MARKET INSIGHTS

Economic and Market Update

U.S. | 2Q 2020 | As of March 31, 2020

J.P.Morgan
Asset Management

Agenda GTM – U.S.

- Growth, jobs, profits & inflation
- Implications for those investing in fixed income
- Fixed Income, U.S. equities and International equities
- Diversified investing, risks & opportunities

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I'm Chief Strategist here at JPMorgan Funds and I head the team that produces the Guide to the Markets. Welcome to the Economic and Market Update for the second quarter of 2020.

The first quarter took an unexpected turn, as the spread of the COVID-19 virus gripped markets and brought certain areas of the global economy to a halt. U.S. equities entered bear market territory, government bond yields dropped to their lowest levels ever, and oil prices collapsed. The Federal Reserve responded swiftly by cutting rates to near zero and providing fresh quantitative easing and liquidity injections. The U.S. government provided fiscal stimulus to support workers and businesses. Monetary easing and fiscal measures were implemented globally.

In the second quarter, impacts from COVID-19 will be felt acutely, likely ending the 11-year economic expansion as it has already done to the bull market in stocks. In particular service industries will face damage from social distancing and unemployment could rise sharply. However, efforts to contain the virus and develop a vaccine, as well as the ability of companies and consumers to adapt to the circumstances should result in stabilization and an eventual rebound.

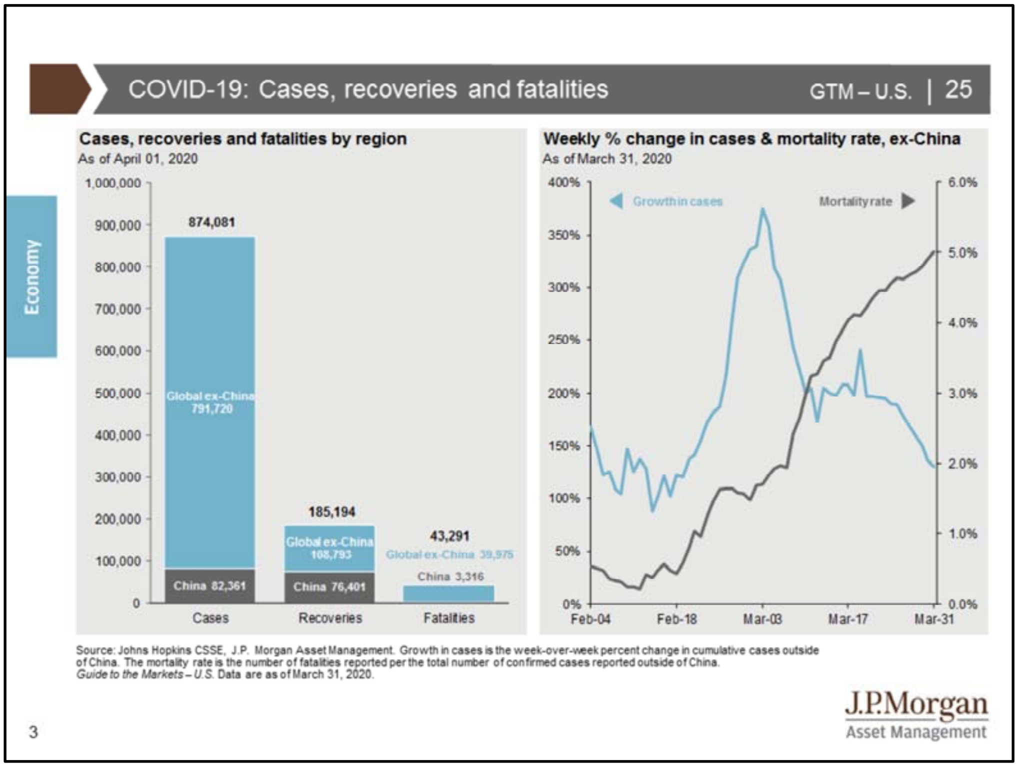
For investors, the impact of COVID19 on our society, our economy and on financial markets poses unique challenges in developing an investment strategy.

We believe that any such strategy should start with a broad assessment of the investment landscape, which has, of course, always been the fundamental goal of the Guide to the

Markets.

However, it is important to do this concisely. There are 65 pages in the Guide, but that is way too many for any conversation with an investor about the markets.

So, what we do here is boil it down to just 11 slides. In particular, I'd like to take about COVID-19 itself, the impact of social distancing on the travel, leisure and entertainment industries, the response of monetary and fiscal policy, the outlook for growth, jobs, profits and inflation, and the implications for those investing in fixed income, U.S. equities and international equities.

