Members Present:
Pete Ewen, Arizona Public Service
James Apperson, Governor’s Office of Strategic Planning and Budgeting
Georganna Meyer, Department of Revenue
Dean Martin, State Treasurer
Elliott Pollack, Elliott D. Pollack and Co.
Martin Schultz, Arizona Public Service
Randie Stein, Stone & Youngberg
Marshall Vest, University of Arizona
Don Wehbey, Department of Economic Security Research Administration

Mr. Richard Stavneak, Director, JLBC Staff, opened the meeting at 11:45 a.m. and welcomed everyone to the Finance Advisory Committee (FAC) meeting. He provided a brief synopsis of the FAC panel since it began advising the Legislature 30 years ago.

Mr. Stavneak started the JLBC Staff presentation with an overview of state revenues and issues for the panel to consider. (Click here to view.)

Mr. Brian Cary, JLBC Staff, continued the presentation on Sales Tax Collections and Corporate Income Tax. Mr. Hans Olofsson, JLBC Staff, continued the presentation on Individual Income Tax.

Mr. Pollack gave a slide presentation and handout on the national economy. (Click here to view.)

Mr. Stavneak asked Mr. Pollack’s perspective relative to the state’s economy.

Mr. Pollack said that the state economy will be affected to a lesser degree. The problem is that housing permits are down; however, closings are not. It could be either homebuilders selling their existing inventory or housing starts under construction have not yet been completed. The worst effect on the slowdown in housing is still ahead. The good news is that the worse 2007 is for housing, the quicker the state will get through. The overhang is not huge.

Mr. Marshall Vest gave a presentation on the Arizona economy. (Click here to view.)
Mr. Stavneak asked Mr. Vest what he attributed his cautious outlook to. Mr. Vest replied that it would be a combination of serious pull back in housing and homebuilding coupled with the slowdown in consumer spending.

Mr. Stavneak asked if the typical timeframe between housing permits and the loss of jobs is 24 months and when that time period would come. Mr. Vest replied that it has been 17 months as of December, so in the first or second quarter, construction employment may turn down, which could be a drag on overall growth.

Mr. Pete Ewen gave a presentation on his views of the economy. (Click here to view.)

Mr. Pollack said that Mr. Ewen had a great analysis. He said that there is a completely different picture if R.L. Browns’ data is used as opposed to Jay Butler’s data. He asked Mr. Ewen if he has analyzed Jay’s data. Mr. Ewen replied that they track the permits against their electric meter sets. There is typically a 6 to 9 month lag, which is well correlated. He does not know if he would get the same data if he did the same with RL Browns’ data.

Mr. Stavneak said that from the recession to the moderate growth scenario, Mr. Ewen is closer to the moderate view.

Mr. Cary said that most of the discussion has been focused on the residential housing segment, he asked Mr. Ewen for his perspective on the commercial and industrial side of the business.

Mr. Ewen said that customer growth had held up well. The commercial segment is never approached on the same level as residential. The weight in economic activity differs from the type of facility, which makes is harder to make sense of the growth rate in customer accounts. When looking at the sales growth rate of the electricity consumption, which is tied to the industrial production measure, those rates are in the highest level since the recession of 2001-2002.

Mr. Stavneak asked the panel for their perspective on the economy.

Mr. Jim Apperson said he just received a similar briefing from his advisory group and it is still under review. There are no new updates, but the information is consistent with what was said by the panel.

Mr. Martin Schultz said the electric usage is growing 4 times more than the national average, which means that not only is it residential usage but also the commercial sector. He added that he works closely with the school districts. The school districts know about the meter sets and are trying to figure out their growth and student population. This will ultimately lead to their requests for new schools. The optimistic assessment is an indication that the pressure will continue to be on the growth in schools.

State Treasurer Dean Martin provided a handout illustrating the Office of the State Treasurer’s Operating Account Balance. (Click here to view.)

