Topics: The US prepares to reopen despite having one of the highest infection rates in the world; monoclonal antibodies and anti-viral trials; the growing gap between markets and the economy; S&P 500 earnings haves and have-nots; regional equity performance (Europe loses again); leveraged loans

Around a month ago, I wrote that the US might start reopening in mid-May due to sharply declining infection rates. I was half right. States representing 45% of US GDP have announced reopening plans despite the US having one of the highest COVID infection rates in the world. Given ample evidence of heightened COVID mortality risk for the elderly, this is a “Logan’s Run” moment in which the risk of greater generational sacrifice is about to rise. In states like Georgia, there was already a decline in stay-at-home behavior on May 1 (see chart, right). While there’s some news of improved COVID treatment (see p.2), there are no game-changers yet. We will track virus consequences of state reopening (which may take 3-4 weeks to show up) as well as the impact on consumer spending using information we’re building out from our colleagues at Chase Card Services. As shown in the third chart, we’re already picking up signs of a revived economic pulse at a national level.

---

1 The only large country that had higher infection rates than the US as of Sunday evening: Russia. See our online virus portal, Sections 1 and 2.

2 See Section 6 of our online virus portal for COVID mortality risk tables by age. Logan’s Run is a novel by William F. Nolan and George Clayton Johnson depicting a futuristic society running out of resources. To avoid overpopulation, everyone over the age of 21 (30 in the film version) is terminated.
Modern, monoclonal antibodies and another modestly positive anti-viral trial result

**Moderna** is entering Phase II trials with its messenger RNA vaccine, but as a reminder, all that’s tested in Phase I is whether the vaccine is unintentionally lethal, not if it works. Moderna tested its vaccine on 45 people in Seattle starting in March as part of Phase I, and will now test 600 people as part of Phase II.

**Monoclonal antibody therapy** (mAb) involves infusion of antibodies either intravenously or subcutaneously. While convalescent plasma relies on antibodies harvested from recovered individuals, mAb can be harvested from recovered humans, from mice genetically modified to have the immune system of a human being, via genetic engineering or from advanced cell cultures. While mAb are used to treat cancer and autoimmune diseases, few have been developed for infectious diseases. However, mAb worked against Ebola, and Regeneron is expected to enter clinical mAb trials for SARS-CoV-2 this summer. The mAb goal: neutralize the infectivity of SARS-CoV-2 by binding to the spike protein that enables it to enter human cells. A likely treatment regimen could contain 2 or more mAbs.

- **mAb advantages:** available more quickly than a vaccine, and can be used as acute therapy for COVID patients and as a prophylactic for front-line health care workers. The disadvantages: higher cost than vaccines; harder to produce at scale since a large dose of recombinant proteins might be needed since your body isn’t making them for you; and the fact that they are temporary (usually just a few weeks). While a vaccine is preferable given its ability to immediately halt the spread of disease, mAb may be an important treatment regimen for sick patients and front-line workers until a vaccine can be realized.

**Another modestly positive anti-viral trial.** A group of Hong Kong physicians report that a mix of drugs approved for treatment of other viral diseases improved clinical and laboratory outcomes of hospitalized COVID-19 patients³. Mild to moderately infected patients treated with the full four-drug regimen recovered more rapidly than those treated by only two of the four drugs.

- The four drugs include lopinavir and ritonavir (anti-HIV drugs), ribavarin (inhibitor of RNA viruses) and interferon-1 beta (stimulates anti-viral immune responses). The control group was treated with lopinavir-ritonavir, a combination shown to be no better than placebo. In the treatment group, average time to resolution of symptoms was reduced from 12 to 7 days; treatment group patients also experienced reduced virus loads beginning on day one and continuing throughout the treatment period.

- **Limitations:** the study involved a small number of patients (127), and included patients with mild to moderate symptoms only. This is also a hospital-only approach, given the use of 3 anti-virals, interferon injections, multiple antibiotics and oxygen therapy. While the viral load declined more rapidly in the treated group, it did not drop dramatically as is the case with most anti-viral drugs used for other diseases. There were no significant differences in outcomes for patients who treated 7 days or more after symptom onset. So, a solution mostly for people hospitalized with mild to moderate symptoms, which is not a large population group in many Western nations.

