CBER Colorado Economic Forecast 2013

Colorado-based Business and Economic Research Prepared January 7, 2013

Overview

This chartbook is divided into the sections listed below.

- The CBER Forecast A Review of the 2012 Forecast and Related
- The Global Economy
- The U.S. Economy
- The Colorado Economy
- The Colorado Employment Forecast
- Summary and Challenges

The CBER Forecast – A Review of the 2012 Forecast and Related Issues

The Purpose of the CBER Forecast

The purpose of this chartbook is to present an employment forecast for the state of Colorado.

It will briefly discuss some of the factors that are driving change in the Colorado economy. This "story" about those changes can be used for purposes such as economic development, workforce training, and decision making in business.

The foundation for the forecast is changes and projected changes to the U.S. Gross Domestic Product and its four components – consumption, business investment, government spending, and net exports. National trends in these four areas typically apply to Colorado.

This forecast focuses on wage and salary data because it is available in the public domain, it is easily understood, and it can be secured on a timely basis. From an economic development standpoint, employment is the metric of choice because "it all starts with a job" – demand for goods and services is created, workers are hired, wages are paid, goods and services are purchased and the cycle repeats.

Every effort has been made to describe the Colorado economy using reliable information and accurate analysis. It cannot fully account for major shocks to the system, such as 9/11 or the business and policy decisions that led up to the Great Recession. Typically, events such as the fiscal cliff debate, hurricane Sandy, and unrest in the Middle East impact the economy on a regional or short-term basis. It may be possible to account for them in the forecast.

In the end the only certainty is that the forecast will either be wrong or lucky. Either way, the value of the forecast is not in the numbers, but in the story that describes factors that will drive change in Colorado in 2013 and beyond.

The Fiscal Cliff and Other Events

There are always events and factors that play havoc with the accuracy of a forecast. CBER recognizes their significance and discusses some of the forecast challenges it has faced over the years. An effective way to account for the impact of these challenges is to present forecast ranges and scenarios.

Extended Periods of Strong Growth

During the go-go 1990s, there was strong job growth from 1991 to 2000. Each year, the question was asked, "Is job growth going to taper off next year?" In late 2000 and early 2001, there were signs that growth would continue through 2001. A slowdown in Q2 2001 was initially thought to be an anomaly. That decline was the start of downturn that was exacerbated by 9/11, an event that could not be predicted. By late 2001, it was obvious that the country was in a recession, but the strong growth of the previous decade had lulled people into thinking that prosperity would occur ever year. It was difficult to comprehend the magnitude of a terrorist attack in the middle of a downturn. Up to that point, Colorado had never experienced back-to-back years of declines and it was inconceivable that the state would see significant job losses in both 2002 and 2003.

Self-Inflicted Damage

The European debt crisis, the meltdown of American financial institutions, the fiscal cliff, and debt ceiling debates were caused by misguided or unethical business, political, or policy decisions. They damaged both the economy and confidence that private and public leaders are capable of making solid business and policy decisions.

Natural Disasters

Natural disasters such as earthquakes, forest fires, hurricanes, tornadoes, and tsunamis have been significant to those directly involved. For the most part, their negative impact has been short-term and limited to local or regional areas.

Low GDP and Increased Productivity

Companies have used technology to increase productivity and profitability without adding jobs. In 2011 and 2012 Real U.S. GDP was about 2.0% and Colorado added a total of about 80,000 jobs, or annualized growth of 1.9%. Typically, job growth at that level is associated with higher levels of output.

Terrorism, War, the Financial System, and Stimulus

While the ongoing fight to deter terrorism was necessary, it has played a part in altering our personal lives and the structure of the economy. As well, there have been a series of self-induced financial crises and scandals that have created havoc with the economy. In addition various fiscal and monetary tools have been used to offset the impact of the recessions. At this point, the long-term unintended consequences of these stimulus efforts are not fully understood.

Review of CBER 2012 Forecast

One of the first steps in preparing a forecast is to review what was missed for the current year. As well it makes sense to see where other forecasts missed the mark.

In December 2011, the CBER forecast for 2012 was released. At that time the economy was extremely volatile. To account the various possibility of what might happen, the CBER 2012 forecast presented three scenarios and a most likely scenario was identified.

Although 2012 has passed, the final data is not in. CBER estimates that 2012 data will report *Real GDP growth rate will be 2.0% to 2.2% and employment will be about 50,000.* The most likely scenario from the 2012 CBER forecast is listed below. The forecast was reasonably accurate.

Scenarios for 2012 CBER Forecast

Optimistic Scenario
U.S. Real GDP 2.6%+
More than 37,500 Colorado workers

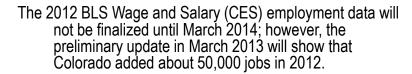
Most Likely Scenario
U.S. Real GDP 2.1 % to 2.5%
+ 27,500 to 37,500 Colorado workers

Pessimistic Scenario
U.S. Real GDP 1.6% to 2.0%

Less that 27,500 Colorado workers

Source: CBER.

Other 2012 Employment Forecasts



A quick review of all forecasts shows that all were conservative in their projections. (Even the BLS understated their initial estimates).

The two state agencies responsible for preparing the Governor's and Legislature's budgets, were near the top in terms of accuracy in 2011. OSPB and CLC took a more conservative approach for 2012. Historically, their forecasts tend to err on the conservative side. That is a justifiable position given their role in the state government. Their forecast was conservative in 2012.

The BBVA Compass forecast is prepared by an extremely knowledgeable and competent group of economists located outside Colorado. Their level of error was significant.

The CU Boulder 2012 forecast missed the mark. They projected a steep increase in the growth of output and a decline in the rate of growth of employment for 2012. That prognostication didn't make sense then and it makes less sense today.

Accuracy of 2012 Colorado Forecasts

CBER Economic Research Forecast +27,500 to 37,500 employees.

Colorado State Demographer's Office +28,067 employees (includes proprietors)

The Forum (University of Colorado at Colorado Springs) +25,000 employees.

CU Boulder Colorado Business Economic Outlook +23,000 employees.

Colorado Legislative Council (CLC) +22,500 employees.

BBVA Compass +22,000 employees.

Office of State Planning and Budgeting (OSPB) +16,900 employees.

Source: CBER.

BLS/LMI Data

BLS and LMI data

In recent years, data-producing federal agencies have been asked to deliver more accurate data, in a shorter time frame, using fewer staff, with lower research budgets. The data used for most short-term forecasts is the Current Employment Survey, also called Nonfarm or Wage and Salary data. It is possible for the CES data to be revised up to four times. That process is outlined below:

- Around the 20th of a month, preliminary data for the prior month will be published and the month prior to that will be updated (For example, around June 20th preliminary data for May will be produced and April will be updated.) These revisions are usually minor. Most short-term forecasts use this data.
- In March of the following year, the previous two years will be revised. (For example, the 2012 employment data will be revised in March 2013 and finalized in March 2014).
- 3. The initial March update is usually the most significant revision, and the two-year update is often minor (In the case of 2012, some of the monthly totals will see significant upward revisions when revised in March 2013.)
- 4. Periodically, BLS updates the entire data series back to 1990. This usually occurs when they recalibrate their projection models or redefine NAICS codes.

BLS/LMI Data As a Source of Forecast Error

Most short term forecasts use CES data described in the first step (see left side). In other words, the first step in making the forecast for 2013 was to estimate employment for 2012. Currently the preliminary data (step 1) indicates that 40,000 jobs will be added in 2012. The estimated March 2013 revision is likely to show an upward revision. CBER estimates that about 50,000 jobs were added in 2012. It is necessary to estimate that number because the final 2012 numbers will not be available until March of 2014.

The major source of error for most of the previously discussed 2012 state forecasts can be attributed to BLS understating actual growth in their estimates (the process is described on the left).

What was Missed in the 2012 CBER Forecast?

The major source of error in the 2012 forecast was the underestimation of the 2011 job growth and growth rate. In turn, this led to an understatement in the projected job growth rate for 2012. Unexpected sources of variance are discussed below.

BLS Data Error

The accuracy of a short term employment forecast is improved if recent labor data is accurate. At the time a forecast is prepared the best available data is the monthly data. Historically, the error between the monthly data and the March revision has been as much as ±25% for jobs added. For example, when preparing the 2012 forecast, in late 2011, the 2011 monthly data reported an increase of about 1.0%. The March revision reported an increase of 1.5%, or 33,500 jobs. As a result of this error in establishing the 2011 base, the growth rate for the 2012 forecast was understated.

False Starts

Over time, recoveries from recessions have mirrored the downturn, i.e. a steep recovery usually follows a sharp downturn. In Colorado, there have been five false starts since the end of the recession; two occurred in 2012. This raises the question, "Why are the growth patterns so uneven and when will that volatility disappear?"

Construction

As expected, Construction rebounded; however, the recovery was not across all subsectors. Growth occurred in specialty trades and not heavy construction, an indication of a weak overall sector recovery.

Extractive Industries

The sector continued to add jobs, but at a lower than anticipated rate.

Mother Nature - Tourism and Agriculture

The lack of good snow was a double whammy for the tourism industry. The ski industry was plagued by poor ski conditions and Colorado had one of the worst drought and fire seasons in history. The recovery from the fires and drought will impact multiple industries beyond 2012.

Retail Trade, Housing, and Local Governments

Retail trade sales continue to increase; however, margins are slim and the market is competitive. As well, Colorado housing prices are flat or slightly positive and the number of foreclosures has declined. In turn, increased sales and property taxes are welcome news for the coffers of local governments. Hopefully, 2012 will be seen as the year the decline in local government workers bottomed out in Colorado.

Government

The recovery of the Colorado private sector from the Great Recession parallels the nation's recovery. In 2012, Colorado government employment increased; it decreased in most other states. As a result, Colorado's total employment is adding jobs at a faster rate than the U.S.

The Global Economy

Overview

The rate of growth for the global economy is increasing at a decreasing rate. This applies to all regions and includes both the emerging and advanced economies.

As has been the case in the past, the strongest rates of growth will occur in emerging economies. Weakness in the advanced economies will be particularly critical to American companies that export to those regions.

Global Real GDP 2012 vs. 2013

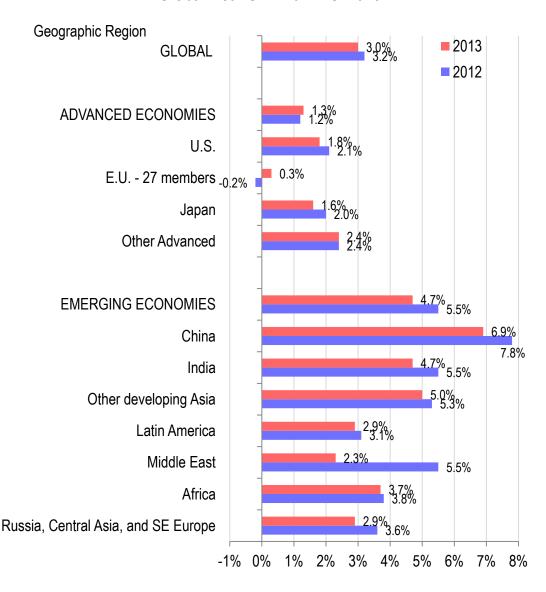
Global Real GDP

Over the past three years, The Conference Board (TCB) has provided an accurate and insightful understanding of the performance of the economy after the Great Recession. IHS and other groups provide similar outlooks.