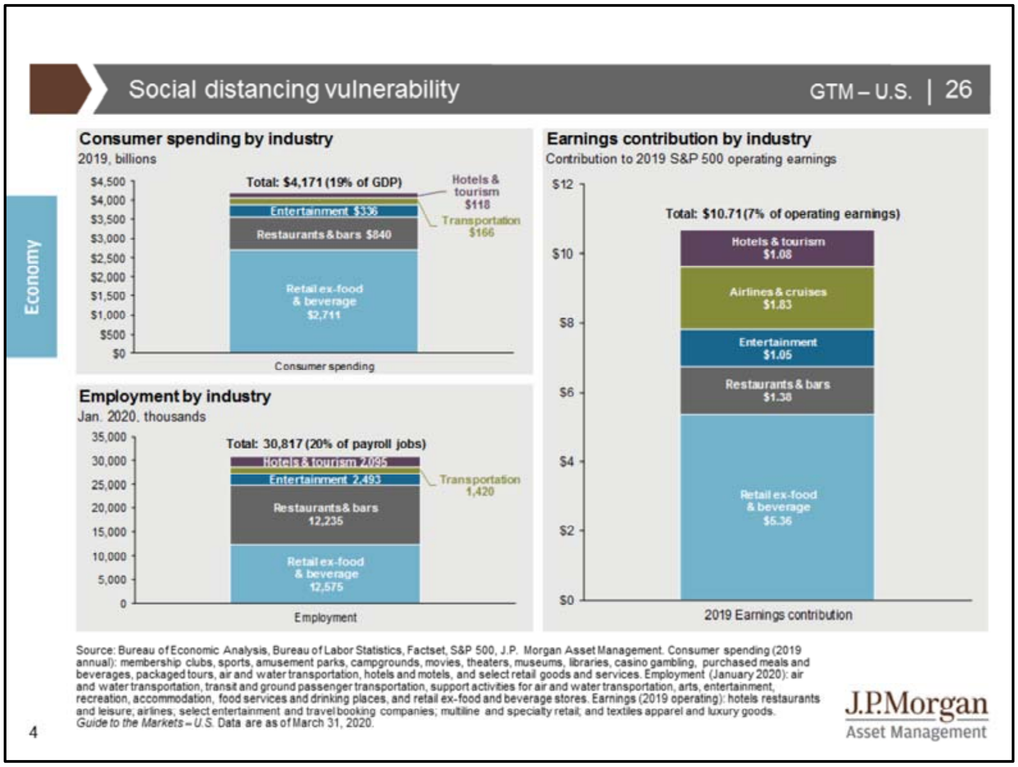


Page 25 of the Guide to the Markets illustrates the trajectory of COVID-19 with regard to both its spread and its crude mortality rate. On the left we show those who have has the disease, those who have recovered from it and those who, sadly, have died from it. On the right we show the week-over-week growth in cases outside of China and the cumulative crude mortality rate. All of these numbers change daily and we update them in the on-line daily version of the Guide.
As this is being recorded, the weekly growth rate is cumulative cases is almost 200% with the crude mortality rate at close to 4%.

If the disease were to continue to spread at the same pace and with the same mortality rate, it would have a devastating human toll. However, while the situation remains very grave, there are reasons to believe that both of these numbers will improve in the weeks ahead.

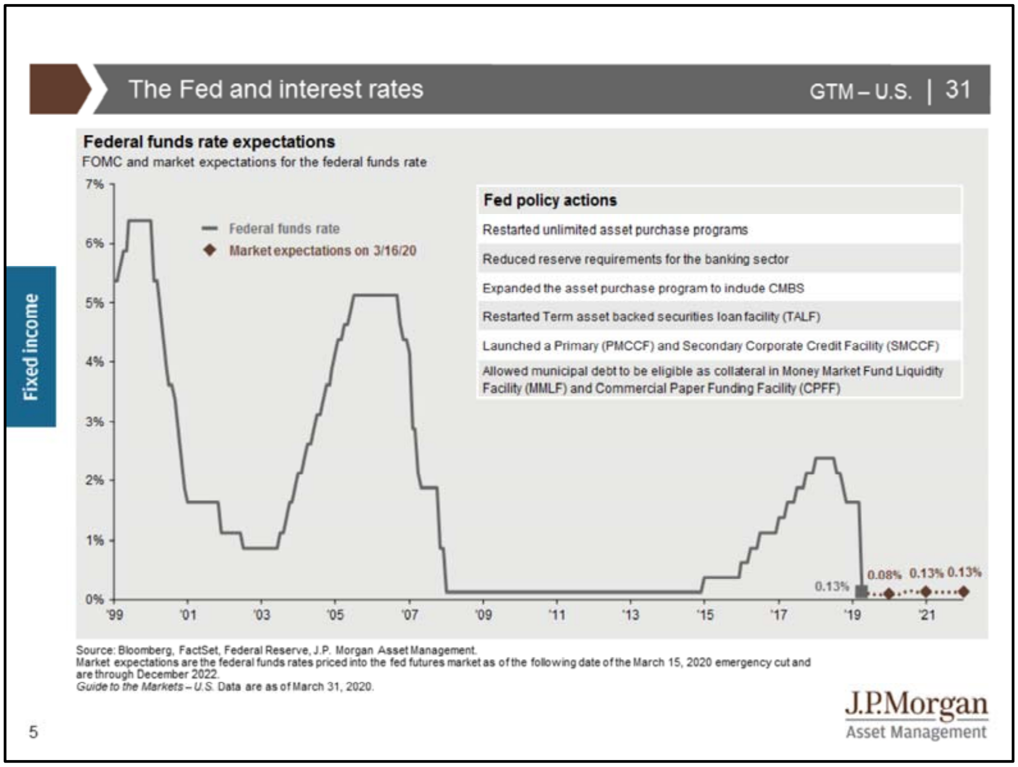
First, the *true* mortality rate is likely much below a simple calculation of the cumulative number of deaths divided by the cumulative number of confirmed cases. This is because there are very likely many more mild cases of the virus that have not been reported. In addition, fatalities appear to be much higher in countries where the healthcare system has simply been overwhelmed by the growth in the number of cases.

Second, some countries appear to be succeeding in halting the growth of the disease through widespread testing and social distancing. The rest of the world is, belatedly, adopting these measures and this should both slow the spread of the disease and reduce its mortality rate and, in time, these numbers should both be greatly reduced by better treatments and a vaccine.



