



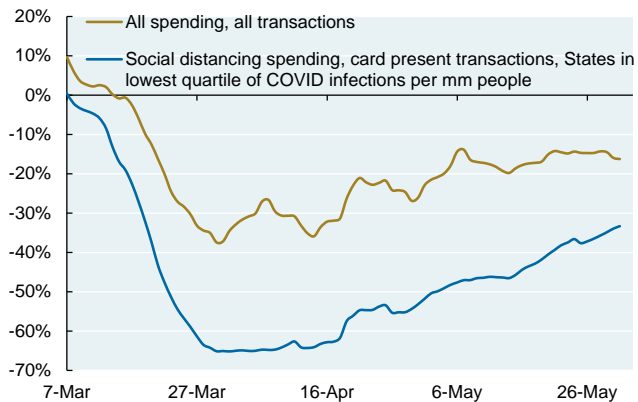
Topics: The US recovery; The flood of money and market returns; Globalization lives; Reducing COVID mortality through vascular treatments; Realistic timetables for never-been-done before vaccines; Sweden’s COVID experiment is not what you think

Note: the next Eye on the Market will be our tenth annual energy paper

The bounce. Last week’s payroll report showed an increase of 2.5 mm jobs, auto sales rose 40% in one month, unemployment claims dropped below 2 mm and mortgage applications are up 60% from April lows¹. All of these variables are still down massively vs 2019, but the inflection point of the US recovery is clearly at hand. We’re even seeing a rebound in short term vacation rental bookings, which after falling in half by April, have risen above pre-COVID levels. The contour of these changes are not a surprise, since an imposed slowdown is less “real” than an organic one; but the speed and magnitude are impressive so far. On March 20, I wrote: “I agree with anyone who says it is likely to get worse before it gets better, certainly from an economic perspective. But if you were to ask me what the world will feel like a year from now, I would say 70%-80% back to normal”. I got some grief at the time since it was perceived as too optimistic (which I’m rarely accused of being); last week was a first important step on the way to that kind of outcome.

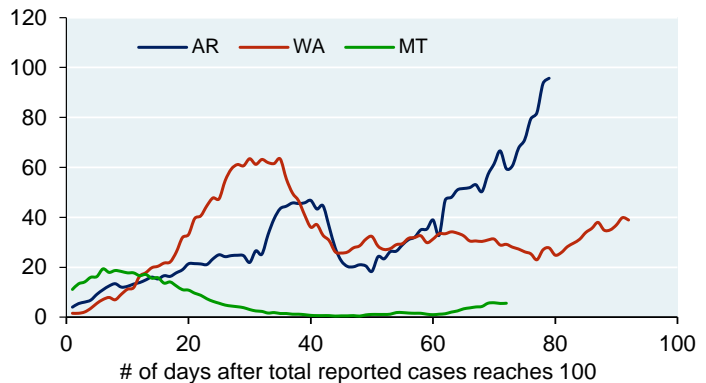
Another chart we’re tracking: total US consumer spending and changes in “**COVID-sensitive in-person social distancing**” spending, which refers to transactions at retail stores, restaurants, hotels, amusement parks, theatres, etc. Both are recovering, and in states with low COVID infection rates, COVID-sensitive spending is recovering at an even faster pace. Yes, levels are still down 30% vs 2019, but as in most cycles, it’s the rate of change that matters more for investors. Two months after the worst pandemic in 100 years, this first chart is an encouraging one, particularly since one quarter of small retailers remain shut.

National credit and debit card spending trends



Source: Internal Chase data, JPMAM. Social distancing: retail, lodging, restaurants, amusement parks, theaters and other recreational services. May 31, 2020.

US new daily infections per mm people [2nd waves]
Linear scale, 10 day trailing average



Source: Johns Hopkins University, IMF, JPMAM. June 07, 2020

A second infection wave could reverse spending trends if they were severe enough to prompt reimposition of lockdowns. So far, the only US second waves we’re seeing are shown on the right. Do they look like second waves to you? They do to me. The definition is subjective, similar to Supreme Court Justice Potter Stewart’s description of obscenity in 1964 (“**I know it when I see it**”). Either way, median state ICU utilization rates are now 7% and median hospital bed utilization rates are now 52%, indicating higher levels of healthcare capacity when/if second waves occur. Based on epidemiology research I see, it could take 4-6 weeks (not just 2-3 weeks) to witness the virus consequences of reopening.

¹ This is purely anecdotal, but Riverhead Building Supply was completely out of 4 inch flat head exterior use timber screws, and a bunch of other things, given the backlog of construction and renovation projects.