Overall TCB points to slightly slower growth in the world economy next year, 3.0% vs. 3.2% in 2012. The Advanced Economies, which account for 51.4% of global output, will expand by 1.2% in 2013. The Emerging Economies, which are responsible for 48.6% of global output, will post a much stronger gain, 5.1%.

Overall, the European countries will show negative job growth in 2012, with a weak increase in 2013.

Slower growth in all regions will be a challenge for American exporters.

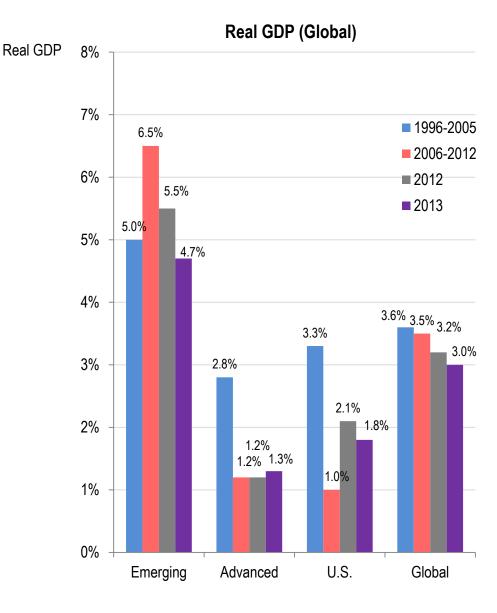


Source: The Conference Board (November, 2012), HIS, CBER.

The Output Performance of U.S. Versus Advanced and Emerging Economics

The following trends are evident from the comparison of output growth for the Global, U.S., Emerging, and Advanced economies.

- •There is a stark difference in Real GDP growth for the Emerging and Advanced economies. The growth rate is stronger in the Emerging countries.
- •Over the four time frames, the growth rate for U.S. output has decreased. As expected, the performance of the U.S. economy has a major impact on the global economy; however, the contribution to global output has declined.
- •There is a downward trend in Real GDP for each of the geographic areas for each of the four time frames.



Source: The Conference Board (November, 2012).

What to Look For in 2013

Slow growth rate in Europe will impact American exporters

- The European Central Bank and EU governments have taken steps to reduce the financial risks related to the Eurozone sovereign-debt crisis.
- The Southern European countries will remain the weakest, although long-term interest rates have been reduced. This in turn will weaken the economies of the stronger Northern European countries.
- The European recession will present challenges for American exporters to that region.

China's economy will slowly gain momentum.

- For the past two years, the growth of the Chinese economy has declined from 10% to about 7.5%.
- Stimulus efforts by Chinese leaders appear to have been effective in reversing this slowdown, which in turn will increase domestic demand for goods and services.
- Exports are expected to improve as the advanced economies improve in the second half of 2013.

Other emerging markets will also show signs of life.

- Weakness in the United States, recessions in Europe and Japan, and the slowdown in China have negatively impacted emerging markets.
- Improvement in the second half of the year bodes well for the emerging markets.

Upside Potential

- Globally there is more upside potential than previous years.
- The American dollar will continue to be favored over the euro.
- Despite the fiscal challenges facing the American government, it will continue to be viewed as the top economy in the world.

The U.S. Economy

Overview

The end of an ugly election cycle, stronger household balance sheets, improved housing markets, solid growth in equity markets, and the addition of 1.8 to 1.9 million workers in 2012 are signs that the U.S. economy is continuing to gain momentum.

Nevertheless, there are headwinds and the outlook is for continued weak output growth. To put this in perspective, between 1960 and 2011, annual Real GDP growth rate was less than 2.3% a total of 13 times. Six of those years were between 2001 and 2011.

In addition, the rates of output growth for 2012 and 2013 are projected to be below 2.3%. If that transpires, that would mean that real output has been less than 2.3% eight times in past 13 years.

Projected Real GDP growth for 2013 will be about the same as last year, in the 1.9% to 2.3% range. Employment will improve slightly, as 1.9 to 2.1 million workers will be added.

Since the end of the Great Recession, there have been four false starts – Strong job growth has not been sustained. Subpar growth is expected for the first half of 2013, with more consistent growth in the second half of 2013 and early 2014. Hopefully, at that point the economy will have built up enough momentum to overcome the slowdown in the global economy, unrest in the Middle East, and fallout from the drama that surrounded the fiscal cliff/slope debate.

What Others Say About the U.S. Economy in 2013

Wells Fargo, Goldman, Kiplinger, BBVA, IHS

- In their publication, *Growth in an Era of Fiscal Restraint*, the Wells Fargo Economics Group, forecasted real GDP growth of 1.4%, with a gain in consumption of 1.3%. Retail trade sales will increase by 3.6%, with inflation of 2.3%. Unemployment will remain unchanged at 7.8% and 1.6 million jobs will be added, about 10% below the current rate of growth.
- Goldman Sachs projected real GDP growth of 1.9%, with personal consumption at 1.4%, and an increase in CPI of 2.0%.
- In late November, Kiplinger estimated Real GDP growth of 2.0%, with "more pep" in the second half of the year. The unemployment rate will drop to 7.5% and 2 million jobs will be added. Retail trade will grow by 5.0%. Inflation will be +2.0%.
- BBVA Compass forecasted Real GDP growth of 1.8% and unemployment at 7.9%. Inflation will increase by 2.1%.
- IHS projected Real GDP growth of 1.9% with personal consumption up 2.2%. Nonfarm employment will post gains of 1.6% and Retail Trade sales will be up 3.3%.

Wells Fargo, Conference Board, UCCS, OSPB, Chase

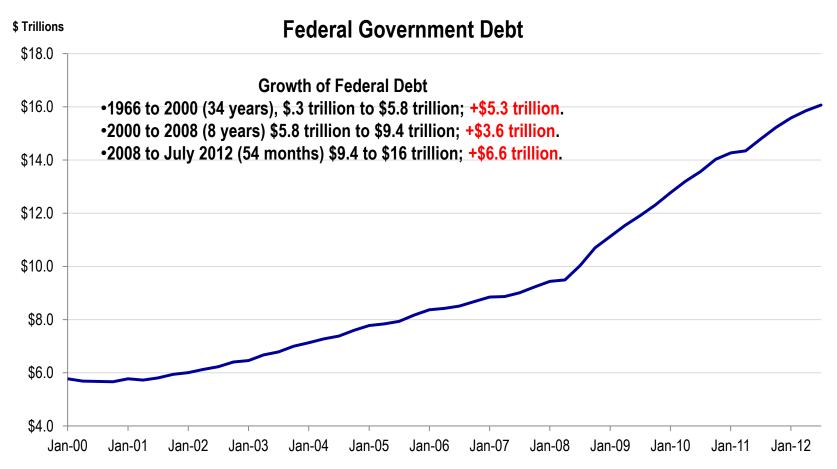
- In early December Gina Martin Adams, the top U.S. equity strategist at Wells Fargo Securities stated, "Slowing global growth and policy uncertainty have combined to create a significant earnings slowdown for the index. The U.S. economy is likely to flirt with recession in the near term, as slowing exports and falling investment likely lead to a weaker consumer at the start of 2013."
- The Conference Board forecasted Real GDP of 1.6% and real Consumer Spending of 1.5%. Real Capital Spending will be a meager 2.2%.
- University of Colorado at Colorado Springs projects Real GDP growth of 1.8%, increased retail sales of 2.9%, and inflation of 2.0%. Wage and Salary employment will increase by 0.8%.
- The Governor's Office of State Planning and Budgeting foretells real GDP growth of 1.9% and population increase of 1.0%. Retail Trade Sales will increase by 3.4% with inflation of 2.0%.
- In its publication, Regional Perspectives, Colorado Economic Outlook, Chase Bank called for 3.4% real GDP growth in 2013, with employment growth of 1.9 million workers.

U.S. Economic Trends

In 2012 there was a mix of good and bad news. The subsequent charts summarize current economic trends that will carry into 2013.

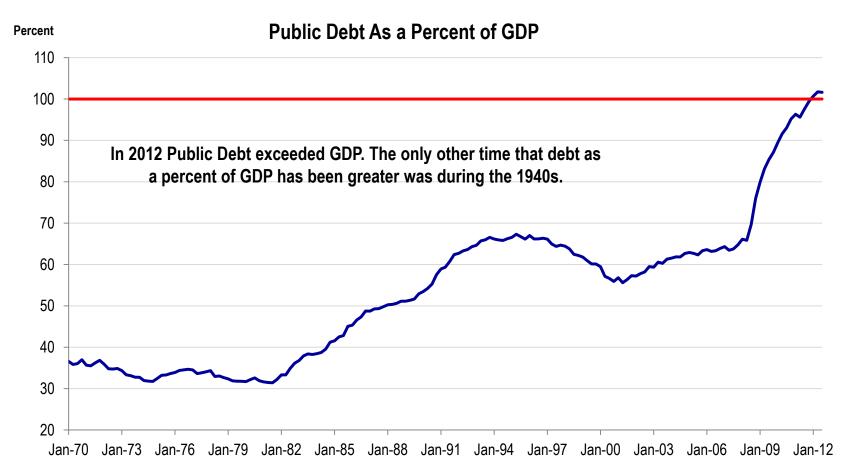
- Federal debt has increased to the point where it is greater than the GDP. That is a problem!
- Output and consumption remain weak.
- After a brief hiatus, Consumer Credit is on the rise again credit is a source of consumption, as long as the debt doesn't become problematic.
- Savings rates are in the 3.0% to 4.0% range.
- Increased consumption is reflected in stronger sales for auto and truck manufacturers.
- Improvement in the housing and equity markets make consumers more confident about their perceived wealth.
- Despite improvement in household balance sheets, the consumer remains at risk.
- The ISM indices show that 2012 was a lackluster year for manufacturers and non-manufacturers.
- There have been four false starts since the end of the recession two occurred in 2012. Will 2013 be the year that strong sustained job growth returns to the U.S.?
- At the end of 2012 more than 12 million Americans were out of work.

Federal Government Debt



Source: FRED.

