

STATE OF ARIZONA

## Joint Legislative Budget Committee

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### FINANCE ADVISORY COMMITTEE

October 15, 2008

Senate Hearing Room 1 – 9:30 a.m.

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#### Members Present:

Dan Anderson, Arizona Board of Regents  
Brian Cary, Salt River Project  
Tracy L. Clark, Editor, JP Morgan Chase Arizona Blue Chip Economic Forecast  
Dennis Doby, Arizona Department of Commerce  
Pete Ewen, Arizona Public Service  
Dean Martin, State Treasurer  
Georganna Meyer, Arizona Department of Revenue  
Elliott Pollack, Elliott D. Pollack and Company  
Martin Shultz, Pinnacle West Capital Corporation

Mr. Richard Stavneak, Director, JLBC Staff, opened the meeting at 9:40 a.m. and welcomed everyone to the Finance Advisory Committee (FAC) meeting. The panel meets 3 times a year to discuss the economy and to provide the Legislature with guidance on state revenue projections.

Mr. Stavneak, Mr. Eric Jorgensen, Mr. Hans Olofsson, and Mr. Martin Lorenzo, gave the JLBC Staff presentation with an overview of state revenues. ([Click here to view.](#))

Mr. Elliott Pollack, Elliott D. Pollack & Company, gave a slide presentation on the national and local economy. ([Click here to view.](#))

Mr. Stavneak asked Mr. Pollack about the Federal Government and Treasury's attempted fixes over the last 4 weeks. He asked if this is just an indication of impatience and are we unrealistically expecting things to turn around quickly. Mr. Pollack stated that it is a combination of impatience on the part of the market and impatience on the part of the Federal Government. These actions are not designed for the average guy on the street to get an auto loan. They are designed for overnight loans to banks and the commercial paper market to continue, because without overnight loans to banks and without the commercial paper market, this economy cannot function. People who are not credit-worthy will still not get credit loans. They are still not going to get mortgage loans. They are still going to need very good credit to get those loans. He stated that the economy floats on a sea of credit. The consumers need credit to buy cars, TV's, and to send their kids to school. Business needs credit to meet payrolls, to expand equipment, and to finance inventories. Municipalities need credit to build libraries and roads. Essentially, if either corporate or banking can not get credit, the economy quickly deteriorates. In Mr. Pollack's opinion, these actions are designed to keep the basic system afloat.

Senator Allen asked Mr. Pollack why the Federal Government let Lehman Brothers fail. Mr. Pollack responded that at the time, they figured that was the best solution. The Federal Government thought that there would not be a bunch of dominoes falling if Lehman failed and at that particular moment and time they had to let the market clear. They would have let AIG fail except for that AIG was the major insurer of mortgage-backed securities so if they failed all of the guarantees would go away so banks would have had to write down billions of dollars of insured mortgage-backed securities. They felt that was a domino they could not let fall. Once that happened they had to change their game plan.

In response to Representative Pearce's statement, Mr. Pollack, said "when you spend temporary revenues as though they are permanent, sometimes it comes back and gets you. As far as the Federal Government is concerned, I think that they had to do something. I think that what they have done is a spectacularly bad idea, but I think they had to do something. They did have to meddle in this case. But, if you go back to the seeds of this whole problem, it has to do with the Community Reinvestment Act and the fact that the Federal Government put pressure on Fannie Mae and Freddie Mac to do subprime loans in 1999." He added that the only problem with what they are doing with the banking system is what type of political pressure will banks have now to make loans they should not make?

In response to a statement from Mr. Martin Shultz regarding bonds, Mr. Pollack stated that things are very 'iffy'. It has gone past an economic problem. It is now a psychological problem and psychological problems take a long time to fix. This is not a quick fix. This is months if we are lucky, until things start to unfreeze. The Federal Government is doing everything they can do to unfreeze it, but it is past just economics.

Mr. Stavneak asked Mr. Pollack for his reaction relative to the revenue ranges presented in the 4-sector forecast. Mr. Pollack stated that it would be reasonable to anticipate bad news rather than good news. Surprises are likely to be on the down-side, not the up-side.

Mr. Pete Ewen, Arizona Public Service, gave a slide presentation on population and growth estimates. ([Click here to view](#)).

Mr. Stavneak asked Mr. Ewen for his reaction to the 4-sector forecast. Mr. Ewen said he agrees with Mr. Pollack's comments to a large degree. Probably the figures for FY 2009 and FY 2010 are still optimistic and there is much more risk to the down-side than the up-side.

Mr. Brian Cary, Salt River Project (SRP), spoke regarding the SRP population outlook. He researched financial records going back to 1951, and concluded that the current growth rate we are experiencing is, if not the slowest in the history of the company, at least as slow as it has ever been since 1951.

Mr. Dean Martin, State Treasurer, gave a handout to members and made a presentation regarding the State Operating Account. (*See Attachment 1*) The State Operating Account is the largest account that the state has. It is where the General Fund resides as well as all other state funds before distribution to other accounts. The operating account is a good indication of the daily health of the state budget and account.

Mr. Tracy Clark gave a presentation on the federal funds rate. He stated that the Federal Funds rate is the rate at which banks borrow from each other for 24 hours in order to balance out their accounts so that they can make their reserve requirements. He noted that as the financial crisis worsened, there was a large amount of fluctuation in the rates actually paid to borrow money, and the Federal Government has attempted to prop up the banks. He also noted that we will be able to tell if the Federal Government's actions are working when the rates at which banks lend to each other stabilize. Finally, Mr. Clark agreed that the risks to the revenue forecasts as presented are on the down side.

(Continued)

Dan Anderson, Assistant Executive Director for Institutional Analysis for Arizona Board of Regents, stated that these are obviously incredible times that none of us have seen before. It is the psychology of what is going on that is creating the most volatility. It is very difficult at this time with so many things going on to get a clear understanding of what the future holds. So come 3-6 months down the road, he thinks we will have a better feel. We know that monetary factors can be 6 months, 9 months, or years before they really have the full effect. These things are very slow to unwind, but to state the obvious, these are incredible times and unfortunately incredible on the bad side.

Ms. Georganna Meyer, Chief Economist, Arizona Department of Revenue noted that she has been working on updating credit numbers and is about to complete the FY 2006 year. Corporate credits are up to \$70 million in FY 2006. She is still waiting for over \$20 million already approved in corporate tuition tax credits to come through the pipeline. Over \$100 million in already approved motion picture industry credits also still need to come through the pipeline. That does not account for the \$25 million in corporate tuition tax credits that have not even hit yet, and the additional \$130 - \$150 million in motion picture that have not hit. About the time we get to FY 2011 and FY 2012, the full impact of the optional sales factor weight increase for the apportionment ratio is going to kick in. Additionally, the increase in the research and development credit is going to kick in. So all of these are going to be exacerbating factors on growth rates for the corporate income tax.

Mr. Stavneak asked Ms. Meyer if they are still doing the work on the sales factor issue in terms of whether or not those correspond to what we had originally forecasted.

Ms. Meyer stated yes. She is planning on getting out an update on those numbers for both the apportionment and R & D credit within a couple of weeks.

Mr. Dean Martin, State Treasurer, stated he wanted to expand on something Dan and Tracy said about it being a psychological problem. He stated that the \$700 billion plan and the way it is being implemented is very Treasury-Secretary specific. The problem is Paulson is not going to be there after January 20. There is just too much uncertainty because of how much that bailout is depending upon what the new Treasury Secretary intends to do with the money. This means that once that starts to impact, it will start to unfreeze the markets if we are lucky at the beginning of next year. The trickle down impact for us in Arizona will not be felt this fiscal year at all. It is not designed to help the average person. It is to make sure that the average person's bank is still around next year. He does not see any benefit from this really impacting from a psychological point of view. He does not see a boost in morale increasing people's holiday spending leading into this holiday. That is the reason why we are showing a larger drop in our forecast for revenues this fiscal year.

Mr. Stavneak stated that the next meeting will be in mid-January once the Legislators are back in session, so that they will have a greater opportunity to attend the meeting.

The meeting adjourned at 11:07 a.m.

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Sandy Schumacher, Secretary

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Tim Everill, Assistant Director

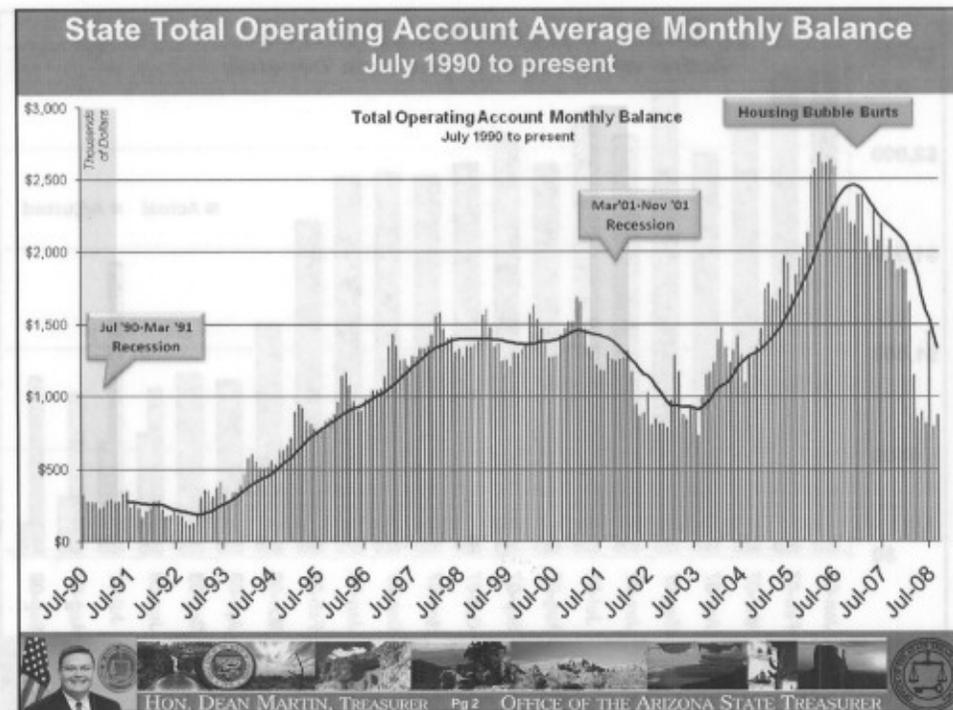
NOTE: A full audio recording of this meeting is available at the JLBC Staff Office, 1716 W. Adams. A full video recording of this meeting is available at <http://www.azleg.gov/jlbc/meeting.htm>.

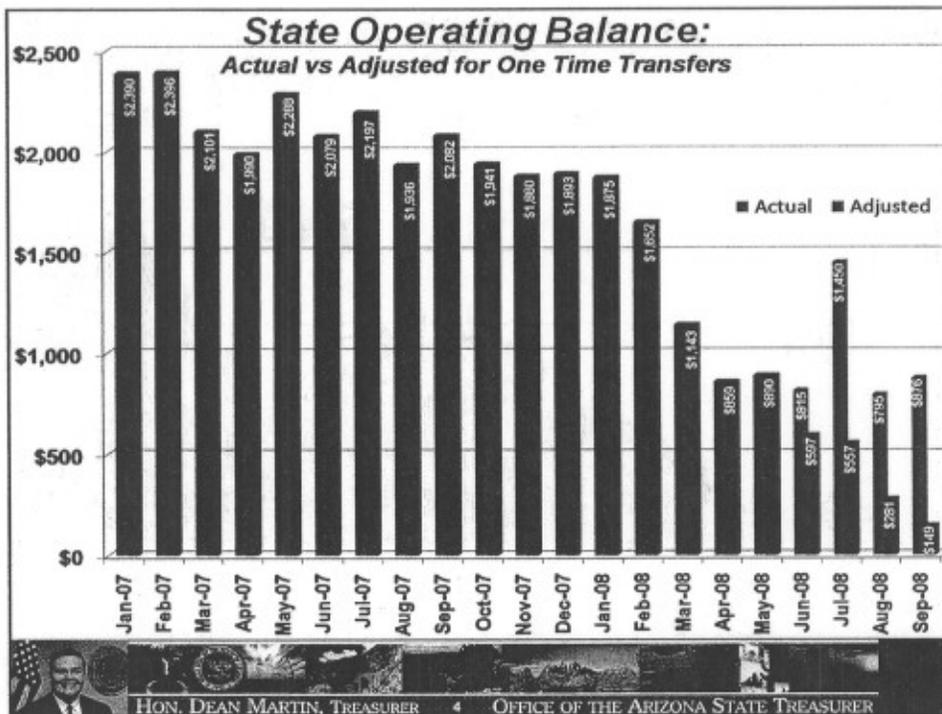
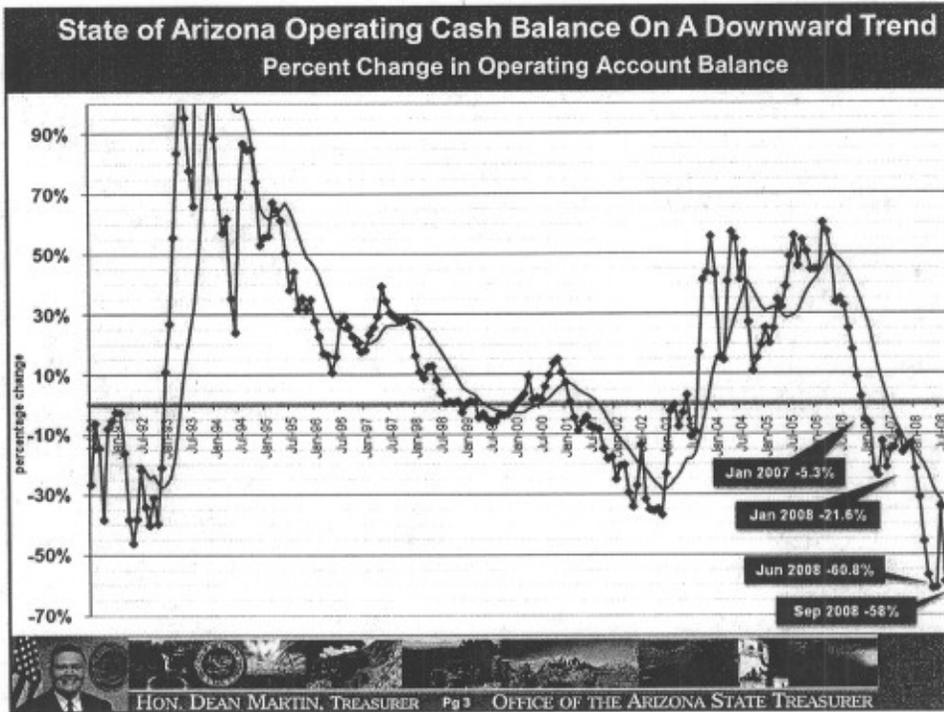
 **Finance Advisory Committee**   
**October 15, 2008**



**State Budget Update**

 **HON. DEAN MARTIN, TREASURER**  **OFFICE OF THE ARIZONA STATE TREASURER**



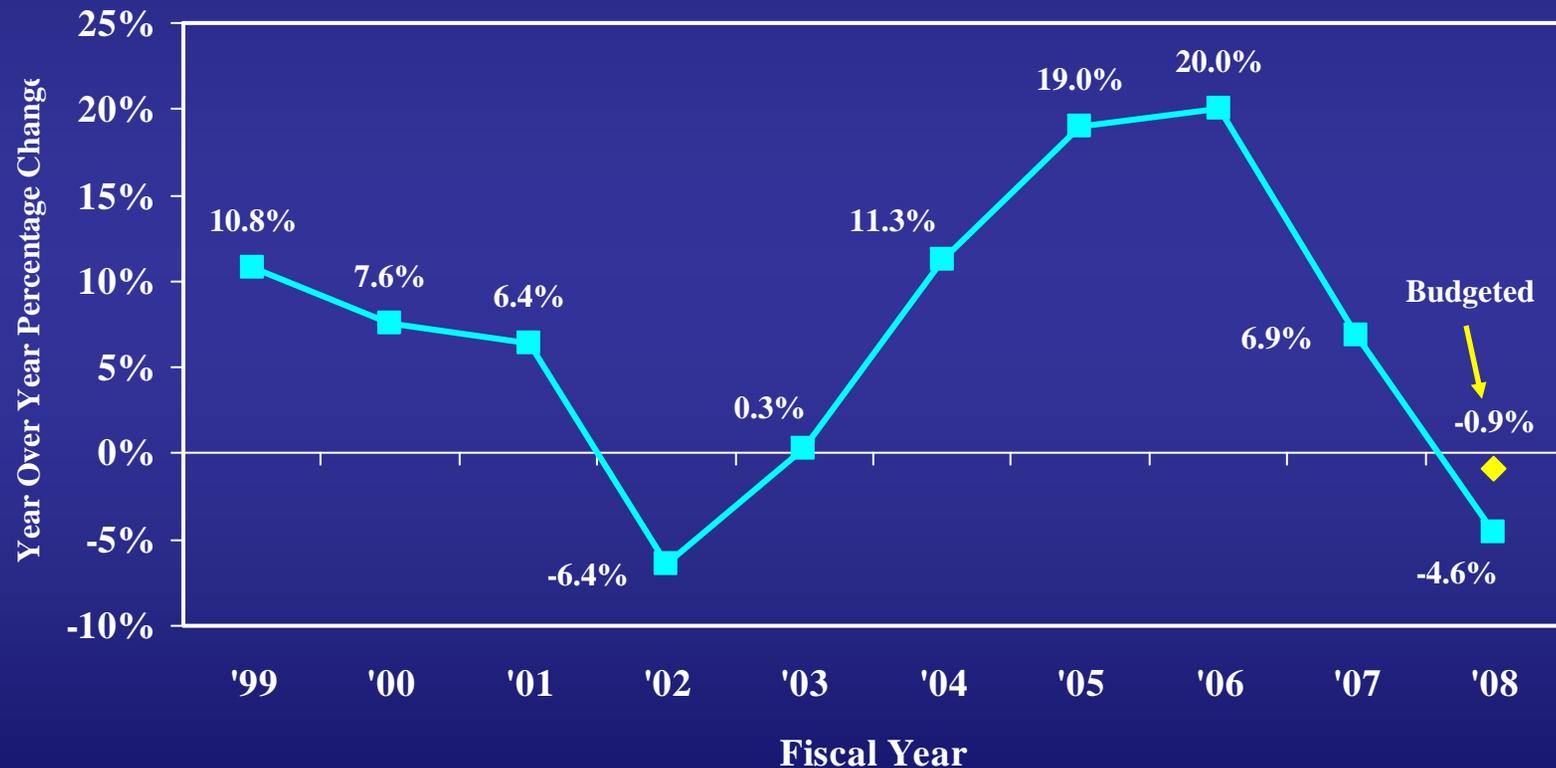


# **Finance Advisory Committee**

**October 15, 2008**

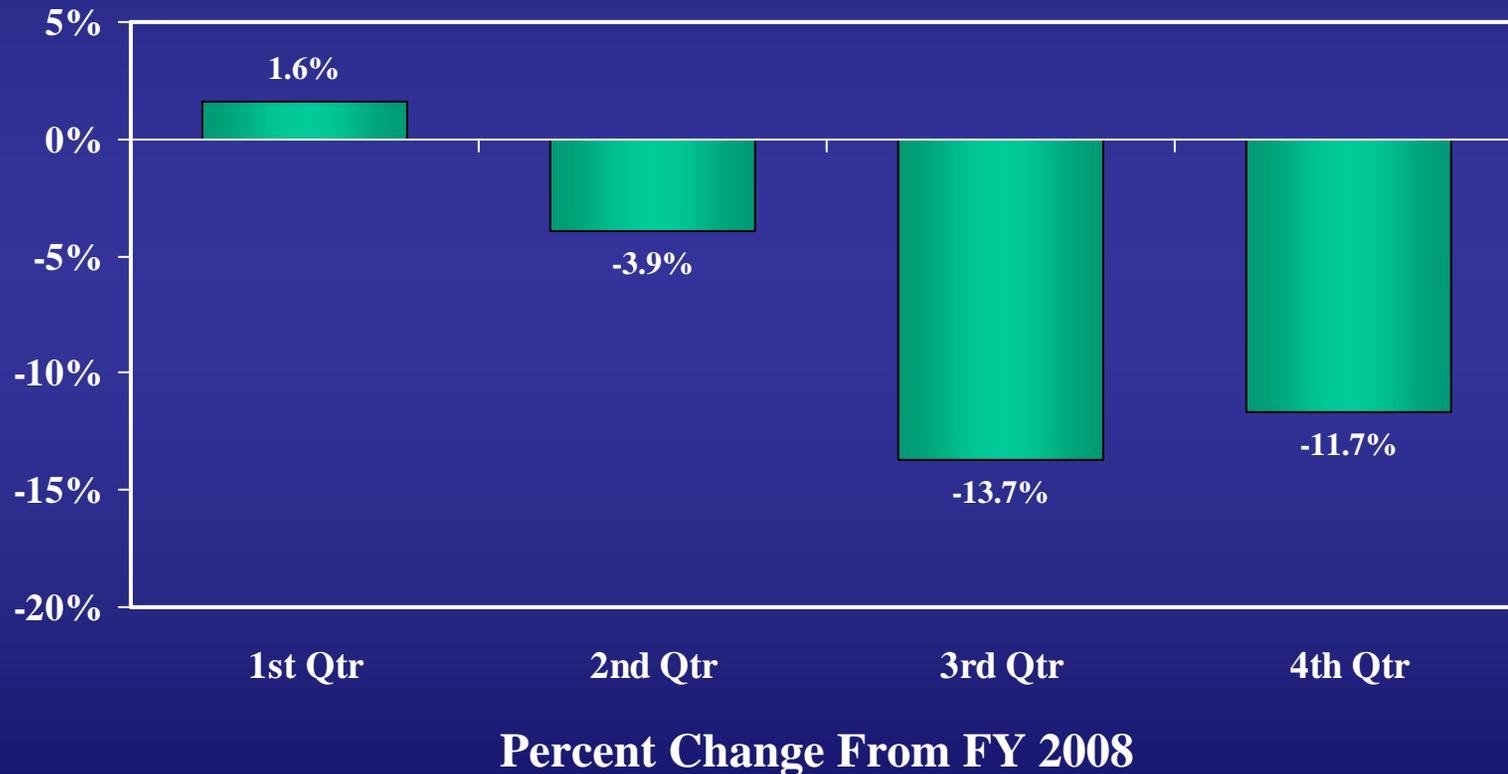
**JLBC**

# '08 General Fund Base Revenue Decline of (4.6)% Was Greater Than Budgeted



Excludes statutory and one-time changes.

# Decline Accelerated in Second Half of FY '08

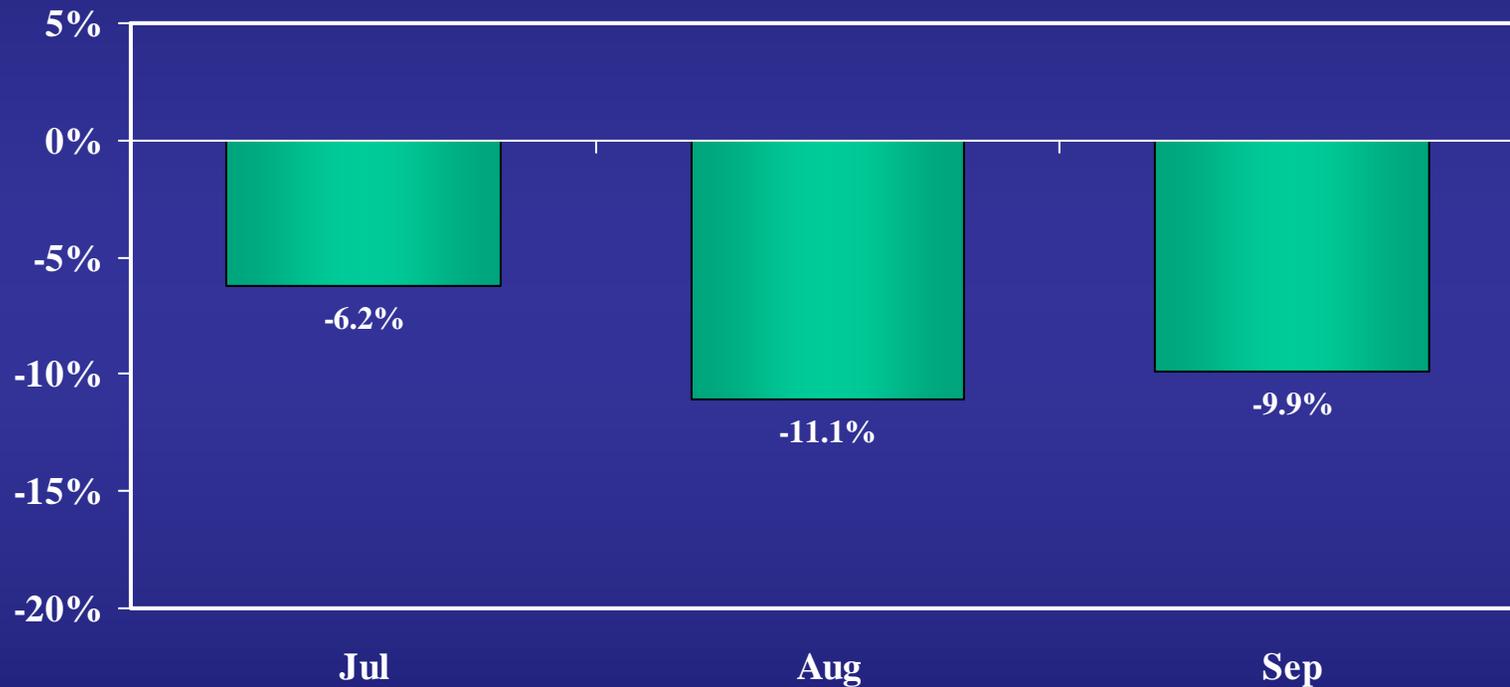


## **FY '09 Revenues Will Need to Grow By 6.1% to Meet \$10.0 B Budgeted Level**

- Original budgeted FY '09 growth compared to enacted '08 Budget 1.9%
- Growth adjusted for lower '08 Base 6.1%

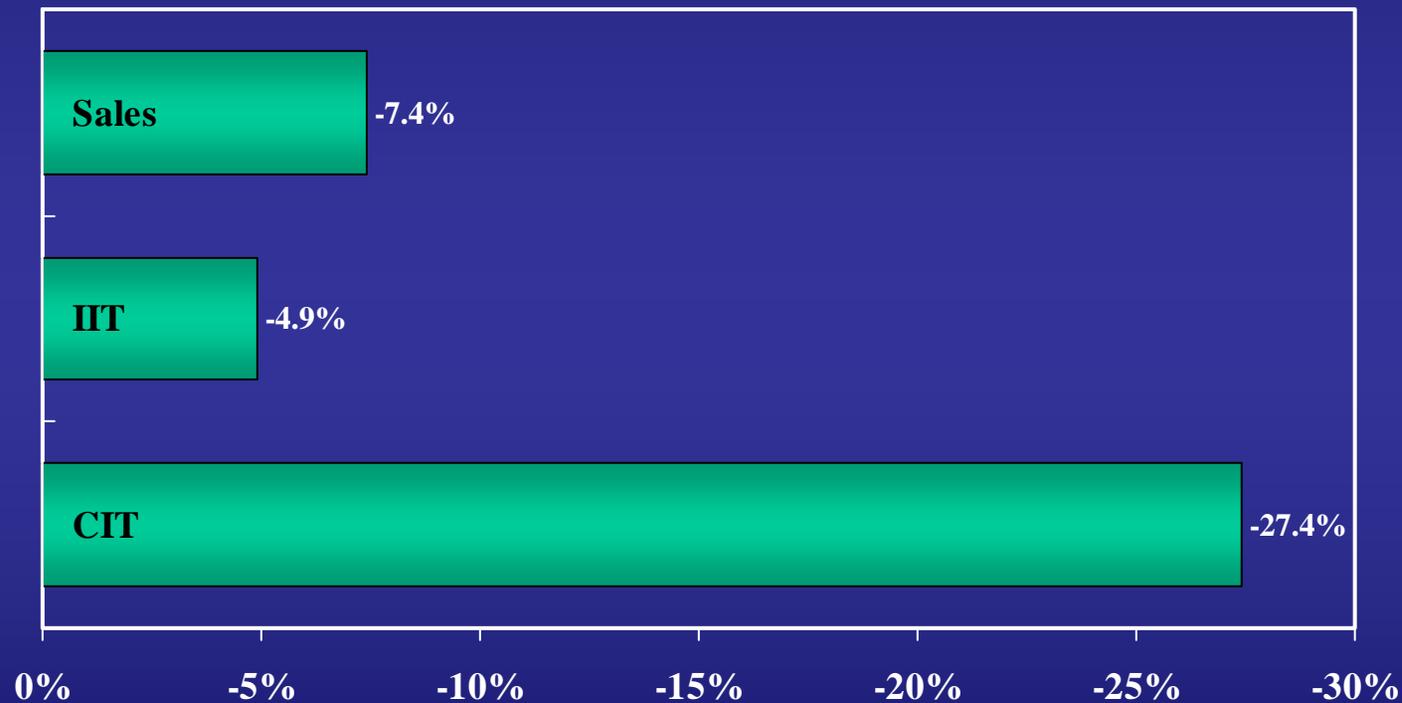
# '09 Revenue Collections Continuing to Decline

- First Quarter Decline = (9.0)%



Percent Change Below FY 2008

# All Major Tax Categories Declined in 1<sup>st</sup> Quarter of FY '09



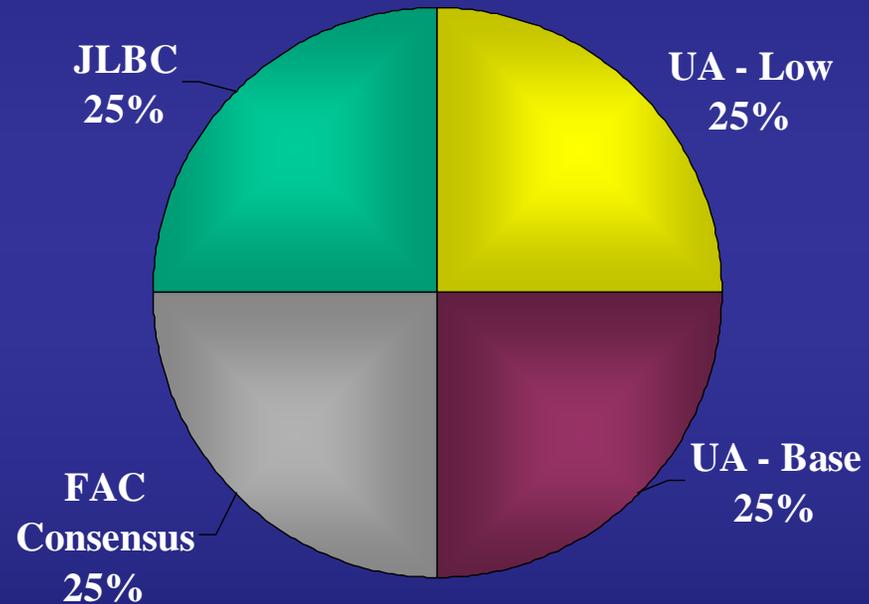
Excludes statutory and one-time changes.

# Where Are We Headed Over the Next Few Years?

## - Four-Sector Consensus Forecast Incorporates Different Economic Views, Including the FAC

4-sector forecast equally weights:

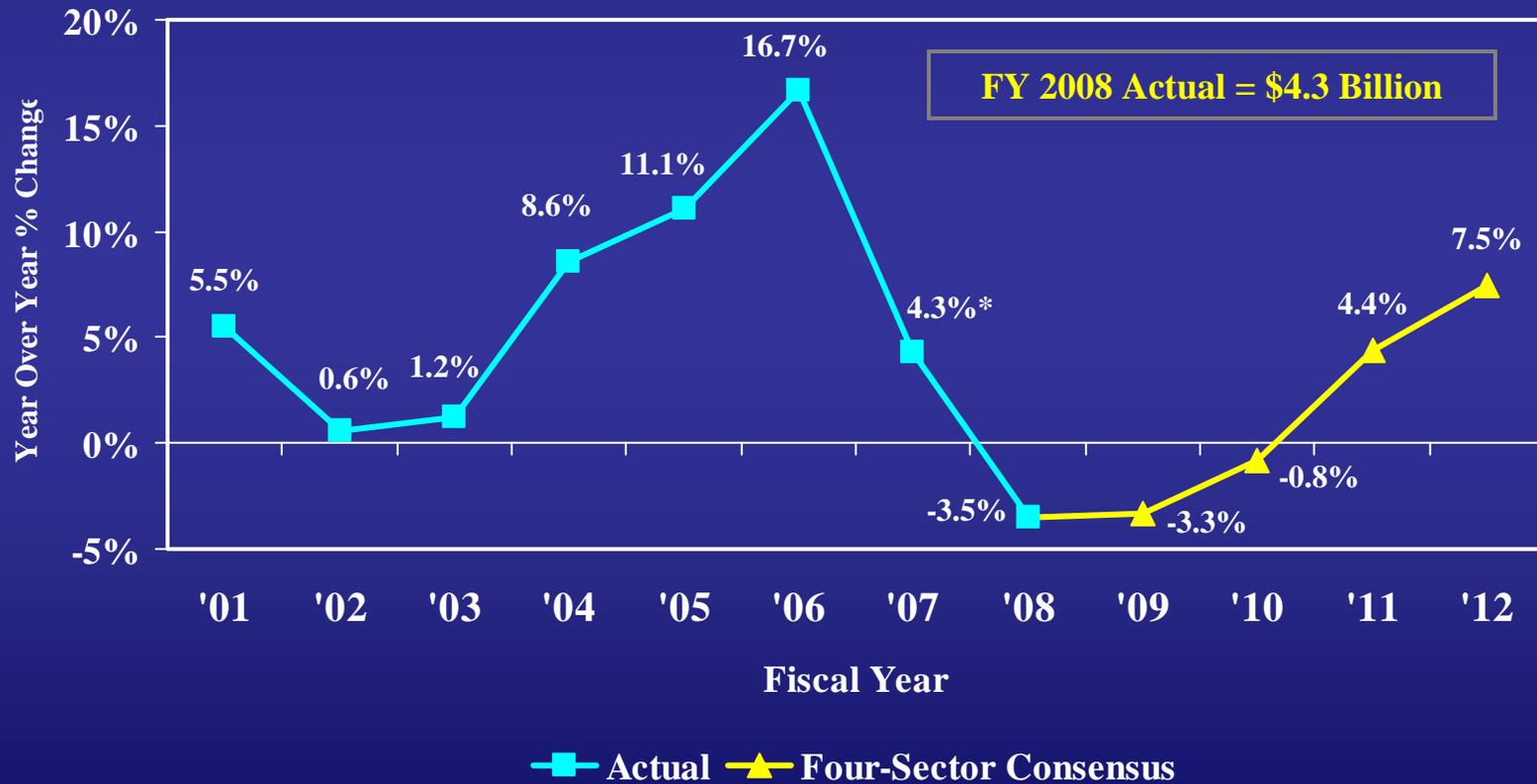
- FAC average
- UofA model - base
- UofA model - low
- JLBC Staff forecast
- Remaining revenues (2% of total) are staff forecast



\* Includes Big 3 categories of sales tax, individual income and corporate income taxes.

