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Real Asset Strategy

IN-DEPTH ANALYSIS OF THE COMMODITY AND REAL ESTATE MARKETS

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When Gasoline Prices Matter

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Key takeaways

» *Gasoline prices have risen by 18% year-over-year in the U.S. The national average price of gasoline has reached $2.87 per gallon.*

» *Historically speaking, such gas-price moves have not spelled big trouble for the consumer, the U.S. economy, or the stock market. With that said, short 18% (plus) bursts in gas prices historically have hit lower-income consumers harder and eventually have led to slower gross domestic product (GDP) growth and slower stock-market gains.*

What it may mean for investors

» *We believe that investors should "stay the course" with their investment plans.*

"Knowledge is learning something every day. Wisdom is letting go of something every day." – Zen proverb

Like a good son, I called my mother on Mother's Day. Before I knew what was happening, though, my father had barked into the phone, "What are you doing to gas prices? I'm now paying more than $3 a gallon!" After explaining to him that I do not have any influence here (of course my mother, always defending her son, thinks that I have all the influence in the world), he asks what President Trump is going to do about it. Answering his own question, he says, "I'm sure he'll do something about it—because of the economy and all—presidents always do."

My father's gas inquisition ended there, thankfully (for you and me). I bring this story up because my father is the quintessential American consumer/investor who has been around the block a few times. If he is asking gas questions, then chances are that many of you are too—or at least thinking about it.

So, today, we'd like to give you some answers. We're going to look at the impact of higher gas prices in four different areas: the president, the consumer, the economy, and the stock market.

The bottom line is that we do not believe today's average $2.87 gasoline price enough to seriously threaten the consumer, U.S. economy, or stock market. With that said, gas prices have risen more than 18% in the last year. Such short price spikes historically have hit the lower-end consumer, and have eventually led to slower GDP growth rates, and slower stock-market gains. Let us explain.

