



2016: More of the Same. But, with Much More Drama.

Maricopa County Board of Supervisors

March 7th, 2016

Presented By:
Elliott D. Pollack
CEO, Elliott D. Pollack & Company



Elliott D. Pollack & Company

Can the Recovery Last?



RISKS

**Higher now that we are
deeper into the recovery**





Reality

**You can't tell well in advance
when a recession will occur.**





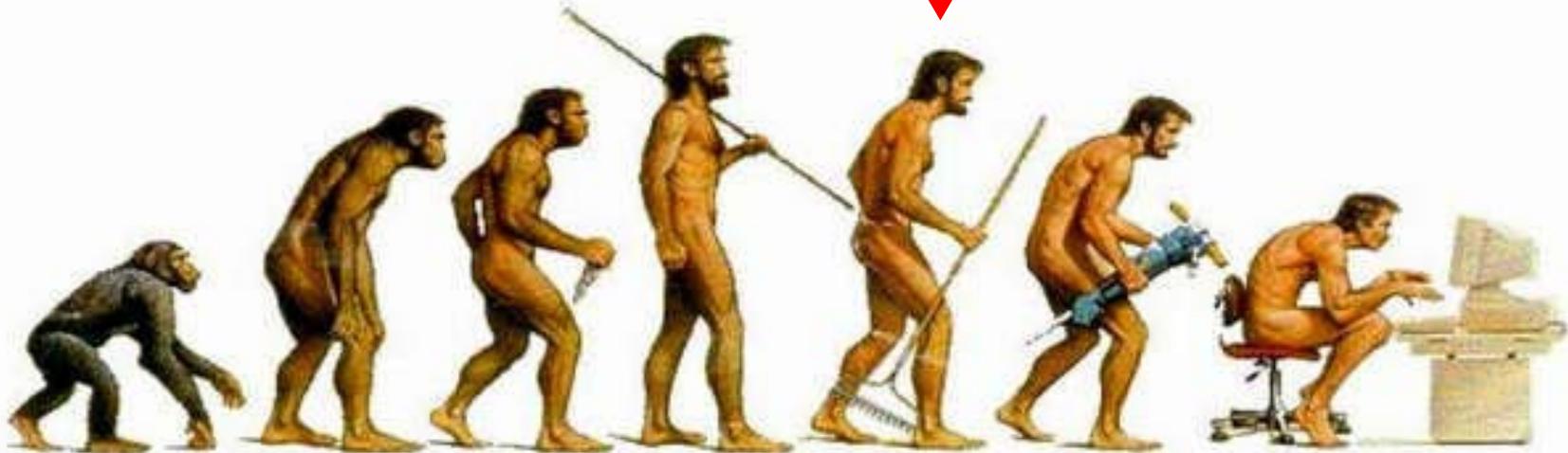
So, it's time to be cautious.



Where We Stand—

- The recovery is starting to show signs of middle age.

**YOU ARE
SOMEWHERE
AROUND HERE**





Evidence

What are People Worried About?

- Stock Market
- China
- Manufacturing
- Dollar
- Inventories to Sales Ratio
- Yield Curve





Stock Market

“The stock market predicted nine of the last five recessions.”

Paul Samuelson





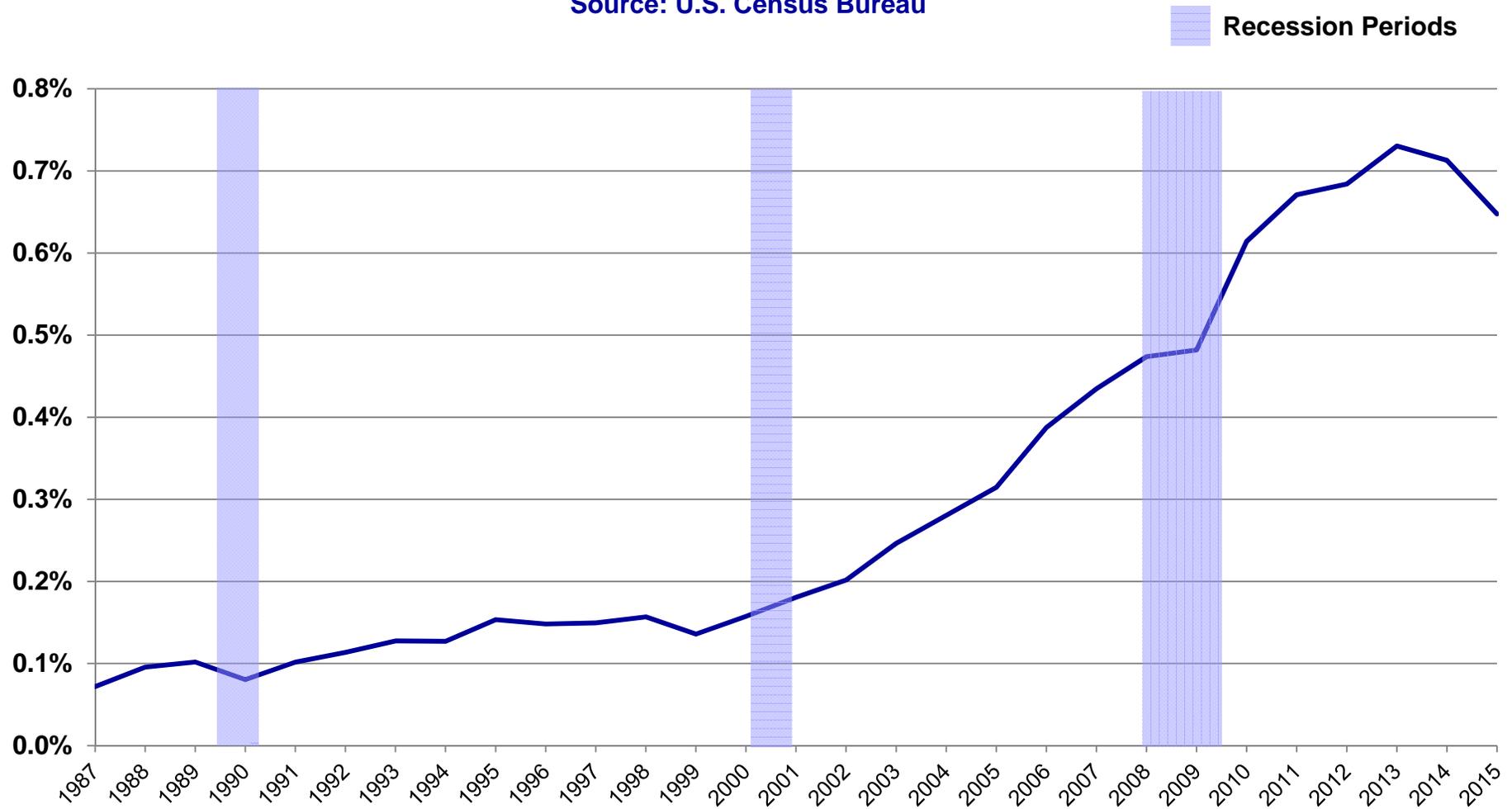
China

- China accounts for less than 1% of U.S. GDP.



U.S. Exports to China as a percent of GDP 1987 - 2015

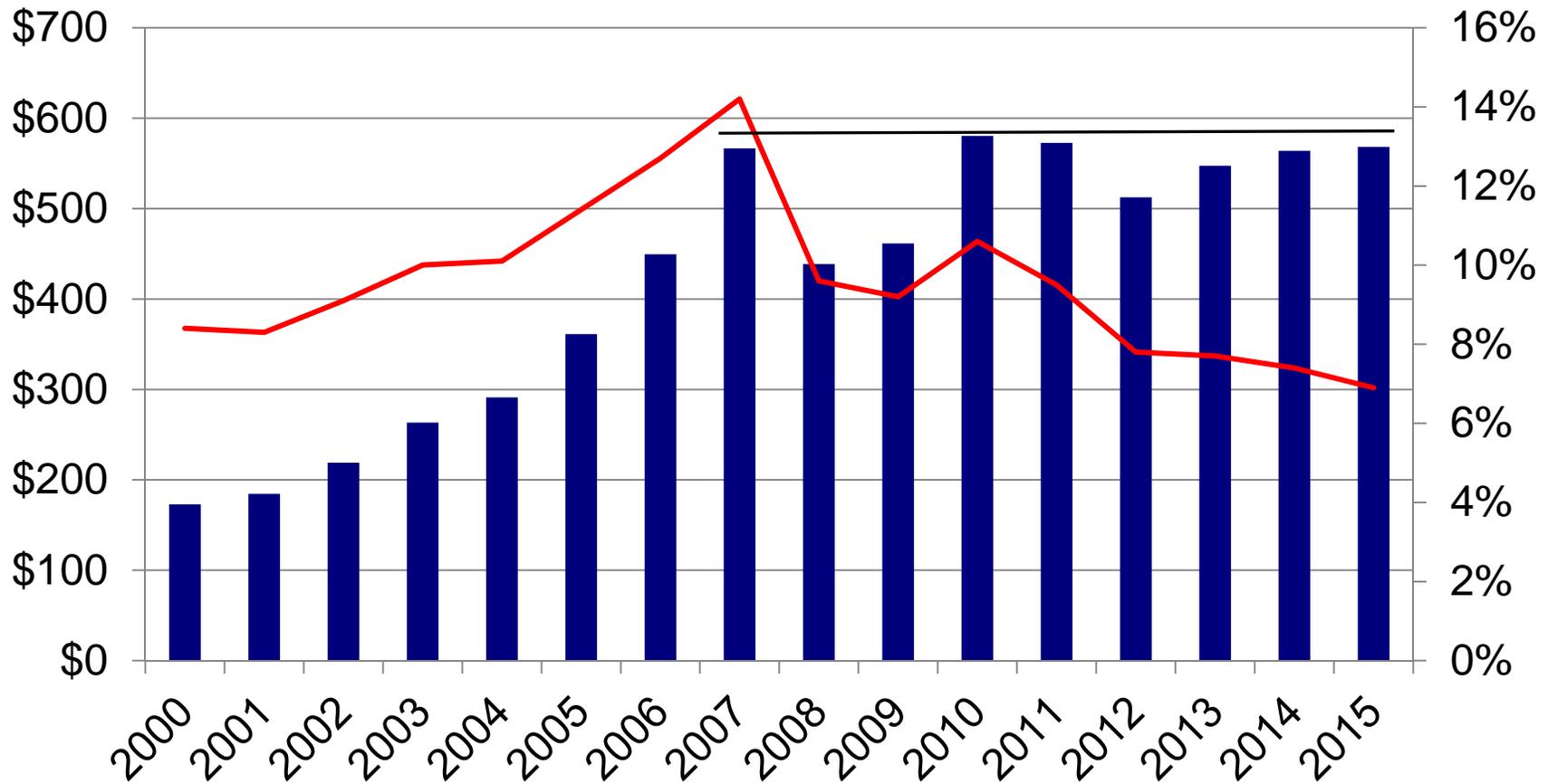
Source: U.S. Census Bureau



China Real GDP

2000-2015*

Source: World Bank World Development Indicators, International Financial Statistics of the IMF



* Based on chained 2010 dollars.

** 2015 Preliminary.

■ Absolute Growth — Percent Growth



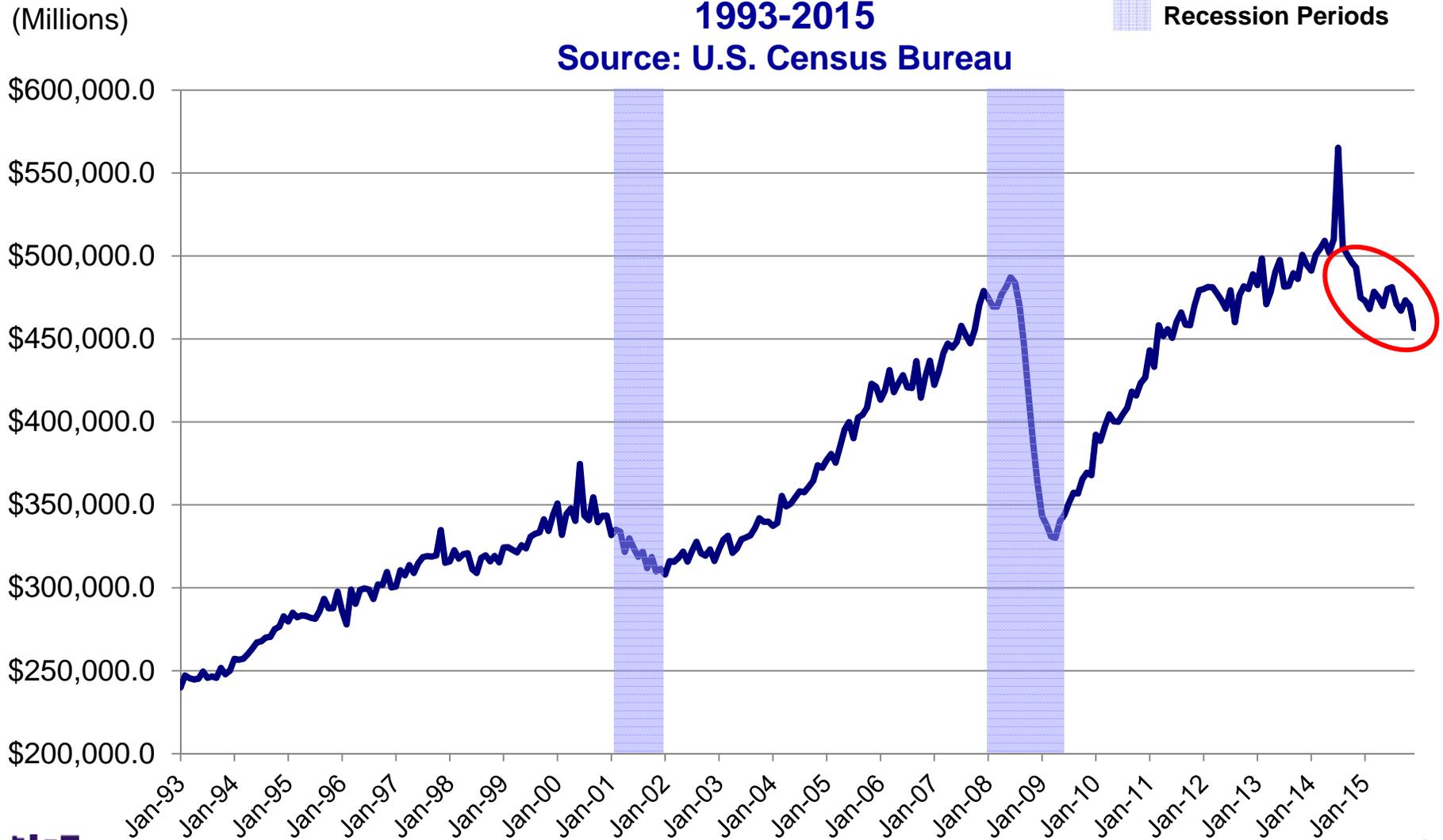
Manufacturing

Manufacturers' New Orders

1993-2015

Recession Periods

Source: U.S. Census Bureau





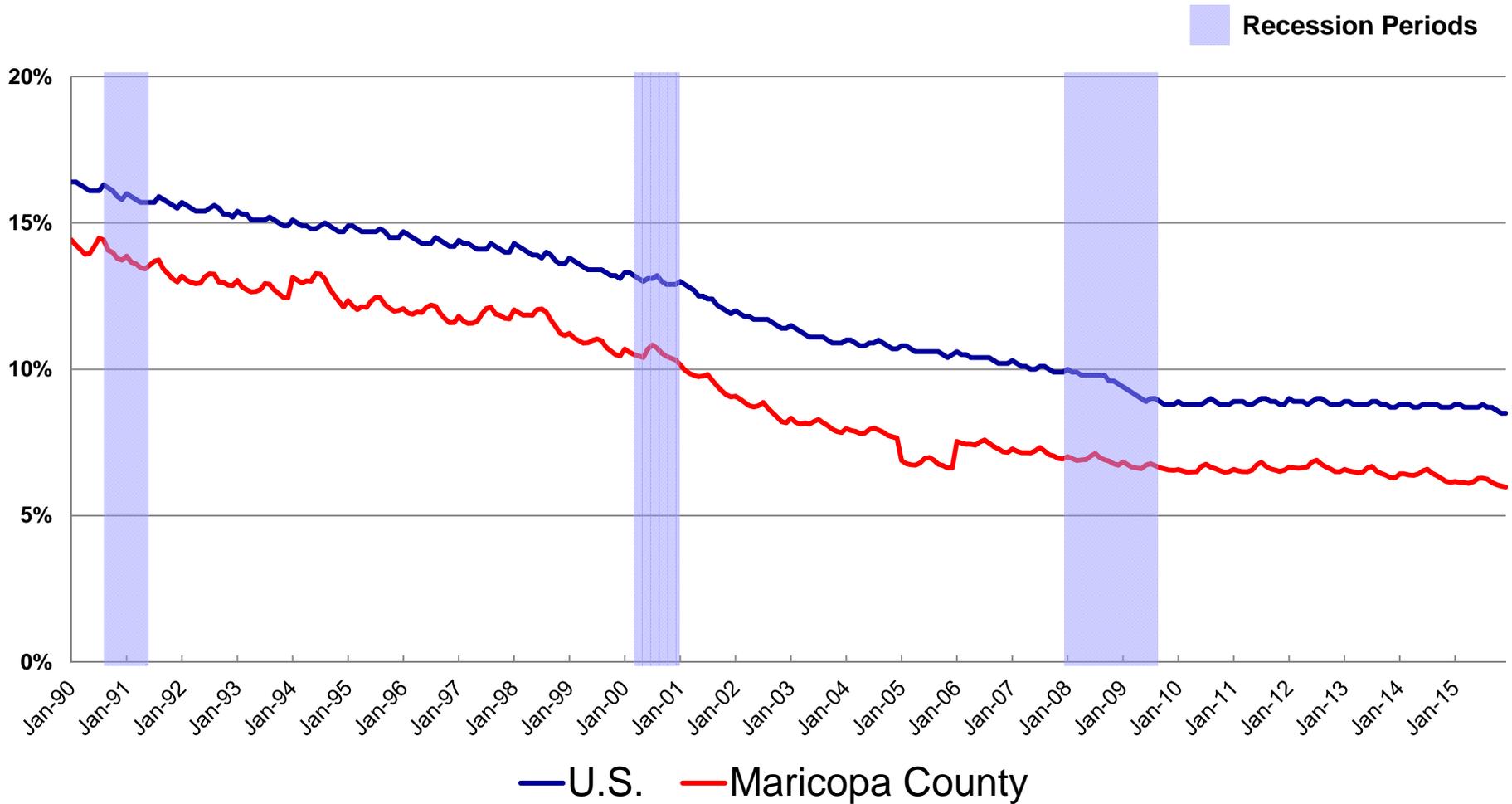
Manufacturing Share of Total Non-farm Employment

| Year | U.S. | Maricopa County |
|---------|-------|--------------------|
| 1950 | 30.9% | 11.8% |
| 1960 | 28.4% | 18.7% |
| 1970 | 25.1% | 21.7% |
| 1980 | 20.7% | 17.9% |
| 1990 | 16.2% | 14.1% |
| 2000 | 13.1% | 10.5% |
| 2010 | 8.8% | 6.6% |
| Current | 8.7% | 6.1% |



Manufacturing as a Percent of Total Non-farm 1990 - 2015

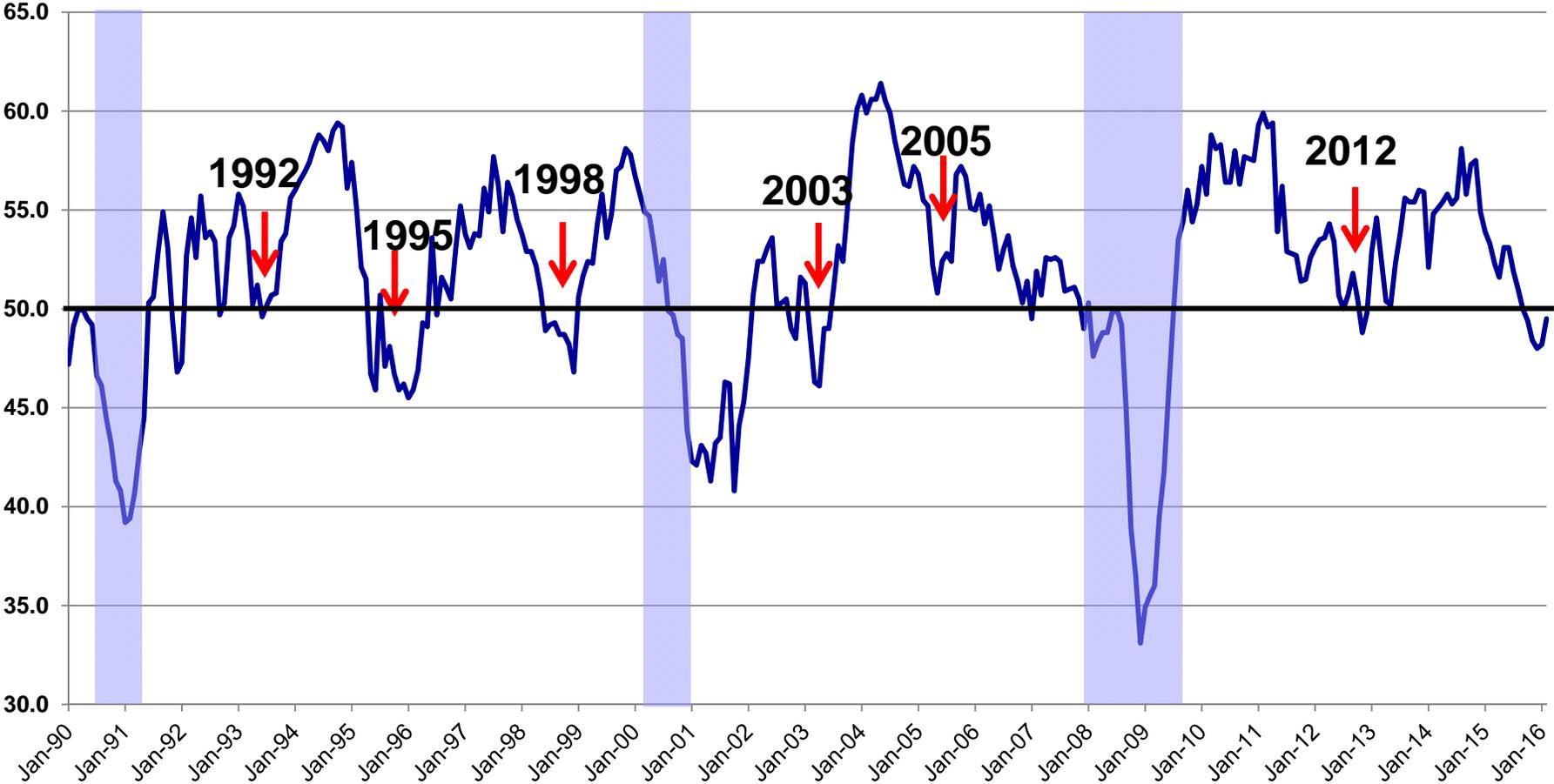
Source: Bureau of Labor Statistics



U.S. Manufacturing Index 1990 – 2016*

Source: Institute for Supply Management

Recession Periods



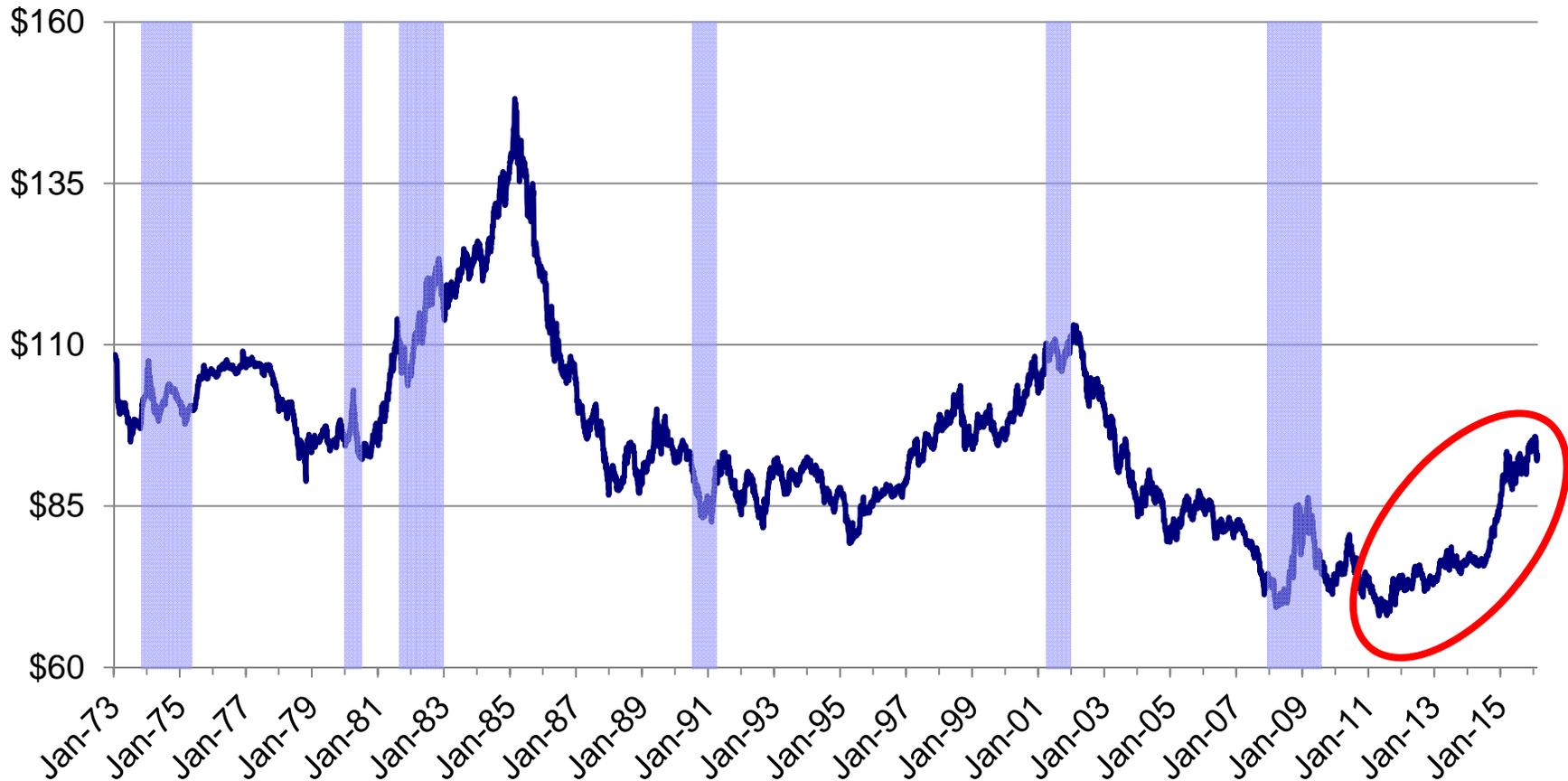
*Data through February 2016.

