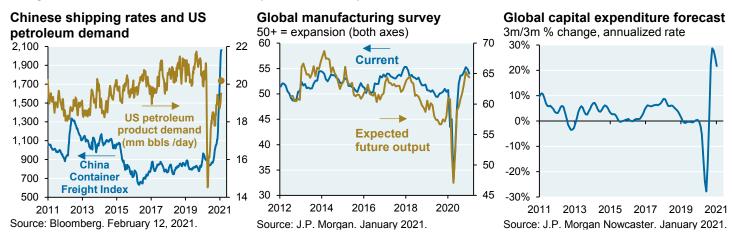


Short stories on the global recovery, plummeting COVID infections, Larry Summers & the bond market, SPAC sponsors, renewable energy, the Texas power outage and the battle for the Republican Party

The global economic rebound from COVID is in full swing, particularly in the US and China. Shipping demand, petroleum consumption, manufacturing, capital spending...they're all rising sharply. Q4 2020 S&P 500 earnings actually *surpassed* Q4 2019 levels (despite -102% for energy, -367% for airlines and -117% for restaurants/ hotels). The beat goes on, with more good economic news to come as vaccinations rise, particularly in Europe where they have been surprisingly slow and have been provided to just ~5% of the population outside the UK. **What could rock the boat?** A bond market revolt and vaccine-unresponsive COVID variants would be my first two guesses. We cover these and other topics in some very short stories.



Very short stories

"Live Free or Die in New Hampshire"

State's Rights and renewable energy imperatives don't mix

"The Lion in Winter"

Why have reported COVID infections plummeted so rapidly in the US and Europe?

"Dawn of the Dead"

Is Larry Summers right about a mega-stimulus bill reigniting inflation and a rise in bond yields?

"Money for nothing"

Only a few SPAC sponsors have aligned incentives closely with long term investors

"The Not So Civil War"

The dissolution of the Whigs, third party headwinds and why the more likely outcome for the GOP is a battle fought through party primaries

Texas power outage: don't blame frozen wind turbines. Wind is only expected to provide 6 GW of power to Texas in winter. Peak energy demand during the storm was 67 GW, and 30 GW of **thermal power** was offline this week (mostly natural gas plant outages). The culprit: Texas has less natural gas storage than other states and relies on just-in-time production from the Permian Basin to meet demand. Texas production of natural gas fell in half on Monday due to freezing of gathering lines and failure of electric pumps. It's possible to winterize natural gas production/plants; the Muskeg River natural gas plant in Fort McMurray, Alberta (Canada) operates in average temperatures that are below zero each winter. The Texas ERCOT system hasn't made all the necessary winterization investments yet, which is where the policy discussion will probably go from here.



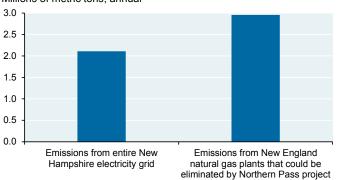
"To Live Free or Die in New Hampshire"

Voters expect the Biden administration to accelerate the renewable energy transition, but certain things will be outside their control. Consider HydroQuebec, which wants to sell hydropower to the US from existing facilities.

- New York can forge its own path given a shared border with Canada, and is planning a 1.3 GW transmission line from the Quebec-NY border to NYC, buried under Lake Champlain and the Hudson River...
- ...but the renewable energy transition will be delayed if projects can only be completed when individual states control the entire transmission network...
- ...which doomed the fate of **Northern Pass**, a 1.1 GW transmission line designed to bring hydropower from Quebec to the Northeast through New Hampshire (80% via existing right-of-ways or underground lines)
- Canadian Hydropower can displace natural gas imported from outside the New England region, which would have clear climate benefits given lifetime hydropower CO₂ emissions that are 5% of natural gas plants¹
- After factoring in 5% transmission losses and an estimated 83% utilization rate², Northern Pass could have delivered 7.5 GWh of power to New England each year...
- ...a region whose natural gas plants emit 864 pounds of CO₂ per MWh of electricity generated³...
- ...in which case Northern Pass could have reduced emissions by 3.0 mm metric tons of CO₂ per year...
- ...and more than offset lost electricity generation from the 2019 shutdown of the Pilgrim nuclear plant
- But New Hampshire, a state whose entire emissions from electricity are 2.1 mm metric tons of CO₂ per year, blocked and killed Northern Pass primarily due to concerns about tourism and property values...
- ...allowing New Hampshire, whose electricity generation is dominated by nuclear power (60% of total for the state), to impede greater emissions-free generation in neighboring states...
- ...giving new meaning to New Hampshire's state motto: "Live Free or Die"



CO₂ emissions: New Hampshire vs Northern Pass Millions of metric tons, annual



Source: US Environmental Protection Agency, JPMAM. 2018.

