



The Needle and the Damage Done: the cost of the US recovery as the world waits for a vaccine (p1-3); Biden agenda on taxes/spending (p4,9); Tech stocks (p5-6); COVID and The Fountainhead (p7-8); US election dates and rules in light of relentless mail-in voting criticism by the President and US Attorney General (p10-11)

Please join us on a webcast tomorrow at 11 am EST. Contact your coverage team for details.

In January 2020, we were focused on the China-US trade deal and a US election in which Trump was on track to run with one of the strongest economic and market tailwinds in 100 years. How things have changed. China is far from meeting its trade deal purchase commitments, but it's no longer a topic that moves markets (see page 11). And while the US economy is recovering¹, Trump's once-in-a-generation tailwinds are mostly gone due to the coronavirus². In this note, we take stock of the cost of achieving the recovery shown below which has propelled the S&P 500 to all-time highs. Rather than getting caught up in what letter the recovery looks like, let's just say it's a lot faster than in 2009: Q3 GDP growth could reach 35% on an annualized basis, and unemployment is on track to decline to 7% by year end 2020 and 5.5% by year end 2021. Another fiscal stimulus package is a toss-up at this point given the brief Congressional session before the election.

US manufacturing industrial production



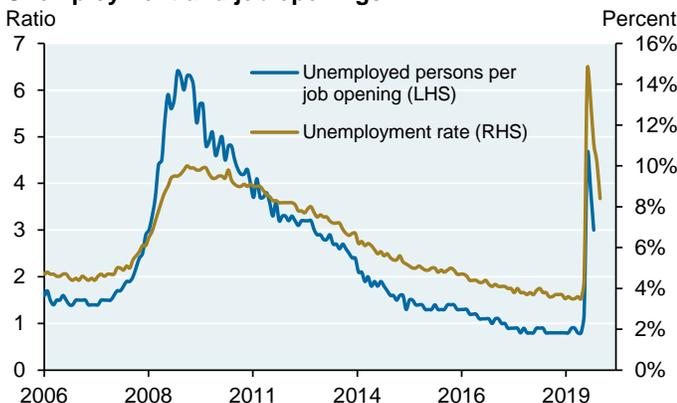
Source: Federal Reserve Board. July 2020.

Real retail sales



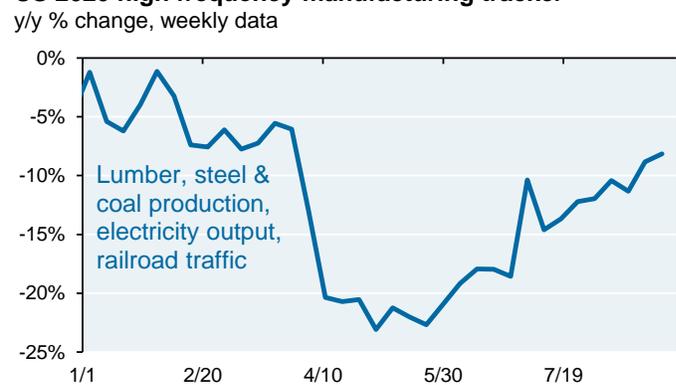
Source: BLS. July 2020.

Unemployment and job openings



Source: BLS, JPMAM. August 2020.

US 2020 high frequency manufacturing tracker



Source: WWPA, EIA, AISI, AAR, EEI, Haver. JPMAM. August 29, 2020

¹ US retail sales data include some DeWalt power tools I bought (cordless drills, mitre saw, reciprocating saw, oscillating saw, electric planer, circular saw, biscuit joiner and orbital sander) as I rebuilt a boardwalk, deck and some window sills over the summer. I only left the house to fish and to go to the local garbage dump.

² In our December 2019 Eye on the Market, we included a chart on how Trump's market and economic tailwinds were the strongest for any incumbent since 1896. While they're still above median, they are **way below December 2019 levels**, and well below tailwinds which Eisenhower and Clinton ran on for their second terms.

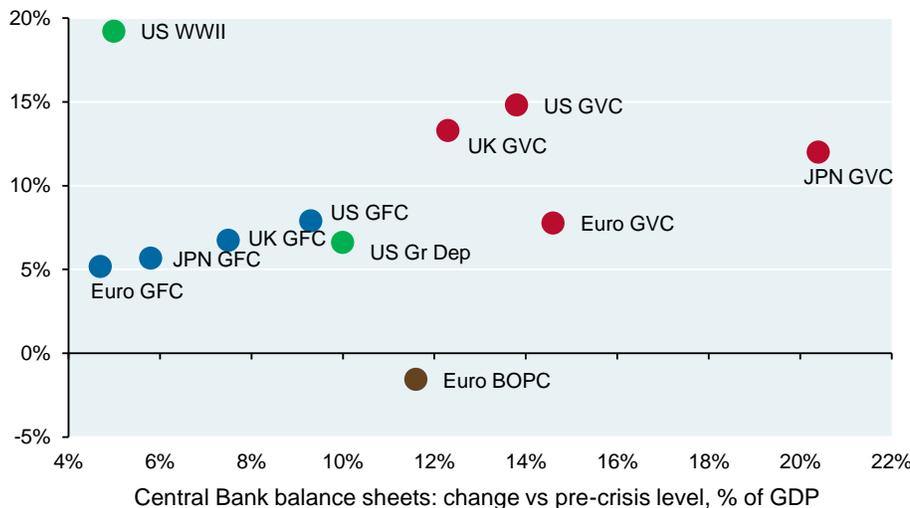


This recovery did not come cheap: the GVC (global virus crisis) increase in fiscal deficits and central bank balance sheets eclipse any prior crisis on record. You may have read something about “**Modern Monetary Theory**” (MMT) and how this is all going to work itself out without long-term damage to growth, inflation or the US\$ as the world’s reserve currency. **I’m not going to torture you with a deep dive on MMT;** the short version is that its advocates believe that debt monetization can be sustained at a time of excess capacity when the risk of a wage-price spiral is low (and that taxes could be raised if inflation did show up).