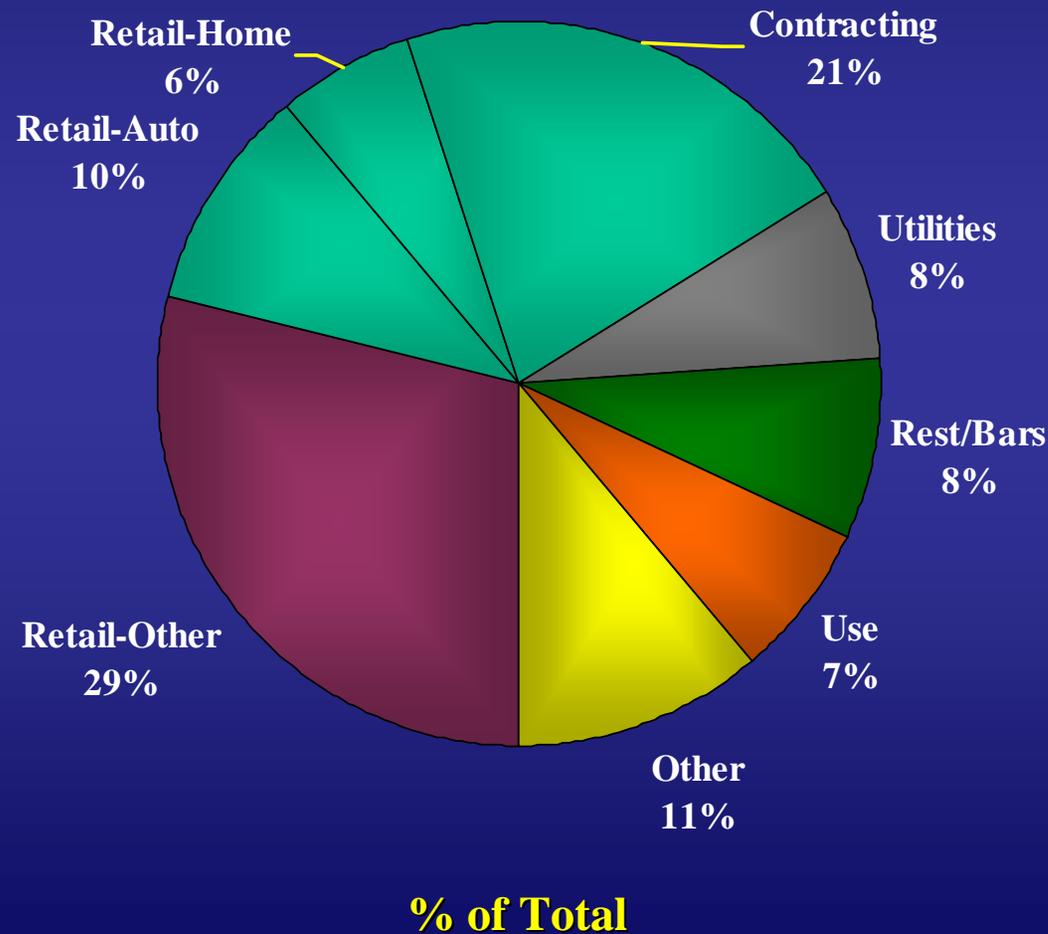
# Sales Tax

- The Consensus Forecasts Declines of (3.3)% in '09 and Another (0.8)% in '10

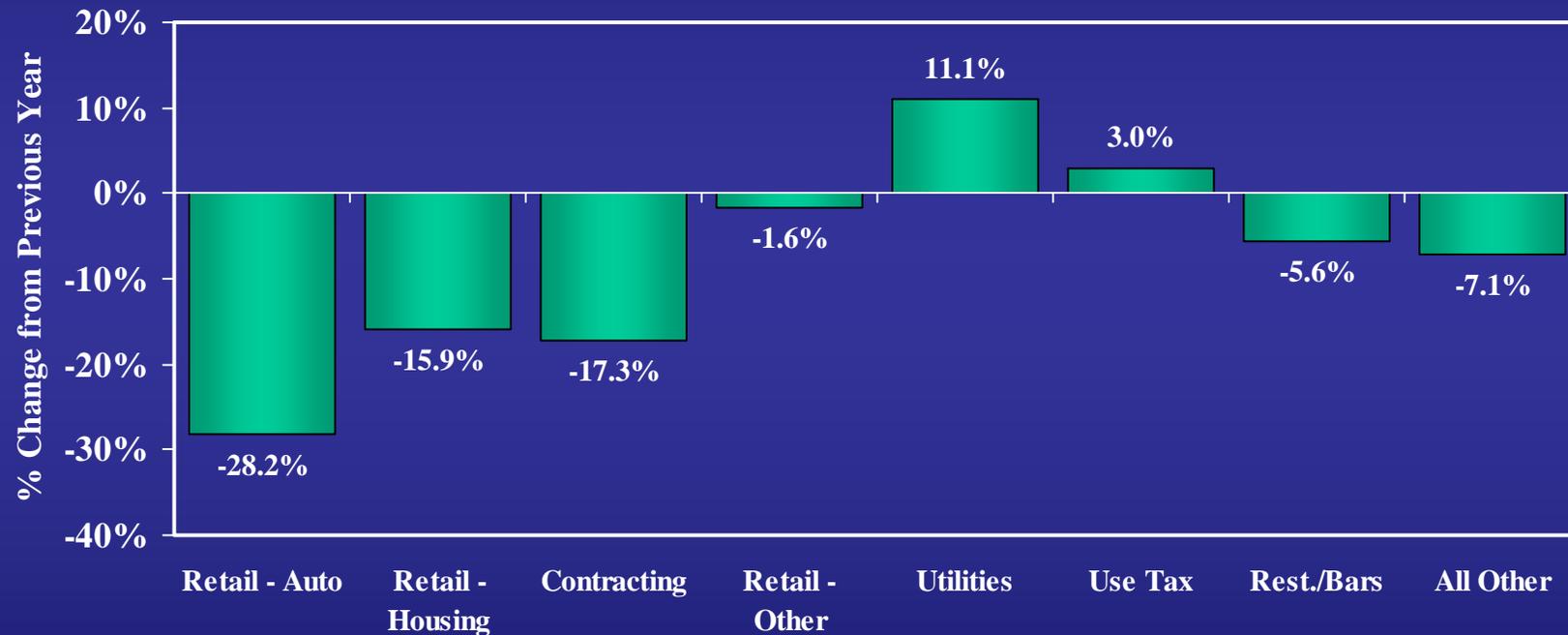


\* 5.6% without the \$(55.2) million estimated payment threshold change.

# Construction and Vehicles Constitute 37% of Sales Tax Collections



# Construction and Vehicle Spending Have Declined Significantly



FY 2009 Year to Date – (Through August)

# Individual Income Tax

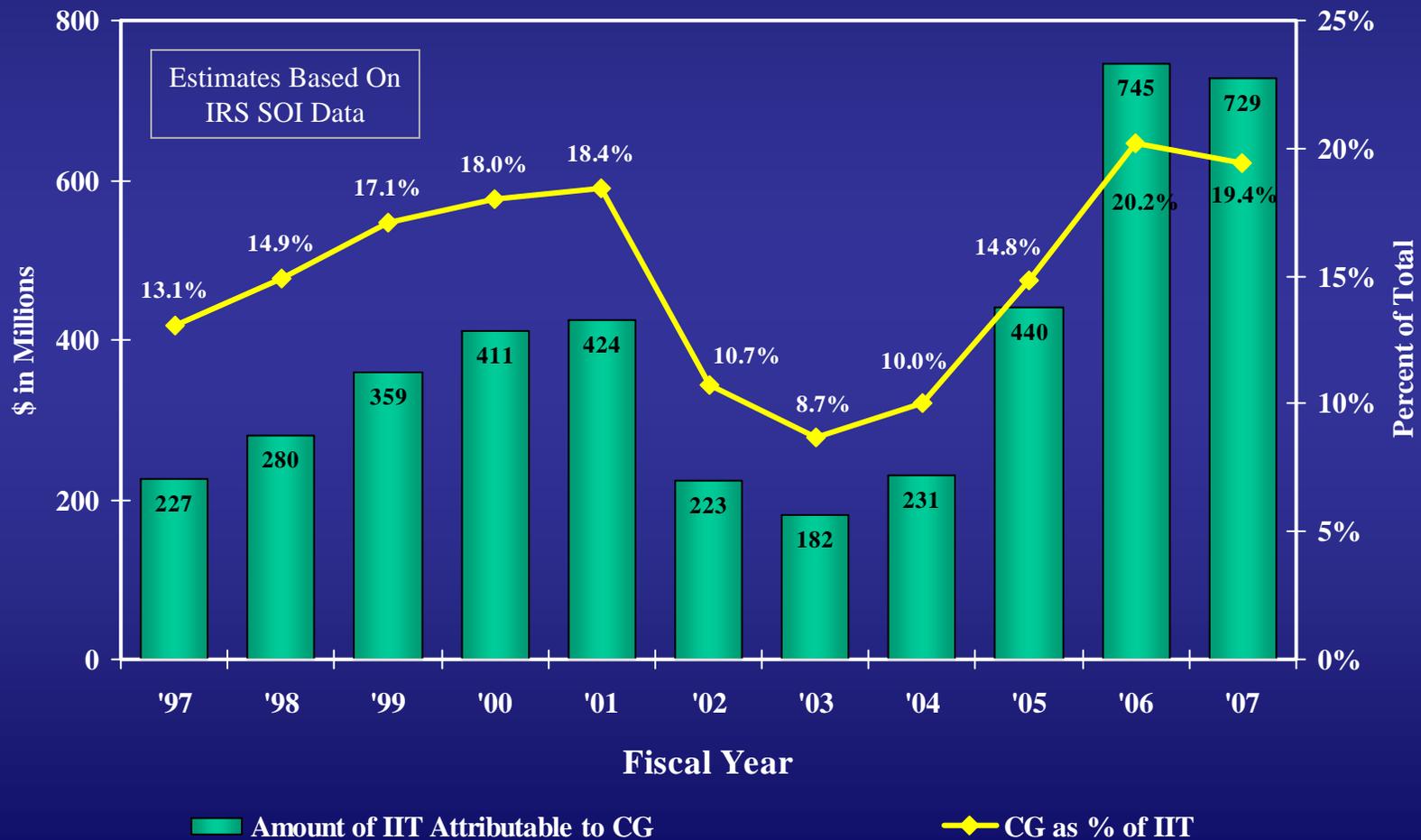
- The Consensus Forecasts Declines of (3.0)% in '09 and Another (0.2)% in '10



\* Excluding the 10% phased-in rate reduction, growth would have been 6.3% in '07, and (4.1)% in '08.

# Individual Income Tax

## Capital Gains Are A Volatile Source of Income Tax Collections



# Sharp Downturn in Stock Market Will Have Adverse Effect on FY09 Capital Gains

- In FY07, about \$730m (19%) of tax collections attributable to capital gains.
- FY08 capital gains won't be known until June 2009.
- Capital gains could see sharp drop off in FY 09 due to recent stock market losses.

# Corporate Income Tax

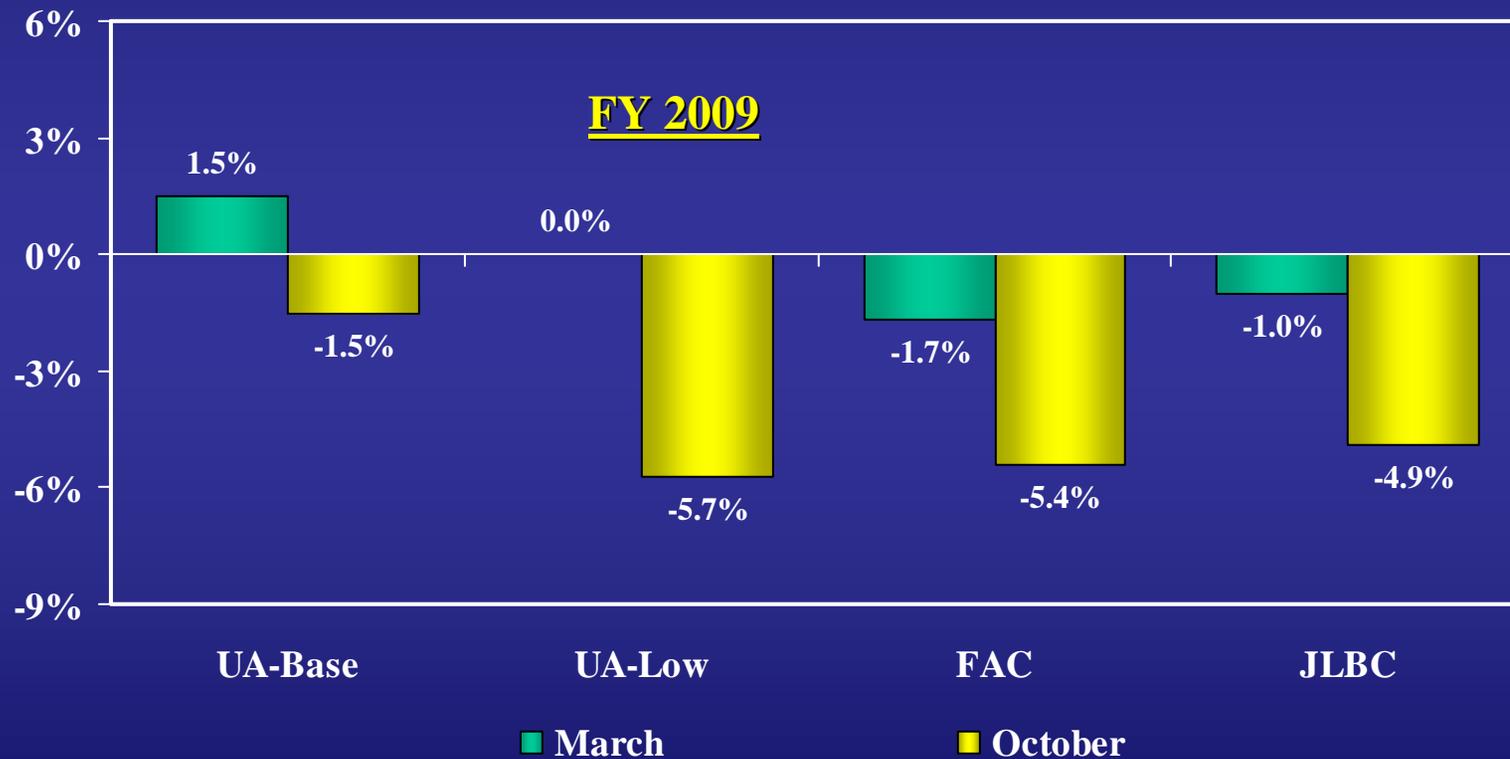
- The Consensus Forecasts Declines of (16.3)% in '09 and Another (2.3)% in '10



\* Excluding tax law changes, growth would have been 12.8% in '07, and the '08 decrease would have been (14.7)%.

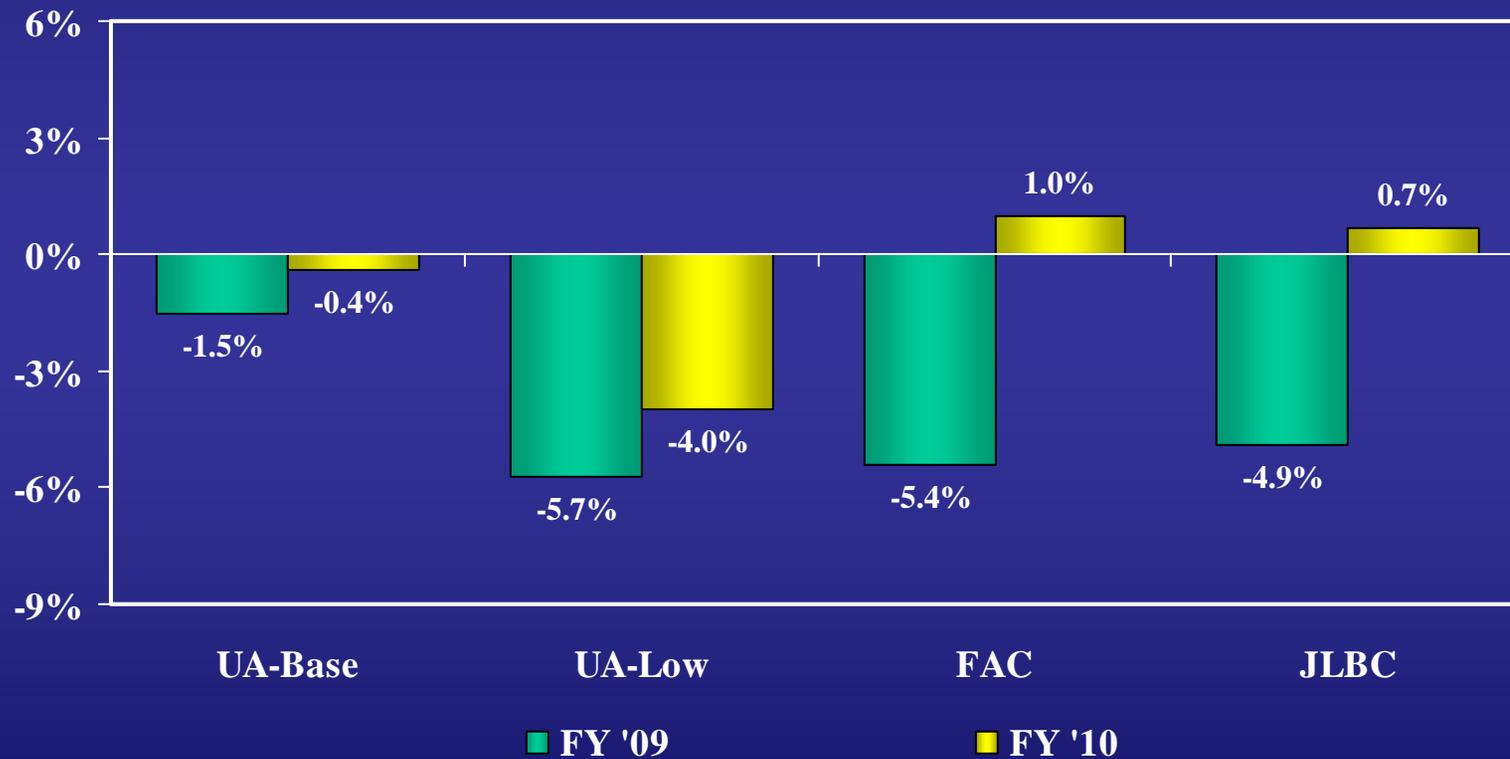
# October 4-Sector Projecting Revenue Decline of (4.4)% in FY '09

- March Forecast for FY '09 was 0.5% Increase



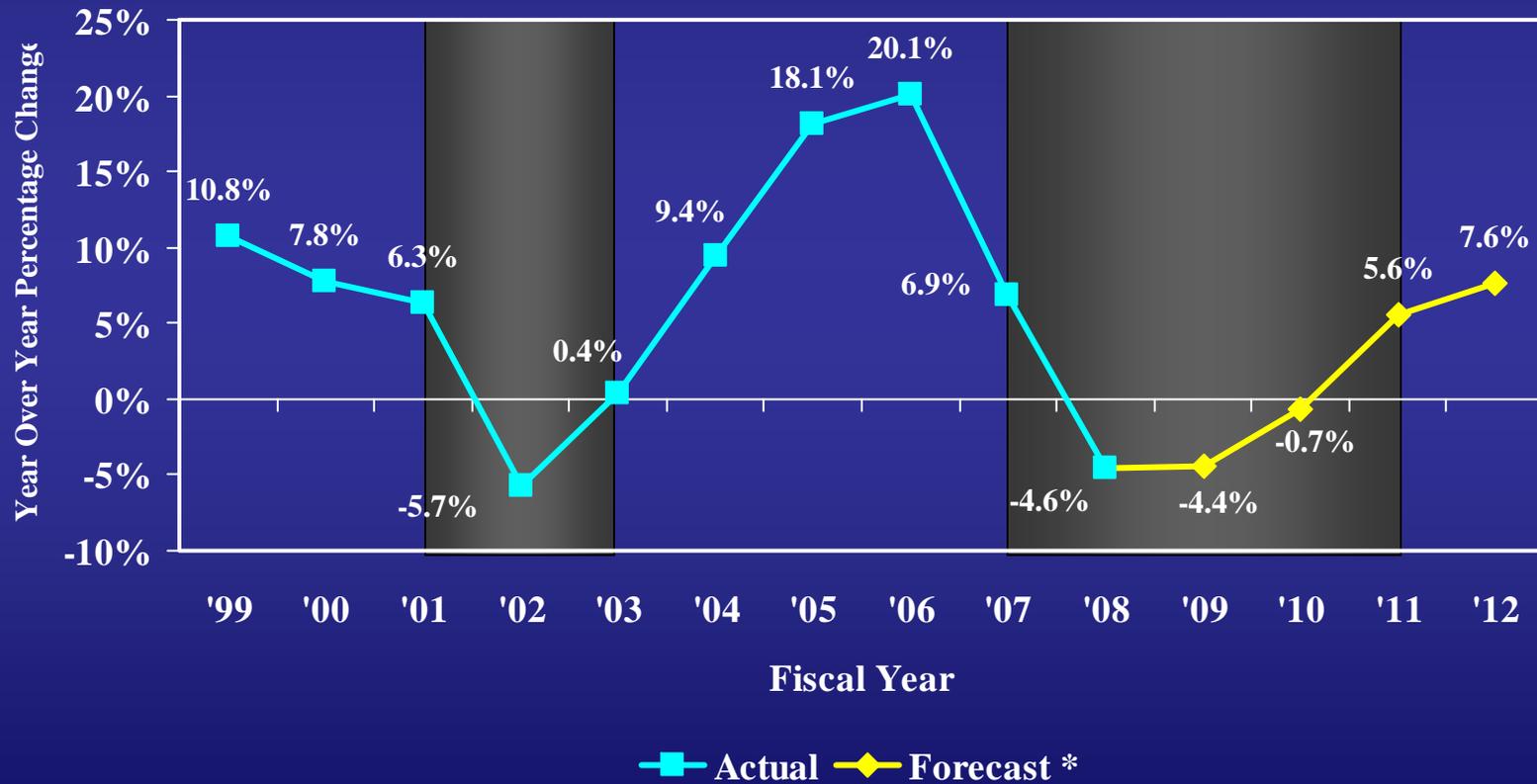
Weighted Big 3 Average  
Prior to Tax Law Changes

# Each Sector Shows Improvement for FY '10, But Overall Forecast Still A (0.7)% Decline



Weighted Big 3 Average  
Prior to Tax Law Changes

# Growth Remains Slow Until FY 2011



\* 4-sector forecast weighted average growth.

# What Did We Get Right?

## - Current Problems Acknowledged A Year Ago

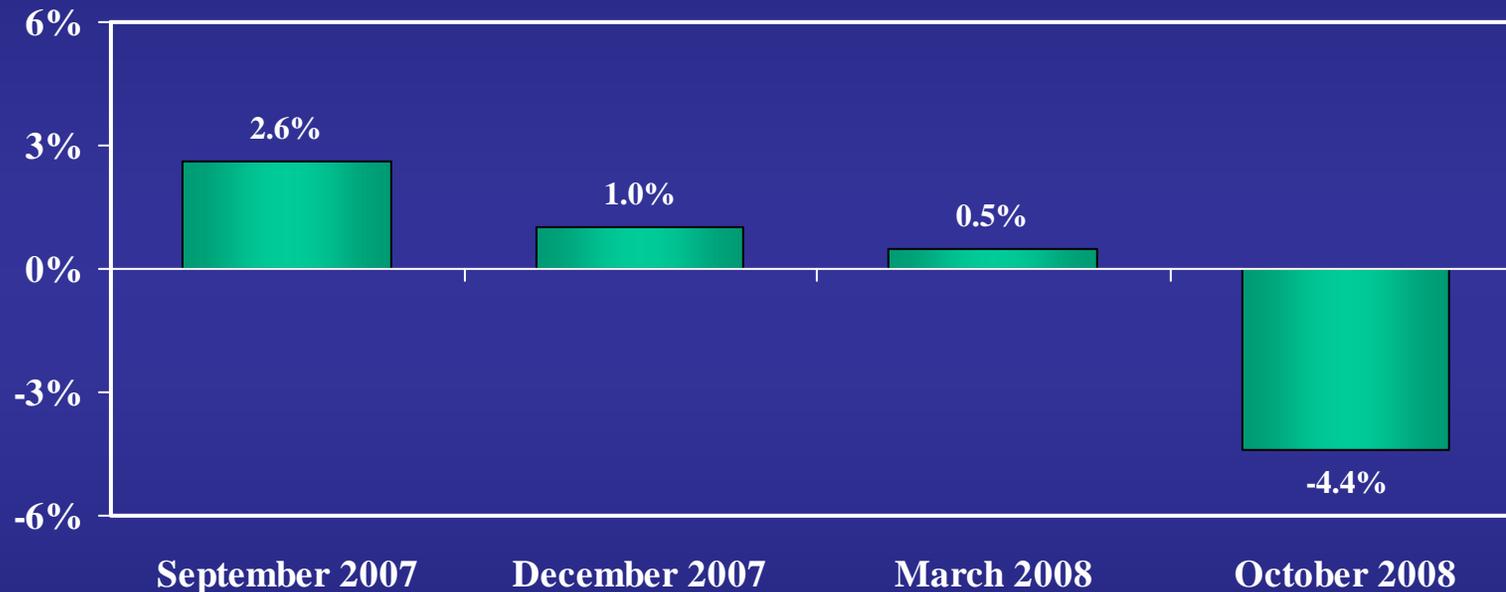
### Main Problems

- Housing Market
  - Imbalance in supply and demand.
  - Mortgage financing.
- Inflated Revenue Base
  - Revenues grew 38% in '05 and '06 compared to 19% personal income growth.
- “Wealth Effect”
  - Declining housing values affect consumer psyche.

Source: 12/07 FAC Presentation

# What Did We Get Wrong?

- Magnitude of Problem Greater than Expected



FY 2009 4-Sector Consensus Forecast  
General Fund Revenue Growth

## How Does the 4-Sector Affect the Shortfall Estimates?

### - JLBC Staff Provided Legislature Estimates On Oct 1

- In lieu of 4-sector, JLBC Staff estimated '09 revenue decline of between 0% and (5.0)%.
- This range produced a shortfall estimate of between \$(550) M and \$(1.0) B.
- October 4-sector predicts '09 decline of between (1.5)% and (5.7)%.

## **New FY '09 Shortfall Estimate: \$(700) M to \$(1.1) B**

- A revenue decline of (1.5)% would lead to a shortfall of \$(700) M.
- If revenues decline (5.7)%, shortfall would grow to \$(1.1) B.
- Both estimates include an added \$50 M for unpaid '08 bills.
- There are no known agency supplemental requests, but AHCCCS is reporting a \$50 M shortfall.

# '09 Revenue and Expenditure Comparison

(\$ in Billions)

	\$700 M Option	\$1.1 B Option
<u>Revenues</u>		
On-going	8.6	8.2
One-time	<u>0.7</u>	<u>0.7</u>
Total	9.3	8.9
<u>Spending</u>		
On-going	10.7	10.7
One-time	<u>(0.7)</u>	<u>(0.7)</u>
Total	10.0	10.0
<b>Balance</b>	<b>(0.7)</b>	<b>(1.1)</b>

## **What Is The Maximum FY '10 Shortfall? \$(3.0) B Based On Several Assumptions**

- October 4-Sector forecasts.
- \$400 M in enacted one-time '09 items are not continued.
- Resolution of new '09 shortfall uses only one-time solutions.
- State equalization tax is repealed.

## Changing Policy Assumptions Could Reduce '10 Shortfall - Would Drop By \$1.1 B To A Total Of \$(1.9) B

	<u>\$ in M</u>
• If 50% of prospective new '09 shortfall solutions are on-going	\$ 480
• If enacted '09 one-time solutions are kept in '10	400
• Restore equalization tax per statute	<u>260</u>
Total	\$1,140

## FY2009-FY 2012 Quartile Forecast Worksheet

	FY 2009	FY 2010	FY 2011	FY 2012
<b><u>Sales Tax</u></b>				
JLBC Forecast	-3.3%	0.9%	4.7%	6.0%
UA - Low	-3.6%	-4.3%	2.4%	8.3%
UA - Base	-2.6%	-1.4%	4.9%	9.3%
FAC Survey	-3.6%	1.5%	5.4%	6.2%
<b>Average:</b>	<b>-3.3%</b>	<b>-0.8%</b>	<b>4.4%</b>	<b>7.5%</b>
<b><u>Individual Income Tax</u></b>				
JLBC Forecast	-4.4%	0.5%	6.0%	7.0%
UA - Low	-5.4%	-2.6%	4.7%	7.2%
UA - Base	2.6%	1.0%	7.3%	8.2%
FAC Survey	-4.8%	0.4%	7.3%	7.5%
<b>Average:</b>	<b>-3.0%</b>	<b>-0.2%</b>	<b>6.3%</b>	<b>7.5%</b>
<b><u>Corporate Income Tax</u></b>				
JLBC Forecast	-16.1%	0.0%	4.1%	6.3%
UA - Low	-18.2%	-9.4%	14.8%	11.5%
UA - Base	-13.0%	-0.9%	12.3%	6.4%
FAC Survey	-17.8%	1.0%	9.5%	12.3%
<b>Average:</b>	<b>-16.3%</b>	<b>-2.3%</b>	<b>10.2%</b>	<b>9.1%</b>

<b>Consensus Weighted Average:</b>	<b>-4.4%</b>	<b>-0.7%</b>	<b>5.6%</b>	<b>7.6%</b>
<b>JLBC Weighted Average:</b>	<b>-4.9%</b>	<b>0.7%</b>	<b>5.2%</b>	<b>6.4%</b>
<b>UA Low Weighted Average:</b>	<b>-5.7%</b>	<b>-4.0%</b>	<b>4.3%</b>	<b>8.1%</b>
<b>UA Base Weighted Average:</b>	<b>-1.5%</b>	<b>-0.4%</b>	<b>6.5%</b>	<b>8.6%</b>
<b>FAC Consensus Weighted Average:</b>	<b>-5.4%</b>	<b>1.0%</b>	<b>6.5%</b>	<b>7.2%</b>

Forecast percentages are prior to tax law changes.



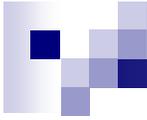
# 2009: A Good Year to Stay Away from Sharp Objects

Presented by:  
Elliott D. Pollack

Presented to:  
Finance Advisory Committee  
October 15<sup>th</sup>, 2008



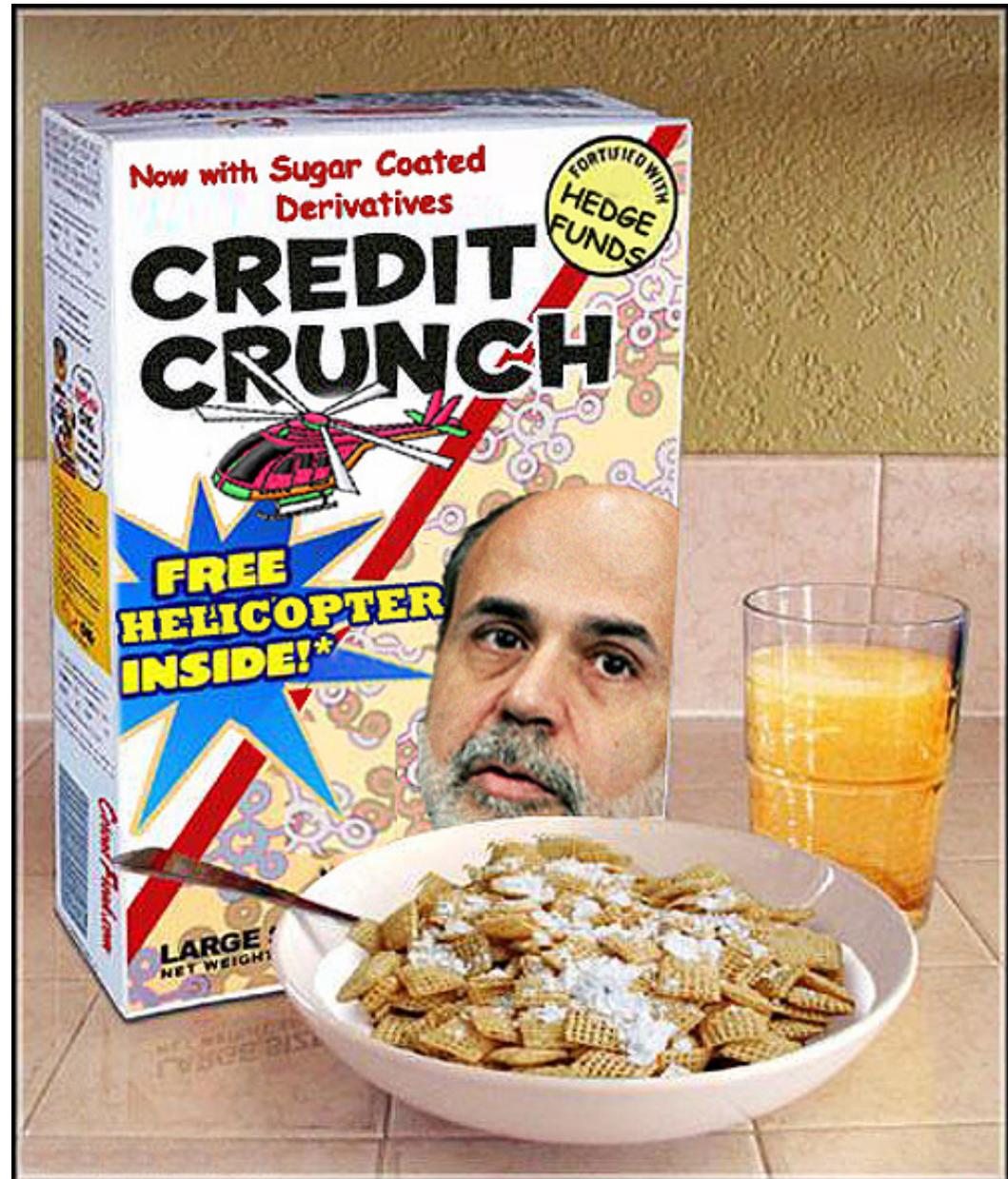
*Elliott D. Pollack & Company*



**Where  
do we  
stand?**



# Actions of the Fed..



# Bail out?





# Bail out?

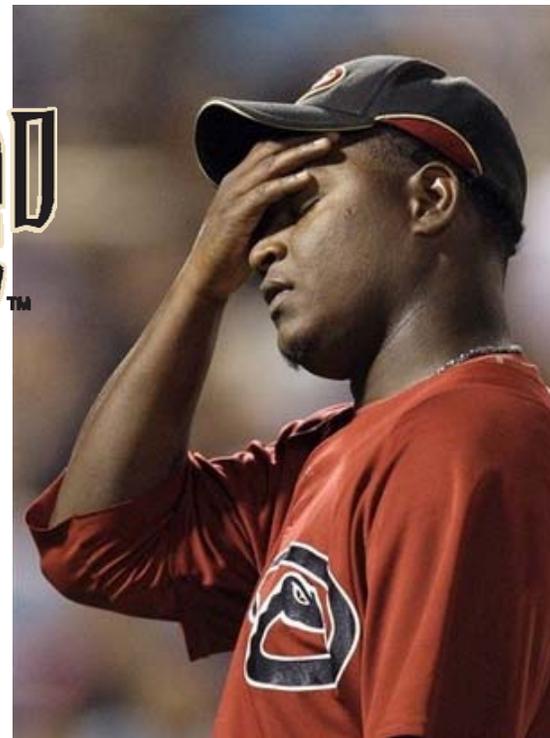
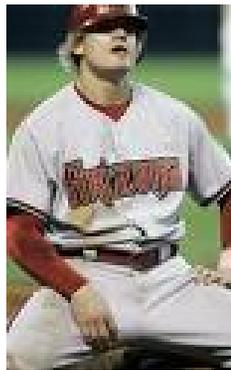
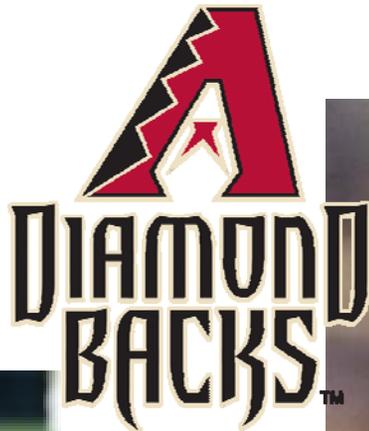
= a **BAD** year

*or*

a **TERRIBLE** year.



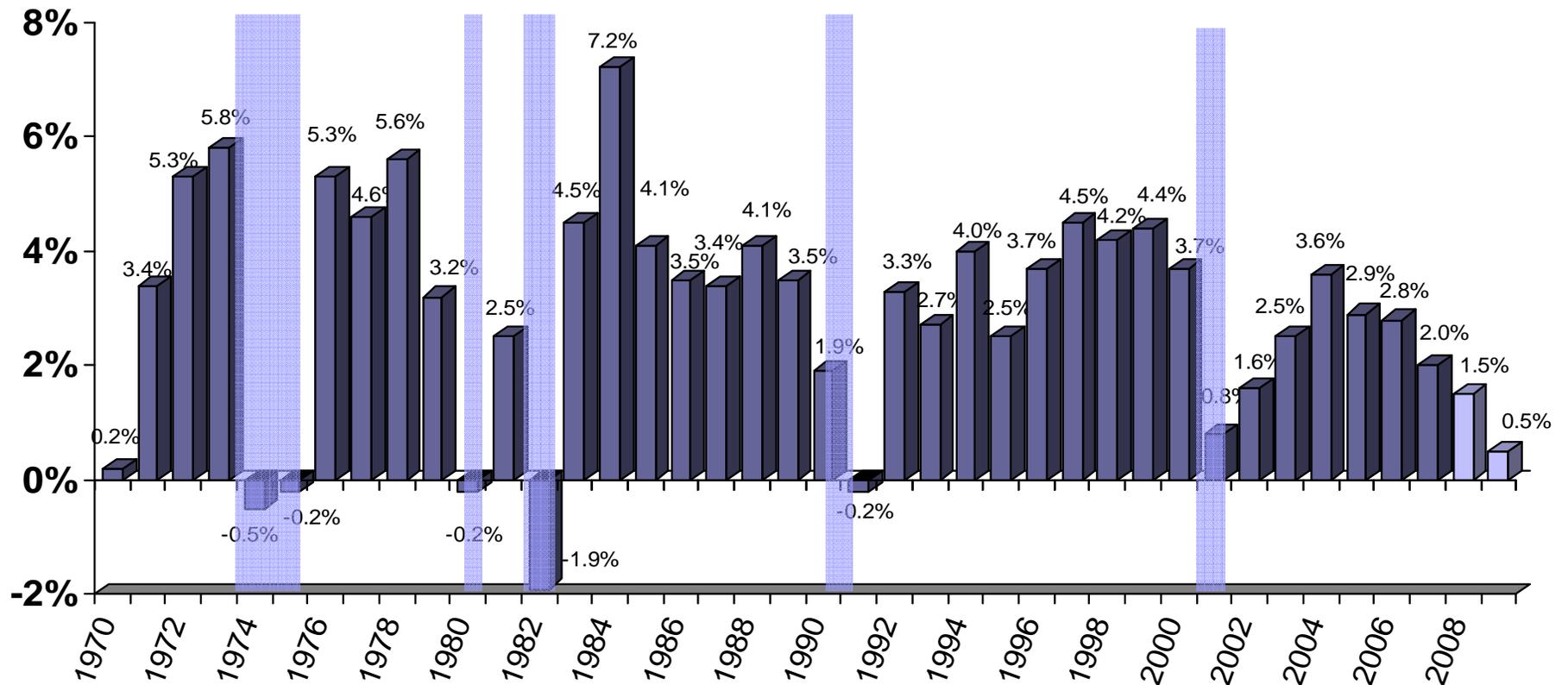
**It's time to lower our expectations.**



# United States Real Gross Domestic Product\*

## Annual Growth 1970 - 2009\*\*

Source: U.S. Bureau of Economic Analysis & *Blue Chip Economic Indicators*



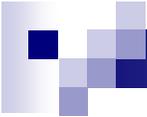
\* Based on chained 2000 dollars.