- **Issues with the dollar strengthening**

**U.S. Dollar Trade Weighted Exchange
v. Major Currencies
1973-2016***

Source: U.S. Federal Reserve

Recession





Effects of a strong dollar:

- American goods more expensive outside of U.S.
- Foreign goods cheaper in the U.S.
- Keeps domestic inflation lower
- Transference of manufacturing jobs overseas.
- Negatively effects earning of companies with big overseas revenues.





On the other hand:

- 1) Good time to buy foreign goods.
- 2) Good time for international travel.

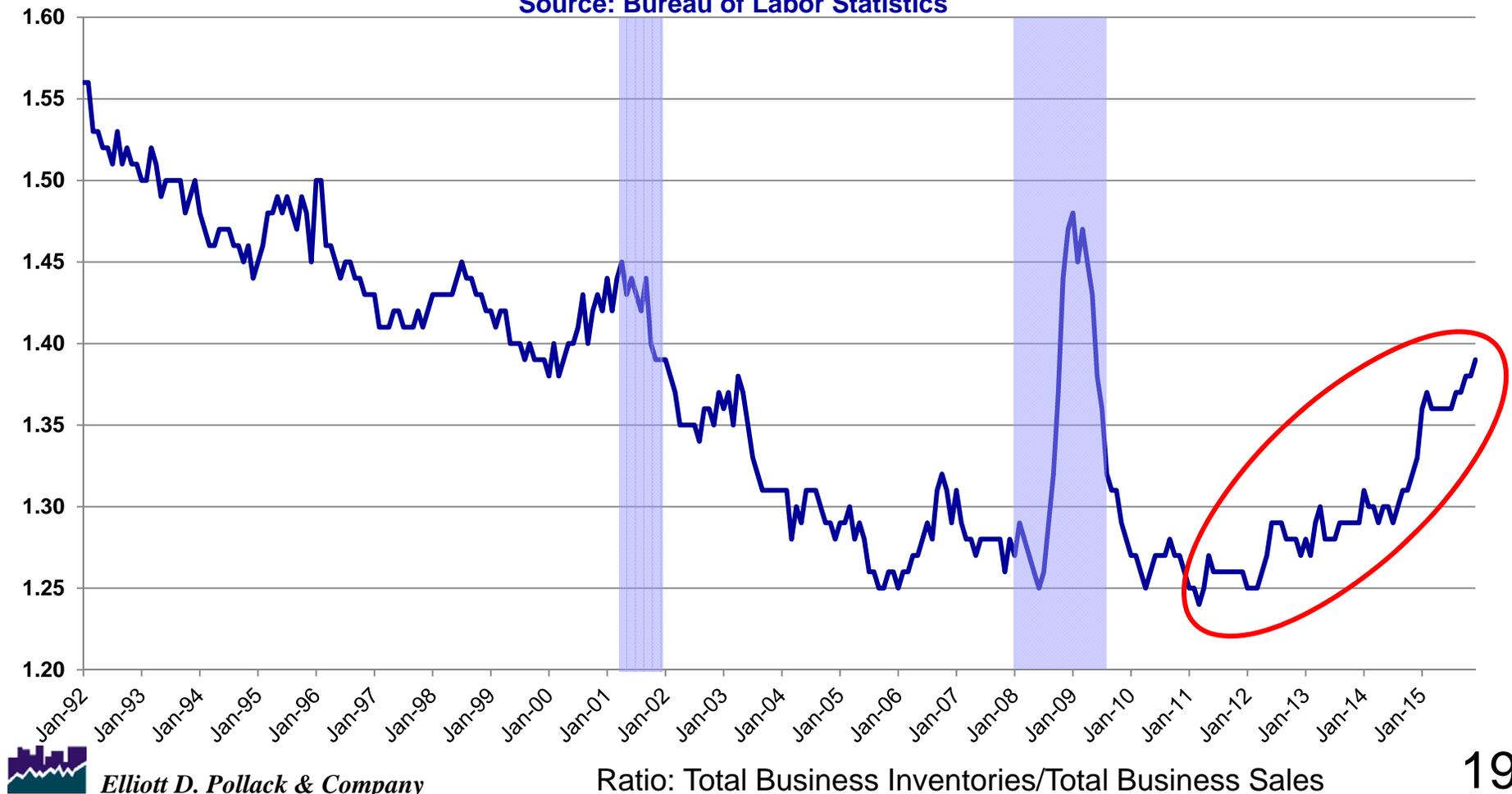


Inventories to Sales Ratio is out of Line

U.S. Inventory to Sales Ratio 1992 - 2015

Source: Bureau of Labor Statistics

Recession Periods



Business

- Excess inventory, mainly in autos.





Average Age of Auto Fleet (all light vehicles)

- 2015 – 11.5 years
- 2014 – 11.4 years
- 2013 – 11.3 years
- 2010 – 10.6 years
- 2005 – 9.5 years
- 2000 – 8.9 years
- 1995 – 8.4 years

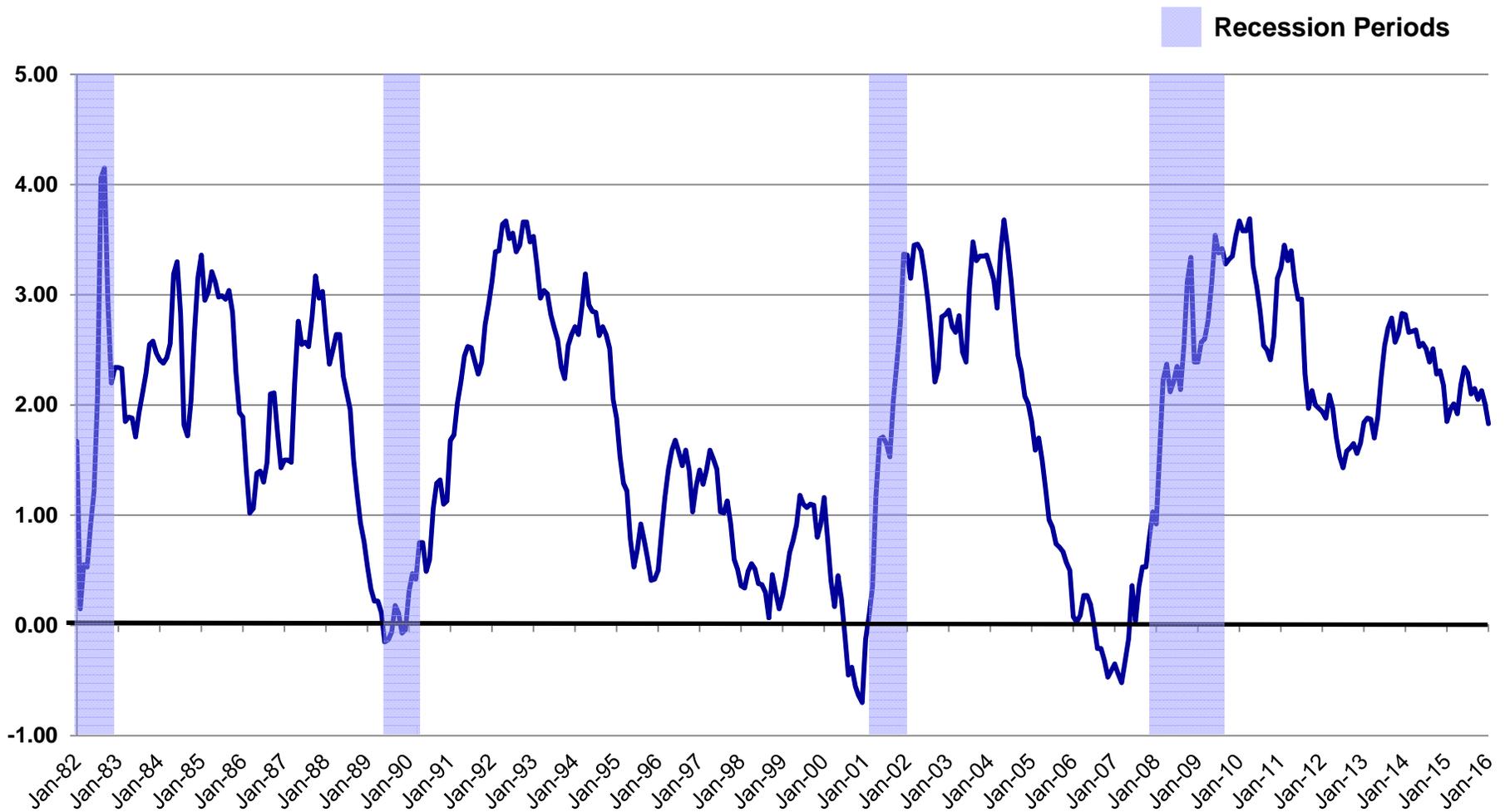
Source: R.L. Polk Company, IHS



Yield Curve

1982 – 2016*

Source: Board of Governors of the Federal Reserve System (US)



*Data through January 2016

Yield Curve: 10-Year Treasury minus 3-month Treasury



Conclusion

- While the probabilities of a recession are higher today than they were several months ago, the odds still favor continued (albeit slower) growth.



Consumers

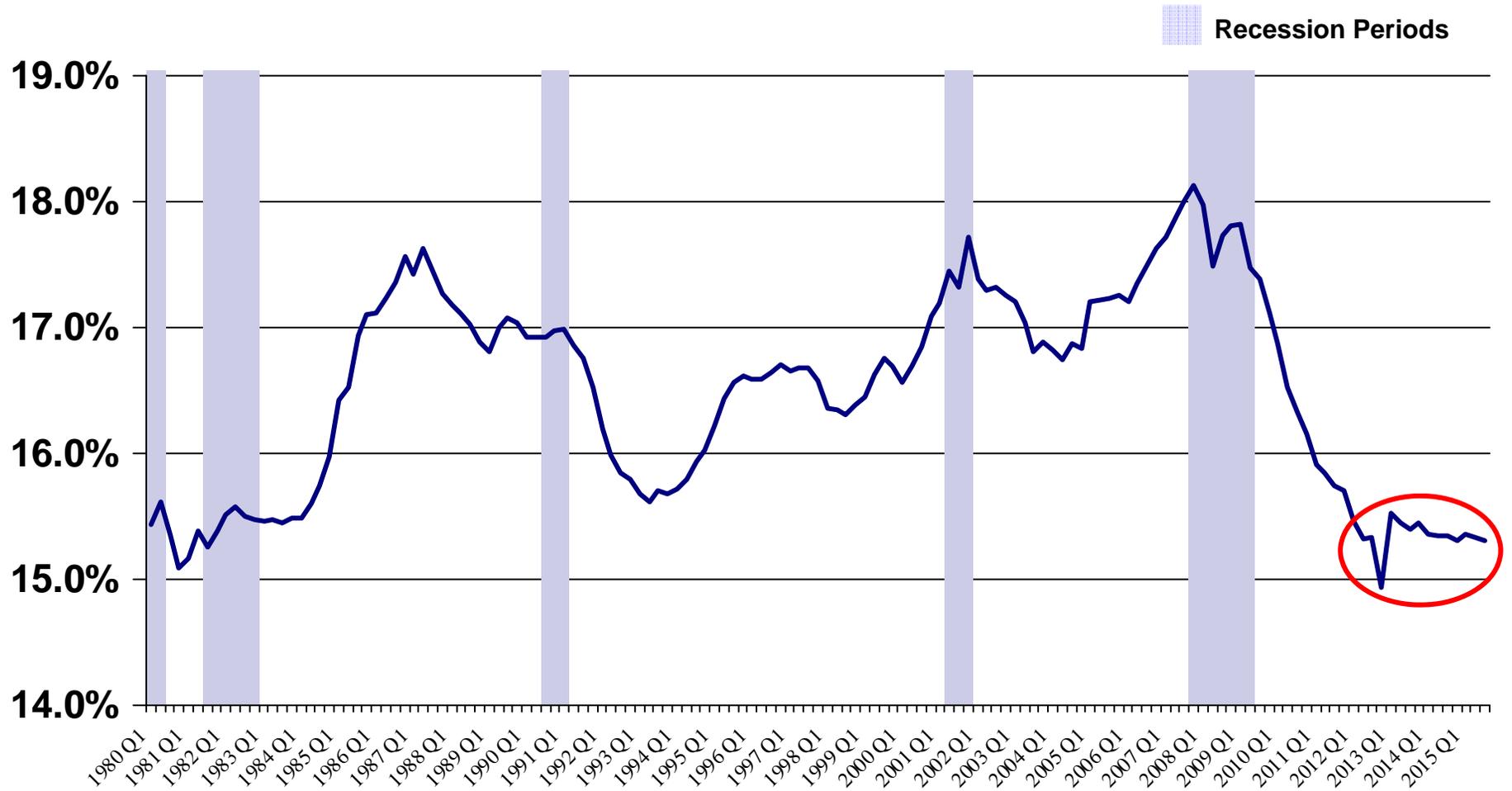
- Debt burden low



Financial Obligation Ratio*

1980 – 2015**

Source: Federal Reserve

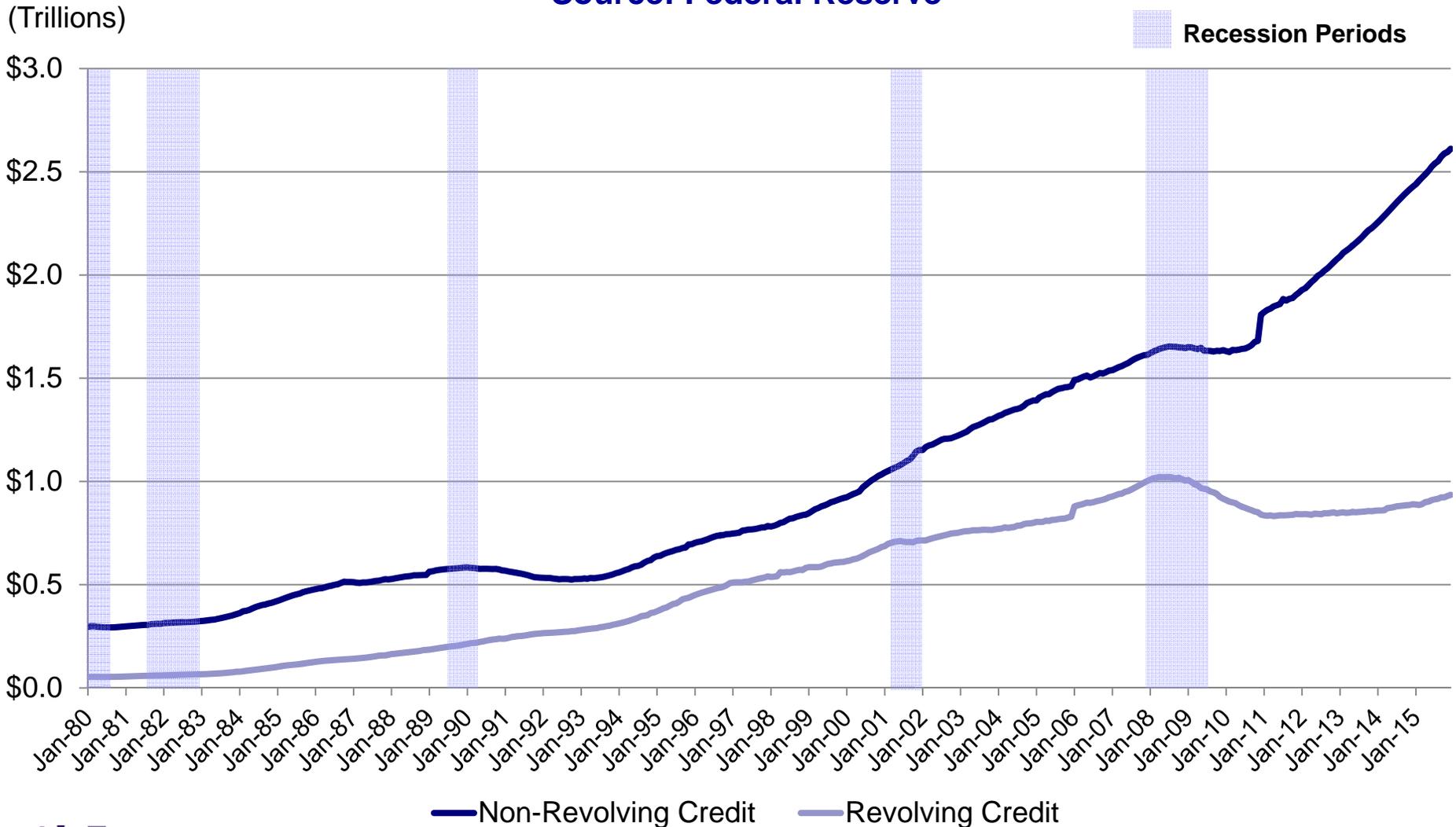


*Ratio of mortgage and consumer debt (including auto, rent and tax payments) to disposable income.

**Data through third quarter 2015.

U.S. Consumer Credit 1980 - 2015

Source: Federal Reserve

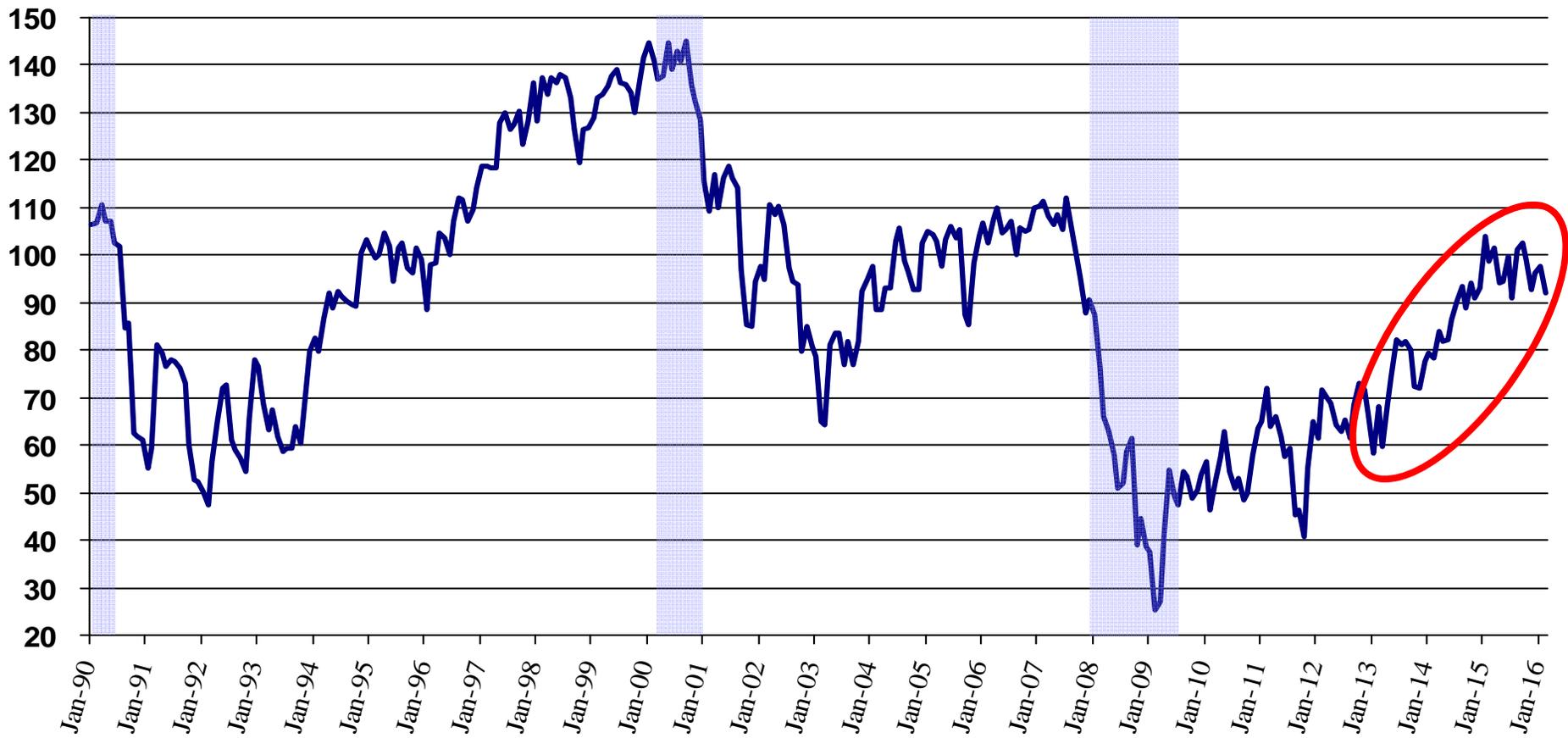


Consumer Confidence Strong

Consumer Confidence 1990 – 2016*

Source: The Conference Board

Recession Periods



- No irrational exuberance

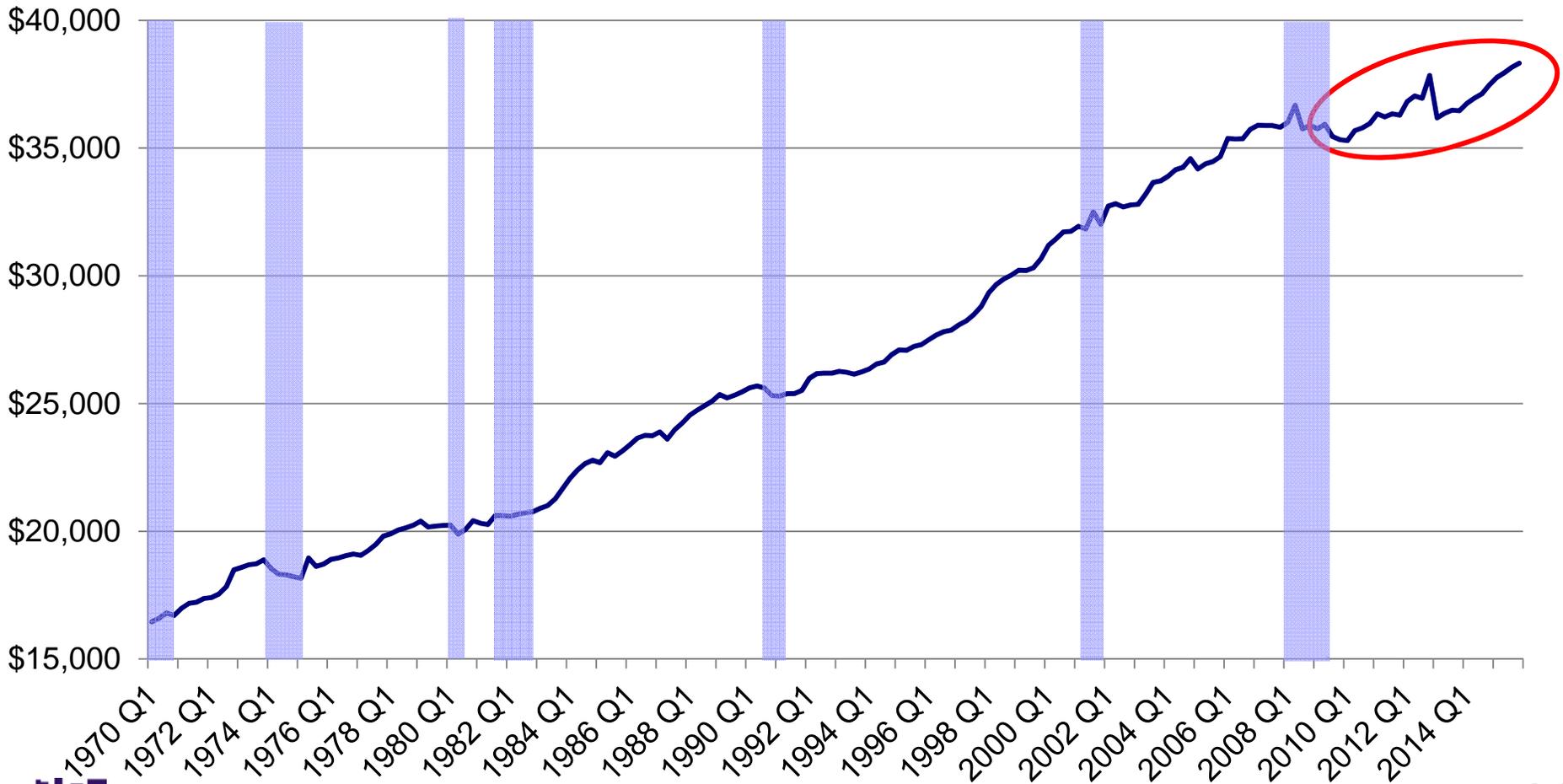


Real Incomes Growing

Real Disposable Personal Income Per Capita 1970-2015

Source: Bureau of Economic Analysis

Recession



- Inflation low



Oil Prices low

Daily Crude Oil Prices: West Texas Intermediate 1994 - 2016*

(Dollars per Barrel)

Source: U.S. Energy Information Administration

Recession Periods





- Oil prices low

- 1) In 2005, about 60% of consumption was imported.
- 2) In 2013, about 35% was imported.
- 3) In 2015, the Department of Energy estimates about 21% will be imported.