Ms. Randie Stein said that population growth will continue offsetting the housing market. General merchandise sales will mitigate some of the slowdown. The bump in individual income tax estimated payments in December and January may be tied to automatic payments associated with federal taxes. In the end, it would require a refund and may not be here to stay.

Mr. Stavneak said that the challenge in analyzing the estimated payment data is some individuals whose estimated payments are on autopilot from when a return is filed earlier in the year and their accountant estimates their payment. There is some element within individual which is a misnomer to the extent where there are small business contributing through limited liability companies (LLC). Because of this,
growing share of individual income tax liability might be more varied because it may not be as much on autopilot. It is hard to distinguish wealthy individuals versus LLCs who are making estimated payments.

Mr. Don Wehbey said the January employment figures have been released. The January figures posted mostly losses in all but 2 industries. The losses of about 44,000 jobs are seasonally related. Typically, the losses on a 10-year average basis is 2.6%, the 2007 losses represented 1.6%. This is post-holiday related layoffs which are widespread, with the exception of 2 industries. One of the industries, Other Services, captures jobs not found elsewhere. The employment report is another positive indicator of economic momentum. There were not as many losses as expected. The unemployment rate was 4.1% compared to 4.6% nationally. The benchmark figures for annual growth in 2006 and 2005 came in at 5.4% for each year, which is a slight increase. The pre-benchmark figure of growth was at 4.9% and post-benchmark figure came in at 5.4%. This compares with pre-benchmark numbers of growth of 123,000, now at post-benchmark of 135,000. The labor market continues strong. There are indicators of a moderate slowdown. Forecast figures will be released in mid-April.

Mr. Stavneak asked if the loss of 5,000 construction jobs was typical between December and January.

Mr. Wehbey said yes, the construction industry can be affected by modest things such as the weather. In the benchmark changes, there was an upward revision in manufacturing. Manufacturing was the one industry that showed proportionately more for its industry base. Construction in 2006 went down slightly.

Ms. Georganna Meyer agreed with the opinions of the panel. The reports from the school tuition organizations hit $51 million for 2006 compared with $42 million last year. This does reflect the last year of the increase in the amount married filing joint donors who can donate from $825 to $1,000.

Mr. Stavneak said that this is another challenge in forecasting revenue. It is not just economic growth, but also changes in credits.

The meeting adjourned at 1:00 p.m.

Yvette Medina, Secretary

Tim Everill, Revenue Section Chief

NOTE: A full tape recording of this meeting is on file in the JLBC Staff office at 1716 West Adams.
Finance Advisory Committee

March 8, 2007

JLBC
Finance Advisory Committee

• The FAC has been advising the Legislature on the Arizona economy for more than 30 years.
• 15 members from both the public and private sectors.
• Committee meets 3 times a year.
• Panelists are polled on revenue forecasts – one of 4 inputs into the consensus forecasting process.
Questions for the Committee

• There are a wide range of forecasts for the next 15 months – ranging from recession to moderate growth – what is your forecast?
• How far will the decline in housing permits ripple through the economy?
• How much has the stock market drop of the last week affected your thinking?
FAC Forecast is a Component of “Big 3”
General Fund Revenue Consensus Estimate

Big 3 forecast equally weights:

- FAC average
- UofA model - base
- UofA model - low
- JLBC Staff forecast
- Remaining revenues (5% of total) are staff forecast
Four-Sector Consensus Process Designed to Incorporate Variety of Opinion and Methodology

• Level of Modeling
  – 2 inputs based on formal econometric models:
    • UA model consisting of over 200 variables and 100 equations.
    • UA Base and Low forecasts incorporated into 4-sector forecast.
  – 2 inputs based primarily on economists’ analysis of current data:
    • Survey of FAC panel members.
    • JLBC Staff forecast.

• Level of Risk
  – Inputs designed to span varying levels of risk – from a 50% probability of meeting or exceeding forecast to 75%-80%.

• Forecast based on pre-tax law basis for comparability – then tax law changes applied to reach final forecast.
What Has Happened Since our December Meeting?