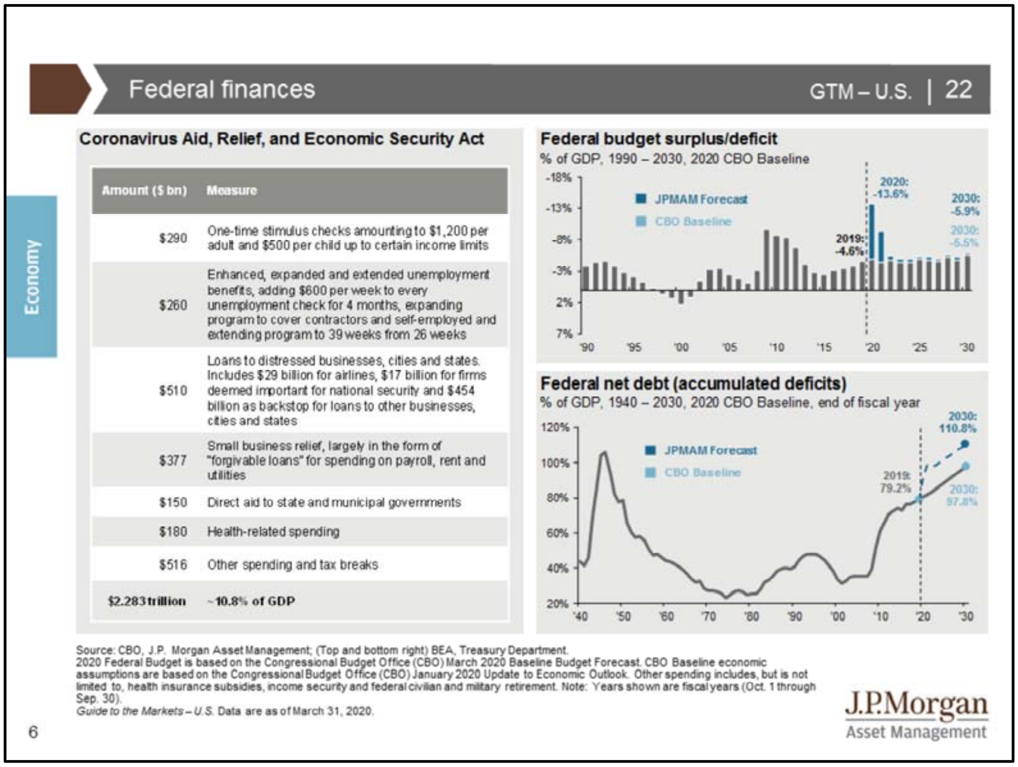
Having said all of this, public and private responses to COVID-19 have triggered a breathtaking array of changes in lifestyles. In the U.S., these changes have included the cancellation of essentially all major organized sports and entertainment events, dramatic declines in airline travel and hotel bookings, a complete halt in the cruise line industry, and, in many states, near complete shutdowns of restaurants, bars and retailers other than grocery stores.

The fact that the worst of the economic turmoil is centered in the leisure, entertainment and food services and retail sectors, will make the recession somewhat different from that of the great financial crisis. These industries account for more than a fifth of U.S. employment but are less significant when measured in GDP terms or as contributors to stock market earnings. Consequently, this recession should be most pronounced in its impact on unemployment and could be somewhat less so, in relative terms, when it comes to corporate earnings. For investors, however, it is important to think about not just the depth of the recession but also the pace at which the economy is likely to recover. This depends, to a significant extent, on the effectiveness of monetary and fiscal policy measures.



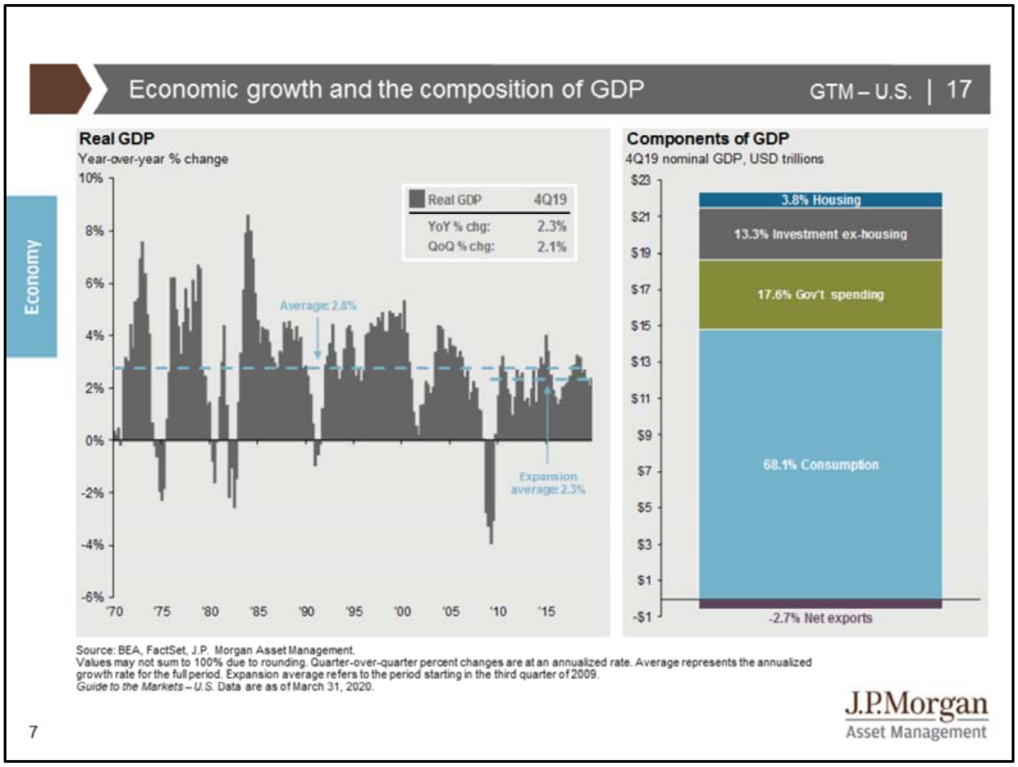
In a short, three-line statement issued in the afternoon of Friday, February 28th, the Fed Chairman, Jerome Powell committed the Fed to use its tools and act as appropriate to support the economy. Since then, they have taken dramatic action, cutting the federal funds rate by 1.50% to a range of 0-0.25% and restarting QE, pledging to boost its holdings of Treasuries by $500 billion and mortgage-backed securities by $200 billion over coming months. In further measures to deal with liquidity issues in financial markets, it has established a wide range of credit facilities for money market funds, primary dealers and commercial paper as well as enhancing swap facilities with other central banks.