- 
- Oil prices low
 - According Federal Reserve Chair Janet Yellen, the difference in oil prices now relative to 2014 represent savings of a \$1,000 a year for the average American household.



- No capacity issues



Government

- Not a drag on economy



- Fed policy still expansive



Housing

- Prices up, but modestly





**Overall, expansions don't
die of old age.**





**They die from things that
make an economy vulnerable
to exogenous shocks or asset
bubbles or a tightening in
FED policy.**

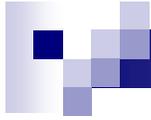




**As recoveries get older, they
becomes more vulnerable to
shocks...**

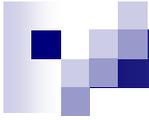
**....Just as people get older
they become more vulnerable
to diseases.**





So, it is time to be more cautious and at least consider alternatives.





Good News:
**Overall, the Outlook Remains
Positive**





NATIONAL ECONOMY –

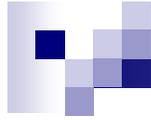
**Continued subpar growth.
But, recovery should continue.**



Bottom Line

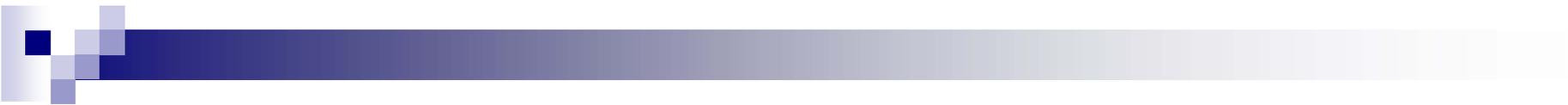
Slow Intermediate Term Growth





Arizona & Maricopa County (70% total non-farm Employment)



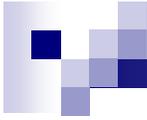


Arizona–

The State and Maricopa County have had a significant recovery in both absolute and relative terms.

It is only when we compare ourselves to previous Arizona and Maricopa County recoveries that we look so bad.





The World has Changed for Arizona and Maricopa County

Pre-2007
Post-2007



Arizona Employment Growth

Arizona's Rank Out of 50 States

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

| Year | Rank |
|------|------|
| 1992 | 23 |
| 1993 | 5 |
| 1994 | 2 |
| 1995 | 2 |
| 1996 | 2 |
| 1997 | 2 |
| 1998 | 1 |
| 1999 | 2 |
| 2000 | 5 |
| 2001 | 9 |
| 2002 | 10 |
| 2003 | 4 |

| Year | Rank |
|-------|------|
| 2004 | 2 |
| 2005 | 2 |
| 2006 | 2 |
| 2007 | 17 |
| 2008 | 46 |
| 2009 | 49 |
| 2010 | 49 |
| 2011 | 27 |
| 2012 | 9 |
| 2013 | 10 |
| 2014 | 16 |
| 2015* | 11 |



Phoenix-Mesa-Scottsdale Employment Growth

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

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

| Year | Rank | # MSA's |
|------|------|---------|
| 1992 | 4 | 19 |
| 1993 | 2 | 19 |
| 1994 | 1 | 19 |
| 1995 | 1 | 20 |
| 1996 | 1 | 21 |
| 1997 | 2 | 22 |
| 1998 | 1 | 23 |
| 1999 | 3 | 24 |
| 2000 | 7 | 25 |
| 2001 | 7 | 26 |
| 2002 | 5 | 25 |
| 2003 | 3 | 25 |

| Year | Rank | # MSA's |
|-------|------|---------|
| 2004 | 3 | 25 |
| 2005 | 1 | 26 |
| 2006 | 1 | 27 |
| 2007 | 10 | 29 |
| 2008 | 25 | 29 |
| 2009 | 23 | 24 |
| 2010 | 23 | 23 |
| 2011 | 14 | 25 |
| 2012 | 11 | 28 |
| 2013 | 9 | 28 |
| 2014 | 16 | 31 |
| 2015* | 14 | 32 |





**Why has Arizona growth
in this cycle been
subpar relative to its
historical norm?**





(1) Sub normal national recovery

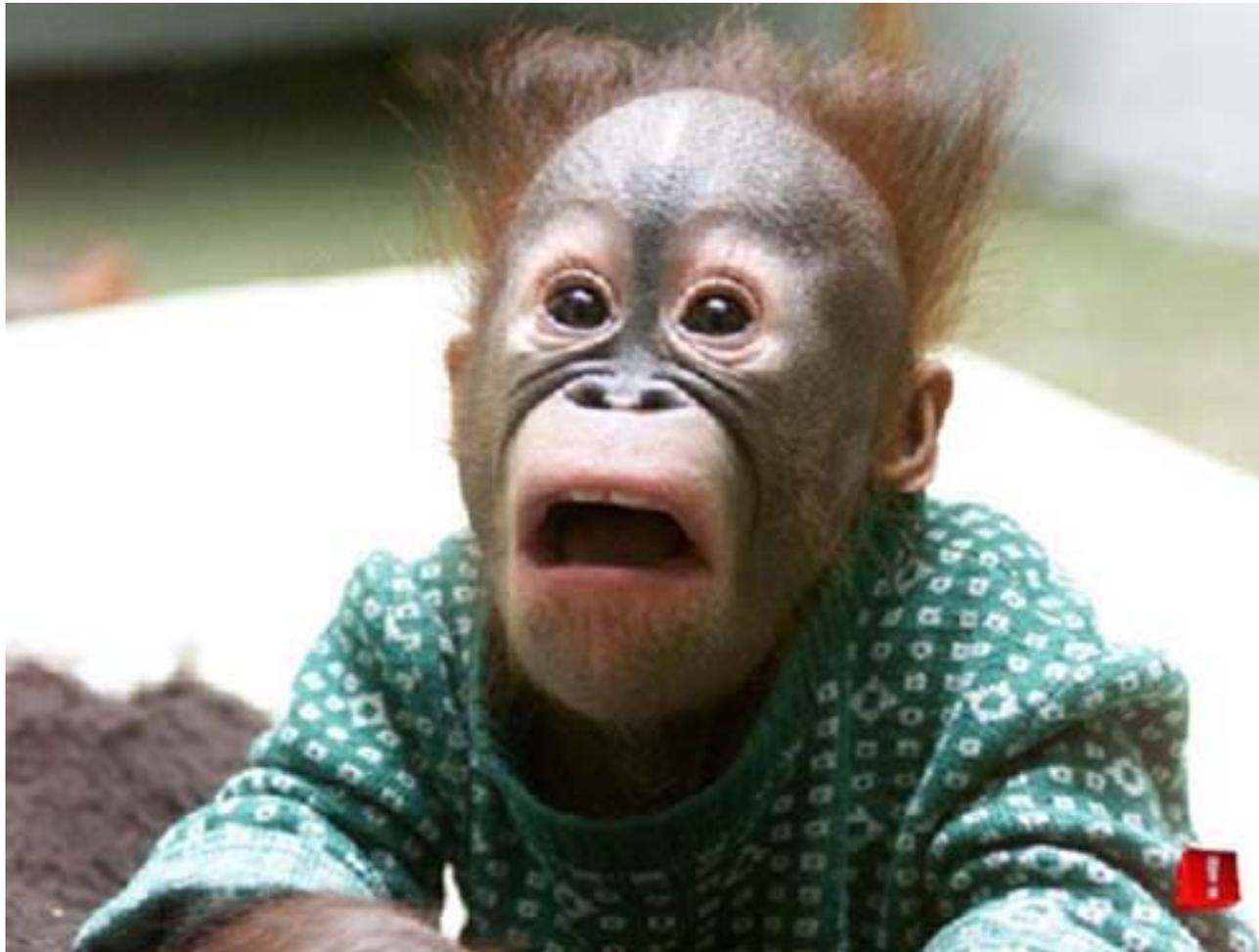
(2) Slowdown in
population flows

(3) Slow housing recovery

(4) Local factors



What has changed?





Growth itself is an economic driver in Arizona—

People moving to the State creates demand for goods and services that create more jobs.

When you grow at 1.5% instead of 3.2%, the part of the economy that is based on servicing new people shrinks.





Fewer people mean fewer houses & less commercial construction.



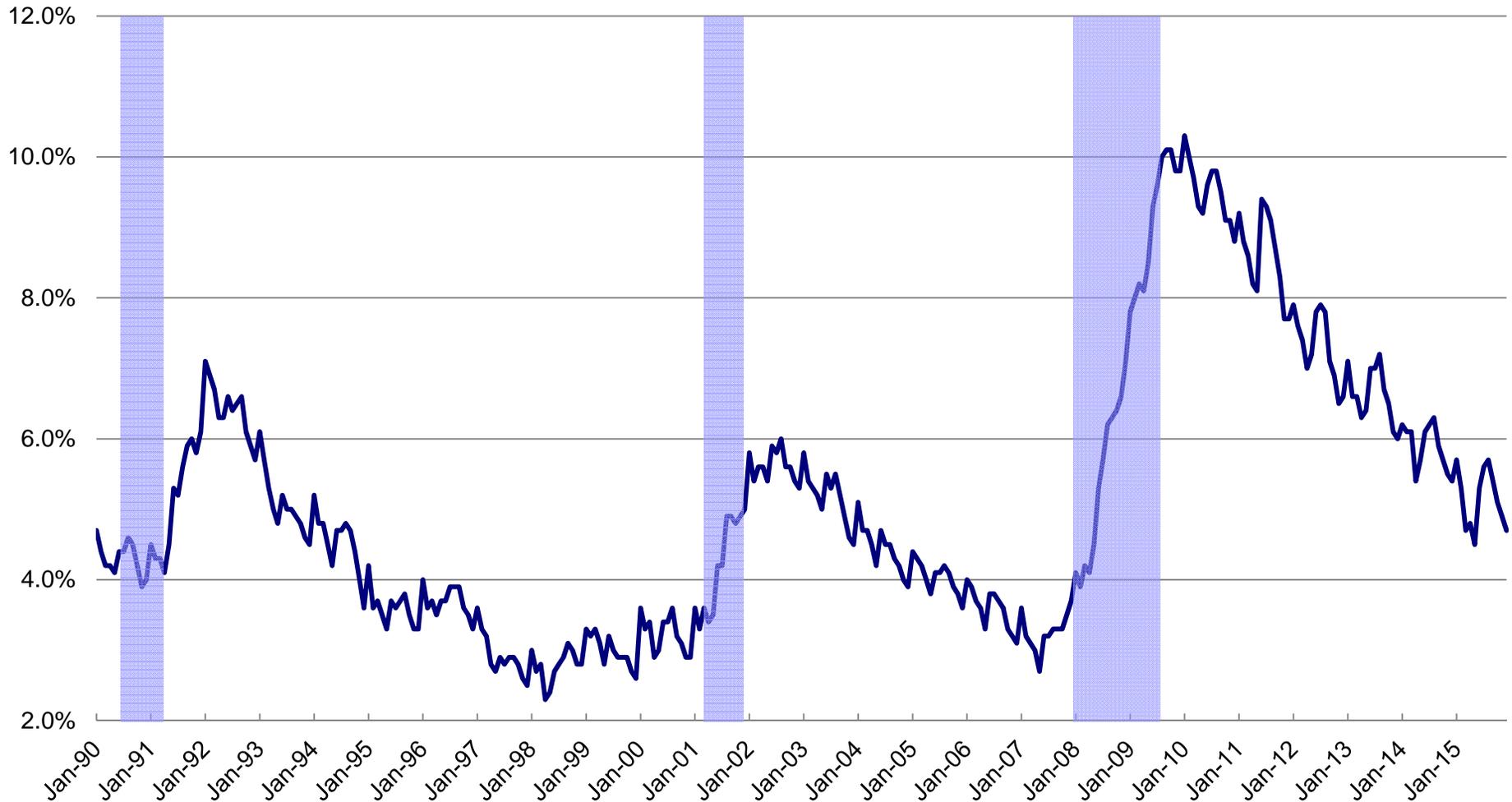
Less need for migrants (international and national) chasing jobs.

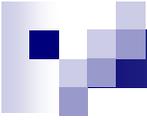


Maricopa County Unemployment Rate 1990 – 2015*

Source: Bureau of Labor Statistics

Recession Periods





Employment Growth

**From Bottom of Recession (Start of Recovery)
Greater Phoenix Employment, Seasonally Adjusted**

Source: BLS

| Recession | Emp. Trough | 63 mos. Later | % Growth |
|-----------|-------------|---------------|----------|
| 1974-1975 | Dec-74 | Mar-80 | 42.9% |
| 1981-1982 | Sep-82 | Dec-87 | 42.6% |
| 1991 | Aug-91 | Nov-96 | 34.1% |
| 2001 | Dec-01 | Mar-07 | 21.2% |
| 2007-2009 | Sep-10 | Dec-15 | 15.1% |



Population Growth after Recessions

Maricopa County

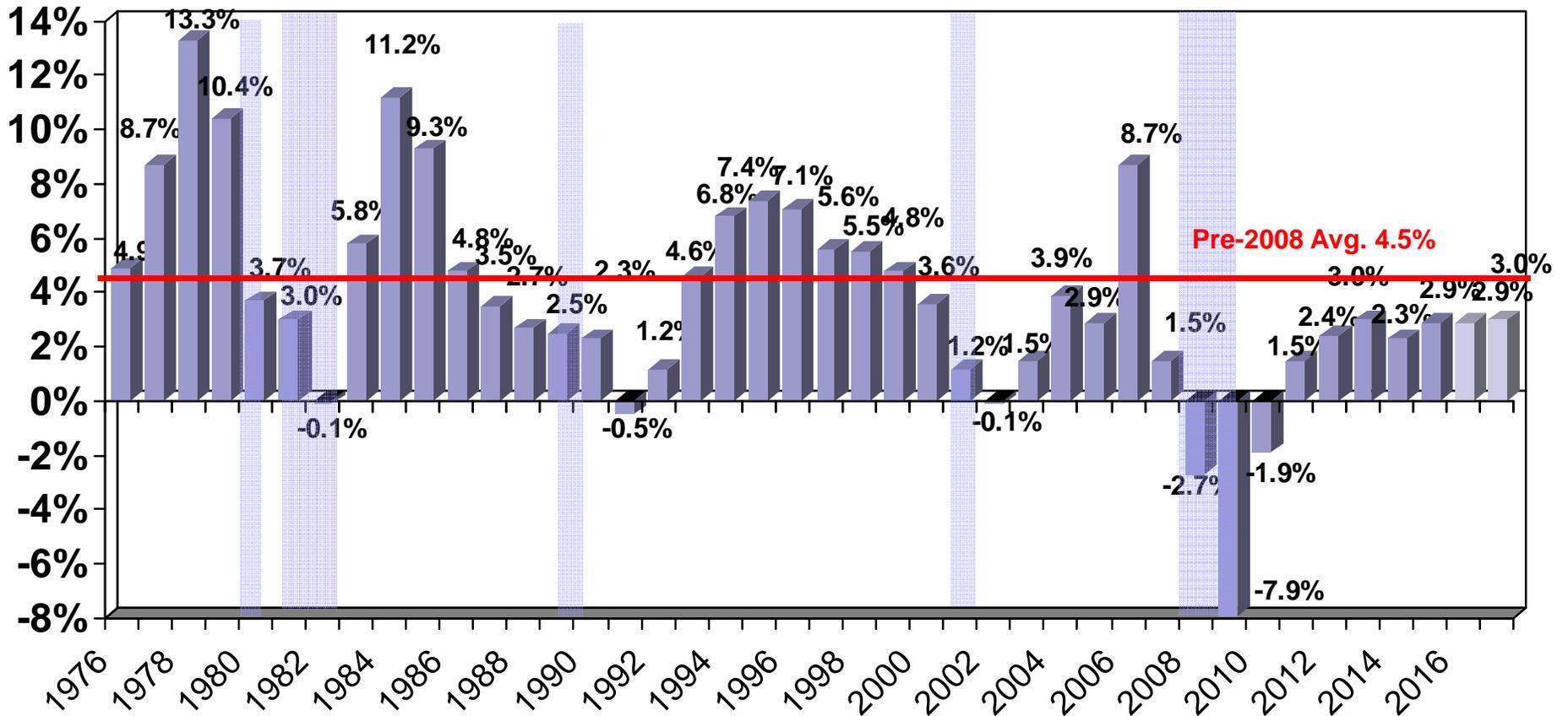
Source: ADOA

| Start of Recovery | Population | Population 6 years later | % Growth |
|-------------------|------------|--------------------------|----------|
| 1975 | 1,253,900 | 1,566,036 | 24.9% |
| 1981 | 1,566,036 | 1,991,400 | 27.2% |
| 1991 | 2,180,800 | 2,740,975 | 25.7% |
| 2001 | 3,173,219 | 3,753,413 | 18.3% |
| 2009 | 3,821,136 | 4,076,438 | 6.7% |



Maricopa County Employment* Annual Percent Change 1976–2017***

Source: Arizona Department of Administration



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

**Preliminary 2015 data

***2016 & 2017 forecasts from Elliott D. Pollack & Co.

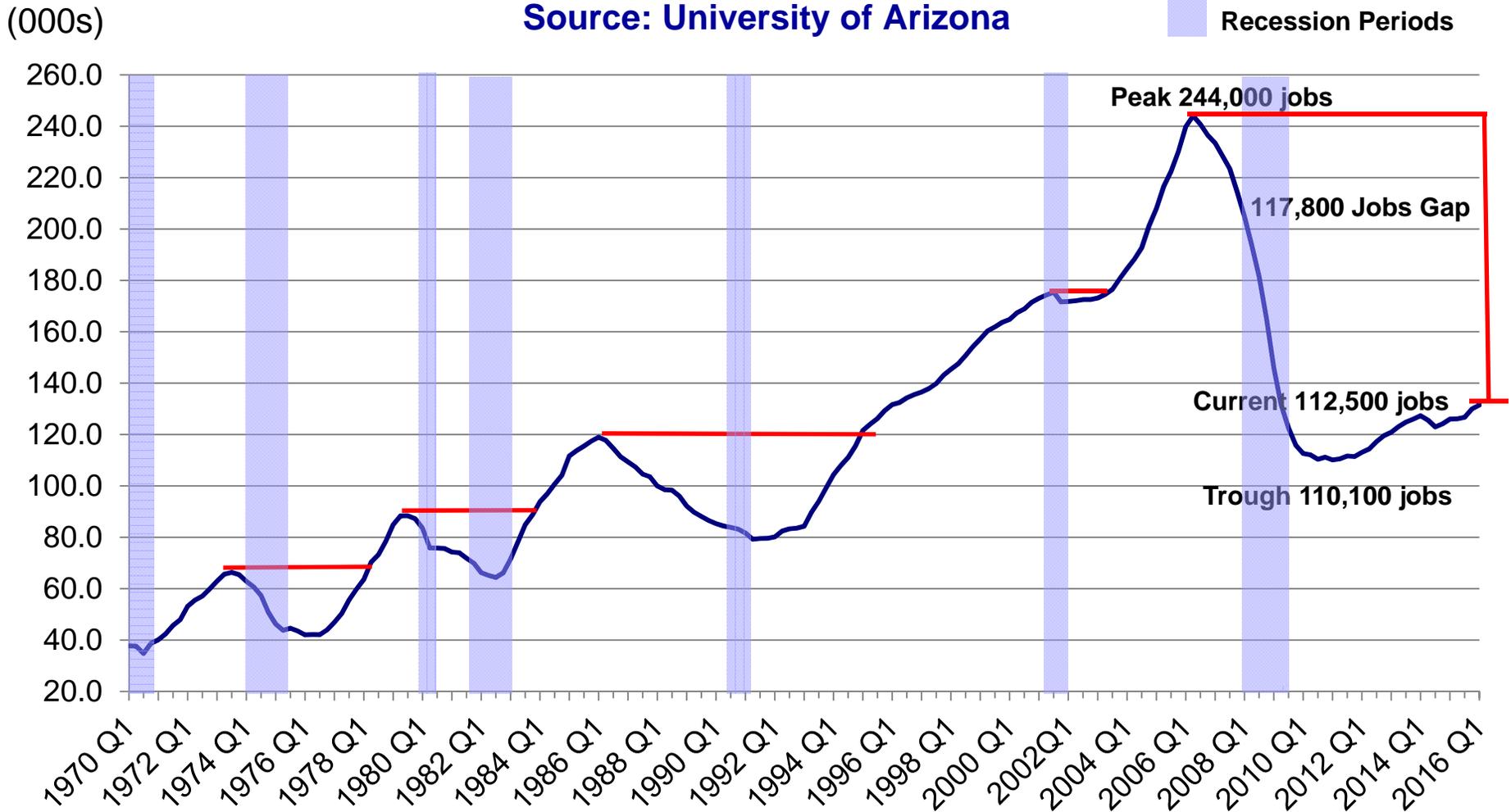


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Recession Periods

Arizona Construction Employment Seasonally Adjusted 1970 – 2016*

Source: University of Arizona



*Data through Q1 2016
U of A Q1 2016 forecast





Where are the Inflows of Population?





For the U.S. as a Whole

- 2002 – 2006
- 2010 – 2014

Total Movers down 25.6%

- Movers from abroad down (26%)
- Movers from other states down (34%)
- Movers from other counties
in the state, down (18%)





Arizona Capture Rate (from abroad and between states)

- 2002 – 2006 = 3.7%
- 2010 – 2014 = 3.3%





Conclusion:

- **Due to the lack of national, international, and in state population flows:**
 - 1. Jobs that would have been created by the domestic demand from people moving here has also been reduced.**
 - 2. It has taken longer to absorb the excess inventory of single family, office, etc. Construction employment has suffered.**

Thus, the economy would have been stronger.