Powell’s Jackson Hole comments suggest that the Fed is committed to supporting the expansion by allowing inflation to rise above its long-term targets, reinforcing a reflationary dynamic (perhaps in response to Fed’s poor track record since 2009 in predicting and generating inflation, illustrated in the bottom right chart). This stance, combined with the willingness of the Federal government to run large unconstrained fiscal deficits, is a key driver of the US recovery to-date and the positive equity market reaction to it.

Debt monetization response to global virus crisis eclipses everything else

Government fiscal deficits: change vs pre-crisis level, % of GDP



Source: Central bank sources, OMB, St Louis Fed, JP Morgan Global Economic Research, JPMAM. 2020. GVC: 2020 Global Virus Crisis, GFC: 2008/2009 Global Financial Crisis, BOPC: 2012 Balance of Payments Crisis, GrDep: 1930’s Great Depression (through 1937). Euro = Eurozone area.

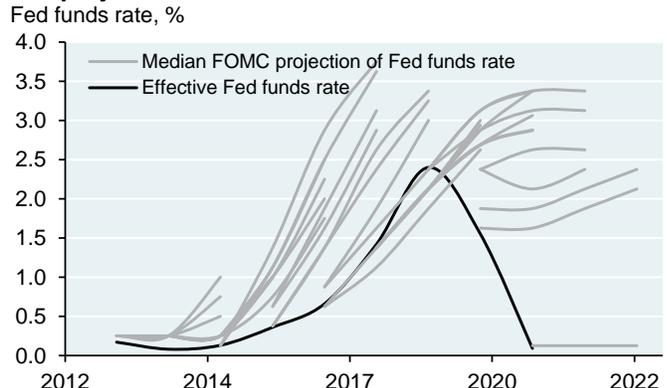
That said, US debt may exceed the WWII peak for the rest of our lives. The political convenience of debt monetization probably prevents efforts at debt reduction by either party, but as an exercise, let’s consider the following: **what would it take to reduce the Federal debt to its pre-virus level of 80% by the end of the decade?** The Committee for a Responsible Federal Budget helped us figure out the answer...

Gross federal debt held by the public



Source: Congressional Budget Office. September 2020.

Fed projections vs actual Fed funds rate



Source: Federal Reserve, JPMAM. August 21, 2020.



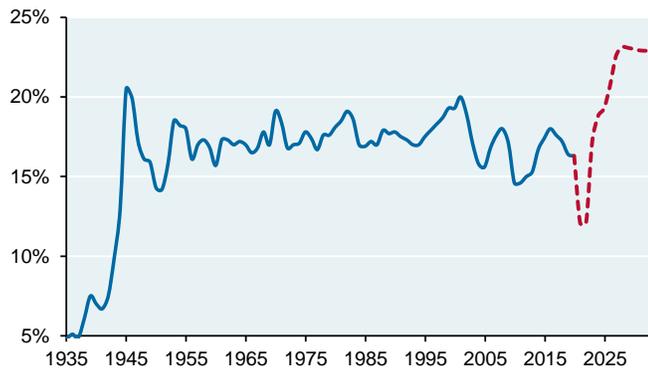
Policies required to bring US Federal debt back down to pre-virus levels of 80% by 2030:

- The largest tax hikes or spending cuts in US history
- A GDP growth boom last seen in the US 50 years ago
- Higher inflation (but not so high that it would increase real interest rates, slow growth or lead policymakers to enact additional spending to compensate for higher prices)

Since most of this is not politically or economically feasible, the US will have to get used to high levels of debt³. I understand the need for current deficits: by sustaining private sector demand, the benefits outweigh the costs to the economy, at least for now. But unprecedented experiments can have unprecedented consequences⁴, and down the road, US flexibility to respond to geopolitical, climate and other emergencies will be impaired.

Raise tax revenues to their highest levels on record

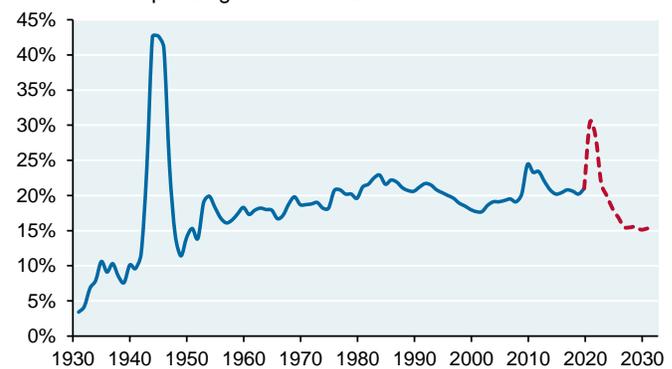
Tax revenue as a % of GDP



Source: OMB (history), CRFB (projections). 2020.

Cut spending to pre-WWII levels

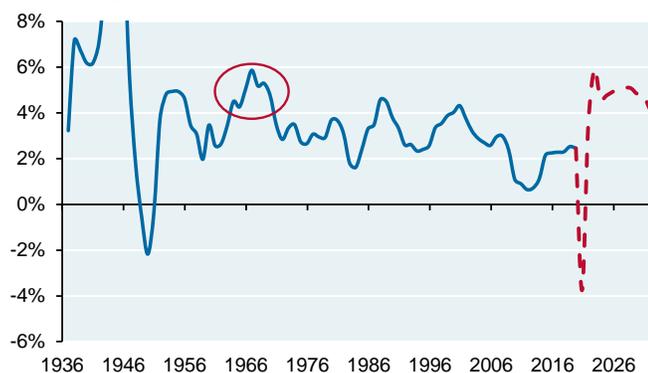
Government spending as a % of GDP



Source: OMB (history), CRFB (projections). 2020.

