

MESA COUNTY ECONOMIC UPDATE

Third Quarter 2018



Provided by the Business Department
of Colorado Mesa University

Economic Summary

- The Mesa County economy is performing extremely well with a 3.5% unemployment rate, a rising labor force, and strong sales tax collection.
- The real estate market in Mesa County continues to be in a sellers market, with appreciating home values, falling inventory, and rising new building permit applications.
- Western Colorado drilling permit applications are up. Oil prices continue to move higher, but natural gas prices are holding steady. Rig count in the Piceance stayed steady at 7 from last quarter.
- The national economy is very strong, with a high growth rate of 4.1%. Unemployment remains low at 3.9%, and investment is high. Slowly rising inflation and interest rates are the only negative news.

The Mesa County Economic Update is provided by the Business Department of Colorado Mesa University and is published quarterly. Please direct all correspondence to Dr. Nathan Perry, Associate Professor of Economics, 970.248.1888, naperry@coloradomesa.edu.

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LOCAL ECONOMIC INDICATORS

	Q2 2018	Q1 2018	Q2 2017	% change since last quarter	% change since last year (comparable quarters)
Local Labor Market					
Unemployment Rate Mesa County -SA	3.5%	3.8%	3.9%	-0.3%	-0.4%
Unemployment Rate Mesa County -NSA	3.3%	4.5%	3.7%	-1.2%	-0.4%
Unemployment Rate Colorado -SA	2.8%	3.0%	2.6%	-0.2%	0.2%
Unemployment Rate U.S. -SA	3.9%	4.1%	4.3%	-0.2%	-0.4%
Labor Force	75,439	74,544	73,302	1.2%	2.9%
Employed	72,966	71,208	70,605	2.5%	3.3%
Unemployed	2,473	3,336	2,698	-25.9%	-8.3%
Business Confidence					
Colorado Business Confidence Index	59.6	61.3	59.7	-2.8%	-0.2%
Sales/Use Taxes					
City Sales/Use Taxes (Q1 total)	\$14,203,936	\$13,269,393	\$13,095,905	7.0%	8.5%
City Sales/Use Taxes (Cumulative)	\$27,473,329		\$25,310,464		8.5%
Mesa County Sales/Use Tax (Q1 total)	\$9,146,030	\$8,382,075	\$8,354,738	9.1%	9.5%
Mesa County Sales/Use Tax (Cumulative)	\$17,528,105		\$15,645,963		12.0%
City Lodging Tax Revenue (Q1 total)	\$412,028	\$211,444	\$383,137	94.9%	7.5%
City Lodging Tax Revenue (Cumulative)	\$623,472		\$585,412		6.5%

Yearly Local Indicators	2016	2015	2014	% change since 2015	% change from 2014
Median Household Income	\$51,449	\$50,106	\$48,108	2.7%	6.9%
Mesa County Real GDP (in millions)	\$4,582	\$4,750	\$4,886	-3.5%	-6.2%
	2017	2016	2015	% change since 2016	% change from 2015
Population	151,616	149,794	148,116	1.2%	2.4%

SOURCES IN ORDER OF LISTING: Local Unemployment Rates: Bureau of Labor Statistics (LAUS); National Unemployment Rate: Bureau of Labor Statistics; Labor Force, Employed, and Unemployed: Colorado Department of Labor and Employment; Business Confidence: Leeds Business Confidence Index; Sales/Use/Lodging Taxes: City of Grand Junction, Mesa County; Local labor market yearly indicators: U.S. Bureau of the Census.

The Local Labor Market

The Mesa County economy continues its strong performance with an assortment of positive economic indicators. The seasonally adjusted unemployment rate for Mesa County now stands at 3.5%, an exceptionally low unemployment rate by historical standards. Not adjusting for seasonality brings a lower unemployment rate at 3.3%, down sharply from 4.5% last quarter. Generally speaking, non-seasonally adjusted unemployment is higher in the winter and lower in the summer and fall when seasonal work such as farm, home building, and tourist related activities pick up. Both employment (3.3%) and the labor force (2.9%) grew from last year, continuing their upward trajectory. The total number of unemployment fell by 225, or 8.3% from last year.

Compared to the gas boom of 2008, Mesa County has still not completely recovered in terms of labor force and employment numbers. However, the total number of unemployed has fallen by 407 since 2008. The difference of approximately 5,000 workers is likely entirely the results of lower natural gas prices. The natural gas industry has very high wages and high multiplier effects and can spur large labor force and employment swings.

Local GDP numbers have still not been updated past 2016 by the Bureau of Economic Analysis. Given the positive economic indicators for 2017 and 2018 it is likely we see an increase in local GDP when the data is released.

