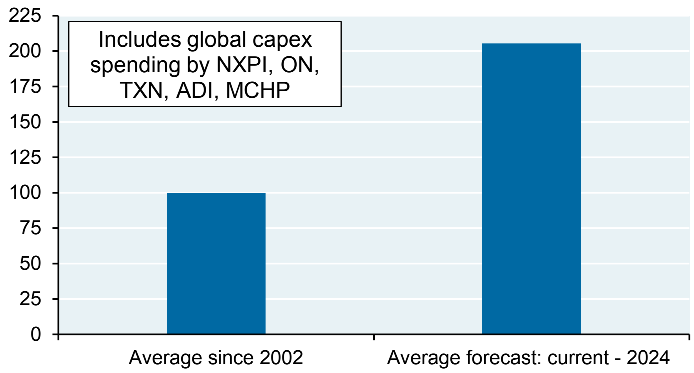
Thanksgiving Eye on the Market: "The Thing"

Quick market outlook

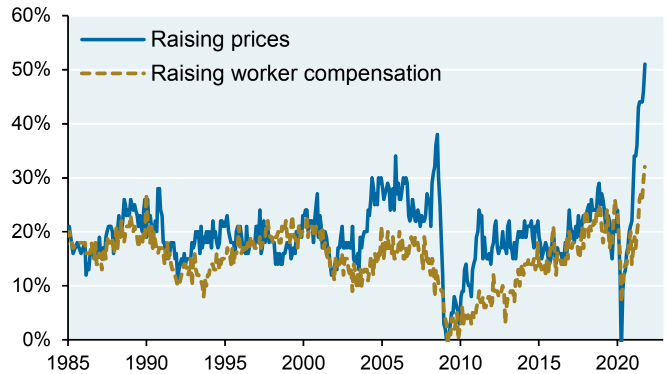
- **Our reflation outlook for the US and Europe in 2022 is alive and well despite a recent decline in leading indicators.** While many bottleneck measures are still elevated, we expect automobile semiconductor production to double by next summer compared to its recent pace; Eastbound freight rates highlighted in our September piece are finally dropping, along with a large decline in the Baltic Dry Index of shipping costs; we expect a return of ~2 mm people that left the US labor force by Q1 2022; and there are reports of falling backlogs and rising factory utilization rates in Asia as vaccination rates surpass 60% in Vietnam and Thailand, and surpass 70% in Malaysia and Taiwan
- US and European GDP should get a boost as supply shortages eventually dissipate and as inventory levels are rebuilt from very low levels relative to sales, which are still holding up well; US infrastructure and reconciliation bill spending will boost output as well. We will explain more next time, but supply chain issues in the US are not just due to COVID and a surge in goods spending. LA and Long Beach ports rank #328 and #333 in the world in the IHS/Markit Container Port Performance Index for reasons related to working hours, resistance to greater automation, labor costs, Customs Office weekend closures, etc.
- Despite supply constraints, US and European firms have posted another quarter of high margins, earnings and sales vs expectations (see table below). Also, it looks like top US statutory corporate tax rates will not rise, and that changes will include higher taxes on foreign income, a 15% minimum book tax and a 1% stock buyback tax. The net impact looks like a 3%-4% earnings hit to the profitable US tech sector, and at most a 1.0%-1.5% earnings hit to all other sectors
- US labor shortages will persist, however, due to the US having one of the largest unvaccinated populations in the developed world, a COVID-driven surge in retirement, declining immigration etc. Wage-price spiral risks are rising as the Fed's "inflation is transitory" stance seems more implausible each month.
- China is the growth outlier, suffering a demand shortfall due to energy constraints, a regulatory purge, only modest easing of monetary and financial policy and among the strictest COVID protocols in the world

Global automotive semiconductor capital spending
Index (100 = 2002 - 2021 average in real terms)



Source: GS, JPMAM. Q3 2021.

Small businesses raising prices and worker compensation
% of small business survey respondents



Source: Bloomberg, NFIB. October 2021.

Q3 2021 earnings, sales and margins update

	Stoxx Europe 600	S&P 500
y/y % earnings growth	52%	37%
y/y % sales growth	12%	15%
y/y % margin growth	5%	5%
Positive earnings surprise, % of companies	59%	81%
Positive sales surprise, % of companies	62%	68%
Positive margin surprise, % of companies	33%	51%

Source: Bloomberg. November 10, 2021.