\*\* 2008 - 2009 are forecasts from the Blue Chip Economic Indicators, September 2008

 Recession Periods



*Elliott D. Pollack & Company*



# Basic Story

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## Consumer

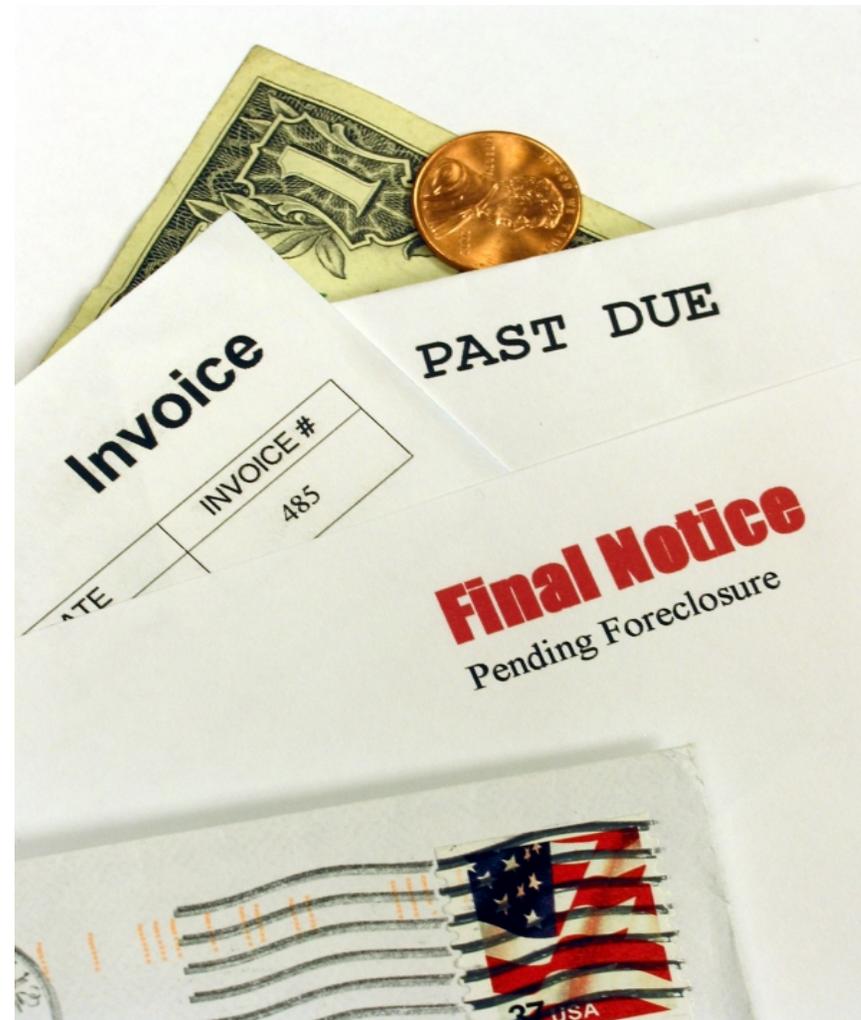
- Too much debt
- Not enough traditional savings
- Poor stock market and housing price performance
- Jobs and hours worked declining
- Prices on basics, such as oil + food, have been rising



# The Result

## Consumer

- Consumer spending squeezed
- Big cuts in spending on durables
- Also cuts in non-durables and services





# Basic Story

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## Business

- Has been strong due to weak dollar / strong exports
- Weakness in rest of world will hurt exports





# The Result

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## Business

- Business spending on plant & equipment will not be as strong as it has been
- Trade deficit will improve, but more slowly





# Basic Story

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## Housing

- Supply / demand imbalance continues
- No quick fix for credit markets
- Foreclosures to continue at high rates





# The Result

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## Housing

- Drag on economy from housing will end because comparisons so easy
- But drag on economy from commercial will get worse



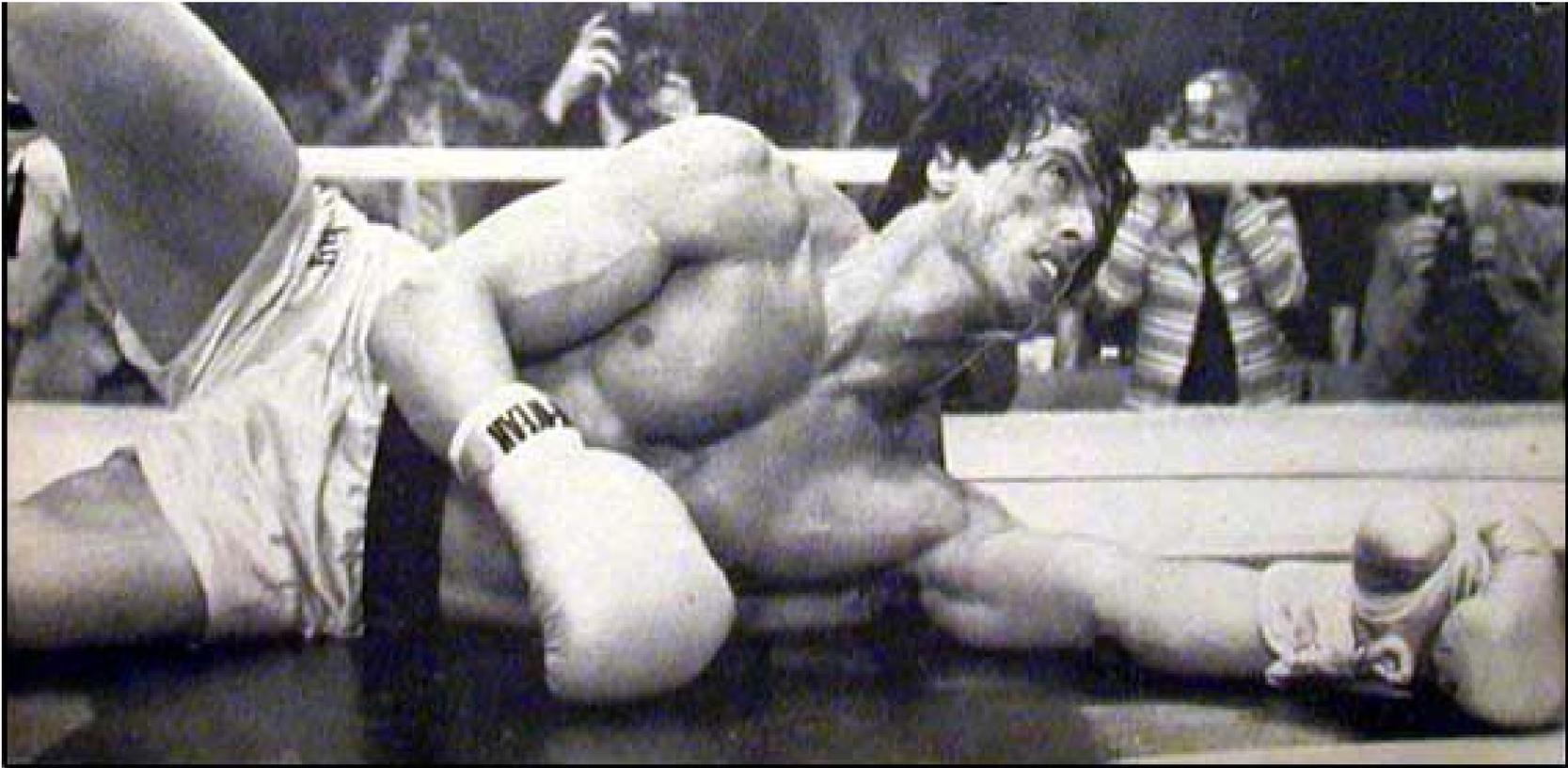
# How many more shoes can drop?



**Weakening  
economies are  
more sensitive  
to shocks.**



# The Consumer



# Wealth Effect





# What Will Happen to HH Net Worth?

## In the 90s

Housing prices increased moderately,  
but stock market boomed.

## First half of 2000's

Stock market was doing poorly,  
but housing prices boomed.

## Now

Declining housing prices AND  
poor results in the stock market.



# Median Price of Resale Homes Percent Change Year Ago 2003 – 2008\*

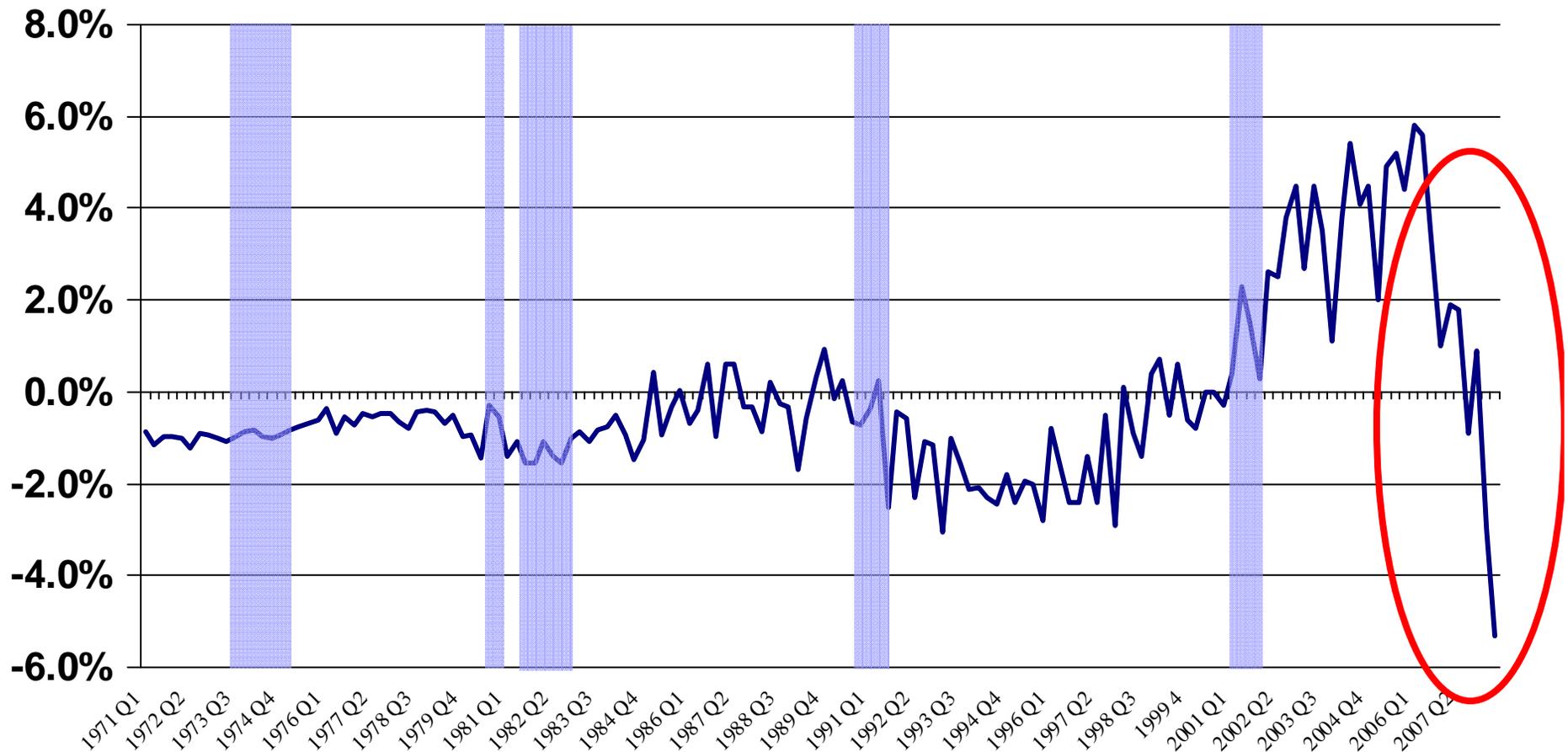
Source: National Association of Home Builders



# Mortgage Equity Withdrawal as a share of Disposable Income U.S.: 1971 – 2008\*

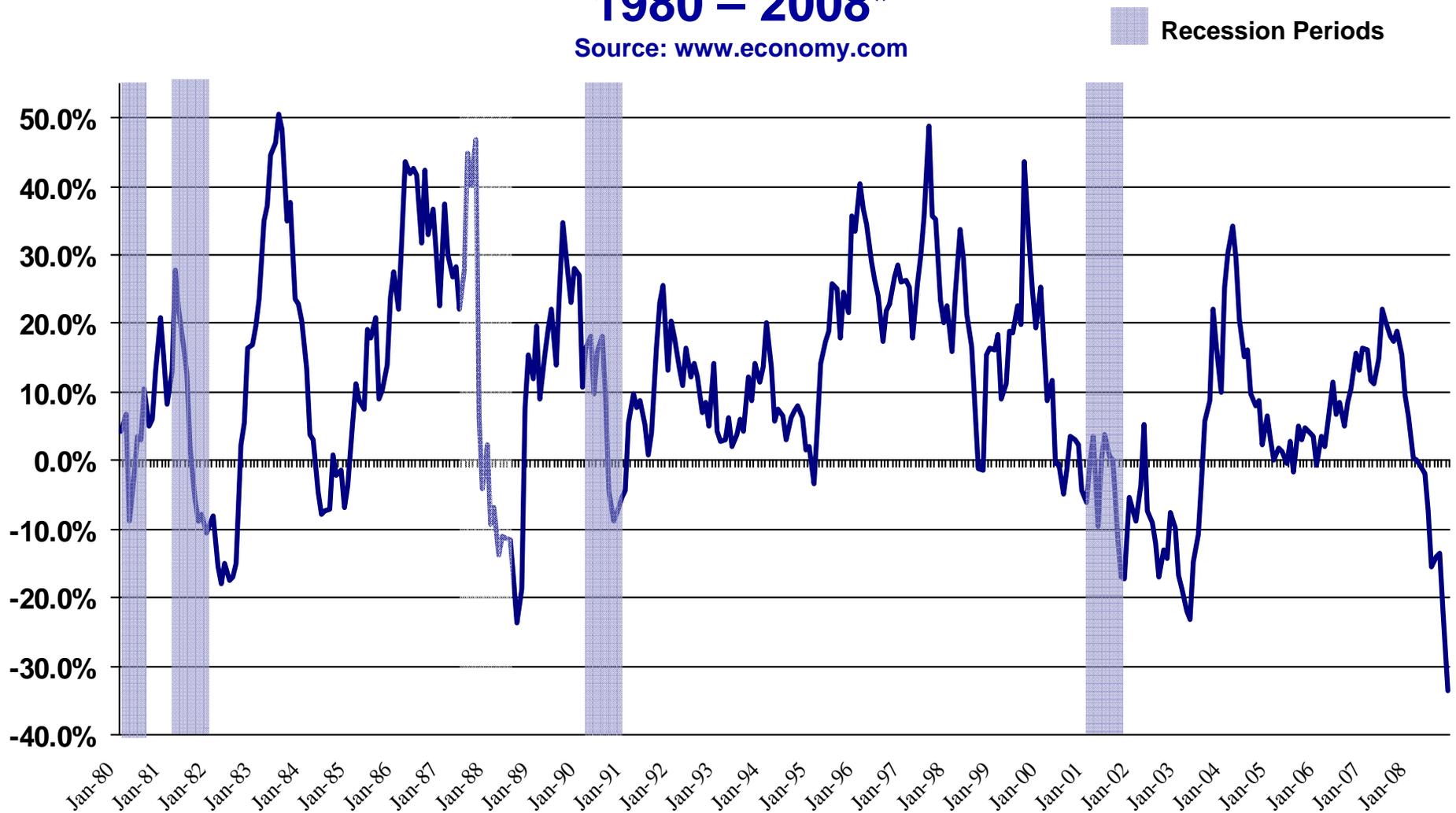
Source: Bureau of Economic Analysis

 Recession Periods



# Dow Jones Stock Prices Percent Change Year Ago 1980 – 2008\*

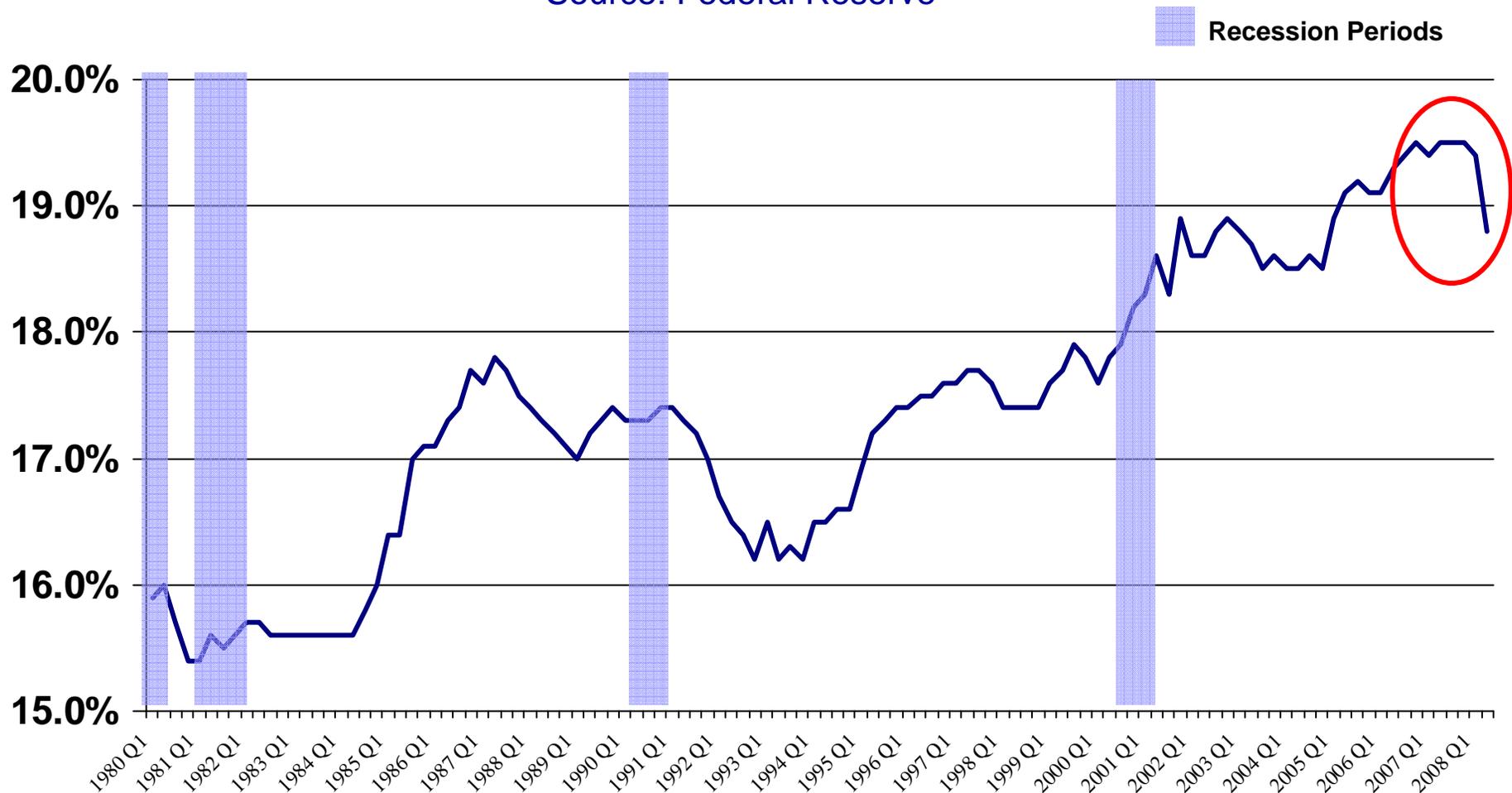
Source: [www.economy.com](http://www.economy.com)



# Financial Obligation Ratio\*\*

## 1980 – 2008\*

Source: Federal Reserve



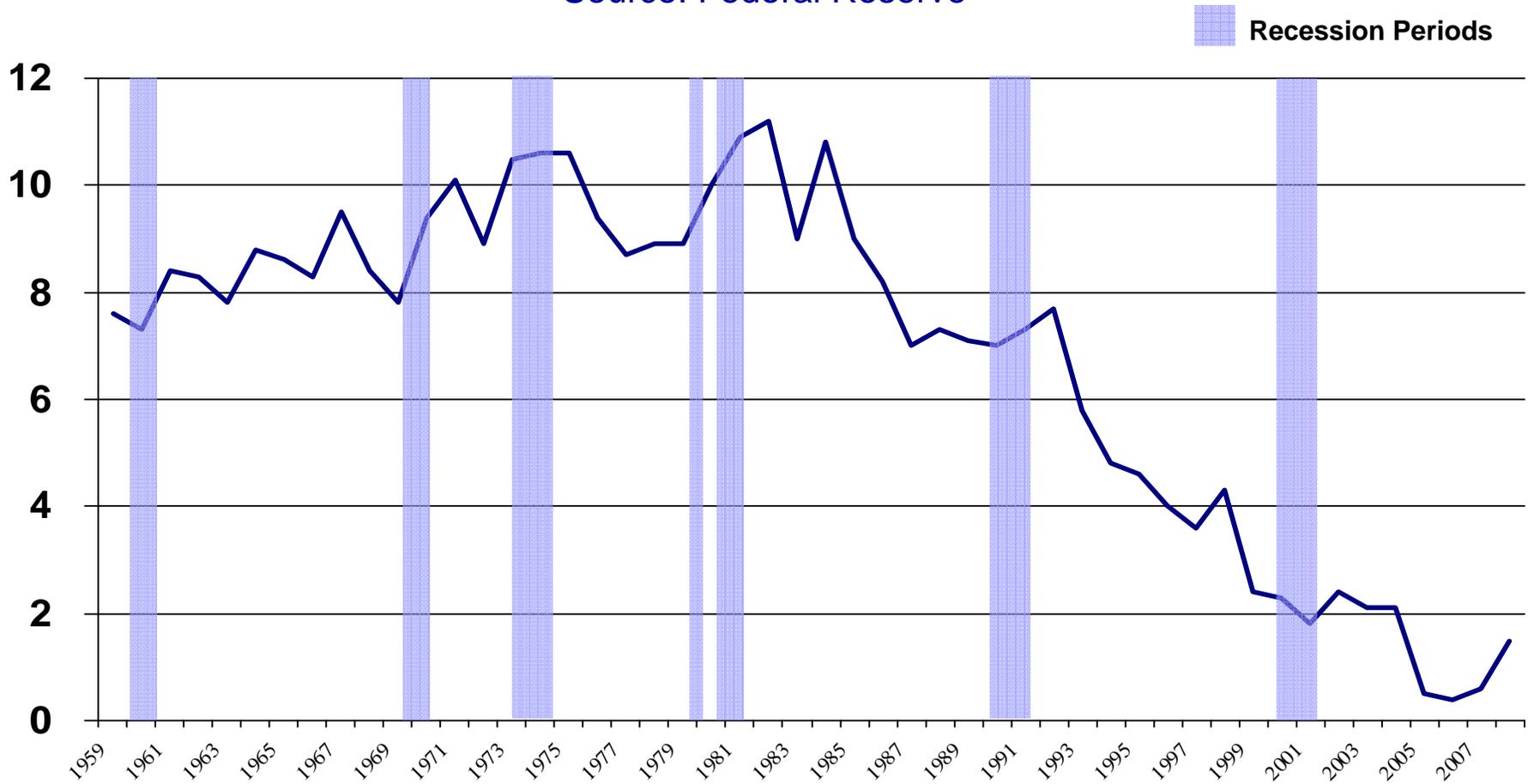
\*Data through second quarter 2008

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



# Savings Rate 1980 – 2008\*

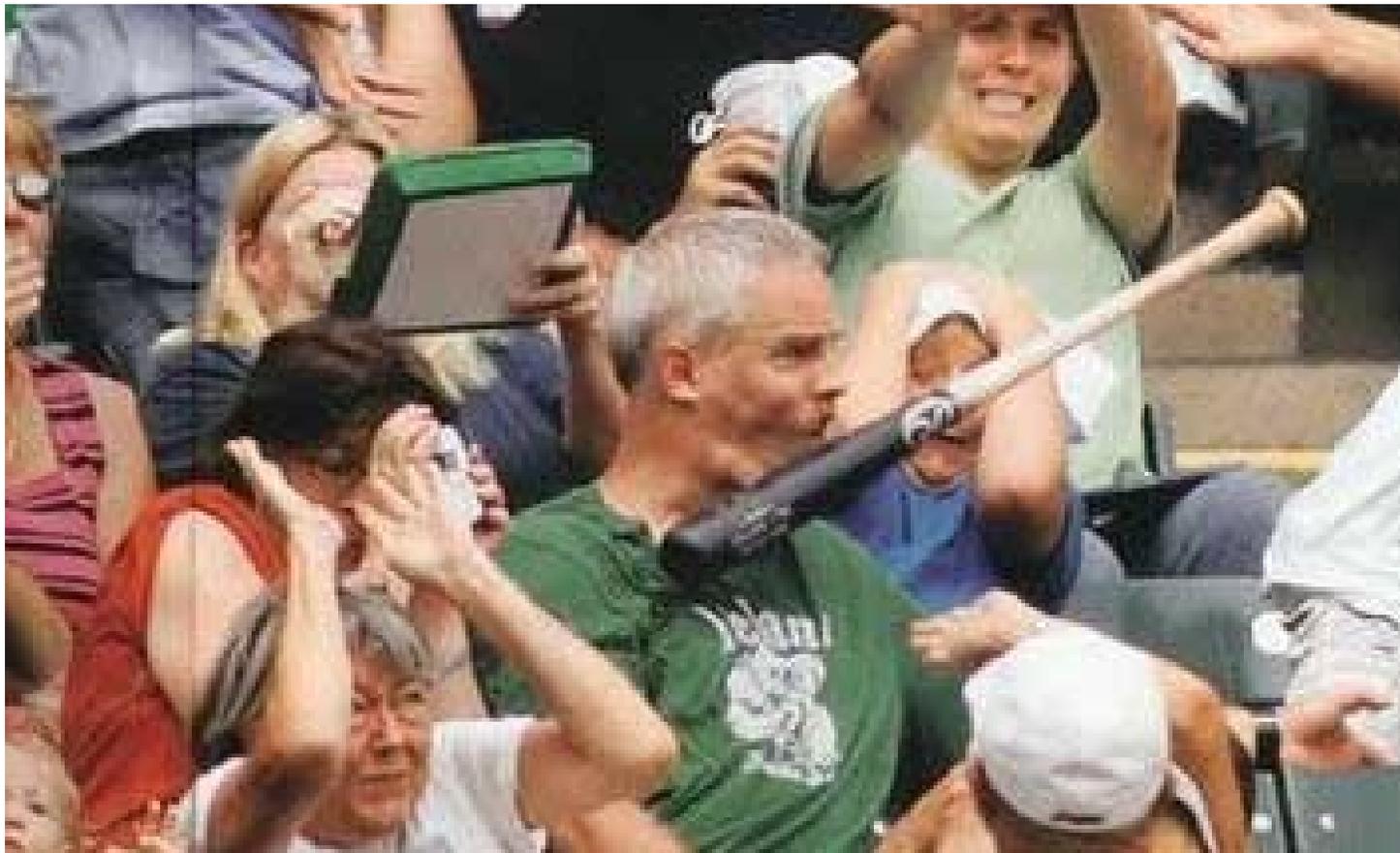
Source: Federal Reserve



\*Data through second quarter 2008



# Business: Finally taking it on the chin?





**The extent depends on  
the industry...**



# Saving Graces

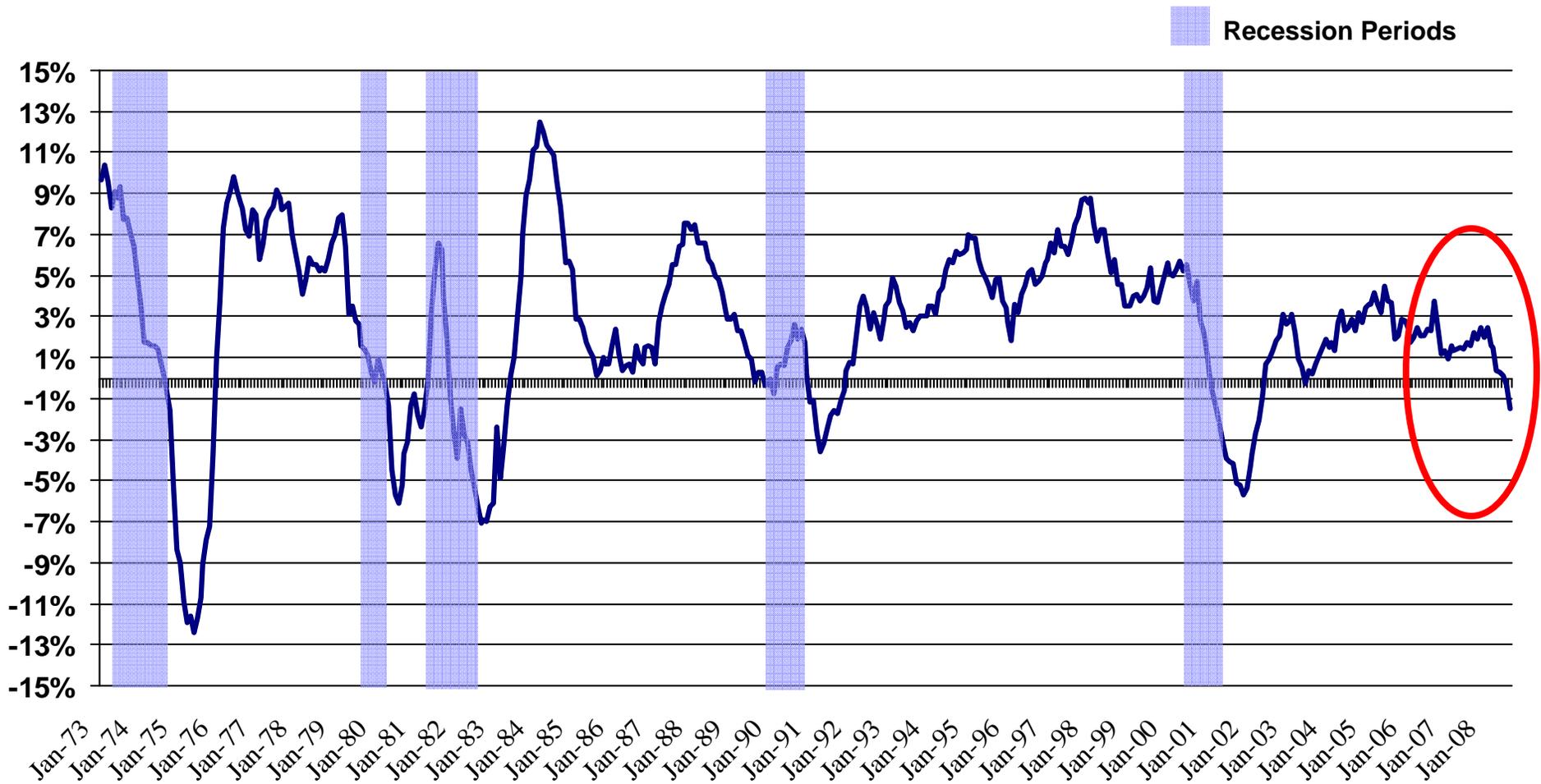


- **Corporations have been in good financial shape.**
- **Exports have been booming.**



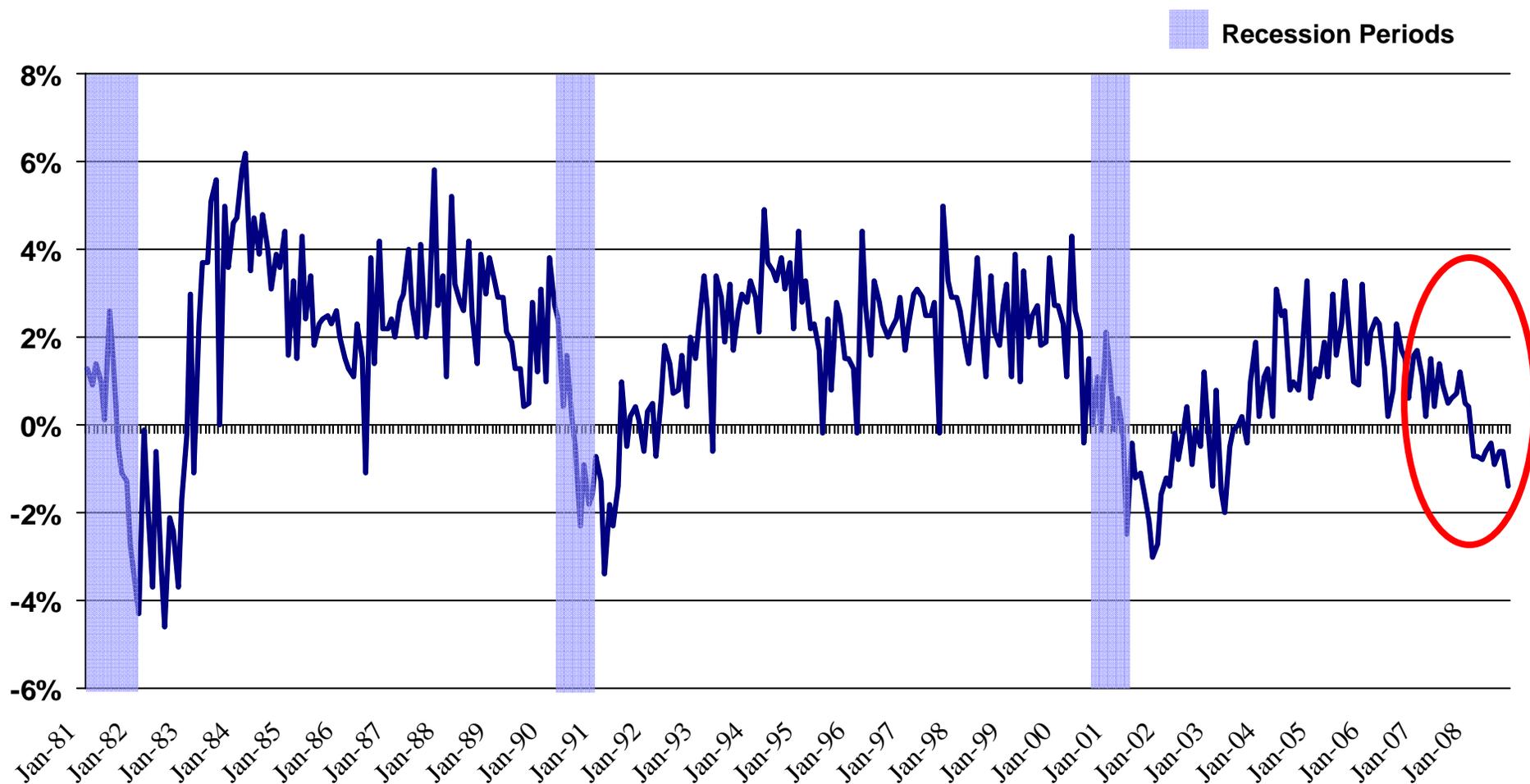
# Industrial Production Percent Change Year Ago 1973 – 2008\*

