Green energy: A bubble in unrealistic expectations?

"You see what is happening in Europe. There is hysteria and some confusion in the markets. Why?...Some people are speculating on climate change issues, some people are underestimating some things, some are starting to cut back on investments in the extractive industries. There needs to be a smooth transition."
– Vladimir Putin (someone with whom this author rarely agrees)

Introduction

This week's EVA provides another sneak preview into David Hay's book-in-process, "Bubble 3.0" discussing what he thinks is the crucial topic of "greenflation." This is a term he coined referring to the rising price for metals and minerals that are essential for solar and wind power, electric cars, and other renewable technologies.

It also centers on the reality that as global policymakers have turned against the fossil fuel industry, energy producers are for the first time in history not responding to dramatically higher prices by increasing production. Consequently, there is a difficult tradeoff that arises as the world pushes harder to combat climate change, driving up energy costs to painful levels, especially for lower income individuals. What we are currently seeing in Europe is a vivid example of this dilemma. While it may be the case that governments welcome higher oil and natural gas prices to discourage their use, energy consumers are likely to have a much different reaction. As usual, for those looking for a speed-read, we've included a summary of Part I of this Bubble 3.0 chapter, with Part II running next week.

Summary

- BlackRock's CEO recently admitted that, despite what many are opining, the green energy transition is nearly certain to be inflationary.
- Even though it's early in the year, energy prices are already experiencing unprecedented spikes in Europe and Asia, but most Americans are unaware of the severity.
- To that point, many British residents being faced with the fact that they may need to ration heat and could be faced with the chilling reality that lives could be lost if this winter is as cold as forecasters are predicting.
- Because of the huge increase in energy prices, inflation in the eurozone recently hit a 13-year high, heavily driven by natural gas prices on the Continent that are the equivalent of $200 oil.
- It used to be that the cure for extreme prices was extreme prices, but these days I'm not so sure. Oil and gas producers are very wary of making long-term investments to develop new resources given the hostility to their industry and shareholder pressure to minimize outlays.
- I expect global supply to peak sometime next year and a major supply deficit looks inevitable as global demand returns to normal.
- In Norway, almost 2/3 of all new vehicle sales are of the electric variety (EVs) – a huge increase in just over a decade. Meanwhile, in the US, it's only about 2%. Still, given Norway's penchant for the plug-in auto, the demand for oil has not declined.
- China, despite being the largest market by far for electric vehicles, is still projected to

consume an enormous and rising amount of oil in the future.

Green energy: A bubble in unrealistic expectations? by David Hay

As I have written in past EVAs, it amazes me how little of the intense inflation debate in 2021 centered on the inflationary implications of the Green Energy transition. Perhaps it is because there is a built-in assumption that using more renewables should lower energy costs since the sun and the wind provide "free power".

However, we will soon see that's not the case, at least not anytime soon; in fact, it's my contention that it will likely be the opposite for years to come and I've got some powerful company. Larry Fink, CEO of BlackRock, a very pro-ESG* organization, is one of the few members of Wall Street's elite who admitted this in the summer of 2021. The story, however, received minimal press coverage and was quickly forgotten (though, obviously, not be me!).

This EVA will outline myriad reasons why I think Mr. Fink was telling it like it is…despite the political heat that could bring down upon him. First, though, I will avoid any discussion of whether humanity is the leading cause of global warming. For purposes of this analysis, let's make the high-odds assumption that for now a high-speed green energy transition will continue to occur. (For those who would like a well-researched and clearly articulated overview of the climate debate, I highly recommend the book "Unsettled"; it's by a former top energy expert and scientist from the Obama administration, Dr. Steven Koonin.)