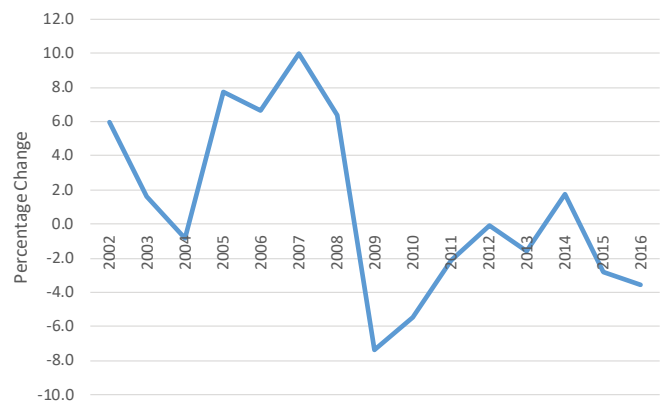
On the Relationship Between the Local and National Economy

The perception in Mesa County is that the local economy is completely separate from the national economy. This is a reasonable conclusion given the distance to the next major economic hubs (SLC, Denver), and the effect of the oil/gas industry on business cycles that other parts of the U.S. don't experience. One way to determine the relationship of economic trends is to run a correlation analysis. Table 2 illustrates the correlation of unemployment between Mesa County, Colorado, and the U.S. since 1990. There is a 94% correlation between the seasonally adjusted U.S. unemployment rate and the Mesa County seasonally adjusted unemployment rate. This is a high

Table 1:
Medium Run View of Employment (Based on Q2, 2018)

	Labor Force	Employed	Unemployed
Annual	2,136	2,361	-225
5-Year	1,538	5,776	-4,238
10-Year	-5,405	-4,998	-407
Annual %	2.9%	3.3%	-8.3%
5-Year %	2.1%	8.6%	-63.1%
10-Year %	-6.7%	-6.4%	-14.1%

Figure 1:
Mesa County Business Cycle (% Change in Real GDP)



SOURCE: FIGURE 1: Bureau of Economic Analysis

Table 2:
Correlation of Unemployment Rates Since 1990

	Mesa County	Colorado	U.S.
Mesa County	1.00		
Colorado	0.90	1.00	
U.S.	0.94	0.93	1.00

correlation that shows the local economy almost perfectly mimics the unemployment rate trends of the nation. The correlation between Colorado and Mesa County is 90%. Mesa County actually follows the trends of the U.S. closer than it follows the trends of the state. This is likely because the U.S. unemployment rate includes more local economies that are like Mesa County, whereas Denver and parts of the front range are experiencing growth that most of the U.S. can't compare with. I have argued several times that comparing Mesa County to Denver is not a good or fair comparison.

Unemployment is only one economic indicator, although an important one. The correlation for the U.S. Gross Domestic Product (GDP) and Mesa County GDP is 48%, a much lower correlation. Lagging and looking forward one period to see if Mesa County lags or proceeds the U.S. growth trend does not improve the correlation. The labor market is highly correlated and appears to follow the national trend, but GDP is only moderately correlated and follows the trend to a much lesser extent. In future newsletters I will look more in depth at the relationship between local data and national data for other data points.

Figure 2:
Mesa County Employment

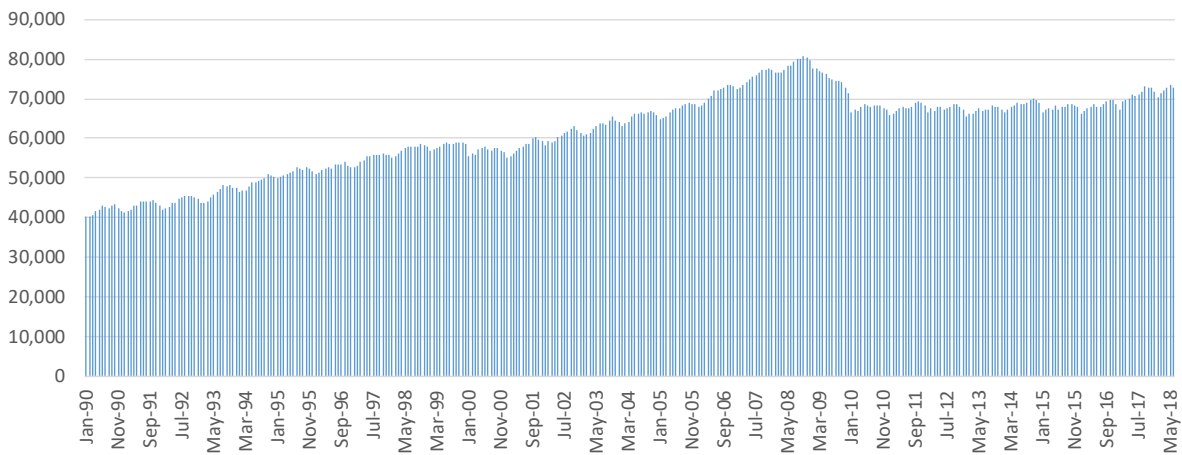
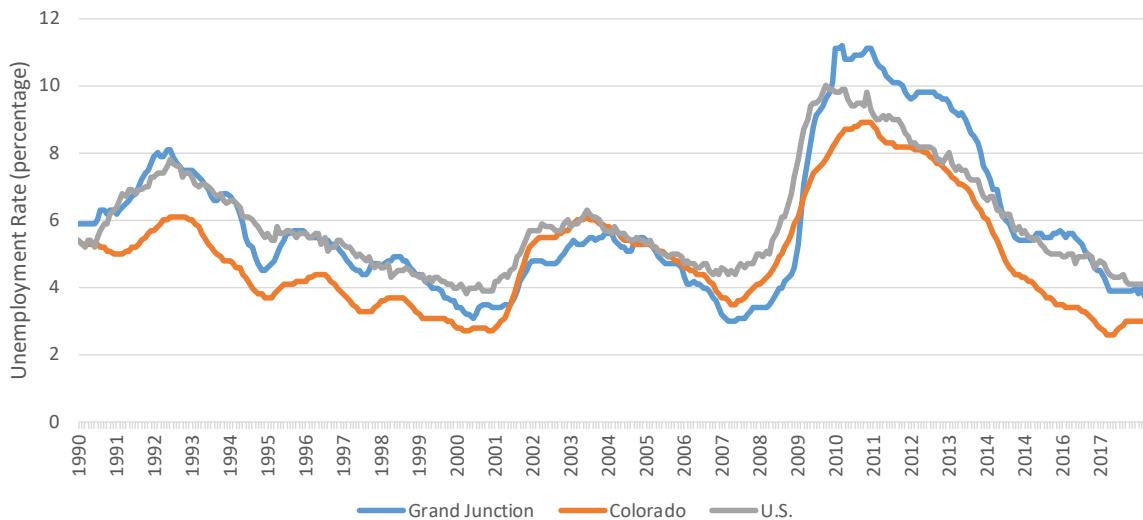