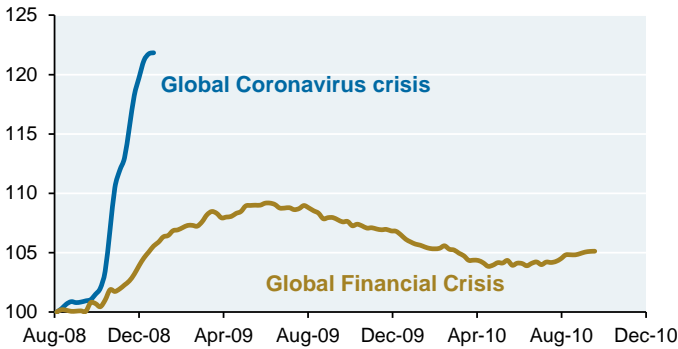


The flood of money and market returns

Even after incorporating the positive economic momentum on the prior page, it's impossible to divorce the recent rally in equity and credit markets from the flood of money from the Fed. The first chart speaks for itself. On the right, the table shows how the Fed has been able to reverse most of the damage in many credit markets since peak spread levels.

Faster growth in the money supply this time around

M2 money supply + institutional money market fund balances, index



Source: St Louis Fed, J.P. Morgan Asset Management. May 25, 2020.

Recovery from peak spread over previous 6 months

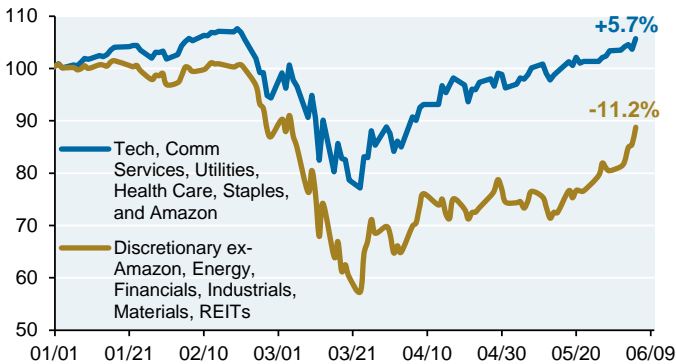
Spread	% recovered
US asset backed commercial paper - 3 month Treasury	99%
AAA asset backed credit card - Treasury	96%
AAA asset backed prime auto - Treasury	93%
3 month LIBOR - 3 month Treasury (TED spread)	92%
3 month LIBOR - 3 month forward Fed Funds rate	89%
AAA asset backed CMBS - Treasury	79%
Financial investment grade corporates - Treasury	78%
US investment grade corporates - Treasury	77%
Non Financial investment grade corporates - Treasury	76%
US High Yield corporates - Treasury	70%
Leveraged loan price index	68%
US BB - BBB corporates	65%
Emerging markets dollar denominated bonds - Treasury	64%
Fixed rate preferred securities option adjusted spread	61%
30 year fixed rate mortgage - 10 year Treasury	39%

Source: Bloomberg. June 5, 2020.

Another downstream impact of the flood of money: US high yield bonds recently recorded the three largest weekly inflows on record; the \$35 billion of inflows were equal to **18% of all high yield bonds under management**. You can also see the impact of ample liquidity on rising P/E multiples of COVID "victim" sectors (gold line and bars in the charts below). The performance of the resilient blue sectors makes sense to me, and they represent around 2/3 of S&P 500 market cap. But the recovery of the victim sectors is pricing in an even more rapid recovery than the one occurring now, and suggests that many investors are searching for any possible return now that cash and bond yields have been eviscerated (again) by the Fed.

YTD S&P 500 sector returns

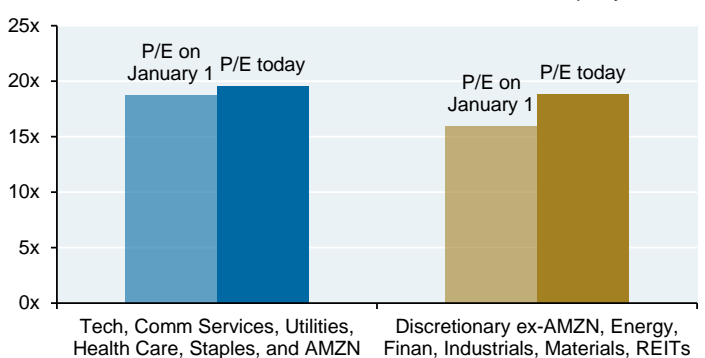
Index, Jan 1 = 100



Source: Factset, J.P. Morgan Asset Management. June 5, 2020.

