Center for
Business and
Economic
Forecasting, Inc.

COLORADO ECONOMIC OUTLOOK

26th Annual Demography Meeting

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With world-wide financial meltdown and unprecedented actions by several governments we are in uncharted territory.

There is more than the usual uncertainty about this forecast.

Highlights of forecast

- Colorado's economy, although weakening, is in better shape than much of rest of US.
- Further declines in Colorado economy are likely, how severe depends on the national economy
- The state has begun to feel the effects of financial meltdown
- After current recession is over, we will see a slow recovery due to households and business cautious about expenditures as they reduce their debt.

As US economy weakened state growth continued.

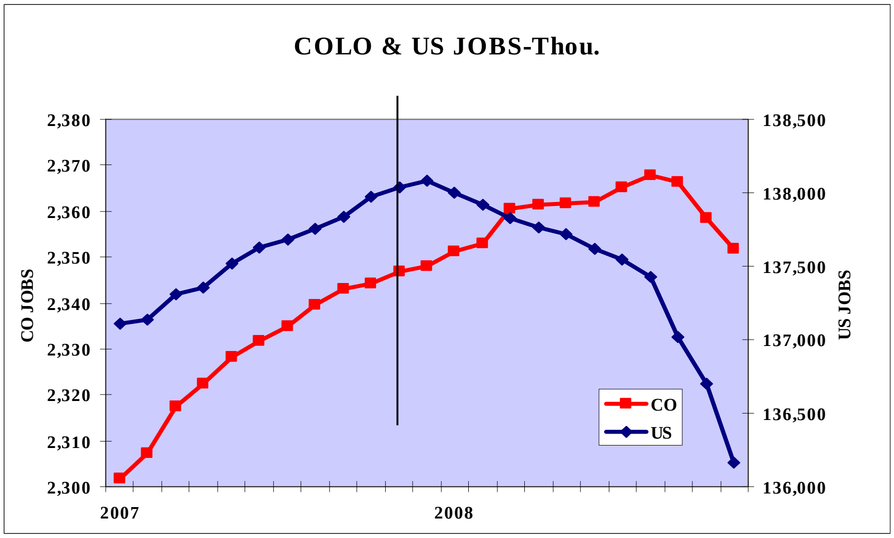


Chart-US and Colorado seasonally adjusted non-agricultural wage and salary employment through November 2008.

Source: Bureau of Labor Statistics

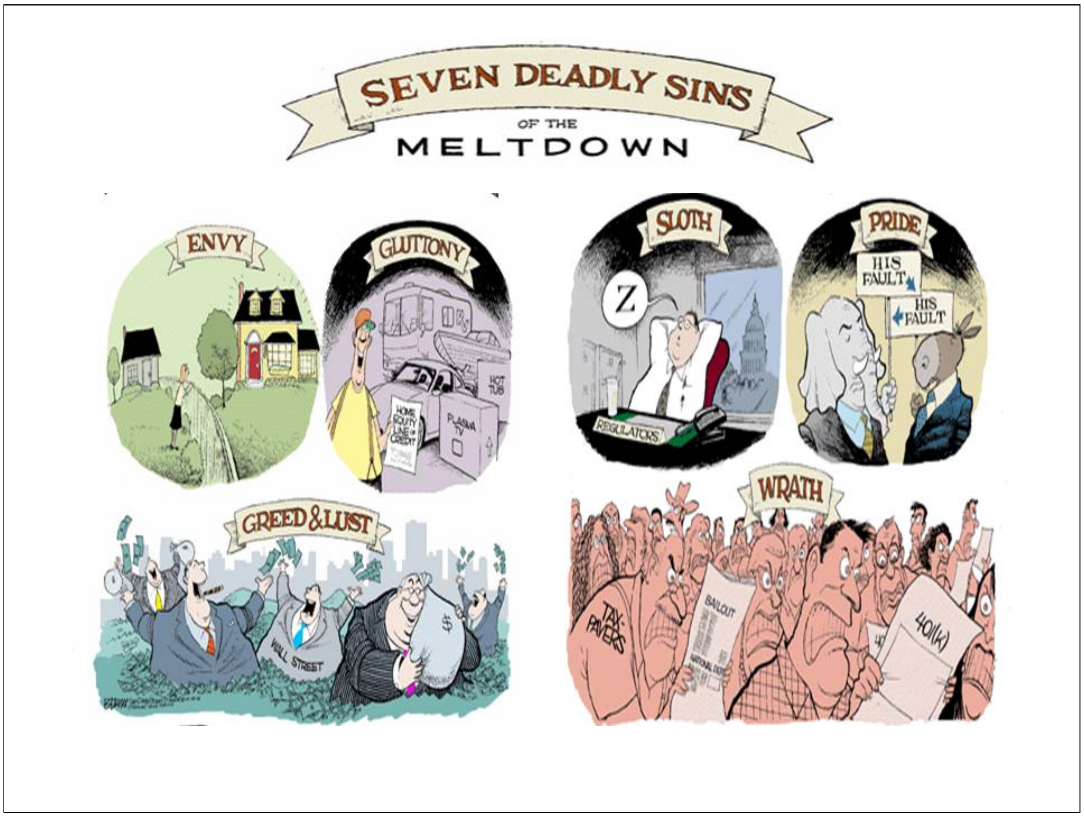
The US economy steadily lost jobs from the beginning of 2008. The Colorado economy steadily added jobs although at a slower pace than earlier.