Source: The Conference Board



# National Employment Percent Change Month Ago, Annualized (S/A) 1981 – 2008\*

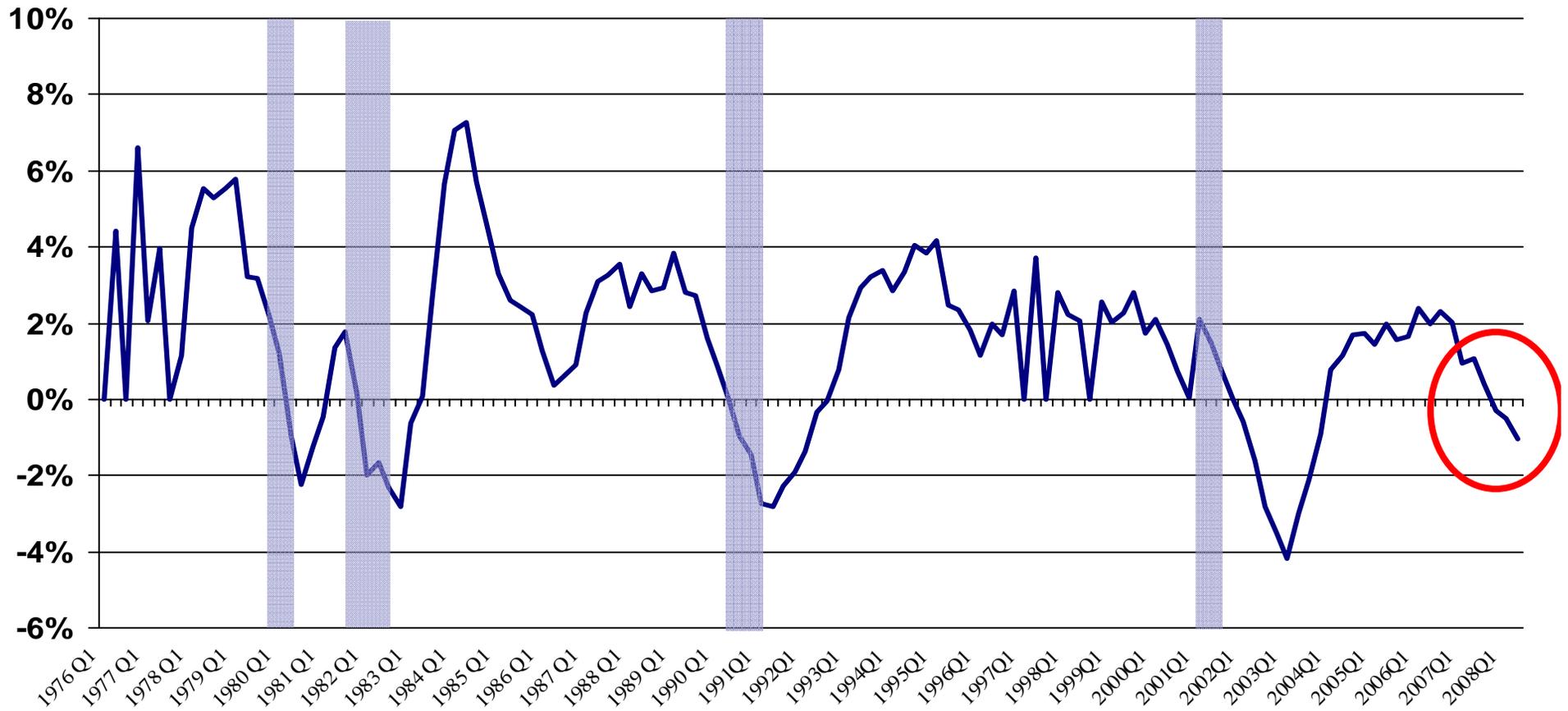
Source: U.S. Bureau of Labor Statistics



# Hours Worked Percent Change from Year Ago 1976 – 2008\*\*

Source: Bureau of Labor Statistics

Recession Periods



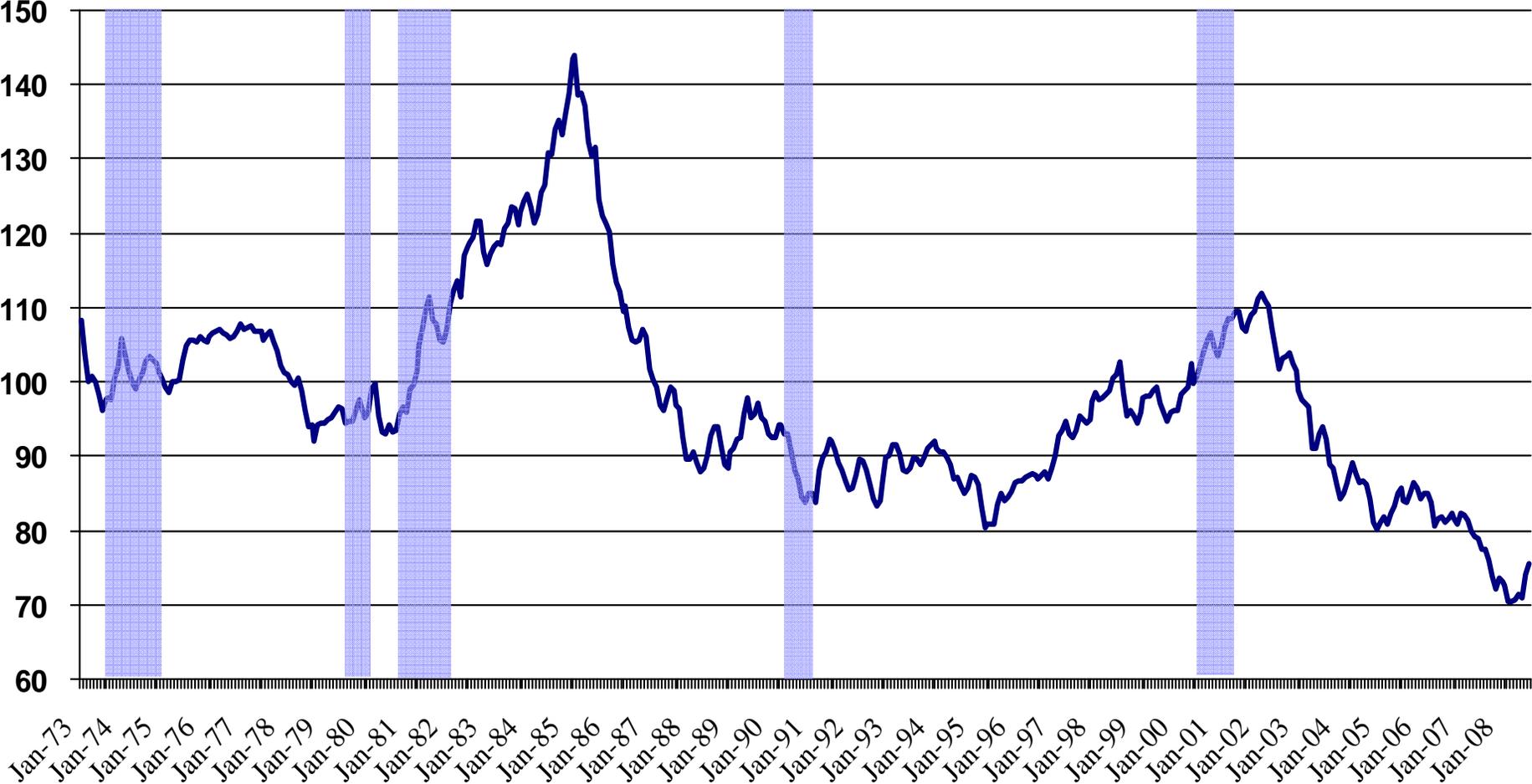
\*\*Data through second quarter 2008



# US Dollar Trade Weighted Exchange v. Major Currencies (1973 = 100) 1973 – 2008\*

Source: The Federal Reserve

Recession Periods



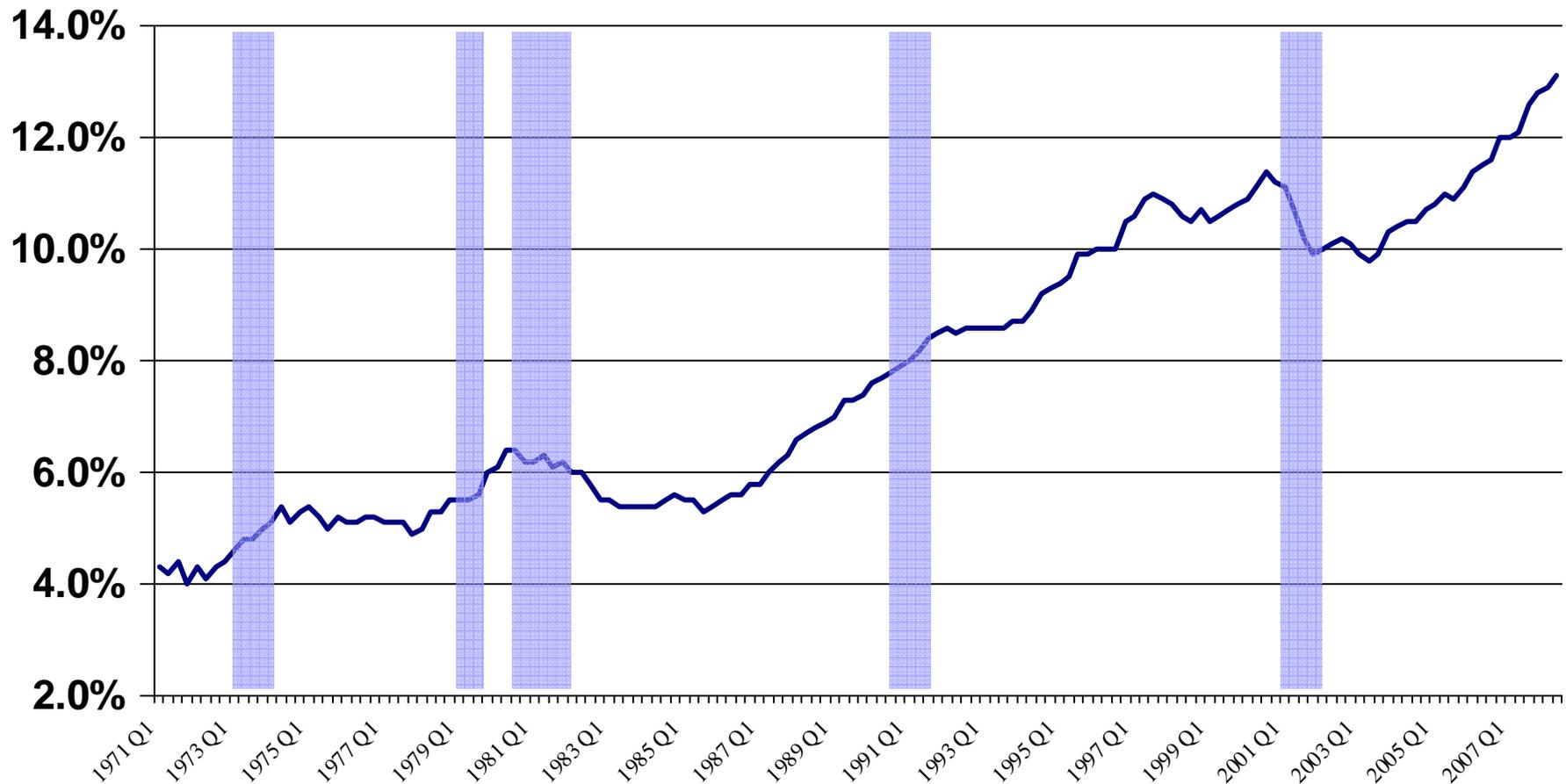
\*Data through September 2008



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

Source: Bureau of Economic Analysis

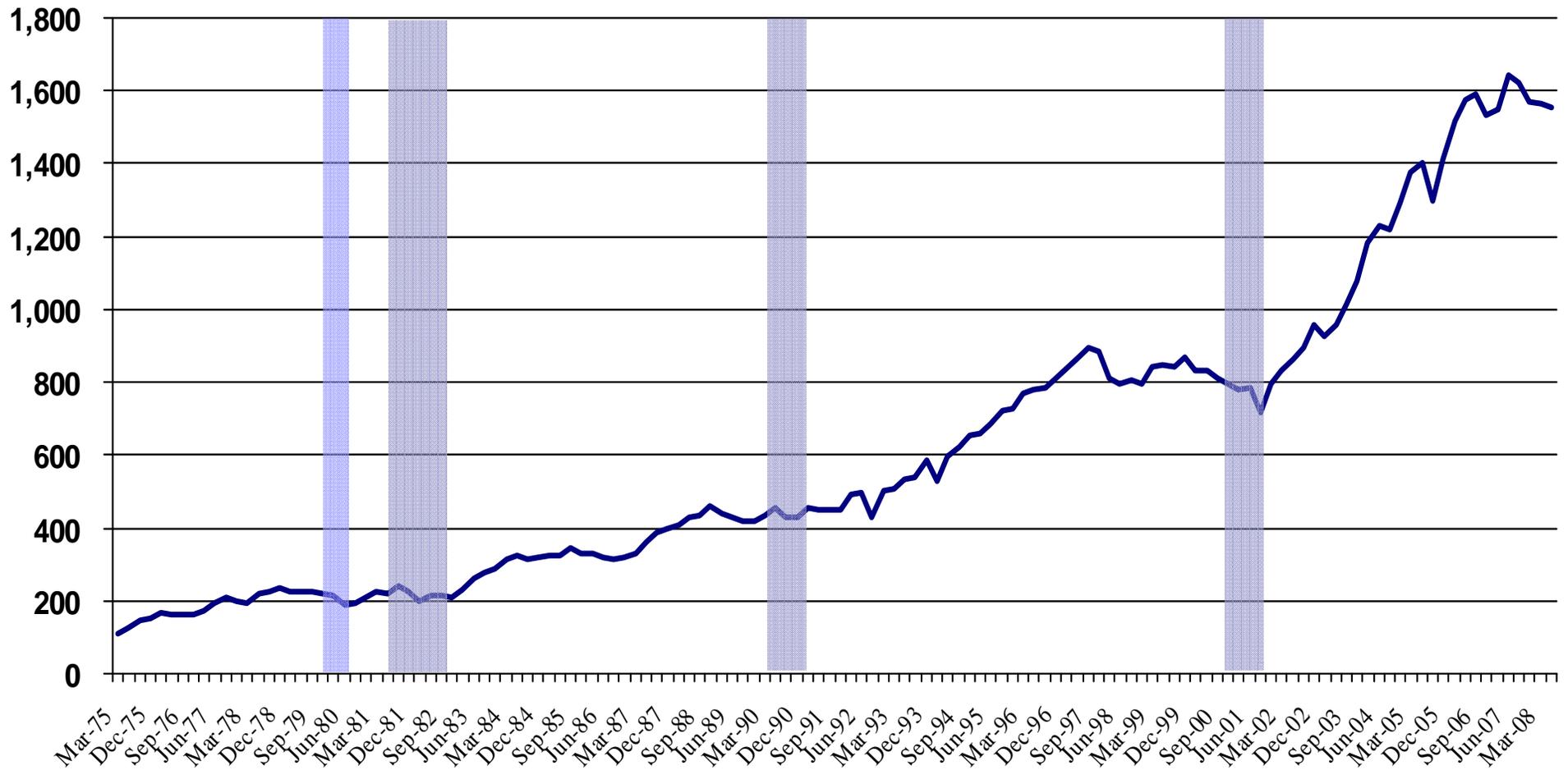
Recession Periods



# Corporate Profit (Billions of Dollars, SA) 1975-2008\*

Source: Freelunch.com

Recession Periods



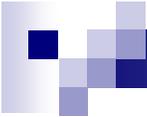
\*Data through second quarter 2008



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**Is credit  
now tight?**





# **Tougher Mortgage Loan Standards**

Source: Federal Reserve Survey, July 2008

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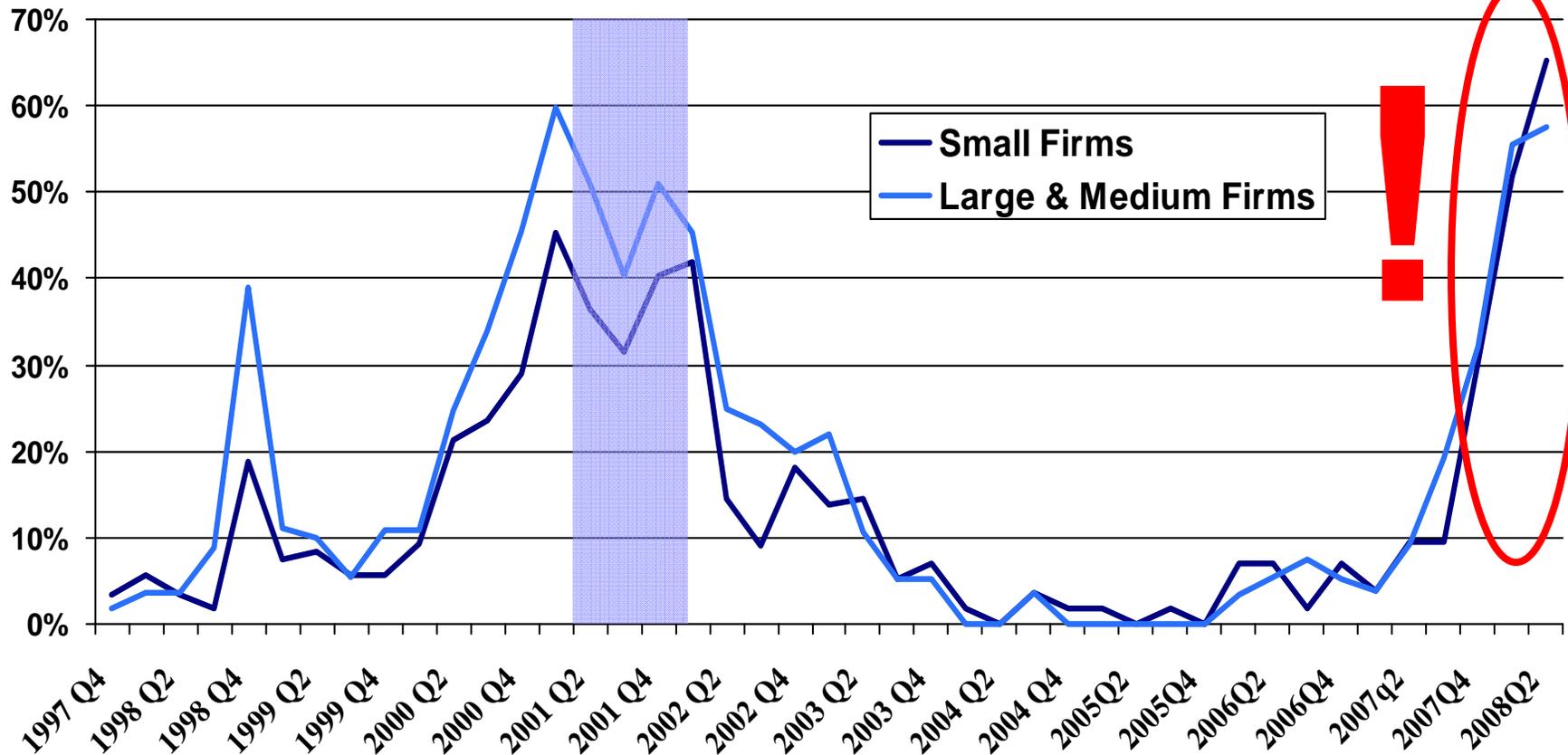
- **85.7% of banks tightened on sub-prime mortgages.**
- **84.4% of banks tightened on “non-traditional” mortgages**  
(ARMs, Interest-only, or Limited Income Verification loans).
- **74.0% of banks tightened on prime mortgage loans.**



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

Source: Federal Reserve, Board of Governors

 Recession Periods



# High Yield Credit Spread 2004 – 2008\*

Source: Bespoke Investment Group; Merrill Lynch



\*Data through October 8, 2008.

\*\* The spread between high yield corporate bonds (non investment grade/below bbb rated) and comparable Treasuries.



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# High Yield Credit Spread 1997 – 2008\*

Source: Bespoke Investment Group; Merrill Lynch

 Recession Periods

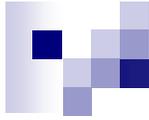


\*Data through October 8, 2008.

\*\* The spread between high yield corporate bonds (non investment grade/below bbb rated) and comparable Treasuries.