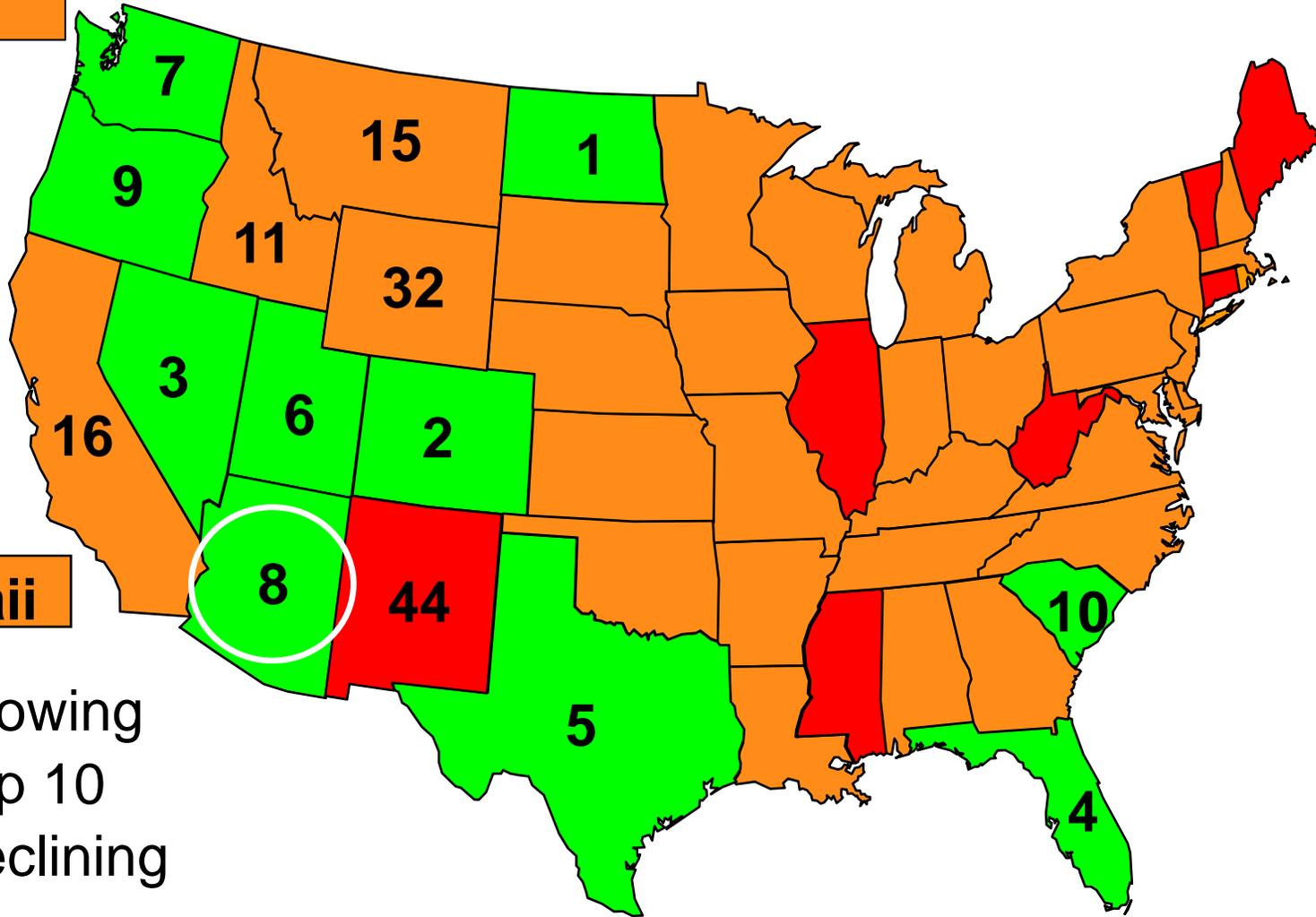


Population Growth 2015

Source: U.S. Census Bureau

Alaska
39

Hawaii
19



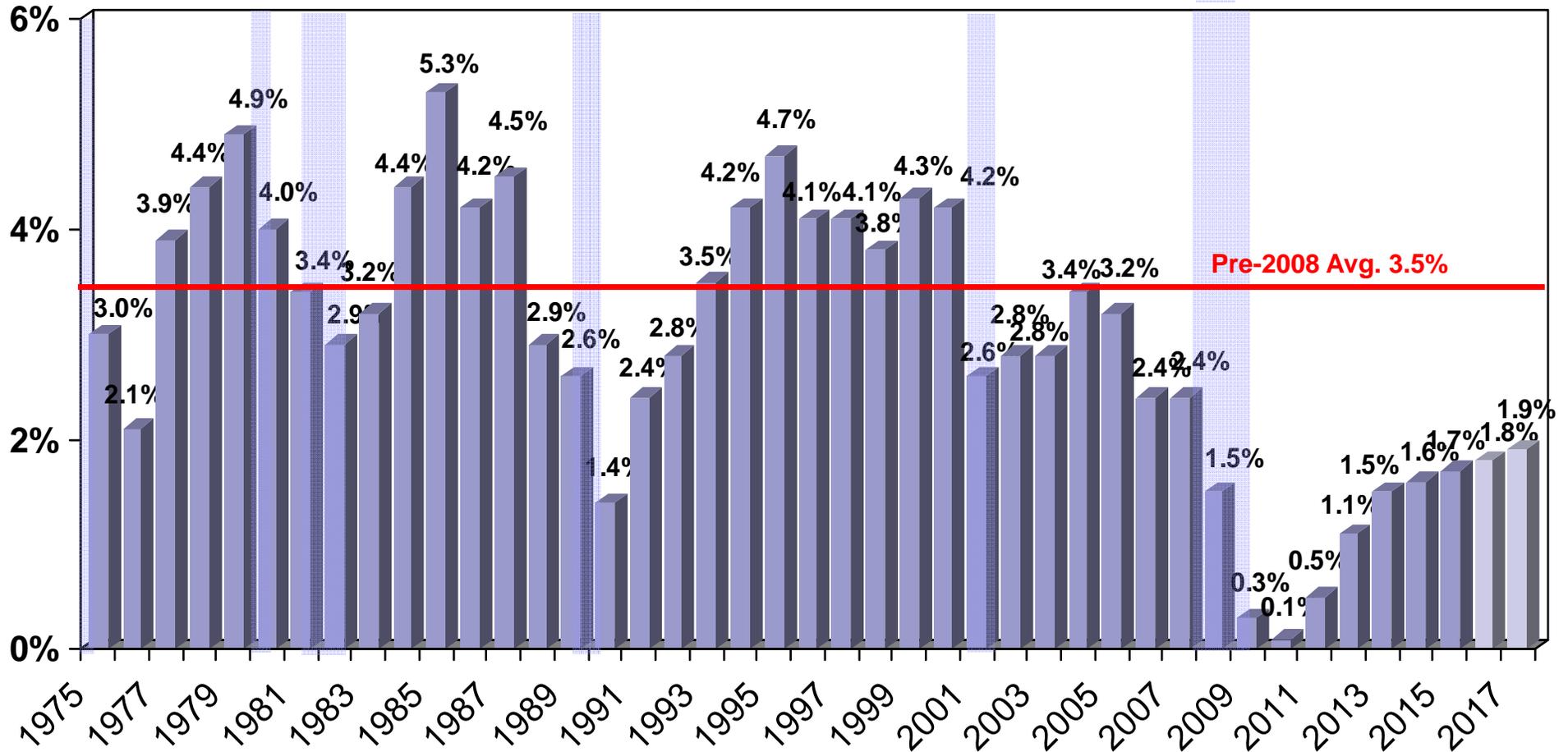
- Growing
- Top 10
- Declining



Maricopa County Population Annual Percent Change 1975–2017*

Source: AZ Dept. of Administration, EDPCo

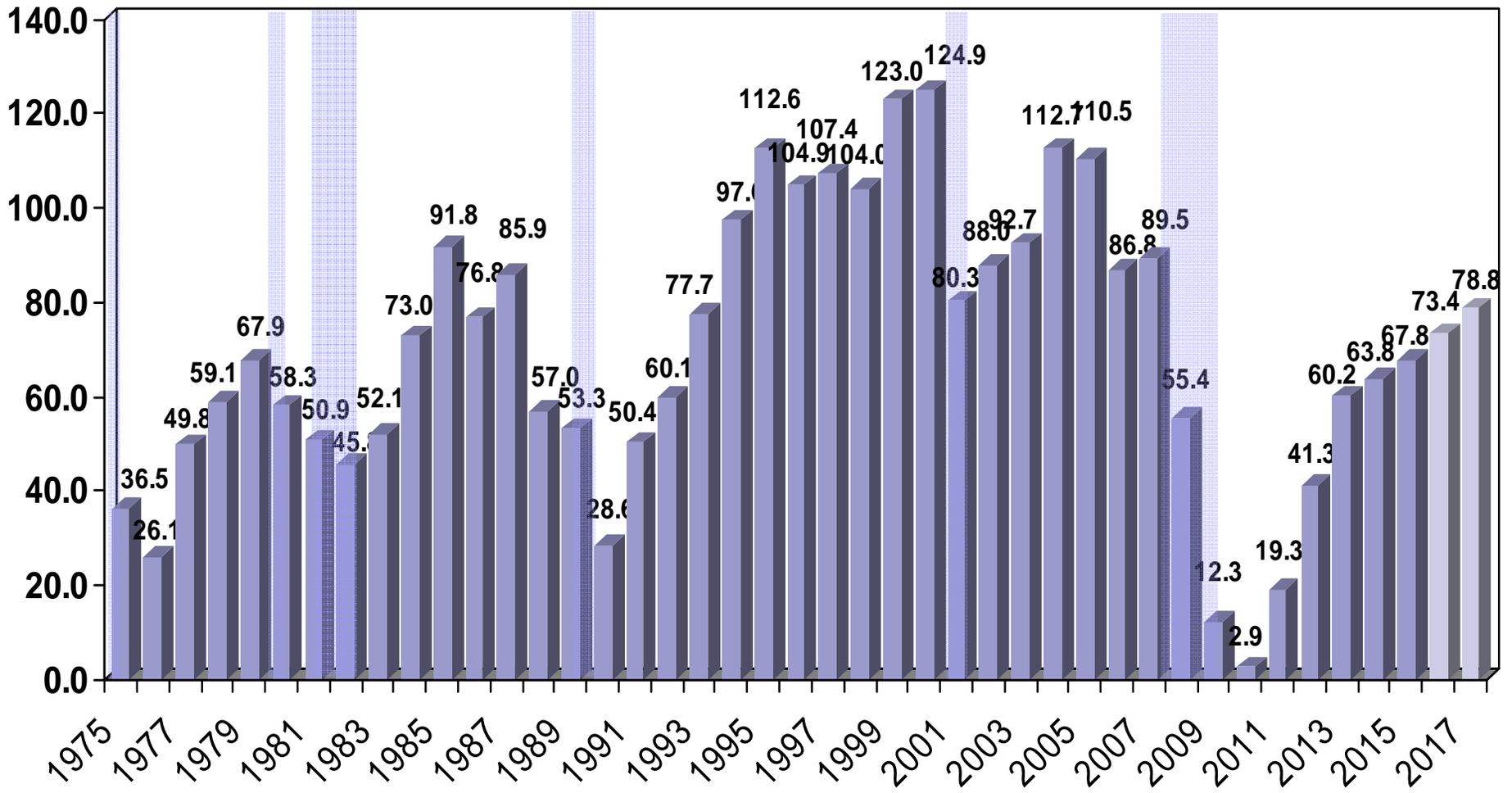
Recession Periods



Maricopa County Population Annual Net Change 1975–2017*

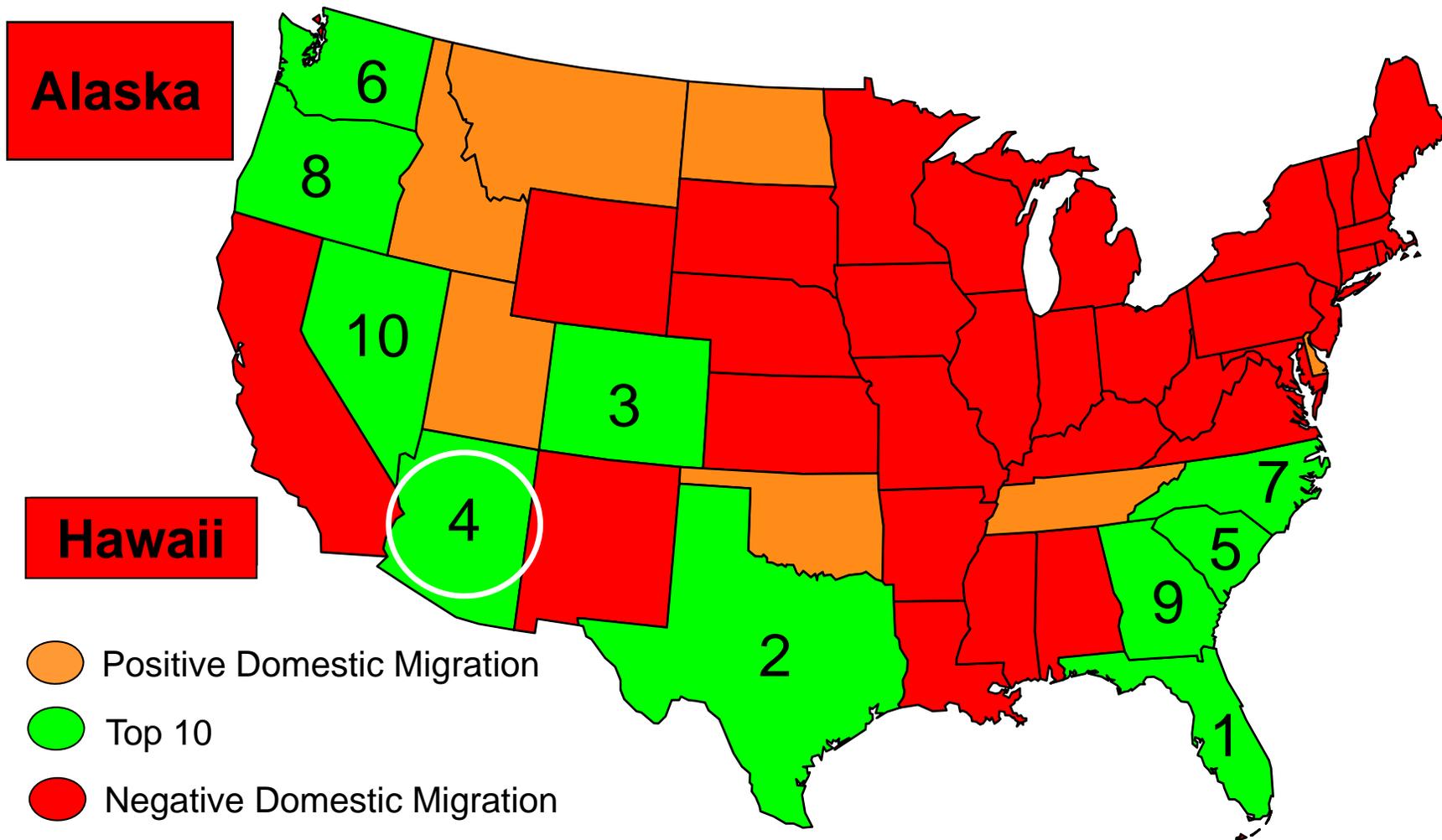
Source: AZ Dept. of Administration, EDPCo

 Recession Periods



Domestic Migrant Ranking 2015

Source: U.S. Census Bureau



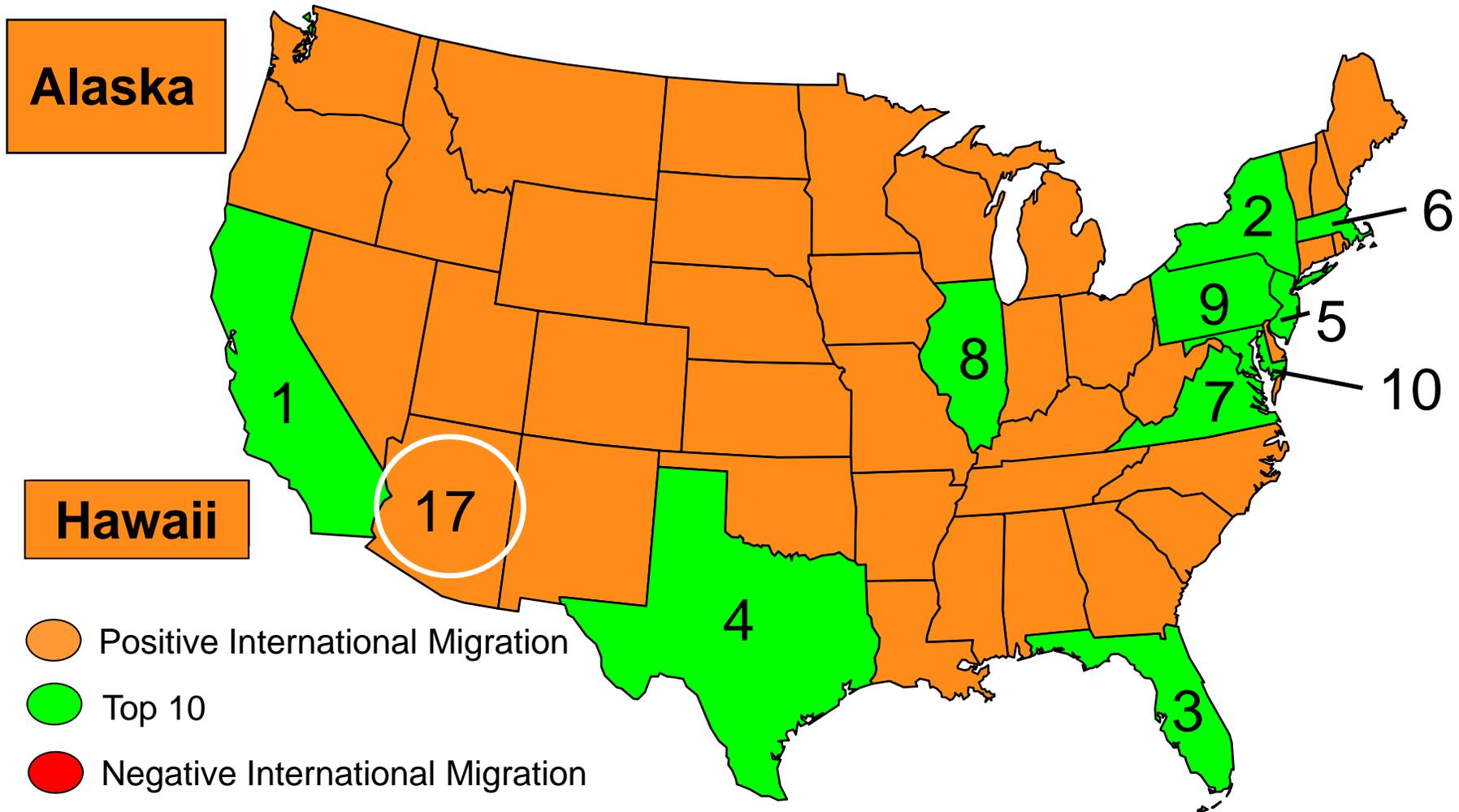
- Positive Domestic Migration
- Top 10
- Negative Domestic Migration



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International Migrant Ranking 2015

Source: U.S. Census Bureau



Alaska

Hawaii

- Positive International Migration
- Top 10
- Negative International Migration



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In terms of national migration, we are doing O.K. But, there is less migration overall

In terms of international migration, we are doing poorly. And, there is also less international migration.





How quickly are population flows going to recover?



SLOWLY!



Greater Phoenix Population

Source: U.S. Census Bureau; AZ Dept. of Administration; University of Arizona Forecasting Project; EDPCo

| Greater Phoenix Population Estimates and Projections | | | |
|--|-----------|-----------|-----------|
| Population | 2015 | 2016 | 2017 |
| EDPCo | | | |
| Forecast as of 2015 Q4 | 4,482,906 | 4,563,598 | 4,650,307 |
| Net Change | 78,018 | 80,692 | 86,708 |
| % Change | 1.8% | 1.8% | 1.9% |
| U of A Forecasting Project | | | |
| Forecast as of 2016 Q1 | 4,482,906 | 4,482,906 | 4,568,222 |
| Net Change | 78,018 | 85,316 | 95,667 |
| % Change | 1.8% | 1.8% | 2.0% |
| Arizona Dept. of Administration | | | |
| Forecast as of 2015 Q4 | 4,482,906 | 4,569,800 | 4,661,600 |
| Net Change | 78,018 | 86,894 | 91,800 |
| % Change | 1.8% | 1.9% | 2.0% |



Greater Phoenix Population

Source: U.S. Bureau of Census; Arizona Department of Administration; University of Arizona Forecasting Project

| YEAR | POPULATION | APR |
|-------|------------|------|
| 1960 | 726,183 | 6.9% |
| 1970 | 1,039,807 | 3.7% |
| 1980 | 1,600,093 | 4.4% |
| 1990 | 2,238,498 | 3.4% |
| 2000 | 3,251,876 | 3.8% |
| 2010 | 4,192,887 | 2.6% |
| 2015 | 4,482,906 | 1.3% |
| 2020* | 4,981,787 | 2.1% |
| 2025* | 5,525,967 | 2.1% |

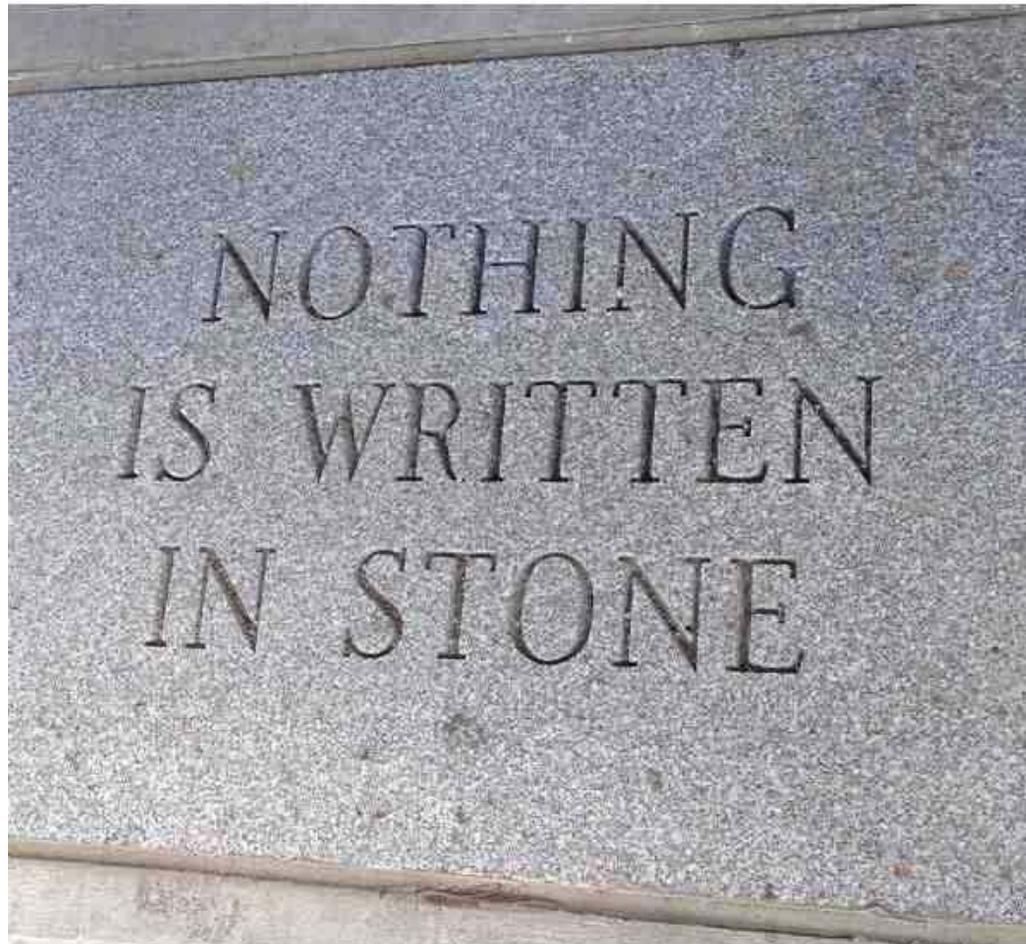




**If you believe that
population forecast,
it implies an average of
about **20,000** single family units will
be built each year
from 2015 through 2020.**



How quickly will housing recover?



Parade of Horribles

Housing





What is keeping potential buyers out of the housing market?