---

³ “Triple combination of interferon beta-1b, lopinavir–ritonavir, and ribavirin in the treatment of patients admitted to hospital with COVID-19: an open-label, randomised, phase 2 trial”, Yuen et al, State Key Laboratory of Emerging Infectious Diseases, Carol Yu Centre for Infection, University of Hong Kong, May 8, 2020
The growing gap between markets and the economy

We have written on the history of markets leading profit and economic recoveries, and certainly $8 trillion in asset purchases/commitments from the Fed and WWII-sized fiscal deficits will do a lot to drive asset prices higher (see web portal Section 3). **Even with this precedent, I’m not sure there has ever been a wider gap between a market recovery and deterioration in economic conditions.** On the left you can see the recovery in financial conditions (rates, spreads, equities and the dollar) and in equity valuations relative to bonds (the “equity risk premium”). On the right: the projected collapse in employment and output. There are three main assumptions implicit in the market recovery, as I see it:

- Infection second waves, if they occur, will not overburden state healthcare systems to the point that governors of reopening states end up reimposing lockdowns
- If lockdowns persist in other states, additional Federal and state assistance will be forthcoming to offset the hit to household incomes and delinquency rates
- The employment, consumer spending and manufacturing “elasticity” to reopening will be high. One example: over 95% of all unemployed respondents to the April BLS employment survey described their layoff as “temporary” rather than “permanent”

While these are reasonable starting points, the certainty with which they are now priced in seems high to me relative to the epidemiological, behavioral, policy and growth risks ahead. A very important marker for investors will be Q2 earnings, which we discuss on the next page.

**Markets, recovering**

**Rapid recovery in financial conditions, as in 2008/2009**

Bloomberg Financial Conditions Index (inverted)


**Even faster recovery in equity valuations relative to bonds vs 2008/2009, US equity risk premium, basis points**


**Economies, collapsing**

**US unemployment rate rivals Great Depression, for now**


**Global GDP, history and JP Morgan forecast**

The earnings dichotomy: the haves and have-nots of corporate profits

Last week, we reviewed the haves and have-nots of employment and how layoffs are highly concentrated in leisure and retail. Earnings consequences of the US lockdown are concentrated as well. As shown on the right, Q2 earnings for Tech, Internet Retail and Media are expected to hold up better than other sectors, with non-cyclical companies not far behind. The damage appears highly concentrated in cyclical and financials, which represent 28% of S&P 500 market cap. The equity market’s partial recovery may reflect the notion that 72% of S&P market cap is projected to suffer a much smaller earnings hit.

It’s hard to anticipate in a pandemic how companies will actually manage fixed and variable expenses. Many US companies have a lot of “operating leverage”, meaning that earnings can fall sharply in a weak economy and rise sharply in a recovering one. The degree to which tech and non-cyclicals can escape Q2 with -2% and -20% earnings declines will be a very important marker given optimistic earning rebounds projected for 2021. As shown in the last chart, consensus earnings for 2021 are now roughly flat to 2019 actual levels, which seems high to me.

Source: Bloomberg. May 8, 2020

Consensus EPS growth, Q2 2020 vs Q2 2019

Source: Bloomberg. May 10, 2020

Consensus EPS growth, 2021 vs 2020

Source: Bloomberg. May 10, 2020

S&P 500 earnings versus 2021 projections

Regional equity performance barbell: Europe and Japan underperforming, again

Compared to the US, Europe has experienced a faster decline in infection, and Japan’s infection rate barely registers at all. Nonetheless, European and Japanese equities are once again underperforming a barbell of US and Emerging Market equities. This trend has persisted through so many different market periods that I’m running out of ways of imagining how it would ever change. As discussed in our 2020 Outlook, structural advantages of US equity markets include two factors illustrated below. First, the US has higher exposure to Tech than to sectors with lower and more volatile earnings growth (Basic Materials, Energy and Industrials), unlike Europe and Japan. Second, US companies have higher profitability (RoA, RoE) within sectors than European and Japanese counterparts. This song remains the same.