Through September the Bureau of Labor Statistics reported that the US had lost a net of 760,000 jobs while Colorado added 21,000 (both seasonally adjusted)

Colorado's better performance can largely be explained by less vulnerability to collapses in the housing markets and in the financial sector.

By early fall the financial meltdown was spreading to other sectors of the economy. Revised estimates showed a small September jobs loss in Colorado followed by steep declines in October and November. The pace of US job loss also accelerated.

Between August and November Colorado lost 16,000 jobs , a decline of 0.7% and the US lost 1.26 million jobs or 0.9%.



Source: Slate

There is not shortage of blame

Democrats blame Republicans and vice versa

Europeans blame US

Other guilty parties include:

Greedy lenders	Rating Agencies
Improvident borrowers	Financial managers
Lax regulators	Exotic Mathematical Financial Models
Politicians	Alan Greenspan
President Bush	Too much dependence on free markets
President Clinton	Too much government interference in markets

This cartoon from Slate displays some of the human weaknesses that cause the meltdown

Conditions leading to financial meltdown

- **Long-time economic tranquility (Great Moderation)**
- **Increased Wealth & Liquidity (Global Savings Glut)**
- **Greater Appetite for Risk**
- **Inadequate Risk Assessment (Bankers, rating agencies, regulators, etc.)**

Rather than placing blame examine some of conditions which gave rise to financial meltdown-human weaknesses will always be with us

Economic Tranquility-last 25 years were a period of strong growth, low inflation. This was arguably best time ever for world economy even though there were some shortcomings such as periodic crisis and increasing income inequality

Among the results of this happy 25 years were 3 developments in particular that contributed to meltdown

This is from a New York Times article by Tyler Cowan (Economist at George Mason University)

Increased wealth and liquidity-Growing incomes and high savings rates in developing nations led to a "global saving glut". Modernization of the financial sectors in these nations channeled more of these funds into global capital markets. The US Federal reserve accentuated this glut with expansive money policies.

Greater appetite for risk-In part this was due to low returns on "safe" investments, in part due to lulling effect of prolonged prosperity. The balance of greed and fear necessary for successful operation of financial markets was tilted too far in direction of greed.

Inadequate risk assessment-Many players in these markets simply did not understand the level of risk in many of the exotic financial instruments.

These included regulators, investors, fund managers and politicians.

Recent Developments in US & world economies

- **Financial crisis spreads to “real” economy**
- **Consumers bail out**
- **Housing markets continue to sink**
- **More government fund injections**
- **Signs of loosening credit markets**
- **Capital spending shrinks**
- **World economy slows**

-Through most of summer, the US economy was very weak but still growing. (The National Bureau of Economic Research has dated the beginning of the US recession in December 2007.) Meanwhile major financial institutions either failed or were bailed out by government. Lenders were increasingly reluctant to make loans. A major turning point was the failure of Lehman Brothers in mid September. The effects of the Lehman failure began to show up with October economic data. This was not limited to US. World economy slowed. Euro area is in recession, developing economies are slowing. Commodity prices dropped sharply (Oil, grains, metals) Imports to US, which had been one of strong areas in economy showed signs of slowing due to weaker world economy and stronger dollar.

-Consumer spending has been the major driver of the US economy for most of the past 2 decades. For example, continued consumer spending made the last recession in 2001 a mild one. As real income growth slowed and consumer debt increased, economists looked for signs that consumer had cut borrowing and spending. By October such signs were glaringly obvious. In the 3rd quarter GDP estimates real consumer spending fell 3.7% at an annual rate, the first decline since 1991. The October consumer confidence index (Conf. Board) reached all time low.

Housing Markets-prices continue to fall. By September the Case-Shiller index down more than 20% from peak in the summer of 2006 and over 10% since first of year.

Government fund injections-Initial focus was on liquidity, i.e. banks not having cash. Then there was the realization that the problem was financial institutions with “toxic” assets and were afraid to make loans. Piecemeal bailouts of troubled firms-Fannie & Freddie, AIG, Bear Stearns. The initial plan for the Troubled Asset Relief Program (TARP) called for buying the bad assets but now the focus is on direct equity investments in big banks. The Treasury loaned US auto makes some $17 billion. Plans for Federal assistance to troubled mortgage borrowers and a huge fiscal stimulus are likely after the first of the year.

There are signs that short-term credit markets have begun to recover. Banks are still reluctant to make loans and demand for business loans is weak

Business spending has been reduced sharply. -Third quarter nonresidential fixed investment was down 5.6 %.