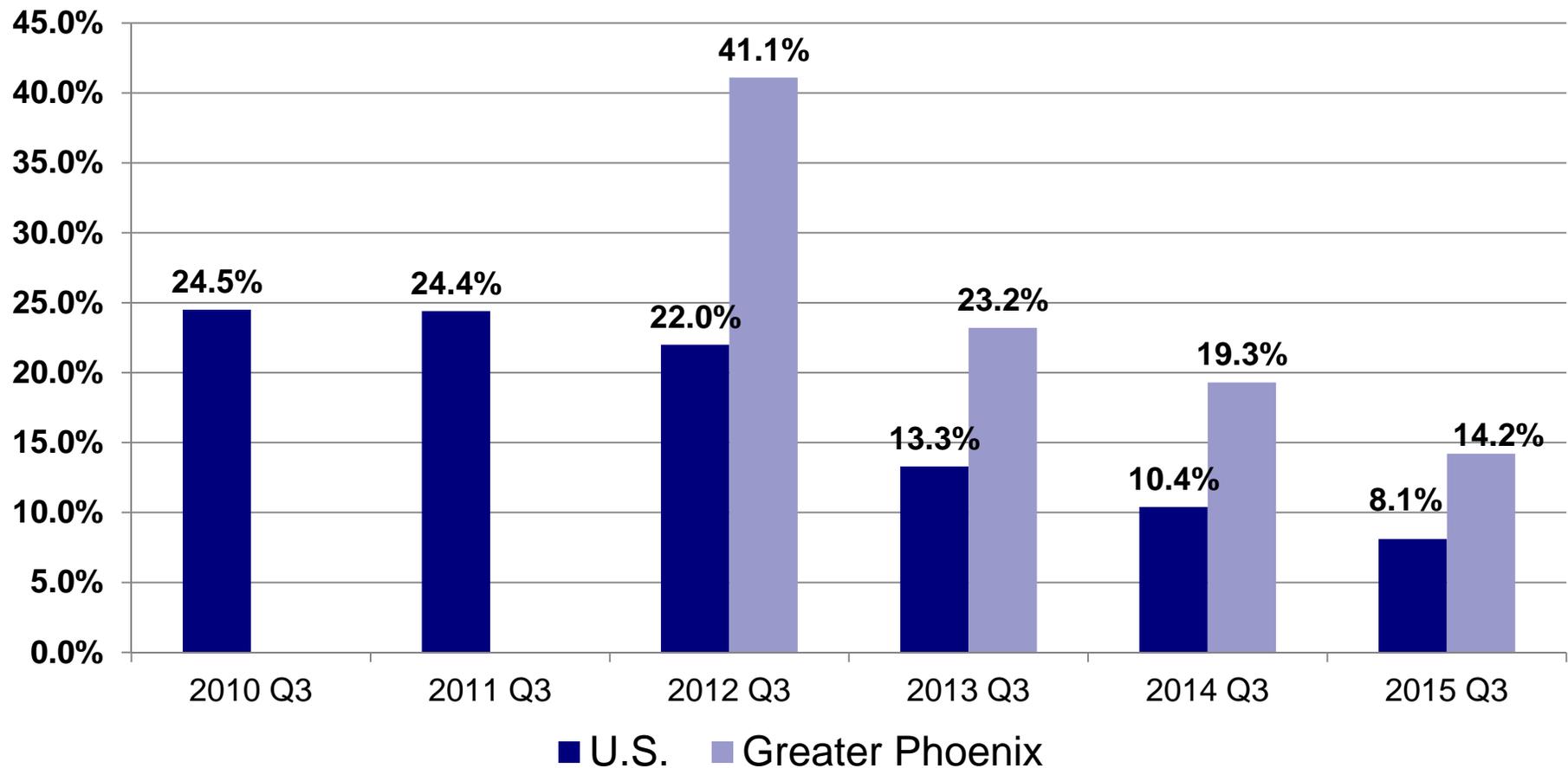
Parade of horrors:

- (1) Negative Equity**
- (2) FHA Loan Limit**
- (3) Foreclosures**
- (4) Short Sales**
- (5) Millennials**
- (6) Student Loans**
- (7) Tougher Loan Standards**



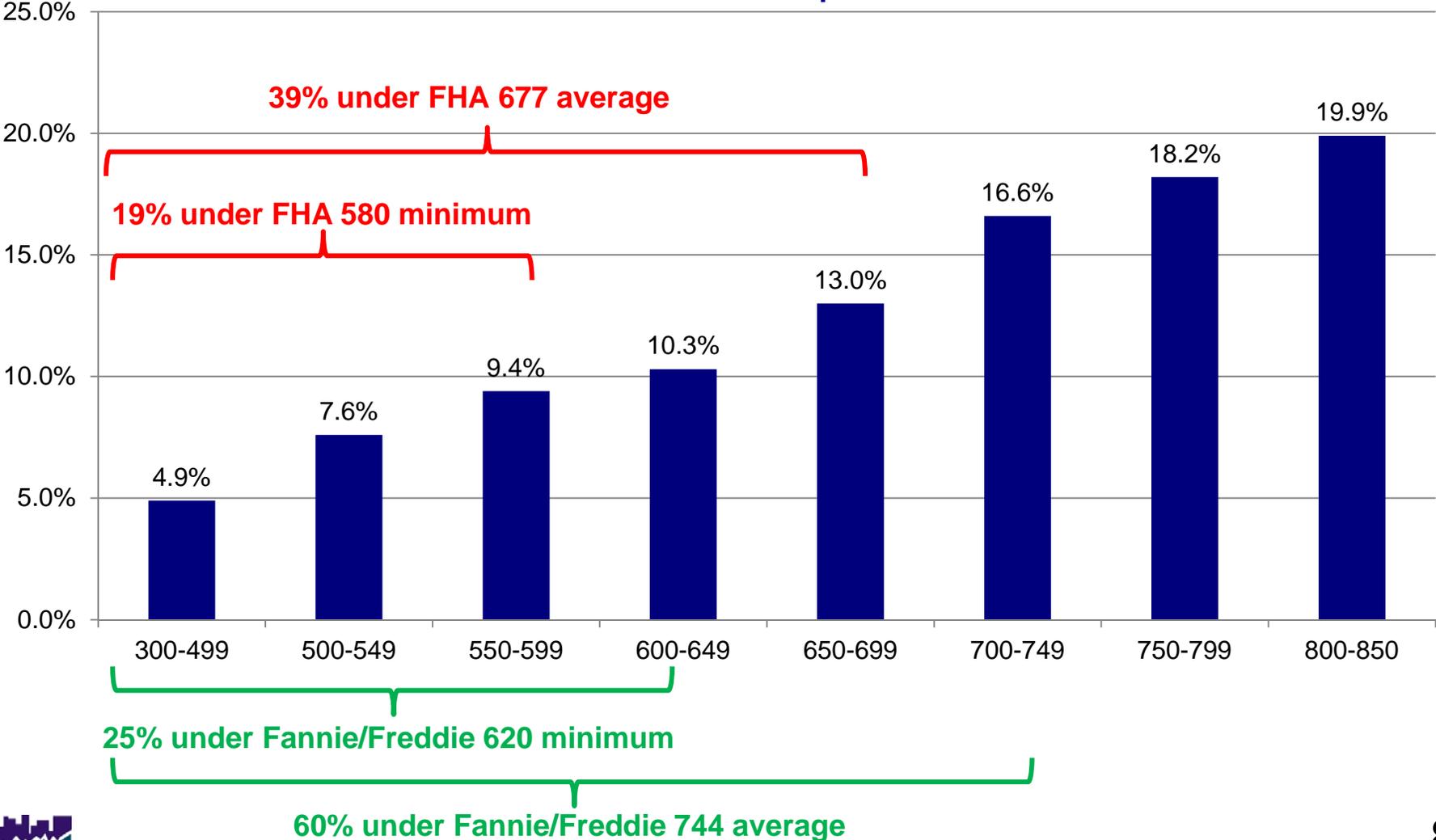
U.S. and Greater Phoenix Negative Equity Share 2010–2015

Source: CoreLogic



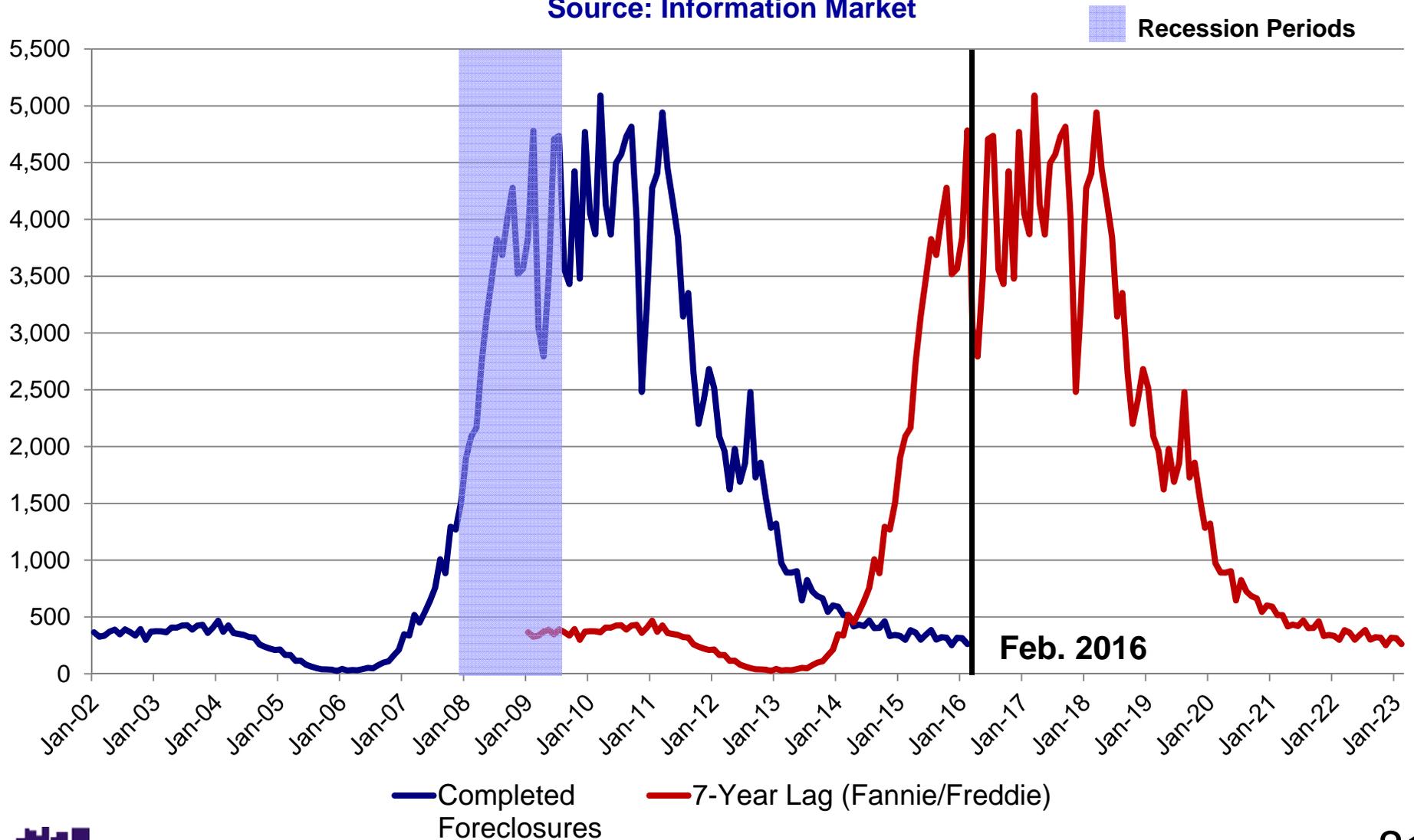
FICO Score Distribution Percent of Population April 2015

Source: Fair Isaac Corporation



Maricopa County Foreclosure Lag 2002–2023

Source: Information Market

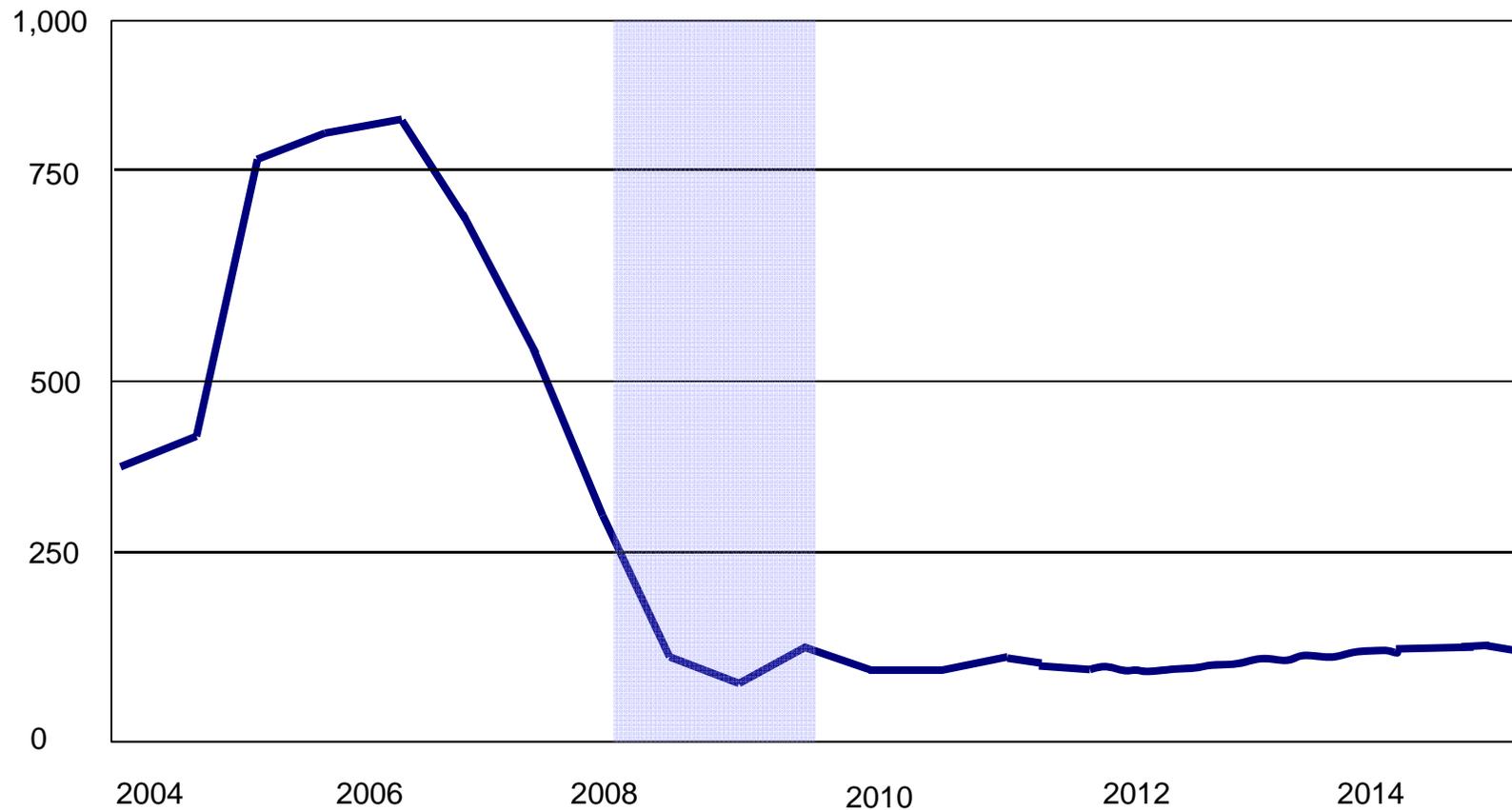


Mortgage Credit Availability Index 2004 – 2016*

March 2012 = 100

Source: Mortgage Bankers Association

 Recession Periods



*A decline in the MCAI indicates that lending standards are tightening, while increases in the index are indicative of loosening of credit.

*Data through January 2016





Good news for housing.

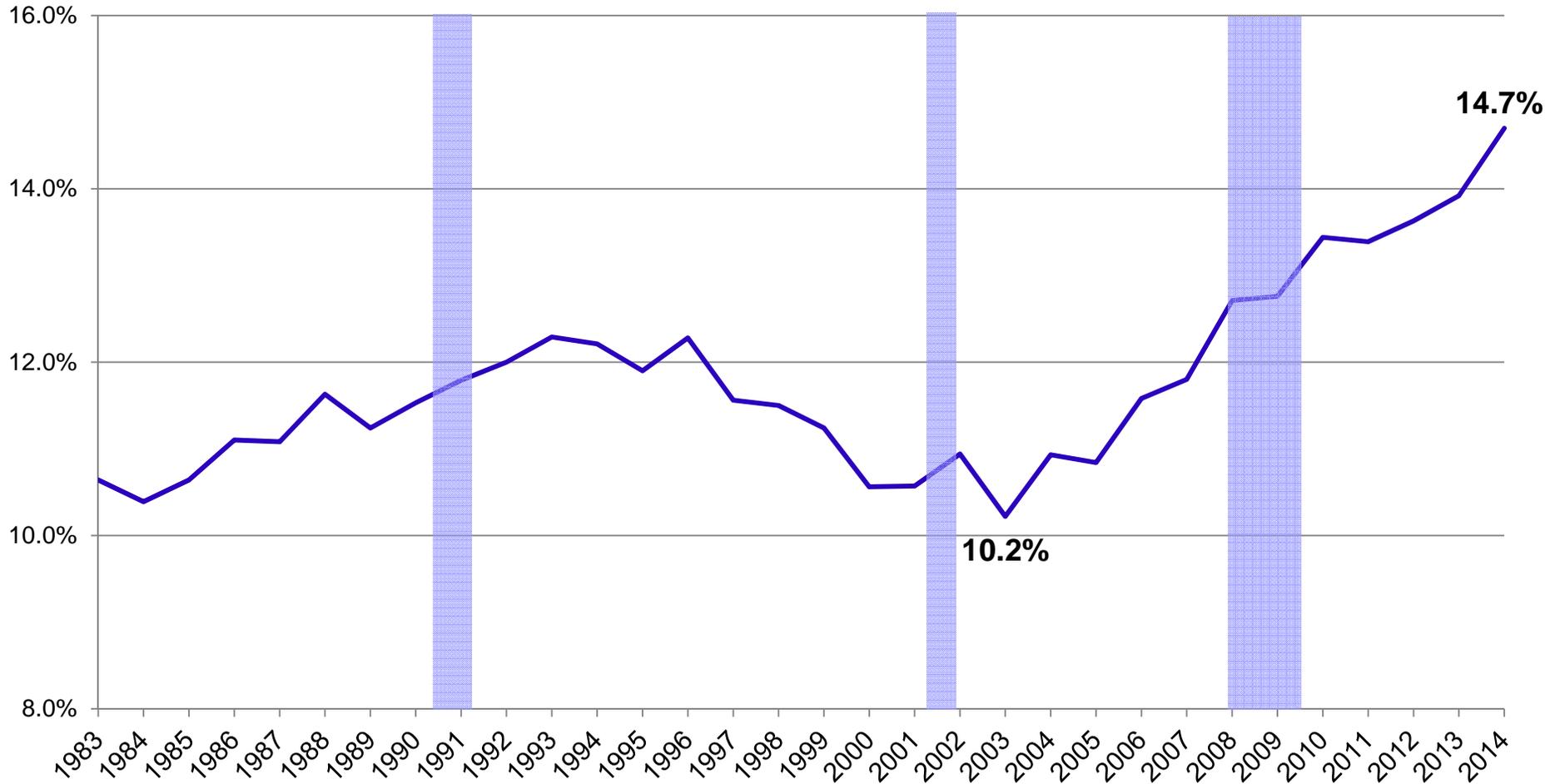
- (1) Economic growth is good in Greater Phoenix**
- (2) Mortgage rates are low & lending is loosening up a bit**
- (3) Affordability is still good**



Percent of 25-34 Year Olds Living With Parents U.S.: 1983 – 2014

Source: US Census Bureau

 Recession Periods



In 2014 25-34 year olds represent 13.5% of total population (43 million persons).
1.9 million more 25-34 year olds now living with parents.

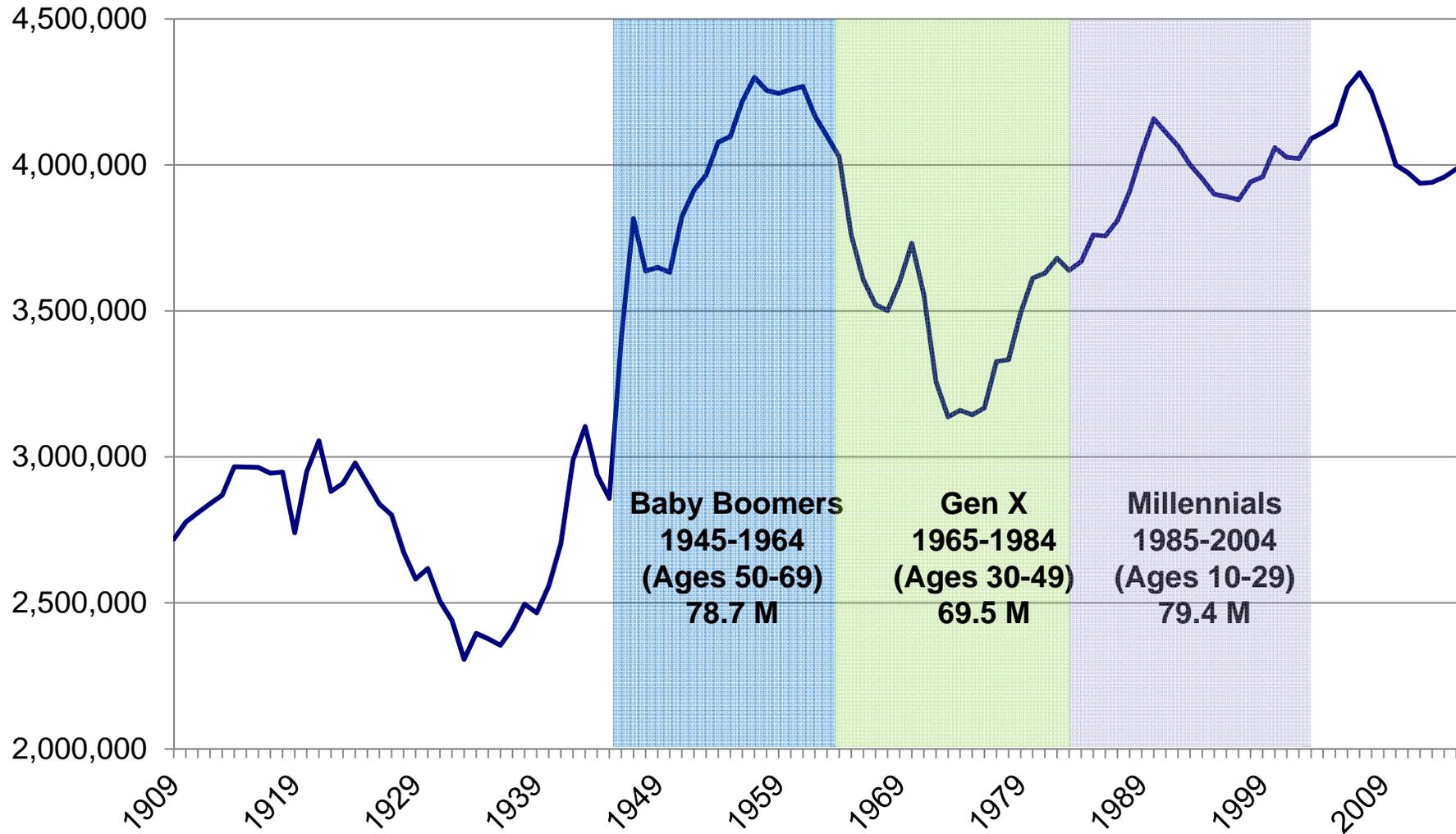


Millennials



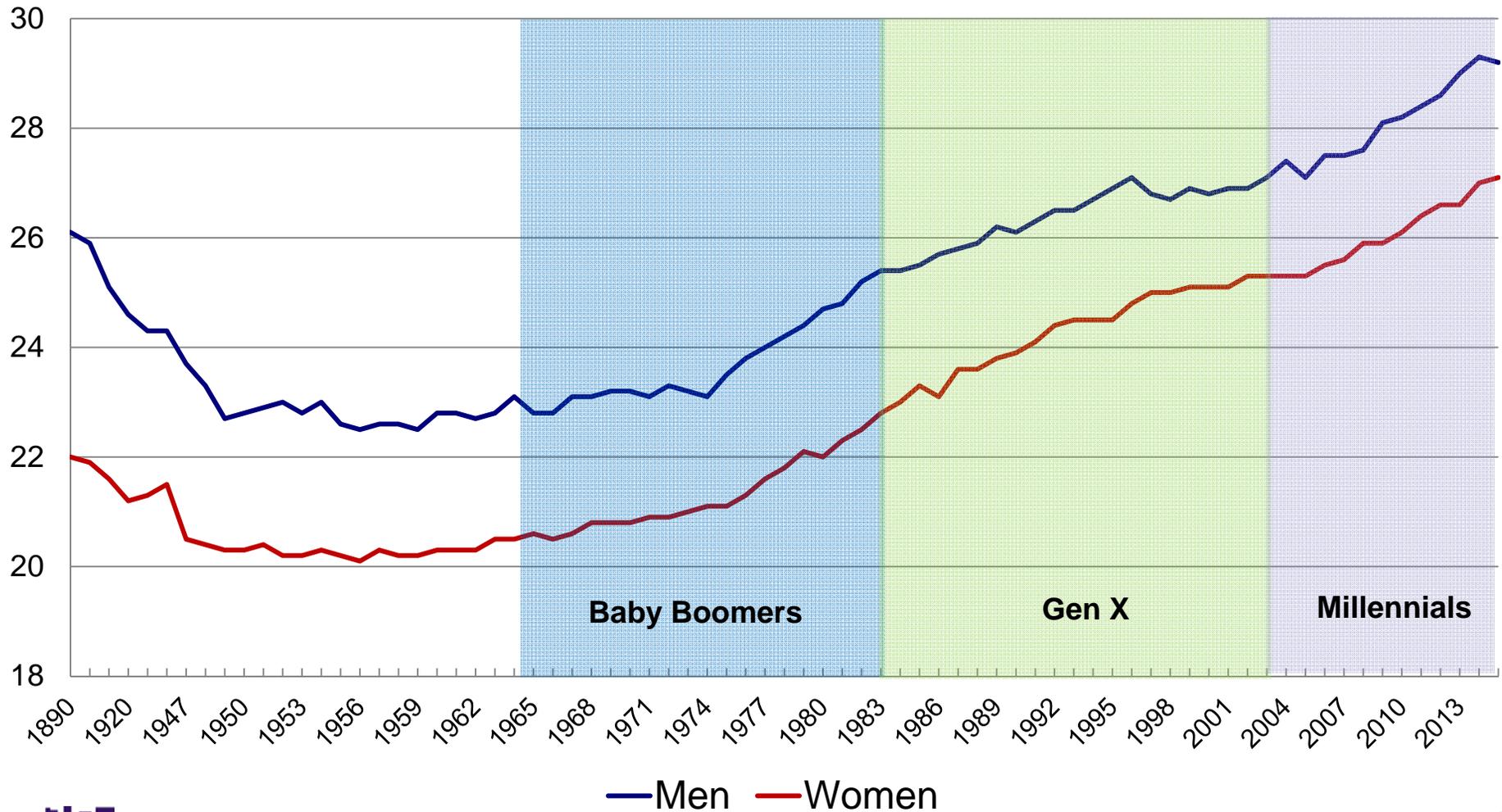
U.S. Birth Index 1909-2015

Source: U.S. Census Bureau; Harvard Joint Center for Housing Studies



U.S. Median Age at First Marriage 1890-2015

Source: U.S. Census Bureau





Percent of 18-33 Year Olds Married

Source: Pew Research

- **In 1960 - 64% were married (Silent Generation)**
- **In 1980 - 49% were married (Baby Boomers)**
- **In 1997 - 38% were married (Gen X)**
- **In 2014 - 28% were married (Millennials)**



**When you delay marriage you
delay children. That delays
housing. That delays demand for
housing “stuff”.**



Millennials/Living at Home

- There are approximately 1.5 million more 25-34 year olds living with their parents than 2002.