New daily infections per mm people
Linear scale, 3 day trailing average

Source: Johns Hopkins University, IMF, JPMAM. May 08, 2020

YTD United States/Emerging Markets vs Europe/Japan regional equity market barbell performance

<table>
<thead>
<tr>
<th>YTD barbell outperformance</th>
<th>Region</th>
<th>Weight</th>
<th>Delta</th>
<th>Rev weight</th>
<th>US$ return</th>
<th>LOC return</th>
</tr>
</thead>
<tbody>
<tr>
<td>US$ barbell 0.9%</td>
<td>US</td>
<td>62%</td>
<td>10%</td>
<td>72%</td>
<td>-8.7%</td>
<td>-8.7%</td>
</tr>
<tr>
<td>Local currency barbell 0.9%</td>
<td>EM</td>
<td>12%</td>
<td>5%</td>
<td>17%</td>
<td>-17.7%</td>
<td>-12.8%</td>
</tr>
<tr>
<td></td>
<td>EUR</td>
<td>18%</td>
<td>-10%</td>
<td>8%</td>
<td>-20.1%</td>
<td>-17.0%</td>
</tr>
<tr>
<td></td>
<td>JPN</td>
<td>8%</td>
<td>-5%</td>
<td>3%</td>
<td>-12.2%</td>
<td>-14.0%</td>
</tr>
</tbody>
</table>


High growth tech drives US markets, growth laggards drive Europe and Japan, % of total index market cap

Leveraged loans and rising bankruptcies: a longer road ahead this time

Last July, we wrote a special Eye on the Market on loan investor willingness to sacrifice covenant protections in exchange for yield4. The first chart shows Moody’s leveraged loan covenant quality score, which ended 2019 at its weakest level on record; that’s one reason why we concluded that defaulted loan recovery rates could be 60-65 cents on the dollar in the next recession compared to prior levels of 75-80 cents. Now the recession is here, a record number of companies filed for bankruptcy in April 2020 and April defaulted loan balances were among the highest on record. Loan default rates haven’t risen much yet, for a few reasons: (a) rising denominator due to rapid loan growth since 2010, (b) some borrowers receiving payment waivers, (c) weaker covenants reducing events of default, (d) default rates shown below are par-weighted, and would be higher if they were equal-weighted, and (e) not enough time has passed yet.

In prior cycles, loan investors sold first and sorted out the details later. For example, loan prices plummeted in early 2009 (pricing in more than double the amount of actual losses that eventually occurred) and then rallied sharply. This time around, a similar 25% selloff took place in March which was followed by a partial recovery. Given the erosion of creditor protections discussed above, I see more risk of a relapse or stagnant loan prices compared to the V-shaped loan recovery seen in 2009/2010. Leveraged loans are tempting at a time of zero interest rates, but after the recent rally I think a balance of distressed debt and loans makes more sense, given the expected surge in the former towards the end of 2020.

---

4 Covenant assessments analyze leverage and interest coverage tests, most-favored-nation provisions, mandatory prepayments from asset sales, exceptions to negative covenant restrictions, restricted payments clauses, scope of allowable EBITDA adjustments, leakage of assets from the collateral pool, caps on investments in or transfers to unrestricted subsidiaries and affiliates, the ability to add senior pari-passu or priority debt, lien dilution by non-guarantor subsidiaries, etc. These are the protections that loan investors have been surrendering at a record pace.
Purpose of This Material: 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.

GENERAL RISKS & CONSIDERATIONS

Any views, opinions, estimates or products discussed in this material may not be appropriate for all individuals and are subject to risks. Investors may get back less than they invested, and past performance is not a reliable indicator of future results. Asset allocation / diversification does not guarantee a profit or protect against loss. Nothing in this material should be relied upon in isolation for the purpose of making an investment decision. You are urged to consider carefully whether the services, products, asset classes (e.g. equities, fixed income, alternative investments, commodities, etc.) or strategies discussed are suitable to your needs. You must also consider the objectives, risks, charges, and expenses associated with an investment service, product or strategy prior to making an investment decision. For this and more complete information, including discussion of your goals/situation, contact your J.P. Morgan representative.

NON-RELIANCE

Certain information contained in this material is believed to be reliable; however, JPM does not represent or warrant its accuracy, reliability or completeness, or accept any liability for any loss or damage (whether direct or indirect) arising out of the use of any or part of this material. No representation or warranty should be made with regard to any computations, graphs, tables, diagrams or commentary in this material, which are provided for illustration/reference purposes only. The views, opinions, estimates and strategies expressed in this material constitute our judgment based on current market conditions and are subject to change without notice. JPM assumes no duty to update any information in this material in the event that such information changes. Views, opinions, estimates and strategies expressed herein may differ from those expressed by other areas of JPM, views expressed for other purposes or in other contexts, and this material should not be regarded as a research report. Any projected results and risks are based solely on hypothetical examples cited, and actual results and risks will vary depending on specific circumstances. Forward-looking statements should not be considered as guarantees or predictions of future events.