Reproduce 1960's growth boom

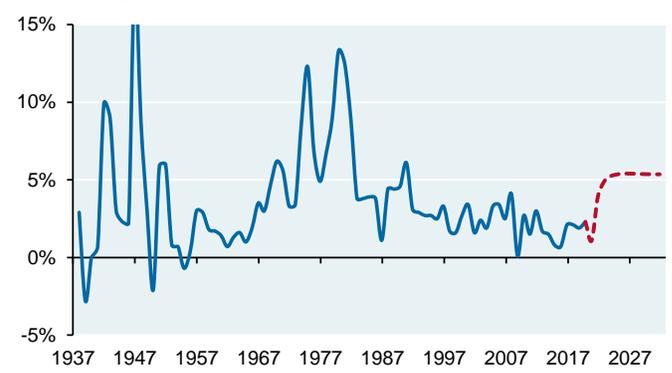
y/y% change in real GDP, 5-year annualized



Source: BEA (history), CRFB (projections), JPMAM. 2020.

Generate higher inflation...but not too high

y/y% change in headline CPI



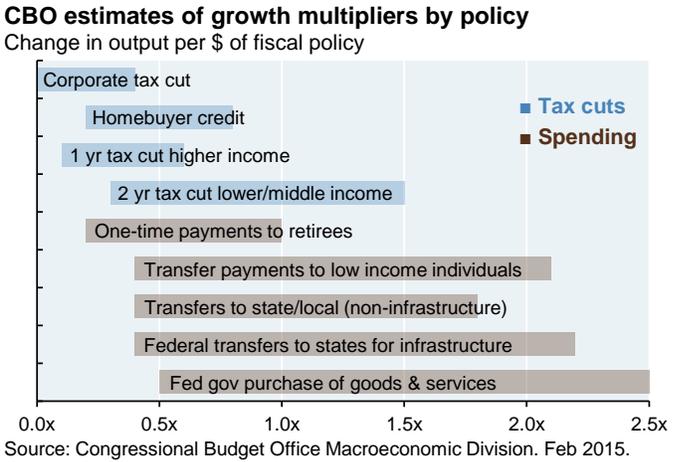
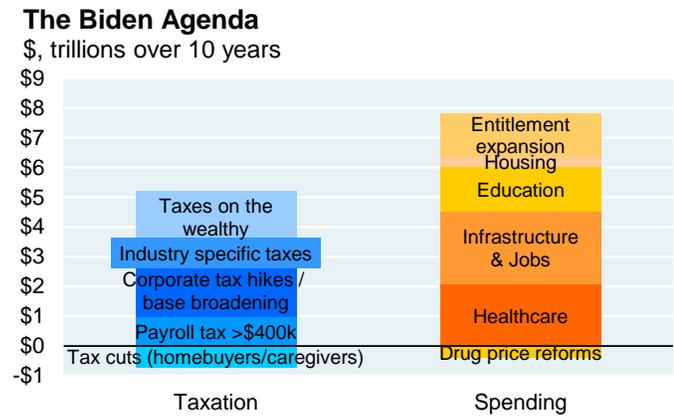
Source: BLS (history), CRFB (projections), JPMAM. 2020.

³ I read some research stating that of the 52 cases of national debt to GDP exceeding 130%, 51 ended in default or inflation large enough to devalue the debt (the only exception is modern-day Japan). However, many of the examples are micro-states or from the 1800's, and none were the reserve currency countries of that era. As John Cochrane (Stanford) has noted, the US grew out of WWII debt mostly through strong supply side growth in a deregulated economy, which is not the world we live in now.

⁴ More possible unprecedented consequences: **Florida's decision to release 750 mm genetically modified mosquitoes** to reduce dengue fever and Zika risks. The International Center for Technology Assessment and Food Safety is concerned it could produce "hybrid wild mosquitoes" more resistant to insecticides and worsen the spread of mosquito-borne disease. The Institute for Sustainability, Energy and Environment at University of Illinois convened a conference on the issue, and concluded that broader risks needs to be assessed: food web impacts, disease transmission by mosquito competitors, and gene flow between modified and wild mosquitoes.

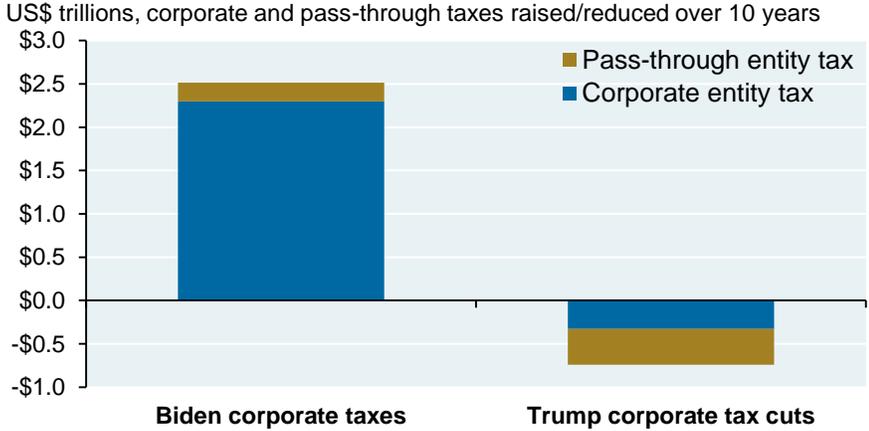


To be clear, US Federal debt levels may rise further. Trump ran massive deficits at a time of full employment (before the virus) and is expected to continue doing so, while Biden’s agenda combined with a Democratic Sweep could add another \$3 trillion to the US Federal debt given the gap between his tax and spending proposals. The chart on the left summarizes Biden’s initiatives; Appendix II on page 9 goes through the details.