*Elliott D. Pollack & Company*



## **U.S. Summary:**

**The economy will be very weak  
for the remainder of 2008;  
not so great in 2009.**

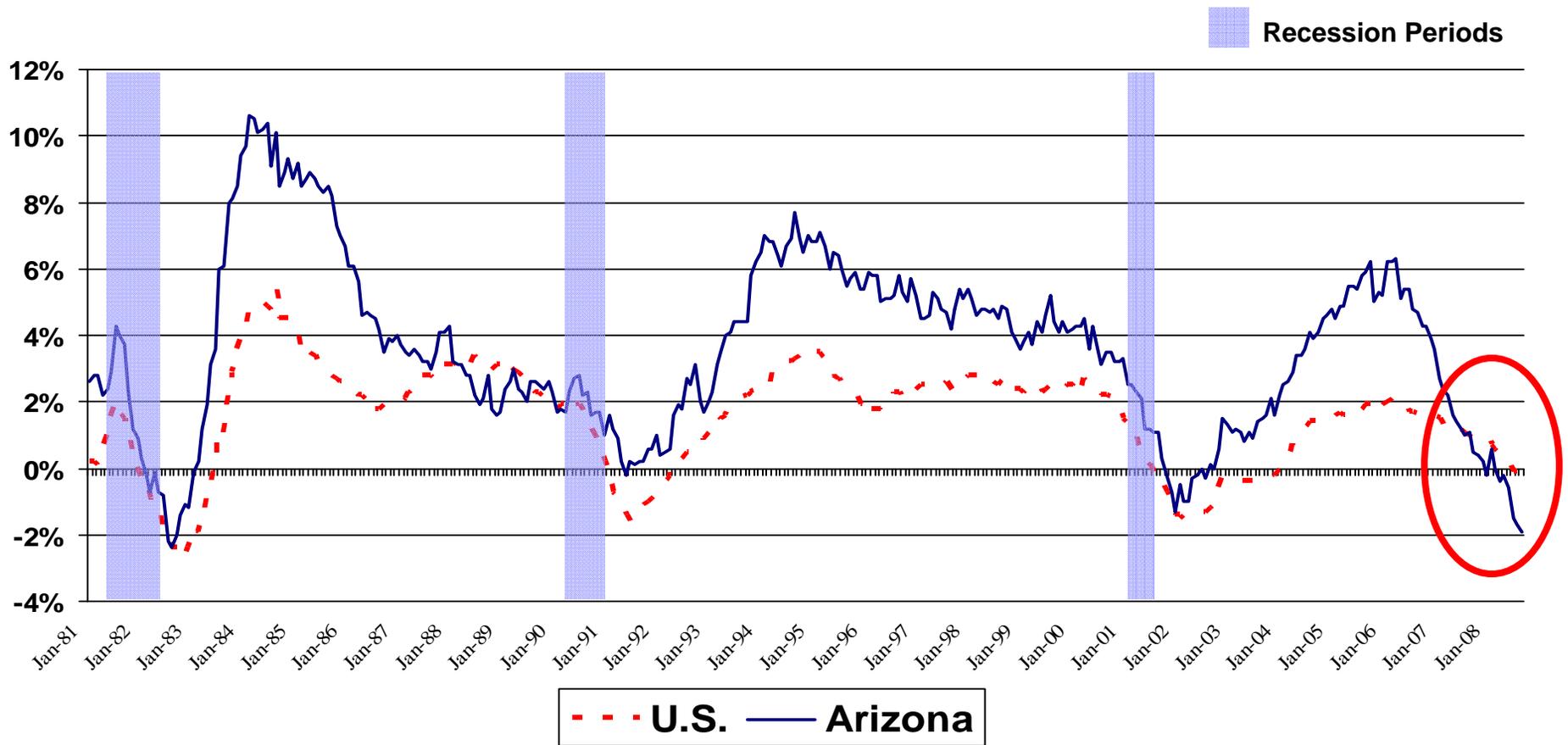


# What's Happening in Arizona?



# Arizona & US Move Together

## (Nonfarm Employment Percent Change 1980 - 2008)

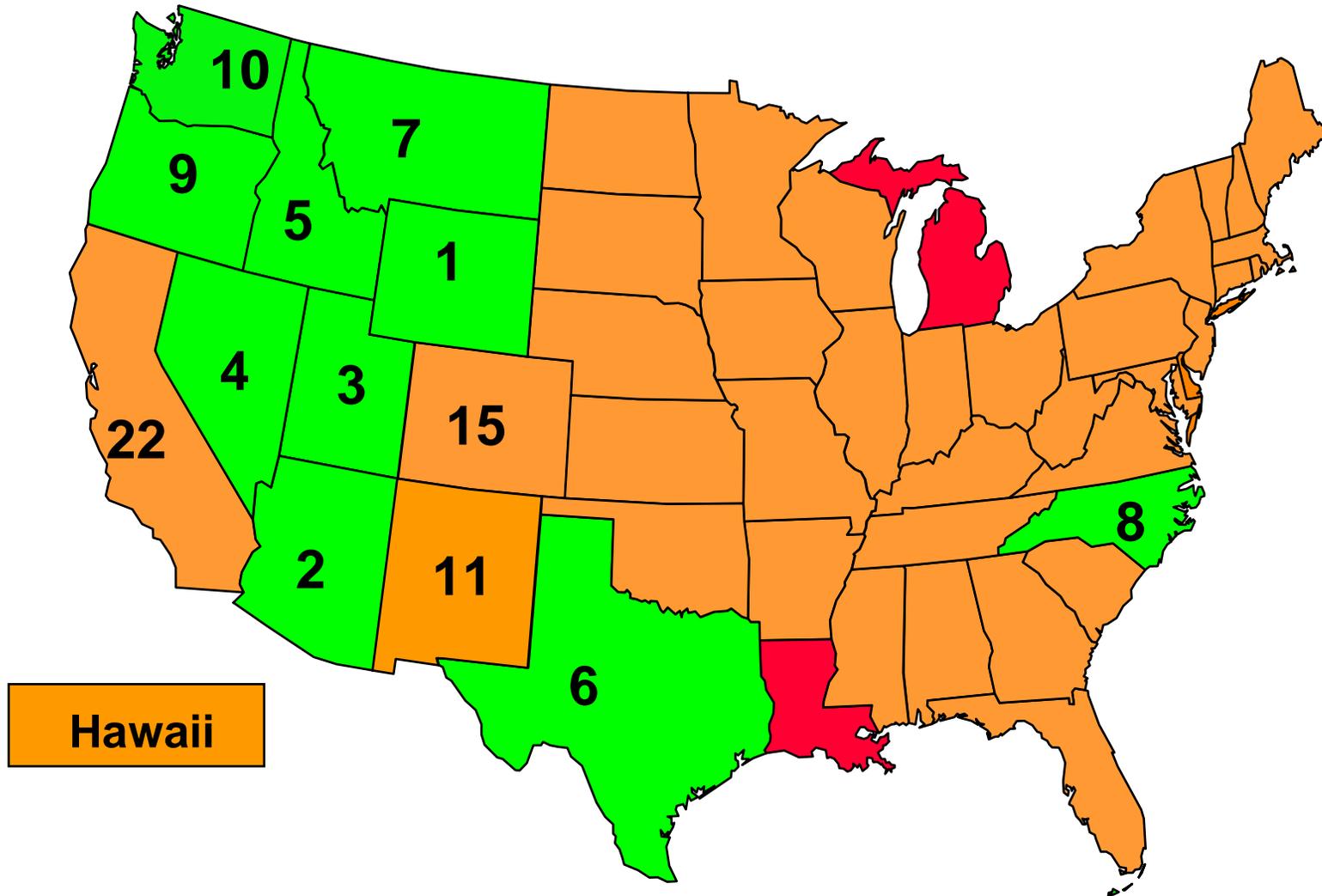


\*Data through August 2008



# Job Growth 2006

Source: US BLS

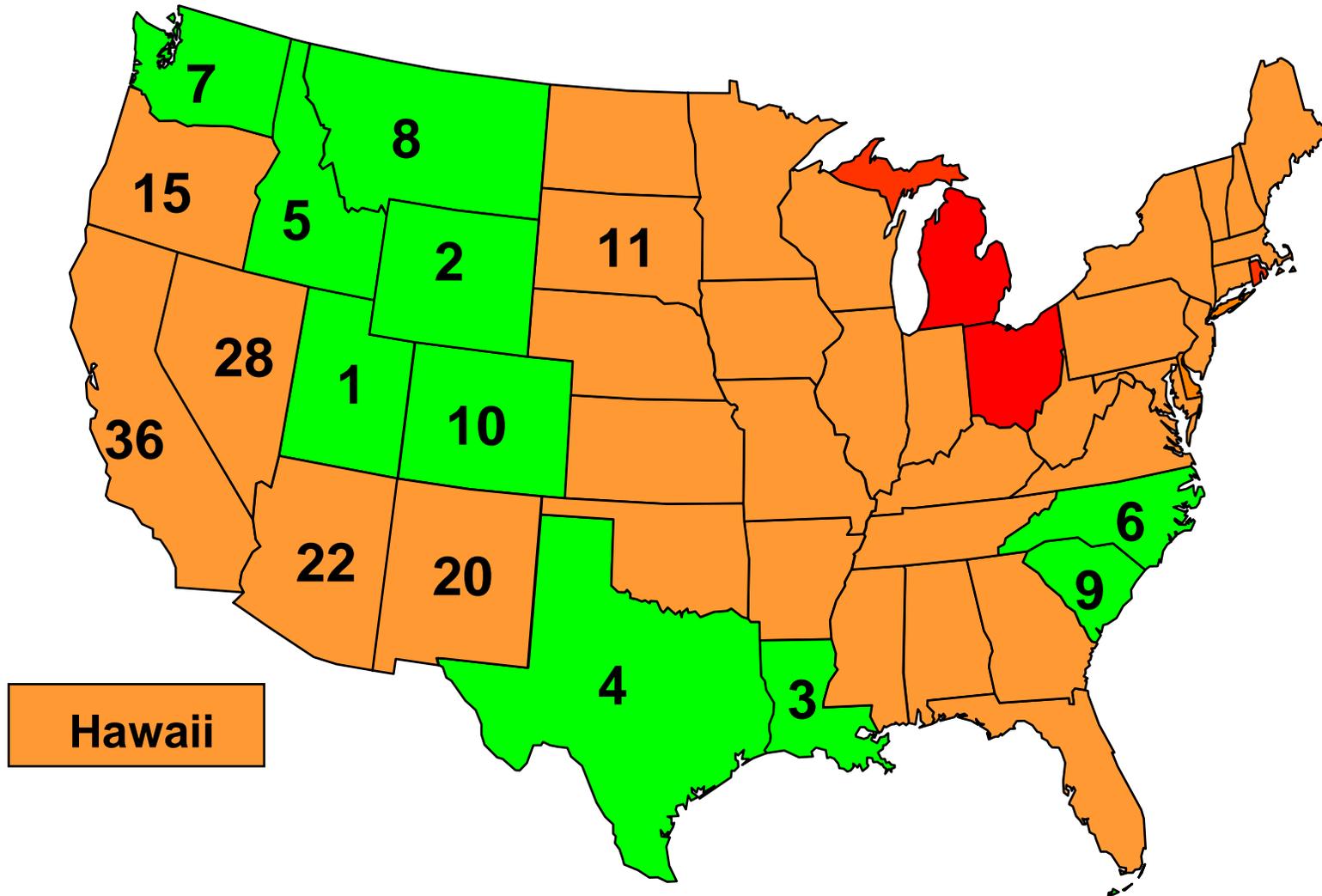


Hawaii



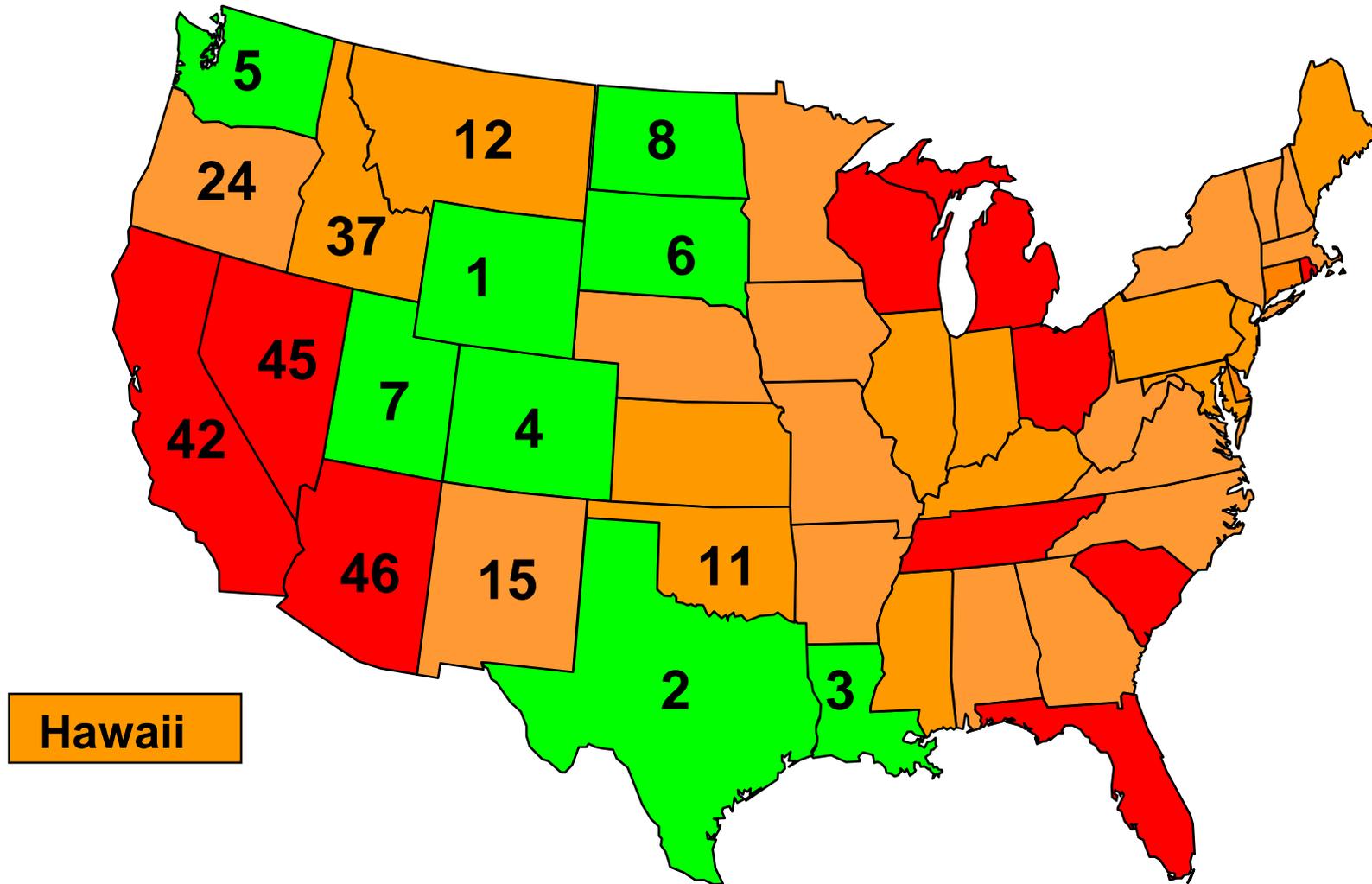
# Job Growth 2007

Source: US BLS



# Job Growth Update: Arizona Falls to 46<sup>th</sup>

YTD August 2008 vs YTD August 2007 - BLS



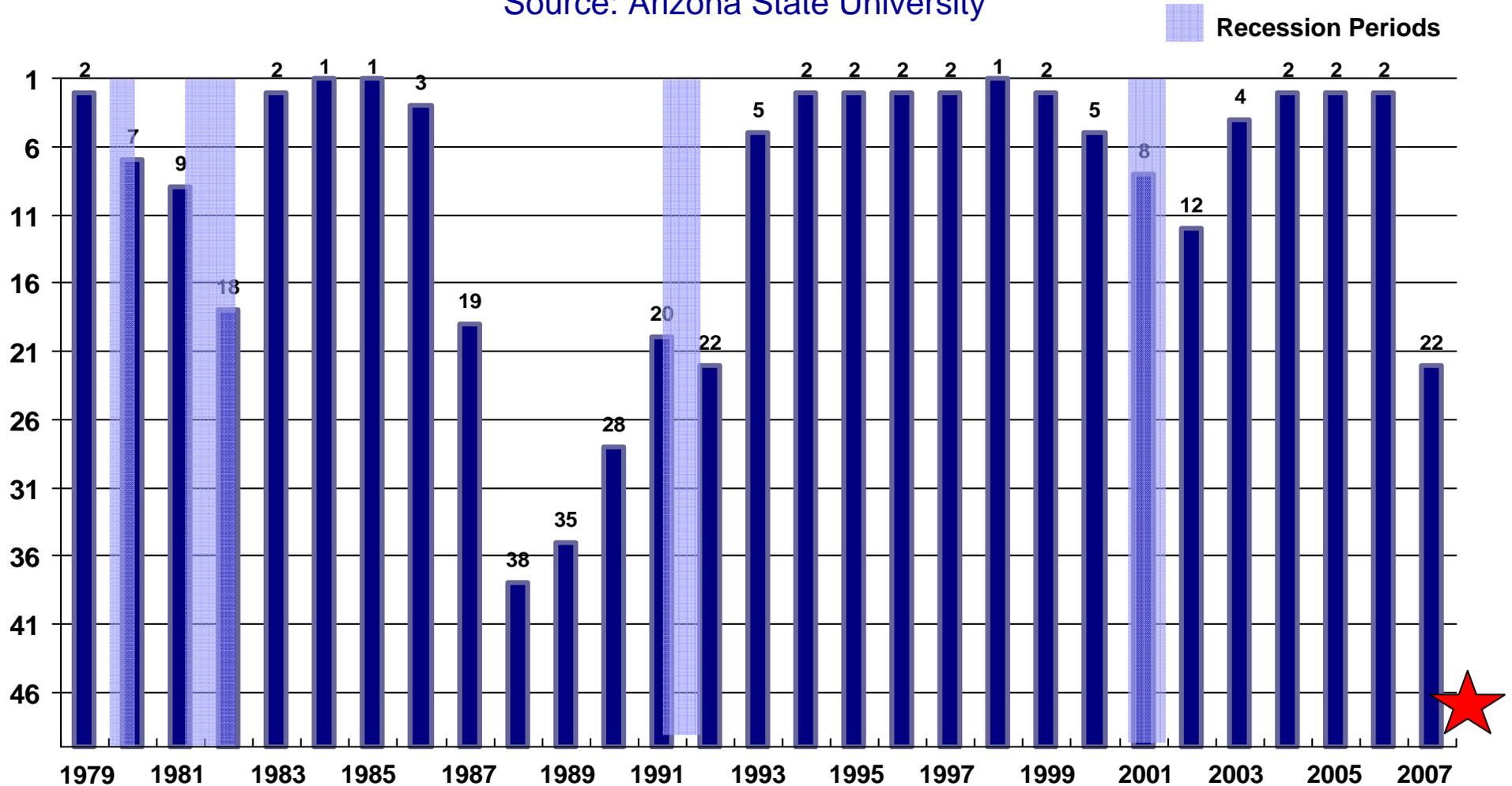
Hawaii



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

Source: Arizona State University

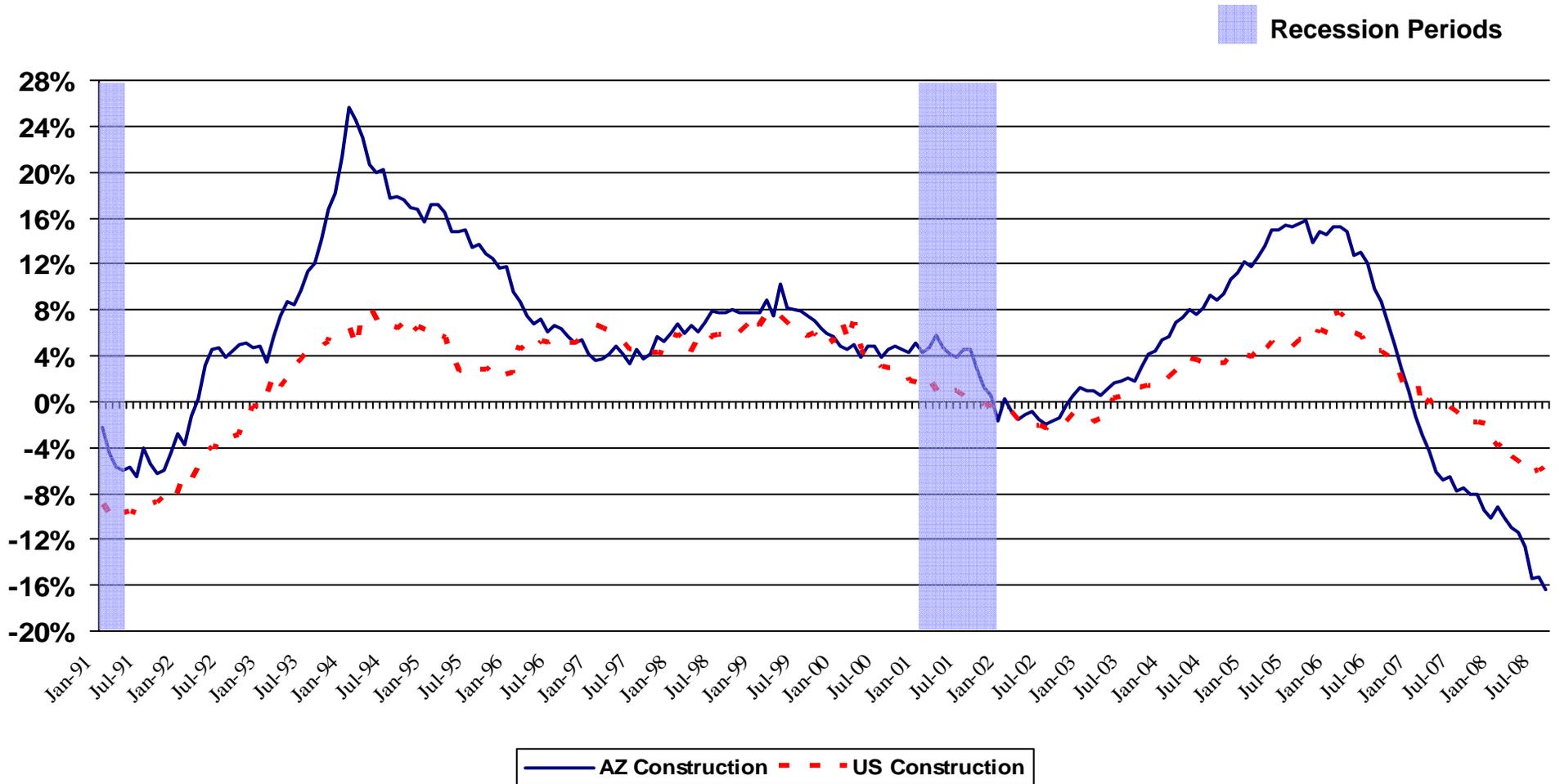


 = YTD August = 46



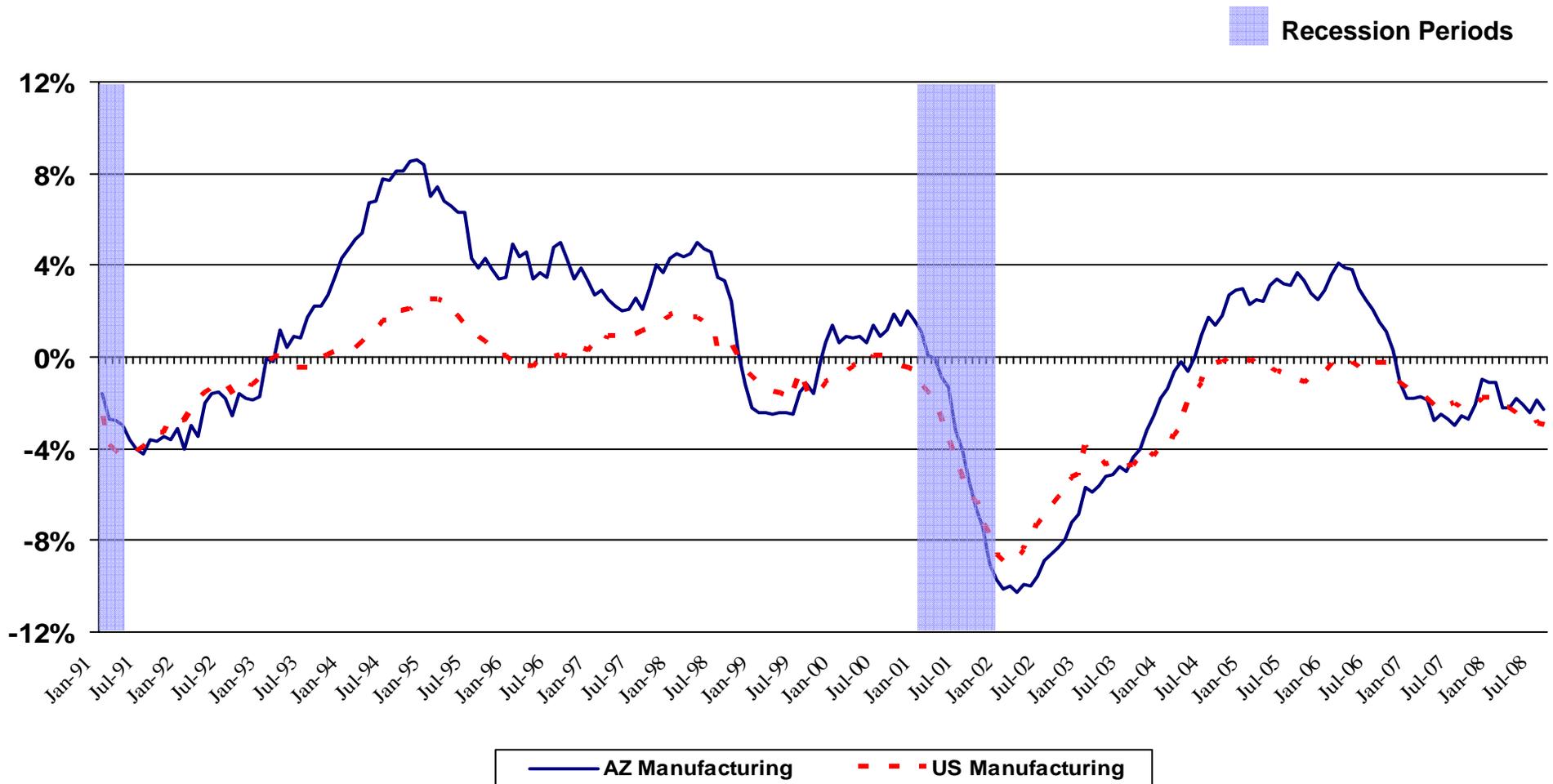
# Construction Employment: Arizona v. U.S. Percent Change Year Ago 1991 – 2008\*

Source: Bureau of Labor Statistics



# Manufacturing Employment: Arizona v. U.S. Percent Change Year Ago 1991 – 2008\*

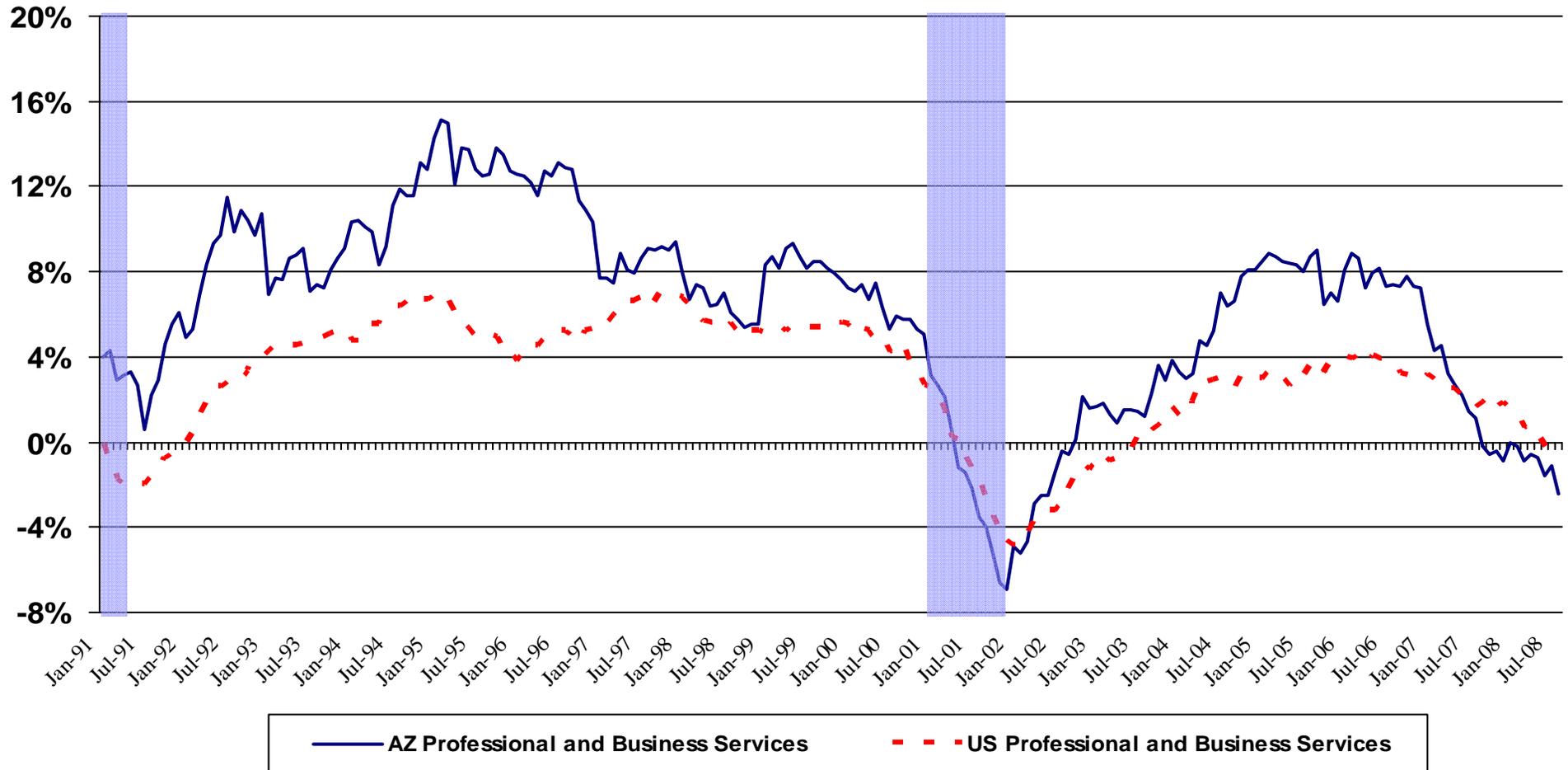
Source: Bureau of Labor Statistics



# Professional & Business Services Employment: Arizona v. U.S. Percent Change Year Ago 1991 – 2008\*

Source: Bureau of Labor Statistics

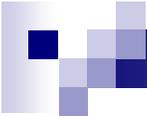
 Recession Periods





# Greater Phoenix





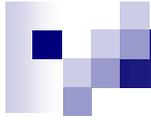
# Phoenix-Mesa Employment Growth

(Ranking among all metro areas greater than 1,000,000)

Source: Arizona State University, U.S. Bureau of Labor Statistics

<u>YEAR</u>	<u>RANK</u>	<u># of MSAs</u>
1991	4	20
1992	5	20
1993	2	20
1994	1	20
1995	1	21
1996	1	23
1997	2	23
1998	1	24
1999	3	26
2000	8	26
2001	6	28
2002	5	28
2003	3	29
2004	4	29
2005	1	30
2006	1	31
2007	10	32
2008 YTD August	28	32





# **Worst year (relatively) on record**



# Phoenix-Mesa Employment

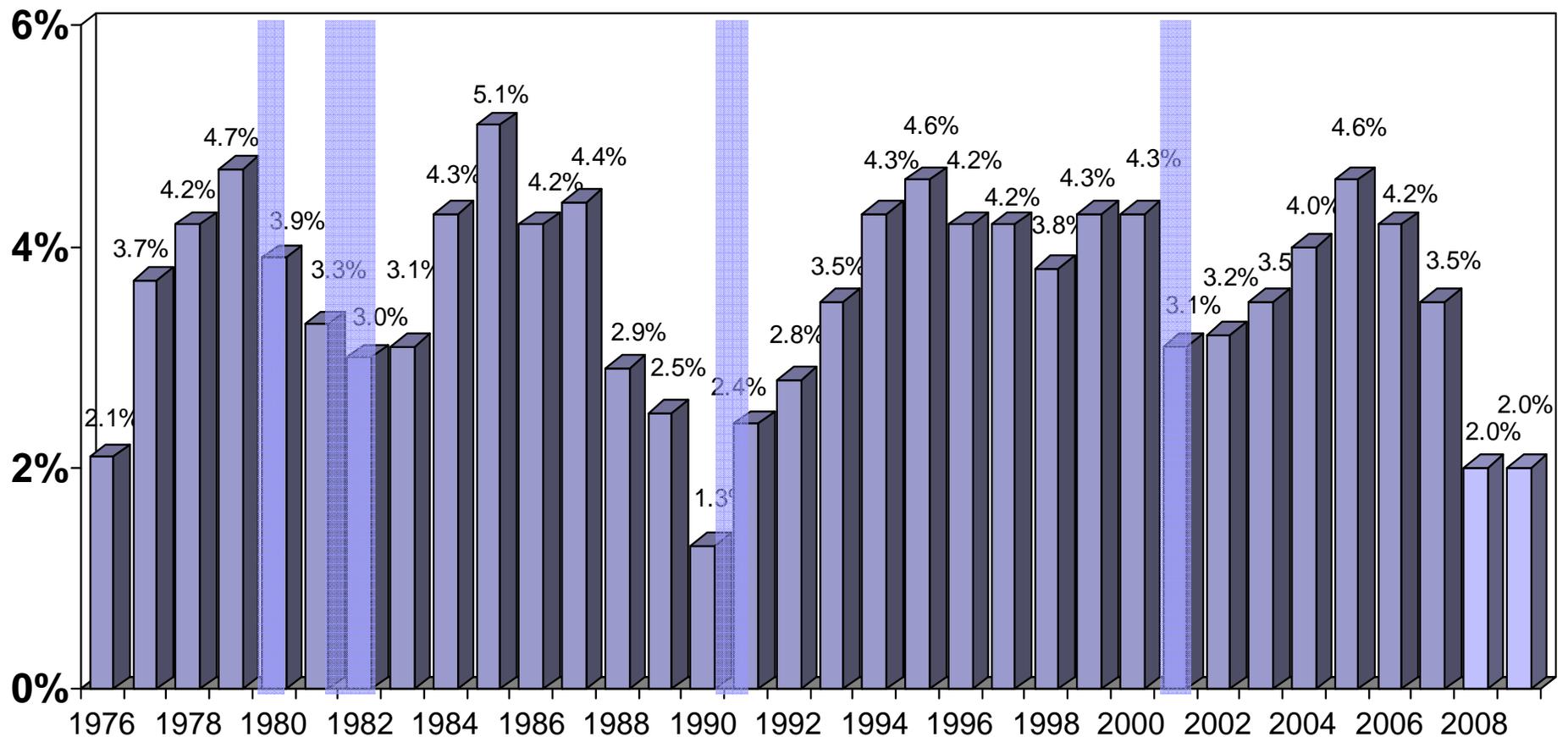
Source: Arizona Department of Commerce, Research Administration

<u>Sectors (-)</u>	<u>YTD %</u>	<u>% of Total</u>	<u>Sectors (+)</u>	<u>YTD %</u>	<u>% of Total</u>
Construction	-13.8%	7.8%	Mining	9.9%	0.2%
Manufacturing	-1.8%	7.2%	Trade	0.2%	16.9%
Transp. & Utilities	-2.0%	3.5%	Edu. & Health Services	4.9%	11.3%
Information	-2.1%	1.6%	Leisure & Hosp. Services	2.1%	10.0%
Financial Activities	-3.0%	7.9%	Other Services	1.1%	3.8%
Prof. and Bus. Services	-1.0%	17.0%	Government	3.1%	12.8%
Percent of Total		45.0%			55.0%



# 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.*

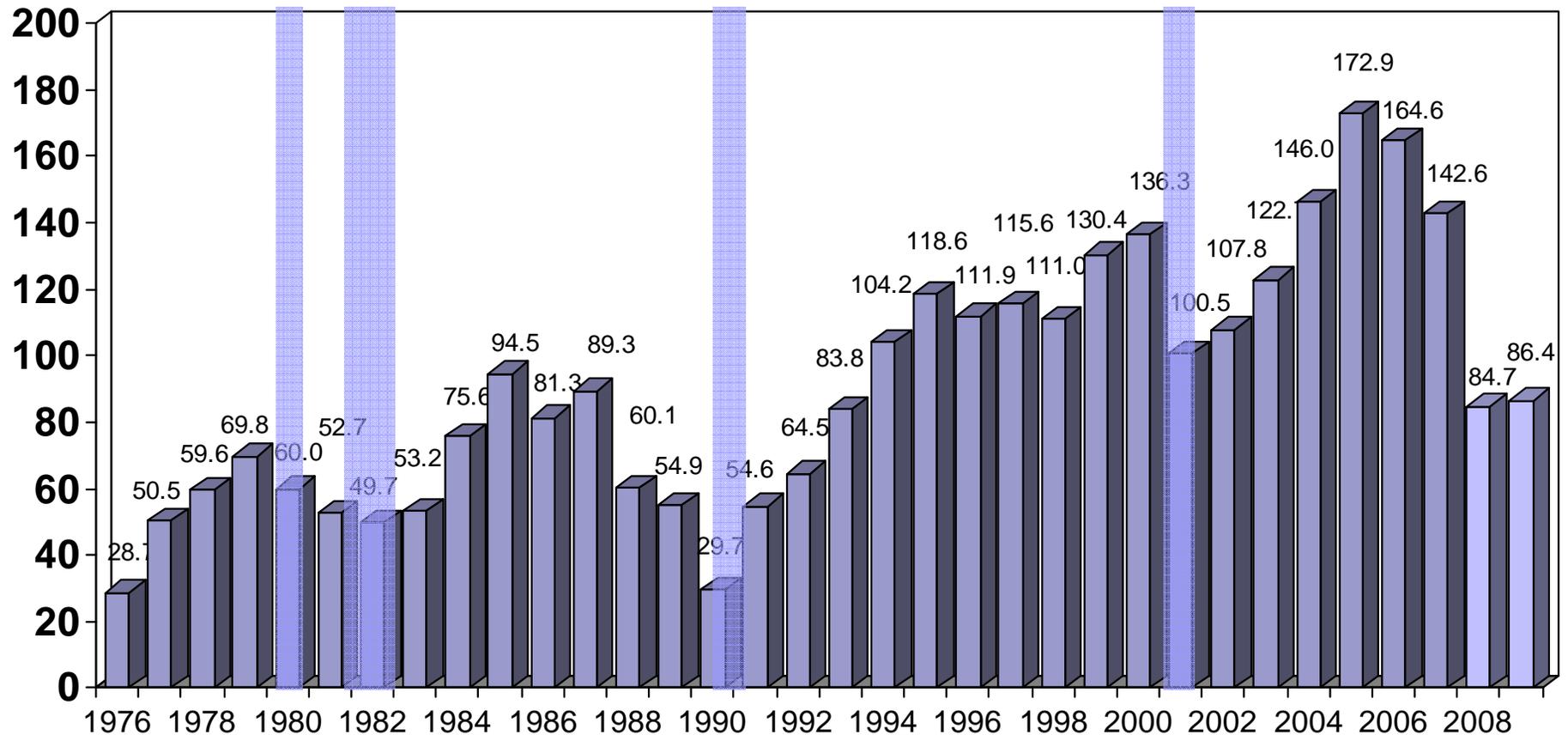
 **Recession Periods**



*Elliott D. Pollack & Company*

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

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



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\* 2008 & 2009 forecast is from *Elliott D. Pollack & Co.*

 **Recession Periods**



*Elliott D. Pollack & Company*



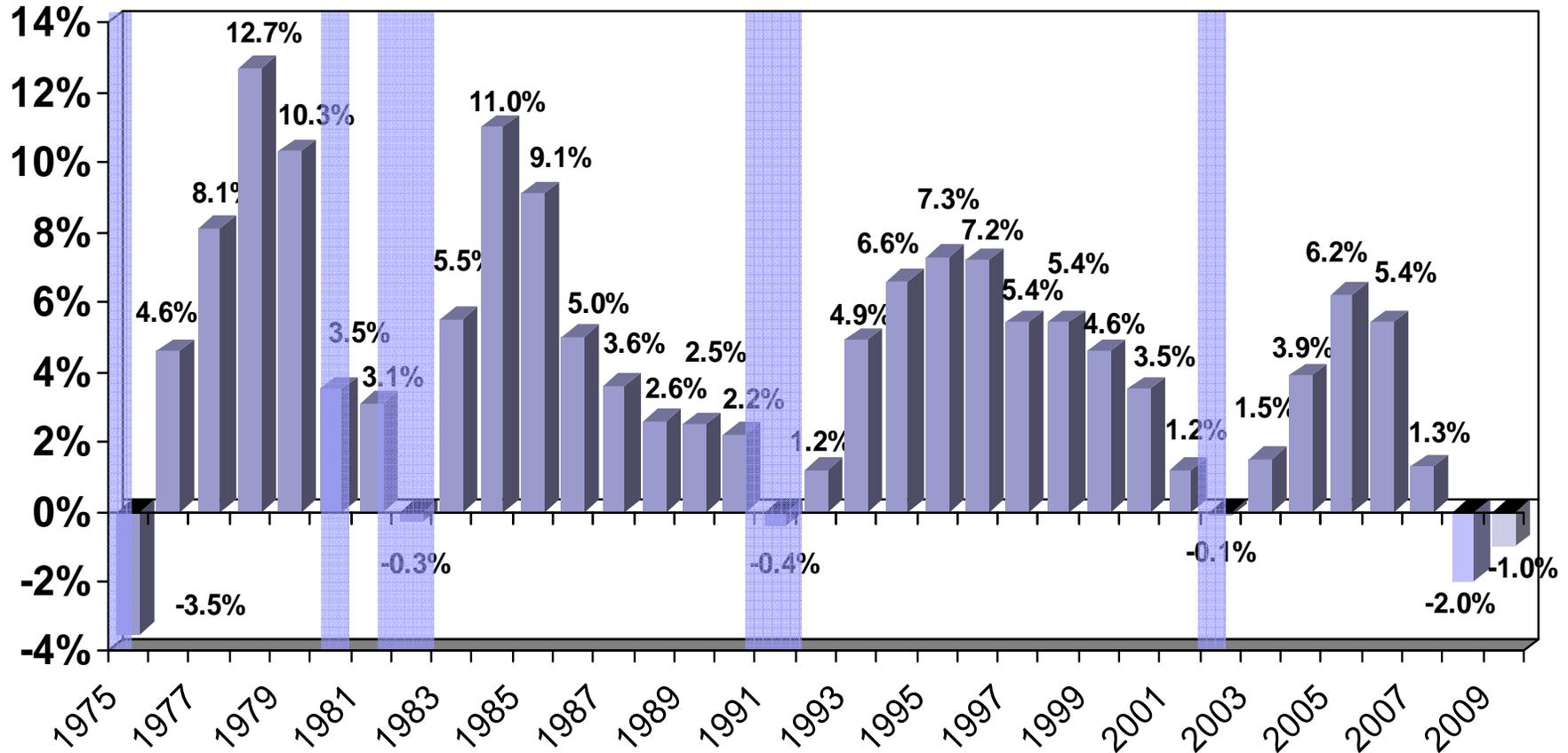
# **For Greater Phoenix:**

**As long as people can't sell  
their homes elsewhere,  
population inflows will slow.**



# 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.*

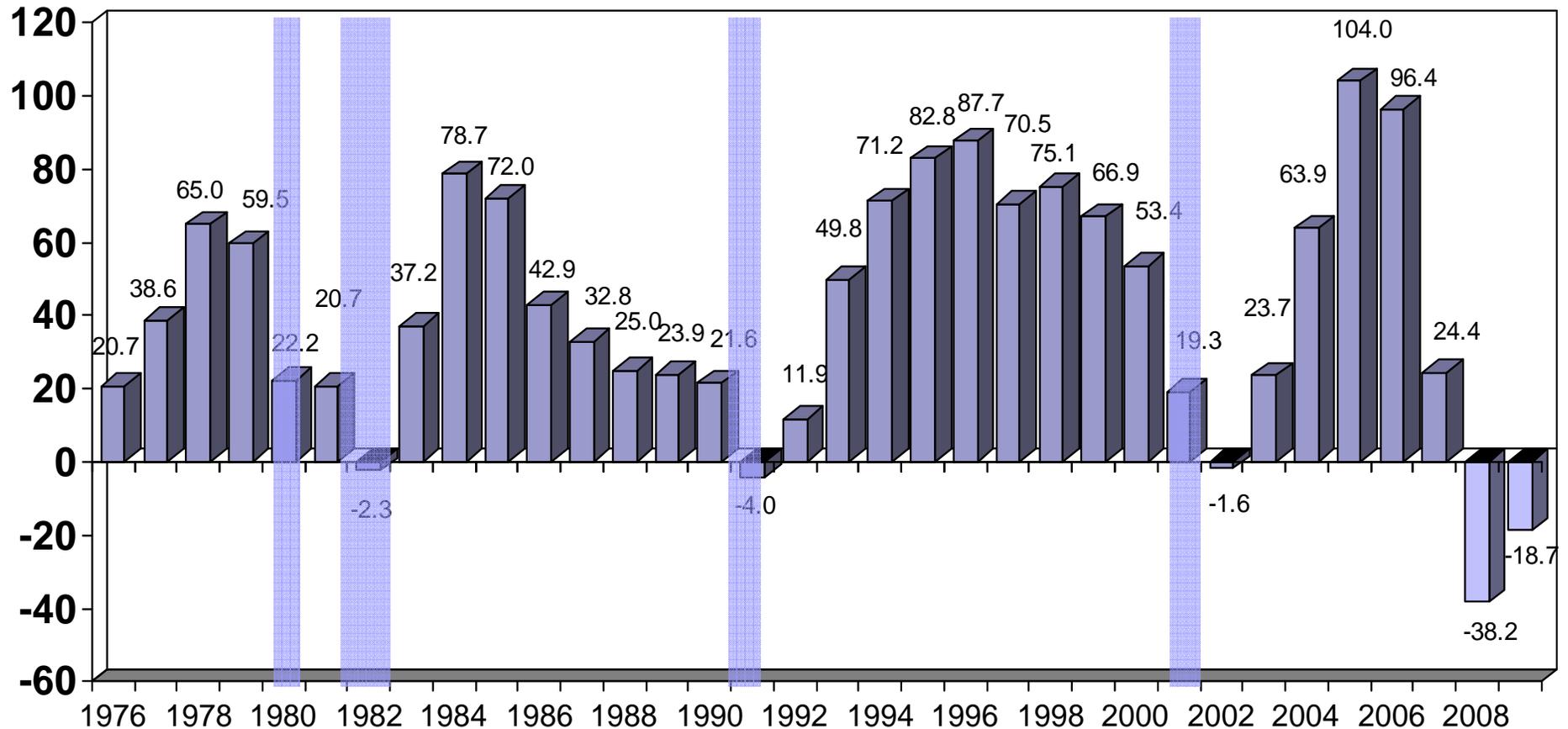
 Recession Periods



*Elliott D. Pollack & Company*

# Phoenix-Mesa MSA Employment Annual Change 1976–2009\*

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



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 Recession Periods



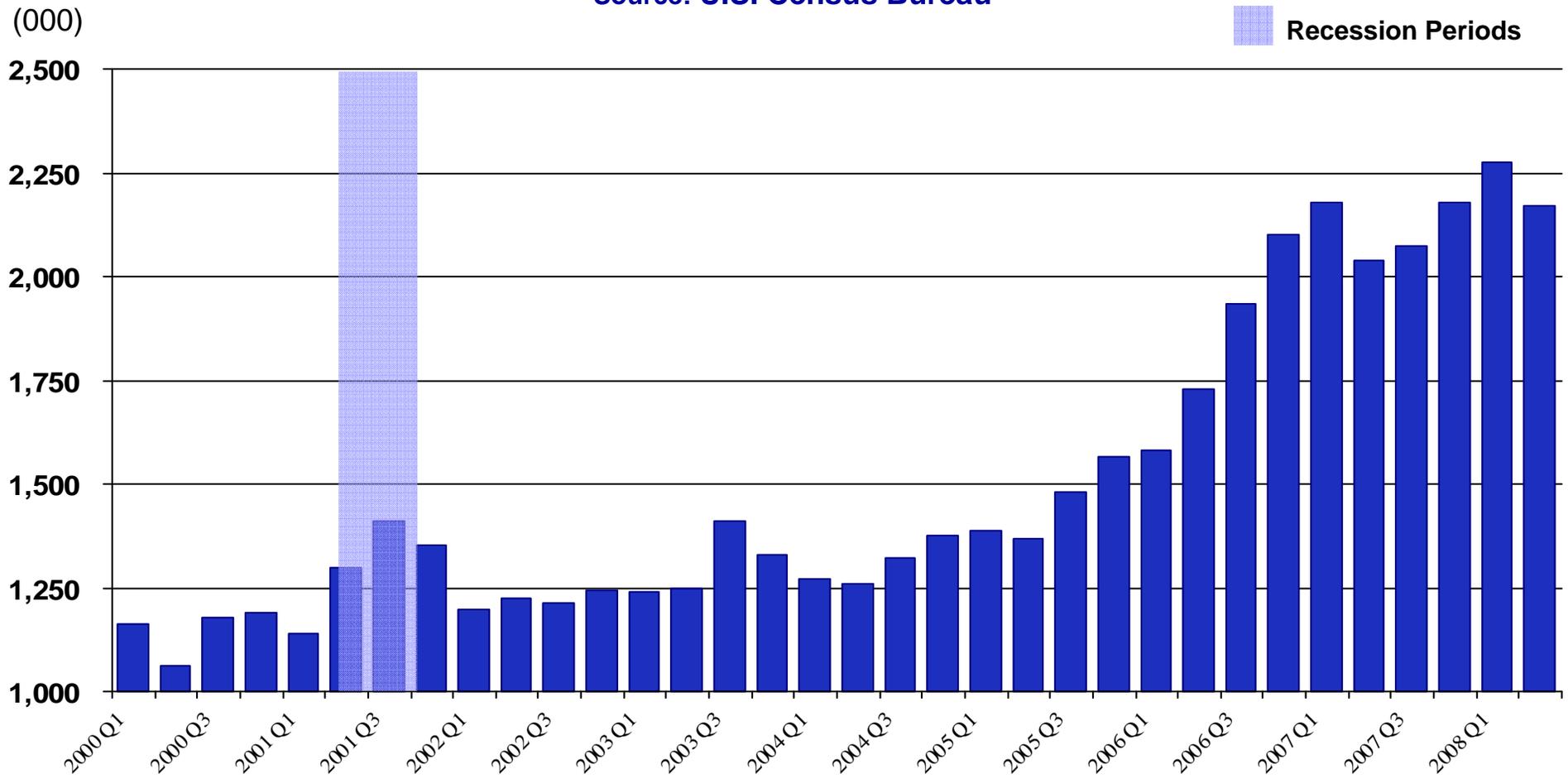
*Elliott D. Pollack & Company*

# Housing Market



# U.S. Number of Vacant Homes for Sale 2000 – 2008\*

Source: U.S. Census Bureau



• Data through 2nd Quarter 2008.



Elliott D. Pollack & Company

# United States Home Sales Months Supply – Single Family Homes 2000 – 2008\*

Source: U.S. Census Bureau



• Data through August 2008.



Elliott D. Pollack & Company

# Median Price of Resale Homes – U.S. Percent Change Year Ago 2003 – 2008\*

Source: National Association of Home Builders



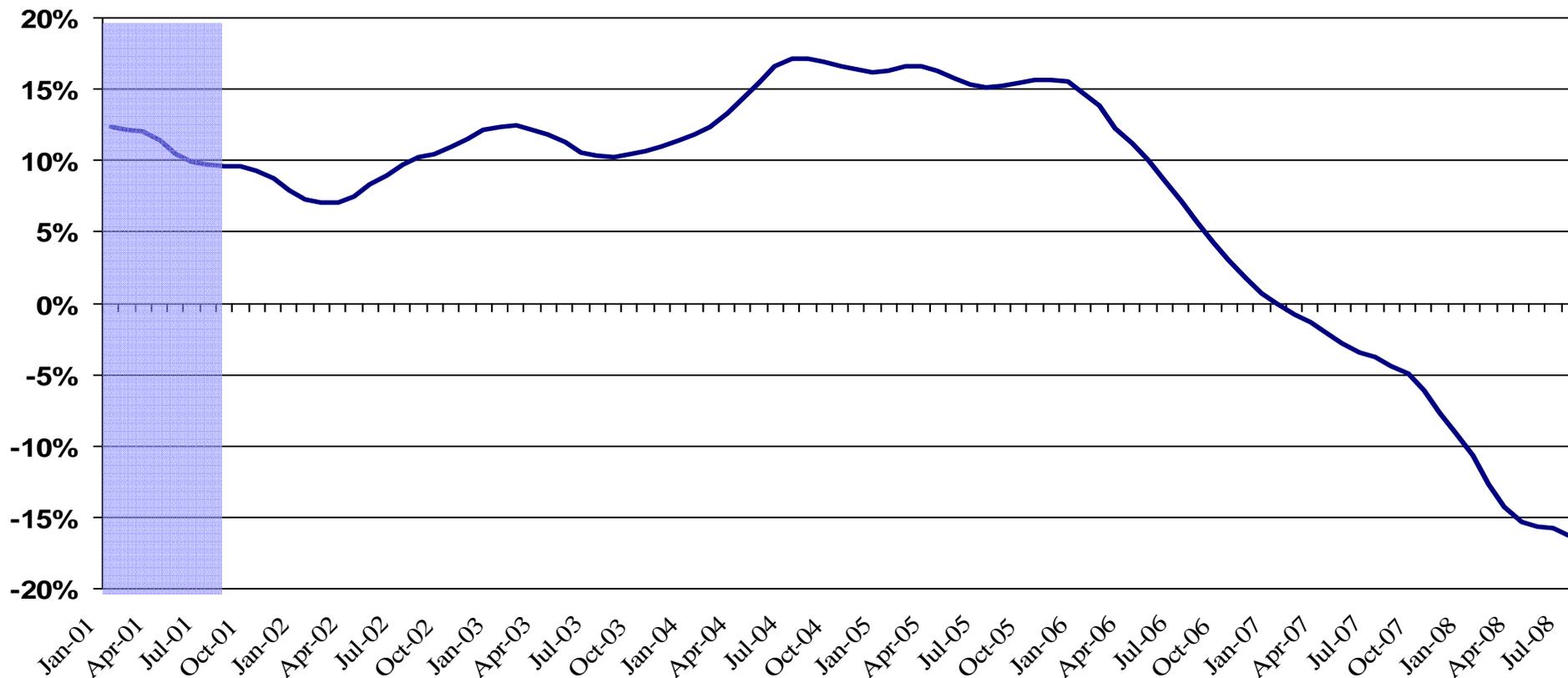
Elliott D. Pollack & Company

\*Data through August 2008

# S&P/Case-Schiller Home Price Index\*\* (Composite of 20 MSA's) Percent Change Year Ago 2001 – 2008\*

Source: Macro Markets, LLC

 Recession Periods

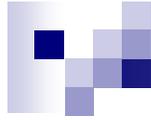


\*Data through July 2008

\*\*Measures changes in existing single family home prices given a constant level of quality.