Nothing in this document shall be construed as giving rise to any duty of care owed to, or advisory relationship with, you or any third party. Nothing in this document shall be regarded as an offer, solicitation, recommendation or advice (whether financial, accounting, legal, tax or other) given by J.P. Morgan and/or its officers or employees, irrespective of whether or not such communication was given at your request.

J.P. Morgan and its affiliates and employees do not provide tax, legal or accounting advice. You should consult your own tax, legal and accounting advisors before engaging in any financial transactions.

LEGAL ENTITY, BRAND & REGULATORY INFORMATION

In the United States, bank deposit accounts and related services, such as checking, savings and bank lending, are offered by JPMorgan Chase Bank, N.A. JPMorgan Chase Bank, N.A. and its affiliates (collectively “JPMCB”) offer investment products, which may include bank-managed investment accounts and custody, as part of its trust and fiduciary services. Other investment products and services, such as brokerage and advisory accounts, are offered through J.P. Morgan Securities LLC (“JPM&S”), a member of FINRA and SIPC. Annuities are made available through Chase Insurance Agency, Inc. (CIA), a licensed insurance agency, doing business as Chase Insurance Agency Services, Inc. in Florida. JPMCB, JPM&S and CIA are affiliated companies under the common control of JPMorgan Chase & Co. Products not available in all states.

In Luxembourg, this material is issued by J.P. Morgan Bank Luxembourg S.A. (JPMBL), with registered office at European Bank and Business Centre, 6 route de Treves, L-2633, Senningerberg, Luxembourg. R.C.S Luxembourg B10.958. Authorised and regulated by Commission de Surveillance du Secteur Financier (CSSF) and jointly supervised by the European Central Bank (ECB) and the CSSF. J.P. Morgan Bank Luxembourg S.A. is authorized as a credit institution in accordance with the Law of 5th April 1993. In the United Kingdom, this material is issued by J.P. Morgan Bank Luxembourg S.A–London Branch. Prior to Brexit (Brexit meaning that the UK leaves the European Union under Article 50 of the Treaty on European Union, or, if later, loses its ability to passport financial services between the UK and the remainder of the EEA), J.P. Morgan Bank Luxembourg S.A– London Branch is subject to limited regulation by the Financial Conduct Authority and the Prudential Regulation Authority. Details about the extent of our regulation by the Financial Conduct Authority and the Prudential Regulation Authority are available from us on request. In the event of Brexit, in the UK, J.P. Morgan Bank Luxembourg S.A.–London Branch is authorised by the Prudential Regulation Authority, subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. In Spain, this material is distributed by J.P. Morgan Bank Luxembourg S.A., Sucursal en España, with registered office at Paseo de la Castellana, 31, 28046 Madrid, Spain. J.P. Morgan Bank Luxembourg S.A., Sucursal en España is registered under number 1516 within the administrative registry of the Bank of Spain and supervised by the Spanish Securities Market Commission (CNMV). In Germany, this material is distributed by J.P. Morgan Bank Luxembourg S.A., Frankfurt Branch, registered office at Taunustor 1 (TaunusTurm), 60310 Frankfurt, Germany, jointly supervised by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin). In Italy, this material is distributed by J.P. Morgan Bank Luxembourg S.A– Milan Branch, registered office at Via Catena Adalberto 4, Milan 20121, Italy and regulated by Bank of Italy and the Commissione Nazionale per le Società e la Borsa (CONSOB). In the Netherlands, this material is distributed by J.P. Morgan Bank Luxembourg S.A., Amsterdam Branch, with registered office at World Trade Centre, Tower B, Strawinskylaan 1135, 1077 XX, Amsterdam, The Netherlands. J.P. Morgan Bank Luxembourg S.A., Amsterdam Branch is authorised and regulated by the Commission de Surveillance du Secteur Financier (CSSF) and the European Central Bank (ECB), and in certain areas also supervised by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin). In France, this material is distributed by J.P. Morgan Chase Bank, N.A. (“JPMCB”), Paris branch, which is regulated by the French banking authorities Autorité de Contrôle Prudentiel et de Résolution des Activités Assurantes et de la Caisse d’Épargne (ACPR) and the CSSF. J.P. Morgan Bank Luxembourg S.A., Paris Branch, is also subject to the supervision of the Autorité des Marchés Financiers (AMF).
and Autorité des Marchés Financiers. In Switzerland, this material is distributed by J.P. Morgan (Suisse) SA, which is regulated in Switzerland by the Swiss Financial Market Supervisory Authority (FINMA).