Total Student Loan Balances Billions of Dollars

Source: Federal Reserve Bank of New York Consumer Credit Panel / Equifax

| Year | TOTAL |
|---------|-----------|
| 2004 Q3 | \$330.0 |
| 2005 Q3 | \$377.7 |
| 2006 Q3 | \$446.7 |
| 2007 Q3 | \$528.5 |
| 2008 Q3 | \$610.9 |
| 2009 Q3 | \$694.5 |
| 2010 Q3 | \$778.2 |
| 2011 Q3 | \$870.2 |
| 2012 Q3 | \$956.0 |
| 2013 Q3 | \$1,027.0 |
| 2014 Q3 | \$1,126.0 |
| 2015 Q3 | \$1,203.0 |



Expenses that Delayed Saving for a Down Payment or Home Purchase - 2014

By Age

Source: National Association of Realtors 2014

| | All Buyers | 34 and younger | 34 to 49 | 50 to 59 | 60 to 68 | 69 to 89 |
|---------------------|------------|----------------|----------|----------|----------|----------|
| Student Loans | 46% | 54% | 23% | 11% | 7% | 1% |
| Credit Card Debt | 50% | 35% | 41% | 37% | 21% | 12% |
| Car Loan | 38% | 30% | 25% | 16% | 9% | 5% |
| Child Care Expenses | 17% | 10% | 19% | 5% | 4% | 2% |
| Health Care Costs | 12% | 7% | 11% | 14% | 13% | 15% |
| Other | 8% | 15% | 24% | 42% | 58% | 68% |





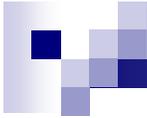
Student Loan Impact on Economy

If people are paying student loan debt, they are not buying houses, furniture, beers, etc. Unless incomes are higher because of their degree.



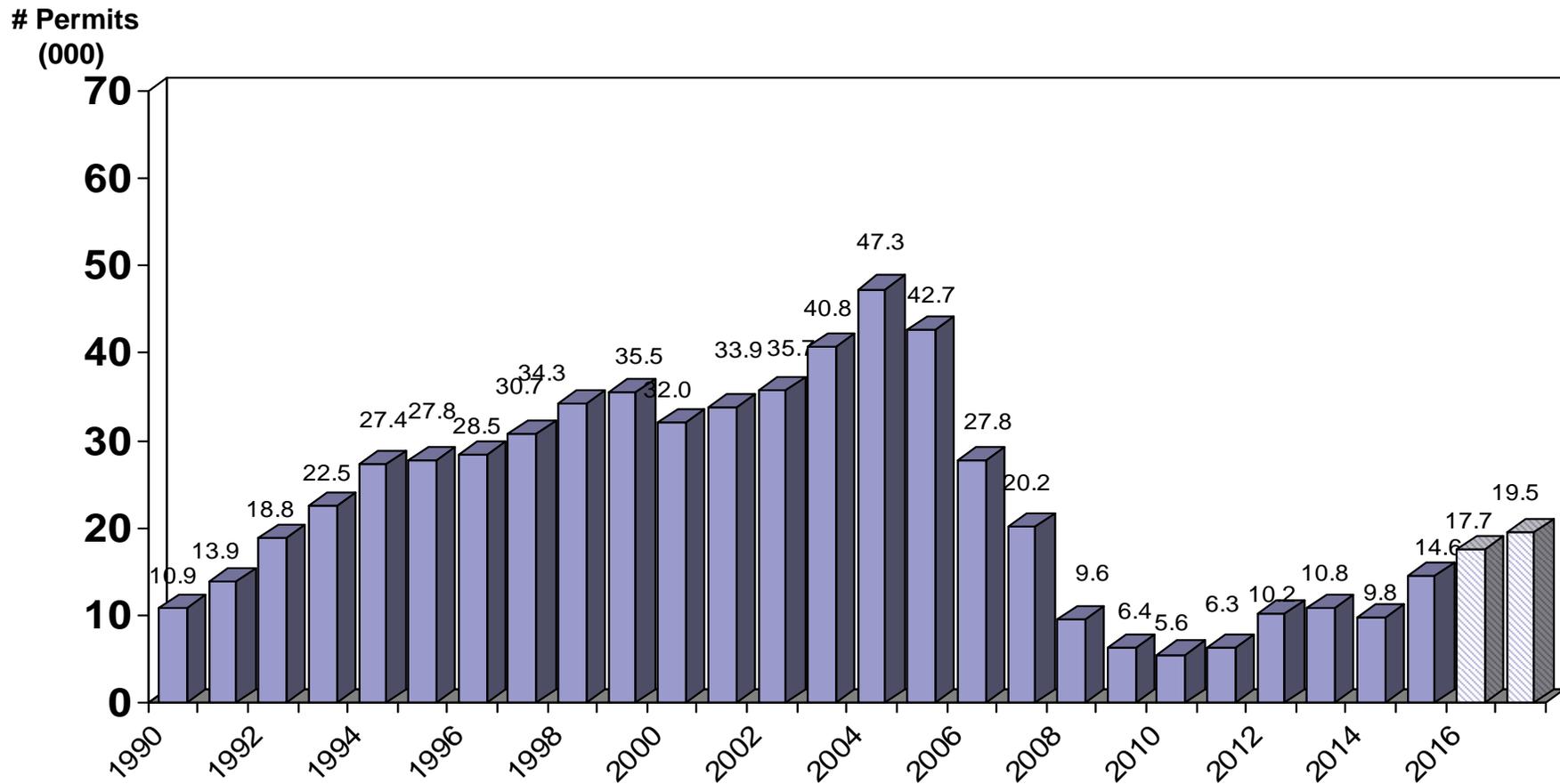
The housing recovery is likely to continue.





Single Family Permits Maricopa County 1990–2017*

Source: U.S. Census Bureau & Elliott D. Pollack & company



*2016 and 2017 forecast is from *Elliott D. Pollack & Company*.

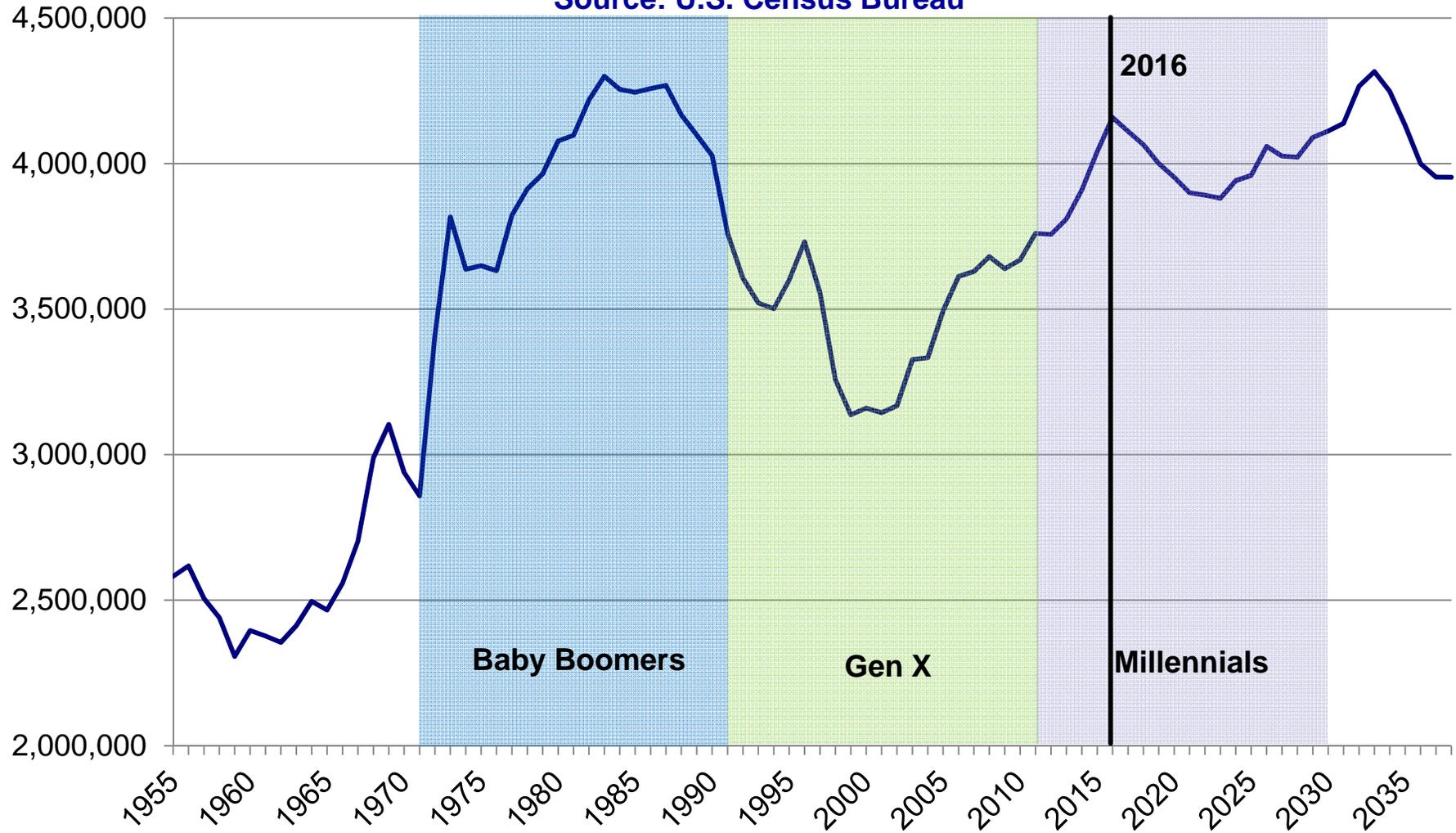


Multi-Family



Apartments Births → 26-27 year lag 1955-2038

Source: U.S. Census Bureau

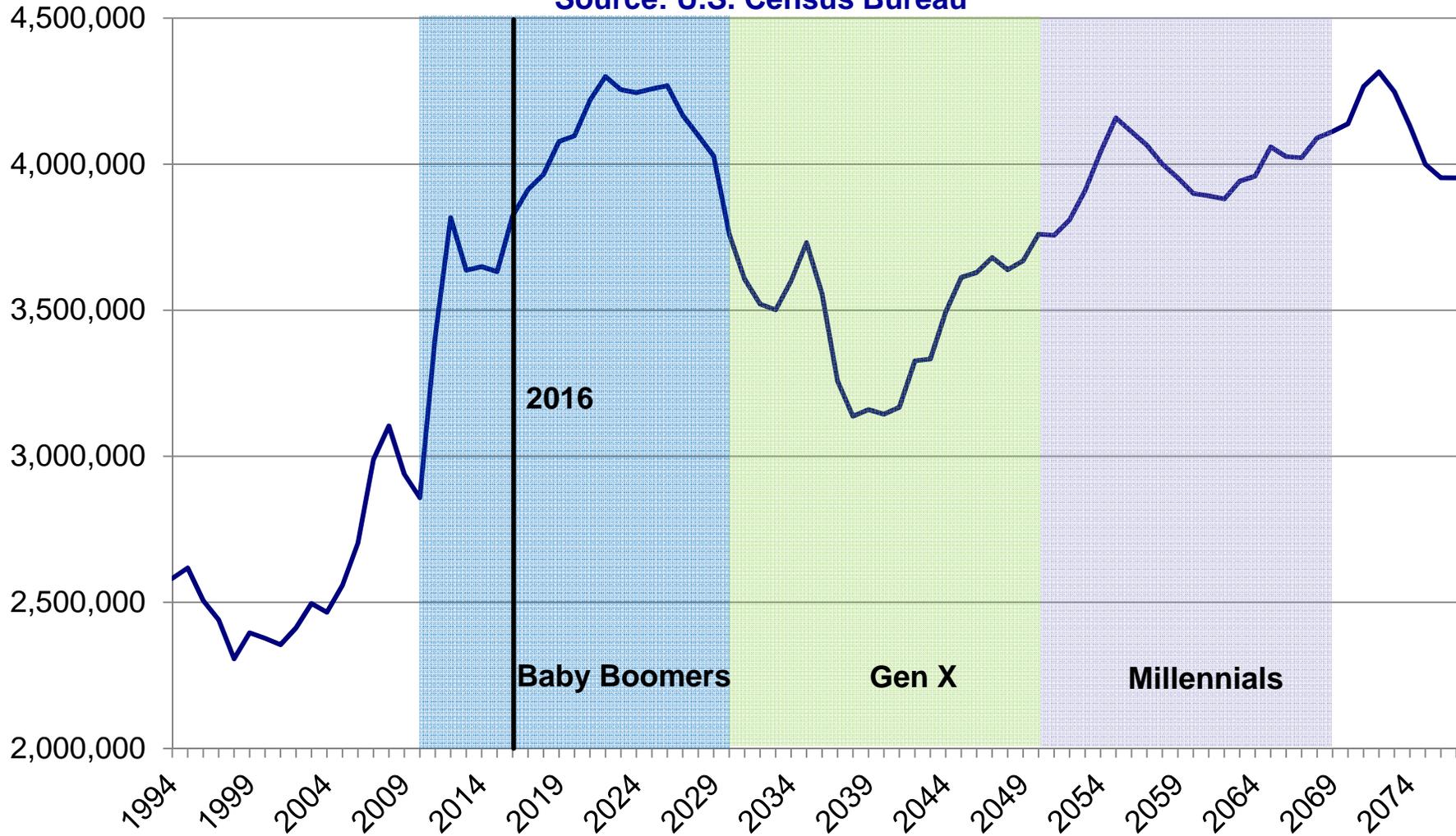


Retirement Home Cycle

Births → 65 year lag

1994-2076

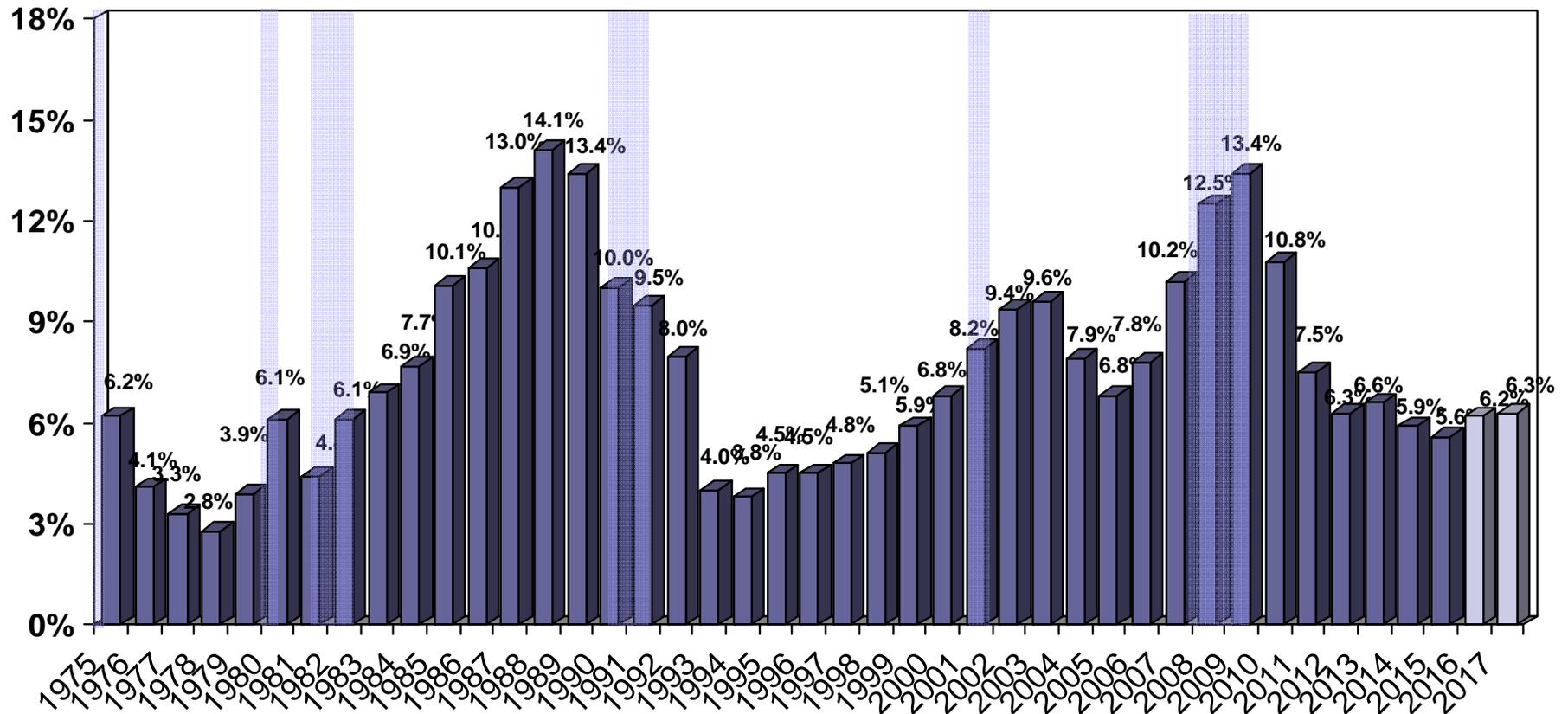
Source: U.S. Census Bureau



Multi-Family Year-End Vacancy Rates Greater Phoenix County 1975–2017*

Source: ASU Realty Studies / Berkadia**

Recession Periods



*2016 & 2017 are forecasts from *Elliott D. Pollack & Co.*

**Data prior to 2005 is from ASU





Multi-Family Housing Market

Source: PMHS and Berkadia

| | <u>Absorption</u> | <u>Completions</u> |
|-------|-------------------|--------------------|
| 2007 | (3,121) | 3,800 |
| 2008 | (4,466) | 5,900 |
| 2009 | 9,100 | 6,231 |
| 2010 | 11,619 | 200 |
| 2011 | 7,729 | 303 |
| 2012 | 2,950 | 910 |
| 2013 | 3,660 | 2,390 |
| 2014 | 6,750 | 4,970 |
| 2015* | 5,690 | 4,950 |



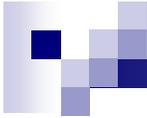


Multi-Family Pipeline

Source: CB Richard Ellis

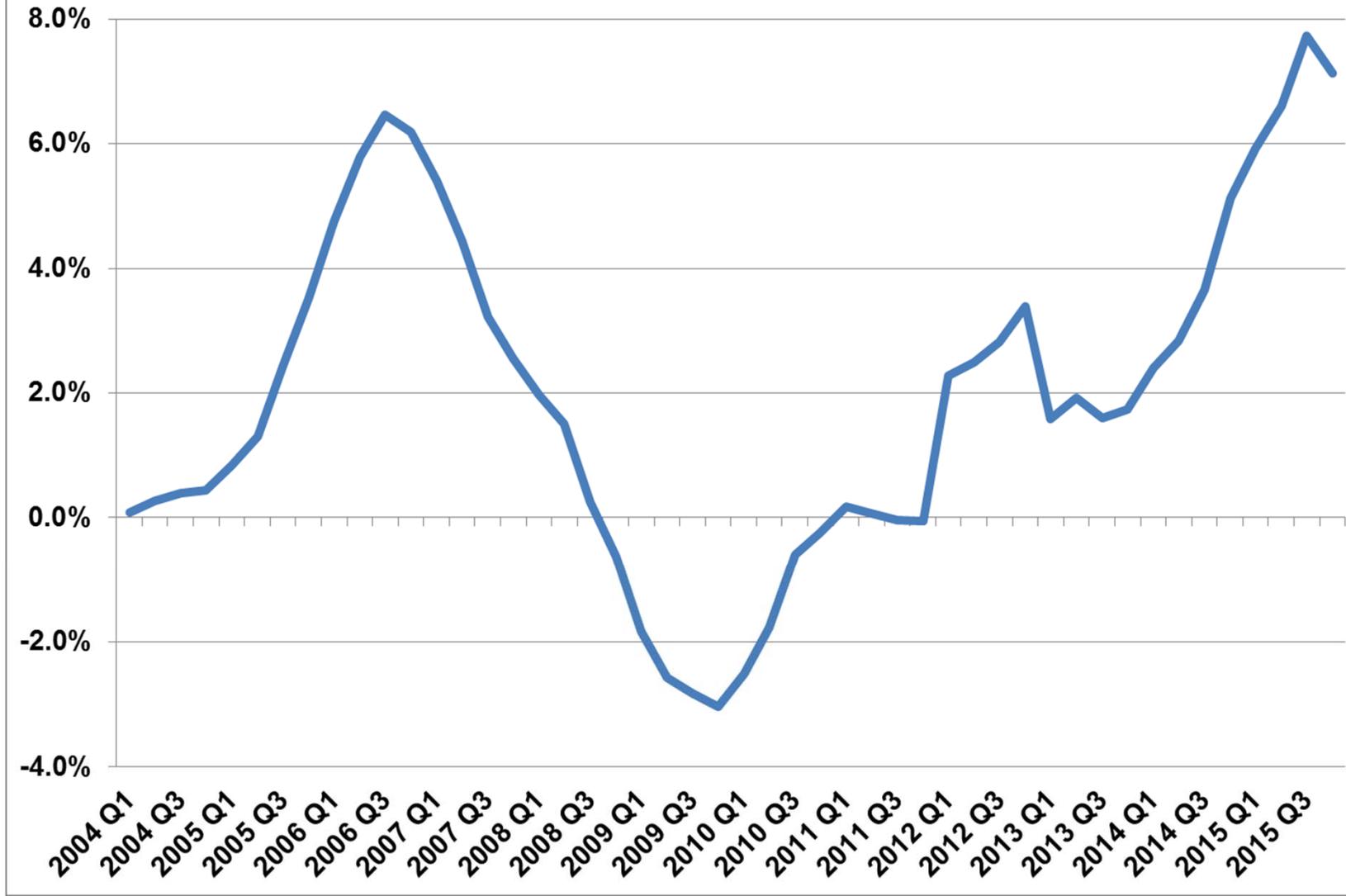
| Year | Potential New Supply |
|------|----------------------|
| 2015 | 6,621 |
| 2016 | 5,503 |
| 2017 | 10,159 |





Multi-Family Average Rent Percent Change Year Ago

Source: RealData Inc.





Multi-Family Outlook

Higher population growth and continued weak homeownership suggests the outlook for apartments is excellent.



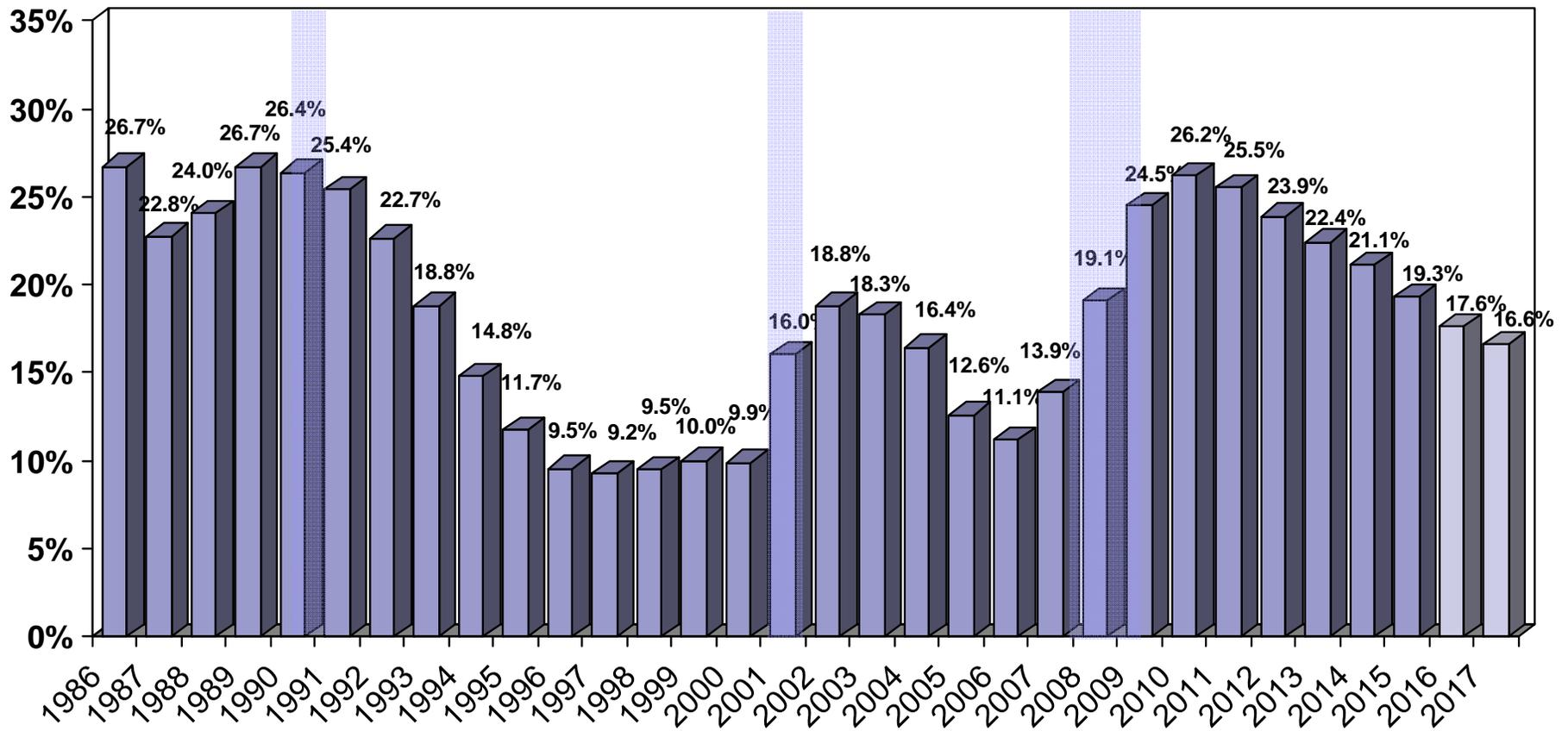
OFFICE



Office Space Year-End Vacancy Rates Greater Phoenix 1986–2017*

Source: CBRE

Recession Periods



*2016 & 2017 are forecasts from Greater Phoenix Blue Chip.



