Private Bank

Global Strategy Bulletin

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COVID-19, Investing and the Economy: 20 Questions and Answers

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Summary: The shock to the global economy due to the economic, social and health impacts of COVID-19 are significantly impacting markets globally. COVID-19 is more contagious and lethal than the common flu, but will not present a threat like the Spanish flu of 1918. Nonetheless, the near term disruptions to daily life will be material as people and businesses act to minimize infection and ensure continuity of business. Social media and sensationalism may magnify the negative impacts and exacerbate fear and supply shortages.

World equity markets have quickly fallen into "correction territory" and US bond yields have fallen to record lows. Selling has been broad amidst greater volatility, with immediately impacted industries, such as airlines, falling in excess of 30%.

While we expect a larger negative impact on markets near term, looking out 12 to 18 months we also see the potential for a significant rebound in share prices and positive turning points for other asset classes. This view is based on two pillars. The first is that governments will provide significant fiscal and monetary stimulus as a result of the COVID-19 crisis. These will ultimately be effective to support sectors and firms most impacted and then to stimulate broader growth recovery. The second is that the virus is not a driver of traditional recession, but a short, severe, shock. In a recession, demand is reduced and businesses cut output and employment in a self-reinforcing downward spiral. This generally follows periods of excessive, booming growth. In the case of an exogenous shock, like the appearance of COVID-19, we expect the longer-term buying intent of consumers and business to remain intact. The health of consumers, business and bank balance sheets prior to the health crisis gives us confidence that this is more likely than not.

We chart the early signs of impact on the world economy here (Tracking the Economic Disruption of Covid-19). We also provide our most current answers to key questions below.

Economy: Understanding the Shock

1. The number of cases of COVID-19 looks small relative to the flu. Why do you think the economic impact will be so much greater than what typically happens during the flu season?

Influenza is a well understood disease. It has known treatments and a vaccine. For most people, getting the flu is not much more than an inconvenience. And its mortality rate is low. COVID-19 is a different disease. COVID-19 is a new virus, unknown before the outbreak began in Wuhan, China, in December 2019. It appears to be 2-3x more contagious than the flu and it has a longer incubation period of 5 – 14 days. Though most people do not get critically ill, those that do are more likely to need supportive care. The mortality rate is estimated to be 1-2% across large populations and that is 10-20x as the flu. There is currently no vaccine, nor any specific medical treatments targeting this specific coronavirus. Therefore, COVID-19 is having a greater impact on the social, health and economic life of countries than that of the typical flu.

COVID-19 has also moved rapidly from a regional to a global health issue. Whereas it appears that China has been able to contain the disease, other countries are beyond containment and are now trying to mitigate its impacts. The decision to move from containment to mitigation implies a great deal about the impact of COVID-19. A quote from San Mateo County California Public Health Officer Dr. Scott Morrow illustrates this:

"Our local situation surrounding COVID-19 is changing rapidly. Our lives will be significantly disrupted by the measures needed to respond to a global pandemic. Our focus is rapidly changing from a containment strategy (identifying cases and contacts) to one of community mitigation—taking steps to lessen the broad impact of the disease. We now all need to take assertive actions to inhibit the spread of this new virus. I advise that individuals, schools, business, and all other sectors of our community take immediate steps to change behaviors and take definitive action.

With a pandemic comes significant disruption to supply chains, transportation, and travel. Even if the disease is not rapidly spreading in our area, we may face difficulty obtaining the goods and services we are accustomed to, public events may be canceled and our ability to travel might be restricted." (Source: Selected excerpts from the San Mateo County Health Department, Health Officers Statement dated 3/5/2020 as published on smchealth.org)

Given the speed of information transmission and the fact that COVID-19 is expressing itself as a pandemic, one should expect disruptions to the economy that are severe, but not long lasting. For the next 2-4 months, while the virus spreads and then hopefully declines in health impacts, the economic and social effects are likely to be material.

2. How would the world economy be able to grow if many people die from COVID-19?

Around 55 million people die each year across the world from all causes including disease. If the Harvard T.H. Chan School of Public Health's estimates of 3+ million deaths from COVID-19 over eighteen months proves correct, it would dwarf the impact of the roughly 500,000 lives lost yearly from the seasonal flu. It would put a severe strain on public health systems in parts of the world. However, it would not be the primary source of negative impact to economic activity. The primary source of economic impacts are largely from the disruptive influence of travel restrictions, supply chain interruptions, absenteeism and other behavioral changes aimed at preventing infections.