While Biden’s tax and spending plans are large⁵, I don’t consider them an a priori negative for economic growth. A large part of Biden’s spending agenda is focused on items with high growth multipliers (the second chart shows CBO multiplier estimates, and while you could drive a large truck through them given how wide the ranges are, they point in the direction of what worked in the past⁶). This agenda could be positive for economic growth, but negative in the short term for corporate profits and equity valuations given the large increase in taxes on corporations. **While Biden proposes removing only half of Trump’s corporate tax rate cut, his base broadening and sector-specific tax proposals add up to \$2.5 trillion of new corporate taxes.** This is multiples higher than the size of Trump’s corporate tax cuts passed in 2017.

Biden proposed corporate tax increase vs Trump corporate tax cuts



Source: Cornerstone Research, Joint Committee on Taxation. August 2020.

⁵ **A brief comment on Biden’s personal tax rate policy:** Biden is reported to “loosely support” an increase in the SALT deduction from the current \$10,000 cap (deductibility of state and local taxes on Federal returns), but this is unclear and is not included in the analysis above. In other words, taxes on the wealthy could rise by \$2.5 trillion without a full restoration of the SALT deduction.

⁶ “The Fiscal Multiplier and Economic Policy Analysis in the United States”, Charles Whalen and Felix Reichling, Macroeconomic Analysis Division, Congressional Budget Office, February 2015



Tech/social media dominance of US equity markets and related antitrust risks

While Q2 S&P 500 earnings were down 33% y/y, profit margins declined but were still at the *high* end of their range dating back to the 1950’s, and free cash flow (excluding financials, energy and REITs) was still at an all-time high. Tech and Pharma/Biotech pre-tax margins ranged from 20%-30%, more than 2x the margins of many cyclical and consumer staple companies. The strong performance of US tech and social media stocks is also the primary driver of US/EM equity outperformance vs Europe/Japan for the umpteenth year in a row.

S&P 500 ex-financials and REITs net profit margins



Source: Empirical Research Partners. August 2020.

S&P 500 price/earnings



Source: Bloomberg, J.P. Morgan. September 04, 2020.

The headwind is now valuation (not that far from 1999 levels), and the concentrated contribution of a few large tech and social media stocks. The top 5 stocks now represent the largest share of US market cap since 1990 (even more than in 1999), and the outperformance of the market-weighted S&P vs its equal-weighted counterpart is halfway to 1999 levels. There are some important differences: megacap stocks are now highly profitable (in sharp contrast to 1999), and the valuation gap vs value stocks is not nearly as high. But this is not the most stable backdrop for an equity market; a broadening earnings recovery will be needed to prevent frequent bouts of profit-taking and intermittent stock market corrections.

Contribution of top firms to overall US market cap



Source: Bloomberg. September 4, 2020.

S&P 500 megacap outperformance



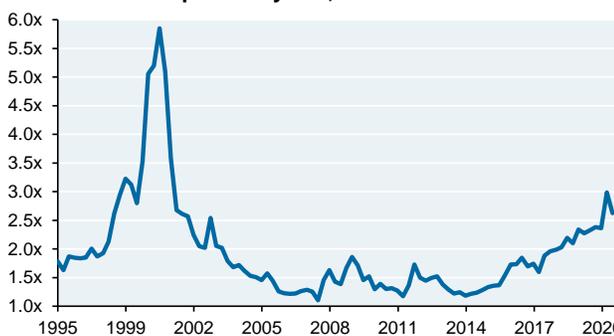
Source: Bloomberg. September 4, 2020.

Median free cash flow margin for 10 largest stocks within S&P 500 by market cap, Trailing 12 month free cash flow margin



Source: Factset. Q2 2020.

Top 10 companies in S&P 500 by market cap compared to bottom 100 companies by P/E, Ratio of median forward P/E ratios



Source: Factset. Q2 2020.

**A negative tipping point for megacap tech stocks could be revival of antitrust policy targeting them⁷:**

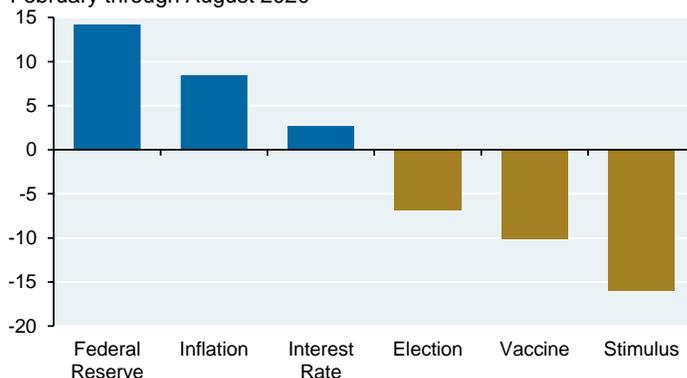
- Attorney General Bill Barr has reportedly overruled Justice Dep't lawyers⁸ seeking more time before bringing an antitrust case against Google. As a result, such a case might be filed as early as September or October 2020. While conservative politicians typically favor more restraint when it comes to antitrust law, they have shown more interest in prosecuting Google and other platforms they see as biased against them⁹. To be clear, there is bipartisan interest in the Google case given its 90% control of global web searches, and its one third share of every dollar spent on online advertising
- If elected, Biden is expected to increase antitrust enforcement (via Sherman and Clayton Anti-Trust Acts), and to improve bargaining power for gig economy workers (independent contractors with no health or retirement benefits). Biden has also mentioned revoking Section 230 of the US Communications Decency Act (safe harbor provisions protecting Facebook and other platforms from being held liable for comments users post on them). However, Biden called calls to break up big tech firms “premature”, and so far, his antitrust statements mostly cite concerns about farming, hospitals, insurance and pharma
- Biden appears more focused on protecting critical infrastructure from cybersecurity threats and foreign interference, and on restoring Net Neutrality (i.e., no paid prioritization of internet traffic) All things considered, we'd be surprised if a Biden administration launched efforts to curtail the ability of the Big 6 to acquire competitors and start-ups, or to force divestiture of prior acquisitions

A risk for *relative* outperformance of megacap stocks: a vaccine that boosts value stocks that have suffered from decreased mobility. It could take months for benefits of a vaccine to materialize, but we expect markets to price them in upfront. Relative returns on growth stocks have been *positively* correlated to news stories on the Fed and inflation, and *negatively* correlated to stories on the election, fiscal stimulus and a vaccine.

