

3rd Quarter 2012 Economic Updates

Prepared for: For a Colorado Bank's Board of Directors

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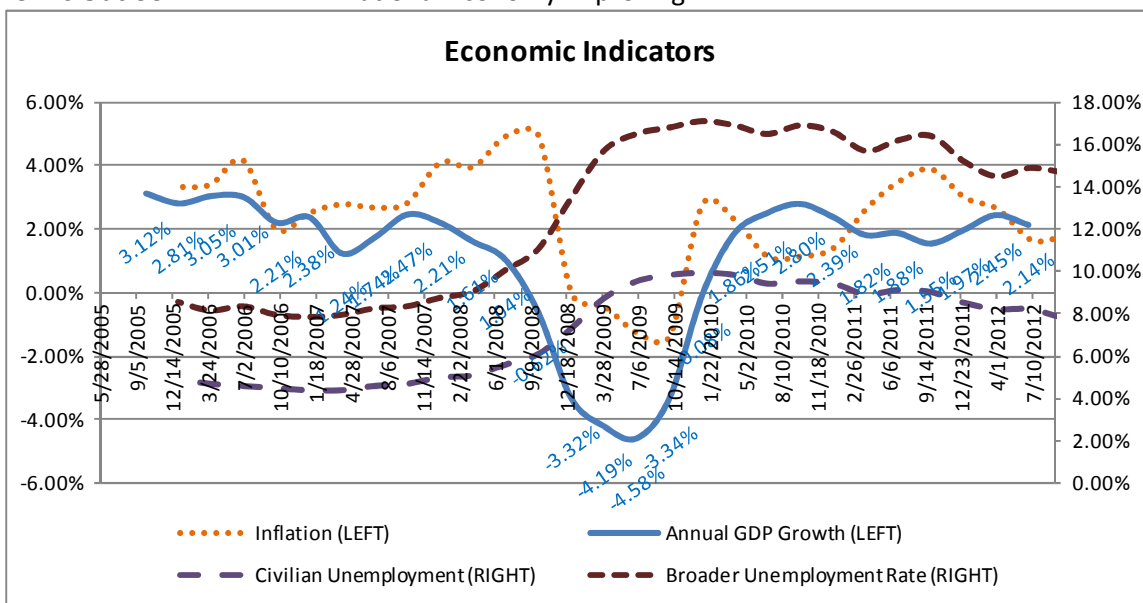
Date: October, 12, 2012

Executive Summary:

- **GDP Growth Holding:** The 2Q12 Annual GDP growth was 2.14%. The average long term Annual GDP growth is 3.23%, and when discounted for the housing sectors would be 2.70%. This implies that the non-housing sectors are approaching a full recovery.
- **Unemployment Recovery Steady:** Civilian Unemployment has improved from 10.00% (Oct '10) to 7.8% (Sep '12), and the Broader Unemployment rate has fallen from 17.20% (Oct '11) to 14.70% (Sep '12). The Civilian Unemployment rate of decline is holding steady at -0.69%/year. A full recovery at 6% and 4% is expected to be reached by 2Q15 and 1Q18, respectively.
- **Inflation Abated:** Inflation has abated to 1.70% (Aug '12) but is decreasing at a faster rate than from a quarter ago, from -0.16% to -0.22% and may pose deflationary risk by 1Q13.
- **Consumer Sentiments Improve:** Consumer Sentiments has picked up every month since Mar '12 from 67.5 to 78.3 (Sep '12), but Consumers are still holding back.
- **Banking Sector Improving:** The Velocity of Money M2 is 1.57 (2Q12), and its contraction has slowed from an average -11.15% in 2011 to -4.89% in 2Q12. The trend suggests that the growth in the Velocity of Money M2 should turn positive in Feb '14. Commercial & Industrial loan growth improved to 13.29% (Aug '12), and both Real Estate & Consumer loan growth are positive 1.35% and 2.18% (Aug'12), respectively, though still anemic these are improvements over previous months.
- **Property Sector Recovery:** Change in home prices finally turned positive 0.55% in Jun '12. Cautious optimism would suggest that it is still early to call a bottom. Commercial Mortgage delinquencies have improved to 3.8x 2006 levels, however Residential Mortgage delinquencies at 5.4x 2006 levels have not seen the same recovery.
- **Some Sectors Are Slowing:** Even though the ISM Manufacturing Index at 51.50 (Sep '12) is close to the long term average of 52.74, the index has been contracting from 59.70 since Apr '11. Construction spending growth is positive but it continues to decrease from 10.00% (Feb '12) to 6.46% (Aug '12). Like Construction, Retail & Food sector positive growth has slowed from 6.38% (Feb '12) to 2.93% (Aug '12). Taken together this would suggest that it is likely that GDP growth will slow.
- **Colorado State Improving:** The Colorado GDP grew 4.43% (4Q11), much better than the national economy. The CO Leading Index expanded by 7.41% (Aug '12) from a year ago. A definite positive for Colorado.