Elliott D. Pollack & Company



**Tighter lending standards  
and a weak economy  
have acted as a drag on the  
housing market.**



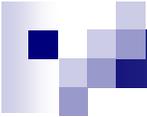
**During the first half of 2008 in**

**Arizona:**

**- 40.9% of all resales  
were foreclosures.**

**Source: ASU Realty Studies**





# It's Not Just Subprime

## 2008 Q1- Arizona

Source: Mortgage Bankers Association

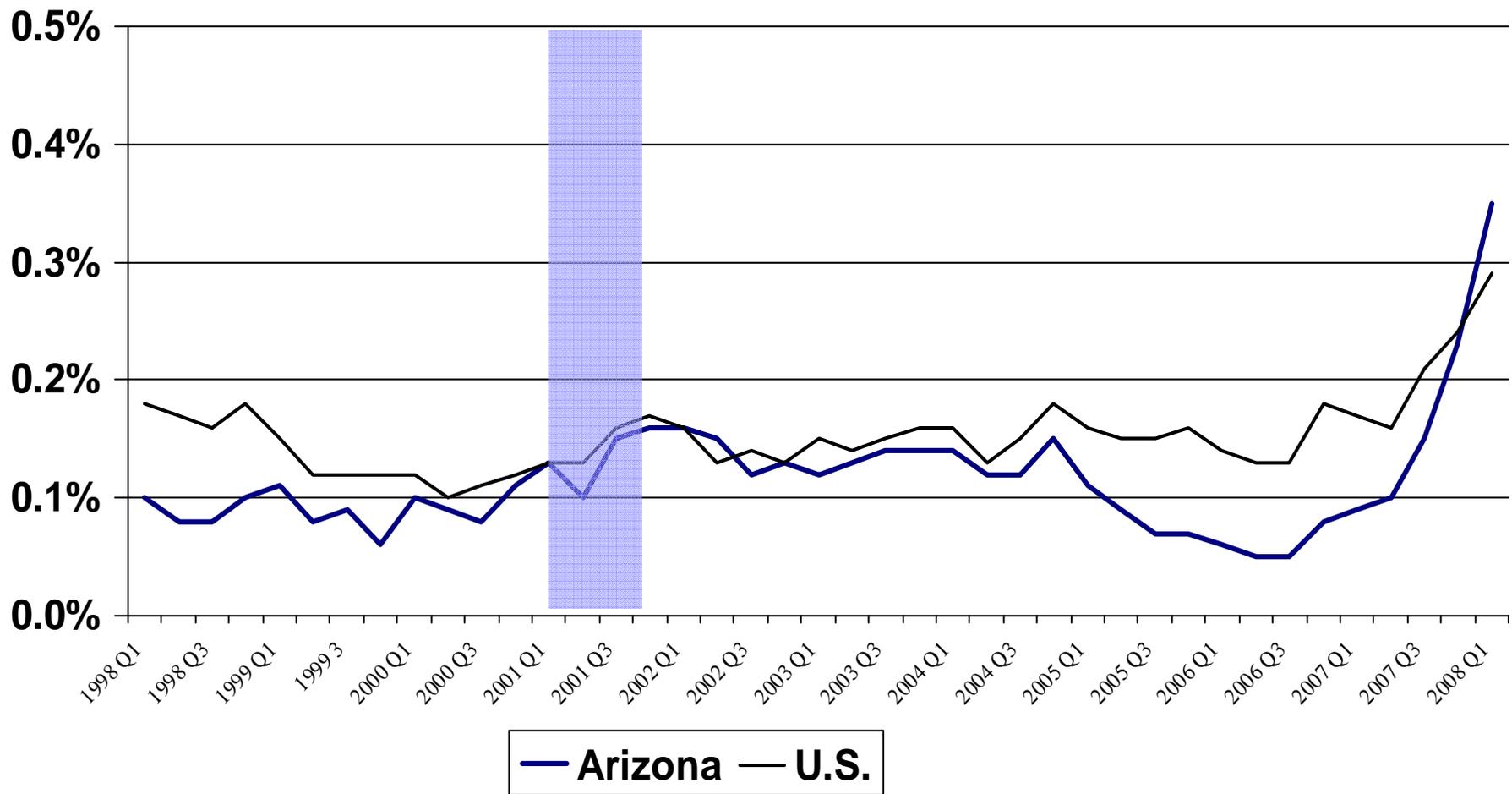
Loan Type	AZ Share of Loans	AZ Share of Foreclosures
Prime Fixed	57.2%	14.2%
Prime ARM	19.8%	23.7%
Sub Fixed	4.9%	6.4%
Sub ARM	9.8%	52.6%
FHA	4.9%	2.2%
VA	2.3%	0.7%
Other	1.1%	0.3%
Total	100%	100%



# Foreclosures Started (Prime Fixed Loans) Arizona v. U.S. 1998 – 2008\*

Source: Mortgage Bankers Association

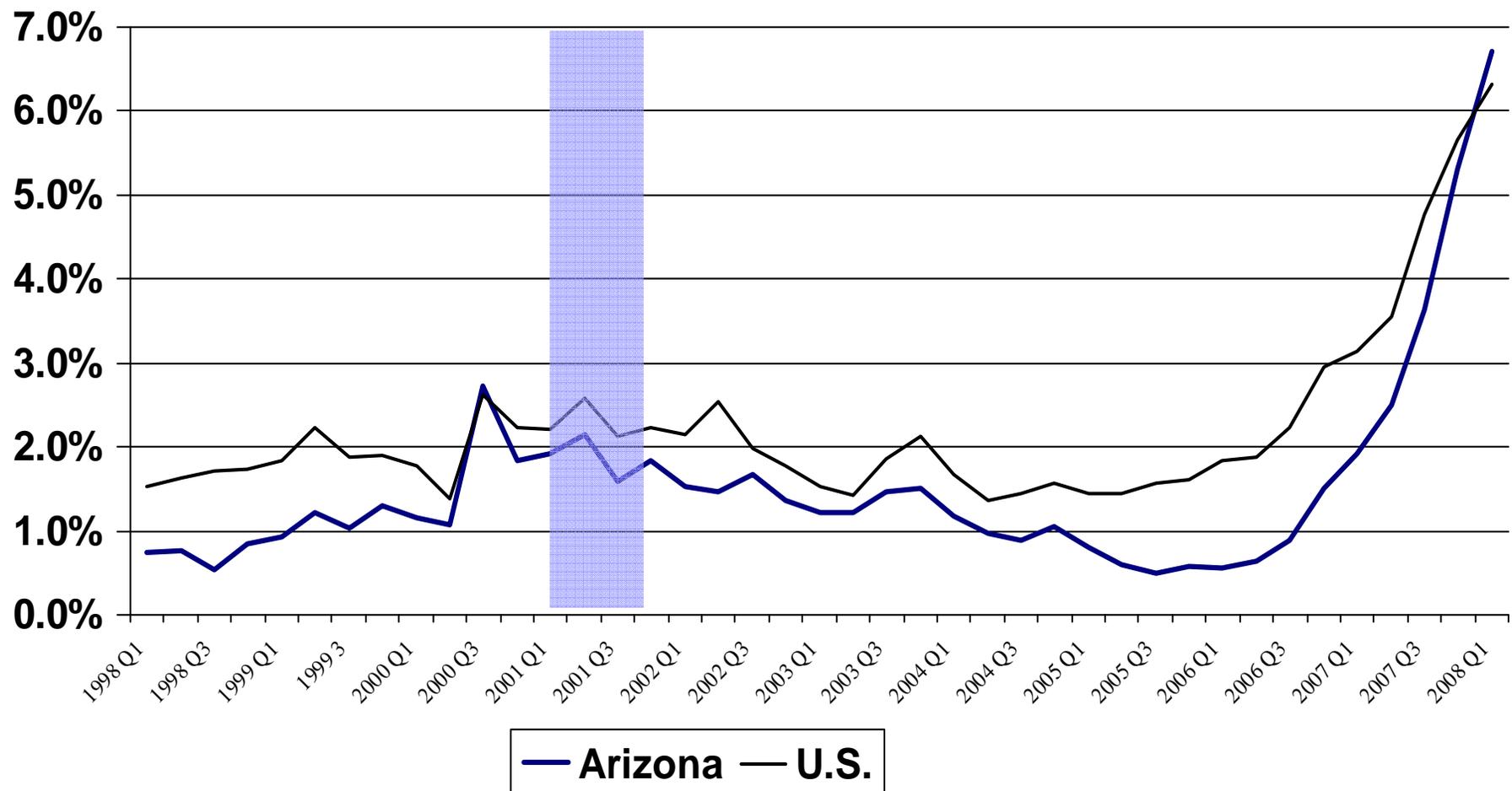
 Recession Periods



# Foreclosures Started (Subprime ARM Loans) Arizona v. U.S. 1998 – 2008\*

Source: Mortgage Bankers Association

 Recession Periods

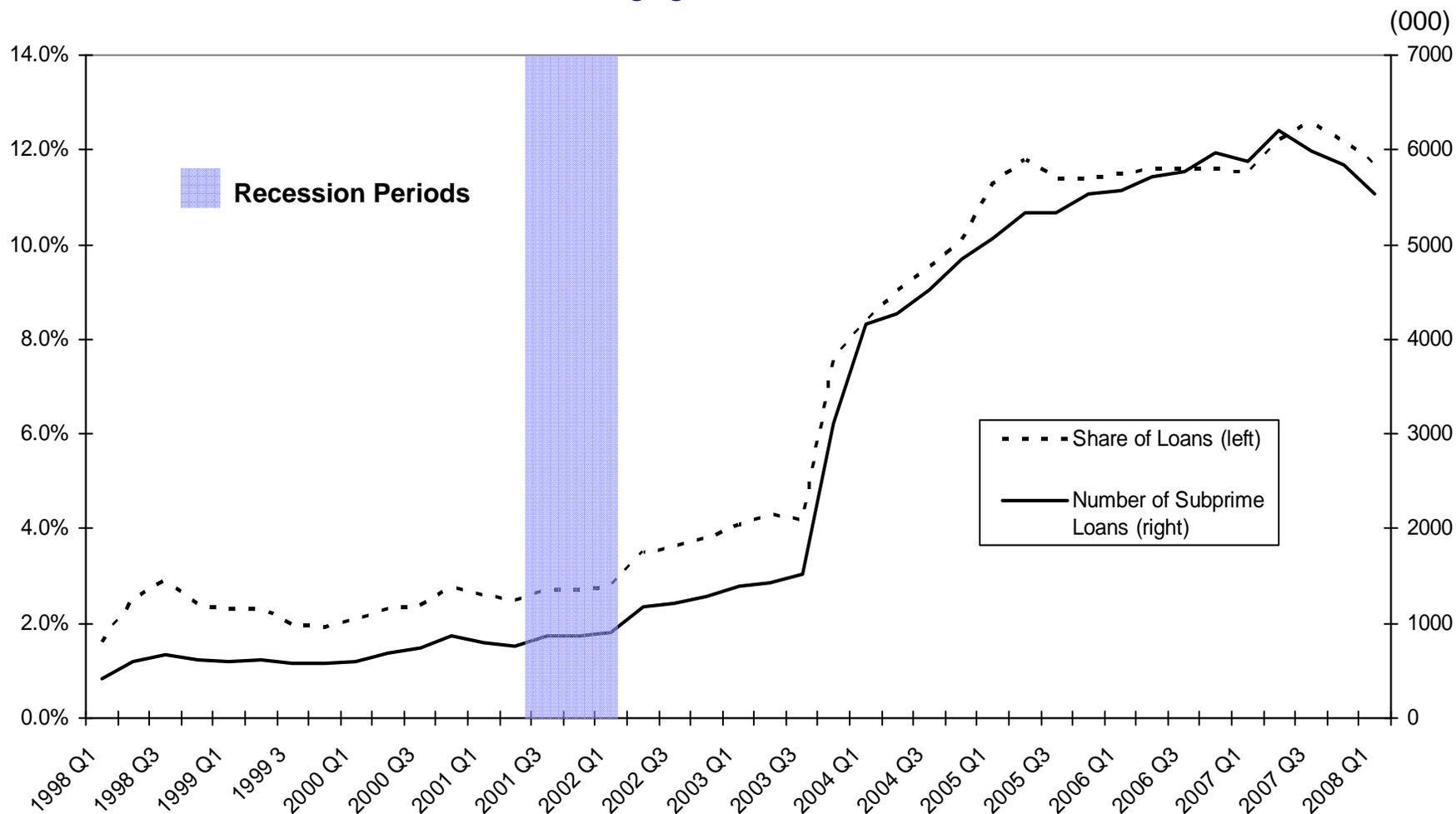


\* Data through first quarter 2008



# U.S. Subprime Loans 1998 – 2008\*

Source: Mortgage Bankers Association

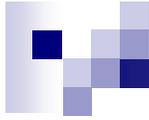


\* Data through first quarter 2008



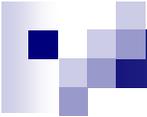
# SUPPLY V. DEMAND





# SUPPLY In Greater Phoenix



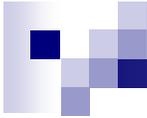


# Greater Phoenix Permits

Source: R.L. Brown

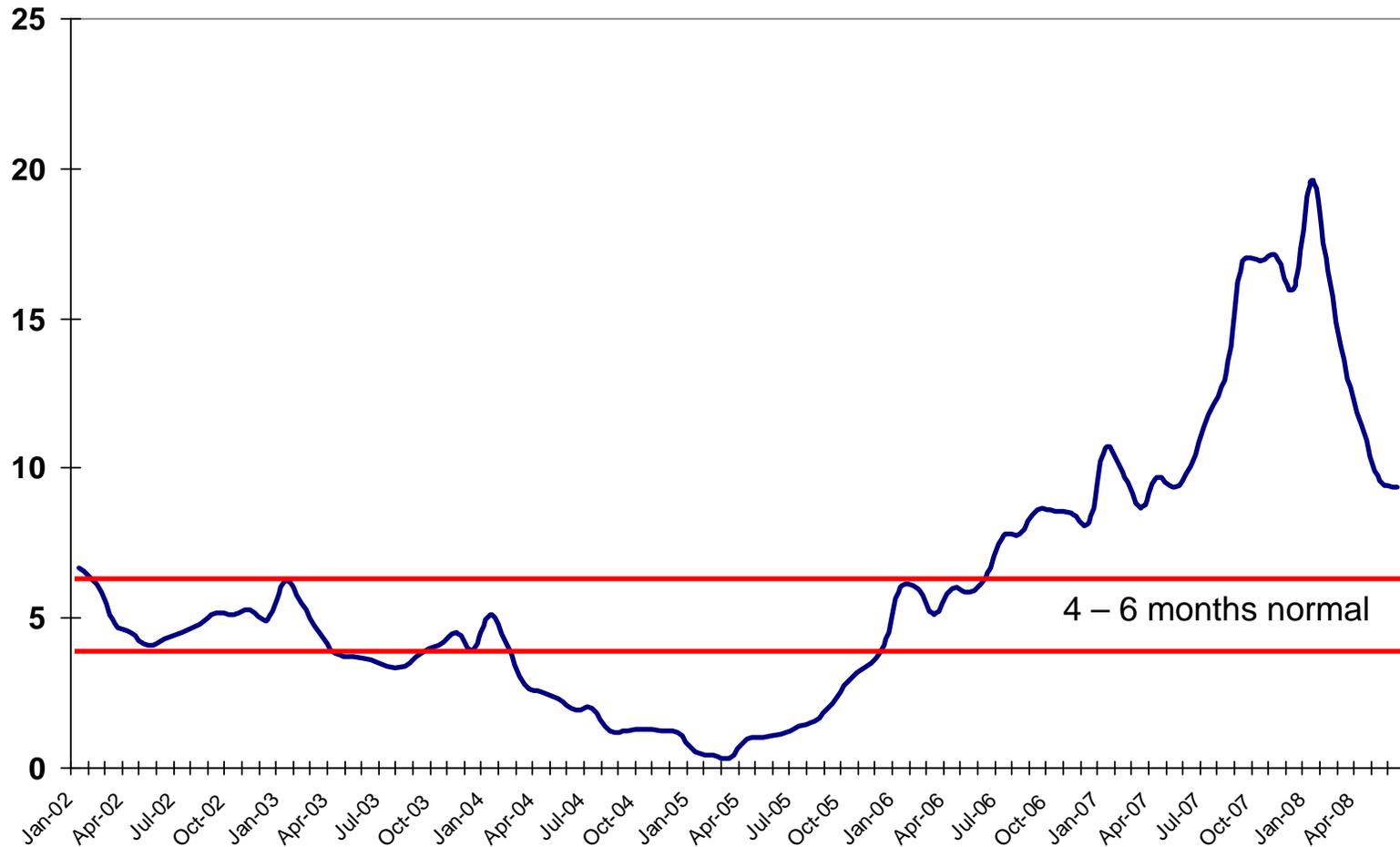
<u>Year</u>	<u>Permits</u>	<u>% chg</u>
2002	38,914	7.6%
2003	47,720	22.6%
2004	60,872	27.6%
2005	63,570	4.4%
2006	42,423	-33.3%
2007	31,172	-26.5%
<b>2008YTD<sup>1/</sup></b>	<b>10,708</b>	<b>-58.7%</b>





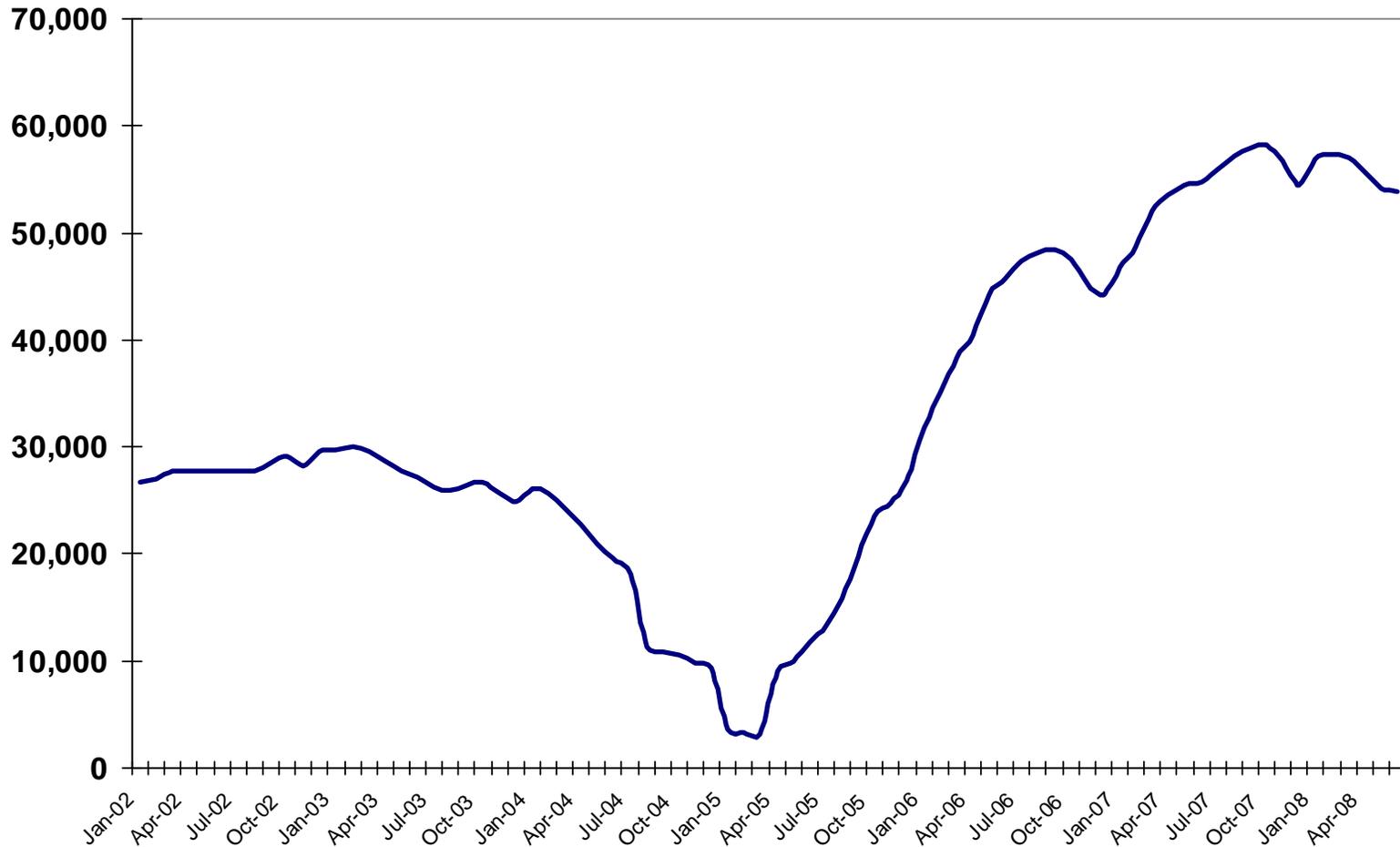
# Greater Phoenix Months Supply of Resales

January 2002 - June 2008  
Source: AMLS



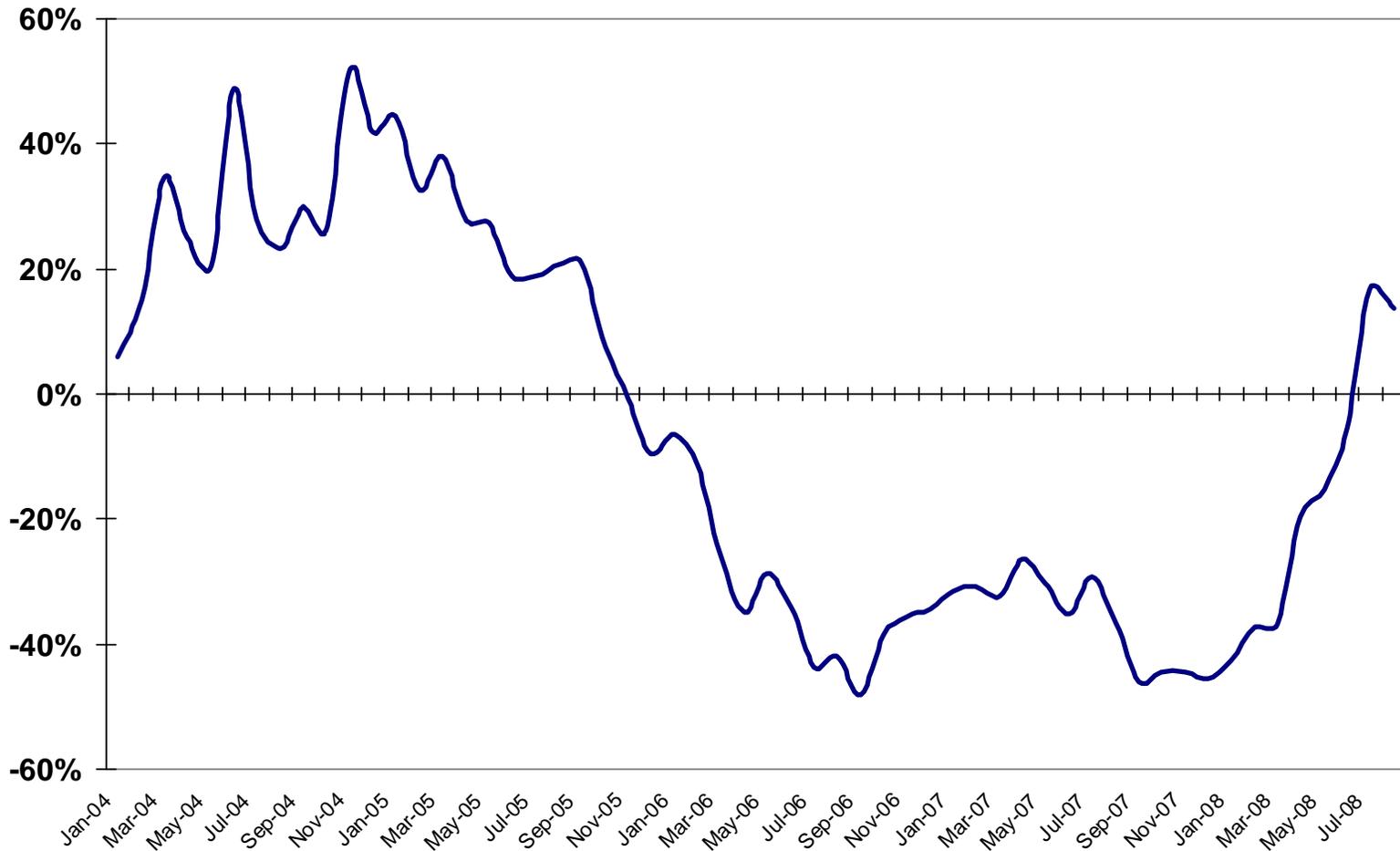
# Greater Phoenix Listings

January 2002 - June 2008  
Source: AMLS



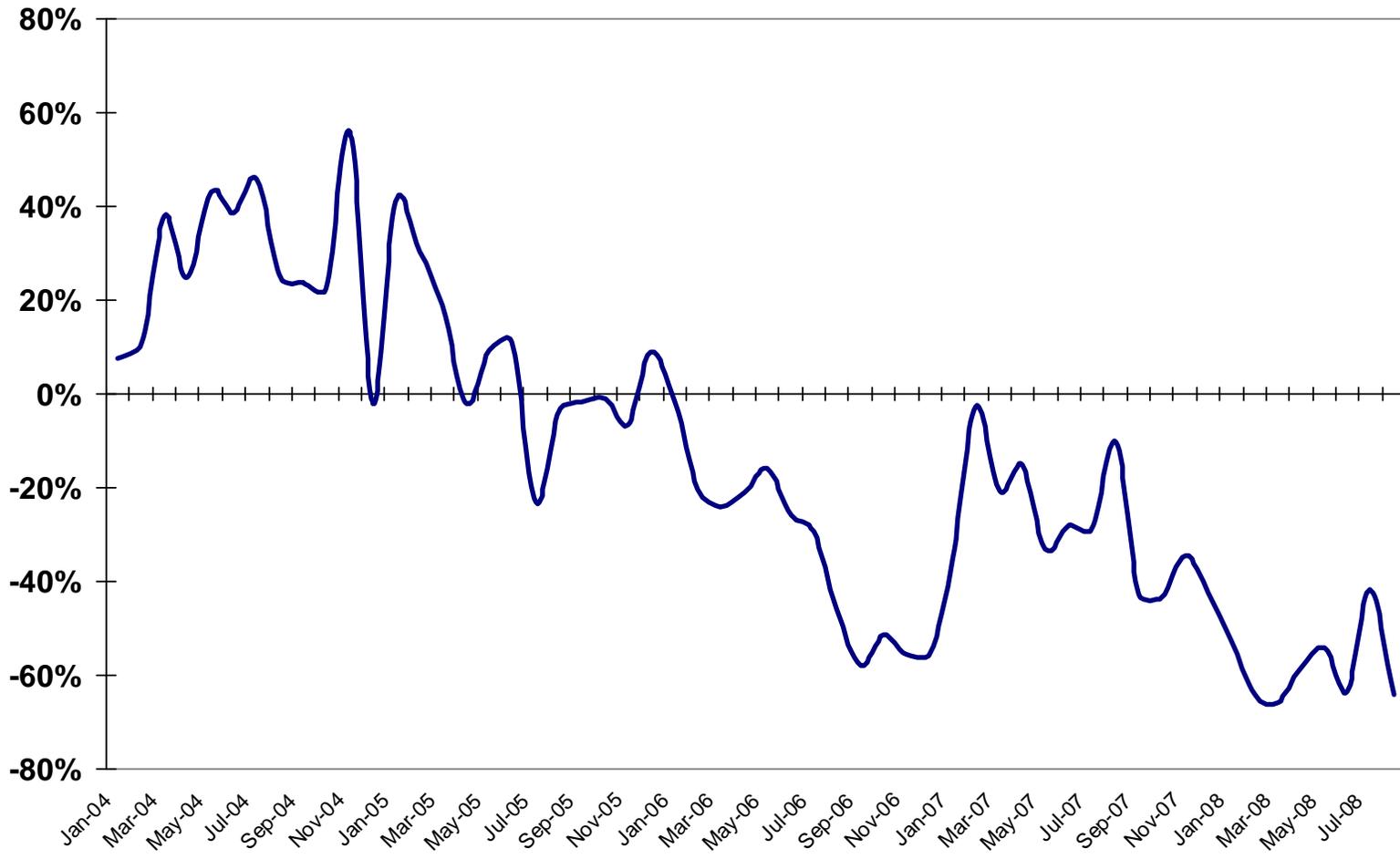
# Greater Phoenix Resales Percent Change Year Ago

January 2004 – August 2008  
Source: R.L. Brown



# Greater Phoenix Permits Percent Change Year Ago

January 2004 - August 2008  
Source: R.L. Brown

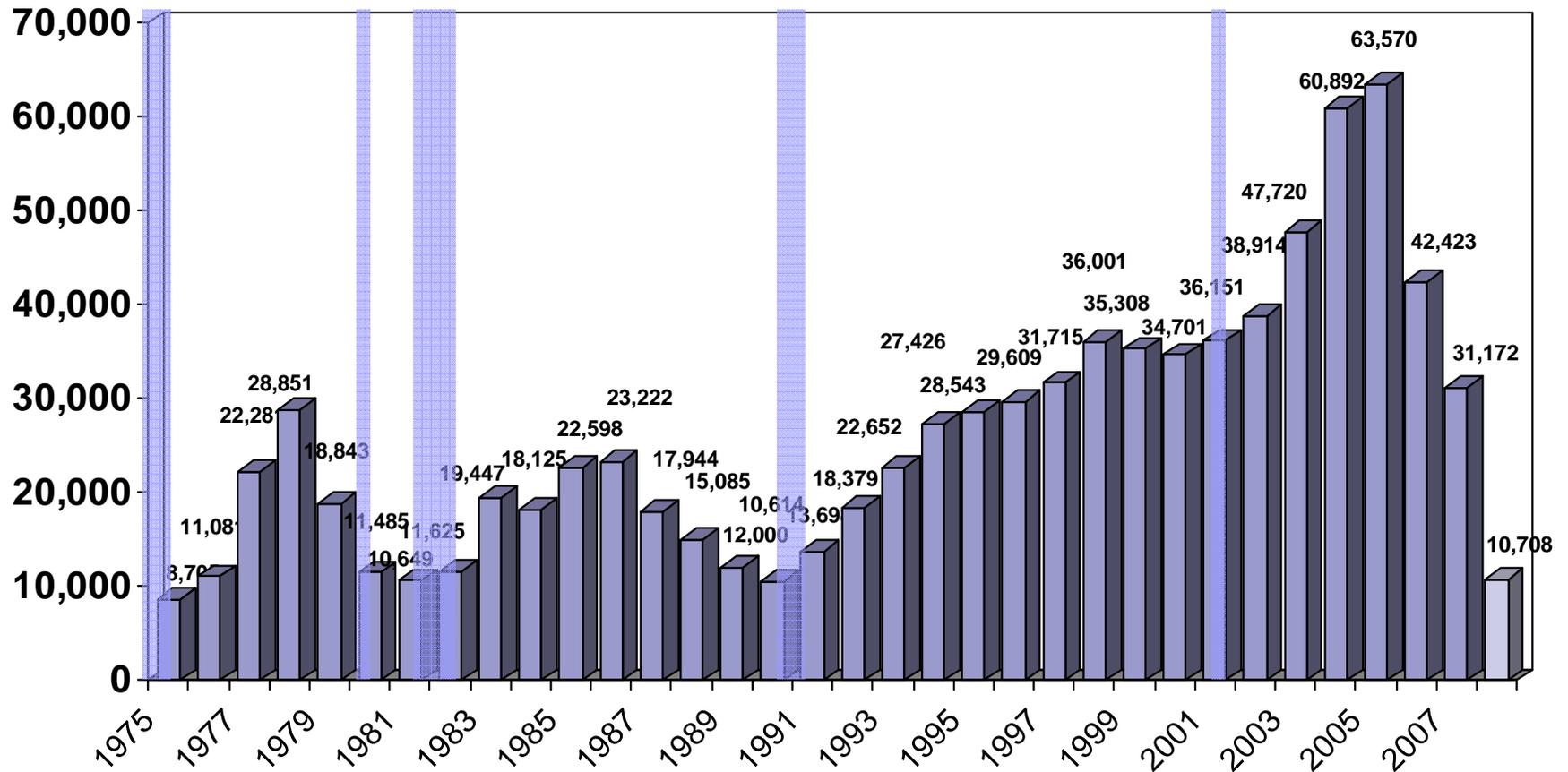


# Single-Family Permits Greater Phoenix 1975–2008<sup>1/</sup>

# Permits

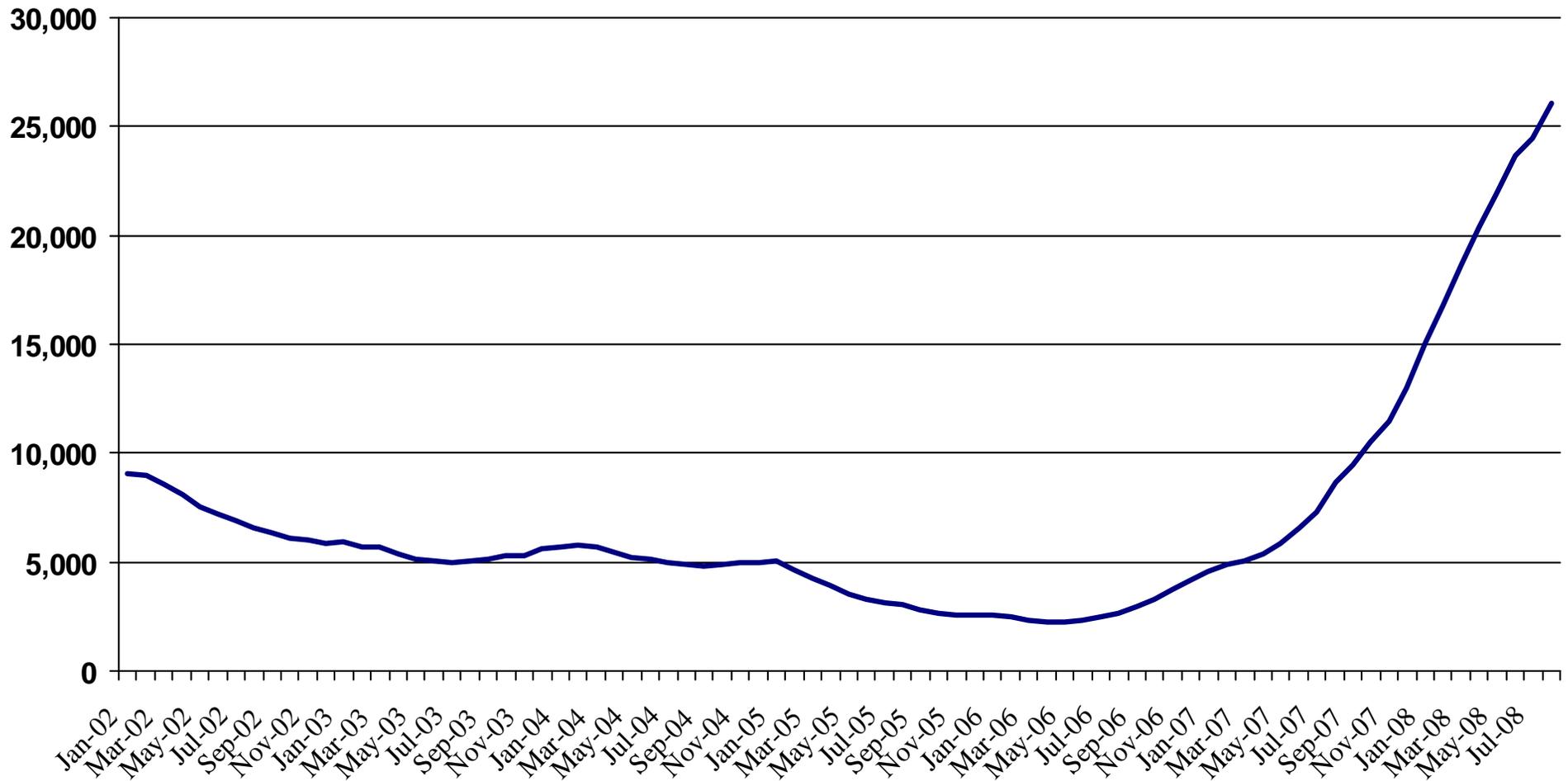
Source: PMHS / RL Brown

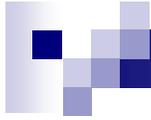
Recession Periods



# Properties in the Foreclosure Process Maricopa County 2002 – 2008

Source: The Information Market





# DEMAND For Greater Phoenix





**Greater Phoenix long-term  
demographics call for  
roughly 35,000  
single family units each year.**

**(It will be less in the  
next 2-3 years though)**





# Greater Phoenix Housing Demand

## Old Analysis

125,000 new residents each year

80% single family

2.5 persons / housing unit

= 40,000 single family units

## New Analysis

80,000 new residents each year

75% single family

2.7 persons / housing unit

= **19,300** single family units





## Greater Phoenix Housing Demand

20,000 single family units demanded

15,000 new housing units per year

= 5,000 eating into excess each year



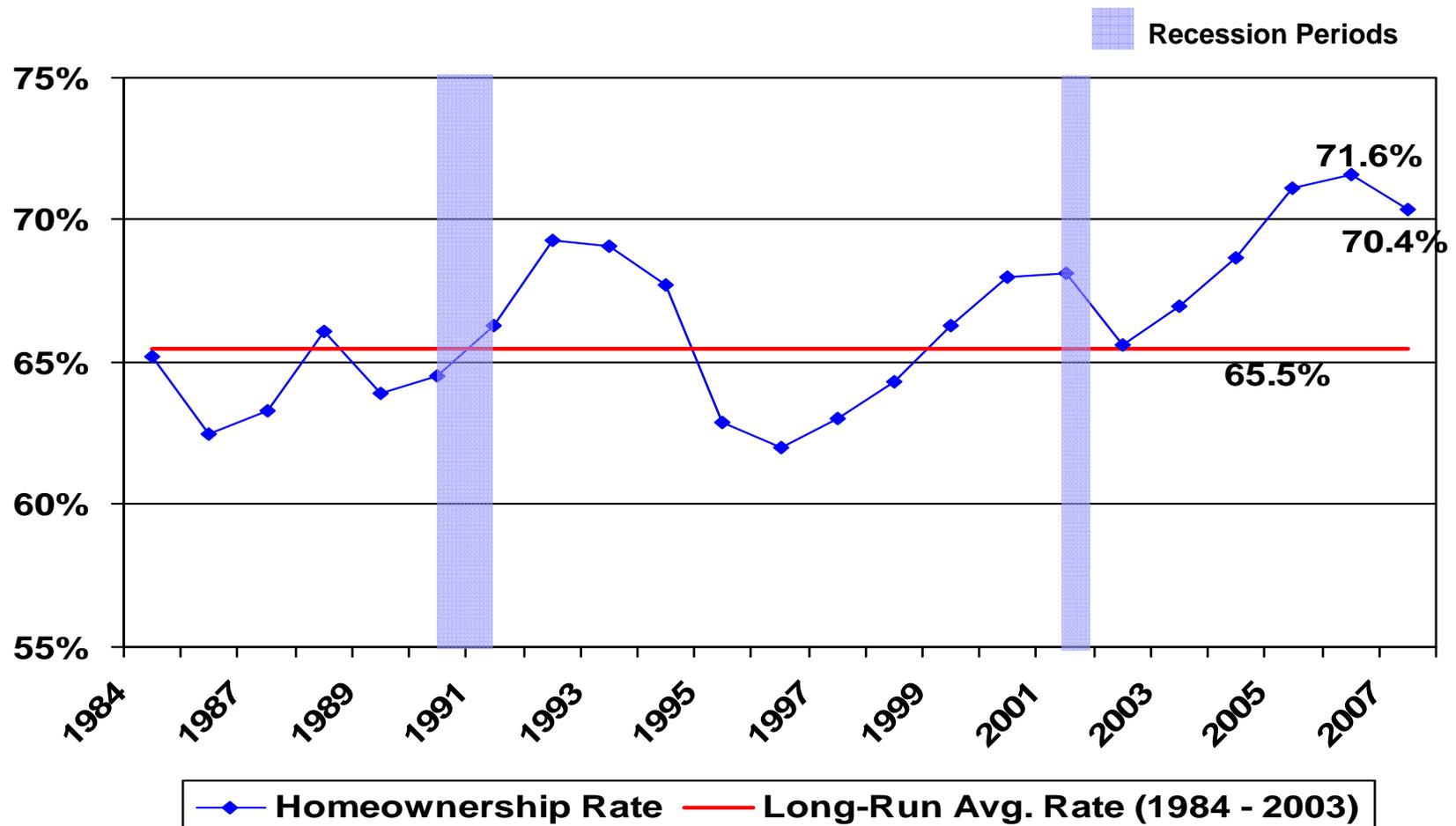


Homeownership rate  
went up during the  
housing bubble



# Arizona Homeownership Rates 1984 - 2007

Source: U.S. Census



# Greater Phoenix Housing Units

Source: ASU Realty Studies

<u>Year</u>	<u>Housing Units<sup>1/</sup></u>
-------------	-----------------------------------

