



**Charts of the Week: US infections collapsing; the lower mortality rate of second waves of infection; Latin America; White House COVID adventures of the week (botched announcement on convalescent plasma and AstraZeneca’s rejection of US vaccine fast-tracking)**

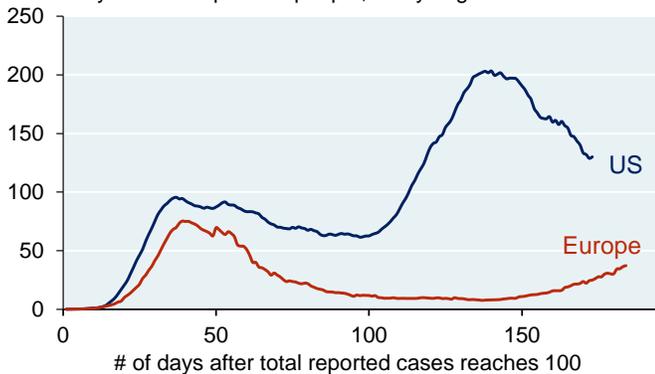
Note: the next Eye on the Market will come out on September 8 and cover the cost of engineering the US recovery, Biden’s taxation and spending agenda, WeChat and Trump’s executive orders, and an analysis of market risks from the Big 6 tech stocks which account for a growing share of returns and market cap

**US and Europe**

US infections are finally collapsing at a rate similar to what Europe experienced 3 months ago, although with schools and businesses reopening, it’s probably too soon to extrapolate a linear decline from here. At the same time, reopening in Europe is leading to a modest rise in infections.

**US vs Europe infections**

New daily infections per mm people, 7 day avg



Source: Johns Hopkins University, IMF, JPMAM. August 24, 2020

**Regional mobility data**

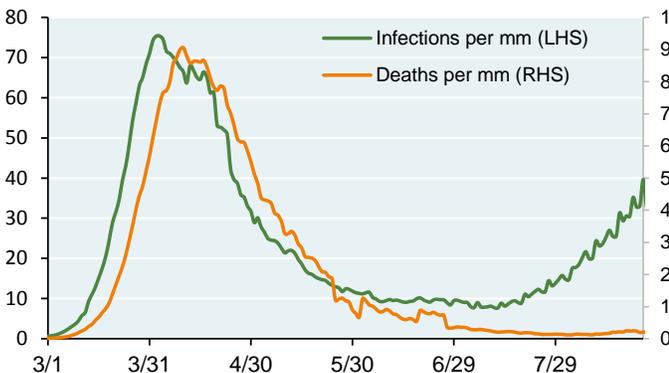
% change from baseline: retail, restaurants, transit & workplace



Source: Google, JPMAM. August 21, 2020.

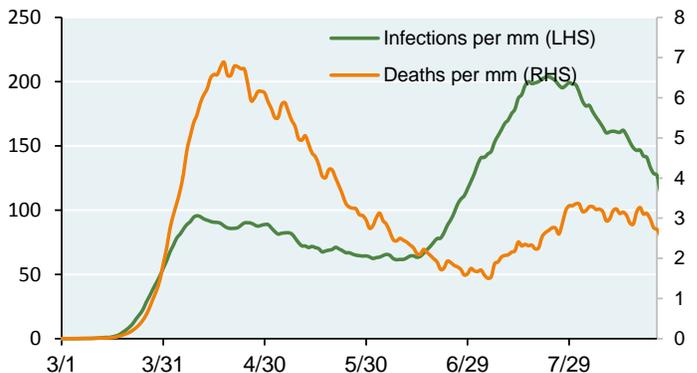
The critical distinction between first and second waves: **much lower mortality rates this time around**, particularly in Europe. The most likely explanations: a younger cohort of more recent infections, and use of anti-coagulants, steroids (Dexamethasone) and other treatments to reduce stress on vascular and pulmonary systems in hospitalized patients.

**Europe new daily infections vs mortality per mm people**



Source: JHU, Our World in Data, JPMAM. 08/24/2020.

**US new daily infections vs mortality per mm people**



Source: JHU, Our World in Data, JPMAM. 08/24/2020.