The Thing

"*In all my years I never heard, seen, nor smelled an issue that was so dangerous it couldn't be talked about*"
Stephen Hopkins, Governor of Rhode Island and signatory to the Declaration of Independence, *1776*

Until this year, I had never run into a topic that I couldn't write about. Anything affecting markets, economics or growth was fair game, and a lot of controversial topics show up in the Eye on the Market archives since its launch in 2003. But now I have run into such a thing, and I still don't think I can write about it. Origin stories have always been contentious, whether they're related to religion, mythology or viruses.

Anyway, here's a different topic that I can discuss. There are some strange things going on in energy markets, with coal, natural gas/LNG, oil, gasoline, electricity and steel prices surging in many parts of the world. Massachusetts, California, Europe and China provide some cautionary tales below.

Massachusetts: in the progressive enclaves of the Northeast, **NIMBYism continues to kill decarbonization**. Maine has followed New Hampshire in blocking a high voltage transmission line needed to bring hydropower from Quebec to Massachusetts, requiring New England's ISO to expand its reliance on natural gas instead.

California has already experienced rolling blackouts due to power demand that exceeded planning targets, and that's before the state decommissions 2,250 MW of nuclear power and 3,700 MW of natural gas fired power plants in the next couple of years. California has among the highest solar irradiance levels in the northern hemisphere, comparable to Southern Spain and Northern Africa; its offshore wind speeds are even higher than the Central Plains states; and its 1,800 MW of geothermal power represents 75% of US capacity, an indication of the state's favorable geology. And yet California still imports power from adjacent states, although even this is now at risk as neighboring states shut down coal-fired plants whose generation was sold to California. The state plans to store excess renewable generation in utility scale batteries but this will take time, so the state approved the temporary use of four natural gas generators to alleviate the power shortage.

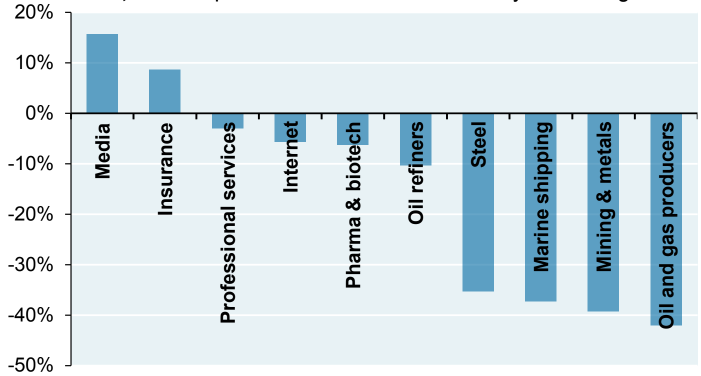
Europe is facing a long winter with natural gas supplies 10%-15% below normal for this time of year. At the same time, Russia is offering only a small amount of gas to Europe to alleviate the crunch, and has only offered 15%-20% of 2019 spot market volumes to Europe for the years 2022 and 2023. A few reasons: last year, Russia had an unseasonably cold winter and its winter looks to be starting early this year; Russia was having trouble filling its own domestic natural gas reserves; Russia spent $11 billion on Nord Stream 2 and is trying to maximize returns on it by pressuring Europe to approve it; and Russia made it clear in advance that it prefers long term take-or-pay contracts rather than selling in the spot market. Surging European natural gas prices have resulted in industrial shutdowns: CF Industries announced closure of two UK ammonia/fertilizer plants and, more significantly, Yara announced a 40% cut to EU ammonia capacity. Yara/CF cuts are > 20% of European capacity and ~1-2% of global capacity.

China's energy crisis is complex but is another example of fossil fuel supply falling faster than demand. Contributing factors: a surge in Chinese power demand in 2021 as the global economy rebounded; lower China hydropower output which increased demand for coal fired power; a slowdown in China coal production due to climate goals, safety concerns and a coal price cap, leading to power plants running down coal inventories way below normal levels; disruptions in Indonesian coal exports due to heavy rains and domestic prioritization; and price controls in China's power sector which prevent utilities from recovering rising input costs. China's most recent interventions (price controls and production increases) have now halved the price of coal. However: domestic coal prices are still up 60% for the year, and coal inventories at power plants and ports are still 20%-40% below normal as winter approaches.