Public Debt as a Percent of GDP



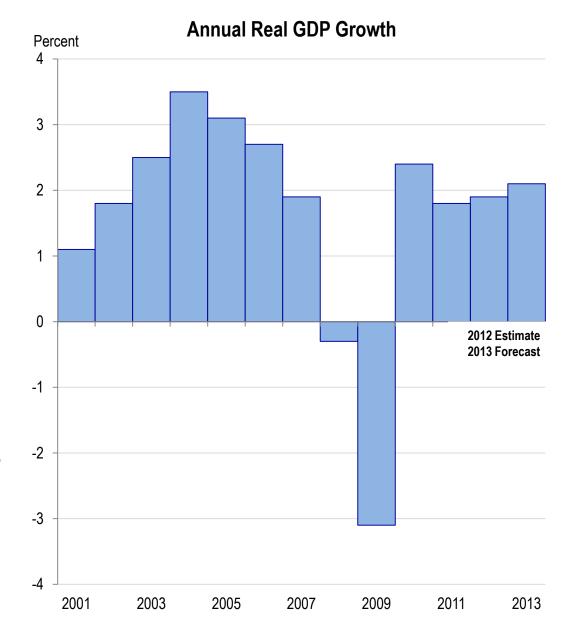
Source: FRED.

Real US GDP Growth

Last year CBER stated "At the earliest, sustained output growth will occur in 2013". That statement can now be updated to say that sustained growth is unlikely to occur in the first half of 2013 and it may be 2014 before it happens.

Despite weak GDP growth, the U.S. economy is stronger than a year ago, if for no other reason than 1.8 million more people are working. The headwinds from a slowing global economy and fallout from the "fiscal cliff" issue with keep Real GDP below 2.0% for the first half of the year.

The Conference Board projected Real GDP growth to drop from 2.1% in 2012 to 1.8% for 2013. Most other economists project similar growth. CBER is slightly more optimistic than TCB. Real GDP is expected to be in the 1.9% to 2.3% range.



Source: Bureau of Economic Analysis, CBER.

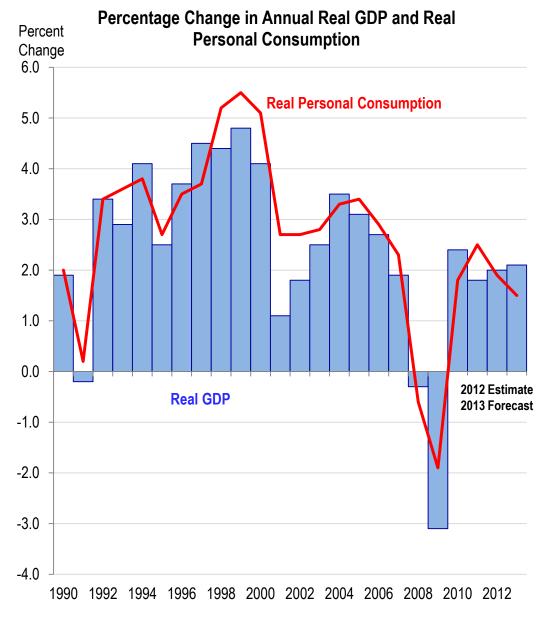
Annual Change in U.S. Real GDP and Real Personal Consumption

In 1990 Real Personal Consumption (PC) accounted for about 66% of Real GDP; today it is 70%. Because consumption is such a high percentage of output it is no surprise that quarterly growth rates for both are similar.

The chart on the right illustrates how the lack of growth in consumption parallels the lack of growth in Real GDP.

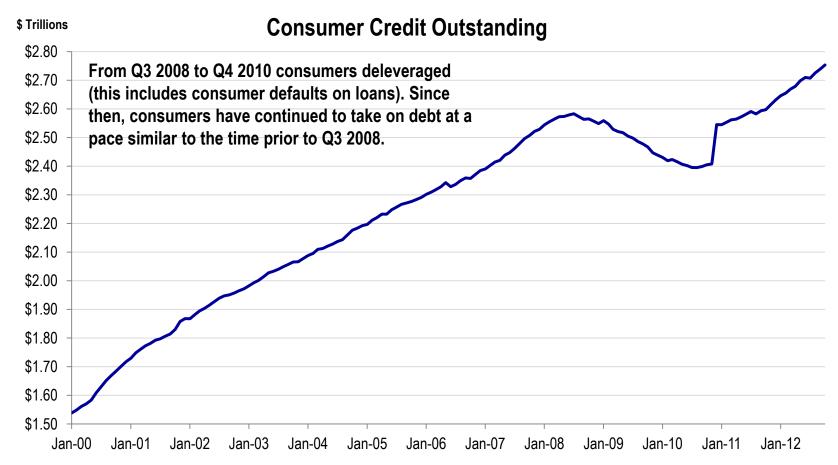
It is also obvious to see that output and consumption posted weaker growth rates during the period 2000-2012 than the previous 10 years.

Weak holiday sales in 2012, about 2.5% greater than 2011, does not bode well for consumption in 2013.



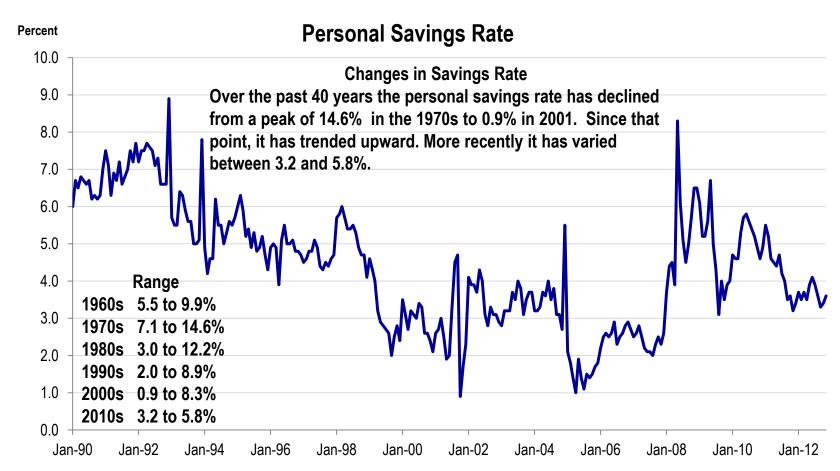
Source: Bureau of Economic Analysis, The Conference Board, CBER.

Consumer Credit Outstanding



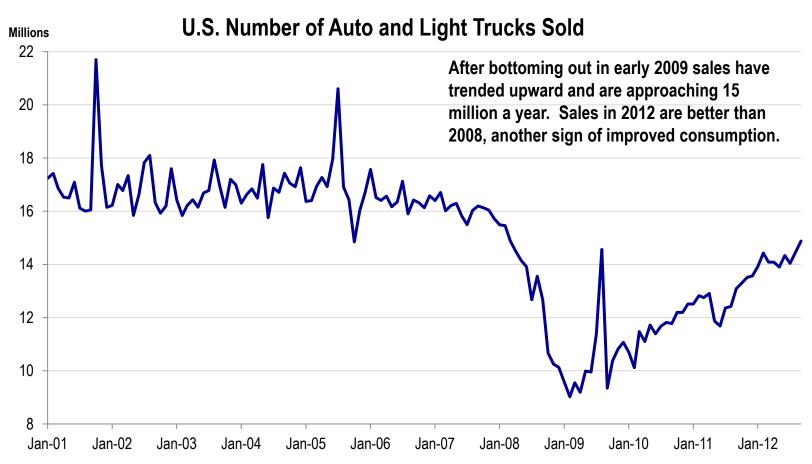
Source: Federal Reserve, G.19.

Personal Savings Rate



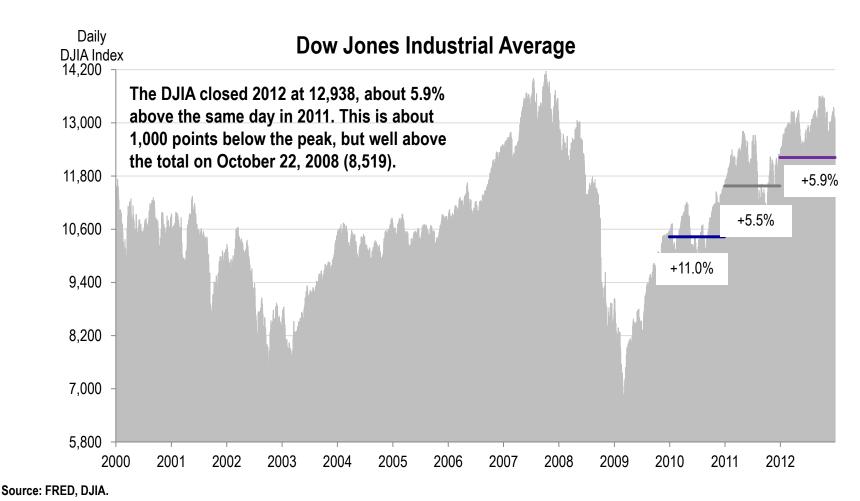
Source: FRED, SA.

Weekly Auto and Light Truck Sales



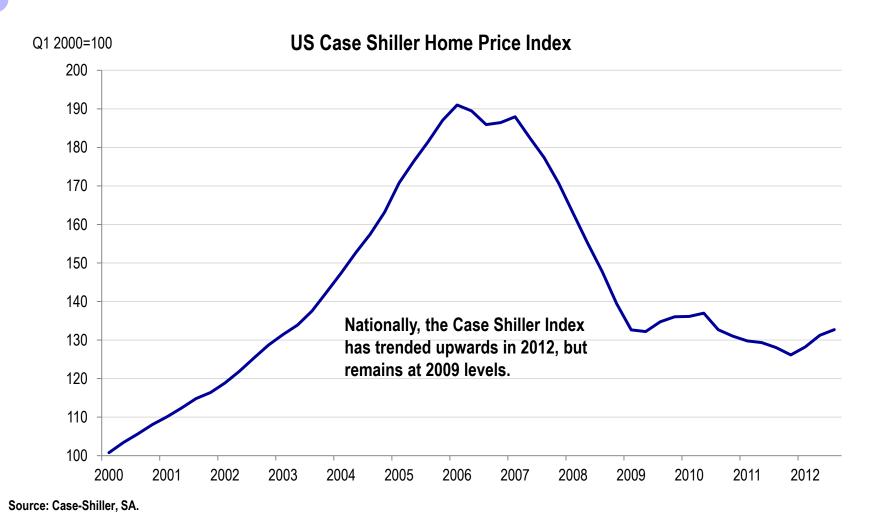
Source: FRED, BEA.

Equities Dow Jones Industrial Average



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Housing Prices – Case Shiller



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U.S. Households Remain at Risk

The Index is a quarterly comprehensive picture of the average American household's financial condition. It converts a complex set of factors into a single, easy to understand number. Financial distress is measured on a 100 point scale and a score under 70 indicates financial distress.