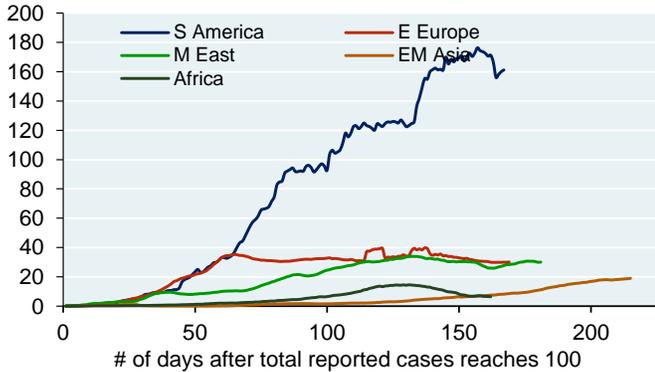
Access our full coronavirus analysis web portal [here](#)

FOR INSTITUTIONAL/WHOLESALE/PROFESSIONAL CLIENTS AND QUALIFIED INVESTORS ONLY – NOT FOR RETAIL USE OR DISTRIBUTION

I haven't yet seen a good explanation for any health system, mobility or behavioral dynamics that explain why Latin America has experienced such a higher level of infection than the rest of the developing world. The second chart shows the breakdown by country. For context, the current US infection level is 125 per mm people, and in Europe, 40 per mm.

**EM World infections**

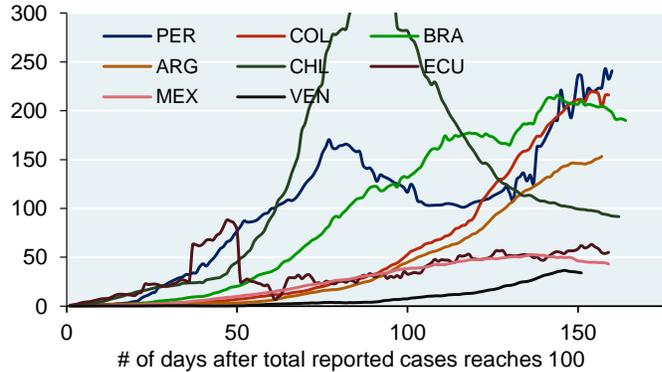
New daily infections per mm people, 7 day avg



Source: Johns Hopkins University, IMF, JPMAM. August 24, 2020

**Latin America infections**

New daily infections per mm people, 14 day avg



Source: Johns Hopkins University, IMF, JPMAM. August 24, 2020

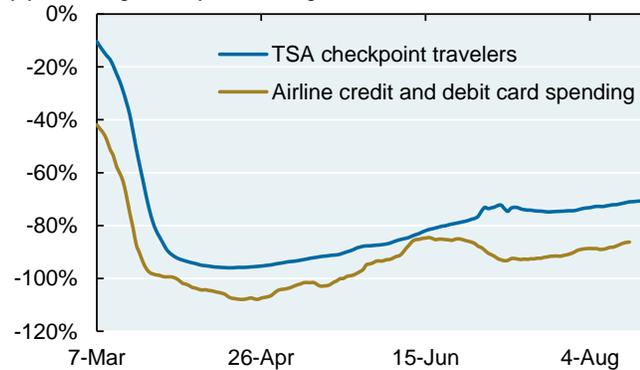
The July spike in US infections led to a plateau in the rate of year-on-year improvements in "social distancing spending", which refers to in-person spending at retail establishments, hotels, restaurants, amusement parks, etc. We're now seeing social distancing spending rise again. However, there's still little improvement in airline spending vs March levels. TSA checkpoint traveler data has improved at a slightly faster pace, suggesting a combination of shorter trips, more discounted fares and less business travel.

**National credit and debit card spending trends**  
Social distancing spending, card present transactions  
Spending change 2020 vs 2019, 7 day smoothing



Source: Internal Chase data, JPMAM. Social distancing: retail, lodging, restaurants, amusement parks, theaters and other recreational services. Aug 16, 2020.

**Airline spending vs TSA checkpoint travelers**  
y/y % change, 7 day smoothing



Source: Internal Chase data, TSA, JPMAM. Aug 16, 2020.



## White House COVID adventures of the week: the botched announcement on convalescent plasma and AstraZeneca's rejection of US vaccine fast-tracking

**Convalescent plasma.** Trump announced Emergency Use Authorization (EUA) for convalescent plasma to expand access despite the lack of rigorous scientific evaluation. In contrast, the EUA for Remdesivir took place only after randomized controlled trial results were available.

The details: the Mayo Clinic study reported that mortality rates were lower for patients given convalescent plasma within 3 days of COVID diagnosis compared to patients receiving it after 3 days (7-day mortality rates 8.7% vs 11.9%, 30-day mortality rates 21.6% vs 26.7%). But in the absence of a randomized controlled trial, it's hard to draw firm conclusions since we don't know anything about patient characteristics, dosages, treatment settings, etc. Such "observational studies" were the basis for media speculation a few months ago on hydroxychloroquine (HCQ). There's probably more benefit to convalescent plasma, since it has been used for over 100 years to treat infectious disease. But randomized controlled trials are the only way to conclusively prove efficacy, check for adverse outcomes and determine the optimal dosage regime. It's disappointing that over 70,000 patients have been treated with convalescent plasma in the US with no scientifically rigorous control data produced yet.

