Goldman Sachs | Personal Financial Management

APRIL 2020

Economic Implications Of A Global Pandemic

By PFM Seattle

Source: 123rf.com

Try to imagine your reaction had someone suggested at the beginning of the year that by the end of March the world would be in the throes of a global pandemic and that the global economy would have come to a sudden halt due in an effort to slow its spread. The ways in which our world has changed are both heartbreaking and astonishing. While the mounting human toll has us in a somber mood, the global response has matched the scale of the challenges we face. Day by day we see individuals, corporations, and policy makers coming together to bring a rapid end to this pandemic, and bring back the global economy at the same time. While it remains early and much remains uncertain, as we work from our homes in and around Seattle, we feel hopeful that the right pieces are slowly falling into place.

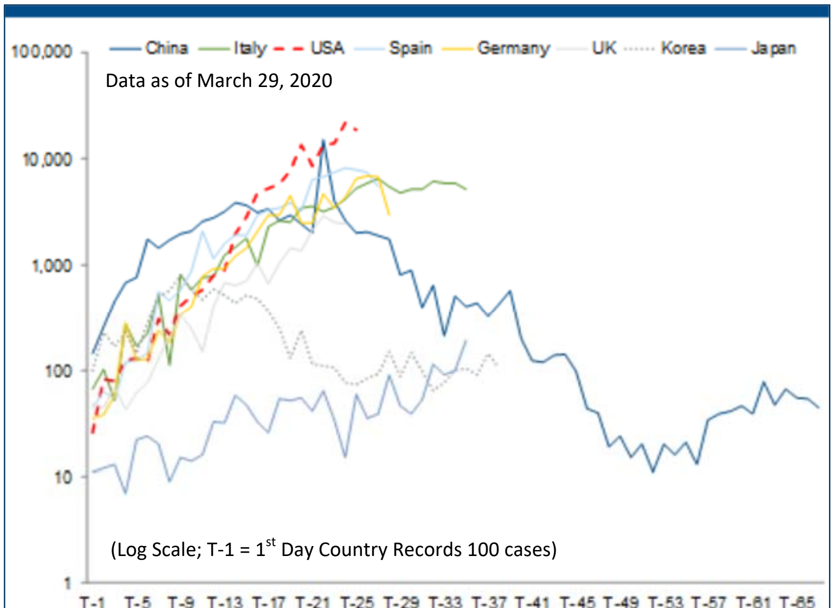
This month we'll review the current state of affairs, the economic base case for the year, and the rapid response we have already seen from lawmakers here in the US. With that foundation, we'll end with a discussion of how equity markets have tended to perform following draw downs such as we have experienced, the rationale for staying invested, and a few general comments regarding how we are managing portfolios through this period of dramatic volatility.

COVID-19, Where Are We Today?

While there are glimmers of hope that we are starting to flatten the curve and thus reduce the burdens on our healthcare system in some regions, the concerns we are facing remain acute, both in the US and globally. The US, as of late March (see Exhibit 1), was one of the countries with the highest rate of new infections. Critically, as we write this, the healthcare system in some regions of the US is being pushed to the limit. According to the CDC, cases stood at 186,101 in the US and deaths at 3,603 as of April 1st.[1] As worrying as the situation is, Professor David Heymann, MD provided some important insights on a March 26th client call. Dr. Heymann confirmed that the measures such as hand washing and maintaining physical distance "will go a long way to modifying the curve of this epidemic." Additionally, he was more optimistic regarding a near term therapy than he was for a vaccine which could be available on a limited scale in the fall of this year. Lastly, looking out to future waves of infections which could appear in the fall, he believes countries will be quick to respond with measures appropriate to minimize future infections.[2]

Thankfully, our own region (the Seattle area claimed 37 of the first 50 victims in the US) appears to be benefiting from strict rules on social distancing, as well as proactive measures from the region's major employers, such as Amazon and Microsoft.[3] According to the New York Times and data provided by Cuebiq, average travel in Seattle declined from 3.8 miles on February 28th to an average of just 61