This being said, the truth is that both businesses and workers need grants more than loans at this time so attention has naturally turned to from the Federal Reserve to the Federal Government.



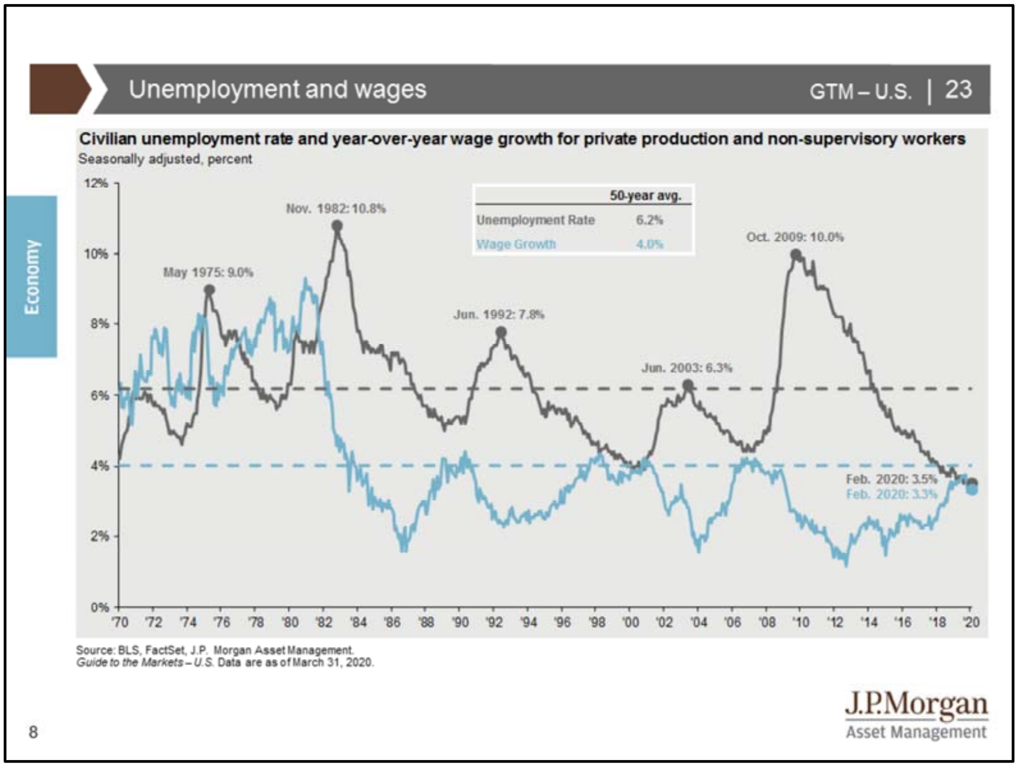
Congress and the Administration have taken swift and decisive action in using fiscal policy to combat the impact of social distancing on the U.S. economy. Most notably, the $2.2 trillion Coronavirus Aid, Relief and Economic Security (CARES) Act is designed to hold the economy in a kind of "suspended animation" until the need for social distancing has passed. This legislation, by providing very significant but temporary help to individuals, companies and state and local governments won't be able to prevent the economy from falling into a sharp recession, in terms of lost output and higher unemployment.

However, it should allow both households and companies to avoid the worst effects of recession in terms of poverty and bankruptcy until medical science has developed a vaccine and the economy can embark on a robust recovery. Needless to say, however, this stimulus has come at a very high fiscal price with the federal deficit likely to top $3 trillion or 15% of GDP this fiscal year before falling back next year. Moreover, the government may need to employ some fiscal take restraint later next year and in 2022, if it is to avoid higher inflation and interest rates once the economy is once again in expansion mode.