Most of the developed world-US, Europe, Japan-is in recession. Growth has slowed significantly in developing nations, especially China and India.

What's Next?

- **Mild Recession**
- **Deep Recession**
- **L-shaped Recession**
- **Break Out the Apple Stands**

Mild Recession-like last two in 1990 & 2001 Unemployment rate 7%, 1% GDP decline, 2-3 quarters of declining GDP

Deep Recession-early 1980s-Unemployment approach 10%, 3-4% decline in GDP and downturn last 4-5 quarters

L shaped-Japan in 90s ten years of little or no growth

Depression-25 % unemployment, sharp drop in GDP, lasted from late 1920s through outbreak of World War II.

The impact of the credit crunch on an already weak economy make a mild recession too much to realistically hope for. The economy has almost certainly already deteriorated beyond the mild recession stage.

Depression thought to be unlikely

- Early intervention by governments throughout the world-US, Europe, China, Russia (In US a surprising amount of bi-partisanship)
- Actions have included easy money and fiscal stimulus
- More international cooperation than in the 1930s.
- Existence of safety nets such as unemployment insurance and Medicaid which cushion the effects of job and income losses on spending.

Japanese style recession

- The Japanese government in the 90s engaged in massive public spending, but had little to show for it other than a huge government debt. (Several times that of the US relative to the size of the economy.)
- Japan ignored problems in the banking system.
- US regulation of banks is more transparent and more responsive.

Consensus view is that we are looking at a reasonably severe recession, perhaps the worst in post WWII period, but well short of what the US experienced in the 1930s.

The recovery is likely to be a slow one because debt (especially consumer and govt) will take a while to get out from under. Consumer spending was at an all time high as Pct of GDP, has risen by 6 percentage points since 1970s and savings rate fallen from close to 10 percent to near zero. The economy.com forecast calls growth of real GDP in the first year of recovery to be 2.7% and for employment to increase 1.5% over the same interval. The two previous severe post-war recessions in 1973-5 and 1981-82 were comparable to that forecast here in terms of output declines and job losses. But the recoveries from these recessions were much stronger. GDP growth was 6.1% and 7.7% while employment increase 3.6% and 3.4%.

US Outlook

- **More fiscal stimulus & monetary easing**
- **US & Europe in recession**
- **Emerging economies slow**
- **Financial markets stabilize**
- **No recovery until mid-2009**
- **Commodity prices fall in short run**
- **Inflationary pressures disappear**

-Federal Reserve and Treasury will continue to guarantee more bad debt and take equity stakes in private firms

-Fed has cut short term interest rates to near zero and will take other actions to stimulate economy. -Another stimulus package after election is a virtual certainty.

The forecast cited in this document calls for $600 billion in public investment and tax cuts in fiscal years 2009 and 2010. Other direct costs to the government from other governments commitments such as TARP less recoveries from asset sales are estimated to cost $650 billion. (The savings and loan bailout in the early 1990s cost $275 billion in today's dollars.)

Euro zone, Britain, Japan are in recession

Global growth slows-IMF forecasts average growth of 0.5% in rich countries in 2009. Emerging economies will grow 6 percent compared to recent trend of 8%

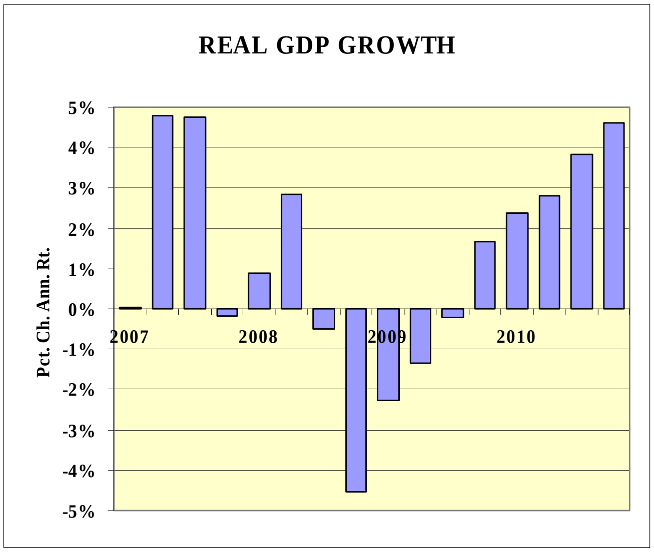
World financial market stabilize and credit becomes readily available again. But this will take time.

No recovery until second half of 2009 at the earliest.

Commodity prices will not recover quickly as world demand is weak. However they will not stay low too long. Most of growth in consumption of commodities over last 8 years have been in developing nations. For example, China accounted for 60% or more of consumption growth in copper, coal and aluminum and 25% of growth in oil demand. The underlying demand forces will push up price of oil, food and metals although not to where they were earlier this year, at least not for a while.

Rising unemployment, weak demand and lower commodity prices will bring inflation down. Over the next 4 quarters the CPI is forecast to increase slightly over 1%. Governments and central banks are now worrying about deflation

Recovery begins in late 2009.