The reason I italicized "for now" is that in my view it's extremely probable that voters in many Western countries are going to become highly retaliatory toward energy policies that are already creating extreme hardship. **Even though it's only early autumn as I write these words, energy prices are experiencing unprecedented increases in Europe. Because it's "over there", most Americans are only vaguely aware of the severity of the situation. But the facts are shocking…**

Presently, natural gas is going for $29 per million British Thermal Units (BTUs) in Europe, a quadruple compared to the same time in 2020, versus "just" $5 in the US, which is a mere doubling. As a consequence, wholesale energy cost in Great Britain rose an unheard of 60% even before summer ended. Reportedly, nine UK energy companies are on the brink of failure at this time due to their inability to fully pass on the enormous cost increases. As a result, the British government is reportedly on the verge of nationalizing some of these entities—supposedly, temporarily—to prevent them from collapsing. (CNBC reported on Wednesday that UK natural gas prices are now up 800% this year; in the US, nat gas rose 20% on Tuesday alone, before giving back a bit more than half of that the next day.)

Serious food shortages are expected after exorbitant natural gas costs forced most of England's commercial production of CO2 to shut down. (CO2 is used both for stunning animals prior to slaughter and also in food packaging.) Additionally, ballistic natural gas prices have forced the closure of two big US fertilizer plants due to a potential shortfall of ammonium nitrate of which "nat gas" is a key feedstock.

*ESG stands for Environmental, Social, Governance; in 2021, Blackrock's assets under management approximated $9 ½ trillion, about one-third of the total US federal debt.

With the winter of 2021 approaching, British households are being told they may need to ration heat. There are even growing concerns about the widespread loss of life if this winter turns out to be a cold one, as 2020 was in Europe. Weather forecasters are

indicating that's a distinct possibility.

In Spain, consumers are paying 40% more for electricity compared to the prior year. The Spanish government has begun resorting to price controls to soften the impact of these rapidly escalating costs. (The history of price controls is that they often exacerbate shortages.) Naturally, spiking power prices hit the poorest hardest, which is typical of inflation whether it is of the energy variety or of generalized price increases.

Due to these massive energy price increases, eurozone inflation recently hit a 13-year high, heavily driven by natural gas prices that are the equivalent of $200 per barrel oil. This is consistent with what I warned about in several EVAs earlier this year and I think there is much more of this looming in the years to come.

In Asia, which also had a brutally cold winter in 2020 – 2021, there are severe energy shortages being disclosed, as well. China has instructed its power providers to secure all the coal they can in preparation for a repeat of frigid conditions and acute deficits even before winter arrives. The government has also instructed its energy distributors to acquire all the liquified natural gas (LNG) they can, regardless of cost. LNG recently hit $35 per million British Thermal Units in Asia, up sevenfold in the past year. China is also rationing power to its heavy industries, further exacerbating the worldwide shortages of almost everything, with notable inflationary implications.

In India, where burning coal provides about 70% of electricity generation (as it does in China), utilities are being urged to import coal even though that country has the world's fourth largest coal reserves. Several Indian power plants are close to exhausting their coal supplies as power usage rips higher.

Normally, I'd say that the cure for such extreme prices, was extreme prices—to slightly paraphrase the old axiom. But these days, I'm not so sure; in fact, I'm downright dubious. After all, the enormously influential International Energy Agency has recommended no new fossil fuel development after 2021—"no new", as in zero.

It's because of pressure such as this that, even though US natural gas prices have done a Virgin Galactic to $5 this year, the natural gas drilling rig count has stayed flat. The last time prices were this high there were three times as many working rigs.

It is the same story with oil production. Most Americans don't seem to realize it but the US has provided 90% of the planet's petroleum output growth over the past decade. In other words, without America's extraordinary shale oil production boom—which raised total oil output from around 5 million barrels per day in 2008 to 13 million barrels per day in 2019—the world long ago would have had an acute shortage. (Excluding the Covid-wracked year of 2020, oil demand grows every year—strictly as a function of the developing world, including China, by the way.)

Unquestionably, US oil companies could substantially increase output, particularly in the Permian Basin, arguably (but not much) the most prolific oil-producing region in the world. However, with the Fed being pressured by Congress to punish banks that lend to any fossil fuel operator, and the overall extreme hostility toward domestic energy producers, why would they?

There is also tremendous pressure from Wall Street on these companies to be ESG compliant. This means reducing their carbon footprint. That's tough to do while expanding their volume of oil and gas.