3. Can the world economy rebound if COVID-19 isn't fully eradicated?

Yes. When a shock depresses economic activity below "natural levels" it leaves unsatisfied demand. In an historical context, exogenous shocks generate more rapid recoveries. During the 2003 SARS epidemic, China's economy slowed from 12.2% in 1Q, to 3.4% in 2Q, before rebounding at 15.7% rate in 3Q. In slow-growing Japan, following the Fukushima nuclear disaster in March 2011, the economy contracted at a 4.1% annualized rate in the first half, followed by a 4.9% positive rate in 2H 2011. It is far easier for GDP to rebound, and at higher-than-usual growth rates, from exogenous events. For example, in the case of goods production, there are faster "catch-up" production rates that make up for lost output.

We expect national governments and the public to react differently to COVID-19. This will mean a likely dispersion of both infection rates and short-term economic impact. China's fast and extreme steps to cordon off Hubei province (home of Wuhan) with large-scale factory and retail shutdowns, suggests the potential for rebounding growth in the 2Q 2020 period. In contrast, we would expect strong consumer demand to persist in the US, with a delayed negative impact from supply shocks. This means the largest negative impact in the US will likely be felt in 2Q 2020. (Note: External demand weakness will still negatively impact China beyond 1Q).

The exogenous nature of the COVID-19 shock is likely to mean the largest negative economic effects in the US will have occurred by end-2Q 2020. Importantly, this assumes government policy steps to assist disaster-stricken firms and individuals, if necessary. It also assumes steps will be taken to ensure that credit markets and banks function properly. We see banks and credit markets as far more healthy and "shock-proof" than in the 2008 period.

<u>If credit market losses are limited to areas most impacted by the economic shock, but not widely disrupted for all, the global growth impact of COVID-19 will have similar effects to a "national labor strike," albeit on a global basis. This represents a temporary, large interruption, before a sharper rebound.</u> However, the health threat may naturally seem far more frightening for many, from a psychological perspective.

4. What were your prior earnings expectations for 2020? What are your new 2020 earnings expectations? Given the uncertainties around the impact of the virus, what confidence do you have in your estimates?

Entering the year, we expected a 7% rebound in US and global EPS for 2020. This was driven by a rebound from the depressing trade war impact of 2019 – **figures 1-2**. The data improvements in January were entirely consistent with our forecast being realized.

We now expect global GDP growth to be 1-2% in 2020 before rising again to a pace somewhat above 3% in 2021. This includes areas of sharp economic contraction at different times in the first quarter and second quarter 2020. For example, China will have its sharpest contraction in 1Q, and the largest impact in the US 2Q. With other economies posting a variety of differing results, this should lead to a rare period without global growth in the first half 2020.

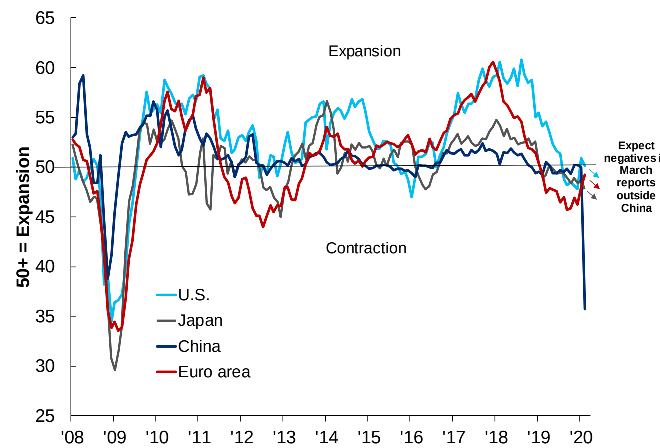
Our new 2020 forecast <u>reduced</u> EPS growth by 10%. (This rounds to a 4% drop in EPS in 2020 relative to 2019). For 2021, we are revising our expected EPS growth rate upward to 13%.

EPS results across economies are likely to vary during the period immediately surrounding the shock and become more dispersed over time. We would expect S&P 500 EPS to fall more than 10% from a year ago in the 2Q 2020 period. However, from depressed levels, 2021 profits and economic growth should rebound strongly unless some completely new shock arrives.