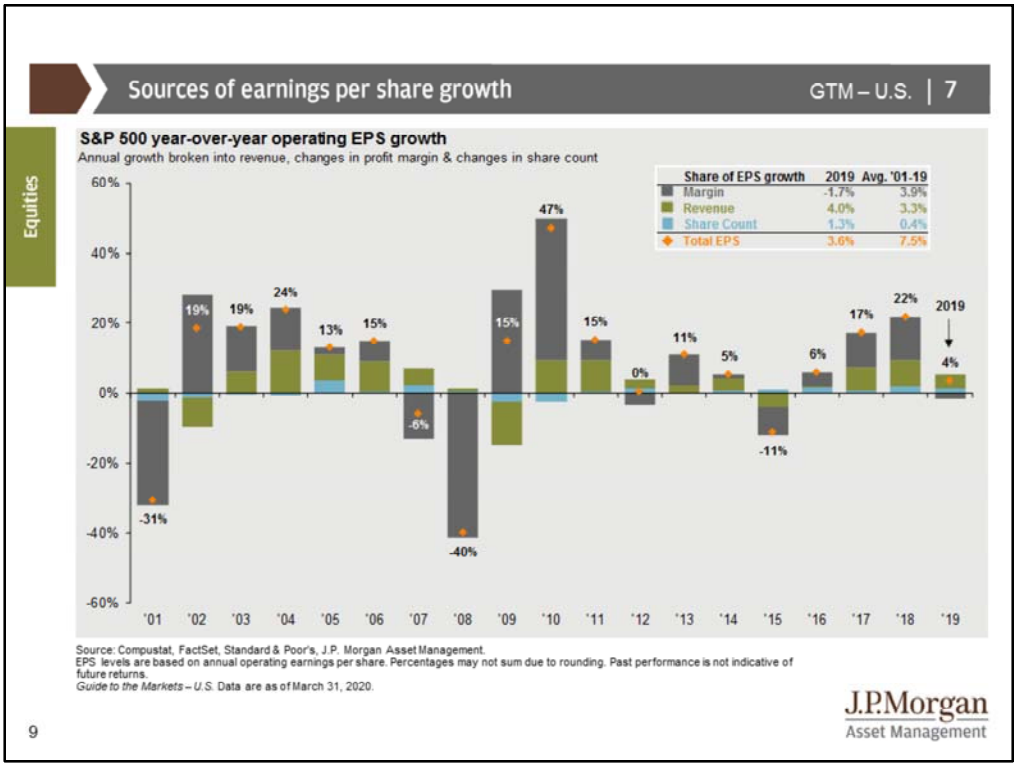


The fact that this all occurred late in the first quarter, combined with surging sales of food and necessities, suggests that first-quarter GDP will not be severely impacted by the virus. However, it appears inevitable that the U.S. economy will enter recession in the second quarter putting an end to the longest expansion in U.S. history. This recession could be quite severe in terms of its initial decline in GDP. In particular, reasonable assumptions on a decline in spending across the most impacted sectors of the economy could easily yield a double-digit annualized decline in real GDP in the second quarter.

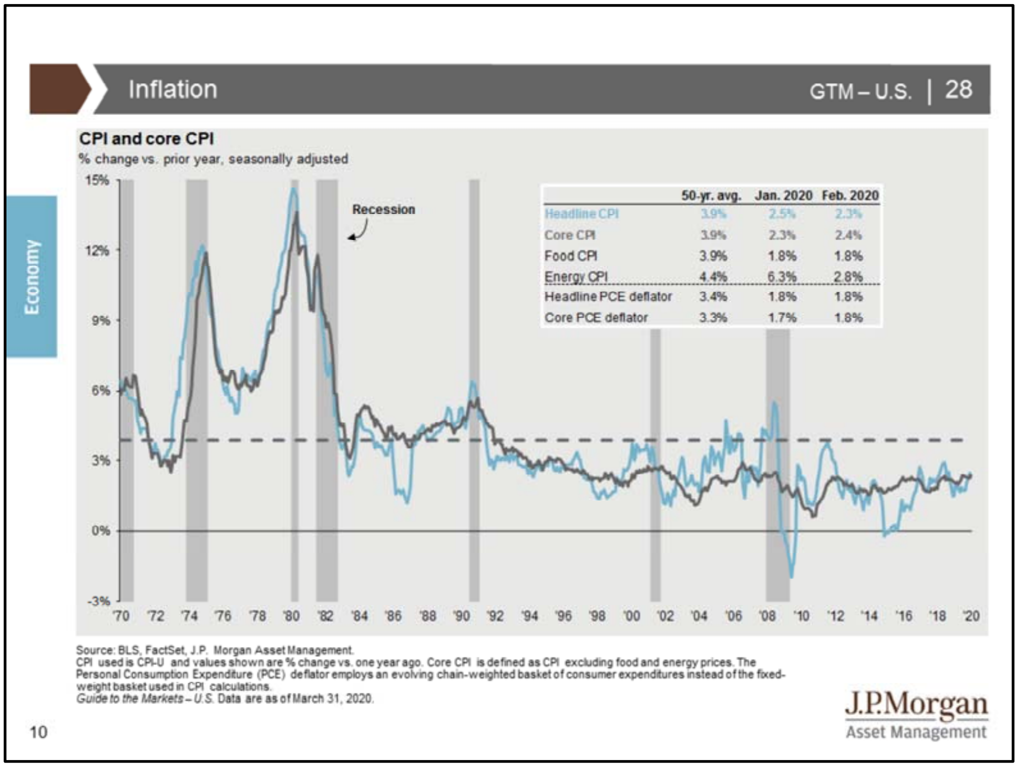
Thereafter, social distancing may help achieve a slowdown in the spread of the disease and new fatalities, allowing authorities to authorize a slow return to normality, albeit with strict social distancing guidelines. Even in this scenario, the knock-on effects of employment losses from a traumatic second quarter could well result in a further quarter of negative economic growth in the third quarter, meeting the unofficial definition of a recession. Thereafter, however, the economy could begin a slow recovery followed by a surge, once an effective vaccine for the virus has been distributed.