The index measures five categories of personal finance that reflect or lead to a secure, stable financial life— Employment, Housing, Credit, Household Budget and Net Worth. Each category has equal weighting.

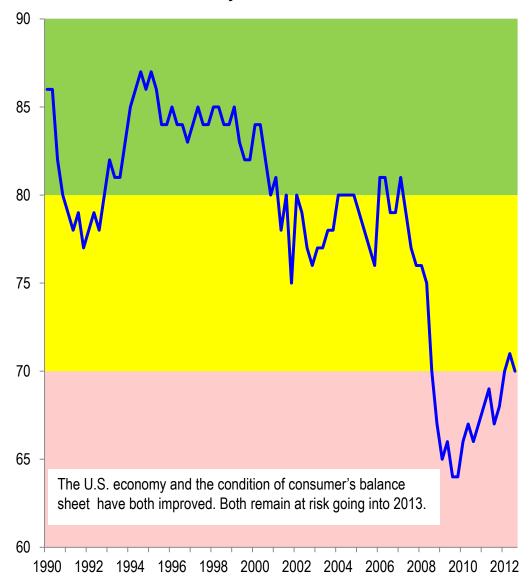
90 and Above Excellent / Secure 80 – 89 Good / Stable 70 – 79 Weakening / At-Risk 60 – 69 Distressed / Unstable

Less than 60 Emergency / Crisis

During 1990 and from O4 1993 to

During 1990 and from Q4 1992 to Q1 2001 the index was above 80; household finances were thought to be stable. For most of the period from Q2 2001 to Q3 2008 the index dropped into the At Risk category. In Q3 2008 the CCDI entered the Unstable category where it bottomed out in Q3 2009. It re-entered the At-Risk category in 2012. The CCDI illustrates that when households are at risk or unstable then consumption patterns will be altered.

U.S. CredAbility Consumer Distress Index



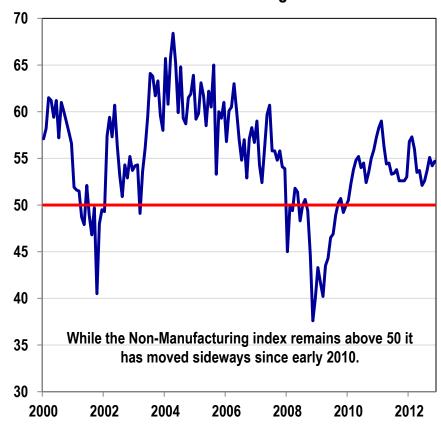
Source: Credability Nonprofit Credit and Counseling Education, FRED.

ISM Indices

ISM Manufacturing Index



ISM Non-Manufacturing Index



Sources: Institute for Supply Management (ISM), FRED.

False Starts in the Recovery

Job growth following the Great Recession has been agonizingly erratic.

- About 153,000 net jobs were added on a monthly basis in 2011 and about the same will be added in 2012.
- The problem is that about 225,000 jobs need to be added each month to lower unemployment significantly.

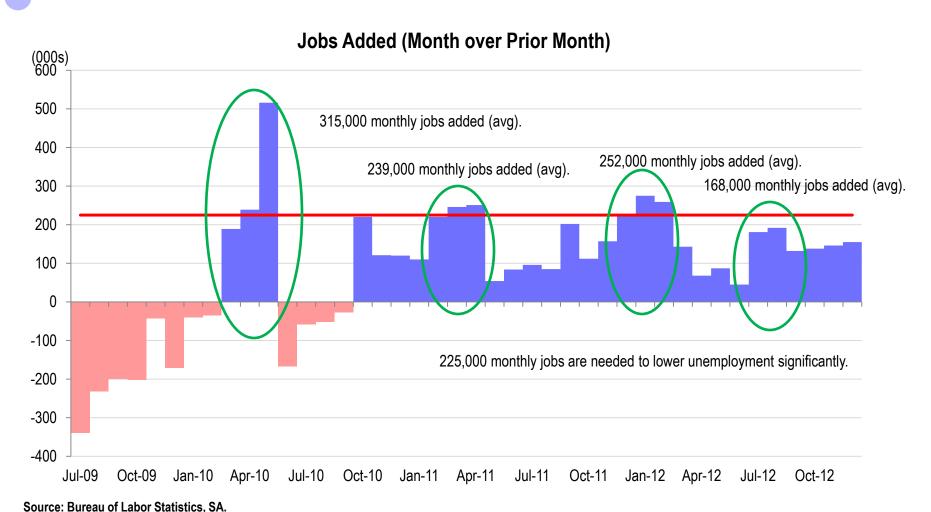
The economy has been too weak to support job growth as evidenced by the four false starts in seasonally adjusted job growth.

- An average of 315,000 jobs were added for the three month period March to May 2010 many were temporary Census workers.
- An average of 239,000 jobs were added for the three month period February to April 2011.
- An average of 252,000 jobs were added for the three month period December 2011 to February 2012.
- An average of 168,000 jobs were added for the three month period July 2012 to September 2012 it is
 debatable whether this job growth to strong enough to be classified as a false start.

The bottom line is that the U.S. has not experienced sustained strong job growth since the end of the recession in mid-2009.

Will the next showing of strength in employment growth signal the start of sustained strong growth?

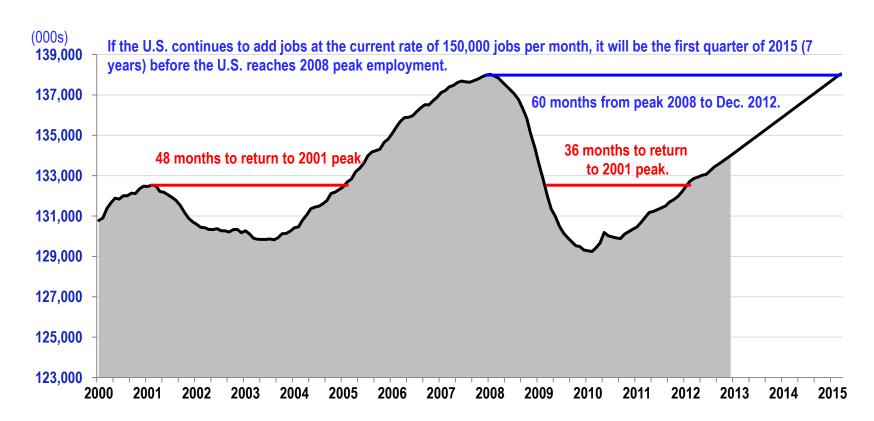
U.S. Employment Situation False Starts in Job Growth



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CES (SA) United States vs. Colorado TotalEmployment

U.S. Employment



Source: Bureau of Labor Statistics, SA, CBER.

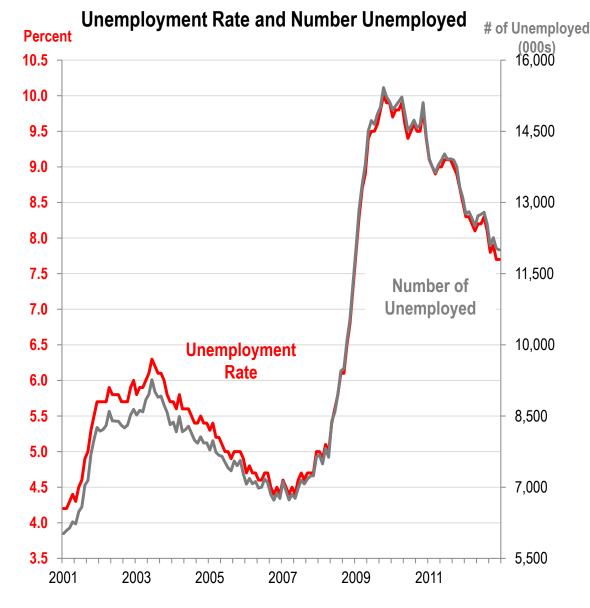
U.S. Unemployment Rate and Number of Unemployed

As expected, the change in the number of unemployed workers parallels variations in the unemployment rate.

In January of 2001 there were about 6 million unemployed workers in the U.S. In March 2009, that number exceeded 13 million. It peaked at 15.6+ million in Q4 2009 and slipped back to 12 million at the end of 2012.

The U.S. unemployment improved faster than anticipated in 2012, although most of that improvement came in the second half of the year.

There will be minimal improvement in the unemployment rate in 2013.



Source: Bureau of Labor Statistics, SA.

What to look for in 2013

The foundation is stronger.

- Debt is high and output and consumption are weak, but the foundation for continued recovery is stronger. Housing is improving and jobs are being added in most sectors. This should point to increased manufacturing.
- As the foundation becomes stronger, there will be an increase in personal income and ultimately higher wages, which
 in turn points to moderate gains in consumption and improved revenue streams for state and local governments.
 Governments, government spending, and government employment play an important role in the economy.
- As uncertainties about foreign markets and debt issues (personal and public) are addressed, American businesses will spend more.

Commodity prices will move sideways again.

- Commodity prices have been volatile, but many remain unchanged over the past year. More of the same is expected in 2013.
- As long as tension in the Middle East does not escalate, oil inventories are expected to remain high this is good news for consumers.

Inflation will remain in check.

- High unemployment and lack of demand for goods and services have kept inflation in check.
- More of the same is expected in 2013.

What to look for in 2013

The Fed is likely to show concern about the lack of growth.

- Throughout most of 2013, the Federal Reserve is likely to continue to show concerns about the lack of growth in the economy, particularly if there is fallout from the handling of the fiscal cliff/slope.
- If the economy improves during the second half of 2013, The Fed may begin to move to more of a neutral position.

Fiscal policy will remain tight.

- The amount of public debt is a major issue for the U.S, not to mention Europe and Japan.
- Regardless of the outcome of the fiscal cliff drama, the U.S. is likely to tighten fiscal policy to reduce the deficit (improve the US debt ratio) without impairing the rate of growth. That is easier said than done.
- It will be necessary for consumers to remain disciplined, as the balance sheets of many households remain at risk.

The Colorado Economy

Overview

The Colorado economy mirrors the U.S. economy. It has experienced five false starts and has failed to show the sustained strong growth needed to significantly lower the unemployment rate.

It is questionable whether Colorado is performing better than the nation. The Wage and Salary Employment data (CES) suggests that we are recovering faster than the nation. Colorado has added government jobs throughout the recovery while the U.S. has experienced declines. The Colorado private sector is adding jobs at a rate similar to the nation.

On the other hand, the LAUS employment data suggests that Colorado is lagging the nation in job creation - significantly. Anecdotal evidence suggests that Colorado is on a faster road to recovery than the U.S. If the CES and anecdotal evidence are correct, then the credibility of the LAUS data is in question.

As has been the case for the past two decades, Colorado continues to be a popular place to live and work. There have been significant gains in population even when there were declines in employment.