When we published these forecasts, we noted that we would have to adjust them for incoming information. Across the world, economies typically grow asynchronously, such that global diversification offers a way of reducing risks. China is rebounding now from its COVID-19 impacts. Some domestically-oriented emerging markets economies that will not act strongly to resist the spread of infection may see relatively little disruption. The US and European economies should see more significant disruption to stem infection rates, but starting later than in China.

Figure 1: US ISM manufacturing new export orders

Figure 2: Major PMIs including China



Source: Haver Analytics as of March 6, 2020.
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5. Under your base-case scenario, will the virus and the economic impacts cause a recession? If not, under what conditions could they cause a recession?

Recession is a poorly understood concept. In the US, it is not measured by two quarters of consecutive GDP contraction, but by "significant," persistent, widespread declines in economic activity.[1]

In our view, COVID-19 likely represents a global disruption to economic activity that forces economies off their usual, positive growth path, in some cases severely. In China, for example, the inability of workers to return after their lunar new year migration made for a particularly severe drop. But this is very different from recessions where economies overheat and then suffer busts.

When consumer demand and production reach excessive levels in an economic boom, growth can usually only follow after the full unwinding of those excesses and typically with unnecessary "collateral damage" to healthy parts of the economy. While the current expansion has been long, there hasn't been a boom in underlying economies overall.

6. What would need to change to make recession your base case?

If broad swathes of world credit markets and bank lending weaken substantially and remain weak after the negative economic impact of COVID-19 has peaked, it would sharply raise the probability of recession. Another economic vulnerability is the inability of central banks to add much more stimulus as their policies are already highly accommodative. This is particularly true of the ECB and Bank of Japan. In the case of the Eurozone, a future failure to act collectively and take emergency fiscal measures, as needed, could amount to an "instability pact" shaking confidence in particular governments. We think these are all possible scenarios that would increase the probability of recession.

We do not expect a major negative credit cycle as existed in 2008. In the US, where corporate borrowing has been very robust, refinancing needs are actually very modest. As such, we don't believe COVID-19 is likely to catalyze a self-reinforcing downward economic spiral. Globally, bank equity capital raising in the post-global financial crisis period sharply reduced the risk that declines in lending would sharply exacerbate an economic shock.

7. Was the Fed's action to lower the Fed Funds rate by 50bp necessary and timely?

The Fed's "emergency" easing at an unscheduled meeting raised concerns among traders. Such measures have a poor track record of stabilizing markets (please see [Central Banks Try to Vaccinate World Markets]). However, many do not understand the primary motivation for the Fed's action. Central banks cannot stop the negative impact of COVID-19, but they can reduce hurdles to recovery. In the case of the US Fed, policy rates were well above other safe-haven bond yields. High policy rates at a time of crisis can lead to sharp reductions in lending to riskier borrowers in favor of holding cash.

This is why we believe the Fed's rate cut, with likely further actions to come, is more positive than the alternative of waiting. Had the Fed not cut rates quickly, it would have forced short-term market interest rates higher. In essence, the Fed didn't want to add a shock of its own making. The Fed's emergency action also helped stem the recent tide of US dollar strength. This has benefits for US exporters and US dollar borrowers across the world, particularly in emerging markets.

8. It looks like China handled the management of COVID-19 much better than the West has. Is that true?

In short, it appears so. China's government has centralized control and it was able to use a "containment" strategy to address the disease. That meant closing transportation routes, shutting factories and reducing social interactions to a very large extent. China also mobilized its health resources to do massive quarantining of its population. These were very invasive measures, but according to the data we have, they appear to have been effective in controlling or slowing the spread of COVID-19. This success also gave a false impression that the virus would be just a regional shock.

While data on infection rates are highly suspect everywhere do to undetected cases, both Italy and South Korea now show higher rates of infection on a per-capita basis than China. Italy is enacting a regional containment strategy in Lombardy impacting 16 million people and a large portion of its manufacturing capacity. We do not expect containment strategies to work in the West as they did in the East.

Portfolio Management

9. Should I be repositioning my Core portfolio?

We want to be clear that leaving Core Portfolios intact is our strongest recommendation at this time. Citi Private Bank believes -- and our extensive analysis confirms -- that long term investing creates optimal investment results for investors. Market timing can be especially damaging to long terms returns in periods of instability like this. Thus, for those with discretionary portfolios at the Private Bank, we reallocated portfolios on February 4 to add higher quality assets.