Source: Moody's Economy.com

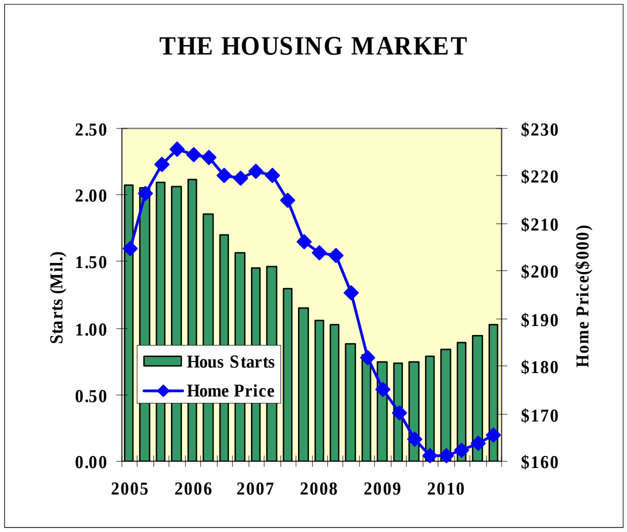
Economic forecasts have steadily become more pessimistic. The chart is based on a forecast released in the second week of December.

Real GDP declines at a rate of more than 4% in the fourth quarter of 2008 and continues to fall through the fall over 2009. This would mean a recession lasting almost 2 years.

Unemployment is expected approach 9 percent, sales growth will slow dramatically and US will lose more than 4 million jobs, job losses will continue until early 2010.

Unlike previous severe recession in the early 80s and mid 70s, recovery will be slow.

Further declines in house prices



Source: Moody’s Economy.com

The chart shows the National Association of Realtors median single family home price and housing starts

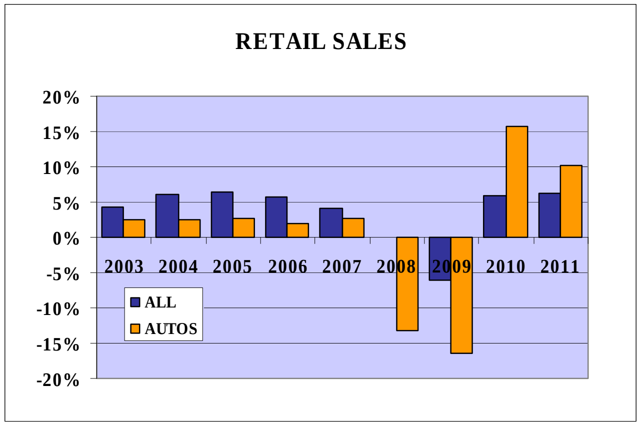
Housing market won’t recover so long as

- Prices are still high enough that housing is unaffordable to most buyers in many markets
- Unsold inventory is high
- Job and income losses continue

Prices are expected to fall another 10 percent nationally. This would put real prices where they were in 2002.

Building will not begin to pick up until late 2009 due to falling home prices and lack of credit for buyers and builders.

Consumers cut back due to weak labor market & tight credit



Source: Moody's Economy.com The chart shows annual changes in current dollar retail sales.

Long predicted pull back by US consumers has happened. US consumers have spent beyond their means for the past several years and are now in the process of reducing unmanageable levels of debt. In the quarter ending in September households outstanding debt shrank for the first time since this data series was initiated. The ratio of household debt to disposable income has risen from 70% in the early 1990s to 140% in early 2008. To bring the household savings rate up to where it was a decade ago consumer spending will have to fall by almost a trillion dollars. The best case is that this adjustment occurs slowly. Were it to happen in one year it would reduce GDP by 10%.

In the 3rd quarter real consumer spending fell 3.7, the first drop since 1991 and largest since 1980. It is forecast to decline 5.0% in the fourth quarter.

Auto sales especially weak. Hard hit because auto purchases are discretionary, depend on credit and were already down because of high gas prices.

October unit Auto sales were down 24% from a year ago and off 6% for year to date. SUV October sales down more than 50 % and down 35% year to date.

Recent drop in gasoline prices won't help much until consumers are convinced that it will last.

Retailers' Christmas sales forecast are very gloomy.

Next year will see further declines followed by relatively slow growth in 2010 and 2011.

What will the Obama presidency bring?

- **Immediate stimulation of economy by huge fiscal stimulus.**
- **Raise taxes on higher income households**
- **Credits for low & moderate income**
- **Expand health care coverage**
- **Tighter regulation of financial institutions**
- **Link trade liberalization to environmental & labor standards**
- **Carbon cap & trade-auction rights**
- **Regulation & direct subsidies to "clean energy"**
- **Missing: Dealing with deficits & entitlements**

New President's options will be limited by weak economy and poor fiscal position. Some forecast the current fiscal year's deficit at $1 trillion or more!

The highest priority will be to stimulate the economy. A stimulus package of at least $600 billion for the next two years is expected to be enacted early next year.

Shifting taxes toward higher income households is a continuation of recent democratic presidents.