Greater Phoenix Office Market*

Source: CBRE

| Year | Absorption (sf) | Chg in Inventory (sf) |
|------|-----------------|-----------------------|
| 2005 | 3,119,293 | 7,987 |
| 2006 | 3,245,888 | **2,320,302 |
| 2007 | 1,500,704 | 4,905,374 |
| 2008 | (603,112) | 3,402,646 |
| 2009 | (667,329) | 1,798,415 |
| 2010 | 233,670 | 2,011,404 |
| 2011 | 1,857,433 | 3,144,910 |
| 2012 | 2,020,529 | 973,282 |
| 2013 | 1,721,366 | (35,566) |
| 2014 | 1,969,716 | 1,107,906 |
| 2015 | 3,779,039 | 3,763,828 |

*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.





**As of the third quarter 2015,
there is 550,462 square feet
of speculative office space
under construction.**

Source: CBRE





**Under any reasonable
employment growth scenario,
we believe it will be at least
2017-2018 before any significant
office construction occurs
(although some sub-markets like
Tempe
will be sooner).**

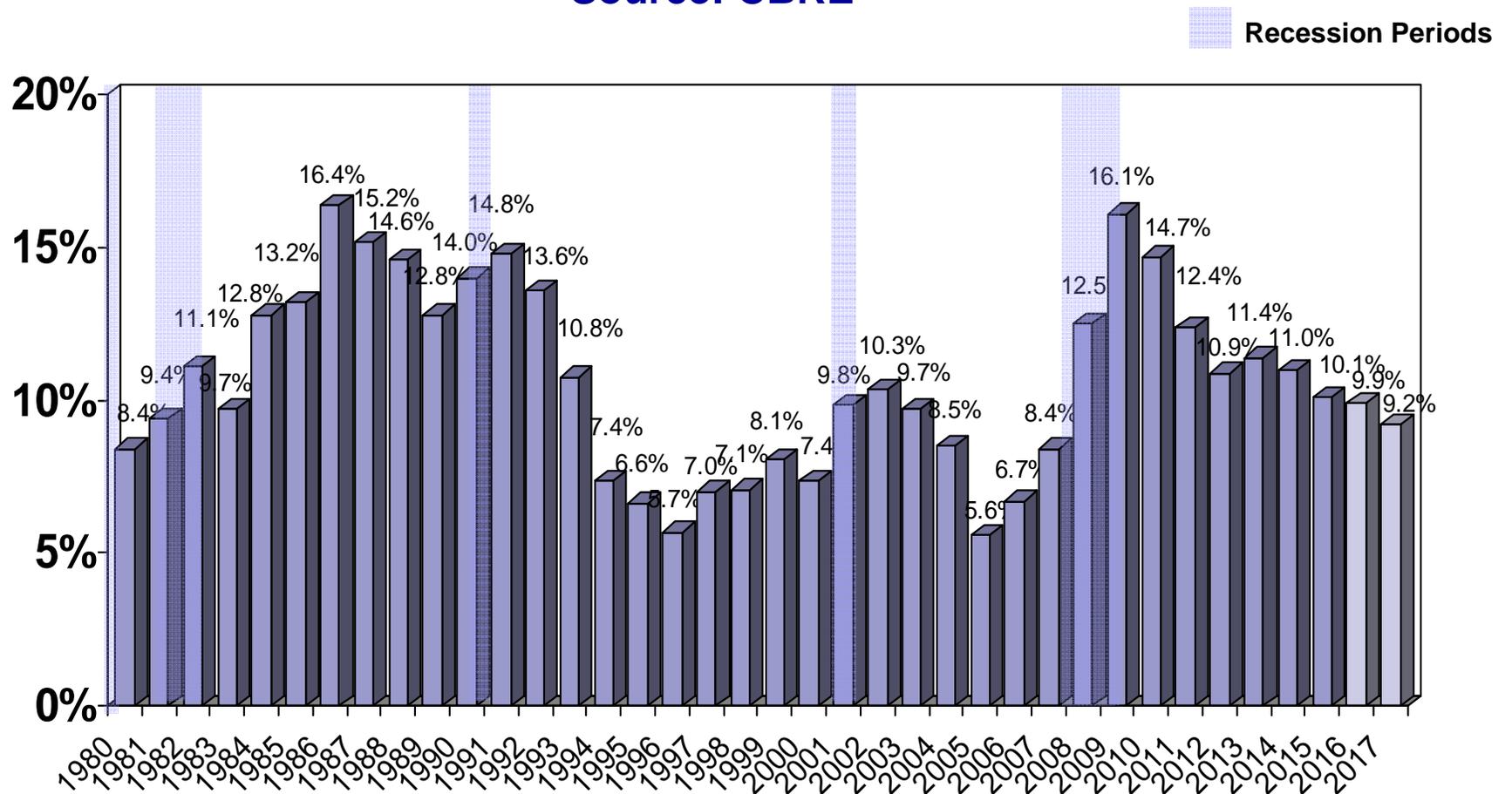


INDUSTRIAL



Industrial Space Vacancy Rates Greater Phoenix 1980 – 2017*

Source: CBRE





Greater Phoenix Industrial Market

Source: CBRE

| Year | Absorption (sf) | Chg in Inventory (sf) |
|------|-----------------|-----------------------|
| 2005 | 13,349,129 | 7,072,477 |
| 2006 | 6,032,175 | 7,829,959 |
| 2007 | 8,359,835 | 13,914,181 |
| 2008 | 629,838 | 13,467,215 |
| 2009 | (4,649,352) | 4,753,218 |
| 2010 | 4,455,097 | 2,451,202 |
| 2011 | 7,753,111 | 2,842,185 |
| 2012 | 7,405,168 | 3,358,724 |
| 2013 | 8,783,982 | 8,902,571 |
| 2014 | 6,214,680 | 6,791,313 |
| 2015 | 7,046,663 | 3,966,434 |



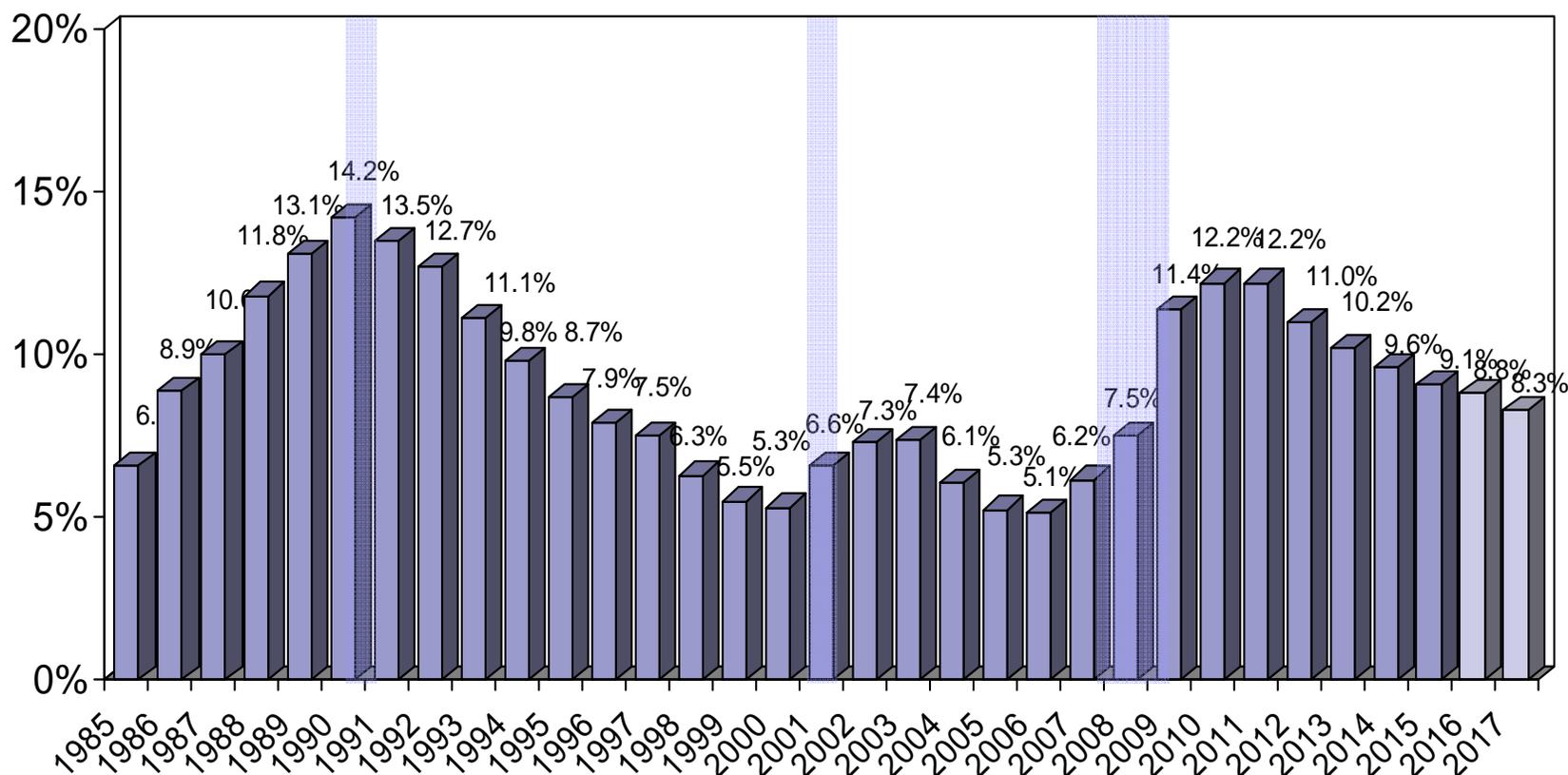
RETAIL



Retail Space Vacancy Rates Greater Phoenix 1985–2017*

Source: CBRE**

 Recession Periods



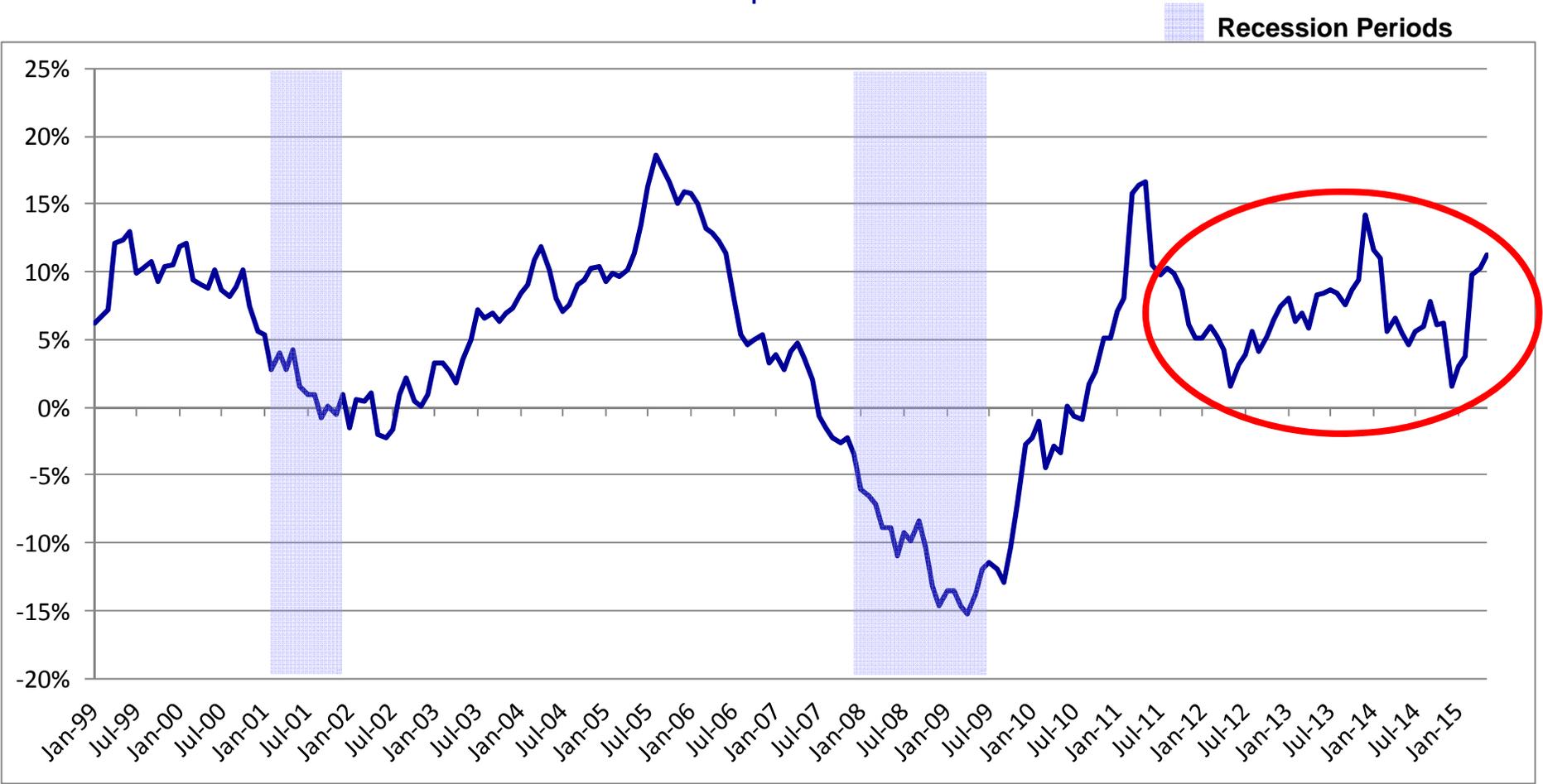
*2016 & 2017 are forecasts from the Greater Phoenix Blue Chip

** Data prior to 1992 is from Grubb & Ellis



Maricopa County Retail Sales Percent Change Year Ago* 1999 – 2015**

Source: Arizona Department of Revenue



**3-month moving average

Note: January 2010 and March 2010 retail sales are estimates.





Greater Phoenix Retail Market

Source: CBRE

| Year | Absorption (sf) | Chg in Inventory (sf) |
|------|-----------------|-----------------------|
| 2005 | 6,708,155 | 6,248,789 |
| 2006 | 5,244,597 | 4,582,618 |
| 2007 | 9,424,362 | 11,104,865 |
| 2008 | 3,395,986 | 6,229,205 |
| 2009 | (1,117,100) | 4,405,985 |
| 2010 | (75,352) | 902,380 |
| 2011 | (152,647) | 24,543 |
| 2012 | 1,879,005 | 184,932 |
| 2013 | 1,579,202 | (325,959) |
| 2014 | 1,487,313 | (49,225) |
| 2015 | 1,150,192 | 134,320 |





**As of the third quarter 2015,
there is 69,773 square feet
of speculative retail space
under construction.**

Source: CBRE



Maricopa County Recession Risk?





We are currently working with staff to bring the forecast in line with the new potential reality.





Reality

Again, you can't tell well in advance when a recession will occur.





Recession Scenario

The following represents an example of what might happen should a recession occur.



Maricopa County Forecasts

| Most Likely (Trend) | | | | | | |
|---------------------|---------|----------|-------|-------|------|------|
| | Actuals | Forecast | | | | |
| | FY15 | FY16 | FY17 | FY18 | FY19 | FY20 |
| Population | 1.7% | 1.8% | 1.9% | 2.0% | 2.0% | 2.1% |
| Employment | 2.6% | 2.9% | 3.0% | 2.8% | 2.5% | 3.0% |
| Retail Sales | 7.3% | 7.5% | 5.0% | 4.8% | 4.0% | 4.5% |
| Total Permits | 7.8% | 21.0% | 18.0% | 10.0% | 6.0% | 1.0% |



Maricopa County Forecasts

| Recession Scenario | | | | | | |
|--------------------|---------|----------|--------|--------|---------|--------|
| | Actuals | Forecast | | | | |
| | FY15 | FY16 | FY17 | FY18 | FY19 | FY20 |
| Population | 1.7% | 1.4% | 1.0% | 1.1% | 1.5% | 2.0% |
| Employment | 2.6% | 0.8% | (0.4%) | 1.0% | 2.4% | 3.0% |
| Retail Sales | 7.3% | 4.2% | 1.0% | 0.0% | 3.5% | 4.0% |
| Total Permits | 7.8% | 21.0% | 5.0% | (5.0%) | (10.0%) | (5.0%) |

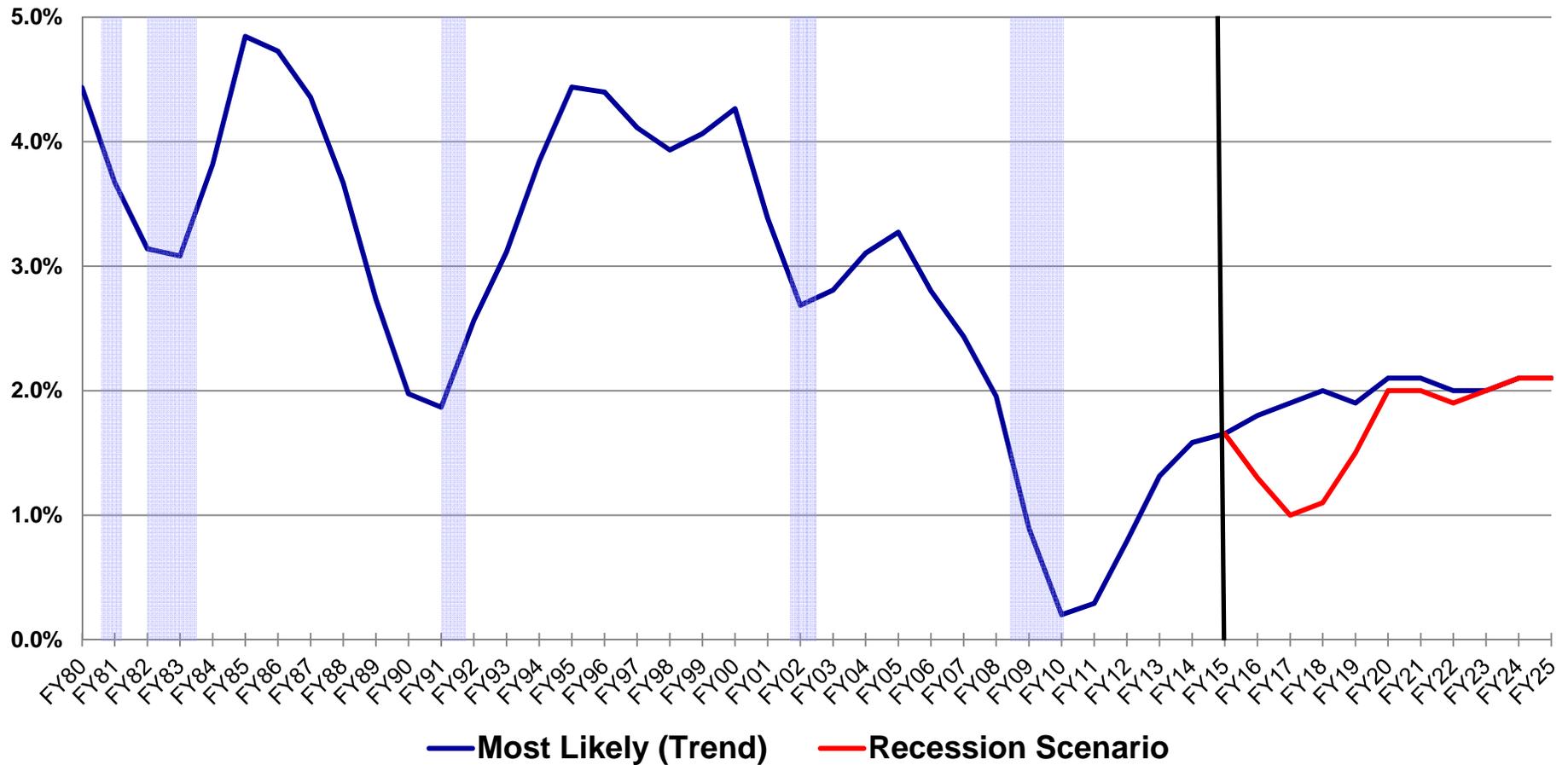


Maricopa County Annual Population Growth

FY 1980 – 2025*

Source: Arizona Department of Administration, EDPCo

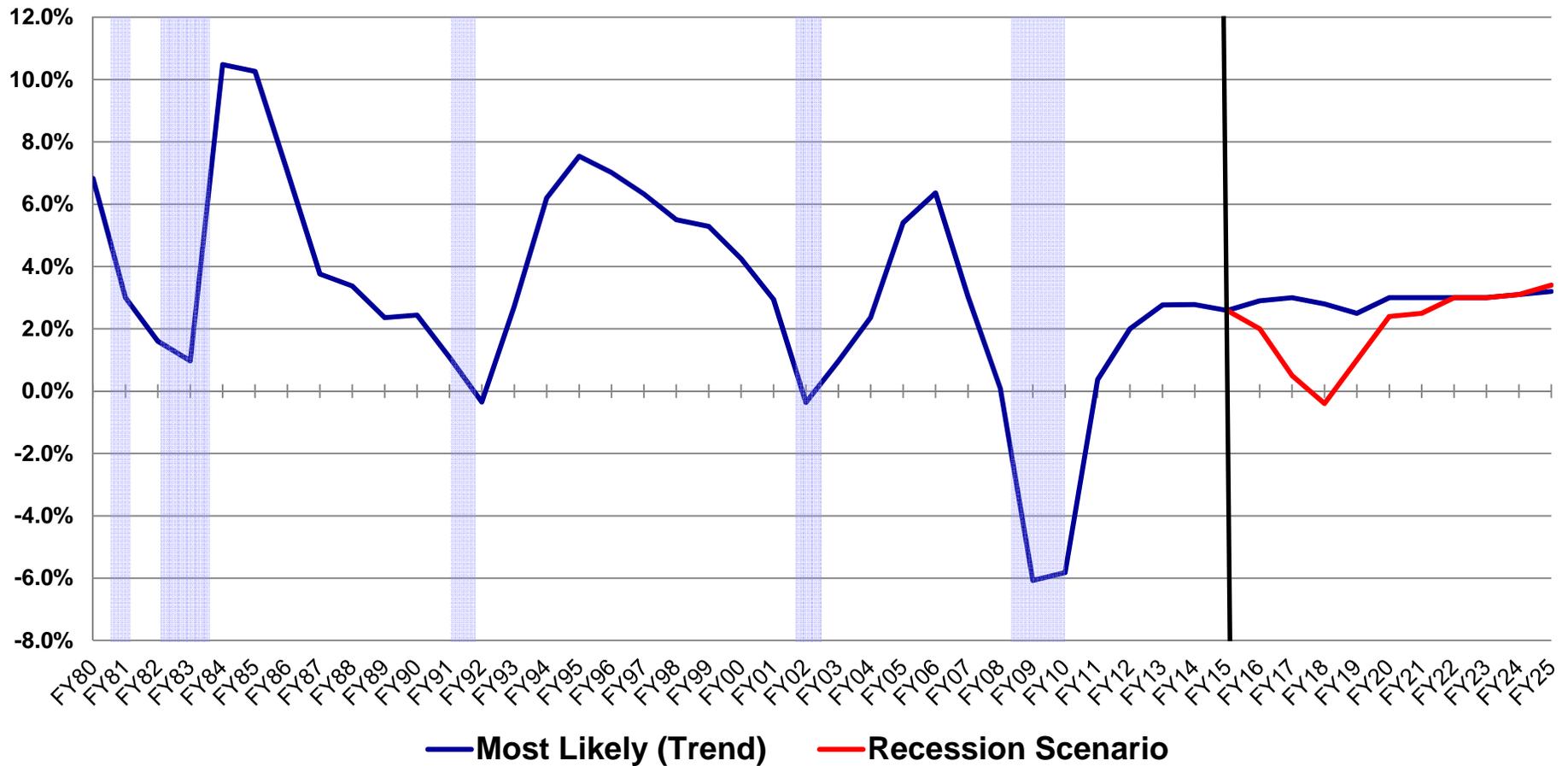
 Recession Periods



Maricopa County Annual Employment Growth FY 1980 – 2025*

Source: Arizona Department of Administration, EDPCo.