Further, investors, whether on Wall Street or on London's equivalent, Lombard Street, or in pretty much any Western financial center, are against US energy companies increasing production. They would much rather see them buy back stock and pay out lush dividends. The companies are embracing that message. One leading oil and gas company CEO publicly mused to the effect that buying back his own shares at the prevailing extremely depressed valuations was a much better use of capital than drilling for oil—even at $75 a barrel.

As reported by Morgan Stanley, in the summer of 2021, an US institutional broker conceded that of his 400 clients, only one would consider investing in an energy company! Consequently, the fact that the industry is so detested means that its shares are stunningly undervalued. How stunningly? A myriad of US oil and gas producers are trading at free cash flow* yields of 10% to 15% and, in some cases, as high as 25%.

In Europe, where the same pressures apply, one of its biggest energy companies is generating a 16% free cash flow yield. Moreover, that is based up an estimate of $60 per barrel oil, not the prevailing price of $80 on the Continent.

*Free cash flow is the excess of gross cash flow over and above the capital spending needed to sustain a business. Many market professionals consider it more meaningful than earnings.

Therefore, due to the intense antipathy toward Western energy producers they aren't very inclined to explore for new resources. Another much overlooked fact about the ultra-critical US shale industry that, as noted, has been nearly the only source of worldwide output growth for the past 13 years, is its rapid decline nature.

Most oil wells see their production taper off at just 4% or 5% per year. But with shale, that decline rate is 80% after only two years. (Because of the collapse in exploration activities in 2020 due to Covid, there are far fewer new wells coming on-line; thus, the production base is made up of older wells with slower decline rates but it is still a much steeper cliff than with traditional wells.)

As a result, the US, the world's most important swing producer, has to come up with about 1.5 million barrels per day (bpd) of new output just to stay even. (This was formerly about a 3 million bpd number due to both the factor mentioned above and the 2 million bpd drop in total US oil production, from 13 million bpd to around 11 million bpd since 2019). Please recall that total US oil production in 2008 was only around 5 million bpd. Thus, 1.5 million barrels per day is a lot of oil and requires considerable drilling and exploration activities. Again, this is merely to stay steady-state, much less grow.

The foregoing is why I wrote on multiple occasions in EVAs during 2020, when the futures price for oil went below zero*, that crude would have a spectacular price recovery later that year and, especially, in 2021. In my view, to go out on my familiar creaky limb, you ain't seen nothin' yet! With supply extremely challenged for the above reasons and demand marching back, I believe 2022 could see $100 crude, possibly even higher.

*Physical oil, or real vs paper traded, bottomed in the upper teens when the futures contract for delivery in April, 2020, went deeply negative.

Mike Rothman of Cornerstone Analytics has one of the best oil price forecasting records on Wall Street. Like me, he was vehemently bullish on oil after the Covid crash in the spring of 2020

(admittedly, his well-reasoned optimism was a key factor in my up-beat outlook). Here's what he wrote late this summer: "Our forecast for '22 looks to see global oil production capacity exhausted late in the year and our balance suggests OPEC (and OPEC + participants) will face pressures to completely remove any quotas."

My expectation is that global supply will likely max out sometime next year, barring a powerful negative growth shock (like a Covid variant even more vaccine resistant than Delta). A significant supply deficit looks inevitable as global demand recovers and exceeds its pre-Covid level. This is a view also shared by Goldman Sachs and Raymond James, among others; hence, my forecast of triple-digit prices next year. Raymond James pointed out that in June the oil market was undersupplied by 2.5 mill bpd. Meanwhile, global petroleum demand was rapidly rising with expectations of nearly pre-Covid consumption by year-end. Mike Rothman ran this chart in a webcast on 9/10/2021 revealing how far below the seven-year average oil inventories had fallen. This supply deficit is very likely to become more acute as the calendar flips to 2022.