Economic Outlook:

National Economy Improving



Data Source: Federal Reserve Bank of St. Louis's GDP growth (GDPC1), inflation (CPIAUCSL), civilian unemployment (UNRATE) & the broader unemployment rate (UGRATE).

Date	Annual GDP Growth (LEFT)	Civilian Unemployment (RIGHT)	Broader Unemployment Rate (RIGHT)	Inflation (LEFT)
Sep-12		7.80%	14.70%	
Jun-12	2.14%	8.20%	14.90%	1.68%
Sep-11	1.55%	9.00%	16.40%	3.90%

- **Stable GDP Growth.** The revised data shows that Annual¹ GDP² at 1.55% (2Q11), 1.97% (3Q11), 2.45% (1Q12) and 2.14% in 2Q12. This reflects slow but steady improvement, but still less than the post recession 3Q10 peak of 3.51% and the long term average growth rate of 3.23%. That is, short of a failure to resolve the Fiscal Cliff, GDP growth will continue to improve.
- **The New Normal.** Usually the total housing market contributes 17.5%³ of GDP or 0.56% to a typical GDP growth of 3.23%. Given the current depressed housing sectors, a GDP growth of 2.70% can be considered normal. The US economy has bifurcated with recovery in spite of the lack of a housing recovery. Any GDP growth greater than 2.70% would imply housing sector recovery.
- **Declining Unemployment.** Unemployment peaked at 10.0% in Oct '09, and is 7.8% as of Sep '12. Though this number looks much better than Jul '12, 8.3%, the average rate of decline in the UNRATE⁴ has not changed significantly. With current trends expect unemployment to reach 6% by Apr '15, and 4% by Mar '18⁵.
- **Broader Unemployment Improving.** The Broader Unemployment Rate (UGRATE) has come down from its Oct '09 high of 17.2% to 14.7% in Sep '12 but is still above the long term average of 10.41%⁶.
- **Inflation Continues to Decrease.** In the past 12 months inflation⁷ has decreased steadily from Sep '11 of 3.90% to 1.70% in Aug '12 at an average rate of -0.22% per month. If this trend continues inflation is expected to turn negative by Mar '13, as it did in 1949. This rate of decline has increased from the 2Q12 Economic Updates of -0.16%.

¹ The Annual GDP growth metric (GDP growth measured over 4 Quarters) is less volatile (i.e. less noisy) than the Quarter-to-Quarter metric that is reported in the news, and is a better indicator of trends than the Quarter-to-Quarter metric.

² GDPC1 started in 1947. The Real GDP growth, a high of 13.36% in 3Q 1950, a low of -4.58% in 2Q 2009; 1947-2012 average of 3.23%.

³ <http://www.nahb.org/generic.aspx?sectionID=784&genericContentID=66226>

⁴ UNRATE started in 1948. Civilian Unemployment, a high of 10.80% in Dec 1982, low of 2.50% in May/June 1953; 1948-2012 average of 5.82%.

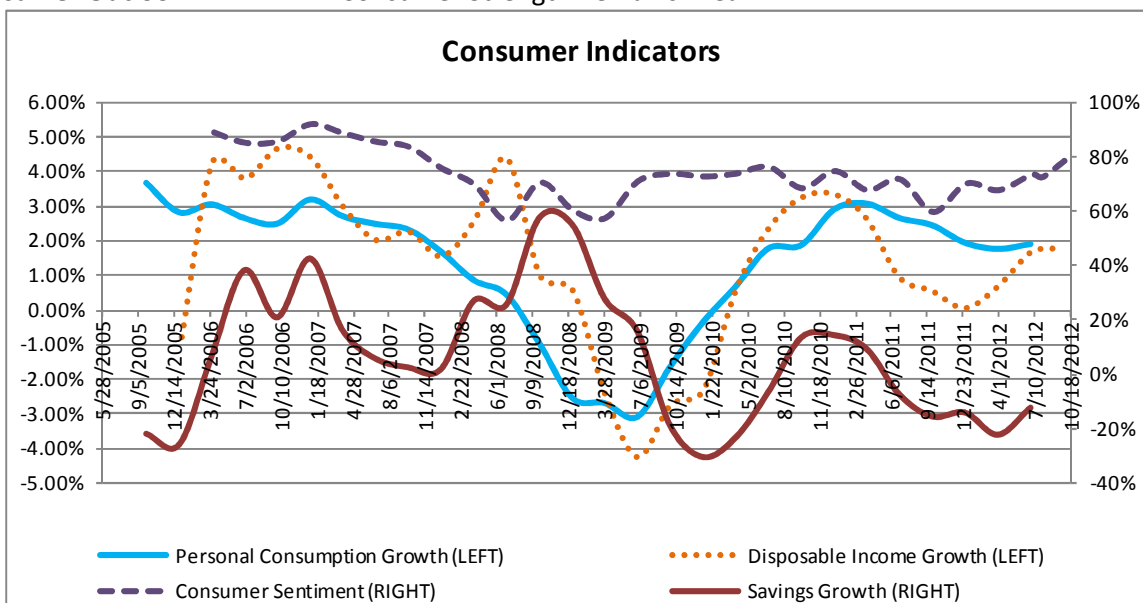
⁵ Note, when Unemployment reach 10.80% in Nov '82 to took 5 year to decline to 6% in Aug '87.