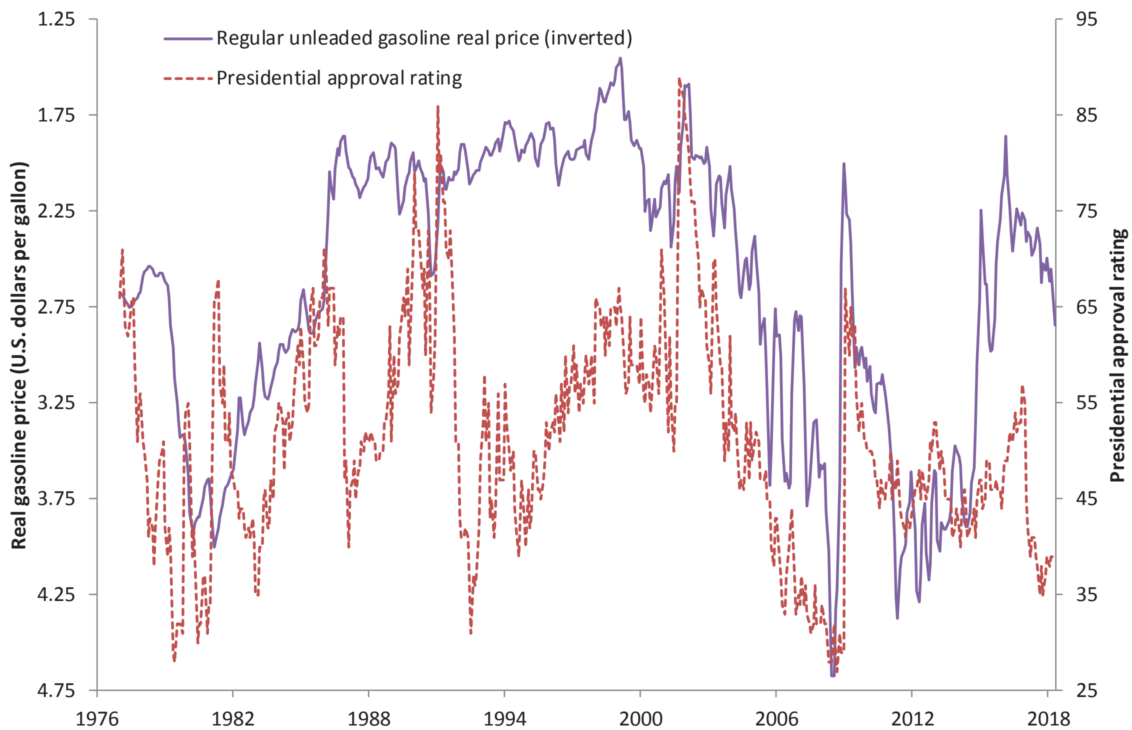
The president

The president does not have much influence over gasoline prices, but gas prices may influence how we feel about him.

Oil and its many derivatives, such as gasoline, are traded globally. The U.S. is one of the largest buyers and sellers of oil, so it is an important player, but it is still only one country. On top of that, the U.S. historically has been a net importer of oil, which often makes it a "price taker." This is still the case today, even with the U.S. producing record amounts of oil. On a daily basis, the U.S. consumes about 19.5 million barrels of oil, but produces only 17 million barrels. To say that the U.S. president can have—or has had—a great or persistent influence on gas prices would be a stretch.