Figure 3:
Unemployment Rates



SOURCE: Figure 2: Colorado Department of Labor and Employment. Figure 3: U.S. Bureau of Labor Statistics

Mesa County Employment Trends

Table 3 illustrates average employment, total quarterly wages, and average weekly wage for all major industries in Mesa County. The natural gas industry (mining, quarrying, and oil and gas extraction) continues its huge employment surge from the employment lows of 2016. Since quarter 4 of 2016, employment in the gas/oil/mining industry is up by 925 jobs, increasing employment numbers by 57.3%. The energy industry had an increase in wages of 6.5% and pays one of the highest weekly wages at \$1,660 per week. Management of companies and enterprises saw a 9.2% increase in employment, while arts, entertainment, and recreation is up 6.9%. Construction (5.5%), manufacturing (6.3%), and transportation and warehousing (6.2%) saw large increases in employment year over year. There were large wage gains for almost all industries, with management of companies and enterprises (14.4%) and administrative and waste services (13.6%) leading the way. (Please note that new QCEW data has not been released since last quarter's newsletter).

Table 3:
Quarterly Census of Employment and Wages for Q4 2017

Sector	Average Employment 4th Quarter 2017	Total Quarterly Wages	Average Weekly Wage	Annual Percent Change in Employment (Compared to Q4 2016)	Annual Percent Change in Average Weekly Wages (Compared to Q4 2016)
Total	61,996	\$688,045,823	\$854	3.3%	4.5%
Total Government	9,534	\$115,526,279	\$932	-0.2%	1.9%
Total Private	52,463	\$572,519,544	\$839	4.0%	5.1%
Health Care and Social Assistance	10,454	\$122,864,787	\$904	3.5%	-2.5%
Retail Trade	8,345	\$61,391,007	\$566	-1.1%	6.6%
Construction	4,263	\$59,360,875	\$1,071	5.5%	4.8%
Mining, Oil, and Gas Extraction	2,538	\$54,784,495	\$1,660	57.3%	6.5%
Wholesale Trade	2,429	\$37,858,148	\$1,199	5.3%	6.4%
Manufacturing	3,058	\$35,040,106	\$881	6.3%	2.9%
Finance and Insurance	1,997	\$34,007,255	\$1,310	0.3%	4.5%
Professional and Technical Services	2,094	\$33,145,212	\$1,218	0.3%	-3.6%
Accommodation and Food Services	6,826	\$32,435,647	\$366	3.0%	7.3%
Transportation and Warehousing	2,201	\$27,477,988	\$960	6.2%	4.5%
Administrative and Waste Services	2,963	\$25,706,077	\$667	-3.9%	13.6%
Other Services, Ex. Public Admin	1,743	\$13,833,863	\$611	5.2%	1.0%
Real Estate and Rental and Leasing	1,025	\$10,875,465	\$816	0.6%	7.7%
Information	647	\$7,390,419	\$879	-5.4%	-4.1%
Management of Companies and Enterprises	167	\$4,662,485	\$2,148	9.2%	14.4%
Utilities	189	\$3,692,311	\$1,503	-4.5%	4.2%
Arts, Entertainment, and Recreation	853	\$3,465,209	\$312	6.9%	-3.7%
Agriculture, Forestry, Fishing & Hunting	330	\$2,481,930	\$579	-6.0%	6.4%
Educational Services	330	\$1,961,625	\$457	-0.6%	-1.1%

SOURCE: Colorado Department of Labor and Employment (QCEW). The most recent quarterly data available is reported.

Sales/Use/Lodging Taxes and Business Confidence

Sales tax collections are up 8.5% for the city and 9.5% for the county. City lodging tax revenue is up 7.5% from the same quarter last year. Sales tax collection has been strong now for several quarters which is good news for County and City officials and their ability to provide services. Colorado business confidence fell from last quarter, and is now down year over year.