⁶ UGRATE started in 1998. Broader Unemployment, a high of 17.20% in Oct 2009, low of 6.80% in Oct 2000; 1998-2012 average of 10.41%.

⁷ CPIAUCSL started in 1947. Inflation high of 14.59% in Mar/Apr 1980, low of -2.99% in Aug 1949; 1947-2012 average of 3.70%.

Consumer Outlook:

Consumer Strength Remains Weak



Data Source: Federal Reserve Bank of St. Louis's Consumption (PCECC96), Disposable Inc. (DSPIC96), U of MI Consumer Sentiment (UMCSENT) & Healthcare Coverage Rate (USHICCOVCT). Note: UMCSENT is divided by 100 to fit on the graph.

Date	Consumer Sentiment (RIGHT)	Personal Consumption Growth (LEFT)	Disposable Income Growth (LEFT)	Savings Growth (RIGHT)
Sep-12	78.3			
Jun-12	73.2	1.91%	1.63%	-12.50%
Mar-12	67.5	1.77%	0.65%	-22.51%
Sep-11	59.5	2.45%	0.53%	-15.77%

- **Consumer Sentiments Improving.** The Consumer Sentiments⁸ has picked up every month since Mar '12 from 67.5 to Sep '12, 78.3. However, it is still below the long term average of 85.33⁹.
- **Personal Consumption Growth Improving.** The Personal Consumption growth turned positive in 1Q10 and has remained in positive territory since, with a 1.91% growth as of 2Q12. 1.91% is an improvement over 1Q12 Board Economic Updates of 1.80%. However, it is still below the long term average of 3.36%¹⁰.
- **Anemic Disposal Income Growth.** Disposal Income growth dipped into negative territory -0.19% in Jan '12, and has remained positive every month since, to 1.75% in Aug '12. However, it is still below the long term average of 3.25%¹¹.
- **Savings Remains Negative.** From 2006 to mid 2009 Disposable Income grew at a faster rate than Personal Consumption, ensuring growth in Savings. This has reversed from late 2009 to 2012 except for a very short period in mid 2010. As of 2Q12 Savings contraction of -12.50% is well below the 1959-2012 average of 3.92%¹².
- **Consumers Uncertain.** A test of changes in the Savings versus Consumer Sentiments before and after the Great Recession of 2008-2009, shows that prior to 2007, Savings impacts Consumer Sentiments 7 month later. However, after 2007, this reversed and change in Consumer Sentiments had the opposite effect of Savings 3 months later. That is Consumers behavior changed from more likely to save to more likely to spend, suggesting that tight budgets & future uncertainty are major concerns.

⁸ Data shown on graph is divided by 100 to fit in with the other time series on the same graph.

⁹ UMCSENT started in 1978. UM Consumer Sentiments, high of 111.30 in Feb '00, low of 51.7 in May '80; 1978-2012 average of 85.33.

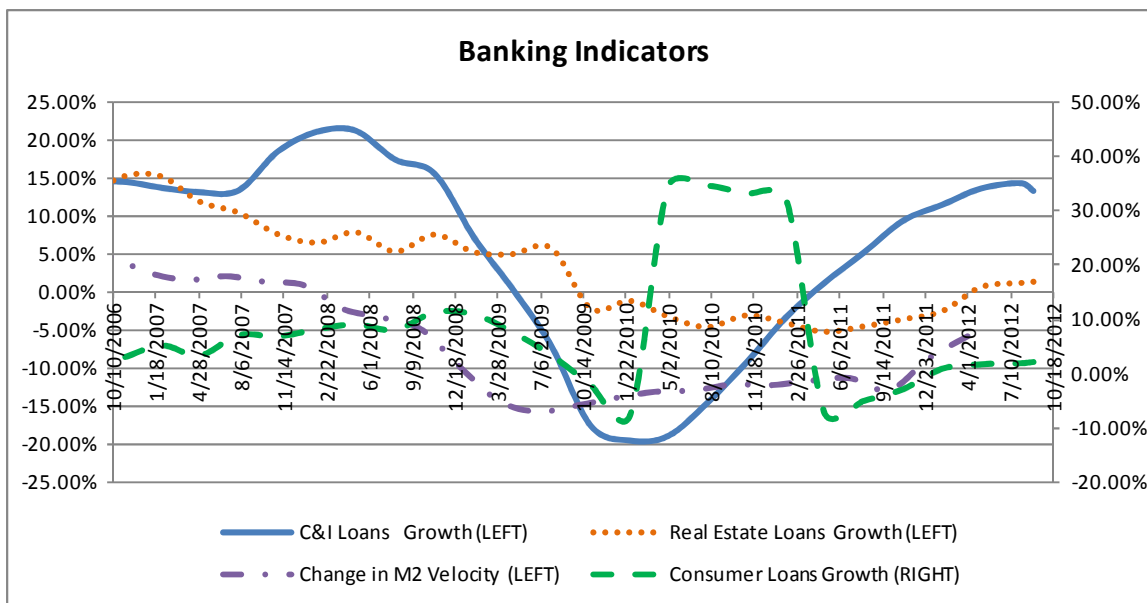
¹⁰ PCECC96 started in 1947. Personal Consumption growth, high of 10.22% in 3Q1950, low of -3.09% in 2Q 2009; 1947-2012 average of 3.36%.

