

Live for Today and Plan for Tomorrow

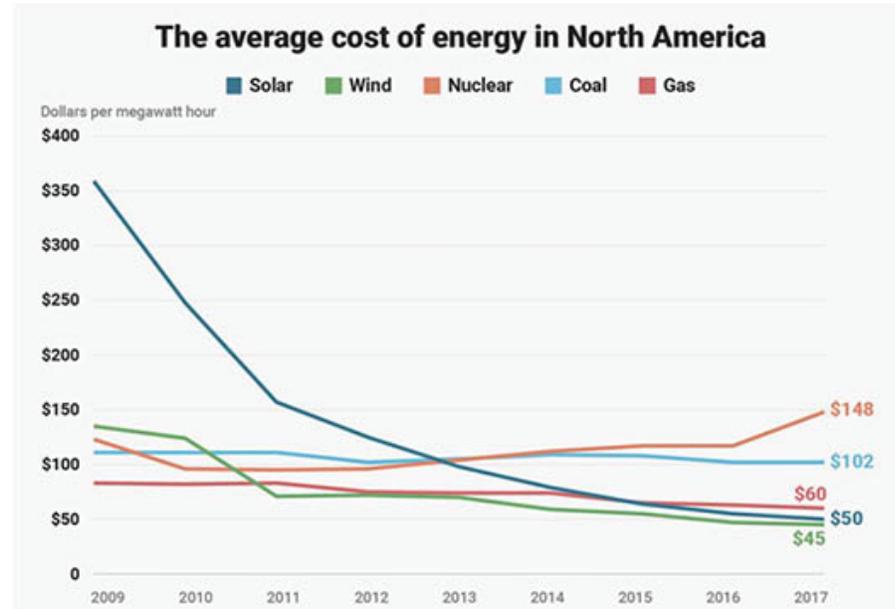
ALTERNATIVES PROGRESS

Spiking oil and gas prices have put a new spotlight on alternative energy sources; in particular, how their costs have come down in recent years to become competitive with fossil fuels. The most common measure, used by the U.S. Energy Information Administration, looks at your electric utility bill and then compares the cost of various energy sources to produce the juice that flows through the grid into your home.

This can be a tricky calculation, because the price of electricity varies—a lot—from region to region across the United States. The average residential cost is 13.04 cents per kilowatt hour (kWh), but people in Hawaii and Alaska pay 29.18 cents and 19.36 cents respectively for that same kilowatt hour. In Massachusetts, the average cost is 18.5 cents, while people in Louisiana and Arkansas pay less than 8 cents per kWh.

Nevertheless, if you look at the overall costs of producing a million watt hours from different kinds of electric plants, it's possible to compare apples to apples. Why this measure, it costs just \$39.1 to produce one MVWh using hydroelectric power—basically harnessing waterfalls. At the other end of the spectrum, coal-powered plans are now running at between \$98 and \$104 per MVWh, and the most recent U.S. Energy Information Administration report suggests that we may not see any further coal-powered power plans constructed in the U.S.

Solar power, meanwhile, is estimated to cost just \$60 per MVWh. This calculation includes the various costs of panels and installation. What's striking is that solar energy is now, for the first time, cheaper than natural gas (\$67.5)—and it is notable that



this calculation was made before the recent oil and gas price spikes. As you can see from the chart, which was compiled several years ago, the solar industry has made enormous cost reductions since 2009, while other energy sources have remained roughly stable. (Notice that nuclear has become more expensive during that time period.)

For residential consumers, the story is the same, but with different numbers. The Energy Information Administration recently calculated, using current costs of solar panels and installation, assuming a 25-year life for the panels and a 12-year life for converters, estimated that the average consumer in a moderately sunny environment (basically meaning not Seattle), will experience a net monthly savings of \$84 a month, and break even on the installation costs after 10.8 years. Another study found

that the electricity cost of a home with solar panels installed, again with average sunlight, is 8.1-8.7 cents/kWh—and estimates that by 2030 that price will have come down to just four cents.

Weaning our economy from Russian oil and gas—and ultimately from oil and gas entirely—may not be as painful as we might have imagined. As more utilities adopt the cost savings of solar, creating demand for solar panel production, expect the price of those panels to come down—and energy prices with them.