• While November year-to-date revenue collections were 9.3%, February year-to-date collections are 8.3%.
• Revenue growth will continue to decline in FY ’07 as effects of enacted tax law changes take effect:
  – 5% individual income tax reduction and corporate sales factor.
• January retail sales tax collections (reflecting the December holiday period) grew by only 1%.
• Estimated individual income tax payments for the December-January period were up by 8.1% over the prior year.
- March Panel Forecast Compared to December

FY 2007

- December: 7.9%
- March: 8.4%

FY 2008

- December: 5.0%
- March: 4.8%

Weighted Big 3 Average
Prior to Tax Law Changes
March 4-Sector Consensus Forecast for FY 2007 Compared to December
- Weighted Average Increased Slightly from 8.2% to 8.3%

<table>
<thead>
<tr>
<th>Sector</th>
<th>December</th>
<th>March</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA-Base</td>
<td>8.8%</td>
<td>8.4%</td>
</tr>
<tr>
<td>UA-Low</td>
<td>6.4%</td>
<td>7.1%</td>
</tr>
<tr>
<td>FAC</td>
<td>7.9%</td>
<td>8.4%</td>
</tr>
<tr>
<td>JLBC</td>
<td>9.5%</td>
<td>9.2%</td>
</tr>
</tbody>
</table>

**Weighted Big 3 Average Prior to Tax Law Changes**

**FY 2007**
March 4-Sector Turned More Cautious for FY 2008

- Weighted Average Decreased from 4.8% to 4.3%
- Executive Has Decreased from 6.4% to 6.0%

FY 2008

Weighted Big 3 Average
Prior to Tax Law Changes
Is 25% Recession Scenario Appropriate?
- UA Low Input at 0.4% Growth is Equivalent to A Recession

• National Blue Chip (January 2007) places the odds of a recession at 25% in the next 12 months
  – Based on responses from 55 panelists
  – 10 most optimistic place odds at average of 15%
  – 10 most pessimistic place odds at average of 38%

• Arizona Blue Chip (January 2007) is more optimistic – 16% see next recession by 2008.
  – 8% said prior to 2008
  – 8% said 2008
  – 84% said 2009 or beyond
While UA/FAC Are More Cautious, Blue Chip Continues to Forecast Growth Near Historical Averages

Source: February 2007 Arizona Blue Chip – monthly survey of 18 economists
The Blue Chip “Moderate Growth” Scenario is Not Reflected in UA/FAC Inputs

• Historical revenue growth is 7% annually.
• UA/FAC inputs are at least 2% below historical average growth.
• To reflect the Blue Chip scenario near the historical average, JLBC Staff input is set at 7.5% growth.
Sales Tax Growth Rate
Consensus Projects 3.8% for FY 2008
- Executive Projects 7.8%

- ‘07 YTD rate = 8.2%
- ‘07 JLBC revised = 8.1%
FY 2007 Sales Tax Collections Have Slowed in All Key Categories
- 1% Growth in Holiday Sales Was Disappointing
- When Will Housing Slowdown Affect Contracting?

<table>
<thead>
<tr>
<th>% Change from Previous Year</th>
<th>'06 Actual</th>
<th>'07 YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>14.5%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Contracting</td>
<td>27.5%</td>
<td>16.6%</td>
</tr>
<tr>
<td>Utilities</td>
<td>12.6%</td>
<td>10.4%</td>
</tr>
<tr>
<td>Rest./Bars</td>
<td>12.4%</td>
<td>9.4%</td>
</tr>
<tr>
<td>Use Tax</td>
<td>17.9%</td>
<td>4.2%</td>
</tr>
<tr>
<td>All Other</td>
<td>13.2%</td>
<td>10.4%</td>
</tr>
</tbody>
</table>
Individual Income Tax Growth Rate
Consensus Projects 5.2% for FY 2008
- Executive Projects 6.7%