¹¹ DSPIC96 started in 1959. Disposal Income growth, high of 8.70% in Apr 1973, low of -4.86% in May 2009; 1959-2012 average of 3.25%.

¹² Calculated as DSPIC96 – PCECC96. Savings growth, high of 71.96% in 2Q 1988, low of -47.73% in 2Q 1987; 1959-2012 average of 3.92%.

Banking Outlook:

Bank Lending Turned Around



Data Source: Federal Reserve Bank of St. Louis's C&I (BUSLOANS), Consumer (CONSUMER), Real Estate (REALLN) loans & Velocity of M2 (M2V).

Date	C&I Loans Growth (LEFT)	Consumer Loans Growth (RIGHT)	Real Estate Loans Growth (LEFT)	Date	Change in M2 Velocity (LEFT)
Aug-12	13.29%	2.18%	1.35%	Jun-12	-4.89%
Jul-12	14.30%	1.96%	1.17%	Mar-12	-5.78%
Jul-11	5.17%	-4.99%	-4.52%	Mar-11	-11.65%

(\$Billions)	C&I Loans	Consumer Loans	Real Estate Loans	Date	Velocity of M2 Money Stock
Aug-12	1,462	1,111	3,533	Jun-12	1.57
Jul-12	1,451	1,109	3,536	Mar-12	1.58
Jul-11	1,270	1,087	3,495	Mar-11	1.67

- **Improving Velocity.** The contraction in the Velocity of Money M2¹³ averaged -5.07% (2008), -14.72% (2009), -12.60% (2010) and -11.15% (2011). At this rate the growth in the Velocity of Money M2, should turn positive in Feb '14, which is 5 months earlier than estimated in the 2Q Board Economic Updates.
- **C&I Bright Spot.** Commercial & Industrial Loan¹⁴ growth continues to be the bright spot in the bank-lending, having bottomed in Oct '10 at \$1,199 Billion, growth turned positive in Mar '11 at 0.08% and is now at 13.29% as of Aug '12. This is above the long term average growth rate of 7.88%.
- **Anemic Consumer Loan Growth.** Consumer (Individual) turned positive in Jan '12 at 0.94%, and as of Aug '12 it is at 2.18%. This growth rate is anemic as it is well below the historical average of 9.00%¹⁵.
- **Anemic Real Estate Loan Growth.** Real Estate loan growth turned a positive 0.20% in Mar '12. As of Aug '12 it is at 1.35%. This growth rate is anemic as it is well below the historical average of 10.08%¹⁶.

¹³ M2V started in 1959. M2V growth, high of 14.92% in 4Q 1994, low of -15.73% in 2Q 2009; 1959-2012 average of -0.04%.