Top marginal rate has bounced between 35 and 40 percent for last 20 years

The plan for expansion of health coverage as outlined during the campaign is to strengthen current employer-based system through subsidies and regulation. The President –elect is committed to cost control but specifics are lacking.

Tighter regulation & more restrictive trade represent break with past at least in terms of direction

> Trend toward deregulation dates back to Carter administration but some reforms in regulatory climate has bipartisan support.
>
> Trade liberalization trend goes back to FDR

Energy measures also move toward larger role for government in economy. Campaign emphasized benefits-jobs & economic stimulus, but there is also a cost. Standard of living will be lowered, at least temporarily.

During the campaign both candidates avoided dealing with deficit and entitlement growth because all options are painful. But they become more painful the longer they are put off.

Colorado-Recent Developments

- Slower job growth & rising unemployment
- Colorado less vulnerable to housing & finance problems
- Housing markets begin to stabilize
- Consumer spending slows
- Tight credit spreads through economy
- Farmers hit with lower grain prices and tighter credit
- Energy boom in NW Colorado on hold

The state added 5,000 jobs last 12 months (ending in November) compared with 49,000 in previous 12 months. Unemployment rate was up 1.8 percentage points from a year ago.

Colorado missed much of recent housing boom and is also missing some of bust. Financial sector is a smaller share of economy in Colorado.

Front Range housing markets show signs of stabilizing. Look for problems in mountain resort areas.

Colorado consumers have same problems as nationally.

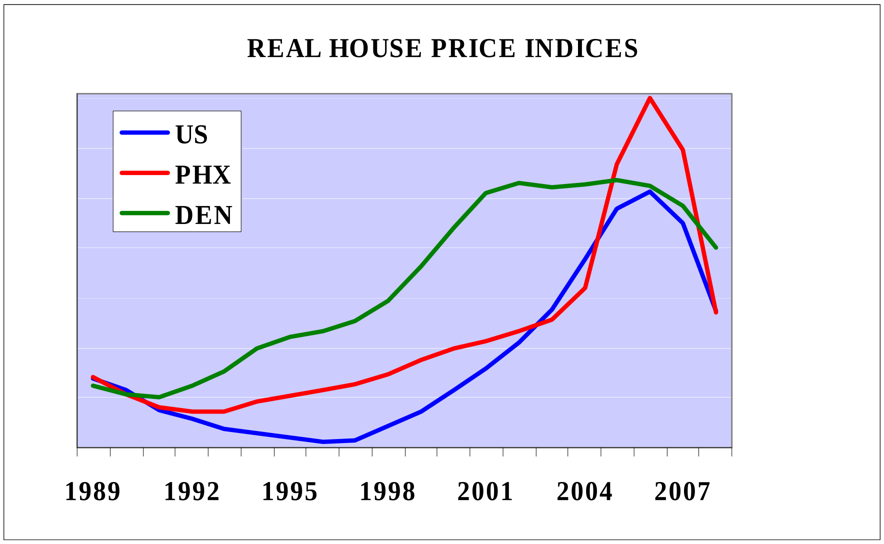
Tight credit
Slower income growth
Until recently high gas and food prices
Weak housing market although the negative effects from the housing market are not as strong as in areas where prices have dropped much more.

Spending is down. State sales tax collections for the latest 3 months available are down 4 percent from a year ago.

Wheat price, corn price down 50% since last summer, credit is tightening
Might help cattle feeders
Lower farm earnings next couple of years

Plunging oil and gas prices and tight credit have slowed exploration activity in northwest Colorado

Local housing market more stable than elsewhere.



Source: Standard & Poor's Case-Shiller index.

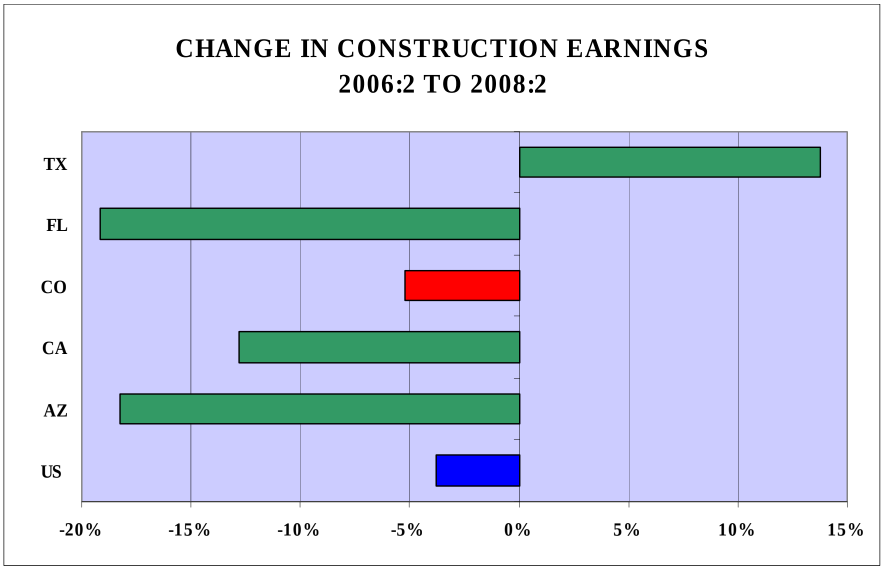
Chart shows Case-Shiller index divided by USCPI for US Denver and Phoenix with vertical axes set so three areas were close in 1990. The chart doesn't say anything about relative prices, only how they have changed. The 2008 data point is based on the August indices.