In Hong Kong, this material is distributed by JPMCB, Hong Kong branch. JPMCB, Hong Kong branch is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission of Hong Kong. In Hong Kong, we will cease to use your personal data for our marketing purposes without charge if you so request. In Singapore, this material is distributed by JPMCB, Singapore branch. JPMCB, Singapore branch is regulated by the Monetary Authority of Singapore. Dealing and advisory services and discretionary investment management services are provided to you by JPMCB, Hong Kong/Singapore branch (as notified to you). Banking and custody services are provided to you by JPMCB Singapore Branch. The contents of this document have not been reviewed by any regulatory authority in Hong Kong, Singapore or any other jurisdictions. This advertisement has not been reviewed by the Monetary Authority of Singapore. JPMorgan Chase Bank, N.A., a national banking association chartered under the laws of the United States, and as a body corporate, its shareholder’s liability is limited.

JPMorgan Chase Bank, N.A. (JPMCBNA) (ABN 43 074 112 011/AFS Licence No: 238367) is regulated by the Australian Securities and Investment Commission and the Australian Prudential Regulation Authority. Material provided by JPMCBNA in Australia is to “wholesale clients” only. For the purposes of this paragraph the term “wholesale client” has the meaning given in section 761G of the Corporations Act 2001 (Cth). Please inform us if you are not a Wholesale Client now or if you cease to be a Wholesale Client at any time in the future.

JPMS is a registered foreign company (overseas) (ARBN 109293610) incorporated in Delaware, U.S.A. Under Australian financial services licensing requirements, carrying on a financial services business in Australia requires a financial service provider, such as J.P. Morgan Securities LLC (JPMS), to hold an Australian Financial Services Licence (AFSL), unless an exemption applies. JPMS is exempt from the requirement to hold an AFSL under the Corporations Act 2001 (Cth) (Act) in respect of financial services it provides to you, and is regulated by the SEC, FINRA and CFTC under US laws, which differ from Australian laws. Material provided by JPMS in Australia is to “wholesale clients” only. The information provided in this material is not intended to be, and must not be, distributed or passed on, directly or indirectly, to any other class of persons in Australia. For the purposes of this paragraph the term “wholesale client” has the meaning given in section 761G of the Act. Please inform us immediately if you are not a Wholesale Client now or if you cease to be a Wholesale Client at any time in the future.

This material has not been prepared specifically for Australian investors. It:

- may contain references to dollar amounts which are not Australian dollars;
- may contain financial information which is not prepared in accordance with Australian law or practices;
- may not address risks associated with investment in foreign currency denominated investments; and
- does not address Australian tax issues.

With respect to countries in Latin America, the distribution of this material may be restricted in certain jurisdictions. We may offer and/or sell to you securities or other financial instruments which may not be registered under, and are not the subject of a public offering under, the securities or other financial regulatory laws of your home country. Such securities or instruments are offered and/or sold to you on a private basis only. Any communication by us to you regarding such securities or instruments, including without limitation the delivery of a prospectus, term sheet or other offering document, is not intended by us as an offer to sell or a solicitation of an offer to buy any securities or instruments in any jurisdiction in which such an offer or a solicitation is unlawful. Furthermore, such securities or instruments may be subject to certain regulatory and/or contractual restrictions on subsequent transfer by you, and you are solely responsible for ascertaining and complying with such restrictions. To the extent this content makes reference to a fund, the Fund may not be publicly offered in any Latin American country, without previous registration of such fund’s securities in compliance with the laws of the corresponding jurisdiction. Public offering of any security, including the shares of the Fund, without previous registration at Brazilian Securities and Exchange Commission–CVM is completely prohibited. Some products or services contained in the materials might not be currently provided by the Brazilian and Mexican platforms.

References to “J.P. Morgan” are to JPM, its subsidiaries and affiliates worldwide. “J.P. Morgan Private Bank” is the brand name for the private banking business conducted by JPM.

This material is intended for your personal use and should not be circulated to or used by any other person, or duplicated for non-personal use, without our permission. If you have any questions or no longer wish to receive these communications, please contact your J.P. Morgan representative.

© 2020 JPMorgan Chase & Co. All rights reserved.