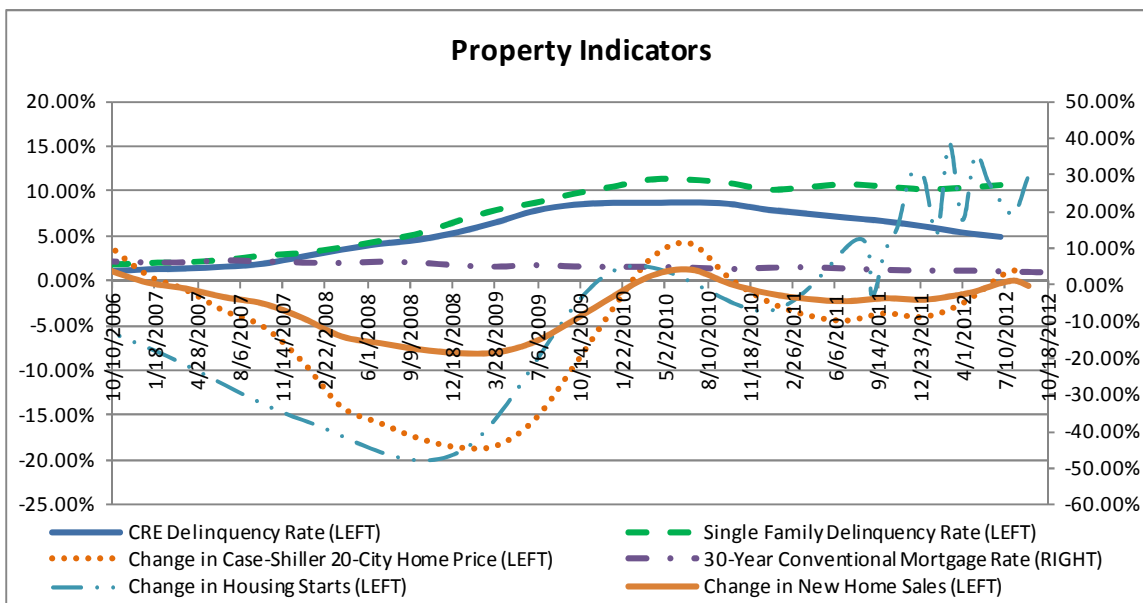
¹⁴ BUSLOANS started in 1947. BUSLOANS growth, high of 39.03% in Jun 1951, low of -19.85% in Feb 2010; 1947-2012 average of 7.88%.

¹⁵ CONSUMER started in 1947. CONSUMER growth, high of 38.87% in Jan 1948, low of -8.94% in Feb 2010; 1947-2012 average of 9.00%.

¹⁶ REALLN started in 1947. REALLN growth, high of 29.77% in Jan 1948, low of -5.22% in Apr 2011; 1947-2012 average of 10.08%.

Property Outlook:

Residential, the Exception to Recovery



Data Source: Federal Reserve Bank of St. Louis's Case-Schiller (SPCS20RSA), CRE Delinquency (DRCRELEXFACBS), Single-Family Delinquency (DRSFRMACBS), Housing Starts (HOUST), New 1-Family Homes for Sale (HNFSEPUSSA), Average Sale Price (ASPNSHSUS) & 30-Yr Mortgage Rates (MORTG).

Date	CRE Delinquency Rate (LEFT)	Single Family Delinquency Rate (LEFT)	Change in Case-Shiller 20-City Home Price (LEFT)	Change in Housing Starts (LEFT)	Change in New Home Sales (LEFT)	30-Year Conventional Mortgage Rate (RIGHT)
Sep-12						3.50%
Jun-12	4.95%	10.61%	0.55%	22.60%	0.55%	
Dec-11	6.12%	10.15%	-4.03%	29.31%	-4.03%	3.96%
Dec-10	7.96%	10.09%	-2.36%	-7.23%	-2.36%	4.71%

- *Home Prices Increased.* The Case-Shiller 20-City Home Price Index¹⁷ appears to have bottomed at 136.59 in Jan '12. The annual home prices increase turned positive, 0.55% in Jun '12. Home prices are -31.32% below their 206.64 Apr '06 peak and -7.22% below the 2000-2012 average of 153.16.
- *Commercial Mortgage Recovery by 4Q14.* Commercial Mortgage delinquencies are 4.95% in 2Q12, and still high at 3.8x 2Q06 rate of 1.32%. Current trends are stable, and delinquencies are expected to return to 2006 levels by 4Q14.
- *Residential Mortgage Recovery Slowed.* Residential Mortgage delinquencies are 10.61% in 2Q12, and still very high at 5.4x 4Q06 rate of 1.95%. Recovery trends continue to slow and delinquencies will return to 2006 levels by 2Q43, a deterioration from 2Q12 Board Economic Updates forecast of 4Q26.
- *Housing Starts Improve.* New housing starts increased significantly 29.09% (Aug '12), and have increased every month since Sep '11. However, note that housing starts at 750 are well below the 1959-2012 average of 1,471¹⁸.
- *New Home Sales Declined.* One-family New Homes sold excluding unsold for sale, declined -0.26%¹⁹ in Aug '12. This is a significant improvement from previous two month of -14.45% (Jul '12) and -14.65% (Jun '12). The average growth in New Homes sold between 1975-2012 was 4.63%.
- *Mortgage rate lower.* The 30-Year Conventional Mortgage Rate is at a 41 year low at 3.50%.