The direction in gas prices, however, can track Americans' approval ratings for the president (so it seems clear that there is some influence). The red line in Chart 1 represents presidential approval ratings. The purple line is the price of gasoline (adjusted for inflation), inverted. A falling purple line means that gas prices are rising. Notice that, at multiple points, when the purple line is trending lower (rising gas prices), presidential approval ratings have trended lower, too.

Chart 1. Gasoline prices versus presidential approval ratings



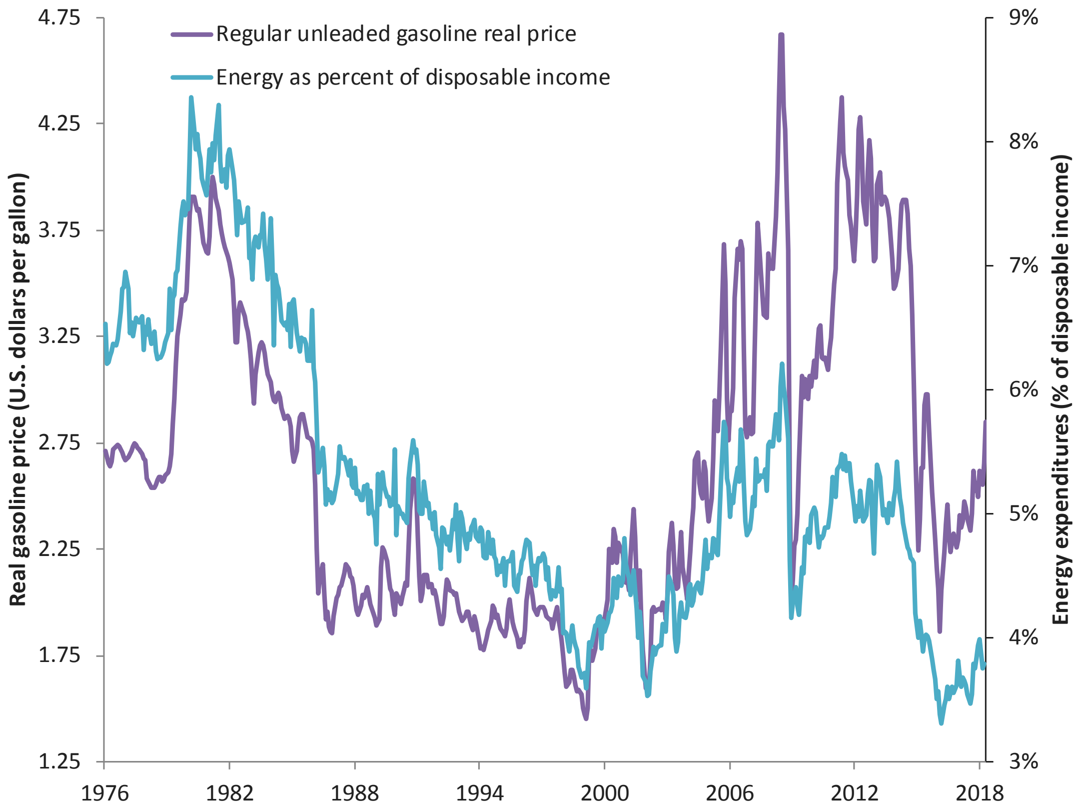
Sources: Bloomberg, Gallup, University of California Santa Barbara, Energy Information Administration (EIA), Wells Fargo Investment Institute. Monthly data: January 31, 1976 - April 30, 2018. Real gasoline price is adjusted for inflation by the Consumer Price Index (CPI).