Note: References to individual stocks are for illustrative purposes only and should not be viewed as a recommendation for the purchase or sale of these or any securities by J.P. Morgan or any of its affiliates.

Growth stock correlation to volume of daily news flow

February through August 2020



Source: Empirical Research Partners, based on their “Big Grower” universe. August 2020.

⁷ **Apple, China, WeChat and TikTok.** Unlike Google, Apple controls which apps can be installed on its phones. A US executive order could *in principle* impose limits on Apple's ability to offer social media apps like WeChat and TikTok in their app store, even in China. Given the pervasive role that WeChat occupies in the life of 900 mm Chinese citizens (social media, commerce, gaming, healthcare, media, communications), that could be a big problem for Apple. In the **highly unlikely** event that a US executive order imposes such restrictions outside US borders, Apple could make exceptions for Chinese buyers, perhaps through “side-loading” (installing apps via a webpage instead of the app store). Apple has already made exceptions for China related to data storage, encryption and censored podcasts.

WeChat is not just heavily censored within China but also outside it. According to the NYT and University of Toronto's Citizen Lab, WeChat is a conduit for Chinese propaganda, intimidation of Chinese citizens abroad and is a potential vector for Chinese espionage. “Our research demonstrates that content sent by non-China-registered accounts is under political surveillance and used to invisibly build up WeChat's censorship system for China-registered accounts”. (Citizen Lab)

⁸ This is not the first time that **Barr** has overruled career Justice Department attorneys. See some of Donald Ayer's articles (Deputy Attorney General for George HW Bush) if you want more information.

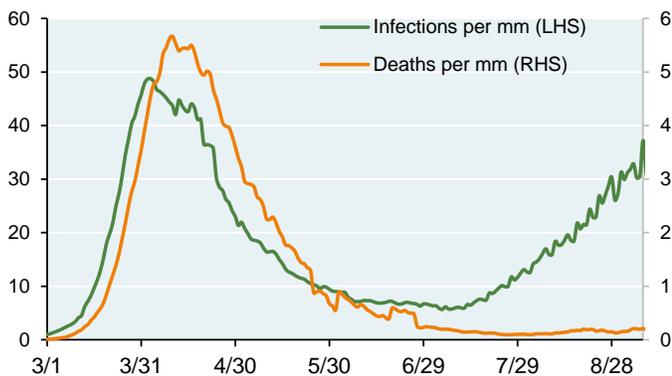
⁹ Examples: New York Times, “Justice Department plans to file antitrust charges against Google in the coming weeks”, 9/3/2020; and “There's a partisan schism over the timing of a Google antitrust lawsuit”, ARS Technica, 9/3/2020.



Appendix I: COVID and The Fountainhead

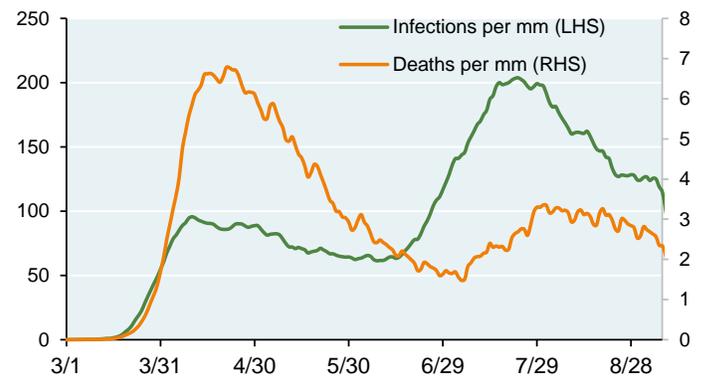
I spent much of the summer reading virus research, preparing weekly COVID emails and maintaining our online virus portal. Here's the good news: in the developed world, mortality has collapsed relative to the level of infections. The most likely explanations: a younger cohort of recent infections as schools, bars and restaurants reopen; more selective ventilation of hospitalized patients; increased use of anticoagulants and steroids; and hospitals/doctors/nurses that are not overwhelmed.

Dev World ex-US new daily infections vs mortality per



Source: JHU, Our World in Data, JPMAM. 09/07/2020.

US new daily infections vs mortality per mm



Source: JHU, Our World in Data, JPMAM. 09/07/2020.

As a reminder, COVID data needs to be interpreted carefully given its limitations. First, the number of positive PCR (nasal swab) tests is highly dependent on how “fine-tuned” the equipment is for determining positivity¹⁰, and reported infections could fall substantially if all equipment were calibrated similarly¹¹. Second, some hospitalized individuals may be counted as COVID patients when they are in hospital for other reasons, and get a positive (overly sensitive) PCR test. And third, some people categorized as having died “from COVID” may have died “with COVID” instead (i.e., COVID was not a contributing cause of death).

All of this could be true, but people that strenuously push this narrative while excluding other factors remind me of someone I sat next to on Amtrak. His dog-eared copy of **“The Fountainhead”** made it clear he had read it too many times, limiting his ability to synthesize any information that contradicted his own, and preventing him from understanding why someone else would see things a different way.