Epilogue: Massachusetts is trying to import Canadian hydropower again, this time through Maine ("New England Clean Energy Connect") but **has already run into an injunction** due to opposition from environmental groups. Another strategy for clean baseload power: an additional 7 GW of utility-scale, commercial and residential solar capacity in New England (currently ~3.5 GW) combined with massive amounts of expensive battery storage. The best answer for New England, from the MIT Center for Energy and Environmental Policy Research: **4 GW of new two-way transmission lines between New England and Quebec**⁴, which could lower costs of a zero-emission power system by 17%-28%. **So, 4 new Northern Pass projects? Good luck with that**.

¹ Grams of CO₂ equivalent per kWh, Intergovernmental Panel on Climate Change, 2014

² "Cost benefit and local economic impact analysis of the Northern Pass transmission project", London Economics, 2015 ³ US EPA eGRID database, 2018

⁴ "Deep Decarbonization of the Northeastern US and the Role of Canadian Hydropower", Dimanchev et al, MIT, Feb 2020



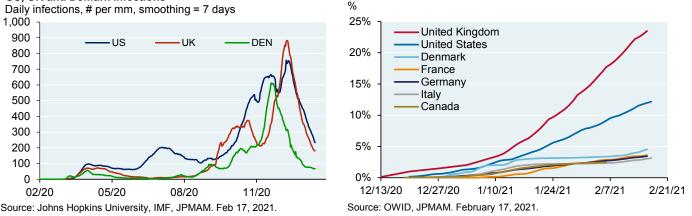
Unique people vaccinated as percentage of population

"The Lion in Winter": Why are reported COVID infections plummeting so rapidly in the US and Europe?

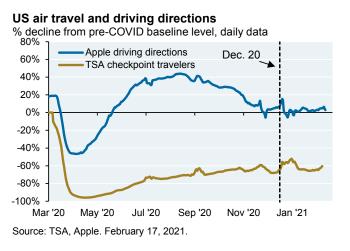
There has been a sharp and sudden decline in reported infections in the US, UK, Denmark and other countries in Europe. What is going on here? Isn't the B117 (UK) variant much more contagious than the incumbent strain (D614G)? According to the latest genomic sequencing, B117 is now responsible for 90% of infections in the UK and 21% in Denmark. While the B117 share is still just 6% in the US, Scripps Institute expects it to be the dominant strain in the US by March and the primary strain by May.

Here's what we know so far. In the US, vaccination rates were less than 5% when infections started tumbling in mid-January, so while some Phase 1 super-spreader immunizations helped, I don't think that's the primary driver of the infection decline.

US, UK and Demark infections



The rise and fall in US infections may also have been driven in part by the rise **in air and vehicle travel around the holidays**, but the increases in travel shown below are small. Third factor: the decline in reported infections also reflects a modest **decline in testing**. Some have asked if testing standards have changed, but I see no evidence of that⁵. The three factors mentioned don't appear to explain the speed of the decline.



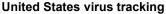
United States virus tracking

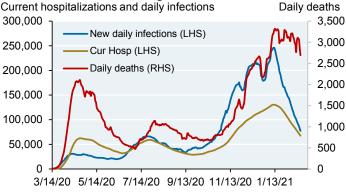


⁵ Some clients asked if PCR test thresholds have changed (i.e., lower "Ct" cycle thresholds used to determine positivity). **I have not seen any evidence that this is causing a decline in reported infections**. Ct refers to the number of cycles needed before PCR tests detect viral RNA. Some testing platforms reveal Ct, but labs generally don't provide them when reporting test results. No standardization for Ct values exists across PCR platforms, making it difficult to compare results among tests. Source: American Association for Clinical Chemistry.