Change in P/E since January 1

P/E based on consensus 2021 forward EPS, median company



Source: Factset, J.P. Morgan Asset Management. June 5, 2020.

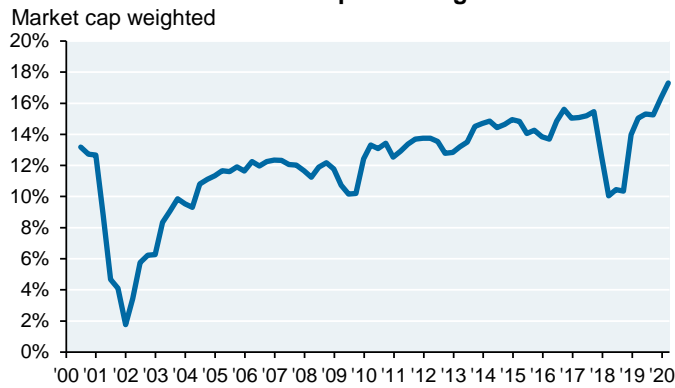


Globalization may be hard to kill

You might see globalization as a positive force or as a virus; either way, it may be hard to kill. The charts below help explain why. While S&P 500 manufacturer profit margins rose since the early 2000's, **only 20% of the increase was due to wage savings resulting from offshore production**. According to Empirical Research Partners, the rest resulted from greater domestic plant efficiencies (from capex and software), declining tax rates, the use of tax havens and declining interest rates. As a result, a partial reversal of globalization might not have as large an impact on S&P profit margins as you might think.

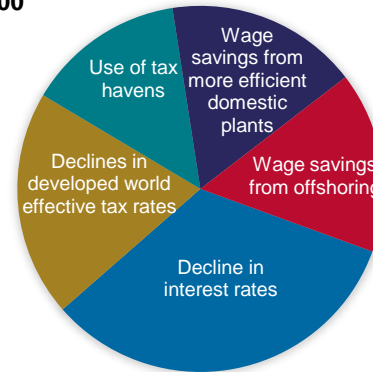
Also: a lot of US multinational offshore production occurs to meet local demand; tariffs and stricter rules on affiliate taxation will do little to change this. Finally, while the US has a large trade deficit with China, US multinational sales *within* China are just as large. The Trump administration may adopt high-profile policies to curb access to US technology and theft of US intellectual property², but China has leverage of its own with respect to the ability of US multinationals to do business there. If that's the case, US actions may have more bark than bite, and the globalization of profit margins may be here for a while longer.

S&P 500 manufacturers net profit margins



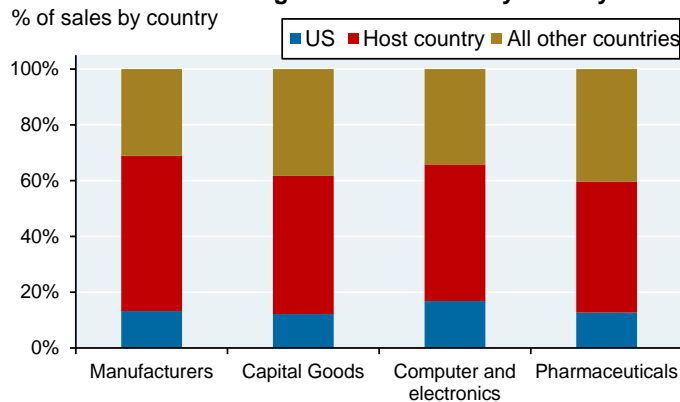
Source: Bloomberg. Q1 2020.

Drivers of S&P 500 manufacturer profit margin growth, 2019 vs 2000



Source: Empirical Research Partners. May 2020

US multinationals foreign affiliates' sales by country



Source: Empirical Research Partners. May 2020.

US exposed to China retaliation against US subsidiaries operating in China, US\$ billions



Source: Deutsche Bank. June 2018.

² **Proposals from the Senate, FCC, Dept's of Defense/Commerce and the White House include:** ban Chinese ADRs from US exchanges based on audit quality; restrict Huawei's access to semiconductor designs/chipsets; freeze assets of Chinese policymakers involved loss of Hong Kong autonomy; "Show cause" orders for Chinese telecom companies operating in the US that are subject to ownership/control by China; exclusion of Chinese equities from Federal retirement plan benchmarks; requirement for US healthcare companies to disclose China product content; ban Chinese applicants who enter US academic institutions under false pretense; restrict issuance of Chinese visas for science/engineering students; restrict US exports to China of technology classified as having potential military use.