Fauci and the director of the NIH discouraged the FDA from issuing an EUA for convalescent plasma (citing concerns over weak data), but the FDA issued it anyway. Yesterday there was a **completely embarrassing fiasco** in which the FDA Commissioner admitted misrepresenting the study results (after being chided by a prior FDA commissioner), and main authors who worked on the study said they had **no idea** where the 35% mortality improvement statistic cited by the White House came from. From Derek Lowe at Translational Medicine:

"A big effect of this plasma announcement, as far as I can tell, was to sow doubt about what the administration considers a breakthrough and what its intentions are about authorizing a vaccine before the November election... the President himself, in his Sunday morning Twitter duties, accused the so-called "deep state" at the FDA of literally dragging their feet in trying to not get a vaccine before the election. Which was a suggestion I found false, infuriating, and as harmful as such a short statement could be to the chances of rolling out a vaccine in an orderly and medically justified way."

There is a randomized convalescent plasma trial going on in the UK, but it will take a long time to complete since there are so few people currently hospitalized in the UK with COVID. Remember as well that convalescent plasma is difficult to scale since it requires the pooling of many donors given the individual variability in antibody levels. Many virus scientists are much more hopeful about **monoclonal antibodies**, which are based on the same principle (inject short-lived antibodies into very sick patients needing an immune system boost) but which involve manufacturing the antibodies in bioreactors (plants or mice, for example) rather than sourcing them from recovered patients.



**Oxford/AstraZeneca vaccine fast-tracking before the election.** The Financial Times reports that the Trump Administration might bypass normal US regulatory standards and provide an EUA to the Oxford/AstraZeneca vaccine before the 2020 election based on partial Phase III results rather than the entire participant group. To be clear, AstraZeneca has not applied for this EUA, and rejected any such shortcuts being explored by the Trump administration.

The details: Oxford and AstraZeneca are working on a novel adenovirus “vector” vaccine that has **never been approved for use before in the developed world**. The approach entails a complex “Trojan Horse” process that relies on a separate chimpanzee virus to deliver instructions to the body’s cells to produce spike proteins for SARS-CoV-2, which would then provoke an antibody response. AstraZeneca is conducting global trials in the UK, the US, South Africa and Brazil with a total of 50,000 participants.

The FDA has reportedly cited 30,000 as the minimum number of participant results from Phase III trials needed to approve a vaccine. Remember, vaccines are given to large numbers of completely healthy people to protect them from a disease that has an infection mortality rate estimated at less than 1%. As a result, the bar for efficacy and safety is much higher than for anti-viral and other treatments used on hospitalized patients. However, the Trump administration is reportedly considering approval based on the UK trials alone, which are based on 10,000 participants. We have written before about how the US ranks well below median across all countries with respect to vaccine usage and confidence. Premature approval of a vaccine could reduce those figures further.

Sources: The Times (London), New York Times, Mayo Clinic, Financial Times, CNN and Translational Medicine. The August 24th NYT piece on the FDA fiasco by Thomas/Fink is one of the **more depressing articles I have read** on the scientific competency of the Federal government.



This report uses rigorous security protocols for selected data sourced from Chase credit and debit card transactions to ensure all information is kept confidential and secure. All selected data is highly aggregated and all unique identifiable information—including names, account numbers, addresses, dates of birth, and Social Security Numbers—is removed from the data before the report's author receives it.

**NOT FOR RETAIL DISTRIBUTION: This communication has been prepared exclusively for institutional, wholesale, professional clients and qualified investors only, as defined by local laws and regulations.**

This material is for information purposes only. The views, opinions, estimates and strategies expressed herein constitutes Michael Cembalest's judgment based on current market conditions and are subject to change without notice, and may differ from those expressed by other areas of J.P. Morgan. This information in no way constitutes J.P. Morgan Research and should not be treated as such.