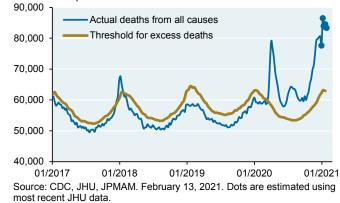


My COVID science advisory group is not sure how to explain the speed of the decline either. That's OK; I prefer that to people spewing theories they can't substantiate. Like many COVID observers, I expect hospitalization (down 50% from peak levels) and mortality (down 15% but still way above normal seasonal levels) to decline sharply given the 70% decline in infections, and rising vaccinations⁶. Good preliminary news: based on results from trials and from in vitro tests, approved and pending vaccines appear to provide almost the same efficacy vs B117 as they do vs the incumbent strain. However, the news is not as good vs the South Africa B1351 strain, which is now around 5% of infections in parts of Europe. See Section 3 of our web portal for more information on vaccine efficacy by strain.



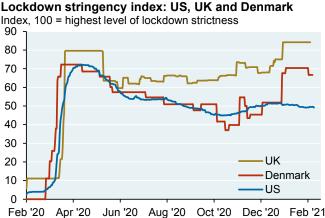


Tracking excess deaths from COVID Total deaths per week



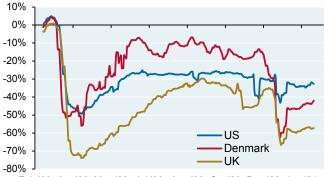
Source: COVID Tracking Project, JPMAM. 2/17/2021. 7 day avgs.

What about Europe? I've read some "Mission Accomplished" commentary within and outside of JP Morgan regarding declines in infections and mortality in the UK and Denmark. Everyone is entitled to their opinion, but any piece that doesn't mention the impact of more stringent UK and Denmark lockdowns⁷ on infection is not something I would take very seriously. The real test is whether Europe can sustain a decline in infections when lockdowns are lifted; or perhaps the goal is to keep lockdowns in place until a lot more people are vaccinated. That might work in the UK but will be a VERY tough road in the rest of Europe where vaccination rates are still below 5% due to a narrower set of vaccine contracts and other logistical problems.



Jun '20 Aug '20 Oct '20 Dec '20 Feb '21 Source: University of Oxford, JPMAM. February 15, 2021.

Regional mobility data: US, UK and Denmark % change from baseline: retail, restaurants, transit & workplace



Feb '20 Apr '20 May '20 Jul '20 Aug '20 Oct '20 Dec '20 Jan '21 Source: Google, JPMAM. February 12, 2021. 7 day avgs.

⁶ Vaccine risks vs COVID risks. A client sent me a report from the Koch Institut (a German federal gov't agency) on the risk of facial paralysis and other serious side effects from COVID vaccines. The report showed a 0.02% probability of such an adverse outcome. I responded with studies on long term COVID survivor symptoms (vascular, pulmonary, neurological, etc) which affect people months later and which impede their ability to work. The risks of getting COVID and being a long term symptom sufferer are MUCH higher than 0.02%. As a result, I will be taking the vaccine when I can get it.

⁷ Want to talk lockdowns? Hong Kong infections are 2 per mm per day compared to 230 in the US; yet HK requires every citizen or tourist to prepay for 3 weeks of quarantine in gov't run hotels when entering the country.

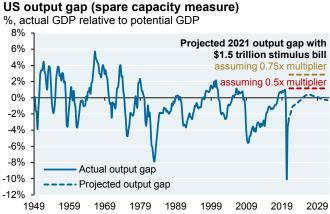


"Dawn of the Dead": Is Larry Summers right about another fiscal stimulus bill, inflation and rising bond yields?

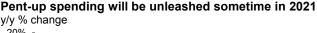
Policy debates on inflation often start with "output gaps", a rough estimate of spare capacity. See the first chart; if we apply a 0.5x multiplier to a \$1.5 trillion bill, the current output gap could jump into positive territory (i.e., no more spare capacity); a higher multiplier would push it to levels last seen in the 1970's. This is part of the argument **Larry Summers** made in a Feb 4th Washington Post Op-Ed: the rapid speed of labor market healing, deployment of pent-up savings triggered by herd immunity (third chart) and a stimulus bill tacked on to the largest deficits in the post-war era could finally reignite *some* degree of wage/price inflation, which has been left for dead. Signs of "normal" inflation would be certainly inconsistent with current Fed policy, and 10 year yields have already doubled from their lows.