What if COVID is also a vascular disease and not just a pulmonary one? The potential benefits of anticoagulants, statins and ACE inhibitors for infected patients

The understanding of COVID's impact on the body is still evolving. Healthcare professionals have noticed unconnected vascular phenomena that aren't seen with SARS-CoV-1 or H1N1. Medical directors at Harvard's Brigham and Women's Hospital believe that COVID is a "vasculotropic" disease, and that SARS-CoV-2 can infect endothelial cells that line the inside of blood vessels. These cells protect the cardiovascular system and release proteins that influence everything from blood clotting to immune responses³.

- Damage to endothelial cells causes inflammation in blood vessels, which can cause accumulated plaque to rupture, causing a heart attack. Blood vessel damage could also explain why people with pre-existing conditions like high blood pressure, high cholesterol, diabetes, and heart disease are at a higher risk for severe complications from a virus that's supposed to just infect the lungs. All of those diseases cause endothelial cell damage, and additional damage in blood vessels caused by COVID could result in more severe complications and death
- This theory could also explain why ventilation often isn't enough to help patients breathe better. Moving air into the lungs via ventilation can help, but the exchange of oxygen and carbon dioxide in the blood is just as important to provide the rest of the body with oxygen; that requires healthy blood vessels in and around the lungs
- **If COVID is in fact a vascular disease, there are existing drugs that might help protect against endothelial cell damage.** Potential solutions include ACE inhibitors (angiotensin-converting enzyme medications that dilate blood vessels) and statins. In a *New England Journal of Medicine* study of 9,000 people with COVID, the use of statins and ACE inhibitors were linked to higher rates of survival⁴
- Similarly, a May report in the *Journal of the American College of Cardiology* analyzed medical records of 2,773 COVID patients in NYC hospitals. The study was initiated after doctors realized that COVID can result in life-threatening blood clots. Notable findings: survival rates for intubated patients treated with anticoagulants were 71% compared to 37% for those who were not⁵

³ "Endothelial cell infection and endotheliitis in COVID-19", Z. Varga et al. Department of Pathology and Molecular Pathology, University Hospital Zurich. April 20, 2020

⁴ "Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19", M. Mehra et al. Brigham and Women's Hospital Heart and Vascular Center and Harvard Medical School. May 8, 2020

⁵ "Association of Treatment Dose Anticoagulation with In-Hospital Survival Among Hospitalized Patients with COVID-19", I. Paranjpe et al. Journal of the American College of Cardiology. May 2020



COVID vaccines: be realistic about timetables for never-been-done before approaches

I'm trying to be both optimistic and realistic about chances for a vaccine, particularly as early as 2021, given methods vaccine companies are using to provoke an antibody response to the virus. See the table below; **many vaccine candidates you read about in the press are based on methods #3 and #4, which have never been approved for use in the US, Europe or other developed countries.** There's a lot of optimism around clinical trials underway, which we discuss in detail in Section #4 of our online virus portal. But we need to keep in mind that many companies are traveling down new roads in search of a vaccine, which raises the bar for Phase III results and eventual approval⁶.

Type	Method of provoking an antibody response to SARS-CoV-2	Select candidates
1	A live but weakened coronavirus that will infect cells and cause them to make viral proteins	
2	A "killed" coronavirus that will get recognized as foreign matter in the blood	Sinovac/Dynavax
3*	A different virus (human or ape adenovirus, measles, etc) that is engineered to include genetic components coding for the SARS-CoV-2 spike proteins, which causes the body to then produce them	CanSino, Oxford, J&J, Merck/Themis
4**	DNA or RNA that will be taken up by cells and will cause them to make coronavirus proteins	Moderna, Inovio, BioNTech/Pfizer
5	Coronavirus proteins themselves, produced industrially in outside cell cultures, which will be recognized as foreign matter in the blood	GlaxoSmithKline/Sanofi, Novavax

* No adenoviral vector vaccines have yet demonstrated that they can prevent disease in humans. China has approved an adenoviral vector vaccine for Ebola, but Phase II studies did not prove that it prevents Ebola infection. J&J's adenoviral vector vaccine for Ebola is currently under review in Europe.

** There are no approved DNA or RNA vaccines yet, and neither have ever been tested before COVID in a large scale clinical trial

Source: J.P. Morgan Asset Management, May 2020.