- Yes, some PCR equipment is calibrated to levels that identify both present and past infections, resulting in an exaggerated measure of current infectiousness; PCR equipment should ideally be standardized to avoid unnecessary isolation and shutdowns. But PCR tests are the only way to easily monitor community spread¹², and are useful as a policy indicator given their high correlation with hospitalizations (the median state correlation of reported COVID infections with COVID hospitalizations is 80%)
- While there may be some hospitalizations that are counted as COVID-related when they really aren't, my contacts at Johns Hopkins tell me in practice, at a national level, that this is a very small number

¹⁰ **Some equipment uses 35-40 cycles to determine PCR test positivity, which may pick up trace amounts of infection in people who are most likely not contagious any more, and at the tail end of infection.** Something like 30-32 cycles might make more sense if the goal is to identify currently contagious individuals. “High-cycle” PCR tests are best used when frequently testing the same individuals to monitor the progression of the disease, to confirm whether the patient is in the very early (infectious) or late (non-infectious) stage. However, in a recent paper from the UK health system, 8% of samples at cycles above 35 were still infectious.

¹¹ “Your coronavirus test is positive. Maybe it shouldn't be”, NYT, August 29, 2020

¹² Some universities measure virus content in dorm wastewater as an early warning signal, used in conjunction with testing, isolation and contact tracing. More widespread adoption of antigen testing in combination with PCR tests would also improve the process of identifying truly contagious individuals.

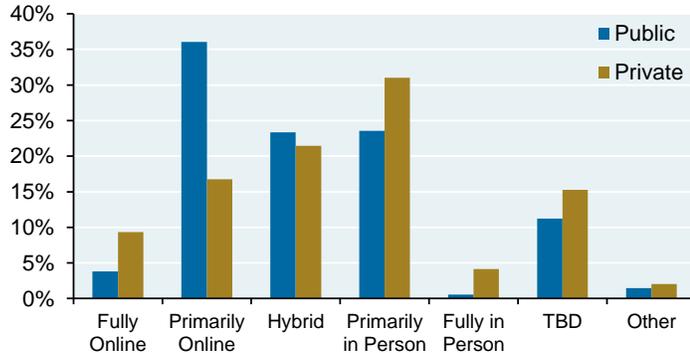


- There are mortality errors in *both* directions: people who died from COVID and *weren't* counted, and people who didn't die from COVID and *were* counted that way. We can avoid debating mortality classification entirely by looking at “**excess deaths**”. As shown below, US mortality has been consistently higher than the excess death threshold, and daily US COVID deaths are still 15x-20x higher per person than in Europe
- Furthermore, for my benefit and for yours, **please do not focus solely on mortality risks**. There are well-documented long-term health risks that some COVID survivors face (see virus portal Section 5 p.6) which should also affect public policy decisions. To exclude them from the narrative is disingenuous at best
- **Stop minimizing COVID risks by making too much out of a limited T-cell study from Sweden**. The number of people the authors found who appeared to recover from COVID without antibodies: 3. Yes, three. In other words, there is no robust evidence (yet) that T-cells can eradicate COVID on their own without the benefit of antibodies, nor is there evidence that individuals whose T-cells are responding to COVID are somehow not contagious, nor does anyone know if T-cells confer long-term immunity. The consensus is that T-cells may help shorten the course of the disease and its severity, which is good news on its own. Shane Crotty's work at the La Jolla Institute of Immunology is the gold standard on this topic

The emotional, workplace and economic stress of school closings is substantial (see below for information on high school and college opening rates in the US), and I am not arguing that schools should remain remote. In my view, the best way to ensure safe school openings is to reduce rates of infection to a level where effective testing, contact-tracing and isolation can be used to spot and contain any outbreaks. But that's for public health officials and schools themselves to decide, and as shown below, large gatherings present larger opportunities for infection. Bottom line: the libertarian narrative takes liberties with the real-life complexity of the pandemic, and the need for continued efforts to control the spread of the virus.

Public and private college Fall 2020 reopening plans

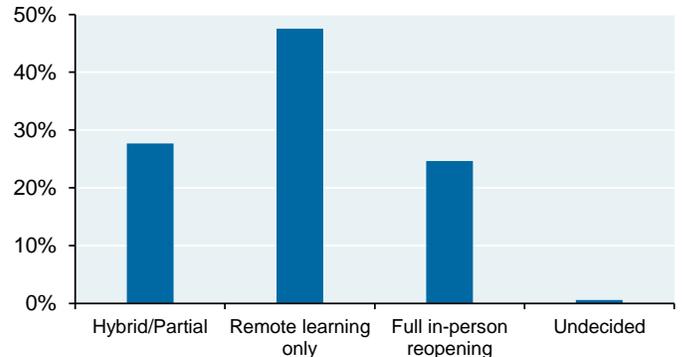
% of four-year colleges



Source: Davidson College. August 2020. 890 private schools, 552 public

K-12 school district reopening plans

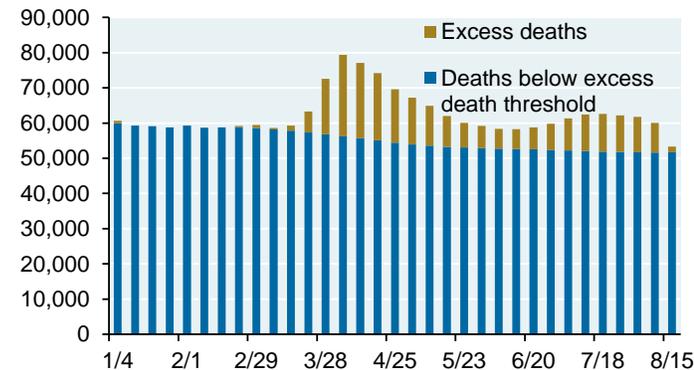
% of school districts



Source: Education Week. September 3, 2020. Sample size = 888 school districts.

US weekly deaths from all causes

Total deaths



Source: CDC. August 22, 2020.

Current estimated chance that at least 1 COVID-19 positive individual will be present at an event

Gathering Size	Dallas County	Tarrant County
10	26%	16%
25	52%	36%
50	78%	59%
100	95%	83%

Source: UT Southwestern Medical Center. September 2020.