- ‘07 YTD rate = 9.5%
- ‘07 JLBC revised = 9.3%
  - Adjusting for enacted tax law changes in 2nd half of fiscal year, actual collections are estimated to grow by 4.3% over prior year.
Capital Gains Is An Important But Volatile Tax Revenue Source

• In FY05, capital gains made up 7.5% of Arizona Gross Income compared to 71% for wages.
• However, capital gains contributed more than twice as much -- 16% -- to total net income tax collections.
• Unlike federal rates, there is no lower tax rate for capital gains at the state level.
• Based on CBO projections, it is estimated that the growth rate in capital gains realization will decrease from 38% in FY ’05 to (4)% in FY ’08, which will decrease capital gains’ contribution to net income tax collections.
Corporate Income Tax Collections
Consensus Projects 2.9% for FY 2008
- Executive Projects (0.8)%
Exceptional Growth in Corporate Profits is Not Expected to Continue

• After growing by 19.1% in 2004 and 12.5% in 2005, U.S. corporate profits increased by an estimated 20.8% in 2006.

• The Global Insight forecasting firm projects corporate profits will grow by 4.6% in 2007 and 6.3% in 2008.

• U.S. Blue Chip Economic Indicators predicts corporate profits will grow by 5.0% in 2007 and by 5.3% in 2008.
Views Vary Widely on Future Economic Growth

- UA Input is Lowest of 18 Blue Chip Panel Members for 2 of 3 Key Categories
- UA Models Represent 50% of 4-Sector Consensus Forecast

2007 Arizona Blue Chip Forecast
### FY2007-FY 2010 Quartile Forecast Worksheet

<table>
<thead>
<tr>
<th></th>
<th>FY 2007</th>
<th>FY 2008</th>
<th>FY 2009</th>
<th>FY 2010</th>
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<tr>
<td><strong>Sales Tax</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>JLBC Forecast (3/1/07)</td>
<td>8.1%</td>
<td>7.1%</td>
<td>5.5%</td>
<td>6.2%</td>
</tr>
<tr>
<td>UA - Low (2/07 revision)</td>
<td>7.6%</td>
<td>0.2%</td>
<td>1.9%</td>
<td>5.3%</td>
</tr>
<tr>
<td>UA - Base (2/07 revision)</td>
<td>7.8%</td>
<td>2.5%</td>
<td>4.9%</td>
<td>7.2%</td>
</tr>
<tr>
<td>FAC (3/8/07 Survey)</td>
<td>7.6%</td>
<td>5.2%</td>
<td>5.6%</td>
<td>6.3%</td>
</tr>
<tr>
<td><strong>Average:</strong></td>
<td>7.8%</td>
<td>3.8%</td>
<td>4.5%</td>
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<td><strong>Individual Income Tax</strong></td>
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<tr>
<td>UA - Low (2/07 revision) witholding</td>
<td>6.1%</td>
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</tr>
<tr>
<td><strong>Average:</strong></td>
<td>7.7%</td>
<td>5.2%</td>
<td>5.9%</td>
<td>7.4%</td>
</tr>
<tr>
<td><strong>Corporate Income Tax</strong></td>
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<td>0.2%</td>
</tr>
<tr>
<td>UA - Low (2/07 revision)</td>
<td>8.8%</td>
<td>-8.0%</td>
<td>-13.8%</td>
<td>-4.9%</td>
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<tr>
<td>UA - Base (2/07 revision)</td>
<td>16.9%</td>
<td>11.6%</td>
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<td>2.9%</td>
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<td>FAC (3/8/07 Survey)</td>
<td>12.3%</td>
<td>0.5%</td>
<td>6.2%</td>
<td>6.5%</td>
</tr>
<tr>
<td><strong>Average:</strong></td>
<td>13.1%</td>
<td>2.9%</td>
<td>-1.4%</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

|                      |         |         |         |         |
| **Consensus Weighted Average:** | 8.3% | 4.3% | 4.5% | 6.2% |
| **JLBC Weighted Average:**     | 9.2%    | 7.5%    | 5.5%    | 5.9%    |
| **UA Low Weighted Average:**   | 7.1%    | 0.4%    | 1.4%    | 5.3%    |
| **UA Base Weighted Average:**  | 8.4%    | 4.4%    | 5.2%    | 7.3%    |
| **FAC Consensus Weighted Average:** | 8.4% | 4.8% | 6.0% | 6.5% |