We expect to add equities to portfolios, especially if markets decline further from here. The nature of the virus threat is exogenous and likely of a modest duration. As we believe that (1) the global economy is sound with strong bank, business and consumer balance sheets and (2) governments will provide monetary and fiscal support in the face of the health crisis and (3) we don't see the nature of the economic shock as a permanent loss of output. While we've tactically added to US Treasuries and gold, low rates offered by most fixed income investments are unattractive.

Strategic asset allocation is the first line of defense for long-term investors to an unanticipated shock. Having both high risk and low risk assets has provided strong risk-adjusted returns over long periods. Year to date, a balanced portfolio with a benchmarked medium risk, global profile is down about 4%, versus a decline of twice that for those invested only in global equities.

10. If I have new money to put to work, should I wait or do so now?

For new money, our best advice is to step into markets now, with one-third of capital to be invested with additional capital deployed over the next few months. In the event of another "leg down" in global equity markets – an event we believe is likely – we would invest all of the remaining amounts.

We acknowledge and agree that it is impossible to pick the right day to invest new money. Given our view that the COVID-19 situation is a large, unexpected shock, however, we understand investors may be wary to step in. That is why we advise investing when markets are being sold broadly and indiscriminately -- it is a reasonable time to obtain high quality equity investments at relatively distressed prices.

For equity holders and Opportunistic Investors, this window for investment will create specific opportunities to buy dividend growth shares, "unstoppable trend" baskets and emerging market opportunities at attractive prices. In addition, certain deeply impacted industries (like travel and transportation) will be "rebound" opportunities for those willing to assume more risk, but as we discuss below, we would put other higher quality assets ahead in timing.

11. Do you recommend clients buy fixed income portfolios at these interest rate levels? Why or why not?

The strong 2019 performance of fixed income and the "flight to safety" of 2020 have driven global yields to all-time lows, with US bonds gradually catching up to global counterparts. Very low and negative yielding bonds can add risk to portfolios, especially as we look to an acceleration of economic growth in 2021. Thus, we are wary of adding to fixed income portfolios opportunistically at this time. For new portfolios, we will underweight fixed income instruments in total and overweight US fixed income for now. For new portfolios, we will be neutral in global equities, but overweight those that offer attractive dividends and dividend growth.

12. ***If rates stay at historic lows, should my asset allocation for a balance portfolio stay the same as it was in 2019?***
Looking ahead, Citi Private Bank will be advising clients to reduce their fixed income weightings. While owning fixed income diversifies portfolios, the risk/return aspects of the asset class will change materially as the virus impact gets fully priced and eventually diminishes. Thus, we would expect to see a shift in "Level 3" portfolios (our intermediate/balanced recommendations) toward other asset and sub-asset classes that will potentially provide better portfolio benefits, if markets evolve as we expect.

12(a). How have global stock markets responded to global health crises in the past?
Global health crises, even small ones, have had a short term negative impact on markets, followed by a substantial rebound six months later. **(See Figure 3**) We expect the same pattern to be true here. However, the COVID-19 crisis will be a global pandemic and of greater impact that any of the listed prior health crises. As such, we expect this to be more a U-Shaped and not a V-shaped recovery. The bottom of the "U" will be a period of 3-4 months when the economic impacts will roll across the globe from Asia to Europe to the US and the Americas. The period of market volatility and vulnerability will appear longer now, but ultimately, the recovery will ensue and likely be stronger than investors expect.

Figure 3: Market Performance In Past Viral Epidemics

Illness			S&P 500		MSCI AC World Ex-US	
	Start	End	Worst Period	Six months Later	Worst Period	Six months Later
SARS	15-Jan-03 to	11-Mar-03	-12.8%	27.8%	-12.9%	32.8%
Avian Flu	23-Jan-04 to	12-Aug-04	-6.9%	12.6%	-6.8%	20.7%
MERS	1-Sep-12 to	15-Nov-12	-3.8%	22.0%	0.8%	15.6%
EBOLA	31-Dec-13 to	3-Feb-14	-5.8%	11.3%	-5.5%	7.8%
Zika	6-Nov-15 to	11-Feb-16	-12.9%	19.5%	-14.7%	18.0%
Coronavirus	20-Jan-20 to	3-Feb-20	-12.8%		-12.0%	

Source: Bloomberg, FactSet, Haver Analytics, March 6, 2020. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary

Market Opportunities and Risks

13. Have downward EPS estimates been factored in already by US equity investors?

While the percentage declines in markets are now roughly in line with the declines in our EPS expectations for the year, the uncertainty around EPS in each region and in industries most reliant on the global supply chain is very significant. We expect significant corporate pre-announcements related to COVID-19's impact in the upcoming first quarter results. At that time, uncertainty will remain quite high for the second quarter as well. (We would note that 1Q EPS will only fall slightly short of current estimates overall, in our view, but the larger drop will occur in 2Q in the US and Europe).