Exhibit 1: Number of New Covid-19 Cases by Country



Source: Goldman Sachs Investment Strategy Group, National Health Commission of the People's Republic, World Health Organization, Centers for Disease Control and Prevention, *New York Times*, Qun Li et al., "Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus-Infected Pneumonia," The New England Journal of Medicine, January 29. 2020.

feet as of March 27th.[3] Seattle Mayor Jenny Durkan believes that it was local researcher's early evidence that the virus had been circulating for weeks which encouraged policymakers to act more quickly than they would have otherwise. According to the New York Times, the death toll in Washington has been doubling about every eight days compared to every two or three days in other regions.[5] These are encouraging signs in total.

Early Economic Implications From COVID-19

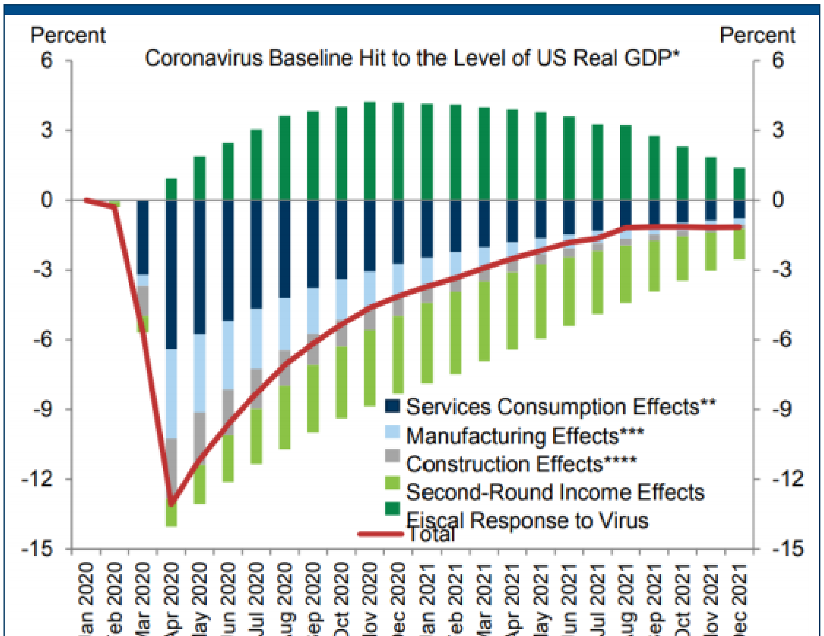
The Federal Government has not formally mandated a stay-at-home order, rather keeping in place guidelines for social distancing through at least April 30th.[6] Instead, most states have now moved to implement stay-at-home orders and directed all non-essential businesses to close.[7] The fallout from business closures has already become evident in the labor market.

For the week of March 15-21, initial jobless claims increased about twelve-fold from the prior week to a now revised 3.31 million.[8] This figure was nearly five times higher than the previous single week high.[9] Just one week later, for March 22-28, that weekly record was broken again by registering 6.65 million initial jobless claims.[10] It is likely that many states experienced application bottlenecks in the prior week, given the initial surge in laid-off or furloughed workers, which compounded the even greater impact of stay-at-home orders in this most recent week. Goldman Sachs Investment Research (GIR) forecasts that jobless claims will remain elevated in the month of April and that ultimately the unemployment rate will increase by nearly 12 percentage points to 15%.[11]

Areas of the economy such as services consumption, manufacturing and construction will all be severely impacted by non-essential business closures. GIR now estimates that the expected level of GDP in April will be 13% below the trend seen in January and February. From there, GIR assumes a gradual recovery in the levels of activity as the rate of infection hopefully begins to slow and the initial impact of the fiscal policy response (more on that later) kicks in. Exhibit 2 shows GIR's baseline US Real GDP projections for April and the ensuing months.