**Note:** All percentages are prior to enacted tax law changes.
“Slower Growth Ahead”

Prepared for:
Finance Advisory Committee

Elliott D. Pollack & Company

March 8th, 2007

National Perspective
Negatives

• Slowing housing market.
• Consumer spending slowing.
• Inflation an issue?

Positives

• Employment still positive.
• Businesses lean and mean.
• Increase in exports.
Weakening economies are more sensitive to shocks.

Examples of Direct Shocks:

• Unexpected oil price escalation.

• Terrorist event (especially to financial or commerce infrastructure).
Examples of Indirect Shocks:

Collapse of housing prices

What is the national Blue Chip panel telling us?
United States Real Gross Domestic Product*  
Annual Growth 1970 - 2008**  
Source: U.S. Bureau of Economic Analysis & Blue Chip Economic Indicators

<table>
<thead>
<tr>
<th>Year</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>5.3%</td>
</tr>
<tr>
<td>1972</td>
<td>5.6%</td>
</tr>
<tr>
<td>1974</td>
<td>5.3%</td>
</tr>
<tr>
<td>1976</td>
<td>3.2%</td>
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<td>1978</td>
<td>4.2%</td>
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<tr>
<td>1980</td>
<td>3.7%</td>
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<tr>
<td>1982</td>
<td>4.6%</td>
</tr>
<tr>
<td>1984</td>
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<td>1986</td>
<td>3.5%</td>
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<td>1988</td>
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<td>1990</td>
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<td>1992</td>
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<td>1994</td>
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<td>1996</td>
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<tr>
<td>1998</td>
<td>3.3%</td>
</tr>
<tr>
<td>2000</td>
<td>1.9%</td>
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<tr>
<td>2002</td>
<td>0.8%</td>
</tr>
<tr>
<td>2004</td>
<td>1.6%</td>
</tr>
<tr>
<td>2006</td>
<td>3.9%</td>
</tr>
<tr>
<td>2008</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

* Based on chained 2000 dollars.  
** 2007 - 2008 are forecasts from the Blue Chip Economic Indicators, February 2007

Recession Periods

ODDS OF A RECESSION  
Source: National Blue Chip Panel

January consensus: 25.4%  
December consensus: 27.4%  
November consensus: 24.8%  
October consensus: N/A
Consumer Energy Goods & Services Spending as a Percent of Personal Income
1971 – 2006*
Source: Bureau of Economic Analysis

Recession Periods

Residential Investment as a Percent of GDP
1947 – 2006*
Source: Bureau of Economic Analysis

Recession Periods

*Data through fourth quarter 2006
Non-Residential Structures Investment as a Percent of GDP
1947 – 2006*
Source: Bureau of Economic Analysis

Value of Total Construction Put-In-Place*
Percent Change Year Ago
Source: U.S. Census Bureau

*Data through fourth quarter 2006

*Includes both residential and non-residential construction.
**Series reporting changed in August 2003. Data prior to 1994 is old series.
Are people making ends meet?

U.S. Real Personal Income Percent Change Year Ago
1971 – 2006*
Source: Bureau of Economic Analysis

*Data through fourth quarter 2006

Recession Periods
U.S. Real Retail Sales
Percent Change Year Ago, 3-Month Moving Average
1972 – 2007*
Source: Federal Reserve Board of St. Louis

Data through January 2007

National Employment*
Annual Percent Change 1975–2006*
Source: Bureau of Labor Statistics

*Non-agricultural wage & salary employment. Changed from SIC to NAICS reporting in 1990.
Median Weeks Unemployed (S/A)
1972 – 2007*
Source: Bureau of Labor Statistics