Denver saw a sharp run-up in real prices in 90s and flat since, with some real decline over last 2 years. Denver prices now about where they were in 1999 after inflation.

Phoenix, representative of hot markets (Miami, Las Vegas, San Diego, LA) experienced rapid gains through 2006-current $ prices more than doubled--then sharp drop-down almost 40%.

Nation is a less extreme version of Phoenix-current $ prices rose 70%

Colo construction activity has not declined as sharply as elsewhere.



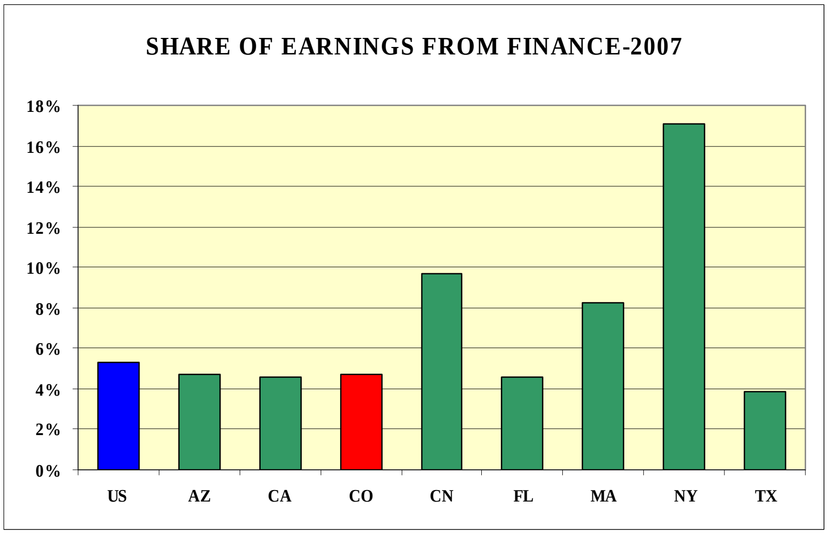
Source: Bureau of Economic Analysis

This chart shows the impact of different housing price patterns on the construction sector.

Colorado's construction sector has declined-almost 10,000 jobs have been lost since the summer of 2007-but not as sharply as in the "hot" markets.

Texas economy seems impervious to the outside world.

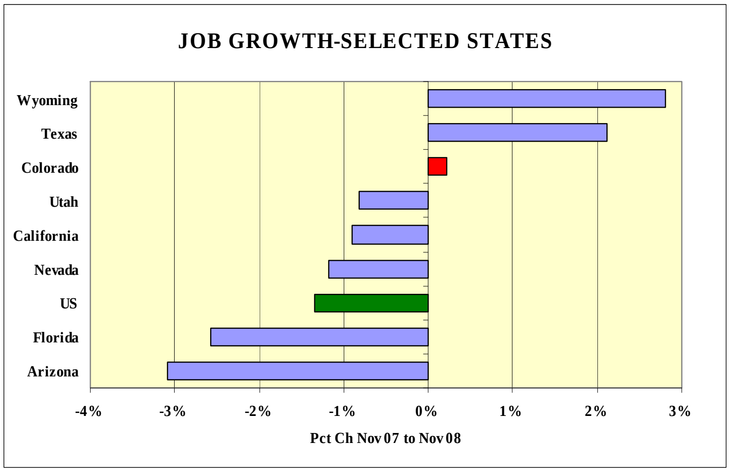
Colorado's finance sector is relatively small.



Source: Bureau of Economic Analysis

The financial meltdown greatest immediate impact was on the financial services industry. Thousands of jobs have been eliminated in this sector. Colorado is less vulnerable in this areas as the state's financial sector (Banks, stock brokers, investment banks) is less than 5% of earnings. In NY it is 17%, Connecticut close to 10%.