Fed chair Powell says he will have tolerance for a temporary period of above-trend inflation given the presumably transitory deployment of pent-up household spending, and since stimulus programs will shrink if the economy improves faster. Also, some economists believe that estimates of potential US and European GDP are understated; if so, output gaps could be 2x reported levels⁸, leaving plenty of room for more non-inflationary growth. I admire their confidence; I think it's impossible to predict output gaps and multipliers given the unprecedented monetary and fiscal experiments underway. The Fed has already had to recalibrate such measures many times in the past.

Morgan Stanley's non-consensus view agrees with Larry. They believe that post-COVID GDP will rise above its precrisis path, something that did not happen after the 2008/2009 financial crisis. I think Larry is onto something here; I expect Powell to face difficult decisions well before the mid-term elections in 2022, particularly as it relates to how the Fed will message a policy exit for a stock market used to zero rates and lots of Fed asset purchases. Markets are pricing in a Fed largely on hold for several *years*. Even if the Fed goes slow on the policy rate, the bigger question for markets is what happens to longer term rates; 2.5%+ inflation and 3.5% on 10 year US Treasuries could be a journey that involves substantial equity and credit market corrections, depending on how quickly we get there.

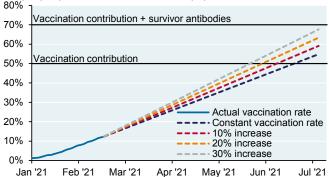


Source: CBO, JPMAM. Q4 2020.

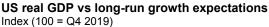


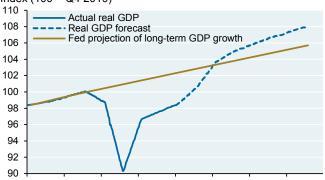


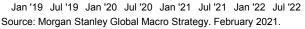
US vaccinated individuals and survivors Unique people vaccinated as % of US population



Source: OWID, JPMAM. February 17, 2021. Estimates of vaccination rates based on trailing 14-day average vaccination rate.







⁸ "There is more slack than they think", Hatzius and Struyven, Goldman Sachs, February 16, 2021.



"Money for nothing": an epilogue on SPAC sponsors and long term investors

Among the conclusions in <u>our deep dive on SPACs</u> last week: sponsors can make a *lot* of money since they typically receive 25% of SPAC IPO shares. Even after assumed share forfeiture and one-time vesting tests, we estimate median and average SPAC sponsor returns at 418%/648% on 90 completed or liquidated SPAC mergers since 2019. Buy and hold investors purchasing the stock after merger announcements earned positive *absolute* returns, although their returns were usually lower than on investment alternatives in a rising market.

There's a recent trend that I want to mention as the SPAC boom continues⁹: a few deals do a better job of aligning sponsor and buy and hold investors (BHI)¹⁰. While many SPACs involve some sponsor share forfeiture and vesting, only a handful apply **long-term** vesting schedules that do not release sponsor shares unless price targets are met 1 to 4 years later. Consider our estimated returns in the charts below. In the traditional SPAC structure, BHIs can lose more than sponsors when deals don't work (Allied Esports), they can lose substantial amounts when sponsors *make* money (Glory Star) and they can be flat when sponsors earn very large returns (OneSpaWorld, Accel). Even a one-time sponsor vesting test doesn't completely align sponsor and BHI interests given the risk that shares vest before a stock price decline (Nikola, Immunovant). Multi-year vesting schedules are only present in a small minority of the 311 SPACs still looking to find a company to bring public. But they might be a sign of where the SPAC market is headed after investors look back on the results of the latest wave.

Allied Esports Entertainment Share price





Accel Entertainment



Glory Star New Media Group Share price

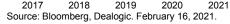


Source: Bloomberg, Dealogic. February 16, 2021.

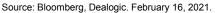


OneSpaWorld Share price









Estimated sponsor returns based on \$3mm in fixed expenses and a 2.5% SPAC IPO underwriting fee. Sponsor vesting test: 50% appreciation in SPAC price in 20 of 30 rolling trading days, applied after 180 days elapse since merger close; applied to 25% of sponsor shares. [1] = IPO, [2] = merger announcement, [3] = merger closing and [4] = 180 days after merger close.