The recession of 2020 will likely be characterized by very high unemployment with the jobless rate possibly topping out above the 10.8% seen in 1982, thus setting a new post-Depression record. This sharp climb is primarily due to the fact that the industries most affected tend to be huge employers of low-wage labor. In addition, while the recent CARES Act provides some incentives for firms not to lay off workers, it also provides for very generous unemployment benefits over the next four months. In many cases, this means that workers would fare better by being laid off and collecting unemployment benefits over the next four months. When the economy begins to recover in 2020, we expect a very sharp decline in the unemployment rate as it should be relatively easy to restart individual companies in the leisure, food services, transportation, hospitality and retail sectors.

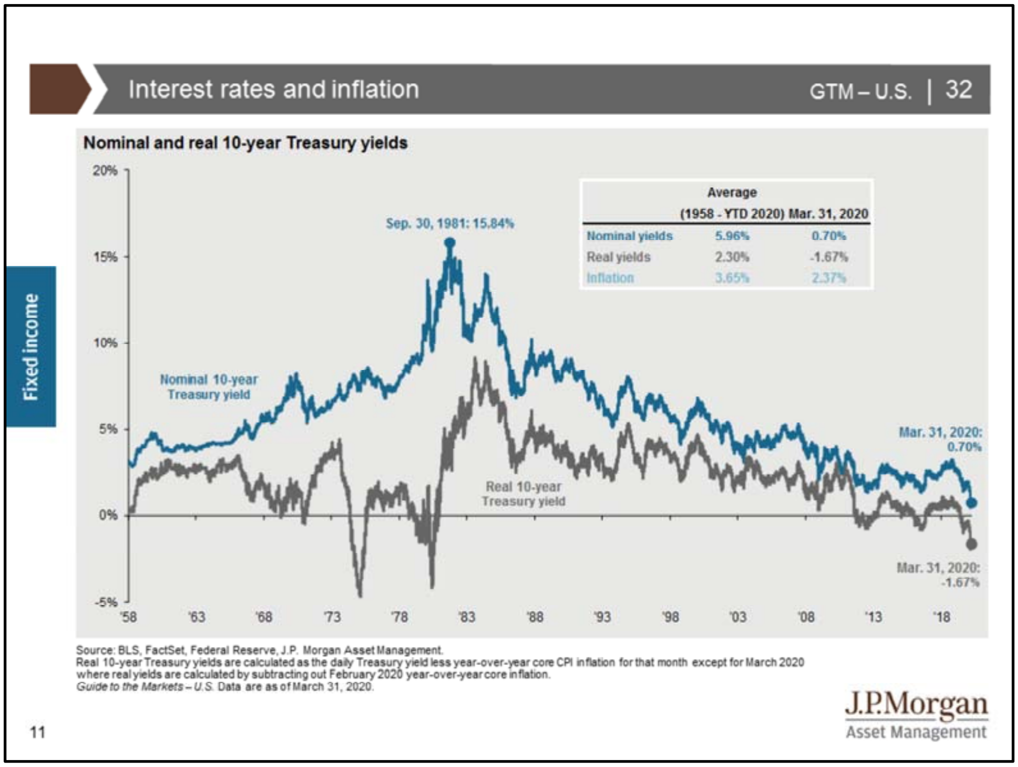


2020 will be a recession year and thus a very ugly year for corporate profits, since corporate profits have traditionally been far more cyclical than the economy itself. However, in this recession, it will be particularly important to consider sectoral effects. The energy sector will likely be hit very hard both by the global recession and the recent price war between Russia and Saudi Arabia. Other areas such as the consumer discretionary, materials and industrials sectors. However, for investors it will be important to consider not just the downturn itself but also substantial efforts by the Federal Reserve and Federal Government to protect businesses in the recession. In addition, regardless of the depth of the recession, corporate profits should be able to bounce back in the recovery and S&P500 operating earnings per share may well exceed last year's levels by 2022, thus setting a new all-time high.



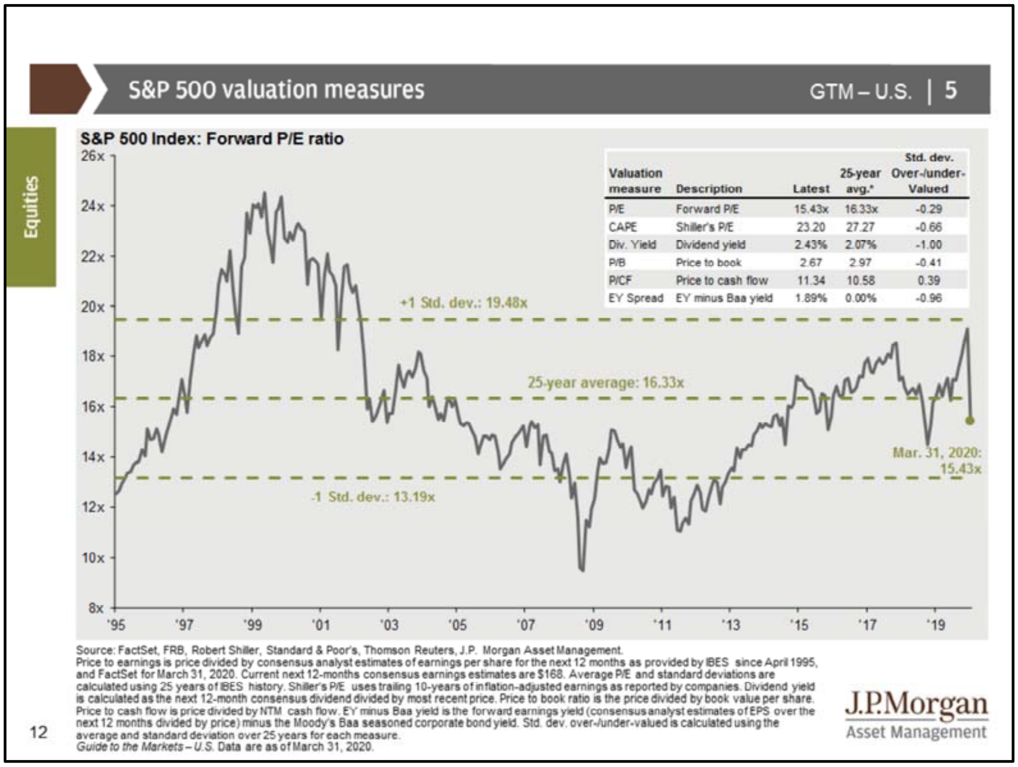
At first glance it looks like consumer inflation will fall in the months ahead as lower crude oil prices feed through to a broader decline in energy prices and rising unemployment reduces demand in the economy overall. However, in many categories, it will be hard to estimate inflation at all – what is the cost of airline travel if no one is flying?