<b>2007</b>	<b>1,517,500</b>
-------------	------------------

<b>1% =</b>	<b>15,175</b>
-------------	---------------

<b>2% =</b>	<b>30,350</b>
-------------	---------------

<b>3% =</b>	<b>45,525</b>
-------------	---------------

<b>4% =</b>	<b>60,700</b>
-------------	---------------

<b>5% =</b>	<b>75,875</b>
-------------	---------------





**This suggests more foreclosures  
and more years of a weak market.**

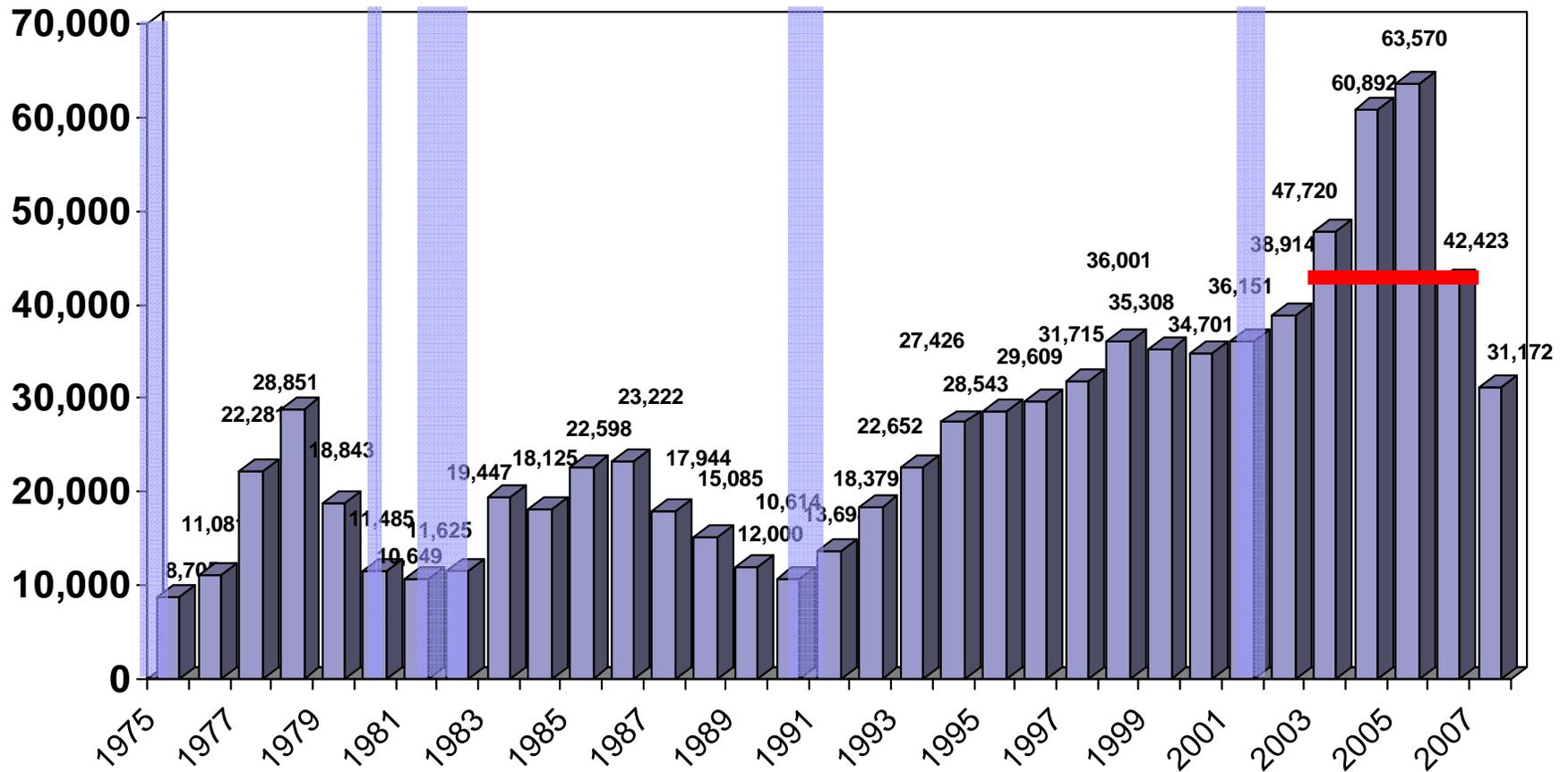


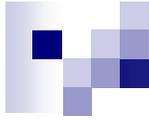
# Single-Family Permits Greater Phoenix 1975–2007

# Permits

Source: PMHS / RL Brown

Recession Periods





**—— Red line ——**  
**between 2003 and 2006 implies:**

- If “normal” demand is 40,000 units per year, then Greater Phoenix overbuilt **55,000** units.





If there are **45,000** to **55,000** excess units above “normal” and only eating into 11,000 units per year in 2008 and 2009...

... Then there will *still* be 30,000 – 40,000 excess units to absorb.



# 2012? Assuming another shoe doesn't drop!



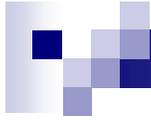
(We will grow from 15,000 permits back to a normal 35,000 permits)



# Problems with quickly absorbing the excess:

- 1) Slower population growth,
- 2) Builders still holding inventory,
- 3) Oversupply of homes on MLS,
- 4) Foreclosures to worsen in 2009,
- 5) Builders still building.





# The Result

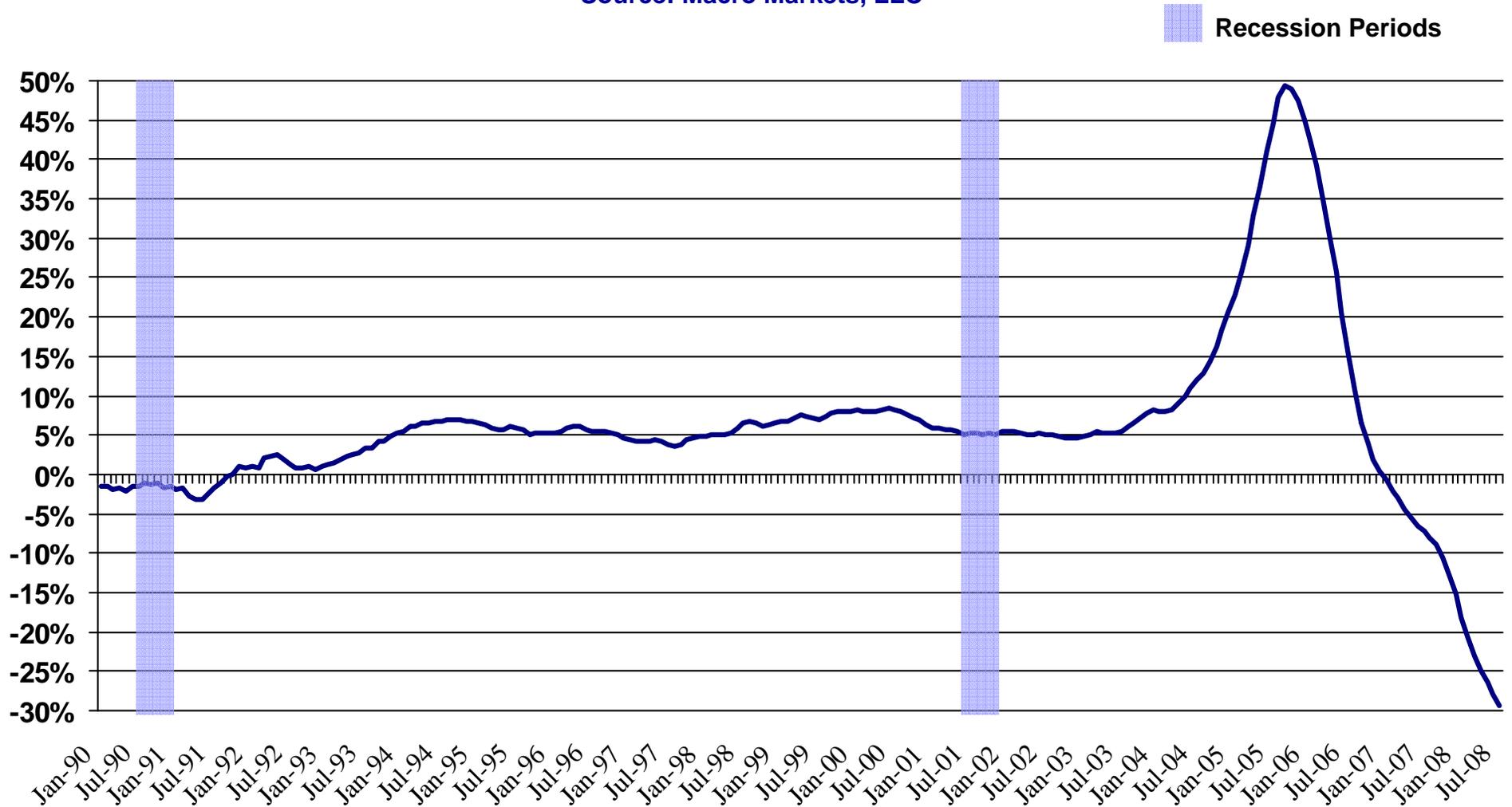


# Greater Phoenix S&P/Case-Schiller Home Price Index\*\*

## Percent Change Year Ago

### 1990 – 2008\*

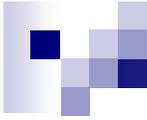
Source: Macro Markets, LLC



Elliott D. Pollack & Company

\*Data through July 2008

\*\*Measures changes in existing single family home prices given a constant level of quality.



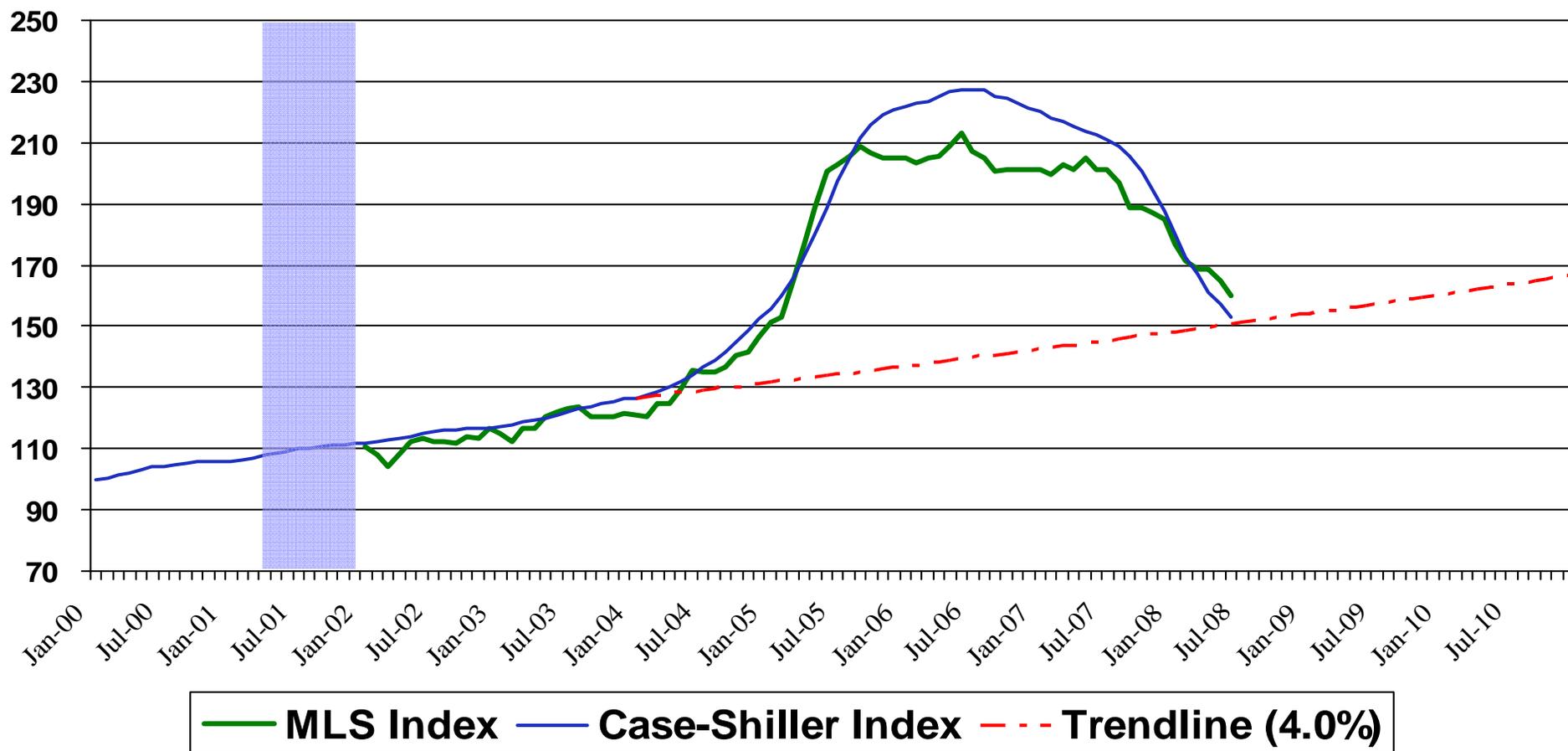
**How  
will it  
turn out?**



# Home Prices Indices 2000 – 2010

Source: Macro Markets, LLC; AMLS

 Recession Periods





**The bottom of the housing market  
may occur in 2009,  
but a full recovery  
will probably take **multiple** years.**

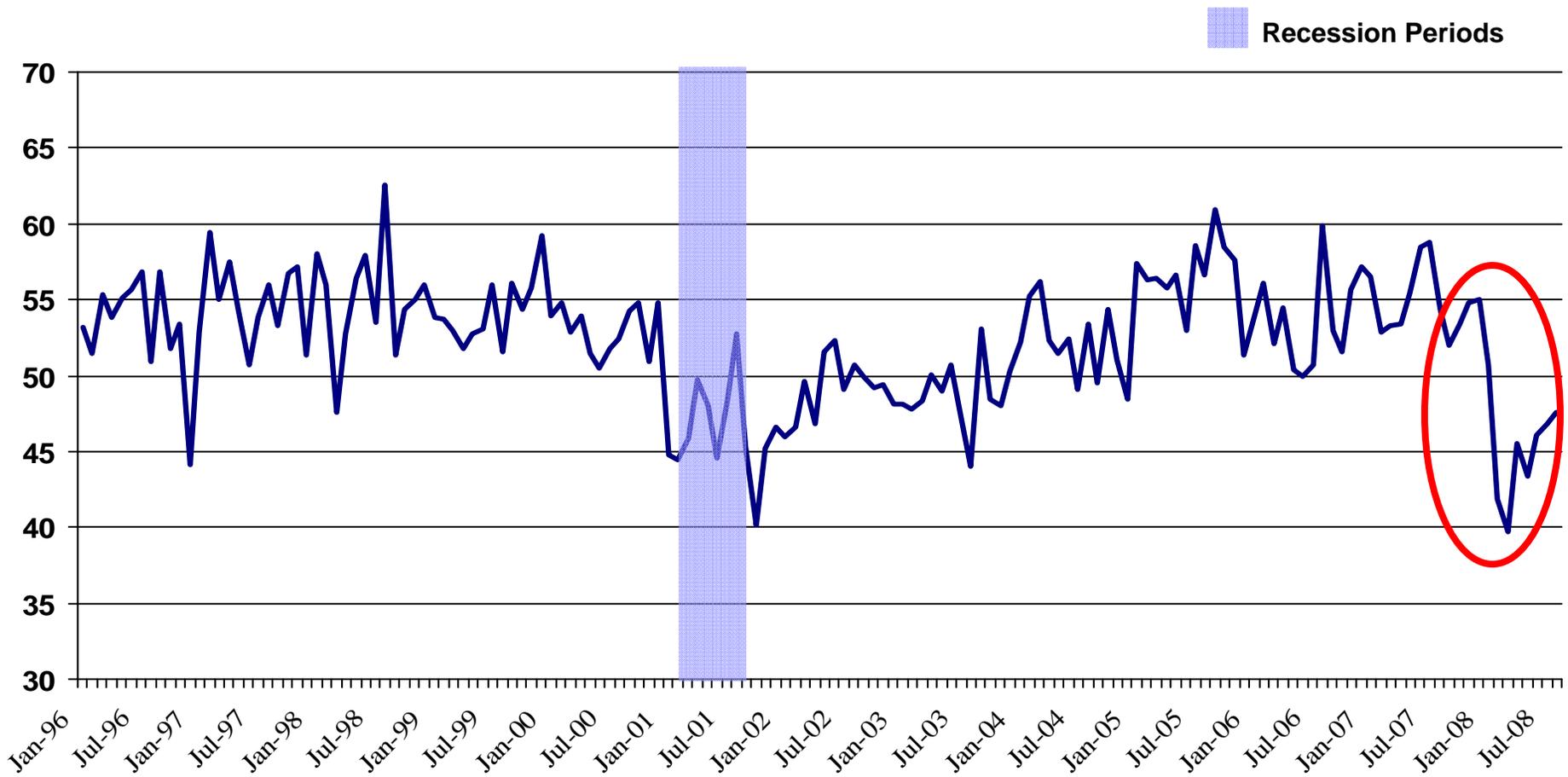


# Commercial Real Estate



# Architectural Billings Index 1996 – 2008\*

Source: American Institute of Architecture

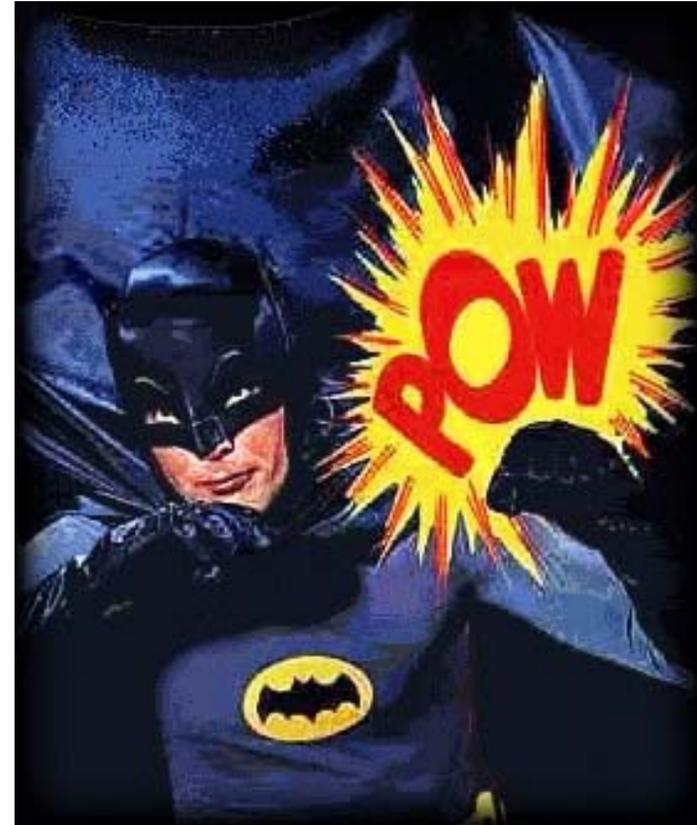


\*Data through August 2008



Elliott D. Pollack & Company

# Multi- Family Market

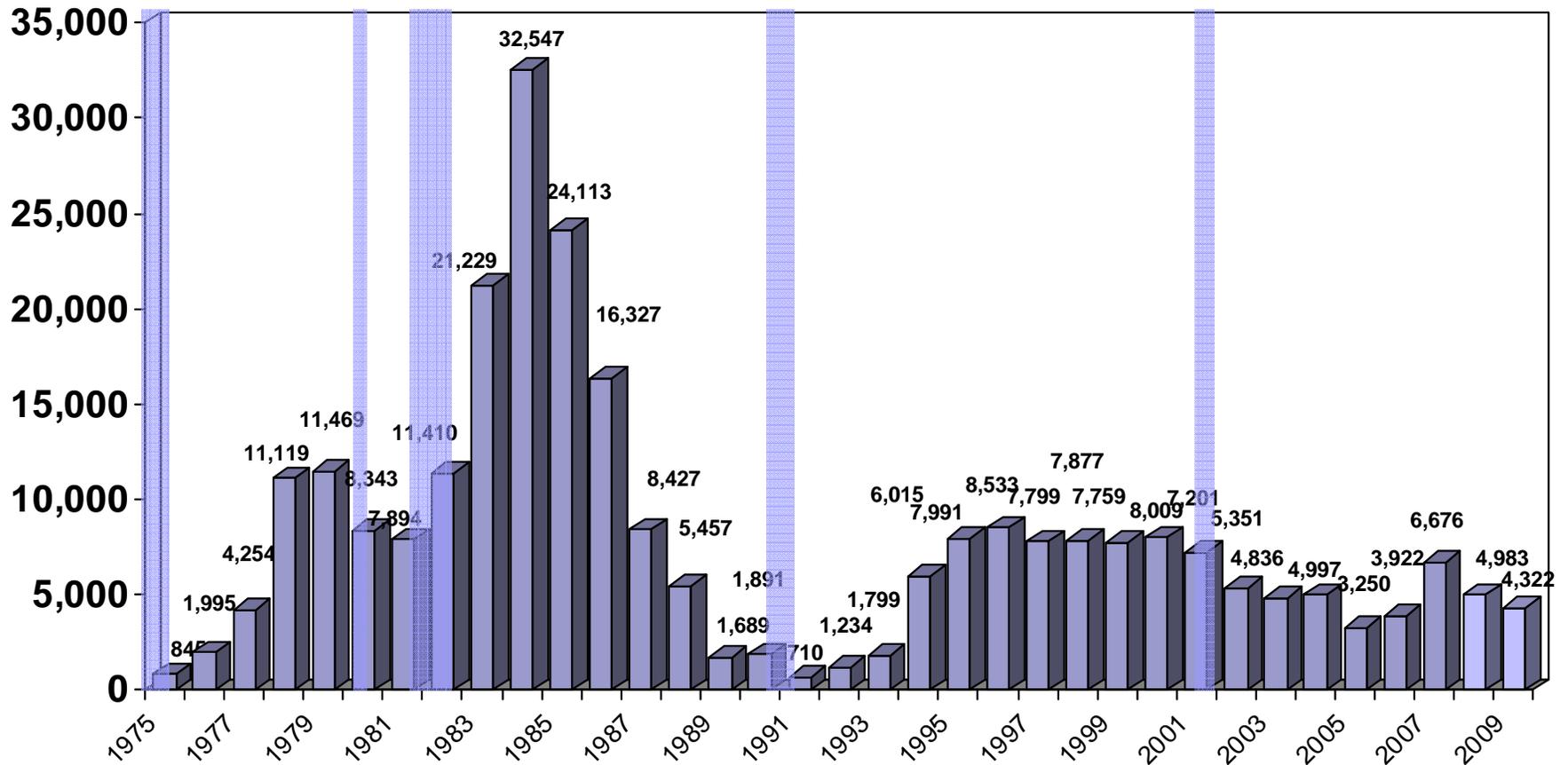


# Multi-Family Permits Greater Phoenix 1975–2009\*

# Permits

Source: ASU Realty Studies

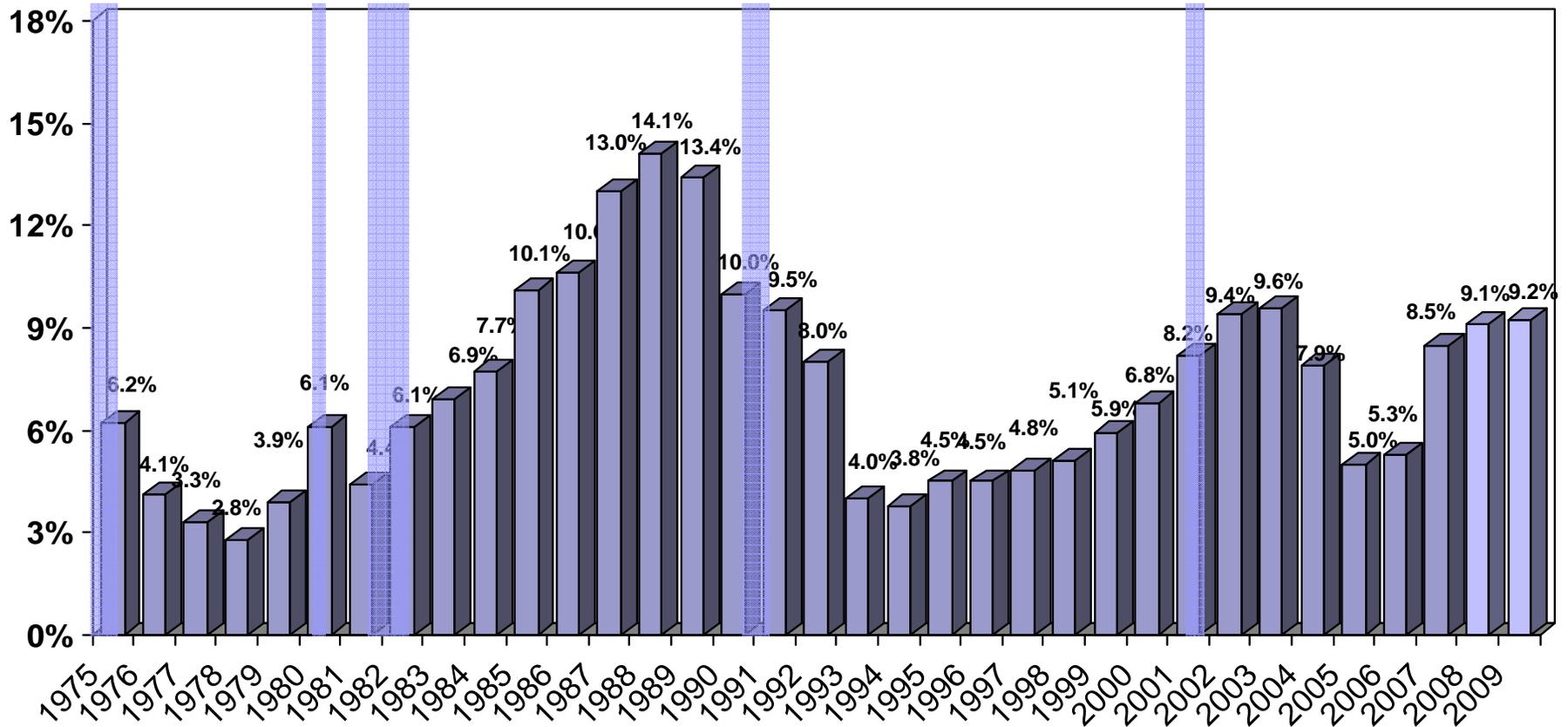
Recession Periods



# Multi-Family Year-End Vacancy Rates Maricopa County 1986–2009\*

Source: ASU Realty Studies

 Recession Periods



\*2008 -2009 are forecasts from CB Richard Ellis





# Multi-Family Construction Activity

Source: PMHS

	<u>Absorption</u>	<u>Chg in Inventory*</u>
<b>2003</b>	<b>3,702</b>	<b>4,852</b>
<b>2004</b>	<b>9,230</b>	<b>3,980</b>
<b>2005</b>	<b>4,756</b>	<b>(5,169)</b>
<b>2006</b>	<b>(4,653)</b>	<b>(3,828)</b>
<b>2007</b>	<b>(5,846)</b>	<b>(4,979)</b>
<b>2008q2</b>	<b>(1,385)</b>	<b>2,215</b>

\*There were 23,898 condo conversion in the Greater Phoenix area from q1 2005 through q2 2007.





**There are currently  
8,579 multi-family units under  
construction (q2 08).**





## What's Happening in Multi-family Market?

- Condos being rented out, but still not in multi-family data
- Potentially lots of single family units in rental pool



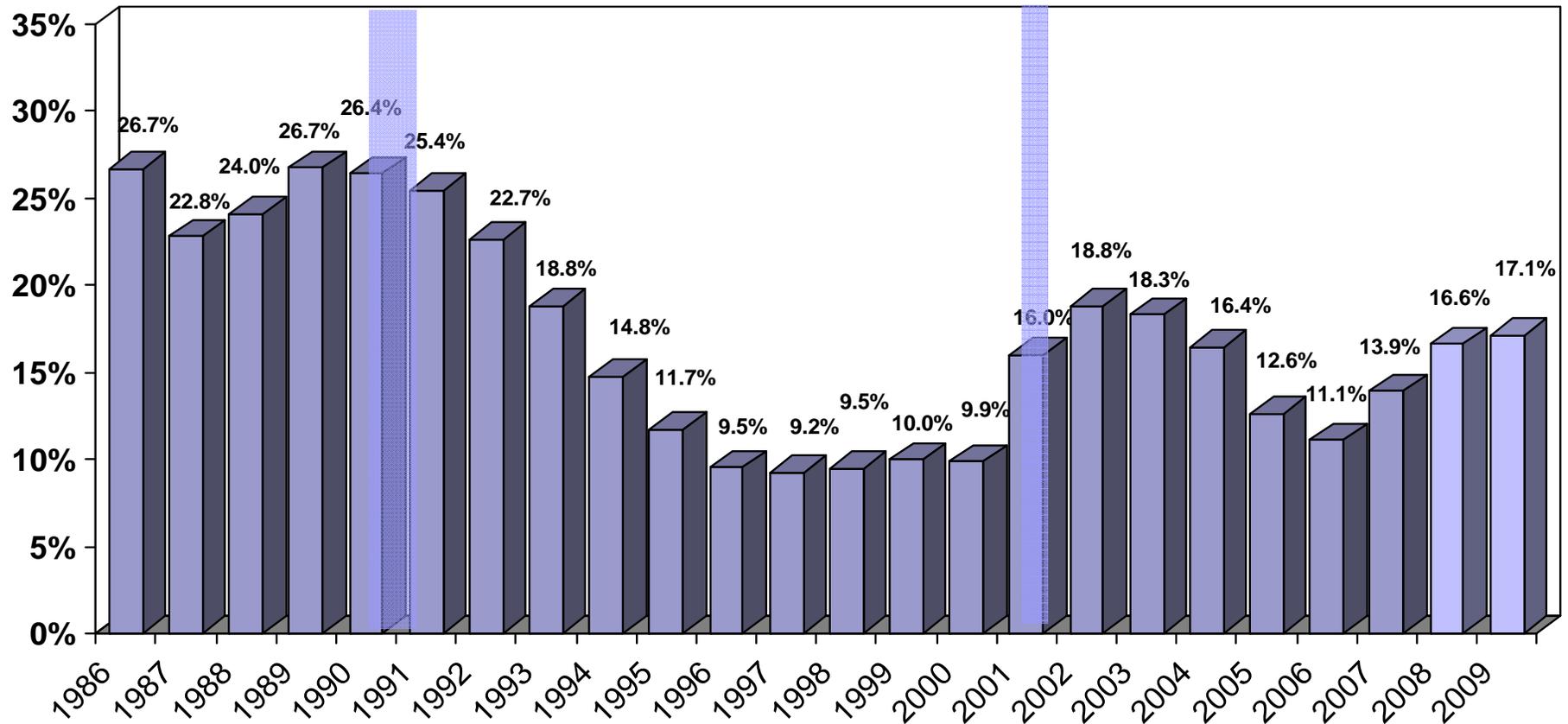
# Office Market



# Office Space Year-End Vacancy Rates Maricopa County 1986–2009\*

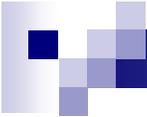
Source: CB Richard Ellis

 Recession Periods



\*2008 -2009 are forecasts from CB Richard Ellis





## Greater Phoenix Office Market Construction Activity\*

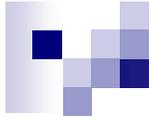
Source: CB Richard Ellis

	<u>Absorption</u>	<u>Chg in Inventory</u>
<b>2002</b>	<b>707,037 sf</b>	<b>2,305,591 sf</b>
<b>2003</b>	<b>1,245,156 sf</b>	<b>326,117 sf</b>
<b>2004</b>	<b>2,222,880 sf</b>	<b>1,620,860 sf</b>
<b>2005</b>	<b>3,119,293 sf</b>	<b>7,987 sf**</b>
<b>2006</b>	<b>3,245,888 sf</b>	<b>2,320,302 sf</b>
<b>2007</b>	<b>1,500,704 sf</b>	<b>4,905,374 sf</b>
<b>2008-3Q</b>	<b>(54,778) sf</b>	<b>2,529,034 sf</b>

\*Only includes multi-tenant space greater than 10,000 SF

\*\* A number of buildings in downtown and mid-town are being converted to office condos.