LOCAL REAL ESTATE

	Q2 2018	Q2 2017	% change since last year
Real Estate			
Current Residential Listings (3 month avg)	838	924	-9.4%
Sold Residential Listings	1,160	1,130	2.7%
Days on Market	55	60	-8.3%
Median Sales Price	\$240,000	\$218,000	10.1%
Single Family Home Sales	1,206	1,202	0.3%
Total Building Permits	1,219	1,054	15.7%
Single Family Permits Mesa County	225	199	13.1%
Foreclosures			
Foreclosure Filings	64	96	-33.3%
Foreclosure Sales	29	63	-54.0%
Freddie Mac House Price Index			
Grand Junction	185	169	9.1%
Colorado	203	185	9.4%
National	188	176	7.1%
Mortgage Rates			
15 Year Mortgage Rate	4.0%	3.2%	0.8%
30 year Mortgage Rate	4.5%	4.0%	0.6%

SOURCES IN ORDER OF LISTING: Current and Sold Residential Listings, Days on Market: Bray Real Estate (from MLS); Median Sales Price, Single Family Home Sales, Permits: Mesa County Assessor's Office; Foreclosure Filings and Sales: Mesa County Public Trustee Office; Freddie Mac House Price Index and Mortgage rates: Freddie Mac.

Local Real Estate Indicators

The Mesa County real estate market continues its upward pace with prices increasing 10.1% since Q2 of 2017. Sold listings have risen, and current residential listings have fallen, which means that there is less inventory, pushing prices higher. This has been the trend for several quarters in Mesa County. Single family home permits have risen 13.1% since last year, while total building permits are up 15.7%. According to the Freddie Mac house price index Grand Junction had a higher house price appreciation rate last quarter than Colorado and the U.S. Grand Junction has fallen back below the Colorado number but above the National index where it has historically been. Days on market is a historically low 55 days, which means homes are selling faster than they ever have. The lack of inventory and insatiable demand for housing continues to make Mesa County a strong sellers market.

With local and national housing at an all time high, the question for economists is how long can this last? The consensus from economists is that house prices have risen to the point that they are becoming unsustainable for the wages that are supporting the house payments. Housing has drastically increased in price, while wages have only moderately increased. With rising interest rates and an awareness from the public regarding housing bubbles learned in the 2009 crisis, most economists believe home values will top out soon and begin to move horizontally. A future recession accompanied by higher unemployment could force a small pullback in home values. Very few economists believe that as of now, we are in for a housing bust like 2009. Most economists are predicting a "soft landing" for housing when the time comes. Although housing may be slightly overvalued right now, the conditions in the banking and mortgage system are much stronger than they were in 2009, thus the financial crisis brought about by poor mortgages and credit default swaps is less likely to happen.

Local Real Estate Research

In 2017 a CMU research team led by myself (Nathan Perry) conducted a study sponsored by the Bureau of Land Management and the Grand Junction Area Realtor Association. The research was directed at investigating the impact on home values of the proximity to natural amenities. Many people move to Mesa County to be near trails and public lands, and people are willing to pay to be in close proximity to biking and hiking. The study used three different multiple regression models, including a panel regression and a spatial regression model to understand the impact of natural amenities on home values controlling for all other characteristics of the home (such as square feet, number of bedrooms, lots size, etc), socioeconomic characteristics of the neighborhood, and disamenities. The study results are summarized below. If you are interested in the full report you can download it here at the following link: <https://www.coloradomesa.edu/natural-resource-center/> under research reports, socioeconomic studies, find the report titled "Mesa County Hedonic House Price Study."

Figure 4:

Natural Amenity Distance Comparisons (Percentages)

Natural Amenity	250 meters (820 feet)	500 meters (1,640 feet)	1000 meters (3,280 feet)
Trail	4.54***	3.26***	0.24
BLM	-0.20	9.07***	4.85*
Golf course	12.70***	8.45***	7.67*
Public park	-0.51	-1.51*	-5.52***
River	0.00	-5.90***	-5.80***
Colorado National Monument	12.90***	9.93***	13.80***

*** Indicates significance at the 99% level, ** Indicates significance at the 95% level, *Indicates significance at the 90% level