A clear read on inflation may need to await a full reopening of the economy in 2021. At that time, assuming that the economy begins to grow very rapidly, inflation could rise surprisingly fast, particularly given the pent-up demand for services that will likely exist at that time. This could cause the Federal Reserve to be more aggressive in embarking on policy normalization than many have assumed in recent days.

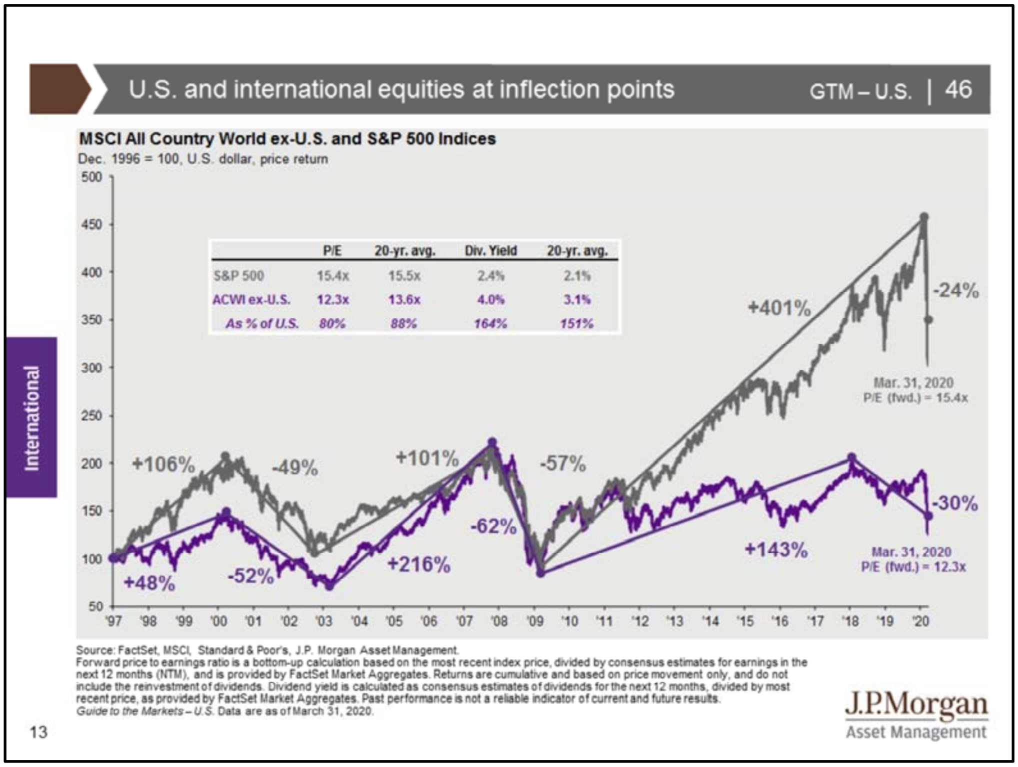


So what does this all mean for investing? For fixed income investors, it is a challenging landscape with yields on nominal 10-year Treasuries falling below 1% and real yields on 10-year TIPS turning negative. Assuming that the economy does get past the COVID-19 recession and begin to expand again, both of these yields appear very unattractive. Meanwhile the recession has, not surprisingly, caused high-yield spreads to widen out. While there are probably many individual opportunities in the space where careful security selection can yield better returns, widespread defaults among high-yield bonds are likely in the months ahead.

High-quality fixed income will continue to play an important role in providing investors with insurance if the recession should deepen. However, the prospect of recovery, especially if accompanied by elevated government debt loads and inflation, suggest that long-term investors may want to be underweight fixed income as an asset class in the months ahead.



The long bull market in equities finally ended in the first quarter with the S&P500 falling by 34% in less than five weeks between February 19th and March 23rd. Even with a recovery in late March, as Congress passed the CARES Act, the market remained down for the year. We cannot be sure that stocks won't test their lows again, given the potential for further shocks either in the progress of the disease or numbers on the economy. However, for long-term investors, it is worth recognizing both the help embedded in the CARES Act and the potential for stocks to rebound strongly once the effects of COVID-19 on the economy fade. It is also important to acknowledge that the fall in both short-term and long-term interest rate since the onset of this crisis, strengthens the case for US equities, both for current income and future capital gains.



The COVID-19 crisis has been remarkable in how it has affected every part of the planet and all economies are suffering from the consequences of social distancing. This being said, many of the valuation anomalies that existed in markets before the onset of the crisis, persist today. In particular, while stocks outside the United States have traditionally had lower P/E ratios and higher dividend yields than their U.S. counterparts, these comparisons are particularly extreme today.