Source: Bloomberg, Dealogic. February 16, 2021.

⁹ As of mid-Jan, there were 52 SPAC mergers pending and 264 searching; since then, those figures rose to 73 and 311.

¹⁰ An example of greater alignment of interests and lower sponsor share allocations: Hamilton Lane's Alliance I SPAC, issued at \$10.00 per share and which vests sponsor shares as follows: 10% at the merger, 2.5% subject to a \$12.50 test in years 1 and 2 and another 2.5% subject to a \$15.00 test in years 3 and 4.

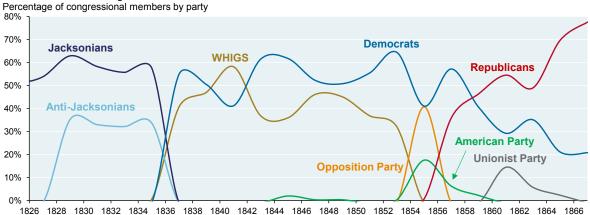


"The Not So Civil War": the Whigs, and what happens next in the Republican Party

Trump supporters in several states have taken steps to launch a new "Patriot" Party. Separately, 120 GOP former GOP officials and Bush/Reagan Administration appointees met to discuss creation of a new "center right" party. In other words, some GOP members on both sides want a divorce. While a Gallup poll indicates that 2/3 of Americans believe that a third party is needed, history shows that political splintering is a big gamble. The more likely outcome: **intense primary battles within the GOP that will determine the future of the party**.

Let's go back to the 1850's and the chart below to see why. Conflict within the Whig Party had been brewing by the 1852 election, mostly due to disputes within the party about slavery. Northern anti-slavery Whigs joined with smaller parties and disgruntled Democrats to eventually form the Republican Party, while some pro-slavery Southern Whigs joined the Democratic Party instead. By 1855, the Whig Party had disappeared entirely.

Dissolution of the Whigs



1826 1828 1830 1832 1834 1836 1838 1840 1842 1844 1846 1848 1850 1852 1854 1856 1858 1860 1862 1864 1866 Source: Voteview database (Lewis et al., UCLA), JPMAM. 2020.

So, is the creation of the Republican Party in the 1850's a template for either current GOP faction today? I don't think so. It took an enormous galvanizing force (opposition to slavery) to forge creation of a new party, a movement which attracted minority parties and large defections from the Democrats as well. Today, a "center right" party might attract some centrist Democrats uncomfortable with progressives as both factions blame each other for net losses in the House and in State Legislatures last year. But unless such defections were enormous, a new center right party might have little national relevance. Unlike Europe, third party status doesn't translate into legislative power given a US "winner take all" system. Another example: Teddy Roosevelt left the GOP to form the Progressive Party, evenly splitting the GOP vote in 1912 with incumbent President Taft. This allowed Democrat Woodrow Wilson to become president despite only winning 42% of the popular vote.

The current Trump-McConnell dispute may be unprecedented in American politics, but that will probably not result in a third party movement. I asked historian Michael Beschloss if there were historical parallels to the raucous Trump-McConnell feud that has erupted. Could he recall a President or ex-President in conflict with the current or former Senator Majority Leader of his own party? Michael mentioned Senator Alben Barkley who feuded with FDR on a tax hike to finance WWII which Barkley supported and FDR opposed; Barkley briefly resigned as Senate Majority Leader after FDR vetoed the bill. He also mentioned Senate Majority Leader Mike Mansfield who broke from LBJ on the Vietnam War. But in both cases, fences were mended and neither led to third party movements. This time, while fences may not be mended, third parties are just as unlikely. GOP censure votes suggest that primary challenges are coming in 2022 and 2024 from the Trump wing of the party¹¹, the outcome of which will determine the party's future.

¹¹ Beschloss also reminded me that **FDR attempted a "purge" of his own party in 1938**, actively supporting primary challengers to Southern Democrats that opposed his policies. The purge failed: only one incumbent that FDR opposed lost a primary contest, while several liberal incumbents that FDR *did* support were defeated.

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