Decarbonization would in theory eliminate some of these gyrations, so in the wake of COP26, by all means accelerate the transition to renewables. Policy and shareholder initiatives are having an impact on the supply side, that's for sure: there has been a 30%-40% collapse in global investment in energy-intensive industries like oil & gas, metals, mining, steel, etc. But as the economic, chemical, logistical and political realities that govern the demand side of the energy transition become clearer[1], policymakers should be aware of the following:

If they reduce the *supply* of fossil fuels faster than they reduce *demand* for them, they run the risk of higher energy prices, energy dependence that can border on servitude and inadequate energy supplies that can lead to power rationing of homes and businesses.

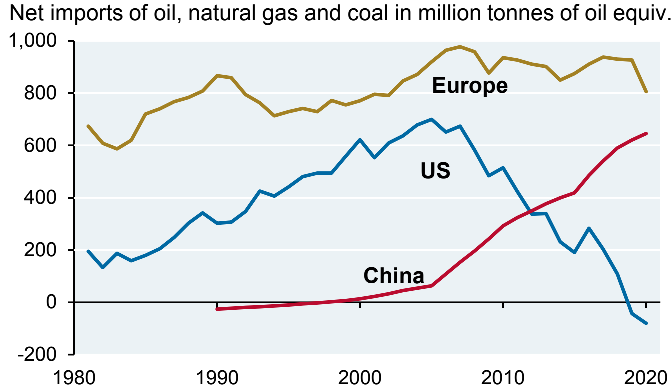
Collapse in global investment in energy-intensive industries, 2022 expected investment level vs 10 year average



Source: GS, JPMAM. November 10, 2021.

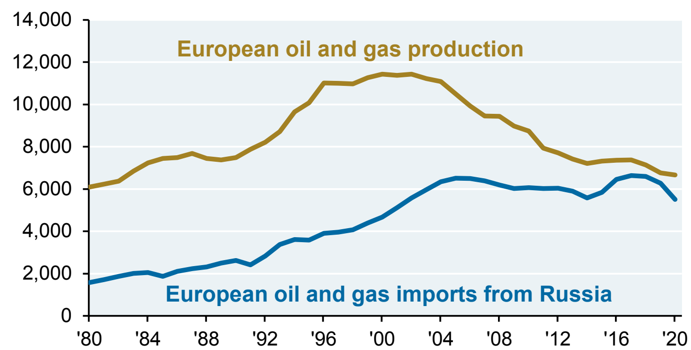
The next chart shows energy dependence by region. **Look more closely at the details for Europe in the second chart:** Europe now imports around as much oil and gas from Russia as it produces for itself, and is desperate for more Russian gas this winter. How will this impact Europe's response to a warning received from the US last week that Russia has concluded a lengthy troop build-up near the Ukraine and may be planning another invasion, or that Russia may also be preparing for intervention in Belarus[2]?

Energy dependence and independence
Net imports of oil, natural gas and coal in million tonnes of oil equiv.



Source: BP Statistical Review, NBS China, JPMAM. 2020.

European reliance on Russian energy
Thousand barrels per day of oil equivalent



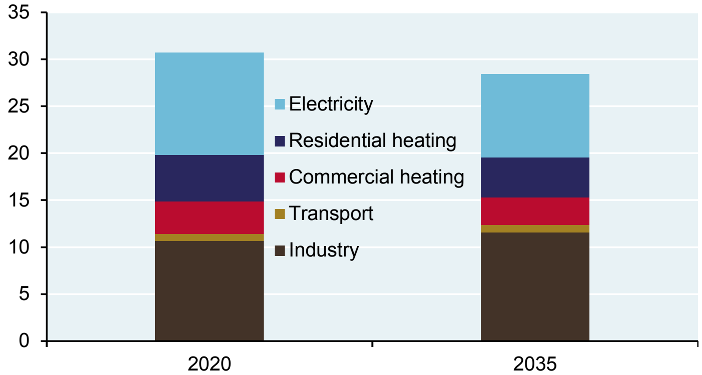
Source: BP, Gazprom, Eurostat, Perovic et al, Russia Federal Customs Service, JPMAM calculations. 2020.