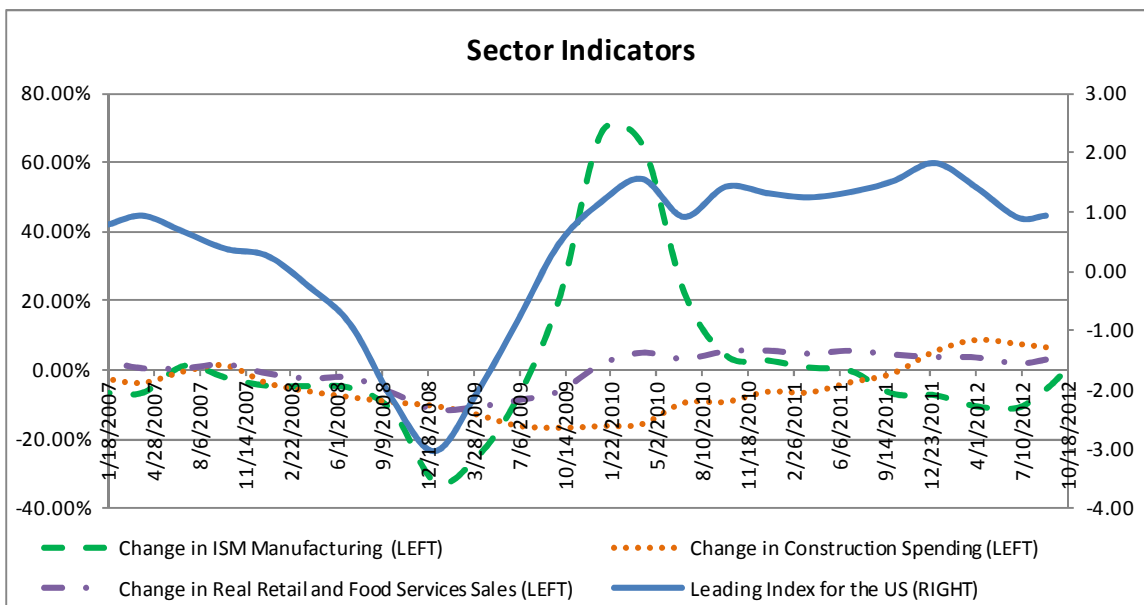
¹⁷ SPCS20RSA started in 2000. SPCS20RSA growth, high of 17.08% in Aug 2004, low of -18.95% in Jan 2009; 2000-2012 average of 2.90%.

¹⁸ HOUST started in 1959. HOUST, high of 2,494 in Jan 1972, low of 478 in Apr 2009; 1959-2012 average of 1,471.

¹⁹ One-Family New Home Sales = HNFSEPUSSA*ASPNSHSUS/1000.

Sectors Outlook:

Some Sectors are Slowing



Data Source: Federal Reserve Bank of St. Louis's Leading Index (USSSLIND), ISM Composite Index (NAPM), Construction Spending (TTLCONS) Retail and Food Sales (RRSFS).

Date	Leading Index for the US (RIGHT)	Change in ISM Manufacturing (LEFT)	Change in Construction Spending (LEFT)	Change in Real Retail and Food Services Sales (LEFT)
Sep-12		-1.90%		
Aug-12	0.94	-5.52%	6.46%	2.93%
Sep-11	1.52	-6.91%	-1.08%	4.39%

- Leading Index Stabilizes.** The US Leading Index increased significantly since the recession from -3.10 in Jan '09 to a high of 1.84 in Nov '11 and then declined to the current 0.77 in Jul '12, has recovered very slightly to 0.94 in Aug '12. It is significantly below its historical high of 3.60²⁰ in Aug '83, and below the long term average of 1.17.
- Manufacturing Contracts.** ISM Manufacturing PMI Composite Index is at 51.50, marginally below the long term average of 52.74²¹, significantly below the Jul 1950 peak of 77.50. The Sep '12 51.50 is a decline of -1.90% from a year ago.
- Constructions Growth Slowing.** Total Construction Spending turnaround from a low of \$795 billion in Feb '10 to \$837 billion as of Aug '12²². The contraction in the industry was at its worst in Nov '09 at -17.34%, and has been positive since Nov '11 and at 6.46% as of Aug '12. However, this positive growth seems to be slowing since Feb '12 when growth peaked at 10.00%.
- Retail Growth Slowing.** Retail and Food Services Sales has had positive growth since Dec '09. However, the growth has slowed since Feb '11 peak of 6.38%²³, at an average rate of -0.17% per month. Though there was a uptick to in Aug '12, this may be the exception, and one can expect a contraction by Jan'14.