**Appendix II: Biden's taxation and spending agenda****Biden's taxation agenda**

Taxation	\$ (bn)	Taxation commentary
T1 Apply 12.4% payroll tax above \$400k, split evenly between employers and employees	962	Any changes to Social Security require a supermajority in the Senate, assuming no invocation of "Nuclear Option"
T2 Raise corporate tax rate to 28%	1,300	Eliminate roughly half the benefit of Trump corporate tax cuts (which cut corporate tax rates from 35% to 21%)
T3 Raise top rate, limit itemization and lower income threshold for top rate	520	Return top rate to 39.6% and apply top rate at lower income threshold; limit whatever deductions remain
T4 Increased individual tax compliance	481	Increasing IRS enforcement to audit more wealthy individuals to help close the tax gap; this will help pay for Caring Economy Plan
T5 Tax capital gains as ordinary income	448	Only applied to people with AGI greater than \$1 mm; No step up in basis on death above a given exclusion
T6 Commercial real estate taxes	294	Repeal like kind exchanges, slow down rental housing depreciation, repeal \$25k exemption from passive loss rules
T7 Raise Global Intangible Low Tax Income corporate rate	309	Raise minimum effective corporate tax rate paid on non-US profits
T8 Phase out pass through entity tax deduction above \$400k	219	Consistent with increase in corporate tax rates on incorporated companies, higher taxes on pass-throughs as well
T9 Estate tax back to 2009 parameters	210	Increase estate tax by 5% to 45%; decrease exclusion for married couples by 70% (\$23mm to \$7mm).
T10 15% minimum tax on corporate book income	166	Conceptually, a corporate version of a minimum tax, except applied based on book income
T11 Profits tax on pharmaceutical industry	125	Impose tax on drug company profits
T12 Bank tax (institutions w/ assets of \$50+ bn)	103	Institute a "financial risk fee" on banks, bank holding companies and non-bank financial institutions
T13 Miscellaneous tax increases (includes removal of \$15bn tax rebate for pharma companies)	50	Repeal fossil fuel tax preferences, end tax deduction for pharmaceutical ad spending and increase penalties for misclassification of independent contractors
T14 IRA provisions	-80	Replace traditional IRA deductions and DC Pension plan contributions with refundable tax credits; automatically enroll most workers without pensions in IRAs
T15 \$5k Caregivers Credit	-98	\$5k tax credit for informal caregivers, modeled off of legislation supported by AARP
T16 Increase Child and Dependent Care Tax Credit	-100	Making tax credit refundable, increasing maximum allowable expenses, and increasing reimbursement percentage to 50%
T17 Miscellaneous tax cuts	-145	Small tax cuts aimed primarily at low- and middle-income taxpayers
T18 First Time Homebuyer Credit	-300	Permanently reinstate and expand tax credit; originally \$7,500 which would increase to \$15,000 with no expiry
Total tax increases	4,464	

Source: Comerstone Macro Research, J.P. Morgan Asset Management. August 2020.

Biden's spending agenda

Spending	\$ (bn)	Spending commentary
S1 Healthcare (Public Option, Expand ACA)	1,950	Expand current subsidies, establish public option, and automatically enroll low-income individuals
S2 Infrastructure and Clean Energy (ex. Housing)	1,700	Rebuild roads, airports, bridges, schools, etc.; invest in universal broadband access and 5G; carbon-pollution free power sector; investment in energy efficient buildings and sustainable agriculture
S3 Pre K and K-12	750	Increase Title I funding for public schools; increase federal funding for children with disabilities; provide universal Pre-K; increase compensation for teachers
S4 Higher education	750	Provide two years of community college or other high-quality training program without debt; free public colleges and universities for all families with incomes below \$125k; increase Pell grants; invest in community colleges and HBCUs
S5 Made in America Plan	750	Investment in federal procurement of American-made products; investment in technology R&D; job training and retooling workers
S6 Housing Agenda	340	Spurring the construction of 1.5 million homes and public housing units to address the affordable housing crisis, increase energy efficiency, and reduce the racial wealth gap
S7 Paid Family & Medical Leave	547	Provide up to 12 weeks of guaranteed paid family and medical leave
S8 Caring Economy Agenda (Medicaid expansion)	450	Clear waiting list of 800,000 people for home and community Medicaid services, by generating an estimated 1.5 million jobs in caregiving and community health care
S9 Expand social security	450	Increase monthly benefits for oldest beneficiaries; protect widows and widowers from steep cuts in benefits after spouse dies; increase benefit for people who worked more than 30 years
S10 Opioid Crisis Plan	125	Make effective prevention, treatment, and recovery services available to all
S11 Drug price reforms	-400	Savings due to changes in how drug prices are negotiated e.g. based on government negotiating with drug companies and capping price increases at inflation
Total spending increases	7,412	

Source: Comerstone Macro Research, J.P. Morgan Asset Management. August 2020.



Appendix III: Rules, dates and process in US Presidential elections

Given relentless criticism of mail-in voting¹³ by the President and the Attorney General (and implications such comments have on the legitimacy of the political process), I thought it was useful to update everyone on the rules, dates and process in US Presidential elections. I have synthesized this information from the Congressional Resource Service and the National Conference of State Legislators; any errors are my own. The bottom line: **states have over a month to determine the winner in their state, and there's a process in the Constitution that defaults to Congressional election of the President if the Electoral College does not produce a candidate with at least 270 approved electoral college votes.**

1. Presidential elections are administered by the states, but not without oversight. In 2000, the US Supreme Court intervened and halted Florida's vote recount, ruling that the use of different vote counting standards across counties was a violation of the Equal Protection Clause. So, there are checks and balances on the process. By the way, subsequent recounts of the disputed votes confirmed the Bush victory.

2. The Twelfth Amendment requires all state electors to meet "in their respective states" on the same day to reduce manipulation of results. In 2020, this date would fall on December 14.