- Homes located within 250 meters of a trail sell for 4.45% more, while homes located within 500 meters of a trail sell for 3.26% more. For the average home value of \$208,602, this equates to \$9,470 added value at a distance of 250 meters and \$6,800 for homes within 500 meters of a trail. If the distance is expanded to 1000 meters the result becomes statistically insignificant.
- Homes located within 500 meters of BLM land sell for 9.07% more, or \$18,920 for the average home. Homes within 1000 meters of BLM land sell for 4.85% more, or \$10,117 for the average home.
- Homes located within 250 meters of a golf course sell for 12.70% more (\$26,492), and homes located within 500 meters of a golf course sell for 8.45% more (\$17,626). Homes within 1000 meters of a golf course sell for 7.67% more (\$16,000).
- Homes located within 250 meters of the Colorado National Monument sell for 12.90% more (\$26,909). Living within 500 meters of the Colorado National Monument increases home values by 9.93% (\$20,714). Homes within 1000 meters of the Colorado National Monument sell for 13.80% more (\$28,787).
- Homes located within 500 meters of public parks sell for 1.4% less, indicating that home buyers find close proximity to public parks as a negative characteristic.
- Each additional bathroom adds 5.5% to the value of the home, equating to \$11,473 per bathroom.
- Given the same characteristics of a single family residential home, a condo sells for 52.50% less than a single family home, while townhomes sell for 23.50% less.
- Homes in Palisade sell for 13.60% more than homes in Grand Junction, while homes in Fruita have a statistically insignificant difference compared to homes in Grand Junction.
- Quarter 3 is the top selling quarter, and homes sold in quarter 1 sold for 6% less than homes sold in quarter 3. Homes sold in quarter 2 and 4 are not statistically different than those sold in quarter 3.
- The value of a home decreases by -.40% each year, equating to approximately \$834 less per year (age) for the average home.
- Controlling for all characteristics of the home, living in the Redlands increases home values by approximately 10%. Living in Palisade increases home values by approximately 12%. Homes in the area of Clifton sell for almost 20% less, while homes in Fruitvale sell for approximately 9% less. The Fruitvale zip code was broken into the areas of Fruitvale North and Fruitvale south, which are separated by the river. Fruitvale North homes sell for 6.2% less, while Fruitvale South homes sell for 16.2% less. Homes in Orchard Mesa sell for approximately 3% less, homes in North Grand Junction sell for approximately 5% more, and Fruita is statistically insignificant.

REGIONAL ENERGY

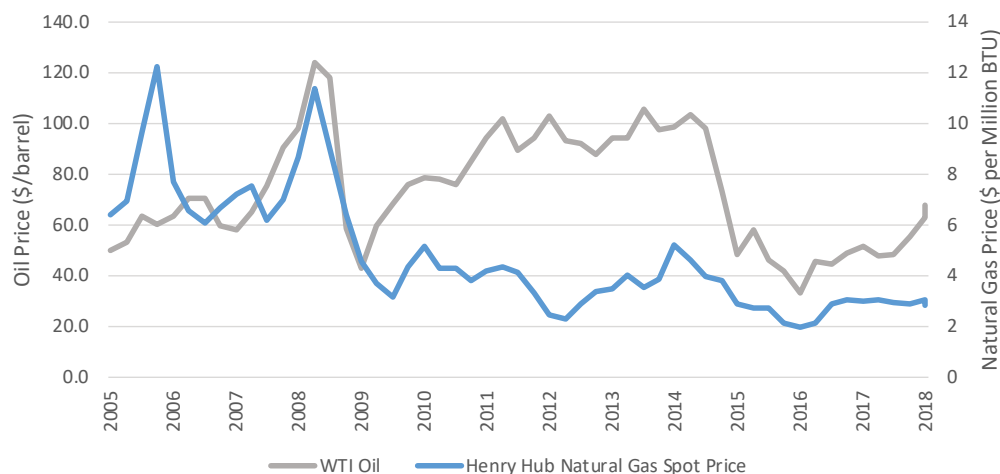
	Q2 2018	Q1 2018	Q2 2017	% change since last quarter	% change since last year (comparable quarters)
Energy Prices					
WTI Crude Oil	\$68.1	\$62.9	\$48.1	8.2%	41.5%
Henry Hub Natural gas	\$2.9	\$3.1	\$3.1	-7.1%	-7.1%
Retail Gasoline Price	\$2.8	\$2.5	\$2.3	11.0%	19.7%

Drilling Permits	2018 YTD (as of June 1st)	2017 YTD (as of June 1st)	2017 Total	% Change since same time last year
Drilling Permits (Mesa County)	24	110	215	-78.2%
Drilling Permits (Rio Blanco County)	56	31	118	80.6%
Drilling Permits (Garfield County)	250	164	612	52.4%
Drilling Permits (Moffat County)	2	3	5	-33.3%
Total Permits (Mesa, Rio Blanco, Garfield, Moffat)	332	308	950	7.8%
Total Permits (Colorado)	1,389	1,565	3,909	-11.2%

Local Rig Count	Aug-18	May-18
Rig Count (Western Colorado, Mesa, Rio Blanco, Garfield, Moffat)	7	7

SOURCES IN ORDER OF LISTING: All energy prices: Energy Information Agency; All permit data from Colorado Oil and Gas Conservation Commission (COGCC); Local Rig Count: Baker Hughes Rig Count as of February 25th, 2018.

Figure 4:
Oil and Natural Gas Prices



SOURCE: Energy Information Agency

Natural Gas Prices

Natural gas prices fell in Q2 2018 to \$2.9/MMBtu from \$3.1/MMBtu. This decrease in price happened despite higher than average temperatures. Large natural gas supply injections have largely offset the increase in demand caused from warmer weather. Despite high natural gas demand and low natural gas inventories, prices have not risen due to the constant flow of natural gas production that is hitting the market. The EIA estimates that production is now at 81.8 Bcf, an 11% increase from last year. March through July saw the largest production increases in history, largely due to drilling productivity increases. EIA forecasts that production will continue to increase reaching 84.3 Bcf/d by 2019. EIA also forecasts an average price of \$2.96/MMBtu for natural gas through 2018, and a small increase to \$3.10/MMBtu for 2019.