The consumer

Rising energy prices do typically hit U.S. consumers, but the overall impact has faded in recent decades. Rising gas prices typically hit lower income households much harder than higher income households. As for 2018, the impact is already being felt—lower income households are now spending more than 10% of their income on gasoline.[1]

The blue line in Chart 2 highlights that energy consumption, as a percentage of the average American's disposable income, has slipped from a high of 8% in 1980, to about 3.5% today. The purple line represents gasoline prices, adjusted for inflation.

Chart 2. Real gasoline prices versus energy as a percent of disposable income

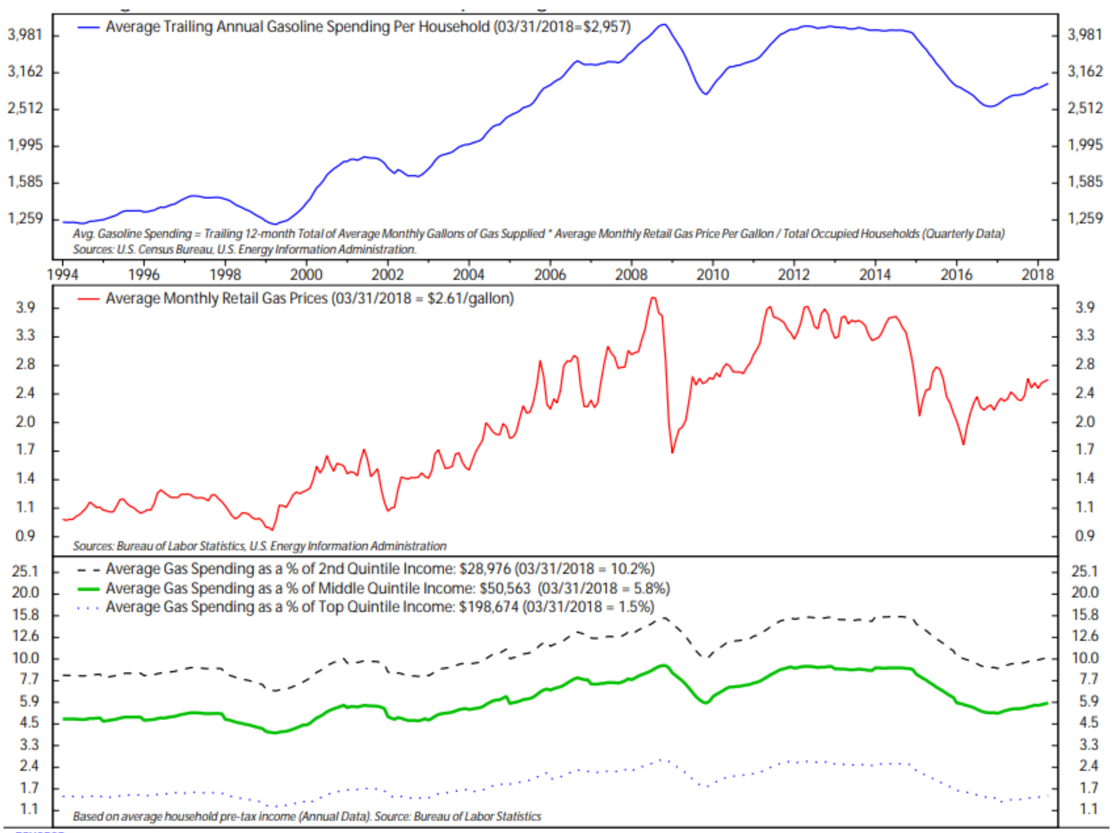


Sources: Bloomberg, Bureau of Economic Analysis, Energy Information Administration (EIA), Wells Fargo Investment Institute. Quarterly data: March 31, 1976 - March 31, 2018. Real gasoline price is adjusted for inflation by the Consumer Price Index (CPI).

[1] Lower income is defined as the 2nd quintile average household pre-tax income ($28,976 as of 3/31/18). Source: Bureau of Labor Statistics.

Chart 3 breaks down the impact of gasoline prices on U.S. consumers. The top panel highlights that the average American household spends roughly $3,000 per year on gasoline. The middle panel shows that the average price of gasoline was $2.61 at the end of March 2018. As of May 14, that average price has risen to roughly $2.87. The bottom panel of Chart 3 breaks down how much Americans spend on gasoline as a percentage of their yearly income. Lower income households often spend 10% or more of their income (average income $28,976 a year, Chart 3, bottom panel, black dashed line) on gasoline, while higher income households consistently spend less than 2% of their annual income (average income $198,674 a year, bottom panel, blue dotted line) on gasoline.

Chart 3. Average annual household gasoline spending (versus income)



Sources: Ned Davis Research, Inc. © Copyright 2018. Further distribution without prior permission. All rights reserved. See NDR disclaimer at www.ndr.com/copyright.html. For data vendor disclaimers, go to www.ndr.com/vendorinfo/. Monthly data December 31, 1993 – March 31, 2018 (log scale).

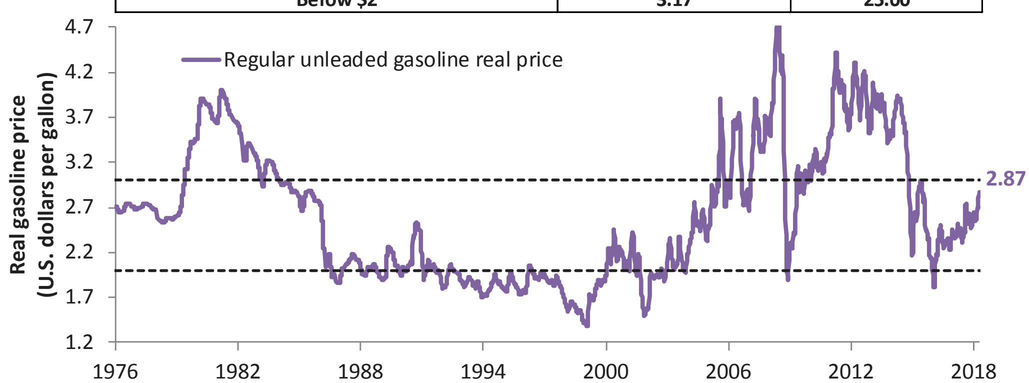
The economy

Historically speaking, both the level of gasoline prices—and how quickly those prices rise—have mattered to the U.S. economy. Average gas prices above $3.00 per gallon (today = $2.87) traditionally have signaled slower gross domestic product (GDP) growth rates. Year-over-year gas price gains of 18% or more also have typically signaled slower GDP growth rates. As for 2018, it is too early to say that rising gas prices have had an impact on the U.S. GDP growth rate, but history suggests that we will eventually see some impact.