[1] We write about such realities every year in our annual energy paper: the complexity of displacing billions of prime mover engines and motors; lengthy economic payback periods for equipment switching, even after subsidies; the chemical realities of industrial energy use and related decarbonization challenges; NIMBYism and local policies impeding expansion and interconnection of electricity grids; levelized costs of renewable energy published by Lazard and the EIA that do not take storage, grid expansion and thermal backup power needs into account; and the preposterous expectations for geologic carbon sequestration.

[2] "*US and Europe fear possible Russia invasion of Ukraine*", Politico.com, November 12, 2021

The US does not face this kind of economic and geopolitical trap, but mounting pressure on investors and lenders to starve the US oil & gas industry of capital could eventually change that[3]. As per our assumptions outlined in detail here, **the US might need roughly the same amount of natural gas in 2035 as it uses today.** If that's right, the only remaining questions are whether this energy is produced in the US or imported from Canada, Qatar and Russia, and how that affects reliability of supply, price and national security.

US natural gas consumption: 2020 vs 2035
Quadrillion BTUs of natural gas consumption

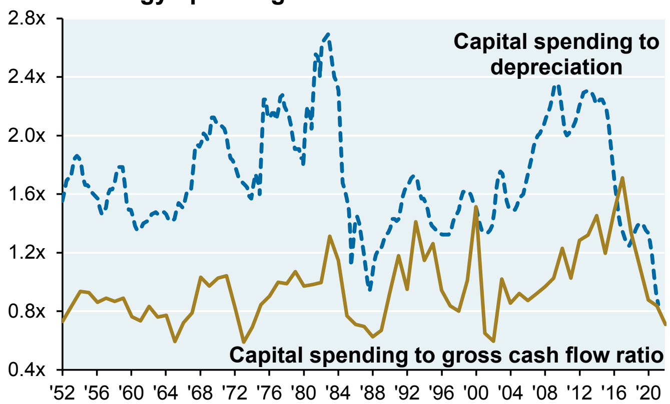


Source: JPMAM. 2020. See accompanying paper for sources & assumptions.

Meanwhile, for investors, the fundamentals of traditional energy companies look quite different than they have in many years. Capital spending has collapsed vs depreciation and cash flow, and the industry is earning record high free cash flow margins.

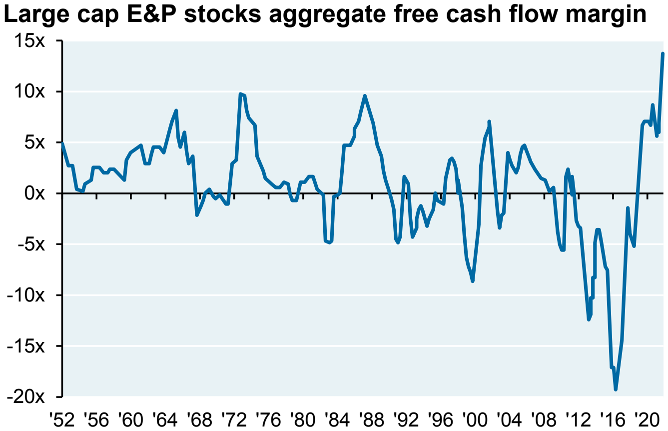
With that I wish all of you, and in particular Rachel[4], a Happy Thanksgiving. See Appendix I for a brief comment on COVID, Europe and Aaron Rodgers.

Global energy spending ratios



Source: Empirical Research. November 4, 2021.

Large cap E&P stocks aggregate free cash flow margin



Source: Empirical Research. November 4, 2021. 6 month smoothing.

[3] An example: when EOG Resources announced intentions to expand production last February, its stock price fell sharply. In other words, **rising fossil fuel prices may not substantially boost US oil & gas production in a world of intense pressure on investors and lenders to divest**. Michael Shellenberger's pieces on Substack cover these and other energy topics on a frequent basis

[4] Rachel, I know you read the footnotes, so thank you again for taking care of me while I recuperate from a tibial plateau (knee) fracture and torn meniscus that I suffered in a freak accident in late October. I will try not to do this again! I expect to be walking again in January sometime and back in my kayak to fish by April (I hope).