Source: <https://www.eia.gov/outlooks/steo/marketreview/natgas.php>

Oil and Gasoline Prices

Oil prices have risen 8.2% since last quarter, and a whopping 41.5% since the same time last year. West Texas Intermediate (WTI) prices now stand at \$68.10 for Q2. Prices could have risen higher, but higher OPEC and Russia production, and the return of Libyan oil to the oil market have kept oil below \$70. There are an assortment of current geo-political risks that are being priced into oil, including Iranian threats to block the straight of Hormuz, and some oil supply shipments being halted due to the Saudi Arabia-Yemen conflict.

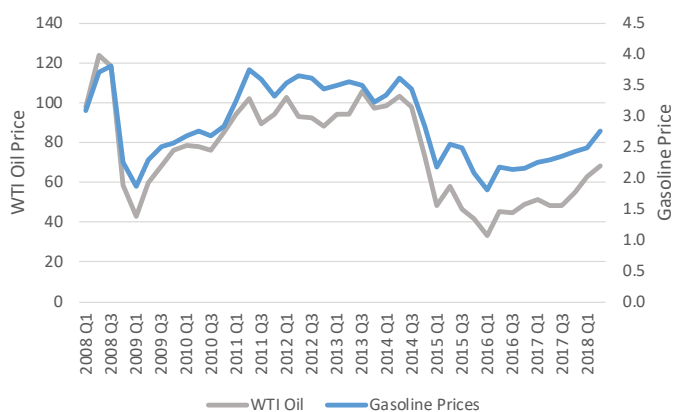
Gasoline prices are up 11.7% since Q1 and almost 20% since last year. Summer months generally have higher gasoline prices, and the EIA believes that gasoline prices peaked in Q2 of 2018 for the year. As of August 15th, 2018, Gasbuddy.com lists the average gas price in Mesa County at \$2.93. EIA expects gasoline prices to average \$2.76 in 2019. Figure 5 illustrates the relationship between crude oil prices and gasoline prices. In the event of international turmoil it is likely that gasoline prices would rise with crude oil values.

Source: <https://www.eia.gov/outlooks/steo/marketreview/crude.php>

Western Slope Drilling Activity

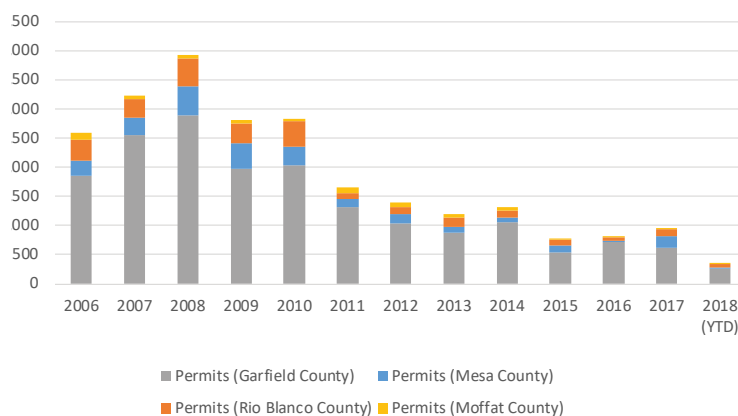
Western slope drilling activity in Q2 of 2018 is unchanged from Q1 staying at 7 rigs. All rigs in the Piceance are currently engaged in natural gas drilling. Drilling permits for the first quarter were down considerably, but in Q2 total Western Slope drilling permit applications are up from Q2 last year, rising 7.8%. Drilling permits for Mesa County are down considerably from last year but Garfield and Rio Blanco both have more drilling permits than last year, pushing the total Western Slope numbers higher than 2017. Low natural gas prices and growing national supply will likely cap drilling potential in the Western Slope in the near term.

Figure 5:
Oil and Gasoline Prices



SOURCE: Energy Information Agency

Figure 6:
Drilling Permits: Western Slope



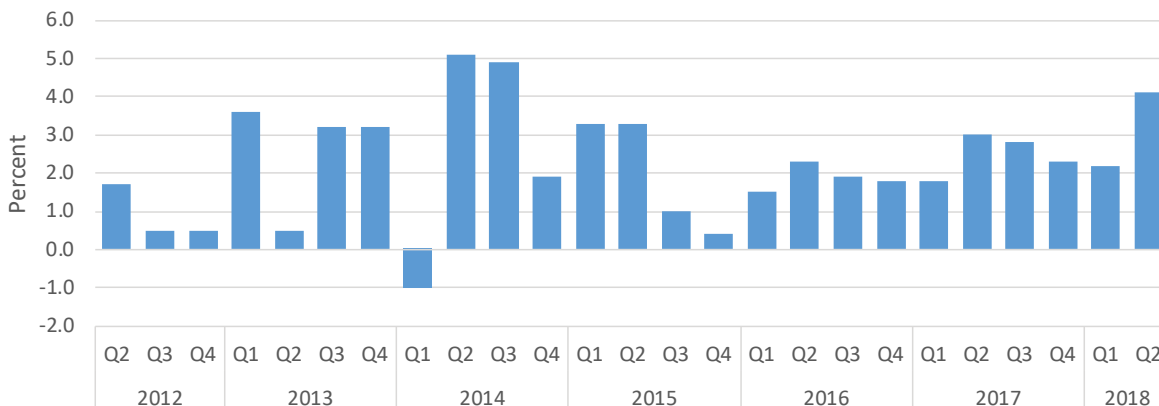
SOURCE: Colorado Oil and Gas Conservation Commission