Overall, there will be improvement in the economy, but it (jobs and output) will occur in the second half of the year or in 2014.

What Others Say About the Colorado Economy in 2013 — It's Still Not a Pretty Sight Out There

Chase, OSPB, Demography Office

- In the publication, Regional Perspectives, Colorado Economic Outlook, Chase Bank projects nonfarm employment growth of 1.5%, or 34,600 jobs.
- The Governor's Office of State Planning and Budgeting believes that the unemployment rate will remain unchanged (7.9%) and only 28,200 wage and salary jobs will be added. There will be 26,300 building permits issued. Retail trade sales will increase by 3.8%, but retailers will be challenged to make ends meet with increased inflation of 2.9%.
- The forecast on the State Demographer's website, calls for nonfarm employment to increase by 41,300 or 1.8%, causing unemployment to drop to 7.5%. There will be 30,100 housing permits, Retail Trade Sales will increase by 6.9%, and the CPI will increase by 2.7%.

BBVA Compass, CLC, UCCS

- BBVA Compass projects wage and salary growth of 32,200 jobs.
- The Colorado Legislative Council believes the unemployment rate will remain unchanged (7.8%) and only 23,000 wage and salary jobs will be added. Retail trade sales will increase by 4.1%, 25,300 home building permits will be issued, and inflation will increase by 2.1%.
- University of Colorado at Colorado Springs expects a slight drop in unemployment to 7.6% and the addition of 23,000 wage and salary jobs. Single family permits will be 18,000 and retail trade sales will increase by 4.1%. Inflation will be 2.3%.

Source: The source for each forecast is provided in each bullet item.

Colorado Economic Trends

In 2012 there was a mix of good and bad news. The subsequent charts summarize current economic trends that will carry into 2013.

- Colorado's population will continue to grow faster than employment. The population will increase by 77,500 people in 2013.
- The Colorado housing market is outperforming the nation.
- For the time being, gasoline prices have dipped, giving consumers a breather at the pump.
- The State's General Fund is on the rise again, but costs to run the state government are escalating at a faster rate.
- The state legislature has a full plate of fiscal and social issues.
- There have been five false starts since the end of the recession two occurred in 2012. Will 2013 be the year that strong sustained job growth returns to the U.S.?
- The personal ledgers of Coloradans have improved, but they remain at financial risk.
- At the end of 2012 more than 200,000 Coloradans will be out of work.

Change in Population

It is essential to look at the change in population, and the composition of that change when preparing an employment forecast. Population changes and employment changes are related. With a population base of about 5.2 million and a wage and salary base of 2.3 million. The current ratio of employment to population is .44. About 44 of every 100 people are wage and salary workers.

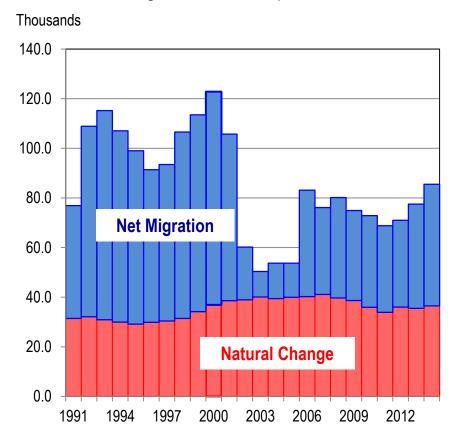
The population increases and decreases based on the natural rate of change (births – deaths) and the change in net migration (people moving in the state – people moving out of the state).

Over the past two decades that natural change has gradually increased from 31,400 in 1991 to 40,230 in 2006. The natural rate of increase has since been trending downward.

Changes resulting from net migration are closely tied to the strength of the economy. For example, there were five years, from 1986 to 1990, when net migration was negative. More people moved out of state than moved into the state to escape a regional recession. During the past two recessions, net migration declined, but unlike during the 1980s, it remained positive. In 2012, net migration will be about 35,000.

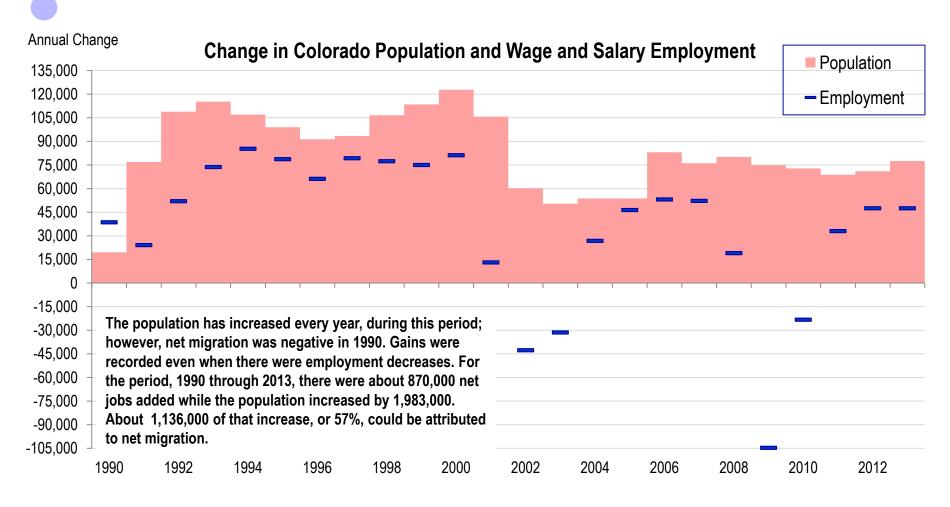
The Colorado population will increase by about 77,500 in 2013. Net migration will increase dramatically to 42,000, the second highest level in the past decade.

Change in Colorado Population 1991 - 2014



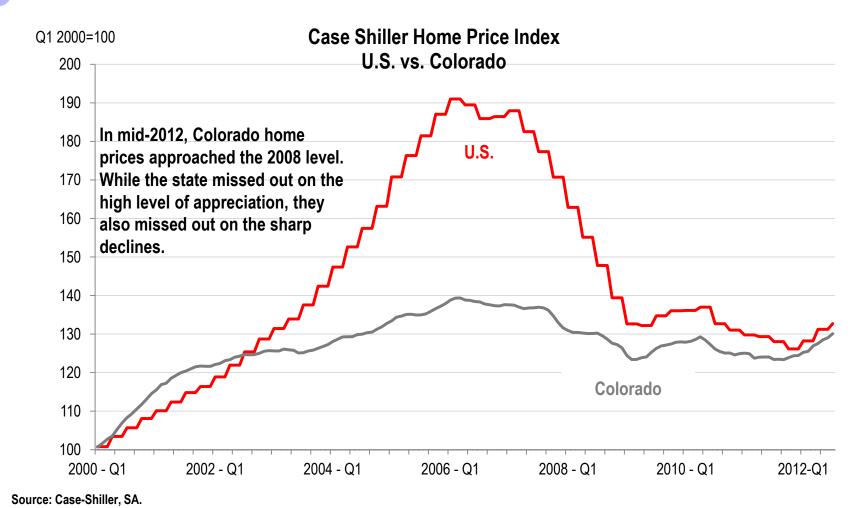
Sources: State Demography Office and CBER.

Annual Change in Population and Wage and Salary Employment

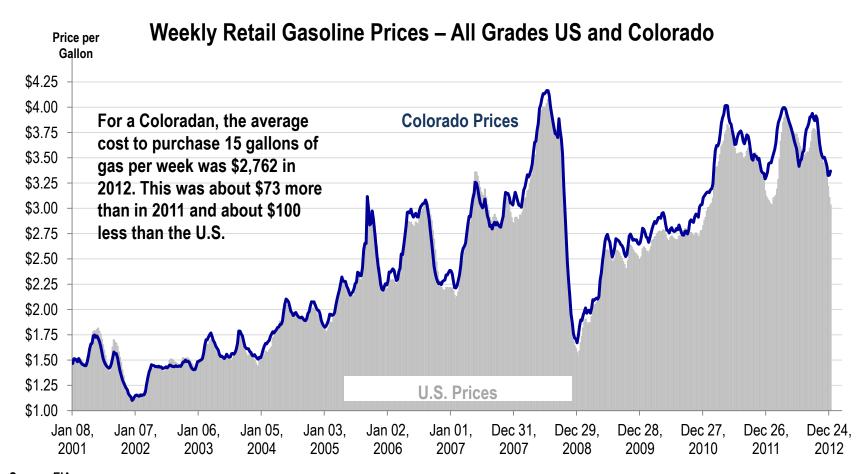


Source: Bureau of Labor Statistics, NSA, Colorado Demographer's Office, CBER.

Housing Prices – Case Shiller



Weekly Gas Prices



Source: EIA.

General Fund Revenue and the Legislative Agenda

The Great Recession played havoc with the budgets of state governments. Colorado was no exception.

Sales Tax Revenue accounts for about one-fourth of the Gross General Fund. Sales Tax Revenue for the Fiscal Year Ending (FYE) June 2013 is projected to exceed revenue for FYE 2008 (not adjusted for inflation).

It is projected that Net Individual Income Tax for the FYE June 2012 will exceed FYE June 2008 (not adjusted for inflation). This tax accounts for about two-thirds of Gross General Fund Revenue.

It is projected that General Fund Revenue for FYE June 2012 will be similar to FYE June 2008 (not adjusted for inflation).

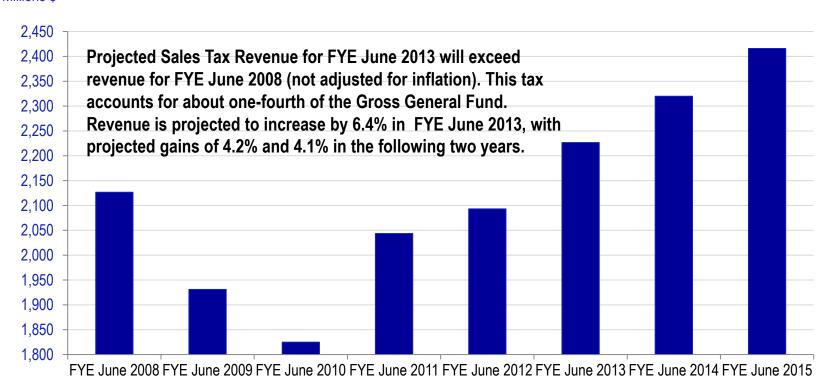
The Colorado State budget is much like the pocketbook of many Colorado residents. Over the past five years they have had to deal with wages that either declined or remained flat while experiencing expenses that escalated every year.

Note: The State Fiscal Year is July 1st through June 30th.