Appendix I: COVID, Europe and Aaron Rodgers

There has been a large COVID infection spike in Belgium, the Netherlands and Germany. For the latter two countries, reported infections hit their highest levels since the pandemic began. It's very early to make a final judgment, but high levels of European vaccination and improved health care protocols have sharply reduced the degree to which infection results in hospitalization and mortality (see table). If that pattern remains, the latest infection spike will have less severe healthcare and economic consequences for Europe. The efficacy of vaccines in preventing COVID from inhabiting the respiratory system seems to fade over time, particularly vs the Delta variant; that's why infections occur even among vaccinated people. Even so, vaccine efficacy remains high in preventing the kind of pulmonary and neurological damage which puts people in the hospital (or worse).

Vaccine efficacy rates are not 100%, that is clear. But there's plenty of data showing how US hospitalization and mortality rates are much higher among unvaccinated people; we have some on our COVID portal. The same is true in Germany, which has one of the largest unvaccinated populations in Europe (31%, same as the US), and where the unvaccinated are driving the surge: in its main pulmonary clinic in Giessen, patients have tripled, half are on ventilators and every single one of them is unvaccinated.

Even so, Green Bay Packers QB Aaron Rodgers rejected the premise that the US is experiencing a pandemic of the unvaccinated in a widely publicized interview, calling it "a total lie" before mentioning that he's taking ivermectin (see box). If you want to listen to professional athletes, read Kareem Abdul-Jabbar's article[5] on Rodgers instead.

Declining mortality and hospitalization as a % of reported infections by wave and country
Mort/inf = average daily deaths as a % of average daily infections
Hosp/inf = average daily number of hospitalized people as % of daily infections

	France		UK		Netherlands		US	
Wave	Mort/Inf	Hosp/Inf	Mort/Inf	Hosp/Inf	Mort/Inf	Hosp/Inf	Mort/Inf	Hosp/Inf
First	15.2%	945%	14.6%	373%	12.4%	292%	4.8%	162%
Second	1.5%	96%	2.2%	82%	0.7%	24%	1.5%	62%
Third	1.2%	135%	0.3%	18%	0.2%	11%	1.2%	65%
Fourth	0.5%	68%			0.2%	10%		

Source: Johns Hopkins University, IMF, JPMAM. November 9, 2021.

What's the story with ivermectin? It's complicated

Simply dismissing ivermectin as a horse dewormer is not the right way to approach this. Ivermectin is a very effective drug for humans infected with certain parasites and its creators won the Nobel Prize in 2015. In the early stages of the COVID pandemic, ivermectin was among the thousands of compounds tested to see if it could stop the replication of the virus in vitro. It showed promise, so human trials began. Two meta-studies which aggregated results of individual trials found that the drug showed some promise. **But during the peer review process, the wheels came off the ivermectin train**: many studies were revealed to have design flaws, no control groups, biases, data errors and irregularities, and these tended to be the ones showing that ivermectin was effective vs COVID. The more robust studies generally did not find clear statistical evidence of its effectiveness. As a result, the FDA, WHO and European health agencies have advised against taking ivermectin unless it is being administered as part of an ongoing clinical trial.

Despite a lack of clinical evidence (like evidence supporting mRNA vaccines), some online groups advocate its use and in the US, ivermectin prescriptions are soaring. **Good luck with that**: when used for parasitic treatment, ivermectin is given as a one-time dose; the "ivermectin for COVID" crowd are often taking it twice a week even though there is no safety data on prolonged use. Some conspiratorial types argue that the drug industry is against ivermectin since it's cheap; this argument doesn't hold up since the steroid dexamethasone and the anticoagulant heparin are both inexpensive, and have been adopted for use against COVID after properly constructed clinical trials proved that they work.

One last clue about the ivermectin controversy: more than half of the people who believe ivermectin is effective have no plans to get vaccinated. I think that explains a lot as well.

Sources: "*Fringe Doctors Promote Ivermectin for COVID Despite Lack of Evidence*", Scientific American, September 29, 2021; and "*The Real Scandal About Ivermectin*", The Atlantic, October 23, 2021

[5] https://kareem.substack.com/p/aaron-rodgers-didnt-just-lie

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