NATIONAL ECONOMIC INDICATORS

	Q2 2018	Q1 2018	Q2 2017	% change since last period	% change since last year (comparable quarters)
Business Cycle Indicators					
Real GDP	4.1%	2.2%	3.0%	1.9%	1.1%
Real Personal Consumption Expenditures (PCE)	2.7%	2.4%	2.5%	0.3%	0.2%
Private Fixed Investment	8.0%	7.7%	5.8%	0.3%	2.2%
National Consumer Confidence	98.3	98.9	96.4	-0.6%	2.0%
Industrial Production Index	107.5	105.9	103.7	1.5%	3.6%
Initial Weekly Unemployment Claims (4 week MA)	223,288	230,096	244,058	-3.0%	-8.5%
Non Farm Payroll Change (in thousands)	2,389	2,215	2,347	7.9%	1.8%
Unemployment					
Unemployment Rate-U3-SA	3.9%	4.1%	4.3%	-0.2%	-0.4%
Unemployment Rate-U6-SA	7.7%	8.1%	8.5%	-0.4%	-0.8%
Interest Rates					
Federal Funds Rate	1.7%	1.4%	0.9%	0.3%	0.8%
10 Year U.S. Treasury	2.9%	2.8%	2.3%	0.2%	0.7%
30 Year U.S. Treasury	3.1%	3.0%	2.9%	0.1%	0.2%
Inflation Measures					
Inflation Rate (CPI)	2.6%	2.3%	1.9%	0.4%	0.7%
Core Inflation Rate (All Items Less Food and Energy)	2.2%	1.9%	1.8%	0.2%	0.4%
Inflation Rate (Shelter)	3.4%	3.2%	3.4%	0.2%	0.1%
Producer Price Index (PPI)	4.8%	3.9%	4.2%	0.9%	0.6%
Employment Cost Index	2.8%	2.7%	2.4%	0.1%	0.4%
Stock Prices					
S&P 500	2,703	2,733	2,398	-1.1%	12.7%
Dow Jones Industrial Average	24,556	25,127	20,994	-2.3%	17.0%

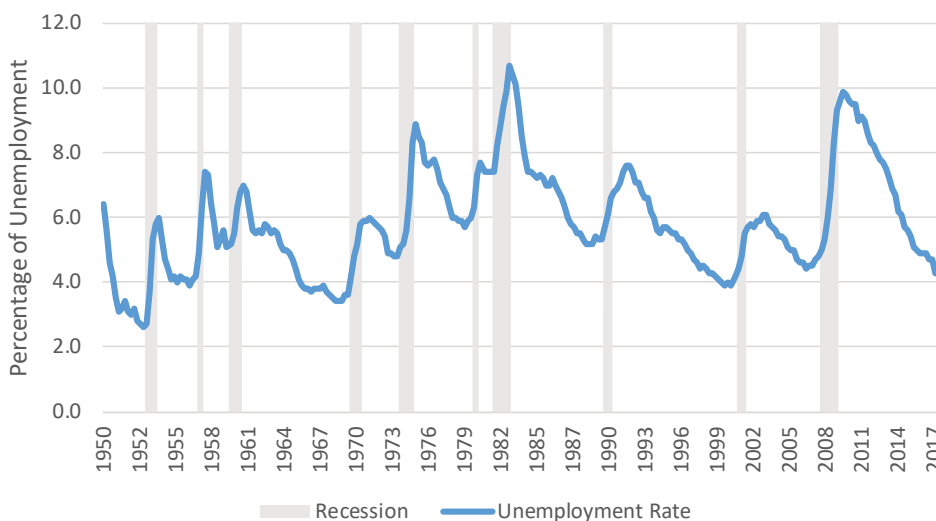
SOURCES IN ORDER OF LISTING: GDP, Consumption, and Investment: Bureau of Economic Analysis; Industrial Production: Board of Governors of the Federal Reserve System; Consumer Expectations: University of Michigan; Weekly Unemployment Claims: U.S. Employment and Training Administration. Non-Farm Payroll, Unemployment Rates, Inflation Measures: Bureau of Labor Statistics; Stock Prices: S&P Dow Jones Indices, LLC.