3. All states have "safe harbor" provisions to handle disputed results. As long as such provisions are used to determine an outcome at least 6 days before December 14, the determined outcome is considered final and Congress can only intervene using procedures described below in [5]. The Supreme Court ruled in 2000 on the safe harbor day against Florida continuing its recount, so there's precedent for rules being adhered to literally.

4. As a result, states will have from November 3rd to December 8th to count mail-in votes that were post-marked by the date specified in each state. That gives each state over a month to figure out who the winner is. It's hard to take the politics out of politics, so here are party affiliations of key Secretaries of State who preside over the counting of mail-in votes and certify final outcomes:

- Arizona (D), Colorado (D), Florida (R), Iowa (R), Michigan (D), Minnesota (D), North Carolina (D), Ohio (R), Pennsylvania (D), Virginia (D), Wisconsin (D)

5. There are rules governing Congressional objections to the electoral results submitted on Dec 14. At least one Senator and one Representative can challenge the results of any state; both houses of the new 117th Congress would have no more than two hours to debate; if both houses agree to the objection, the electoral votes would not count. Otherwise, the votes would stand as submitted. In other words, the process is designed to quickly discard spurious objections. In 2004 and 2016, objections were overruled using these procedures

6. By the end of December 14, 2020, the Electoral College is disbanded, whether the required 270-vote threshold has been met by one of the candidates or not. There are procedures to handle the latter situation, but they do not involve the Electoral College.

7. On January 6, both houses of the new 117th Congress meet to declare the official outcome of the electoral vote count. While unlikely, there's a possibility that no candidate receives a 270 electoral vote simple majority. Why might this happen? Some states might have had their results vacated by Congress as determined in [5]; and some states might not have been able to resolve their internal vote counting disputes by December 8th as described in [4]. There may be other obscure reasons for this, but in 2020 given the COVID situation, unresolvable disputes around mail-in ballot vote counting would be the most likely reason.

¹³ The risks of vote-by mail (VBM) votes being lost/miscounted are material, and were ~4% of all VBM ballots cast in the 2016 Presidential election. However, this share of lost/miscounted VBM ballots was roughly the same as the estimated 4%-6% share of in-person votes lost in the 2000 Presidential election due to deficiencies in election administration (inaccurate voter registration files, malfunctioning voting machines, etc). While the reliability of in-person voting has improved somewhat since 2000, Charles Stewart (MIT) still considers the *net* risks of a surge in voting by mail to be "negligible" with respect to the 2020 electoral outcome. "*Reconsidering Lost Votes by Mail*", Charles Stewart III, Dep't of Political Science, MIT, July 25, 2020



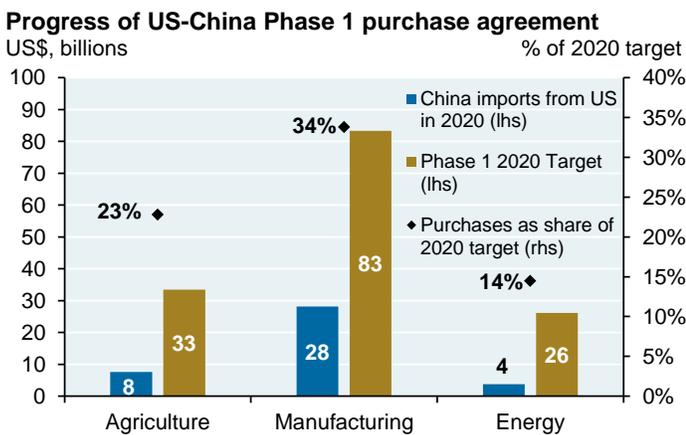
8. What happens without a 270 electoral vote majority? Selection of the President and Vice President shifts to the new 117th Congress in a “contingent election”, which would occur between Jan 6 and Jan 20:

- In a contingent election, the House elects the President, choosing from among the three candidates who received the most electoral votes
- House members vote by state: each state delegation votes internally to decide for whom the state’s single vote will be cast¹⁴, with a simple majority determining the outcome in each state
- The Senate elects the Vice President, choosing between the two candidates who received the largest number of electoral votes. Each Senator casts an individual vote (i.e., no state level votes)
- For both offices, a simple majority is required (26 or more votes from individual states for President, and 51 or more Senator votes for Vice President)
- There hasn’t been a contingent election since 1836, and there does not appear to be any Supreme Court case law on it. Note: DC does not participate in contingent elections

9. Under the Twentieth Amendment, if the House is unable (for whatever reason) to elect a President prior to January 20 in a contingent election (wartime, locusts, cyberattacks, a contingent election tie, etc), then the winner of the Vice Presidential contingent election serves as acting President until the deadlock has been resolved. As a final stop-gap, Congress would jointly decide by law who will act as President if Presidential and Vice Presidential contingent elections fail to produce a result. While Congress is deciding, the Speaker of the House would act President on a temporary basis (and would have to resign as House Speaker); if that person declines, traditional lines of succession would come into play. Note that there is NO process by which the current President automatically remains in place if a series of unlikely events were to unfold.

Appendix IV: China compliance with Phase I trade deal purchase agreement

Through July 2020, China only purchased 30% of its Phase 1 commitment. Its energy and manufacturing purchases from the US (e.g. autos, iron, and steel) have lagged targets mostly due to COVID disruption in US production channels, demonstrated by the fact that China’s total 2020 manufacturing and energy purchases from other countries are *higher* than 2017 levels. China’s agriculture purchases, which have lagged significantly in the first half of 2020, are expected to rebound in the second half given a pick-up in China’s hog cycle (after many of its pigs were deliberately killed due to African Swine Fever).



¹⁴ **If you don’t like the Electoral College, you’re going to hate contingent elections since all states count equally irrespective of population.** In other words, Don Young-R (the sole House member from the state of Alaska) would have as much impact in a contingent election as the decision taken by the 53 members of the California House delegation. If each state were to vote according to the party balance in place in the 116th Congress, Trump would carry 26 states in a contingent election, and Biden would carry 24.



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