Colorado Sales Tax Revenue

Sales Tax Revenue

Millions \$

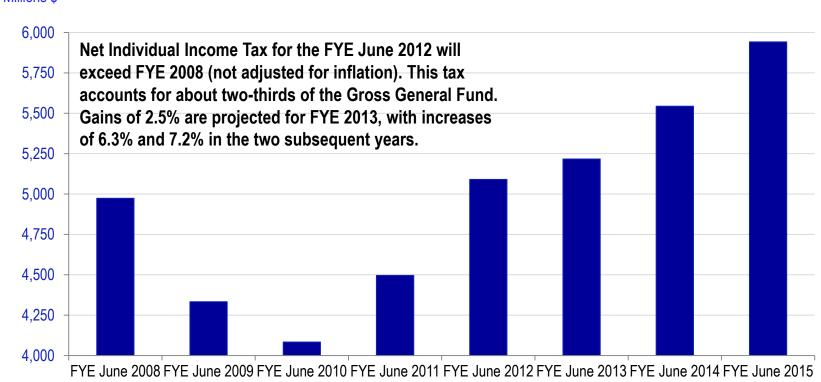


Source: Colorado Legislative Council, Dec. 2012.

Colorado Net Individual Income Tax

Net Individual Income Tax



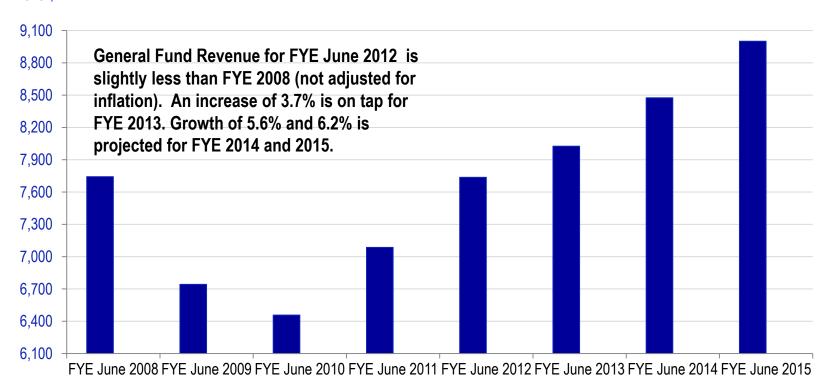


Source: Colorado Legislative Council, Dec. 2012.

Colorado Gross General Fund

Gross General Fund





Source: Colorado Legislative Council, December 2012.

Issues Facing the Legislature

Top Budget Priorities

- Protect the last and the least (Human Services)
- K-12 and higher education
- Economic development
- Infrastructure
- Public safety/Mental health
- Improve efficiency of state government/Pay increases
- Expansion of Medicaid

Other Important, but Time Consuming Issues

- Civil unions
- Tuition for undocumented immigrants
- Referendum on single-payer health insurance
- Lobato school funding lawsuit
- Metropolitan Transportation District
- Tolling and/or VMT
- HUTF money for transit
- RAMP (Responsible Acceleration of Mntnce & Projs.)
- Governmental immunity /raising of \$600K caps
- Peace officer bill of rights
- Fracking
- Renewable energy policy
- Thermal standards
- Eco-friendly architecture?
- Coal bed methane
- Public trustees and foreclosures
- Gun control

Source: OEDIT, Tomlinson and Associates, CBER.

Colorado Households Remain at Risk

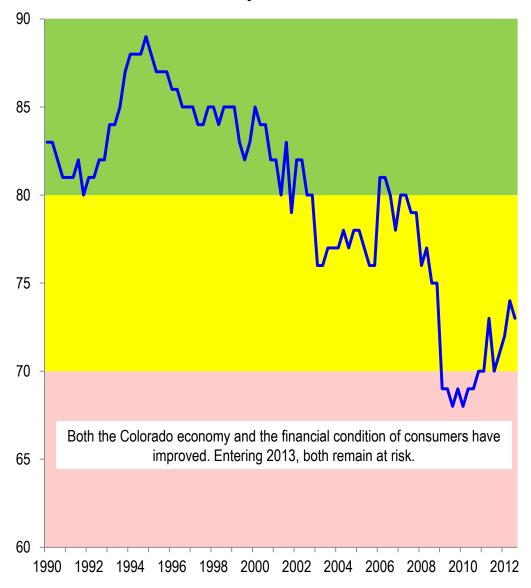
The Index is a quarterly comprehensive picture of the average American household's financial condition. It converts a complex set of factors into a single, easy to understand number. Financial distress is measured on a 100 point scale and a score under 70 indicates financial distress.

The index measures five categories of personal finance that reflect or lead to a secure, stable financial life— Employment, Housing, Credit, Household Budget and Net Worth. Each category has equal weighting.

90 and Above Excellent / Secure 80 – 89 Good / Stable 70 – 79 Weakening / At-Risk 60 – 69 Distressed / Unstable Less than 60 Emergency / Crisis

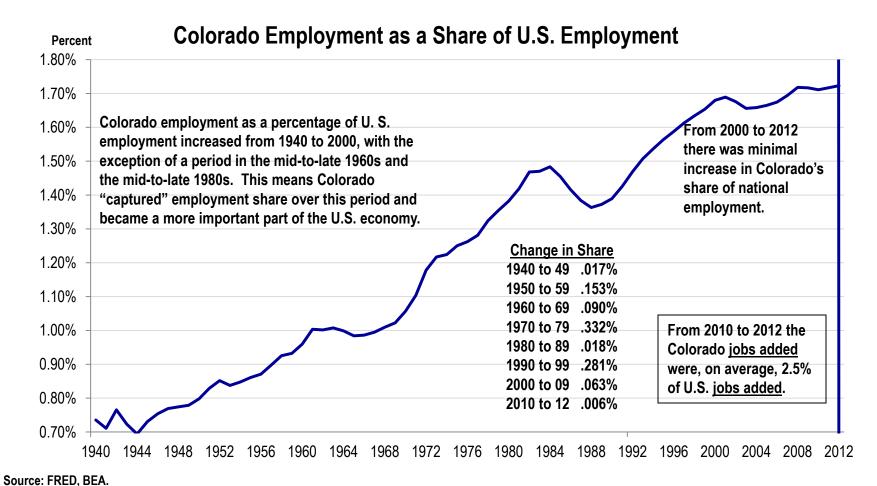
From 1990 through 2002 the index was above 80; household finances were thought to be stable. From 2003 to 2008 the index dropped into the At Risk category. For seven quarters beginning in Q1 2009 the CCDI was in the unstable category. Since Q4 2011 the CCDI has been in the At Risk category. Coloradans fare better than the U.S. on the CCDI.

Colorado CredAbility Consumer Distress Index



Source: Credability Nonprofit Credit and Counseling Education, FRED.

Colorado Employment as a Percentage of U.S. Wage and Salary Employment



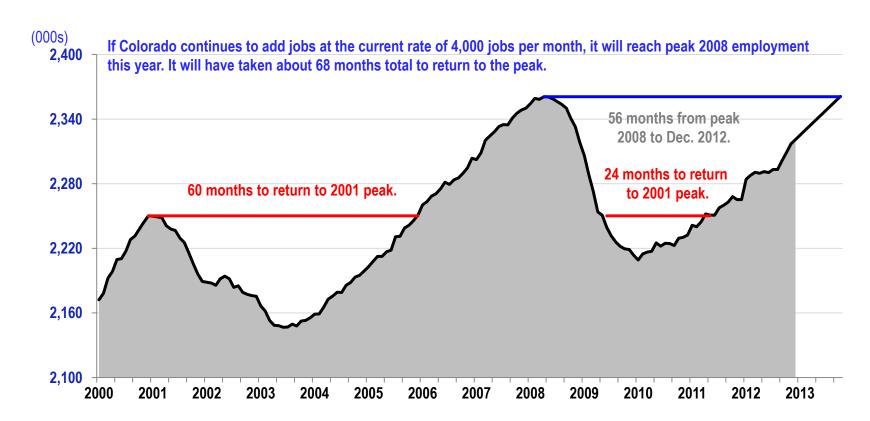
Colorado Employment Situation A Series of Unsustainable False Starts



Source: Bureau of Labor Statistics, SA.

CES (SA) Colorado Total Employment

Colorado Employment

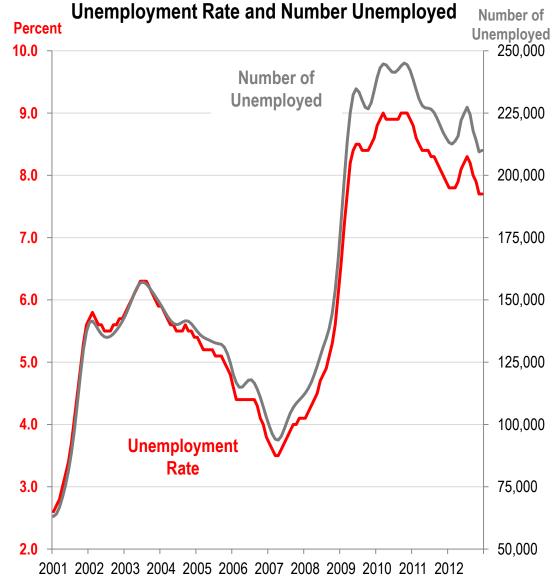


Source: Bureau of Labor Statistics, SA.

Colorado Unemployment Rate and Number of Unemployed

According to BLS, there is no statistical difference between the November 2012 unemployment rate and the corresponding rate for 2011 (7.7% vs. 8.0%). Data produced by Colorado Department of Labor and Employment indicates that the number of unemployed in Colorado has only decreased by 7,800 people over the past year. While there are many factors that go into the calculation of the unemployment rate, it is difficult to conceive that 45,000 to 50,000 wages and salary jobs have been added in 2012 and the number of unemployed dropped by only 7,800.

More importantly, at year-end 2012 there will be about 210,000 unemployed workers accounted for in Colorado.



Source: Bureau of Labor Statistics, SA.

Colorado Employment Forecast

Forecast Sector Portfolio Analysis

Portfolio Approach to Sector Performance

CBER feels the accuracy of the forecast and the understanding of the economy is enhanced by categorizing sectors into groups or portfolios based on their performance. Forecasts are then prepared for these categories based on past performance and feedback from business leaders and other economists.

The 2012 CBER forecast used this approach and it provided a high level of accuracy. CBER has grouped 22 sectors and subsectors into three categories: solid growth sectors, limited growth sectors, and volatile growth sectors.

This portfolio process has made it easy to see that some sectors consistently create jobs at a higher rate of growth, some show growth over time similar to the overall growth of the state, and others are more volatile.

Over the past year, CBER has refined the manner in which the sectors are grouped based on their performance over the past two decades. The evaluation factors include the rate of growth, number of years with positive job growth, size of the sector, and volatility in job growth.