Figure 7:
Real GDP



Source: Bureau of Economic Analysis

Figure 8:
U.S. Unemployment: 1950-2018



Source: Bureau of Labor Statistics

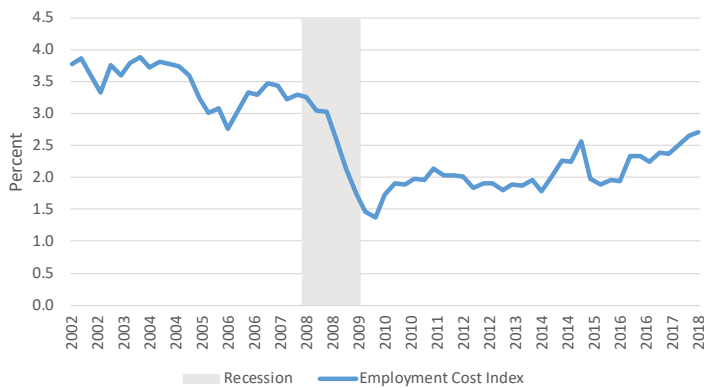
National Economic Performance

National economic growth registered at a very strong 4.1% (figure 7). The U.S. has not seen 4% growth since 2014. The economy is strong and this high growth rate confirms it. Consumption growth remains positive, as consumers continue to spend in good economic times. Investment numbers helped drive the high GDP numbers, with an 8% fixed private investment rate. Investment has a tendency to be volatile and can push business cycles higher or lower very quickly. National consumer confidence remains steady, while industrial production is up 3.6% since last year.

Unemployment remains historically very low at 3.9%. The U-6 measure of unemployment is also low at 7.7%. U-6 counts discouraged workers and is always higher than the standard unemployment rate of U-3.

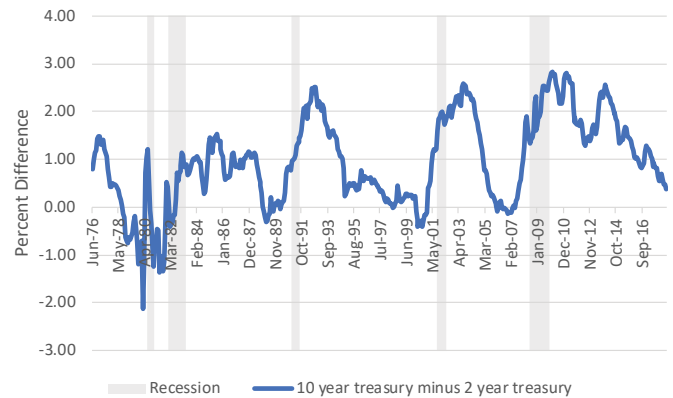
Inflation is creeping up at 2.6%, increasing from 2.3% last quarter and 1.9% last year. 2.6% inflation is still not considered high, especially historically. In fact, for how well the economy is doing, it is surprisingly low. Generally speaking at this point in the business cycle inflation is much higher. Between tariffs and the small trade war that is ensuing, slightly rising wages, and a booming economy, 2.6% inflation is surprisingly low. These factors have most economists convinced that inflation will continue to creep up. Rising wages will especially put upward pressure on inflation. The strong U.S. dollar is likely hiding much of the inflationary pressure in the economy. One measure of wages, the employment cost index, is rising very slowly, showing small wage gains at 2.8%, which is again very low for this point in the business cycle. The producer price index (PPI) is creeping up at 4.8%. The PPI represents costs to suppliers and can be a leading indicator of future inflation.

Figure 9:
Employment Cost Index



Source: Bureau of Labor Statistics

Figure 10:
10 Year Treasury Yield Minus the Two Year Treasury Yield



Source: Federal Reserve

National Economic Performance Continued

The 10 year treasury bond is inching up and is now at 2.9%. The Federal Reserve continues to increase the Federal Funds rate, and plans another rate increase in September. As the 10 year treasury increases, mortgage rates will increase proportionally.

Recession Signals

In May of 2018, the Wall Street Journal took a poll of economists regarding when they thought the next recession would be. Six out of ten said the year 2020. The question for economists is what are signals to look for to know when there is a shift in the business cycle. Research titled "Recession Signals: The Yield Curve vs. Unemployment Rate Troughs" by Kevin Kliesen at the Federal Reserve Bank of St. Louis focused on two recessionary indicators to watch for: A trough in the unemployment rate and an inverted yield curve. Figure 8 illustrates the historical unemployment rate, and it is clear to see that after a trough forms that a recession shortly follows. In fact on average since 1969, it takes 9 months after the unemployment trough forms for the recession to begin. We are currently at 3.9% unemployment, and a trough as of yet has not formed. The other indicator is an inverted yield curve. When short term yields (say the 2 year treasury) rise higher than long term yields (the 10 year treasury), then the yield curve becomes inverted. Short term yields are supposed to be lower than long term yields. On average after the yield curve inverts, recession occurs 10 months after. Figure 10 illustrates the difference between the 10 year treasury bond and the 2 year treasury bond. When the difference falls below zero it means the yield curve has inverted. The yield curve has not inverted yet but has become more flat. Federal Reserve interest rate increases are expected to potentially flatten the yield curve more.

To be clear there are no current signs of recession. All signs point to strong continued economic growth in the short term. As business cycle indicators change they will be pointed out in this newsletter.



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