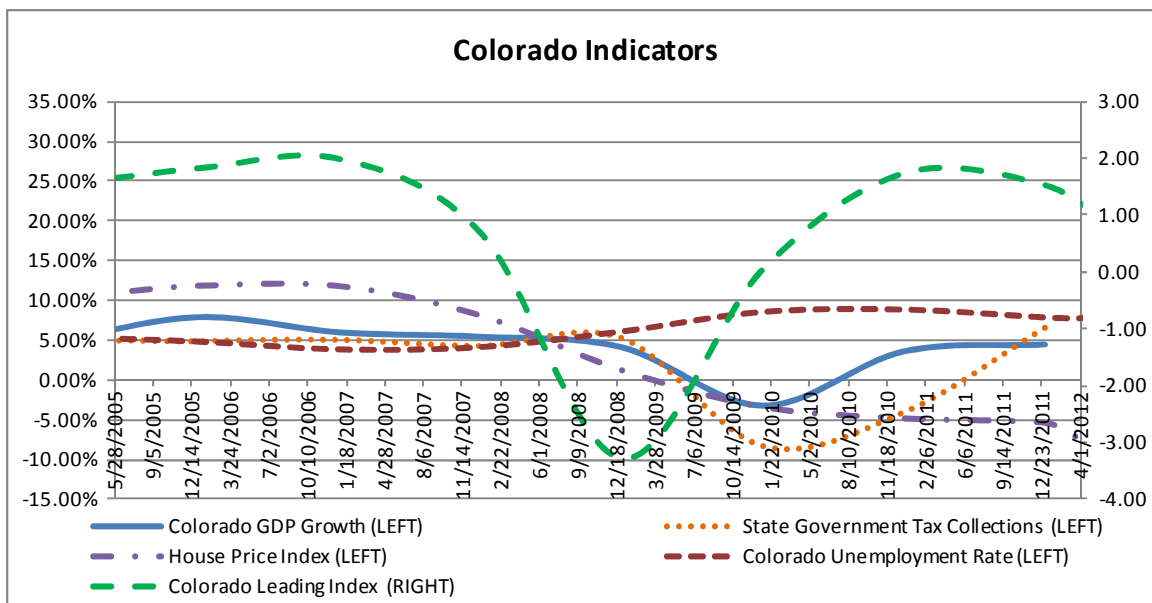
²⁰ USSSLIND started in 1982. USSSLIND, high of 3.60 in Aug 1983, low of -3.10 in Jan 2009; 1982-2012 average of 1.17.

²¹ NAPM started in 1948. NAPM, high of 77.50 in Jul 1950, low of 29.40 in May 1980; 1950-2012 average of 52.74.

²² TTLCONS started in 1993. TTLCONS growth, high of 14.25% in Jan 2006, low of -17.34% in Nov 2009; 1993-2012 average of 3.20%.

²³ RRSFS started in 1992. RRSFS growth, high of 8.30% in Mar 1994, low of -11.48% in Dec 2008; 1992-2012 average of 2.06%.

Colorado State Outlook: Looking Better with Risks



Data Source: Federal Reserve Bank of St. Louis's CO GDP Growth (CONGSP), CO Leading Index (COSLIND), Sales Tax (COSALESTAX), House Price Index (COSTHPI) & CO Unemployment (COUR)

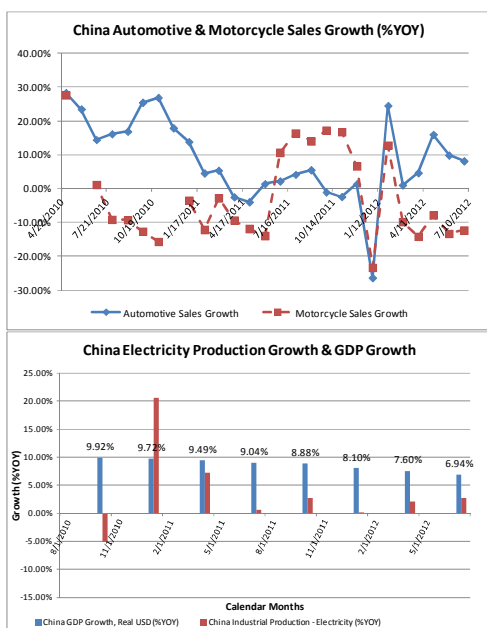
Date	Colorado GDP Growth (LEFT)	Colorado Leading Index (RIGHT)	State Government Tax Collections (LEFT)	House Price Index (LEFT)	Colorado Unemployment Rate (LEFT)
Aug-12		1.45			8.20%
Jul-12		0.69			8.30%
Dec-11	4.43%	1.53	6.59%	-5.25%	7.90%
Dec-10	3.55%	1.74	-3.97%	-4.70%	8.90%
Dec-09	-3.19%	0.05	-8.17%	-3.28%	8.60%

- **Better CO GDP Growth.** Colorado GDP growth is positive at 4.43% as of 4Q11. This is much better than the national economy's Annual GDP growth of 1.97% for the same period of 1Q11-4Q11.
- **Future Looks Better.** The Colorado Leading Index is 1.45 at Aug '12 and an expansion of 7.41% from a year ago.
- **State Revenues Improving.** Collection of Sales Tax has increased by 6.59% in 2011 compared to contractions of -3.97% in 2010 and -8.17% in 2009. Therefore, CO's GDP growth is converting into increased tax revenues.
- **Home Prices Fall.** The Colorado House Price Index shows a price decrease of -5.67% (2Q12) which is worse than the Case-Shiller 20-City Home Price Index increase of 0.55% (Jun '12).
- **Lags in Unemployment.** The Colorado unemployment is at 8.20% (Aug '12) which is the worse than the national average of 7.8% (Sep '12). In the 2Q Board Economic Updates the respective numbers were 8.1% and 8.2% (May '12), suggesting that Colorado's unemployment lags the national economy by several months if not a year.
- **Denver Real Estate Summary by CBRE:**