 Recession Periods

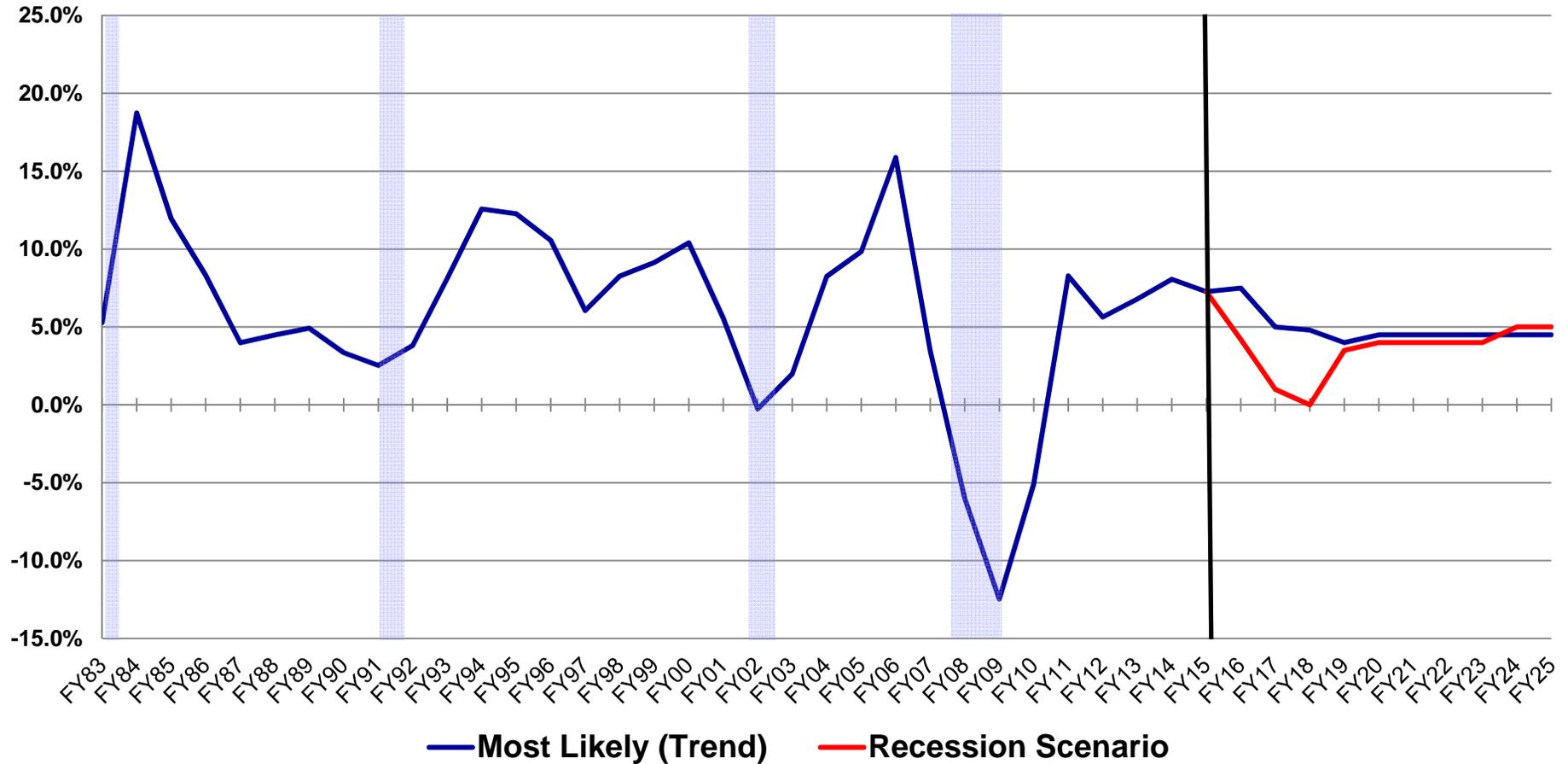


Maricopa County Annual Retail Growth

FY 1983 – 2025*

Source: Arizona Department of Revenue, EDPCo.

 Recession Periods



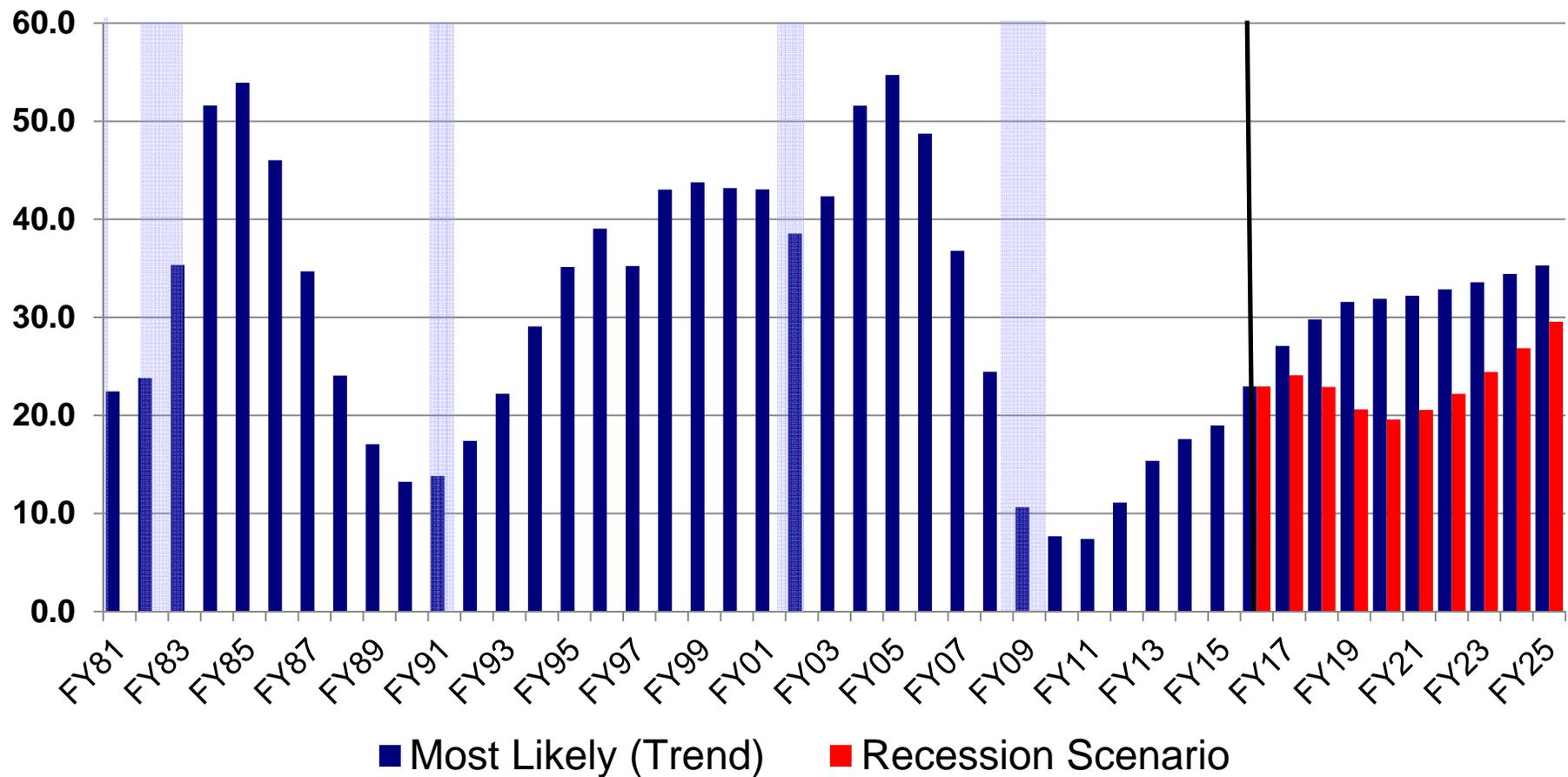
Maricopa County Total Building Permits

FY 1981 – 2025*

Source: U.S. Census Bureau, EDPCo.

 Recession Periods

(Thousands)



*2016-2025 Forecast from EDPCo.



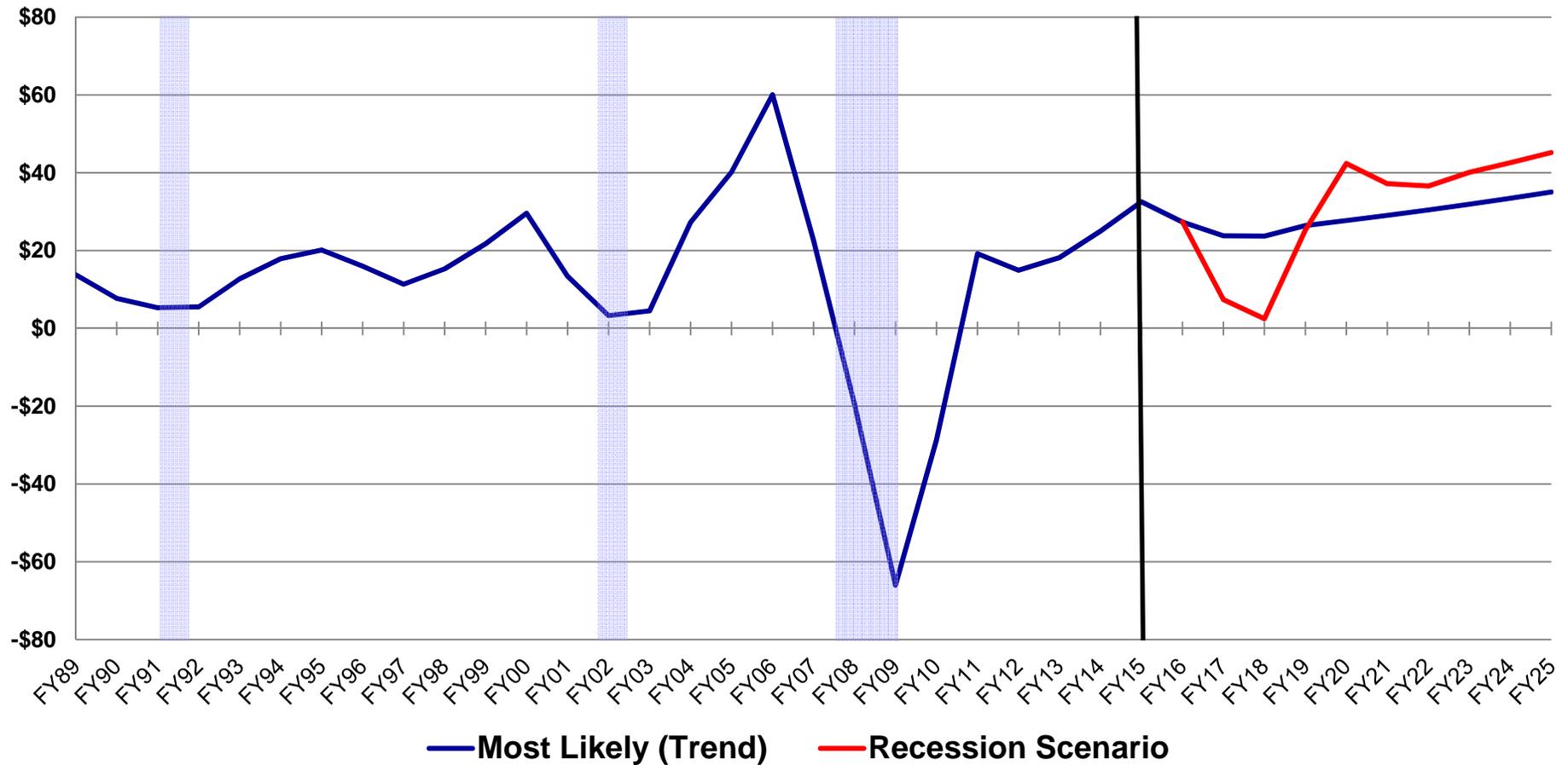
Maricopa County Net Change in Sales Tax Collections

FY 1989 – 2025*

Source: Arizona Department of Revenue, EDPCo.

Recession Periods

(Millions)



*2016-2025 Forecast from EDPCo.



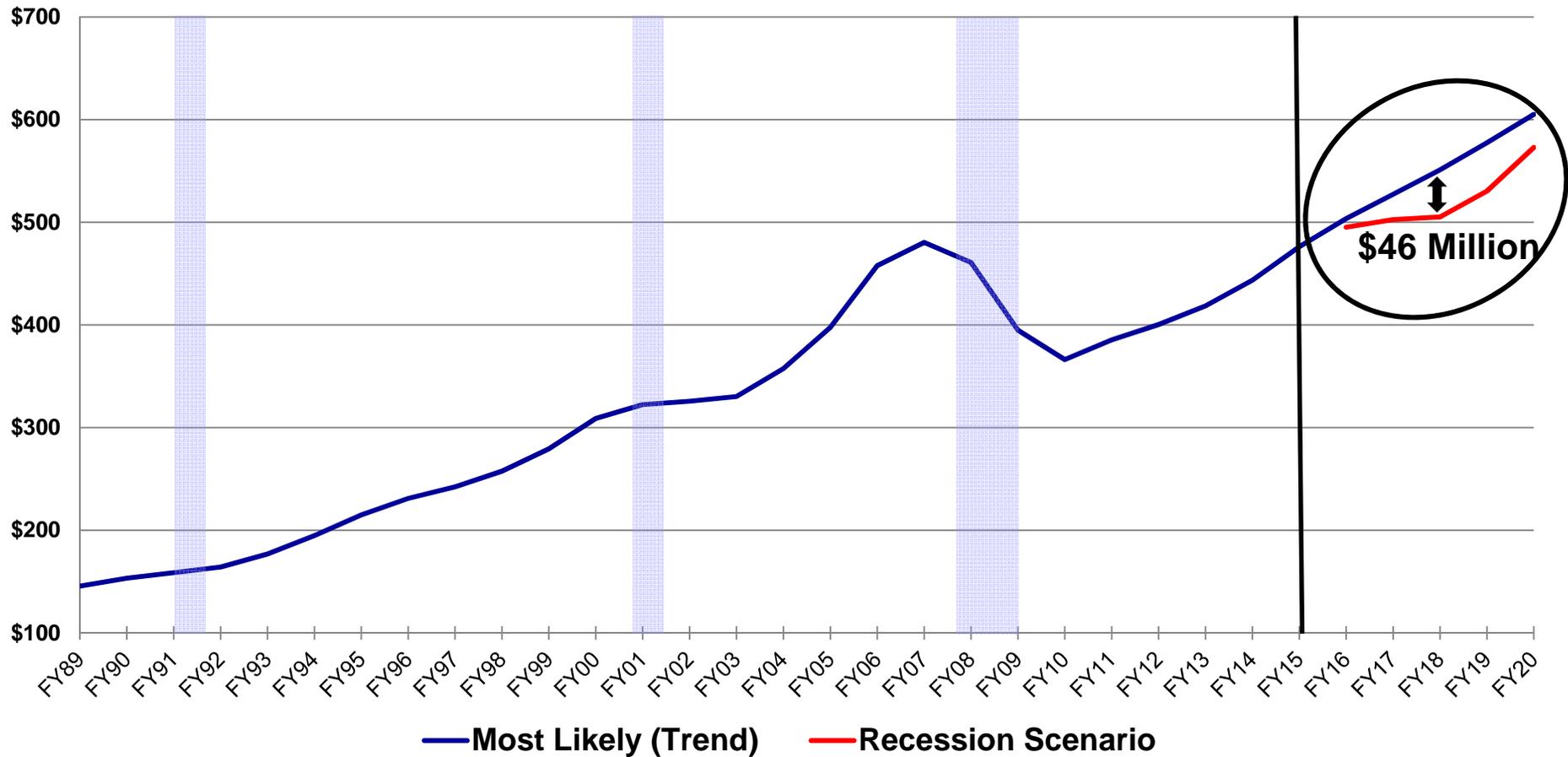
Maricopa County Annual Sales Tax Collections

FY 1989 – 2020*

Source: Arizona Department of Revenue, EDPCo.

Recession Periods

(Millions)



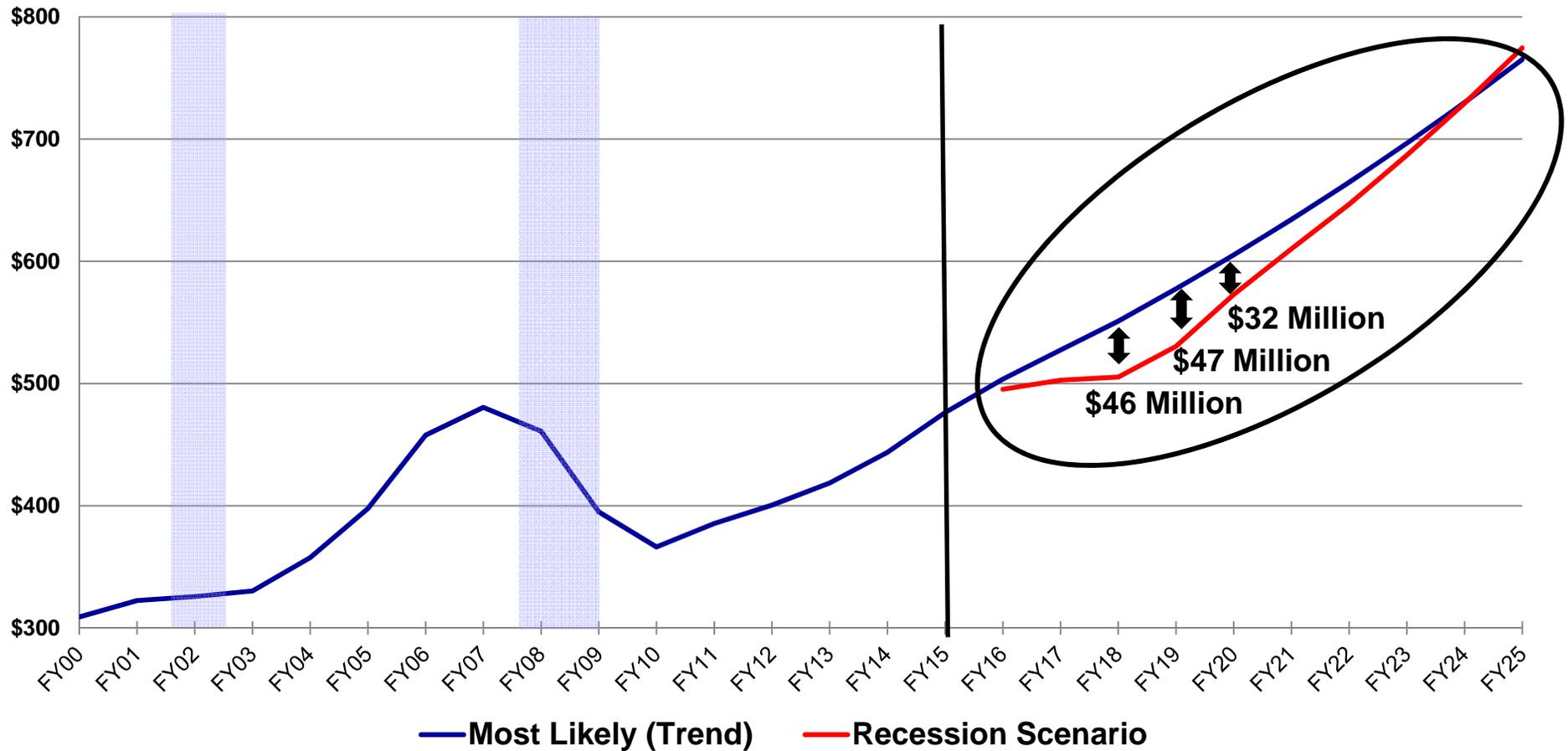
Maricopa County Annual Sales Tax Collections

FY 2000 – 2025*

Source: Arizona Department of Revenue, EDPCo.

Recession Periods

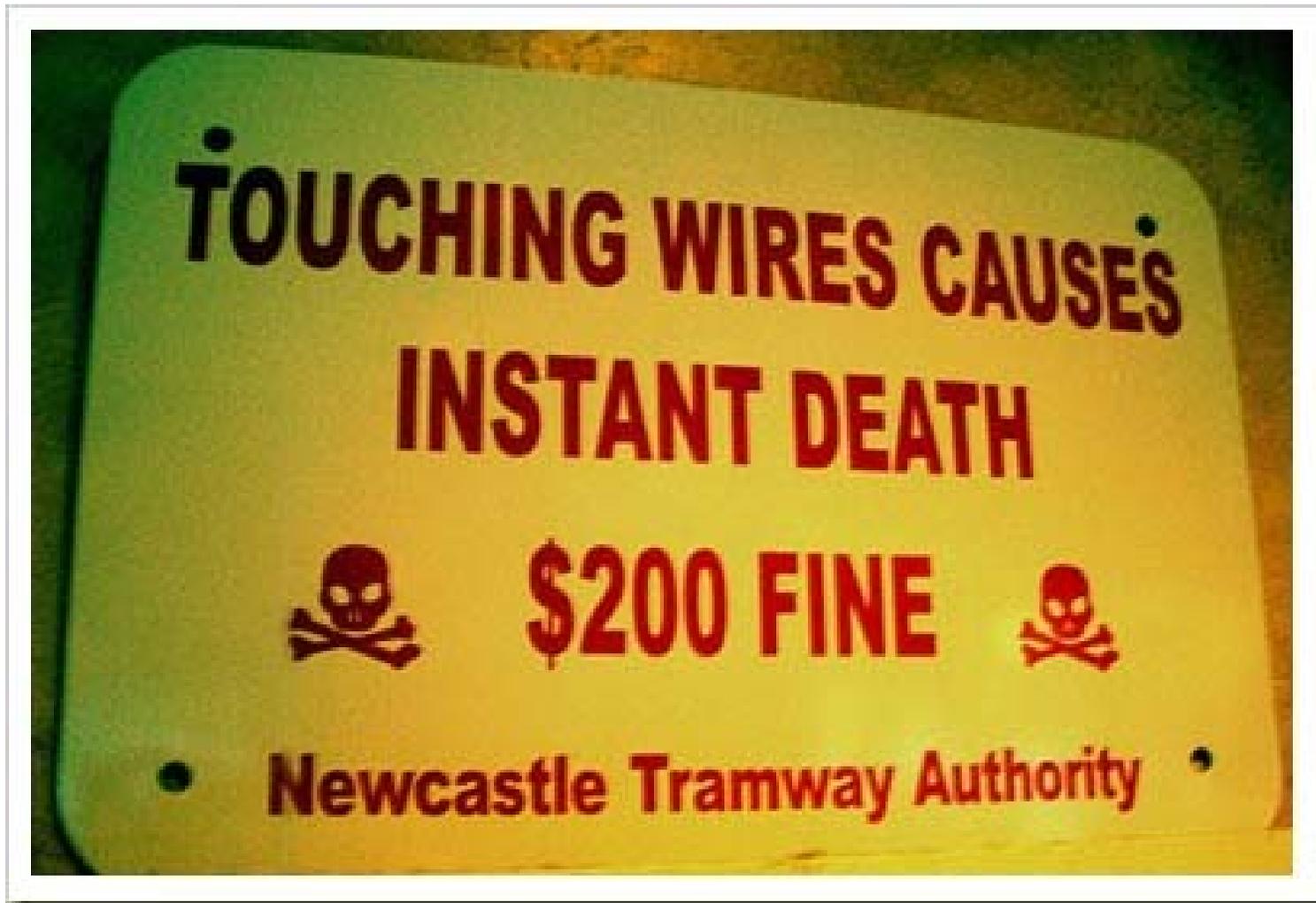
(Millions)

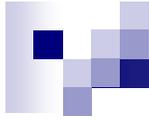


*2016-2025 Forecast from EDPCo.



CONCLUSIONS: How will it all turn out?





**Again,
the world has changed
for Arizona and
Maricopa County**





Maricopa County:

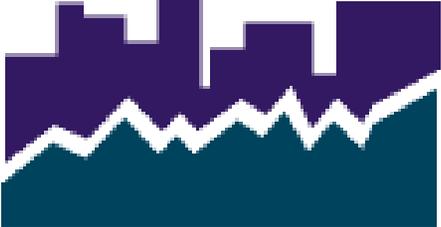
- **Economy should continue to grow.**
- **Real estate outlook improving.**
- **Waiting for population flows to improve.**





**2016 should be another
year of sub-par growth,
but no recession this year.**





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