Portfolio Ranges

Consistent Strong Growth

- On average this category had an annualized growth rate of 3.25%, compared to 1.89% overall. The range of annualized growth rates for the sector was 2.47% to 4.21%.
- On average, the sectors showed growth in 18.7 of the 21 years from 1991 to 2011. The range was 17 to 21 years.
- In 1991 this category represented 24.0% of total employment.
- In 2011 this category represented 31.7% of total employment. Solid Growth
- On average this category had an annualized growth rate of 1.85%, compared to 1.89% overall. The range of annualized growth rates for the sectors was 1.10% to 2.20%.
- On average, the sectors showed growth in 18.0 of the 21 years from 1991 to 2011. The range was 15 to 20 years.
- In 1991 this category represented 40.0% of total employment.
- In 2011 this category represented 39.7% of total employment. *Volatile or Low Grow Sectors*
- On average this category had an annualized growth rate of .79%, compared to 1.89% overall. The range of annualized growth was -1.31% to 2.77%.
- On average the sectors showed growth in 12.1 of the 21 years from 1991 to 2011. The range was 8 to 15 years.
- In 1991 this category represented 35.9% of total employment.
- In 2011 this category represented 28.6% of total employment.

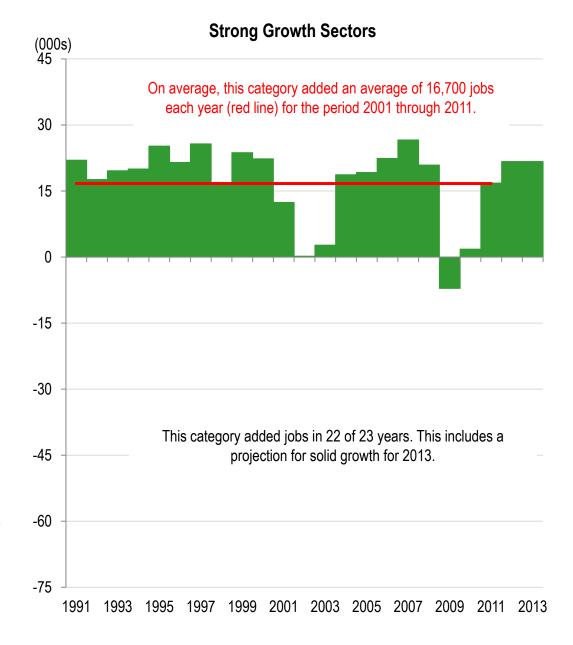
Annual Employment Situation for Strong Growth Sectors

Over the past two decades the following sectors have been the foundation for consistent growth in Colorado employment.

- Professional and Scientific
- •Management of Companies and Enterprises
- Business to Business (Not Employment Services)
- Private Education
- •Health Care
- •Arts, Entertainment, and Recreation
- •Other Services.

Total employment for this category was: 1991 387,300 workers, 25.1% of total employment 2001 592,200 workers, 26.6% of total employment 2011 715,200 workers, 31.7% of total employment.

Growth of this category in 2012 and 2013 will be comparable to most years during the past two decades. Between 19,000 and 25,000 workers will be added.



Source: Bureau of Labor Statistics, CBER.

What to Look for in 2013 Strong Growth Sectors

This category will encounter job growth of 2.9% to 3.1% and add 19,000 to 25,000 workers in 2013.

PST, MCE, Business to Business (Not Employment Services)

Professional, Scientific, and Technical Services – In 2011 the sector accounted for 9.7% of state private sector GDP and 9.2% of private sector employment. As well, many PST jobs are in the high-tech industry and are concentrated in the Front Range. Expect growth of about 3.0%.

Management of Corporations and Enterprises - This small sector has been a source of solid growth, for example Mrs. Fields moved the company's headquarters to Broomfield in 2012. There are three areas of high concentration for these companies - The City of Denver and the areas adjacent to Centennial and Rocky Mountain Regional Airport. Look for growth of at least 5%.

Business to Business (Not Employment Services) - This sector provides services used by other businesses, In 2008 Colorado had 175,410 businesses. By 2011 that number had declined to 166,537, a drop of 5.1% or 8,873 firms. As a result the sector showed a decline in employment. Growth in the range of 3.0% to 3.5% is projected for 2012 and the trend will be upward in 2013.

Private Education, Health Care, AER, and Other Services

Private Education – Private education increased every year from 1990 to 2011. Demand has increased with the growth in population and because higher education has not met the needs of industry in some areas. Job growth will be around 4.0%.

Health Care – Some in the industry are expressing concern about the "health care employment bubble", but the bubble will not burst in 2013. Continued population growth, particularly among aging baby boomers, will drive growth in the state. The state's community colleges set up programs and awarded degrees to meet the demand for medical workers, especially in rural parts of the state.

Arts, Entertainment, and Recreation – Gains in Colorado's Creative Industry have helped increase the size of the AER sector. Jobs will increase by about 1% in 2013.

Other Services. Over the past two decades the sector has grown at a rate slightly greater than the growth in population. It will increase by 1.3% to 1.7% in 2013.

Annual Employment Situation for Solid Growth Sectors

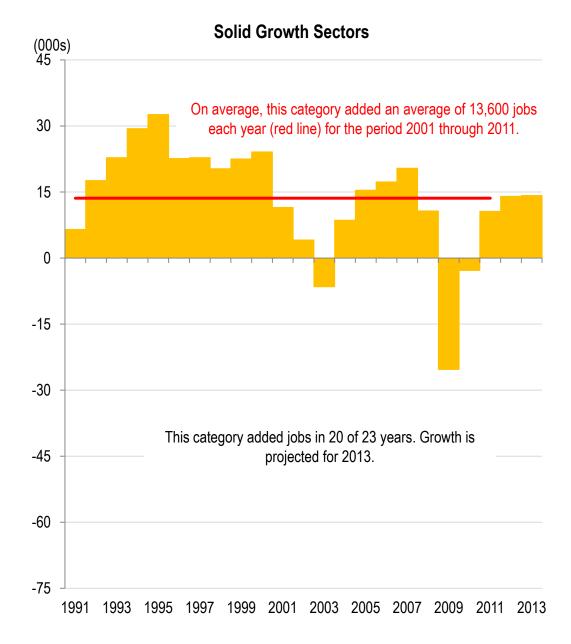
Over the past two decades the following sectors generally posted gains. As a group their growth rates were stronger gains during the 1990s than the 2000s.

- Wholesale Trade
- •Retail Trade
- State (Not Higher Education)
- Higher Education
- Local (Not K-12 Education)
- •K-12 Education
- •Accommodations and Food Services Individually, some of these sectors have remained relatively flat during most of the past decade.

Total employment for this category was:

1991 615,600 workers, 39.8% of total employment 2001 841,800 workers, 37.8% of total employment 2011 894,700 workers, 39.7% of total employment

Growth of this category in 2012 and 2013 will be about average for the past two decades. Between 12,000 and 16,000 jobs will be added.



Source: Bureau of Labor Statistics, CBER.

What to Look for in 2013 Solid Growth Sectors

This category will record job growth of 1.4% to 1.6% and add 12,000 to 16,000 workers in 2013.

Trade and AFS

Wholesale Trade

The sector will post job gains of 1.5% to 2.0%, in line with moderate retail growth and slow business spending. The latter is likely to pick up in the second half of the year, particularly if political leaders show they are going to address public debt issues.

Retail Trade

Retail sales tax revenue is important to state and local governments. Sales are projected to increase by 3.5% to 4.5% in 2013 and inflation will rise by 2.0% to 2.3%. Retail competition will remain stiff in 2013 and employment will increase by 1.3%. In 2011 Retail employment accounted for 12.9% of private sector employment and the sector was 5.7% of state private sector GDP.

Accommodations and Food Services

Colorado will continue to be a popular place to visit and live. AFS growth will occur as a result of good snow, effective promotion of the tourism industry, and increased population. In 2011 the sector employed 12.1% of private sector workers, yet it only accounted for 3.3% of state private sector GDP. Job gains in 2013 will be in excess of 2.5%.

State and Local Government

Local (Not K-12 Education)

Local governments will begin to see increased revenues as a result of improved retail sales and property prices. As a result, layoffs are less likely than previous years. Employment will be flat in 2013.

K-12 Education

The combination of a growing population, strong teacher's union, and Amendment 23 has resulted in consistent growth in K-12 education. Tight budgets will mean that job gains will be less than 1% in 2013.

State (Not Higher Education)

Improved revenue streams and increased demand for services, i.e. population increases, will drive continued growth in the sector. Employment will increase by 1.5%.

Higher Education

From an employment perspective, Higher Education was not a participant in the Great Recession. Higher education is important to the nation's competitiveness, it has a strong lobby and solid fundraising efforts. Job gains of at least 3% are expected.

Annual Employment Situation for Volatile Growth Sectors

Over the past two decades the sectors listed below were the source of volatility.

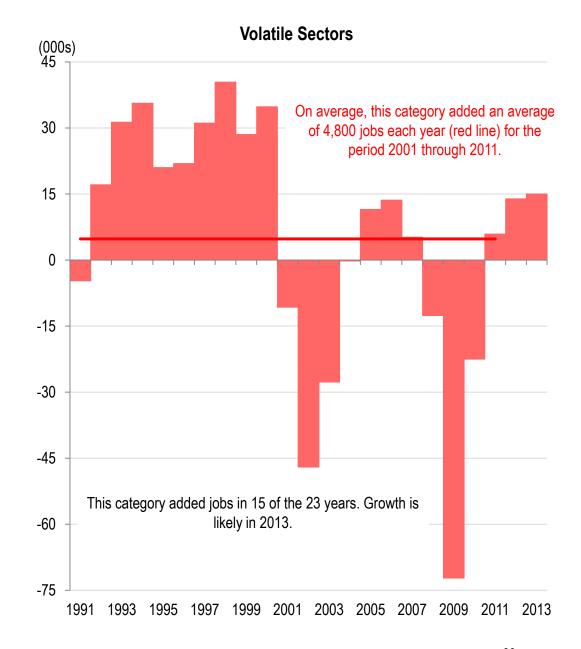
The sectors are:

- Natural Resources and Mining
- Construction
- Manufacturing
- •Transportation, Warehousing, and Utilities
- •Employment Services
- Financial Activities
- Information
- •Federal Government

Total employment for this category was:

1991 542,000 workers, 35.1% of total employment 2001 793,000 workers, 35.6% of total employment 2011 645,600 workers, 28.6% of total employment.

In 2012 and 2013 this category will add between 13,000 and 17,000 jobs .



Source: Bureau of Labor Statistics, CBER.

What to Look for in 2013 Volatile Growth Sectors

This category will encounter job growth of 2.2% to 2.4% and add 13,000 to 17,000 workers in 2013. The comparatively high growth rate is a reflection of the volatility experienced by the sectors within the category.