Colorado economy one of better performers in nation

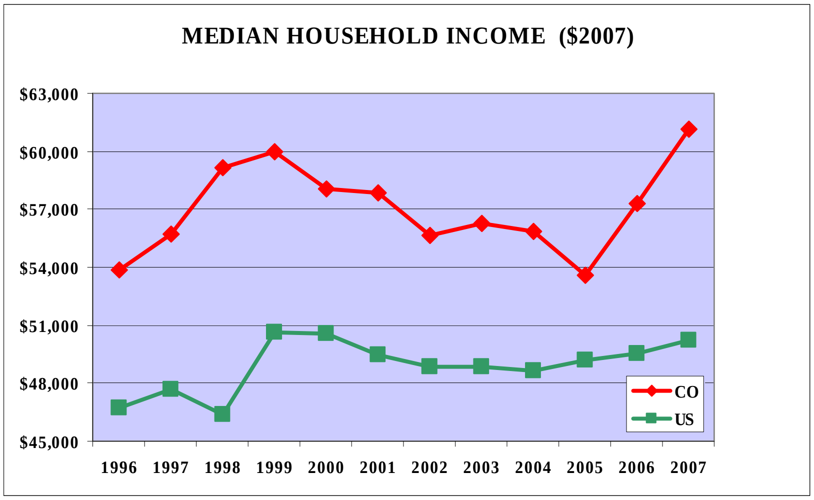


Source: Bureau of Labor Statistics

Colorado was the 12th fastest growing state in US based on job growth Nov 07 to Nov 08. For years Nevada, Arizona have been one and two in growth rankings most of the time. The housing bust has made them negative. Only Rhode Island has large percentage decline than Arizona.

Wyoming is fastest growing, fueled by energy activity. Texas economy is by far the strongest of any large or even middle-sized state. The energy industry accounts for a lot of this strength although recent reports show Texas economy slowing.

Colorado & US real incomes have shown little gain in past 8 years.



Source: US Census Bureau, Current Population Survey

Colorado like nation has seen little real income growth since 1999. State income remains well above that of US. This chart is median household income from the current population survey. Income is before tax. It does not include capital gains. It includes direct public assistance payments but excludes food stamps, Medicare and Medicaid.

Why are we seeing slow growth.

Slow wage growth in many industries-energy sector an exception in Colo.

Distribution issues-high income households share of income is increasing. Average income has grown faster than median income.

Smaller households-more single parent and single person households

Immigration-Majority of immigrants have low incomes first several years in US, pull down median

Near term economic outlook suggests we will see declines in 2008 and 2009 at least.

Colorado Outlook

- Credit tightness affects most sectors of economy
- Job growth slows and unemployment rises
- Consumers reduce discretionary spending
- Slow recovery in 2010
- Risks
  - Persistence of financial market problems
  - Another round of housing foreclosures

-Credit crunch is affecting following industries (in addition to housing and finance)

Ag

Commercial Real Estate & construction

Energy (Alternative energy & smaller oil & gas operators)

Small Business of all types

Tech startups (Venture capital has dried up)

State & Local govt (revenues fall, borrowing costs rise)
Consumer Spending

Tourism (Ski industry concerned) Vail resorts reports a fall off in their hotel reservations for coming season.

-The state will add 20-25K jobs in 2008 but lose almost that many in the next year. Unemployment will increase to over 7.5% in late 2009.

-Consumer spending will decline in real terms this year and next.

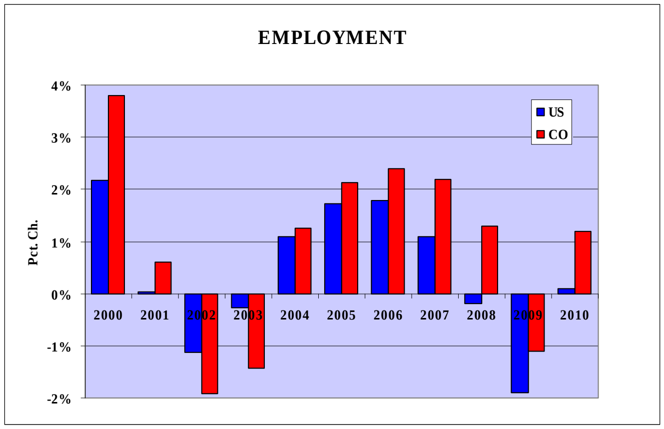
-Recovery will be sluggish

Risks

-Financial markets: What began as a problem in the US sub-prime mortgage market has spread to a wide variety of assets, institutions and countries. IT is difficult to assess how effective measures taken to date have been in stemming the collapse in investor and lender confidence. We are in uncharted territory. Most forecasts assume that because governments and monetary authorities are vigorously addressing these problems that they will succeed in the reasonably near future. This may not happen.

-Housing markets: It is widely believed that the source of the financial meltdown lay in the housing markets and until housing markets correct, the problems will persist. But problems elsewhere-lost jobs, tight credit, falling confidence-feed back into housing. The housing decline may be longer and deeper than most economists expect.

Colorado job growth to outpace nation.



Source: CBEF

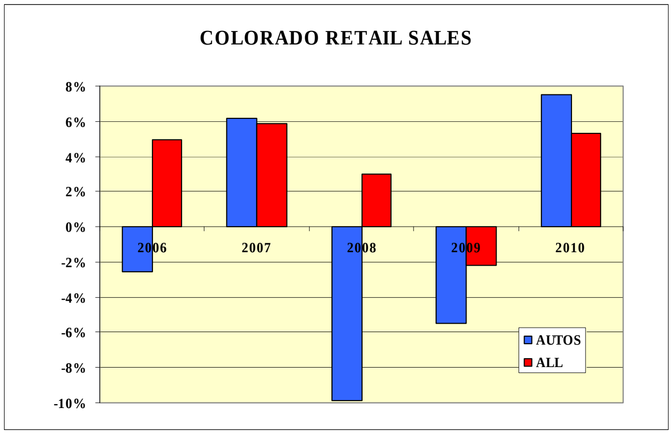
Colorado will lose jobs next year and post only a modest 1% gains in 2010.