Sources:

<https://www.energy.gov/eere/solar/sunshot-2030>

http://solarcellcentral.com/cost_page.html

<https://www.energy.gov/eere/solar/articles/2030-solar-cost-targets>

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LOOK LESS, SLEEP BETTER

The recent spate of choppy markets (up one day, down the next, up the next) has been accompanied by some articles suggesting that the fewer times we look at the markets, the less risky they seem to be. And you know that to be true based on recent experience. In late March, somebody who was looking at daily price of the S&P 500 movements would have seen the markets go down 0.04%, then up 1.13%, then down 1.23%, then up 1.43%, then up 0.5%. If that same person had simply been looking at returns at the end of each week, the volatility would have been washed out; he or she would have seen a gain and nothing to worry about.

Looking once a month or once a year smooths out the returns even more, of course—and you can best see how this

works when you consider the value of your house. It's not reappraised every day, week, month or year, and chances are you aren't fretting about whether it's more valuable today than it was yesterday or last week. Any price movements only show up when it's time to put your home on the market.

Interestingly, the same is also true of the calculations that are made by professionals to precisely define the riskiness (or volatility) of a particular investment. The most commonly used measure is the standard deviation—the higher it is, the more the investment price will swing back and forth. Most often, this calculation is made by considering the average of five years of returns and the average of the variances over those five years. But if you were to use one-year numbers instead

of five years, the standard deviation would be higher; if you were to use ten years, on the other hand, the risk calculation would go down.

The charts shown here offer a similar perspective; you can see how choppy (and scary) market movements look over a couple of months, or a couple of years, or over more than 10 years. If Rip Van Investor were to go to look at the markets, then go to sleep for a decade, wake up and check his portfolio once again, chances are, over any time period, the view would range from reassuring to something to uncork a bottle of champagne over. He would have saved himself a lot of aggravation that a lot of us put ourselves through needlessly.

Source:

<https://www.macrotrends.net/2526/sp-500-historical-annual-returns>

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SHARING THE PAIN

There's no question that gasoline prices at the pump are awfully high right now. American drivers are paying an average of \$4.69 a gallon, by recent estimates, compared with \$2.87 a year ago. At these higher prices, it is projected that the average American will spend 3.1% of total income on gasoline each month.

Pretty awful, right? And you may be hearing that this is somehow connected to misguided U.S. government policies.

What you may not be hearing is that people in many other countries in the world are feeling the same pain at the pump—and many are feeling it more than we are in America.

Recently, an organization called GlobalPetrolPrices ranked gasoline prices for 119 countries. It found that U.S. prices are actually on the low

side of the global spectrum. In Finland, a gallon of gas costs the equivalent of \$9.20, while in Italy, Germany, Greece, the Netherlands, Norway, Sweden, Denmark and France, the cost ranges from \$8.74 to \$9.15. In the United Kingdom, a gallon of gas will set you back \$8.06, compared with \$8.38 in Israel.

Australians and Canadians are paying less, but still more than Americans: \$5.38 and \$5.95 a gallon respectively. Chinese citizens are paying \$5.14 a gallon; Japanese consumers are paying \$5.50, while in India, the cost is \$5.09 a gallon.

So where are car drivers getting a bargain on their gas purchases? Mexicans are paying just \$4.18 a gallon, and people in oil-producing states like Kuwait (\$1.31), Qatar (\$2.18) and Saudi Arabia (\$2.35) are experiencing less pain at the pump.

They may also be able to look out their back porch at major producing oil derricks.

During the current embargo on Russian oil and gas, and uncertainty on the world markets, we can expect to hear a lot more political finger pointing. But it might be helpful to know that if Americans are victims of misguided government policies, then other countries would seem to need to look at their own energy policies as well.