CBRE Local Reports	Total Vacancy		Direct Vacancy		Lease Rates		Net Absorption		Under Construction	
	3Q12	2Q12	3Q12	2Q12	3Q12	2Q12	3Q12	2Q12	3Q12	2Q12
Industrial	5.40%	6.30%	5.30%	5.70%	\$ 5.88	\$ 6.21	925K	1.4M	1.6M	841k
Office	15.30%	14.70%	15.00%	14.20%	\$ 20.08	\$ 20.00	(766K)	606K	557K	911K
Retail	7.70%	8.20%	7.40%	7.90%	\$ 15.89	\$ 16.57	400K	114K	487K	418K

On The Horizon: Hope, Clouds or Black Swans?

- **Hope as Fed Says Economy Grows 'Modestly'**²⁴: "The Federal Reserve said today that the U.S. economy was expanding "modestly" last month, supported by improvements in housing and auto sales, even as the labor market showed little change . . . The unemployment rate in the U.S. fell to 7.8 percent in September, the lowest since January 2009, according to the Bureau of Labor Statistics' survey of households. A separate survey of employers showed the economy added 114,000 workers".
- **More Clouds for China**: A review of selected segments of the Chinese economy²⁵ would suggest that in the immediate short term (3 months) China's GDP growth is positive (electric growth & luxury car sales) but there are longer term problems (automotive & motorcycle sales) in the economy that suggest a longer term (one year and more) slowdown.



1. Chinese²⁶ BMW's sales climbed 34% on sales of 3-series sedans & X1 compact SUVs. This is a small economic segment.
2. Between Aug '11 and Jul '12 the broader Automotive sales trend at 0.03% growth or essentially flat.
3. In this same time period Motorcycle sales contracted with negative trend of -0.10%, indicative of the bulk of the population slowing their spending.
4. Other segments²⁷ (not shown) of this economy are mixed depending on how they tie into the industrial or consumer segments.
5. The analysis of the growth rates of Chinese electricity output and GDP shows a significant correlation of 65%.
6. However, it is a good leading indicator by only 2 months, and therefore, expect GDP growth in Sep '12 & Oct '12.
7. Since 4Q10, GDP Growth has trended downwards at an average -0.43%/Quarter, suggesting a long term slowing of the Chinese economy. If this trend continues expect negative growth by 3Q16.
8. With a slowing Europe and tepid US growth it is unlikely that China will experience a GDP growth greater than 7% for some time to come.

- **The Fiscal Cliff Black Swan**: The 'fiscal cliff' – the \$607 billion²⁸ in tax and spending provisions set to expire at the end of the year is expected to impose fiscal restraint and hurt GDP growth. Current consensus of economists polled by Bloomberg is 1.9% growth for 1Q13, and 2.3% 2Q13. If Congress fails to act this could slow to 1% in 1H13 with real GDP projected to fall to -2.2% in 1Q13, and -1.3% in 2Q13. This is likely to cause higher unemployment, declining tax revenue and a mild recession in early 2013. The 'fiscal cliff' has already caused firms to cut back on investments, hiring, and prompted consumers to save more, adding to the slow economic recovery. Addressing these policy choices is now critical to long-term health of the U.S. economy.

Tax Changes	\$ Billions
Bush Tax Cuts	-221
2% Cut in Payroll Tax	-95
Partial Expensing of Investment	-65
Tax Provisions: Affordable Health Care Act	-18
Impact of Tax Changes	-400
Gross Impact of Spending Changes	-607
Less Secondary Effects on Economy	47
Net Impact on Fiscal Deficit	-560
Potential Hit on GDP	4%
Spending Changes	\$ Billions
Automatic Sequestration	-65
Expiration of Emergency Unemployment Benefits	-26
Scheduled Reduction in Medicare Payment Rates	-11
Other Revenue Increases/Spending Reductions	-105
Impact of Spending Changes	-207

²⁴ Fed Says Economy Grows 'Modestly' on Housing, Autos, <http://www.bloomberg.com/news/2012-10-10/fed-beige-book-says-economy-grows-modestly-as-housing-improves.html>

²⁵ National Bureau of Statistics of China, <http://www.stats.gov.cn/english/>

²⁶ <http://www.bloomberg.com/news/2012-10-04/bmw-s-chinese-sales-jump-reducing-concerns-of-slowdown.html>

²⁷ http://www.stats.gov.cn/english/pressrelease/t20120911_402834922.htm

²⁸ <http://www.businessinsider.com/bloombergs-guide-to-the-fiscal-cliff-2012-9?op=1>