Chart 4 shows that U.S. GDP growth rates tend to slow once gas prices cross above the $3.00 per gallon average level. The top panel shows U.S. real GDP; the bottom panel is the price of gasoline (adjusted for inflation). The statistics box shows annualized U.S. GDP rates at different levels of gasoline prices.

Chart 4. Real GDP versus real gasoline prices

Real GDP growth when real gas price is:	Annualized GDP growth rate (%)	% of time
Above $3	1.79	27.98
$2 - $3	3.05	47.02
Below $2	3.17	25.00

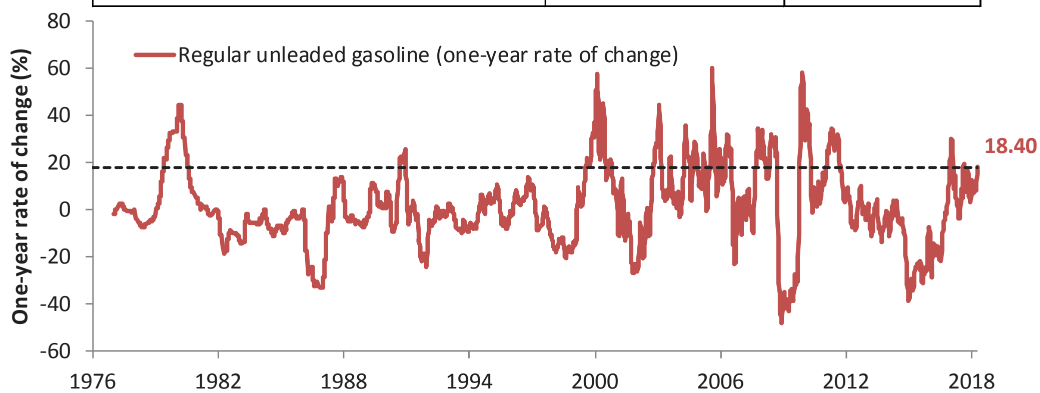


Sources: Bloomberg, Energy Information Administration (EIA), Wells Fargo Investment Institute. Top panel shows quarterly data: March 31, 1976 - March 31, 2018. Bottom panel reflects weekly data: January 31, 1976 – May 14, 2018. Real gasoline price is adjusted for inflation by the Consumer Price Index (CPI).

Chart 5 highlights that powerful and relatively quick moves in gasoline prices can have an impact on U.S. GDP growth rates. The top clip shows U.S. real GDP; the bottom clip shows the one-year rate of change in gasoline prices. The statistics box shows the annualized GDP growth rate when gasoline prices have risen by 18% or more—or by less than 18%. The best GDP growth rates have occurred when year-over-year gasoline price changes have been less than 18%.

Chart 5. Real GDP versus real gasoline price momentum

Real GDP growth when gasoline's one-year rate of change is:	Annualized GDP growth rate (%)	% of time
Above 18%	**1.75**	**18.79**
Below 18%	**2.95**	**81.21**



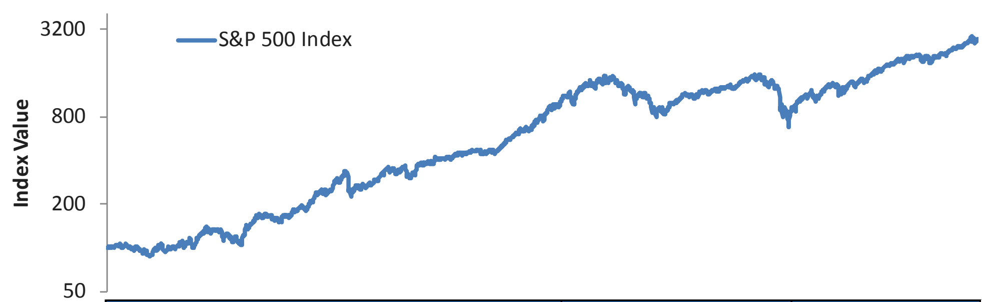
Sources: Bloomberg, Energy Information Administration (EIA), Wells Fargo Investment Institute. Top panel shows quarterly data: March 31, 1976 - March 31, 2018. Bottom panel reflects weekly data: January 31, 1976 – May 14, 2018. Real gasoline price is adjusted for inflation by the Consumer Price Index (CPI).