Source:

<https://www.kiplinger.com/personal-finance/shopping/cars/604410/gas-prices-around-the-world>

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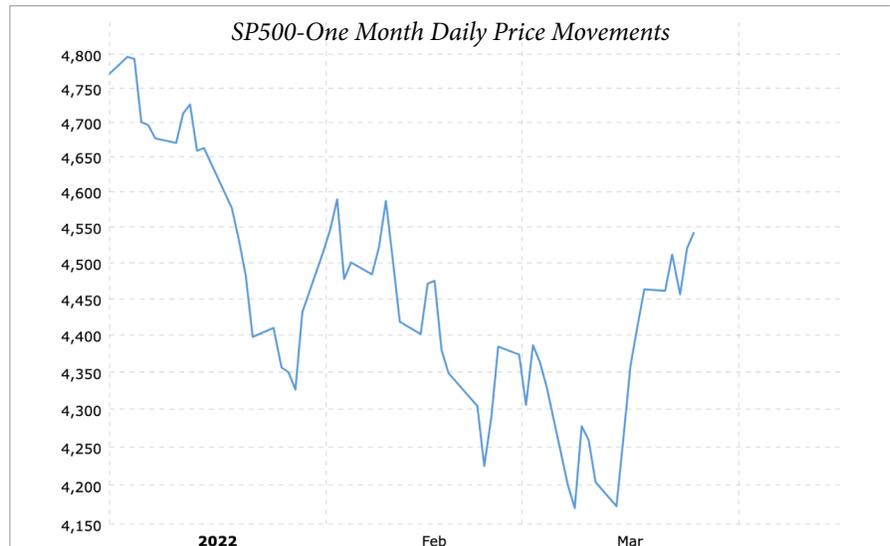
2022 FIRST QUARTER INVESTMENT MARKET REPORT

There's no sugar-coating the news: the U.S. and global markets took a hit in the first three months of 2022, offering investors an experience that they haven't been accustomed to during the long bull market: a bit of red ink on their performance statements. The only bright spot is commodities—but it's doubtful that anyone with recent experience at the pump is cheering the turmoil in global oil prices.

Just about every investment declined in value in the first quarter. The Wilshire 5000 Total Market Index—the broadest measure of U.S. stocks—lost 6.18% since January 1. The comparable Russell 3000 index has lost 5.28% so far this year.

Looking at large cap stocks, the Wilshire U.S. Large Cap index lost 5.60% in the first quarter. The Russell 1000 large-cap index finished the quarter with a similar 5.13% decline, while the widely-quoted S&P 500 index of large company stocks is down 4.95% so far this year.

Meanwhile, the Russell Midcap Index gave back 5.68% of its value in the first three months of 2022.



As measured by the Wilshire U.S. Small-Cap index, investors in smaller companies experienced a 6.87% loss in the first quarter. The comparable Russell 2000 Small-Cap Index is down 7.53% in the year's first three months. The technology-heavy Nasdaq Composite Index is down 9.10% for the year, as tech stocks are, for the first time in a while, underperforming the market as a whole.

International investors were full participants in the downturn. The broad-based EAFE index of companies in developed foreign economies lost 6.61% in the first quar-

ter. In aggregate, European stocks, whose companies are close to the action in Ukraine, are down 11.34% so far this year, while EAFE's Far East Index has lost 6.68%. Emerging market stocks of less-developed countries, as represented by the EAFE EM index, also joined in the global decline, falling 7.32% in dollar terms in the first quarter.

Looking over the other investment categories, real estate, as measured by the Wilshire U.S. REIT index, posted 1.25% loss during the year's first quarter. The S&P GSCI index, which measures commodities returns, shone brightly in diversified portfolios,

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gaining 29.05% in the first quarter, largely driven (as you might expect) by rising oil prices, and also a price rise due to a global wheat shortage.

In the bond markets, yields are going up, albeit somewhat incrementally. Coupon rates on 10-year Treasury bonds rose to a 2.36% rate, compared with 1.67% at this time last year. Three month, 6-month and 12 month bonds are now offering real, tangible returns of .525% and 1.075% respectively. Five-year municipal bonds are yielding, on average, 2.03%, up from 0.50% a year at this time last year. 30-year munis are yielding 2.60% on average.

These market declines are always a bit nerve-rattling, but if you look at the graph from the start of the year to the end of the quarter, the picture becomes a bit more positive. The first two months of the year saw the S&P 500 index of large companies drop from 4770 down to 4173, more than meeting the technical definition of a market correction. And then, in the second half of March, the graph



made up a lot of ground to reach back up to the 4630 level. Nobody, of course, knows what's going to happen next, but if you simply looked at the markets at the end of December and then checked back in on April 1, the one-quarter downturn would have looked like an insignificant blip in a generally positive 13-year upturn.