CONSUMER SPENDING
Causes of Consumer Caution

- Reduced home-related spending on home improvement items such as furnishings, appliances, and building materials. (Look at completions not starts)
- Housing-related industries are now cutting jobs.
- Slowing growth in household wealth
- Mortgage equity withdrawal slowing.
Mortgage Equity Withdrawal as a share of Disposable Income
U.S.: 1971 – 2006*
Source: Bureau of Economic Analysis

* Data through third quarter 2006

Recession Periods

Household Wealth Percent Change Year Ago
U.S.: 1971 – 2006*
Source: Federal Reserve Board, Flow of Funds
Personal Consumption Expenditures
Price Deflator (2000=100)
Percent Change Year Ago
1971 – 2006*
Source: Bureau of Economic Analysis

Personal Consumption Expenditures
Price Deflator (2000=100)
Percent Change Year Ago
2001 – 2006*
Source: Bureau of Economic Analysis

• Data through fourth quarter 2006.
Compensation per Hour*
Percent Change Year Ago
1976 – 2006**
Source: Bureau of Economic Analysis

Output per Hour*
Percent Change Year Ago
1976 – 2006**
Source: Bureau of Economic Analysis

*Non-farm Business
**Data through forth quarter 2006

*Non-farm Business
**Data through first quarter 2006
Unit Labor Costs*
Percent Change from Year Ago
1976 – 2006**
Source: Bureau of Labor Statistics

Recession Periods
*Non-farm Business
**Data through forth quarter 2006

30-Year Conventional Mortgage Rates
1982 – 2007*
Source: Federal Reserve Economic Database

*Data through February 2007.
3-Month Treasury
1982 – 2007*
Source: Federal Reserve Economic Database

Delinquency Rates
Single Family Residential Mortgages
2004q4 – 2006q4*
Source: Federal Reserve

*Data through fourth quarter 2006
Delinquency Rates
Single Family Residential Mortgages
1991 - 2006*
Source: Federal Reserve

Can business pull us forward?
Capacity Utilization Rate
1970 – 2007*
Source: The Conference Board

Corporate Profit
(Billions of Dollars, SA)
1975-2006*
Source: Freelunch.com
Corporate Profit
Percent Change Year Ago
1975-2006*
Source: Freelunch.com

Net Percentage of Large U.S. Banks Reporting Tougher Standards on Business Loans
1991 – 2006*
Source: Federal Reserve, Board of Governors

*Data through third quarter 2006

*Data through fourth quarter 2006.
Total Plant Spending
Percent Change Year Ago
(Real Dollars)
1970 – 2006*

Source: Bureau of Economic Analysis

• Data through fourth quarter 2006.
• NOTE: Series was revised in March 2004. Data prior to 1990 was not provided.

Recession Periods

Total Equipment & Software Spending
Percent Change Year Ago
(Real Dollars)
1970 – 2006*

Source: Bureau of Economic Analysis

• Data through fourth quarter 2006.
• NOTE: Series was revised in March 2004. Data prior to 1990 was not provided.

Recession Periods
Trade Weighted U.S. Dollar Broad Index
1973 – 2007*
Source: Bureau of Economic Analysis

*Data through February 2007
**Value vs. a broad group of major U.S. trading partners

As of March 5th = $107.33

Recession Periods

Government
Is the federal deficit a problem?

U.S. Federal Surplus / Deficit as a Percent of GDP
1968 – 2007
Source: White House OMB & Bureau of Economic Analysis

Note: 2007 are forecasts from the 2007 Mid-Session Review
U.S. Real Net Exports as a Percent of Real GDP
1971 – 2006*
Source: Bureau of Economic Analysis

Goods Exports as a Percent of Total Goods Produced
1990 - 2006*
Source: Bureau of Economic Analysis

*Data through fourth quarter 2006
Recession Periods
U.S. Debt Held by Foreign & International Investors
1975-2006*
(Billions of Dollars, SA)
Source: Federal Reserve Economic Database

Summary:

U.S. Economy…

*Data through third quarter 2006.
U.S. OUTLOOK - 2007

- Consumer spending (-)
- Housing (-)
- Business spending (+)
- Fiscal stimulus (+/-)
- Monetary stimulus (+/-)
- Real incomes (+)
- Businesses mean and lean (+)
- Productivity growth slowing (-)
- Job growth (+)
- Inflation (-)
- Low interest rates (-)
- Exports (+)
**Arizona Economic Update**

Marshall J. Vest  
Eller College of Management  
The University of Arizona

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**Overview**

- Housing is in recession  
  - Sales & permits are plunging  
  - Construction jobs will soon follow  
- Retail sales flat since May  
  - Not just autos and construction-related  
  - General merchandise and apparel  
- Job market still strong, but starting to slow  
  - Construction still expanding but more slowly  
  - Manufacturing is flat
Housing Recession *Déjà Vu?*

- Plunge in building permits compares to 70’s and 80’s downturns

![Residential Permits Lead Construction Jobs, AZ](chart)

Jobs (000s) vs Permits (000s AR) over the years.
AZ’s Growth Industry

- 20% of nonfarm jobs are related to the “growth industry”
  - Construction (9%)
  - Manufacturing - wood products, cement, cut stone, HVAC, furniture (1.8%)
  - Trade – furniture, building materials, lumber, hardware, plumbing, heating (3.1%)
  - Finance – RE credit, Mortgage brokers (0.7%)
  - Insurance – property & casualty, title (0.7%)
AZ’s Growth Industry

- 20% of nonfarm jobs are related to the “growth industry”
  - Real estate, rental & leasing – real estate brokerage, property managers, appraisers, construction equipment leasing (1.5%)
  - Professional, scientific & technical – title abstract & settlement, architectural engineering, janitorial, landscaping (2.7%)

Sales Have Softened

- Retail has stopped growing
  - Flat since May
  - Housing-related categories, autos
  - General merchandise & apparel
Retail Sales, AZ
seasonally adjusted annual rate

Nonfarm Job Growth, AZ
seasonally adjusted annual rate (m/m), smoothed
Nonfarm Employment, AZ
Alternative Scenarios

Personal Income Growth
Arizona
Conclusions

- Housing market correction will continue well into 2007
- Spillover from housing now affecting sales and jobs
- Expect “below trend” growth in 2007-08
  - The slowest growth since the 2001 recession
  - Probability of recession 30%
Housing Market Implications for Arizona’s Economy

JLBC Finance Advisory Committee
Pete Ewen, APS
March 8, 2007
Housing Market Implications

Is the housing market in recession?

Metro Phx Residential Permits

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>56,000</td>
</tr>
<tr>
<td>2005</td>
<td>51,000</td>
</tr>
<tr>
<td>2006</td>
<td>38,000</td>
</tr>
</tbody>
</table>

- Annual production rates dropping since 2004
- Most recent months @ 15-year lows
Housing Market Implications

Is the housing market overbuilt?

Metro Phx (Maricopa County)

<table>
<thead>
<tr>
<th>Category</th>
<th>Period</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population Growth</td>
<td>2004-06</td>
<td>~370,000</td>
</tr>
<tr>
<td>New Households</td>
<td>2004-06</td>
<td>162,000</td>
</tr>
<tr>
<td>Housing Permits</td>
<td>2003-05</td>
<td>153,000</td>
</tr>
<tr>
<td></td>
<td>2004-06</td>
<td>145,000</td>
</tr>
</tbody>
</table>
Housing Market Implications

Installed Meters Vs. Occupied Housing Units
APS Metro Phoenix (Maricopa County)
Housing Market Implications

APS Southeast Division Residential Customer Growth

Graph showing the growth of customers and new meter sets over time.
# Housing Market Implications