Forecasts for industries

- Mining-small loss unless energy prices rebound quickly
- Construction-Large job loss
- Real Estate-loss
- Manufacturing-loss
- Wholesale & retail trade-loss
- Finance-loss
- Health care-gain
- Professional, Scientific and Technical services-gain but much less than past few years
- Recreation-loss
- Government-small gain-mostly in local government

Colorado job losses will not be as severe as in the downturn earlier this decade. Peak-to-trough job losses are forecast to be less than 50,000. More than 100,000 state jobs were lost between December 2000 and mid-2003

Consumer spending lags through next year.



Source: CBEF

Retail sales will grow 3% in 2008, less than the rate of inflation and will fall more than 2% in 2009.

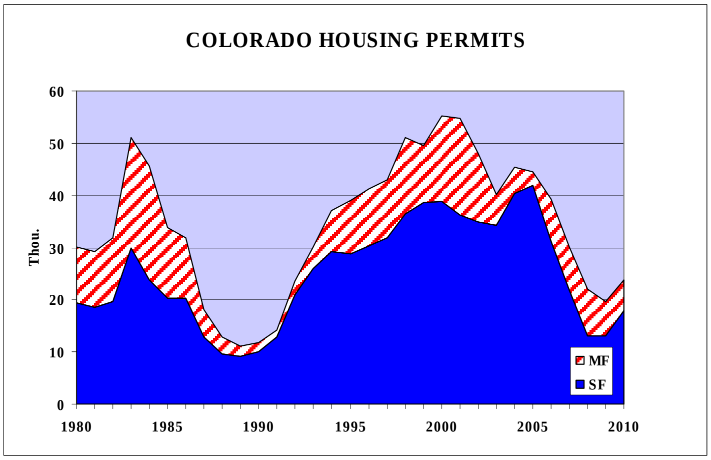
Looking for weak holiday sales and not much recovery until at least mid-2009

Outlook for various sectors in 2009

- Autos-Will continue to be weak through 2009. Discretionary spending will be weak and credit for purchases will be limited
- General merchandise-small gain
- Food stores-small gain
- Building Materials & Furniture, Appliances-loss due to weak housing market
- Gas Stations-Decline due to lower gas prices in first half

Weak consumer spending will create problems for local government budgets which rely heavily on sales and use taxes

Homebuilding will remain near 1980s lows.



Source: CBEF

Market is improving in Front Range, The 3 conditions delaying a national recovery seem to be in better shape in Colorado

> Home prices in Colorado's Front Range were relatively flat during the first half of this decade and have since declined in real terms. This makes home more affordable than in many other metro areas.
>
> The inventory of unsold homes in Metro Denver, the state's dominant market, has been declining for several months
>
> Job and income losses in Colorado will continue but will be less severe than in many other parts of the US.

But we won't see much building until credit conditions improve

Housing permits will be down 30 percent this year and relatively flat next year.

Total housing permits in both 2008 and 2009 are expected to be around 20,000 or down more than 60% from their peak in 2000.

US Forecast Summary

	2005	2006	2007	2008	2009	2010
Real GDP Pct Ch.	2.9%	2.8%	2.0%	1.2%	-1.5%	2.1%
Nonag. Employment Pct. Ch.	1.7%	1.8%	1.1%	-0.2%	-2.2%	0.4%
Unemployment Rate Pct of Labor Force	5.1%	4.6%	4.6%	5.7%	8.0%	8.7%
Housing Starts Mil.	2.07	1.81	1.34	0.94	0.76	0.93
Retail Sales Pct. Ch.	6.4%	5.8%	4.1%	0.0%	-6.0%	5.9%
Inflation Pct. Ch. CPIU	5.6%	7.1%	6.1%	3.8%	2.0%	3.6%

Source: Moody's Economy.com December 2008

Colorado Forecast Summary

COLORADO FORECAST SUMMARY

	2005	2006	2007	2008	2009	2010
Nonag. Employment Pct Ch.	2.1%	2.4%	2.2%	1.3%	-1.1%	1.2%
Unemployment Rate Pct of Labor Force	5.2%	4.3%	3.8%	5.4%	7.4%	7.0%
Housing Permits Thousands	44.6	39.2	30.2	22.1	19.6	23.8
Retail Sales Pct Ch	4.1%	5.0%	5.9%	3.0%	-2.2%	5.3%
Personal Income Pct ch	4.1%	6.3%	6.7%	5.0%	2.5%	3.4%
Inflation Pct Ch Denver CPIU	2.1%	3.6%	2.2%	4.1%	1.9%	2.3%

Source: CBEF