14. Where will long-term interest rates go when the crisis has ended? (Will we see negative rates in the US and/or a USD surge first?
We believe all markets will be "whipsawed" in 2020 by what appears to be a short, sharp, shock. When growth rebounds – and many will not expect a sharp rebound -- bond yields will rise from record low levels. However, for many reasons, rates are unlikely to return to 2.0% in 2020. Fed easing steps will long outlast COVID-19. The yield curve should steepen as it has in every historic Fed easing cycle. However, it would seem difficult for US 10-year Treasury yields to sustain levels higher than 1.5% (they are just 0.75% right now), even in the stronger rebound we expect.
Unlike European policymakers, current Fed policymakers would strongly prefer to avoid using negative interest rates as a tool. They have stated a preference for asset purchases and communicating their commitment to long periods of low rates rather than using a negative policy rate. With short-term policy rates positive, there is a strong disincentive for investors to pay more for bonds than they will receive through maturity. However, a very strong expectation that future policymakers might resort to negative yields could possibly push certain US maturities negative. We see this as a relatively low probability in 2020.

15. Do you expect another leg down in markets before we see a recovery in the economy and stock market? Why or why not
Our base case sees a higher than average probability for another "leg down" in markets. We would view a correction closer to 20% overall as compensating for the significant COVID-19 shock and uncertainty. This is even as macro policy and interest rate declines have come into focus and will, over time, cushion the blow.

Over the last two weeks, markets have digested the fact that COVID-19 is a global pandemic that will have large social, health and economic consequences. However, Western market participants have not seen the actual impacts to their daily lives and businesses as COVID-19 reaches their shores. There are likely to be temporary shortages of medicines, food and some consumer goods. There are also likely to be visible strains on the health care systems of deeply impacted cities and communities. Governments will act to lessen impacts on a macro basis, but will be able to do much less to reduce the day-to-day impacts that will negatively impact investor sentiment. Thus, while one can argue that global equities have fallen in line with our EPS estimates, there can be further declines as valuations come into question.

Note that we also would expect a sharp rebound after markets have been dominated by the temporary shock. While an overshoot is likely, our view is that the underlying world economy is healthy with strong consumer savings and low inflation. Our 2021 EPS forecasts anticipate gains of 10%-15%.

16. Are there areas of the equity market that look like good values now? Which ones might you buy if you wanted to take some risk?

Equities in general are, of course, cheaply valued relative to bonds on historic comparisons. At this time, higher quality firms that grow their dividends in areas not overly exposed to sectors like travel and tourism are particularly appealing. A portfolio of firms with investment grade credit ratings and balance sheets that are also able to maintain dividend payments can yield about 4% currently. Such a portfolio will most likely see its constituents' equity prices rebound from COVID-19's impact later this year and next.

17. Should I hedge my portfolio?

In our discretionary portfolios, we've been overweight US investment grade bonds (municipal bonds where appropriate) and gold even before news of the Coronavirus. We added further to these assets in tactical allocation when it became clear in February that COVID-19 would not be contained to China. These assets are specifically meant as risk hedges and we will reduce them as the virus impact plays out.

We also recommended hedging with derivatives since late January. With equity implied volatility jumping sharply (generating profits for early hedgers), the cost of hedging over the short-term has now surged. The economics and most favorable tenors for setting hedges have changed.

For investors concerned with downside risks to equity investments, structured notes could potentially hedge against downside risks at certain pre-determined valuation points in return for limits to upside potential. A variety of structures now look particularly appealing, such as those that add equity exposure only at the lowest price points for the period shortly ahead. Hedging certain credit and interest rate exposures may also not be opportune given the sharp drop in interest rates.

18. Which Citi Private Bank "Unstoppable Trends" equity baskets have been most impacted? Do these present buying opportunities?