That said, there are enough clouds on the horizon to raise the possibility that we'll have to endure further declines before the markets again touch new highs. The most obvious one is the uncertainty that

comes with a continuing, grinding war in Ukraine, and the sanctions and oil/grain supply disruptions associated with it.

Another is the possibility that the U.S. economy is approaching a recession. Saying the word 'recession' out loud today is a bit like shouting 'fire!' in a crowded theater; a recession is defined as several months of economic decline, and there is no evidence that we are experiencing that at this time. But some might find it worrisome that, in a recent survey of economists, most of them were backing off of the robust growth projec-

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tions that they were making late last year. Their consensus now is that, when we finally measure the first quarter's GDP growth sometime next month, it will come in around 1.8%—far below the 3.9% prediction in the previous survey. The new forecast probably reflects the fact that there was 0% GDP growth in both December and January.

Meanwhile, there's another recession indicator that will probably get more press coverage than it deserves. The bond markets have recently shifted to what is known in the trade as an inverted yield curve, which is a fancy way of saying that short-term bonds are offering higher rates than longer-term ones. Right now, the yield on 2-year Treasury notes (2.337%) is very slightly more generous than the yield on 10-year issues (2.331%), which makes no sense to a rational investor (why take more risk on longer-term bonds when you can get a higher return for taking less risk on shorter-term ones?), but the fact that the two are yielding something similar



might (might!) signal that lending institutions might (might!) believe that demand for credit is in danger of drying up. Credit demand dries up during recessions.

The problem, of course, is that this 'signal' has not exactly been a perfect predictor of recessions the past, and even when it has, the time frame could be one year or five. Moreover, it might be a stretch to call this a signal at all, since the yield spread between, say, one-year and 30-year Treasuries is still pretty robust. One might better describe the 2/10 year inversion

as a small kink in the yield curve rather than an inversion.

More optimistically, it is not easy to ignore the fact that the U.S. economy added 431,000 new jobs in March, after a gain of 678,000 in February. Oil prices are once again below \$100 a barrel despite all the dire predictions of global shortages, and U.S.-based corporations experienced their most profitable year since 1950 in calendar 2021. People who see the glass half-empty certainly have some data on their side, but so too do the optimists among us—and what's interesting is that this has

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always been true. In retrospect, we will see who was right, but in the moment, as we look at the future, there tend to be good, compelling clues that lead us to expect very different possible outlooks.

If the markets continue their choppy course, you will see a lot of pundits, soothsayers and (even less reliable) market economists telling us with confidence what's going to happen next. Some of them, by the law of averages, will be right, and will trade on that

credibility through several false predictions to come. It's like the story of the huckster who would go to the race track and tell different people which horse was going to win the next race—and this clever person would give different people the names of different horses.

Inevitably, one of the horses would win, at which point the clever tout (avoiding the people to whom he gave incorrect predictions) would approach the happy winners and offer to sell his

next surefire winning prediction. The only difference is that market economists are better at this game.

And so we wait, perhaps impatiently, for the next time the markets test new highs. Even if we don't know when that will happen, history offers encouraging evidence that it will, and all the anxiety and excitement that the markets produce in the meantime will have been, depending on your temperament, wasted energy or pure entertainment.

Sources:

Wilshire index data: <https://www.wilshire.com/indexcalculator/index.html>

Russell index data: <http://www.ftse.com/products/indices/russell-us>

S&P index data: <https://www.spglobal.com/spdji/en/indices/equity/sp-500/#overview>

Nasdaq index data:

<http://quotes.morningstar.com/indexquote/quote.html?t=COMP>

<http://www.nasdaq.com/markets/indices/nasdaq-total-returns.aspx>

International indices: <https://www.msci.com/end-of-day-data-search>

Commodities index data: <https://us.spindices.com/indices/commodities/sp-gsci>

Treasury market rates: <https://www.bloomberg.com/markets/rates-bonds>

Bond rates:

<http://www.bloomberg.com/markets/rates-bonds/corporate-bonds/>

<https://www.cnbc.com/bonds/>

General:

<https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/spf-q1-2022>

<https://ihsmarkit.com/research-analysis/us-monthly-gdp-index-for-january-2022.html>

<https://finance.yahoo.com/news/stock-market-news-live-updates-april-1-2022-221535663.html>

<https://www.bloomberg.com/news/articles/2022-03-30/2021-was-best-year-for-u-s-corporation-profits-since-1950>