## Residential Vacancies @ 2006 YE

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>APS Metro Territory</td>
<td>23,500</td>
</tr>
<tr>
<td>Total Metro Phx</td>
<td></td>
</tr>
<tr>
<td>APS = 50%</td>
<td>47,000</td>
</tr>
<tr>
<td>Multi-Family Vacancies (ASU)</td>
<td></td>
</tr>
<tr>
<td># of Units</td>
<td>17,000</td>
</tr>
<tr>
<td>Total Housing Stock</td>
<td>320,000</td>
</tr>
<tr>
<td>% Vacant</td>
<td>5.3</td>
</tr>
<tr>
<td>Implied Single Family Vacancies</td>
<td></td>
</tr>
<tr>
<td># of Units</td>
<td>30,000</td>
</tr>
<tr>
<td>Total Housing Stock</td>
<td>1,150,000</td>
</tr>
<tr>
<td>% Vacant</td>
<td>2.6</td>
</tr>
</tbody>
</table>
Housing Market Implications

Will housing drag down the rest of the economy?
- Construction employment @ 10% of total jobs – very high, so risk is high
- Overall conditions matter
  - National economy relatively healthy
    - Unlike 1974-75 recession
    - Unlike 1980, 1981-82 recession
    - Unlike 1990-91 recession
  - Other industries stable or growing
- Current construction trajectory declining, but short-term
  - Substantial non-residential construction
  - Net migration, demand for housing remains strong
  - Excess housing supply appears to have been consumed
Housing Market Implications

Construction Employment's Share of Total Wage & Salary Employment

<table>
<thead>
<tr>
<th>Year</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 72</td>
<td>6.7</td>
</tr>
<tr>
<td>Jan 74</td>
<td>10.5</td>
</tr>
<tr>
<td>Jan 76</td>
<td>9.2</td>
</tr>
<tr>
<td>Jan 78</td>
<td>9.0</td>
</tr>
<tr>
<td>Jan 80</td>
<td>7.8</td>
</tr>
<tr>
<td>Jan 82</td>
<td>8.0</td>
</tr>
<tr>
<td>Jan 84</td>
<td>8.2</td>
</tr>
<tr>
<td>Jan 86</td>
<td>9.0</td>
</tr>
<tr>
<td>Jan 88</td>
<td>9.2</td>
</tr>
<tr>
<td>Jan 90</td>
<td>9.4</td>
</tr>
<tr>
<td>Jan 92</td>
<td>9.6</td>
</tr>
<tr>
<td>Jan 94</td>
<td>9.8</td>
</tr>
<tr>
<td>Jan 96</td>
<td>10.0</td>
</tr>
<tr>
<td>Jan 98</td>
<td>10.2</td>
</tr>
<tr>
<td>Jan 00</td>
<td>10.4</td>
</tr>
<tr>
<td>Jan 02</td>
<td>10.6</td>
</tr>
<tr>
<td>Jan 04</td>
<td>10.8</td>
</tr>
<tr>
<td>Jan 06</td>
<td>11.0</td>
</tr>
</tbody>
</table>
Housing Market Implications

Arizona Construction Employment

Change over Prior Year

Housing Market Implications

Implications
- Significant downturn or slowing in AZ economic growth unlikely
  - Modest moderation to be expected
  - 2007 weaker in the 1st half than the 2nd
- Individual income tax revenues grow 7-10%
  - Job growth, wage and salary gains remain healthy
- Sales tax revenues grow 6-9%
  - Decline in contracting tax spread out over time
  - Income growing 7-9%
Finance Advisory Committee
March 8, 2007

Office of the State Treasurer, Arizona
Treasurer Dean Martin
% Change in Monthly Operating Account Balance

- % Change in Cash Balance
- Poly. (% Change in Cash Balance)
- 12 per. Mov. Avg. (% Change in Cash Balance)
- Linear (% Change in Cash Balance)

July 1991 to present
Total Operating Account Monthly Balance

- Monthly Operating Balance
- 12 per. Mov. Avg. (Monthly Operating Balance)
- Linear (Monthly Operating Balance)
- Poly. (Monthly Operating Balance)

July 1990 to present

Millions of dollars