Firms associated with our "next energy revolution" theme such as battery technology and solar power have been among the global markets' strongest performers this year. Cybersecurity software provider equities have weakened somewhat, as have fintech shares. These don't seem likely to be fundamentally hurt at all by the virus's impact, and will likely present an opportunity in the post-virus recovery phase.

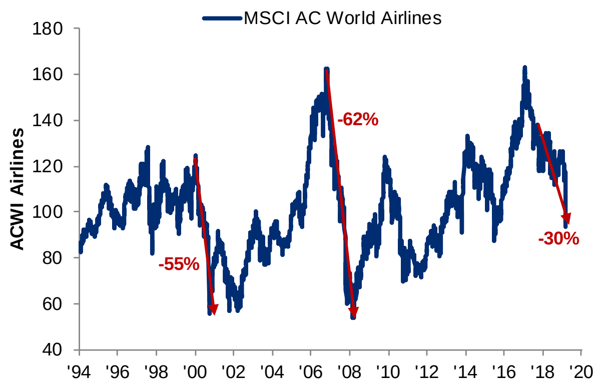
Among our 2019 Unstoppable Trends list, weakness in healthcare shares seems irrational given the industry's lack of economic sensitivity and the even positive demand impact that some firms may see.

Asia is, of course, the region that was first hit by COVID-19. While there are some new short-term risks to regional economies from external demand, it appears that China's economy will hit its nadir in 1Q. China will likely see a particularly large and effective stimulus. After the 2019 trade war impact and the trade deal with the US, it is not hard to understand why Chinese equities have been outperforming. In the event of a pullback in prices, Asia shares can be accumulated.

19. Should we buy the most beaten down, COVID 19-impacted investments now? If later on, when exactly?

Given our view of markets and the impacts of an accelerating pandemic, we would be careful about assuming that equity markets have already bottomed, even if that could be true. With both high quality defensive sectors selling off alongside lower quality virus-exposed industries, we would, for the moment, prefer "quality" over "most rebound potential." Once the extent of the negative impact of the virus is better understood – or if we saw a very large discount to broad markets – we would then look opportunistically at the most impacted industries –**figure 4**

Figure 4: Global Airline Share Composite



Source: FactSet as of March 6, 2020.

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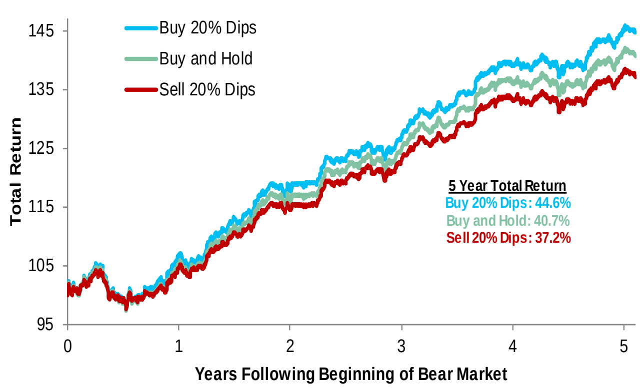
20. Why would we add to equity allocations after a 20% drop when the extent of COVID-19 impact is unknown?

As discussed in our report It Is Better to be a Buyer Tomorrow Than a Seller Today, even when we do not know the full extent of an oncoming shock, 1-, 2- and 5-year forward returns improve systematically after reallocating a greater weight to equities following broad drops in equity prices of 20%– **figure 5**. This insight is based on the experience of US equities over the past 55 years. That includes two of the most adverse periods in market history, including the systemic crisis of 2008-2009 and other far worse periods for the economy than we expect.

Our tactical reduction to the global equities allocations in February was made to recognize the economic shock and the EPS hit we expect. A global pandemic was not part of our base case economic view heading into 2020. If, however, investors are compensated for new risks and uncertainty, we would reallocate more to equities on a medium-term - 12-18 month – view. We would do so even if equities fall further over the short term to some unknown extent.

Despite richly valued bond markets, we did not tell investors to abandon the asset class. Similarly today, despite an ongoing correction, we would argue for a neutral or "full" allocation to equities, buying more for those who have allocations below their long-term targets.

Figure 5: Impact on 5-Year Returns from Buying/Selling after 20% S&P 500 Decline



Source: FactSet as of March 6, 2020.

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[1] According to the US's National Bureau of Economic Research Business Cycle Dating Committee, recession is a "significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales.

Malcolm Spittler, Joe Kaplan, Maya Issa and Joe Fiorica contributed to this report.

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