt as Greater Phoenix.
Any positives?
Oil Prices - $/Barrel
1982 – 2008*
Source: Freelunch.com

•Data through Nov. 11th 2008.
Housing Affordability Index
2008 q2
Source: NAHB

Phoenix: 65.3
Denver: 64.7
Albuquerque: 62.8
Las Vegas: 54.7
Salt Lake City: 54.6
Tucson: 53.1
Flagstaff: 31.4
San Diego: 31.1
Seattle: 30.7
Los Angeles: 14.8

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# Arizona Forecast
## 2008 – 2009

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>4.2%</td>
<td>3.5%</td>
<td>2.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Employment</td>
<td>5.4%</td>
<td>1.3%</td>
<td>-2.0%</td>
<td>-1.0%</td>
</tr>
<tr>
<td>Personal Income</td>
<td>8.4%</td>
<td>4.5%</td>
<td>3.0%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Retail Sales</td>
<td>7.9%</td>
<td>0.1%</td>
<td>-5.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Source: *Elliott D. Pollack & Company, AZ Blue Chip, Department of Commerce, Research Administration*
Best Guesses:

- Bottom for Dow?
- Equilibrium for oil/gas prices?
- Recession dates?
- Return to normal growth (U.S./State)?
- When will government intervention improve confidence?
How can the State’s current problems be avoided in the future?
Long Term Solutions?

- Quit spending like drunken sailors. A 67% increase in the budget over 3 years is unacceptable.

- If, as a matter of public policy, there is a desire to significantly increase government spending, it must be done over time and not all at once.
Long Term Solutions?

- Increase the BSF limit to the original 15% of the budget (or more).

- Pay more attention to economists when they tell you that 15% revenue growth is not sustainable.

- Moving forward, improve the State’s economic development toolbox.