This is a promotional document and is intended to report solely on investment strategies and opportunities identified by J.P. Morgan Asset Management and as such the views contained herein are not to be taken as advice or a recommendation to buy or sell any investment or interest thereto. This document is confidential and intended only for the person or entity to which it has been provided. Reliance upon information in this material is at the sole discretion of the reader. The material was prepared without regard to specific objectives, financial situation or needs of any particular receiver. Any research in this document has been obtained and may have been acted upon by J.P. Morgan Asset Management for its own purpose. The results of such research are being made available as additional information and do not necessarily reflect the views of J.P. Morgan Asset Management. This presentation is qualified in its entirety by the offering memorandum, which should be carefully read prior to any investment in a fund. The purchase of shares of a fund is suitable only for sophisticated investors for whom an investment in such fund does not constitute a complete investment program and who fully understand and are willing to assume the risks involved in such fund's investment program. An investment in the funds involves a number of risks. For a description of the risk factors associated with an investment in a fund, please refer to the section discussing risk factors in the offering memorandum (available upon request). Shares of the funds are not deposits, obligations of, or endorsed or guaranteed by, JPMorgan Chase Bank, NA or any other bank and are not insured by the FDIC, the Federal Reserve Board or any other government agency. Any forecasts, figures, opinions, statements of financial market trends or investment techniques and strategies expressed are those of J.P. Morgan Asset Management, unless otherwise stated, as of the date of issuance. They are considered to be reliable at the time of production, but no warranty as to the accuracy and reliability or completeness in respect of any error or omission is accepted, and may be subject to change without reference or notification to you. Investments in Alternative Investment Funds (AIFs) involves a high degree of risks, including the possible loss of the original amount invested. The value of investments and the income from them may fluctuate in accordance with market conditions and taxation agreements. Changes in exchange rates may have an adverse effect on the value, price or income of the products or underlying investment. Both past performance and yields are not reliable indicators of current and future results. There is no guarantee that any forecast will come to pass. Any investment decision should be based solely on the basis of any applicable local offering documents such as the prospectus, annual report, semi-annual report, private placement or offering memorandum. For further information, any questions and for copies of the offering material you can contact your usual J.P. Morgan Asset Management representative. Any reproduction, retransmission, dissemination or other unauthorized use of this document or the information contained herein by any person or entity without the express prior written consent of J.P. Morgan Asset Management is strictly prohibited.

J.P. Morgan Asset Management is the brand for the asset management business of JPMorgan Chase & Co. and its affiliates worldwide.

To the extent permitted by applicable law, we may record telephone calls and monitor electronic communications to comply with our legal and regulatory obligations and internal policies. Personal data will be collected, stored and processed by J.P. Morgan Asset Management in accordance with our privacy policies at <https://am.jpmorgan.com/global/privacy>

This communication is issued by the following entities:

In the United States, by J.P. Morgan Investment Management Inc. or J.P. Morgan Alternative Asset Management, Inc., both regulated by the Securities and Exchange Commission; in Latin America, for intended recipients' use only, by local J.P. Morgan entities, as the case may be.; in Canada, for institutional clients' use only, by JPMorgan Asset Management (Canada) Inc., which is a registered Portfolio Manager and Exempt Market Dealer in all Canadian provinces and territories except the Yukon and is also registered as an Investment Fund Manager in British Columbia, Ontario, Quebec and Newfoundland and Labrador. In the United Kingdom, by JPMorgan Asset Management (UK) Limited, which is authorized and regulated by the Financial Conduct Authority; in other European jurisdictions, by JPMorgan Asset Management (Europe) S.à r.l. In Asia Pacific ("APAC"), by the following issuing entities and in the respective jurisdictions in which they are primarily regulated: JPMorgan Asset Management (Asia Pacific) Limited, or JPMorgan Funds (Asia) Limited, or JPMorgan Asset Management Real Assets (Asia) Limited, each of which is regulated by the Securities and Futures Commission of Hong Kong; JPMorgan Asset Management (Singapore) Limited (Co. Reg. No. 197601586K), which this advertisement or publication has not been reviewed by the Monetary Authority of Singapore; JPMorgan Asset Management (Taiwan) Limited; JPMorgan Asset Management (Japan) Limited, which is a member of the Investment Trusts Association, Japan, the Japan Investment Advisers Association, Type II Financial Instruments Firms Association and the Japan Securities Dealers Association and is regulated by the Financial Services Agency (registration number "Kanto Local Finance Bureau (Financial Instruments Firm) No. 330"); in Australia, to wholesale clients only as defined in section 761A and 761G of the Corporations Act 2001 (Commonwealth), by JPMorgan Asset Management (Australia) Limited (ABN 55143832080) (AFSL 376919).

**For U.S. only:** If you are a person with a disability and need additional support in viewing the material, please call us at 1-800-343-1113 for assistance.

Copyright 2020 JPMorgan Chase & Co. All rights reserved.