**There are currently  
3.9 million square feet of office  
space under construction (q3 08).**

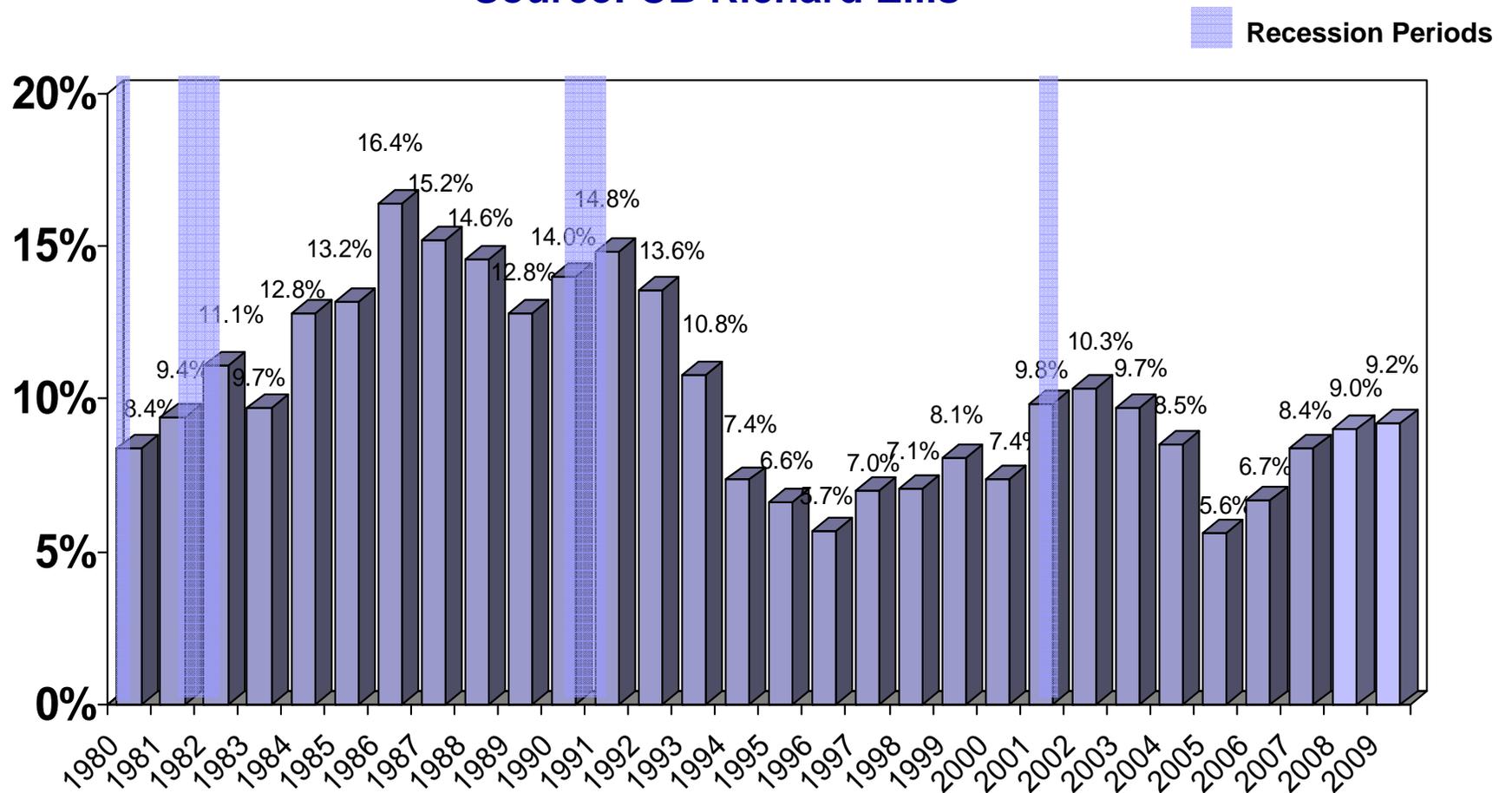


# Industrial Market



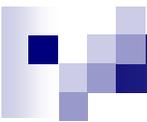
# Industrial Space Vacancy Rates Maricopa County 1980 – 2009\*

Source: CB Richard Ellis



\* 2008 - 2009 are forecasts from EDPco





## Greater Phoenix Industrial Market Construction Activity

Source: CB Richard Ellis

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	<u>Absorption</u>	<u>Chg in Inventory</u>
2002	3,364,998 sf	5,650,277 sf
2003	4,406,646 sf	4,801,910 sf
2004	6,273,847 sf	7,402,396 sf
2005	12,339,591 sf	7,071,477 sf
2006	6,032,175 sf	7,829,959 sf
2007	8,359,835 sf	13,914,612 sf
2008-3Q	1,463,461 sf	11,016,260 sf





**There are currently  
5.8 million square feet of  
industrial space  
under construction (q3 08).**



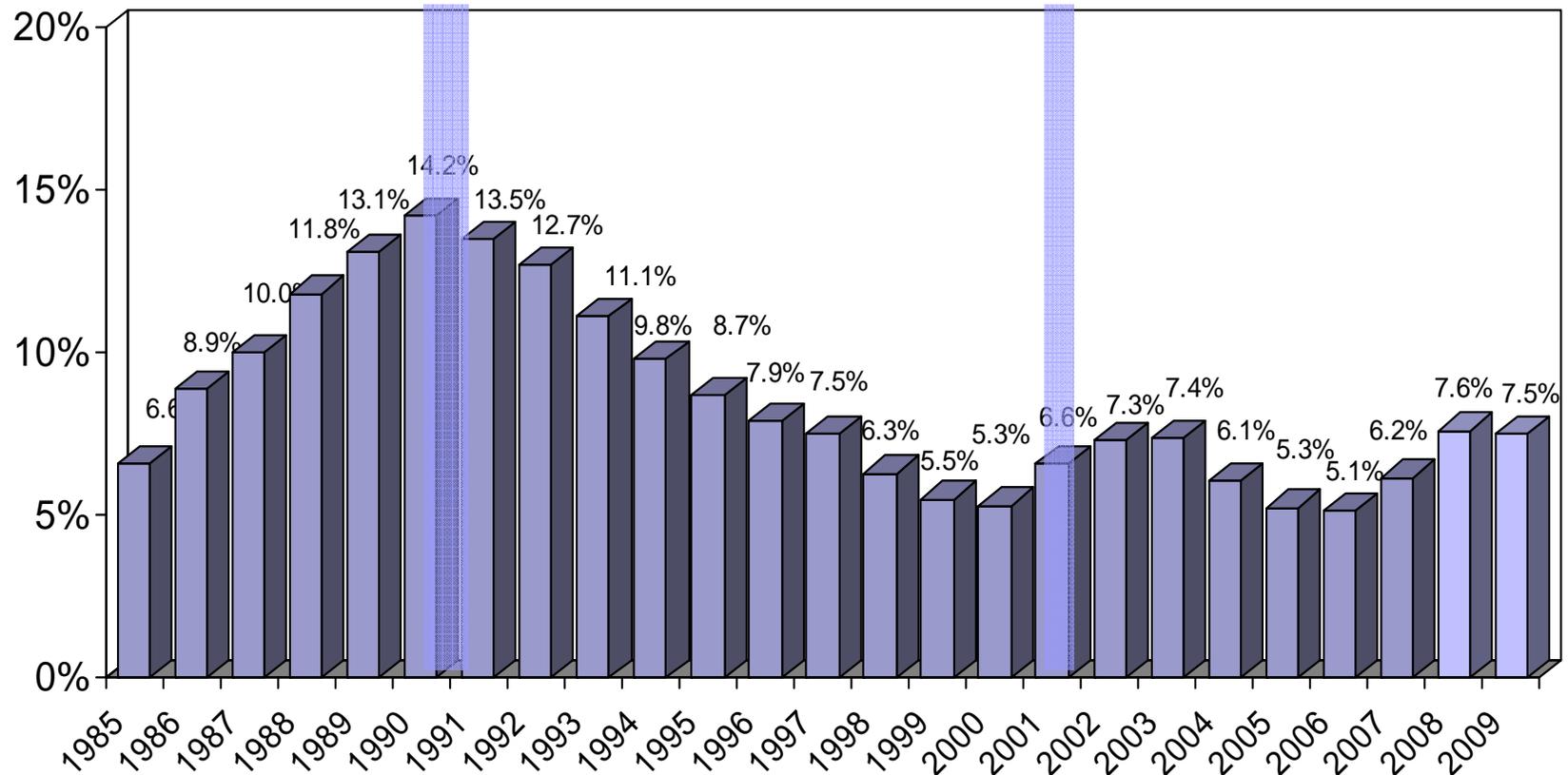
# Retail Market



# Retail Space\* Vacancy Rates Maricopa County 1985–2009\*

Source: CB Richard Ellis\*\*

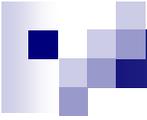
 Recession Periods



\* 2008 -2009 are forecasts from CB Richard Ellis

\*\* Data prior to 1992 is from Grubb & Ellis





# Greater Phoenix Retail Market Construction Activity

Source: CB Richard Ellis

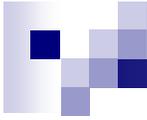
	<u>Absorption</u>	<u>Chg in Inventory</u>
2002	3,041,142 sf	3,887,567 sf
2003	4,118,612 sf	5,013,109 sf
2004	6,664,812 sf	5,501,706 sf
2005	6,708,155 sf	6,248,789 sf
2006	5,244,600 sf	4,582,618 sf
2007	9,424,362 sf	11,104,865 sf
2008-3Q	3,628,784 sf	5,497,194 sf





**There are currently  
5.6 million square feet of  
retail space  
under construction (q3 08).**





# **Greater Phoenix**

# **ECONOMIC OUTLOOK**

# **2008 - 2009**





**The  
economic  
outlook  
in the near  
term is  
UGLY.**

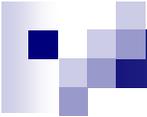




**Arizona's economic  
fundamentals have not really  
changed.**

**The long term economic outlook  
remains favorable.**



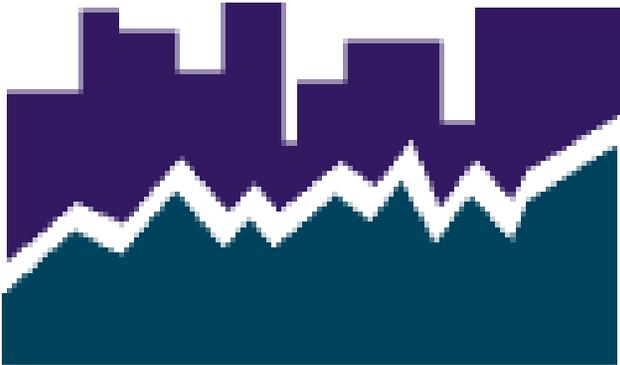


# Greater Phoenix Forecast 2008 – 2009 Annual Growth Rates

<u>Indicator</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Population	4.2%	3.5%	2.0%	2.0%
Employment	5.4%	1.3%	-2.0%	-1.0%
Personal Income	8.4%	6.5%	5.0%	5.5%
Retail Sales	7.9%	0.1%	-1.5%	2.5%

Source: *Elliott D. Pollack & Company*, Greater Phoenix Blue Chip, Department of Commerce, Research Administration





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**[www.arizonaeconomy.com](http://www.arizonaeconomy.com)**



*Elliott D. Pollack & Company*

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# Growth? What Growth?

Presented to:  
JLBC Finance Advisory Committee

October 15, 2008

Pete Ewen



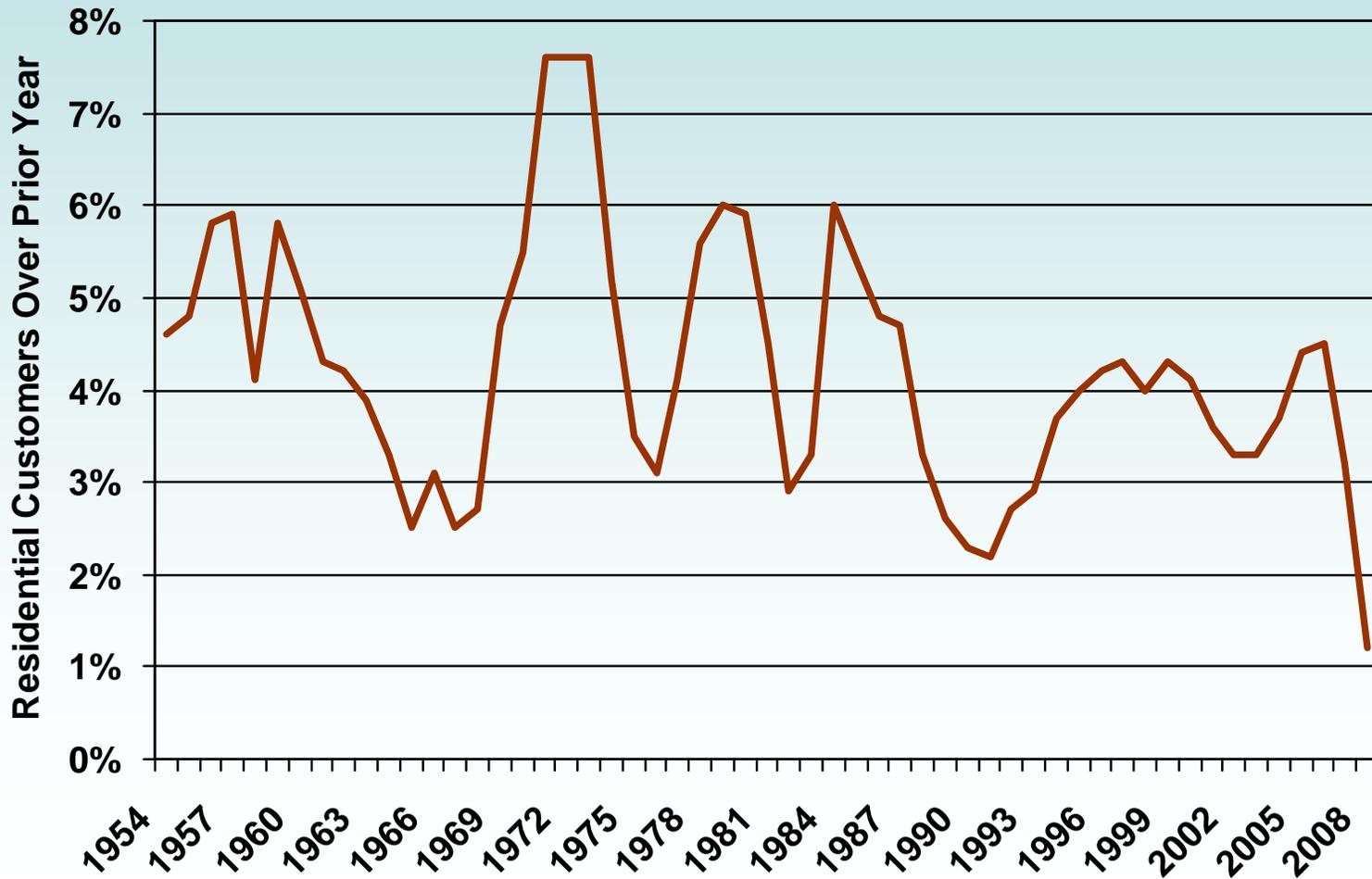
# Current Situation

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- Growth is the weakest in 40 years
- Excess housing supply growing
- Construction jobs still at risk
- Other engines of growth lacking
- Return to growth likely several years off



# APS Experiencing Slowest Growth in 40 years

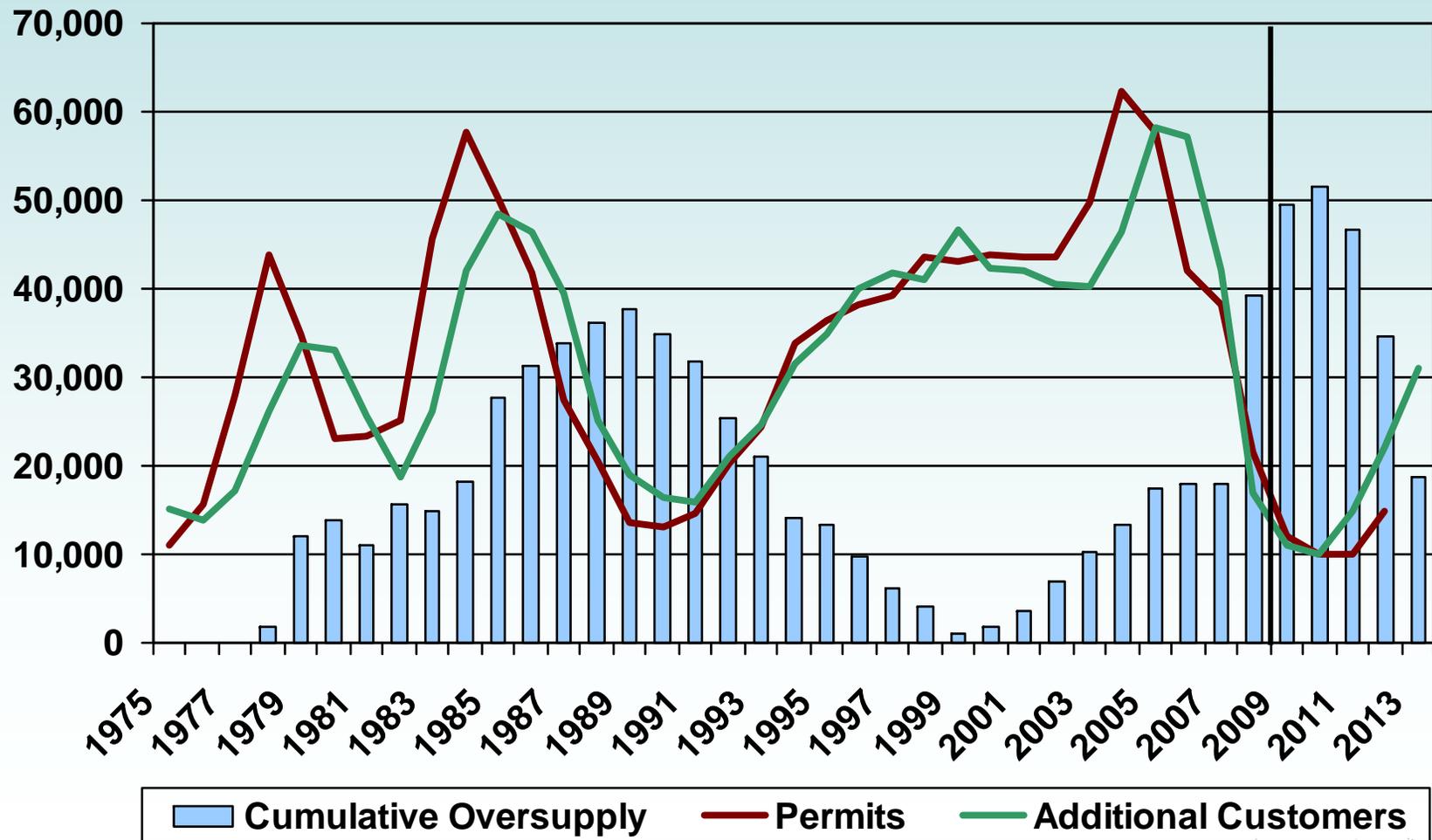


Source: APS



# Housing Overbuilt 50k Units – 5 year recovery

## Phoenix-Metro APS & SRP Customer Growth

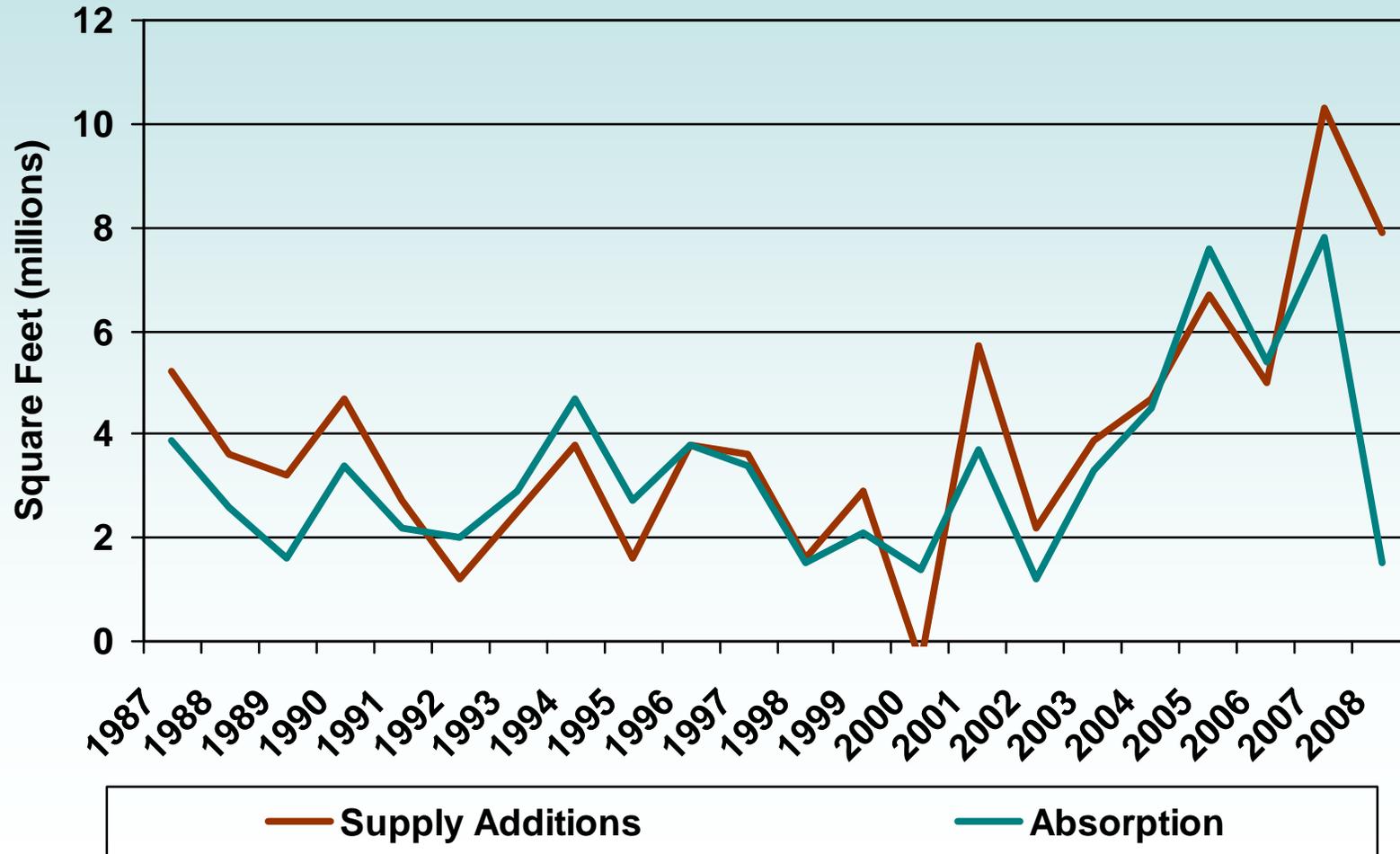


Source: ASU Realty Studies, APS & SRP



# Retail Overbuild – Vacancies Rising

## Phoenix Metro Retail Space

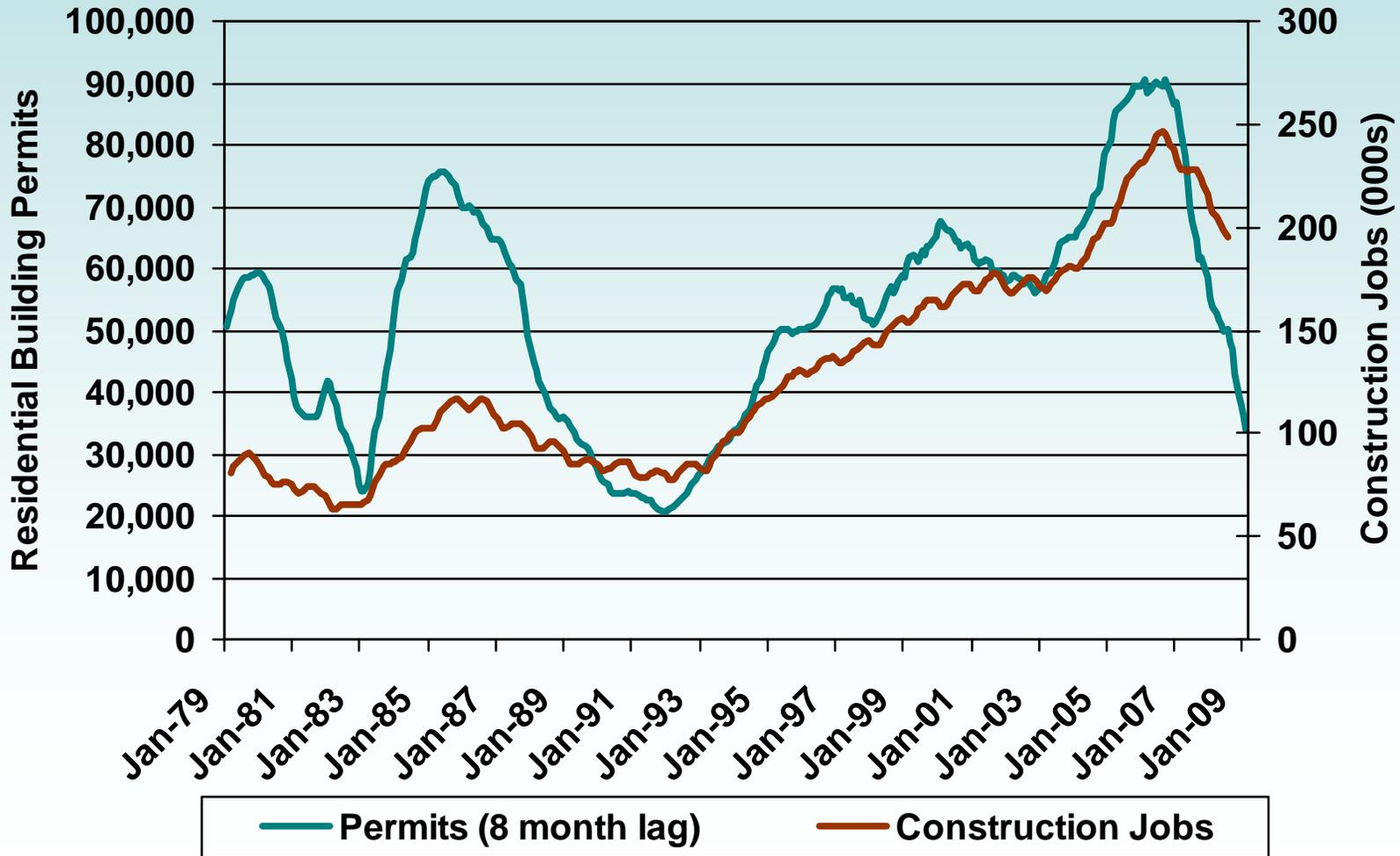


Source: ASU Realty Studies



# 50K Construction Jobs Lost Since '06 - May Lose 50K More

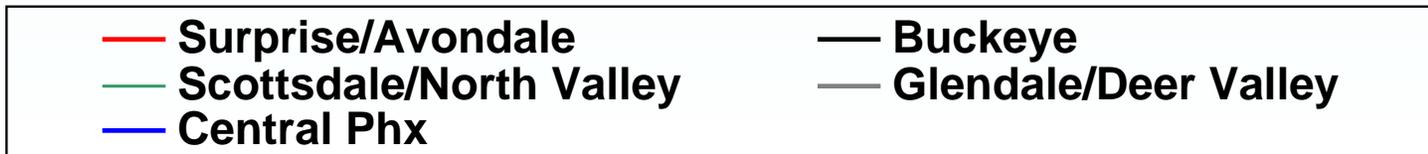
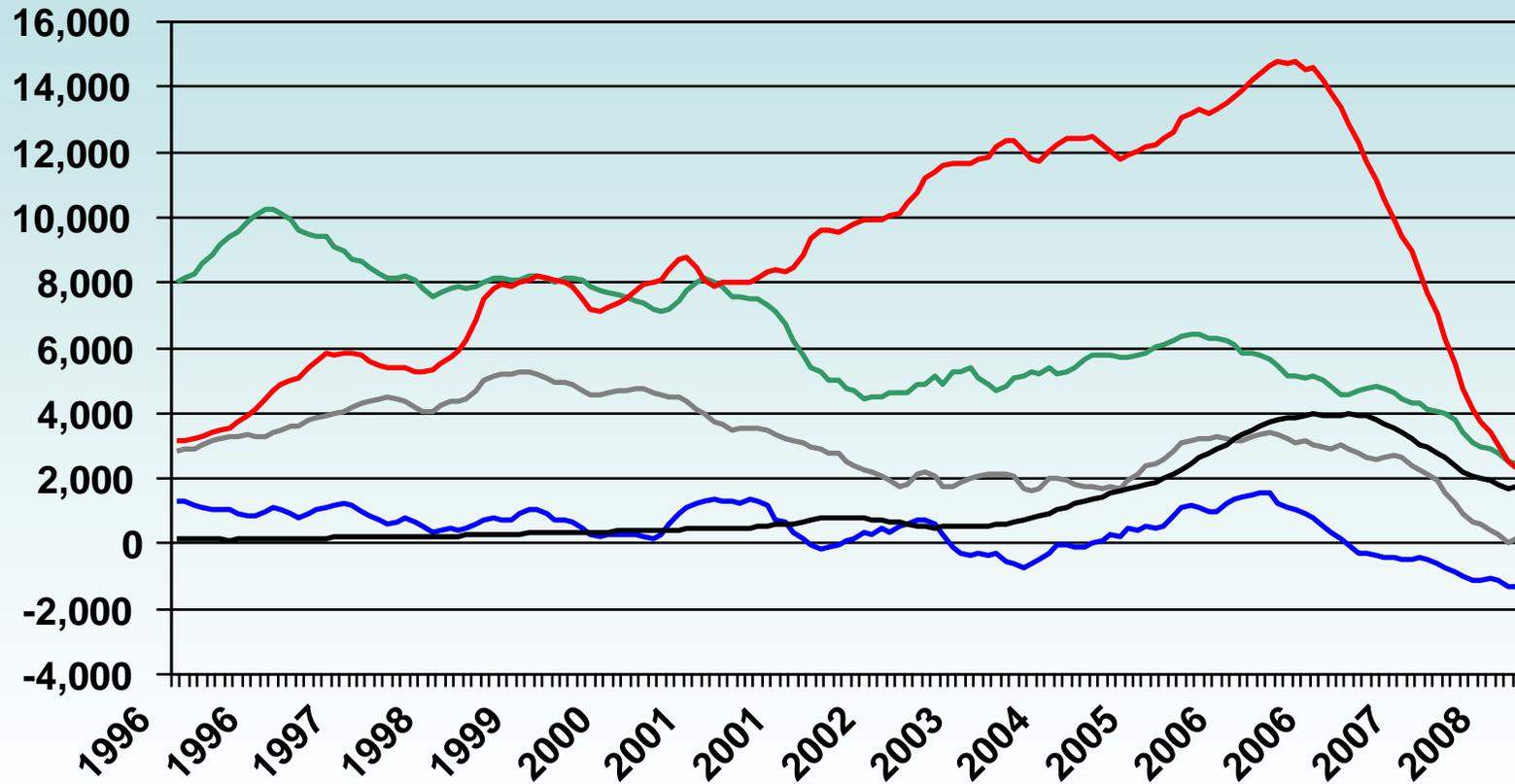
## State of Arizona Construction Jobs & Building Permits



Source: Census Bureau, Bureau of Labor Statistics



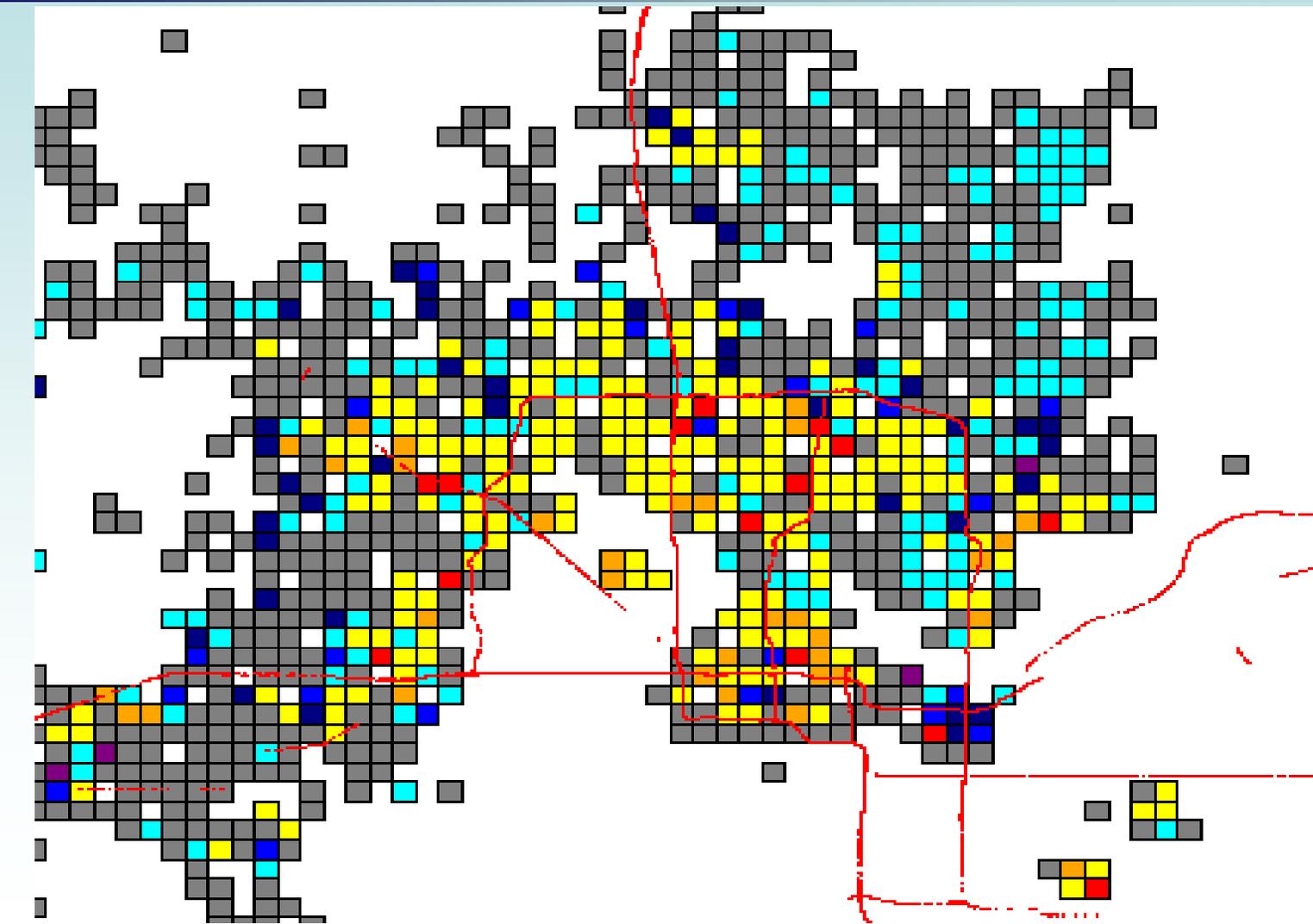
# Customer Growth Inside of Maricopa County



Source: APS



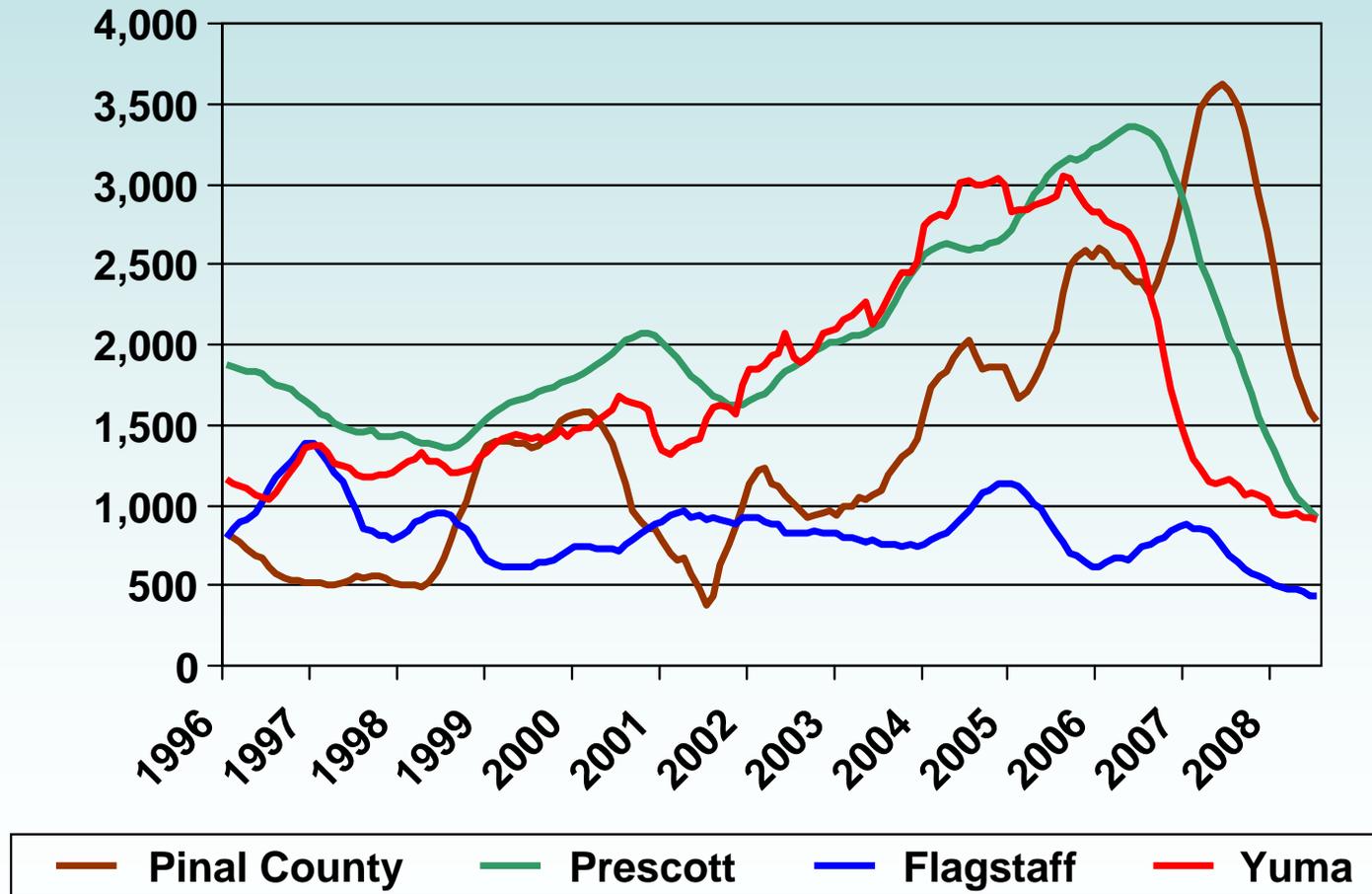
# Areas of Growth/Decline in Metro Phoenix



Change in customers	-300	-75	-25	0	25	75	300	500
	Red	Orange	Yellow	Grey	Cyan	Blue	Dark Blue	Purple



# Customer Growth Outside of Maricopa County



Source: APS