For long-term investors, it is important to recognize that many of the arguments in favor of international stocks are just as strong as they were at the start of the year. The long-term growth prospects of EM economies still look better than for the U.S., valuations remain cheaper overseas and the dollar remains too high based on trade flows, suggesting an eventual dollar decline which would amplify the return on international equities. Moreover, it is worth noting that with risk assets down across the board, many investors in taxable accounts may be able, for the first time in many years, to reallocate among asset classes without triggering a substantial capital gains bill.

Good investing always requires a mix of brains and courage, but usually in different quantities at different times. When markets are high, it is usually about having the brains to find the cheaper assets in a sea of bad deals. When markets are low, it is usually all about having the courage to recognize that the economy and markets will rebound and invest broadly to take advantage of it.

However, today, in this strangest of all recessions, investors really need both. The courage to recognize that we, as a nation and a world, will get past this. But also the brains to recognize how the world has changed and to find those assets that are best positioned to weather the social distancing recession and to thrive when it is over.

Other asset classes:

The **Alerian MLP Index** is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for the asset class.

The **Bloomberg Commodity Index** and related sub-indices are composed of futures contracts on physical commodities and represents twenty two separate commodities traded on U.S. exchanges, with the exception of aluminum, nickel, and zinc

The **Cambridge Associates U.S. Global Buyout and Growth Index®** is based on data compiled from 1,768 global (U.S. & ex – U.S.) buyout and growth equity funds, including fully liquidated partnerships, formed between 1986 and 2013.

The **CS/Tremont Hedge Fund Index** is compiled by Credit Suisse Tremont Index, LLC. It is an asset-weighted hedge fund index and includes only funds, as opposed to separate accounts. The Index uses the Credit Suisse/Tremont database, which tracks over 4500 funds, and consists only of funds with a minimum of US$50 million under management, a 12-month track record, and audited financial statements. It is calculated and rebalanced on a monthly basis, and shown net of all performance fees and expenses. It is the exclusive property of Credit Suisse Tremont Index, LLC.

The **HFRI Monthly Indices (HFRI)** are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. The HFRI are broken down into 4 main strategies, each with multiple sub strategies. All single-manager HFRI Index constituents are included in the HFRI Fund Weighted Composite, which accounts for over 2200 funds listed on the internal HFR Database.

The **NAREIT EQUITY REIT Index** is designed to provide the most comprehensive assessment of overall industry performance, and includes all tax-qualified real estate investment trusts (REITs) that are listed on the NYSE, the American Stock Exchange or the NASDAQ National Market List.

The **NFI-ODCE**, short for NCREIF Fund Index - Open End Diversified Core Equity, is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. The NFI-ODCE Index is capitalization-weighted and is reported gross of fees. Measurement is time-weighted.

Definitions:

Investing in **alternative assets** involves higher risks than traditional investments and is suitable only for sophisticated investors. Alternative investments involve greater risks than traditional investments and should not be deemed a complete investment program. They are not tax efficient and an investor should consult with his/her tax advisor prior to investing. Alternative investments have higher fees than traditional investments and they may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise and investors may get back less than they invested.

Bonds are subject to interest rate risks. Bond prices generally fall when interest rates rise.

Investments in **commodities** may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage. The value of commodity-linked derivative instruments may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Use of leveraged commodity-linked derivatives creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

Derivatives may be riskier than other types of investments because they may be more sensitive to changes in economic or market conditions than other types of investments and could result in losses that significantly exceed the original investment. The use of derivatives may not be successful, resulting in investment losses, and the cost of such strategies may reduce investment returns.

Distressed Restructuring Strategies employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings.

Investments in **emerging markets** can be more volatile. The normal risks of investing in foreign countries are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for private or foreign investment or private property.

The price of **equity** securities may rise, or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.

Equity market neutral strategies employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. Equity Market Neutral Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

Global macro strategies trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets.

International investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations.

There is no guarantee that the use of **long and short positions** will succeed in limiting an investor's exposure to domestic stock market movements, capitalization, sector swings or other risk factors. Using long and short selling strategies may have higher portfolio turnover rates. Short selling involves certain risks, including additional costs associated with covering short positions and a possibility of unlimited loss on certain short sale positions.

Merger arbitrage strategies which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transaction.

Mid-capitalization investing typically carries more risk than investing in well-established "blue-chip" companies. Historically, mid-cap companies' stock has experienced a greater degree of market volatility than the average stock.

Price to forward earnings is a measure of the price-to-earnings ratio (P/E) using forecasted earnings. **Price to book value** compares a stock's market value to its book value. **Price to cash flow** is a measure of the market's expectations of a firm's future financial health. **Price to dividends** is the ratio of the price of a share on a stock exchange to the dividends per share paid in the previous year, used as a measure of a company's potential as an investment.

Real estate investments may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investments may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower.

Relative Value Strategies maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

Small-capitalization investing typically carries more risk than investing in well-established "blue-chip" companies since smaller companies generally have a higher risk of failure. Historically, smaller companies' stock has experienced a greater degree of market volatility than the average stock.

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J.P. Morgan Asset Management – Risks & disclosures

The Market Insights program provides comprehensive data and commentary on global markets without reference to products. Designed as a tool to help clients understand the markets and support investment decision-making, the program explores the implications of current economic data and changing market conditions.

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Unless otherwise stated, all data are as of March 31, 2020 or most recently available.

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