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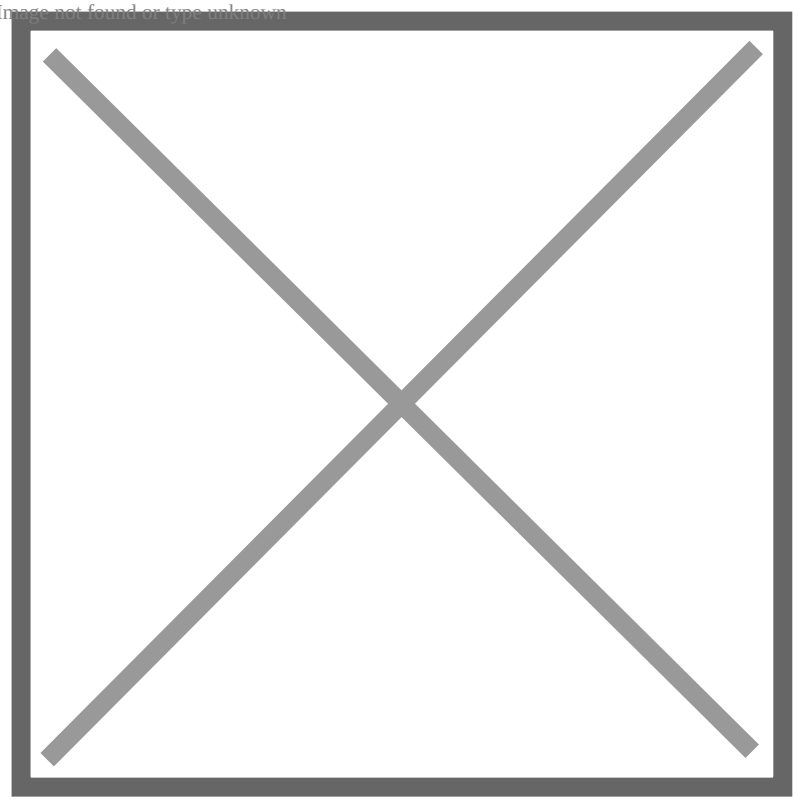


In fact, despite oil prices pushing toward $80, total US crude output now projected to actually decline this year. This is an unprecedented development. However, as the very pro-renewables Financial Times (the UK's equivalent of the Wall Street Journal) explained in an August 11th, 2021, article: "Energy companies are in a bind. The old solution would be to invest more in raising gas production. But with most developed countries adopting plans to be 'net zero' on carbon emissions by 2050 or earlier, the appetite for throwing billions at long-term gas projects is diminished."

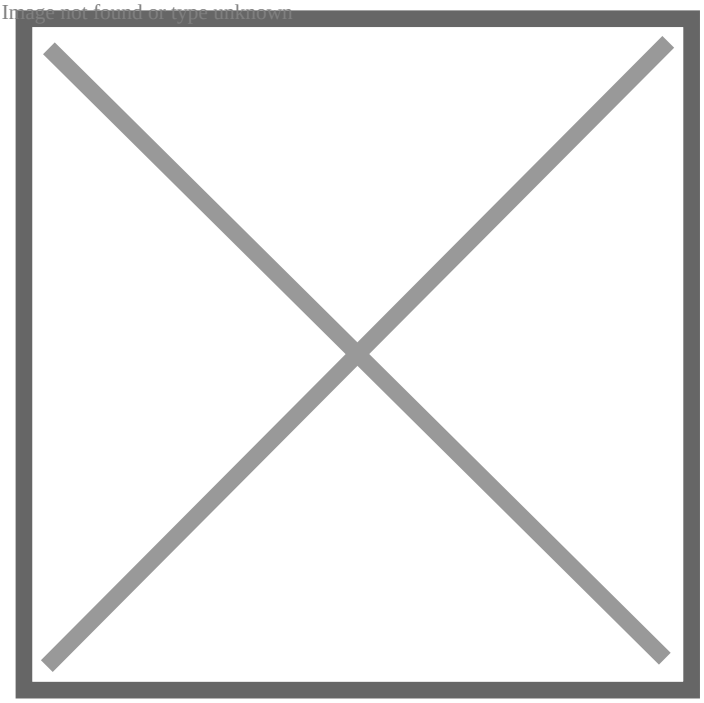
The author, David Sheppard, went on to opine: "In the oil industry there are those who think a period of plus $100-a-barrel oil is on the horizon, as companies scale back investments in future supplies, while demand is expected to keep rising for most of this decade at a minimum."