⁶ Another factor raising the bar for vaccine approval: the relatively low mortality rate of COVID compared to other more lethal communicable diseases. Most estimates put the infection mortality rate for COVID at 0.6%-1.0%. The CDC came out with a lower number of 0.4%, but it has been criticized for computational **inaccuracy** and having been possibly **politicized** as well, according to scientists at Harvard, Berkeley and Carl Bergstrom at the University of Washington, who described the CDC estimates as "so far outside of the scientific consensus that this strikes me as a devious and cynical effort to manipulate not only federal modeling but the broader scientific discourse". See here: <https://www.npr.org/sections/health-shots/2020/05/22/860981956/scientists-say-new-lower-cdc-estimates-for-severity-of-covid-19-are-optimistic>

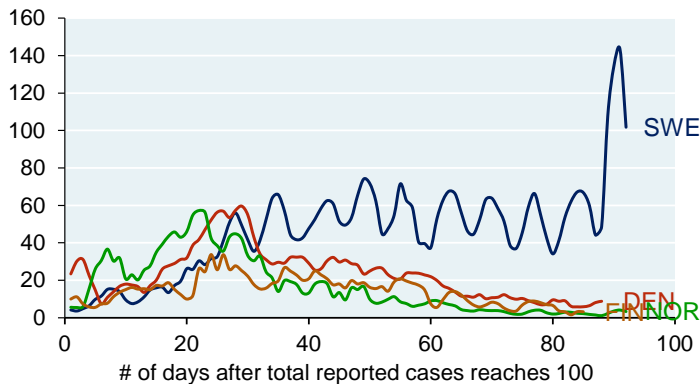


Through a glass, darkly: the real reasons for Sweden's unorthodox COVID experiment

These charts don't look good for Sweden's COVID experiment, particularly since Sweden has actually performed many fewer COVID tests per person than Denmark, Finland and Norway⁷.

New daily infections per mm people

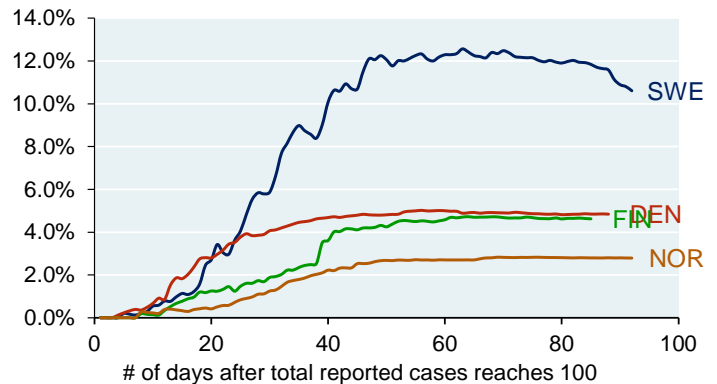
Linear scale, 3 day trailing average



Source: Johns Hopkins University, IMF, JPMAM. June 06, 2020

Deaths to date: Case fatality rate

Linear scale, 1 day trailing average



Source: Johns Hopkins University, IMF, JPMAM. June 06, 2020

Over a month ago, researchers from Swedish universities and research institutes began leveling criticism at the Swedish Public Health Agency for their coronavirus strategy, arguing that elected politicians should intervene with "swift and radical measures"⁸. Critics cited the Agency claiming on four occasions that the spread of infection had levelled out, despite evidence to the contrary. Nevertheless, Sweden has continued with its more lax approach to the virus, which began with a policy expert view that evidence in favor of lockdowns, hand washing and school closings was weak⁹.

The most interesting thing I've read about why this has happened cites Sweden's "**epistocracy**"¹⁰, which refers to a country in which government-appointed experts decide on a course of action, after which politicians cannot tell government agencies what to do. Furthermore, the Swedish constitution **lacks a provision which allows for proclamation of a state of emergency in peacetime**, preventing the government from substantially restricting personal mobility in the first place.

Given this context, I'm not sure that the charts above, no matter how bad they got, would prompt the Swedish Public Health Agency to change course. In any case, I think we should stop thinking of Sweden as a place that made a choice based on epidemiological evidence; **we should think of Sweden instead as a place that made a decision based on its constitutional framework and public policy history.**

⁷ Tests per mm people conducted to date: Sweden 27k, Finland 35k, Norway 47k, Denmark 97k

⁸ Forbes, April 14, 2020

⁹ Sweden followed through on its policy expert recommendations: Sweden's maximum **Oxford Stringency Index** score is 58, compared to 76 for Finland, 84 for Denmark and 85 for Norway.

¹⁰ "*The Swedish Exception?*", Tony Hackley, London School of Economics, April 23, 2020



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