The stock market

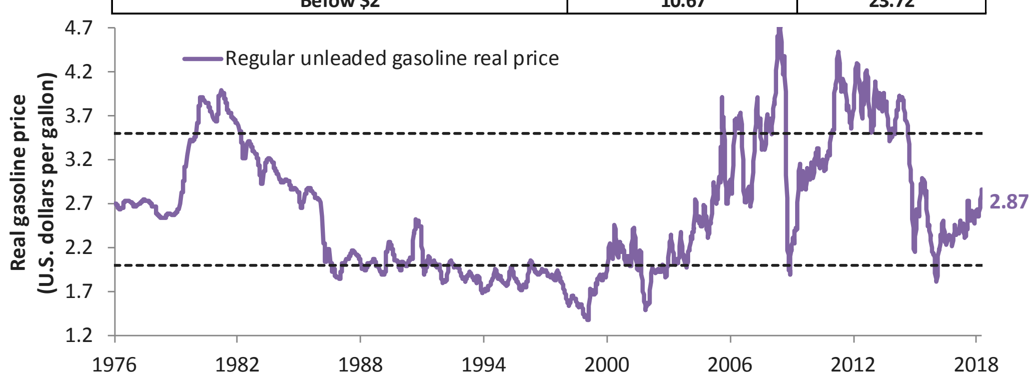
Historically speaking, stock returns have been influenced by both the level of gasoline prices and how quickly they have risen. As for 2018, gas prices have not hit the level ($3.50 per gallon) that concerns us most for stocks. The 18% rise in gas prices, over the past year, however, is consistent with slower stock-market returns.

Chart 6 shows that stock-market gains tend to slow the higher gas prices go—but to see negative stock returns—average gas prices likely need to approach the $3.50 per gallon range. The top panel shows the S&P 500 Index; the bottom panel shows the price of gasoline adjusted for inflation. The statistics box shows annualized S&P 500 Index returns at different levels of gasoline prices. When gasoline prices have been under $3.00 per gallon (as they are today), this traditionally has not been a major problem for the stock market. With that said, stock gains have tended to slow as the $3.00 per gallon gasoline price was approached. The real problem area for equity investors could be $3.50 per gallon. This is the level at which annualized S&P 500 Index returns have turned negative in the past.

Chart 6. S&P 500 Index versus real gasoline prices



S&P 500 Index performance when real gas price is:	Annualized return (%)	% of time
Above $3.5	-1.29	17.39
$2 - $3.5	9.97	58.89
Below $2	10.67	23.72

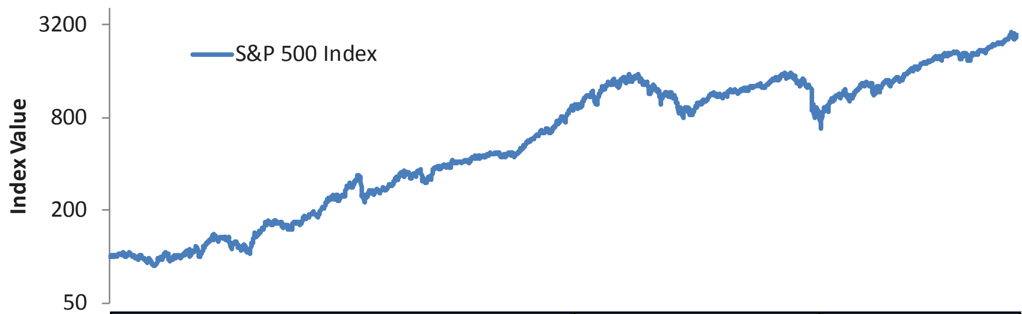


Sources: Bloomberg, Energy Information Administration (EIA), Wells Fargo Investment Institute. Weekly data: January 31, 1976 - May 14, 2018. Top panel shown in log scale. Real gasoline price is adjusted for inflation by Consumer Price Index (CPI).