(Emphasis mine) To which I say, precisely!

Thus, if he's right about rising demand, as I believe he is, there is quite a collision looming between that reality and the high probability of long-term constrained supplies. One of the most relevant and fascinating Wall Street research reports I read as I was researching the topic of what I have been referring to as "Greenflation" is from Morgan Stanley. Its title asked the provocative question: "With 64% of New Cars Now Electric, Why is Norway Still Using so Much Oil?"

While almost two-thirds of Norway's new vehicle sales are EVs, a remarkable market share gain in just over a decade, the number in the US is an ultra-modest 2%. Yet, per the Morgan Stanley piece, despite this extraordinary push into EVs, oil consumption in Norway has been stubbornly stable.

Coincidentally, that's been the experience of the overall developed world over the past 10 years, as well; petroleum consumption has largely flatlined. Where demand hasn't gone horizontal is in the developing world which includes China. As you can see from the following Cornerstone Analytics chart, China's oil demand has vaulted by about 6 million barrels per day (bpd) since 2010 while its domestic crude output has, if anything, slightly contracted.



Another coincidence is that this 6 million bpd surge in China's appetite for oil, almost exactly matched the increase in US oil production. Once again, think where oil prices would be today without America's shale oil boom.

This is unlikely to change over the next decade. By 2031, there are an estimated one billion Asian consumers moving up into the middle class. History is clear that more income means more energy consumption. Unquestionably, renewables will provide much of that power but oil and natural gas are just as unquestionably going to play a critical role. Underscoring that point, despite the exponential growth of renewables over the last 10 years, every fossil fuel category has seen increased usage.

Thus, even if China gets up to Norway's 64% EV market share of new car sales over the next decade, its oil usage is likely to continue to swell. Please be aware that China has become the world's largest market for EVs—by far. Despite that, the above chart vividly displays an immense increase in oil demand.

Here's a similar factoid that I ran in our December 4th EVA, "Totally Toxic", in which I made a strong bullish case for energy stocks (the main energy ETF is up 35% from then, by the way): "(There was) a study by the UN and the US government based on the Model for the Assessment of Greenhouse Gasses Induced Climate Change (MAGICC). The model predicted that 'the complete elimination of all fossil fuels in the US immediately would only restrict any increase in world temperature by less than one tenth of one degree Celsius by 2050, and by less than one fifth of one degree Celsius by 2100.' Say again? If the world's biggest carbon emitter on a per capita basis causes minimal improvement by going cold turkey on fossil fuels, are we making the right moves by allocating tens of trillions of dollars that we don't have toward the currently in-vogue green energy solutions?"

In next week's second installment of this sneak preview of another Bubble 3.0 chapter, we'll more closely examine China's increasing reliance on coal to meet its energy needs—despite its commitment to reduce emissions. We'll also consider the environmental and inflationary implications of attempting to replace tens of millions of gasoline-powered vehicles with EVs. Since this push is most unlikely to end anytime soon--and it has a plethora of investment considerations--you'll want to check out the follow-on edition of this Evergreen Virtual Advisor.

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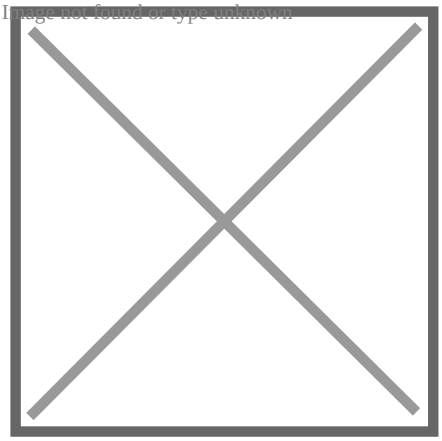

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