Goods Producing and TWU

Natural Resources and Mining

In 2011, the Extractive Industries represented 4.1% of private sector GDP and only 1.7% of the private sector employment. Natural gas prices are down and much of the drilling in state is for oil. Job growth will continue, but at a lower pace, below 8%.

Construction

There will be growth in select locations along the Front Range. In 2012 growth occurred in the specialty trades NAICS subsector. Building construction and heavy civil construction have been flat or trending downward. Overall, job growth is projected to be above 4%.

Manufacturing

Colorado has a low concentration of manufacturers. In 2011 the sector accounted for 6.9% of employment and 7.8% of private sector GDP. Job growth will be around 2.0 % in 2013.

Transportation, Warehousing, and Utilities

In 2011 TWU accounted for 3.7% of private sector GDP and 8.8% of state jobs. Growth may occur as a result of increased flights at DIA or the passage of Amendment 64 (warehousing). Job growth will be flat.

Employment Services, Finance, Information, Federal Government

Financial Activities

After declining for five years, the sector posted job gains in 2012. Recent growth has occurred as a result of increased demand for refinancing. Job growth around 1% is projected for 2013.

Information

Sector employment has trended downward since 2001, yet output has steadily trended upward. In 2011, the sector was responsible for 3.9% of private sector employment and 8.6% of State GDP. Growth in some subsectors may be constrained by the number of trained workers in the area. The Information sector will remain flat in 2013.

Federal Government

Since 1996 Federal Government Employment has varied form 52,000 to 55,000 workers. The one exception is 2010, when temporary workers were hired to conduct the U.S. Census. Employment will remain flat in 2013.

Employment Services

Companies will continue to bring on workers to in a temporary capacity until uncertainty about the current economic conditions subsides. Over the past decade employment has varied from 30,000 to 44,000. The sector will see job gains in excess of 7% in 2013.

Summary of 2013 Outlook

At the risk of sounding like a broken record, 2013 will look a lot like 2012 and 2011. Since the end of the recession, Colorado employment has had five false starts. Despite serious national and international headwinds, the state may finally have enough momentum to begin showing solid, sustained job growth beginning in the second half of 2013.

Strong Growth Category (About 32% of total employment) This category has consistently posted strong growth over the past two decades. In 2013, job growth will be 2.9% to 3.1%, slightly below the category's annualized growth rate of 3.25% for 1990 to 2011.

Limited Growth Sectors (about 40% of total employment) This category has consistently posted solid growth over the past two decades (Annualized rates for the sectors range between 1.1% to 2.2%.) In 2013, job growth will be 1.4% to 1.6%, slightly below the category's annualized growth rate of 1.85% for 1990 to 2011.

Volatile Growth Sectors (28% of total employment)

This category has been inconsistent in its growth rates over the past two decades. It is expected to add jobs at a rate of **2.1% to 2.3%.** This is above the category's annualized growth rate of about 0.79% for 1990 to 2011. This variance from the average is a reflection of the category's volatility.

Source: CBER.

2013 Employment Outlook

Optimistic Scenario
U.S. Real GDP greater than 2.3%
Colorado will add more than 55,000 workers

Most Likely Scenario
U.S. Real GDP 1.9% to 2.3%
The U.S. will add 1.9 to 2.1 million workers
Colorado will account for 2.5% of U.S. jobs added
Colorado will add 45,000 to 55,000 workers

Pessimistic Scenario
U.S. Real GDP less than 1.9%
Less that 45,000 Colorado workers

The probability of these scenarios follows:

Most LikelyOptimisticPessimistic23%.

There is slightly more upside potential than downside risk.

2013 Employment Forecast

Growth Sectors

- + 19,000 to 25,000 Employees
- Professional and Scientific
- Management of Companies and Enterprises
- •Business to Business (Not Employment Services)
- Private Education
- Health Care
- •Arts, Entertainment, and Recreation
- Other Services.

Limited Growth Sectors +12,000 to 16,000 Employees

- Wholesale Trade
- •Retail Trade
- State (Not Higher Education)
- Higher Education
- Local (Not K-12 Education)
- •K-12 Education
- Accommodations and Food Services

In 2012, Colorado will add 49,600 jobs followed by an increase of 45,000 to 55,000 jobs in 2013. It is likely that the increase will be in the upper half o that range.

Source: CBER.

Volatile Growth Sectors +13,000 to +17,000 Employees

Natural Resources and Mining

Twenty-two sectors and subsectors have been placed into three categories based on their growth patterns over the

past two decades. Forecasts for those sectors are prepared

and aggregated for the 2013 employment forecast.

- Construction
- Manufacturing
- •Transportation, Warehousing, and Utilities
- Employment Services
- Financial Activities
- Information
- Federal Government

Summary and Challenges

- Challenges for the Colorado Economy
- Financial System, Debt, Politics, and Demand

The Financial System, Debt, and the Political Process

- Nationally, the number one challenge facing the country is the lack of understanding about the role the financial system plays in the creation of debt and money and ultimately the performance of the economy. The lack of integrity (foreclosure abuse, Libor scandal, etc.) has marred the credibility of the financial system. When will public and private leaders realize the importance of understanding the financial system and the proper regulation of it?
- Nationally, political leaders have kicked the can down the road in recent debt ceiling discussions and the
 debate about the fiscal cliff. Public debt is currently larger than the Gross Domestic Product. When will political
 leaders meaningfully address excess spending and the debt associated with it? Likewise, when will consumers
 become more responsible about their debt levels.
- It is understood that the political process includes heated debate, partisanship, and verbal exchanges that may not be cordial. At the same time, the ugliness of the process has created a divide in the country and a lack of confidence in leaders. How much have these debates damaged the credibility of the political process?

Demand for Goods and Services

- Europe is a major trading partner for Colorado. How will the recession in parts of Europe impact Colorado?
- Given the high unemployment rate, minimal wage increases, and ambivalent consumers, will there continue to be sufficient demand for goods and services to foster stronger growth?
- How much longer can manufacturers improve productivity by making capital investments rather than investments in labor, i.e. when will hiring increase?
- There is an apparent lack of new firm creation. Is this caused by a lack of demand or insufficient innovation?

Challenges for the Colorado Economy Education, Workforce, and Infrastructure

Funding Education, Training the Workforce, and Maintaining the Infrastructure

- How much funding is really needed to properly educate students at the PK-12 level? How might the outcome of the Lobato education adequacy lawsuit affect that funding?
- There is a push to have higher education more closely meet the needs of the private sector. Is this an appropriate expectation? Will higher education be relevant 20 years from now? Is it relevant today? When will the higher education bubble burst?
- What is the role of the older worker in the workforce? How are key industries addressing their impending retirement? Have college graduates been squeezed out of the workforce?
- What is being done to address the mismatch between the skills that companies need and the skill sets of job applicants? Is it possible to completely address this mismatch?
- In FYE June 2013, Colorado General Fund gross revenues will finally exceed fund revenues for FYE June 2008, not adjusted for inflation. The legislature will face some tough fiscal challenges as program and agency costs and demand for services are greater than revenue increases. The problem is exacerbated by the structure of the state budget (Amendment 23, Tabor, Gallagher Amendment). It will be difficult for the legislature to meet required needs (K-12,medicaid, etc.) and provide adequate funding to maintain the state's infrastructure (roads, highways, bridges, etc.)

Challenges for the Colorado Economy

Legislative Issues

The 2013 Legislative Issues and Other Concerns for the State

- The Democrats control both houses and the governor's office. Will they act in the best interest of the state or their party?
- Water is a precious commodity, particularly for counties that rely on Agriculture. What are state and local governments
 doing to assure appropriate consumption and storage of water, now and in the future?
- Will legislation be put in place that will address concerns related to environmental protection and fracking? How would such laws impact production in Colorado?
- State Economic Development leaders have targeted Advanced Industries (Aerospace, electronics, etc.) as a key to the creation of primary jobs. Will leaders be successful in retaining current organizations in these areas, attracting other organizations to the state, and supporting start-ups in these industries? Is there sufficient quality innovation in the state to support the Advanced Industries?
- Retail trade sales taxes are the primary source of revenue for many cities. Is Colorado saturated with retail stores?
- Is there a health-care bubble on the horizon? How much longer can the Health Care sector continue to add jobs?
- From an academic perspective, the construction sector currently has too many employees, relative to other sectors. In other words, the industry has a location quotient well-above 1.0. Will the size of the sector stay in balance as the state grows?
- There are a number of unintended and unknown consequences that have resulted from the passage of Amendment 64. How well will the state manage the challenges associated with putting it in place?

And last, but not least, "Tebow didn't get the job done in 2012. Will Peyton Manning close the deal in 2013?"

Colorado Employment The Lost Decade and Beyond

The three years of recovery after the 2001 and Great Recession have similar job growth (assuming the CBER 2013 forecast is correct).

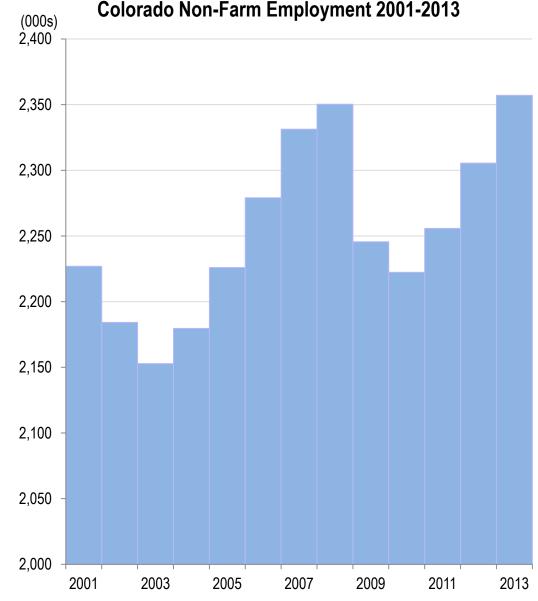
The job growth after the 2001 recession was:

- •2004 +26,800 jobs
- •2005 +46,400 jobs
- •2006 +53,100 jobs
- •126,300 jobs added.
- •On average 42,100 jobs were added each year.

Projected growth after the 2007 recession will be:

- •2011 +33,500 jobs
- •2012 +49,700 jobs
- •2013 +45,000 to 55,000 jobs will be added.
- •About 45,000 jobs will be added each year.

If the CBER forecast is accurate, 2013 will be the 18th time in 74 years that Colorado's annual job growth has been greater than 50,000. On the other hand, job growth has been greater than or equal to 2.2% on 28 occasions. Comparatively speaking, the change in 2013 employment will be lackluster.



Source: Bureau of Labor Statistics, CBER.

Colorado Economic Forecast 2013

This analysis is for informational purposes only. Any opinions or interpretations of data are those of the presenter. As such, they do not represent the viewpoints of any group or particular organization.

For further information contact Colorado-based Business and Economic Research (CBER).

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