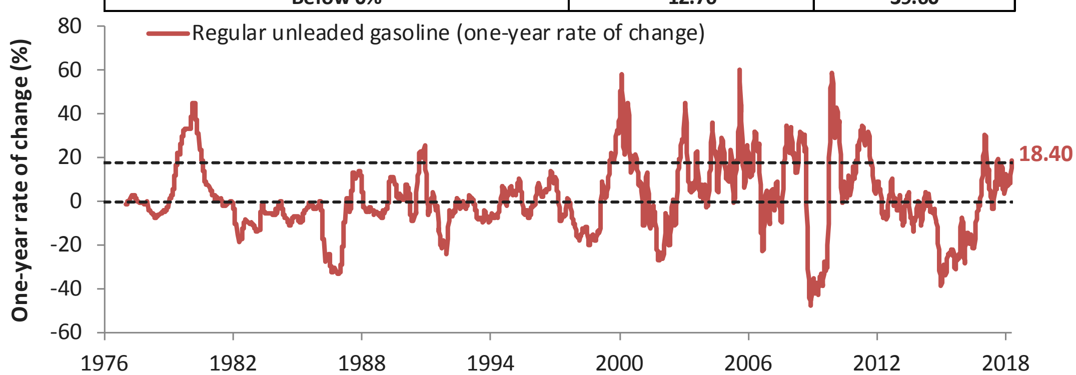
Chart 7 shows that powerful and relatively quick moves in gasoline prices can have an impact on stocks too. The top clip shows the S&P 500 Index; the bottom clip shows the one-year rate of change in gasoline prices. The statistics box shows annualized S&P 500 Index returns at different year-over-year changes in gasoline prices. The best annualized S&P 500 Index returns have occurred when year-over-year gasoline price changes have turned negative. On the flip side, annualized S&P 500 Index returns have slowed dramatically when gasoline prices have spiked by 18% or more.

In summary, today's average $2.87 per gallon gasoline price we do not believe is enough to seriously threaten the consumer, the U.S. economy, or the stock market. With that said, gas prices have risen more than 18% in the past year. Such short price spikes historically have hit the lower-end consumer, and eventually have led to slower GDP growth rates, and slower stock-market gains.

Chart 7. S&P 500 Index versus real gasoline price momentum



S&P 500 Index performance when gasoline's one-year rate of change is:	Annualized return (%)	% of time
Above 18%	1.54	20.00
0% - 18%	7.26	40.40
Below 0%	12.76	39.60



Sources: Bloomberg, Energy Information Administration (EIA), Wells Fargo Investment Institute. Weekly data: January 31, 1976 - May 14, 2018. Top panel shown in log scale.

Risk Considerations

Each asset class has its own risk and return characteristics. The level of risk associated with a particular investment or asset class generally correlates with the level of return the investment or asset class might achieve. **Stock markets**, especially foreign markets, are volatile. Stock values may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. The **commodities** markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Investing in a volatile and uncertain commodities market may cause a portfolio to rapidly increase or decrease in value which may result in greater share price volatility.

Definitions

An index is unmanaged and not available for direct investment.

The **Consumer Price Index (CPI)** produces monthly data on changes in the prices paid by urban consumers for a representative basket of goods and services.

Gross domestic product (GDP) is the monetary value of a country's finished goods and services produced during a specific time frame. GDP is usually calculated on an annual basis and includes private and public consumption.

S&P 500 Index is a market capitalization-weighted index composed of 500 widely held common stocks that is generally considered representative of the US stock market.

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