Looking at how these monthly projections translate into quarterly forecasts, GIR now estimates that First Quarter GDP will decrease by -9%, followed by a -34% decline in the Second Quarter. If that projection proves accurate the decline for the Second Quarter would be more than three times greater than the previous quarterly low (First Quarter 1958) since modern GDP statistics began.[12] This implies the base case for the Second Half of 2020 GDP would be a growth rate of just over 15%, according to GIR. Ultimately this would lead to a -6.2% contraction in US GDP for 2020.[13] GIR then forecasts strong GDP growth of 5.5% in 2021 and 3.5% in 2022. Exhibit 3 (one the next page) shows GIR's 2020 and First Half 2021 quarterly GDP trajectory and annual growth forecasts out to 2022.

Exhibit 2: GIR- Baseline Hit to Level of US Real GDP from Coronavirus



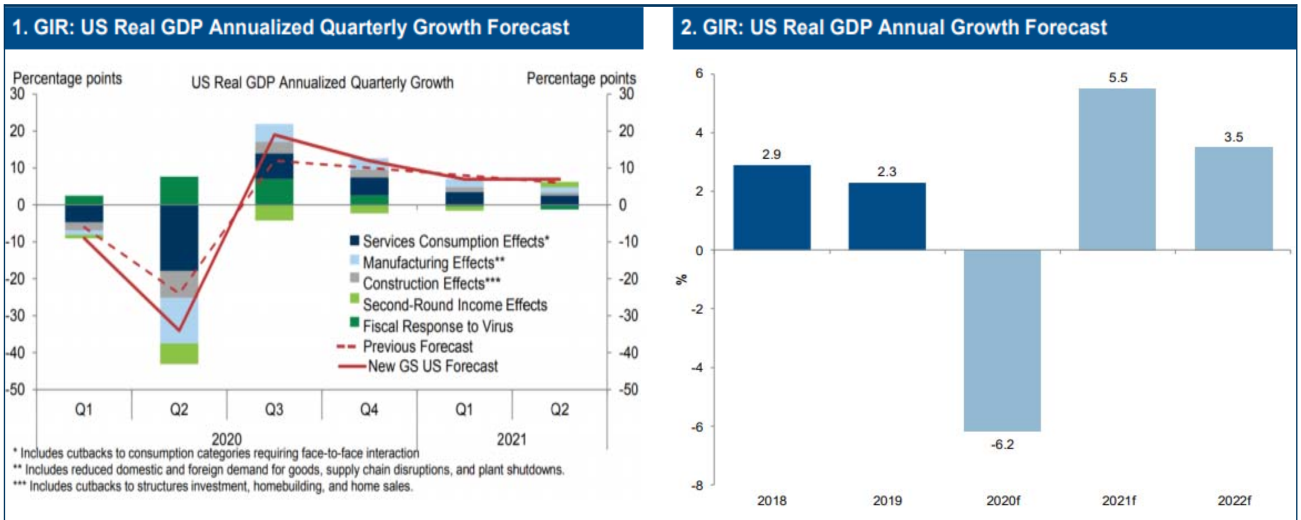
* Relative to a counterfactual of 1.75% potential growth.
** Includes cutbacks to consumption categories requiring face-to-face interaction. We also include the cutbacks to IPP here as well.
*** Includes reduced domestic and foreign demand for goods, supply chain disruptions, and plant shutdowns.
**** Includes cutbacks to structures investment, homebuilding, and home sales.

Source: US Economics Group, "The Sudden Stop: A Deeper Trough, A bigger Rebound," Goldman Sachs Global Investment Research, March 31, 2020.

The Fiscal Response Out Of Washington

What we are witnessing today has never happened before. It is unlike what transpired during the Global Financial Crisis of 2008-2009, but a comparison of these events does serve to juxtapose the pace and magnitude of the domestic fiscal response, which has been unprecedented in terms of speed and size. In contrast to 2008-2009 where it took Congress until March of 2009 to pass the stimulus package which responded to the Global Financial Crisis, Congress has responded on this occasion within weeks. In particular, the $2.3 trillion Coronavirus Aid, Relief, and

Exhibit 3: GIR– US Real GDP Growth Forecasts



Source: US Economics Group, "The Sudden Stop: A Deeper Trough, A bigger Rebound," Goldman Sachs Global Investment Research, 3/31/2020.

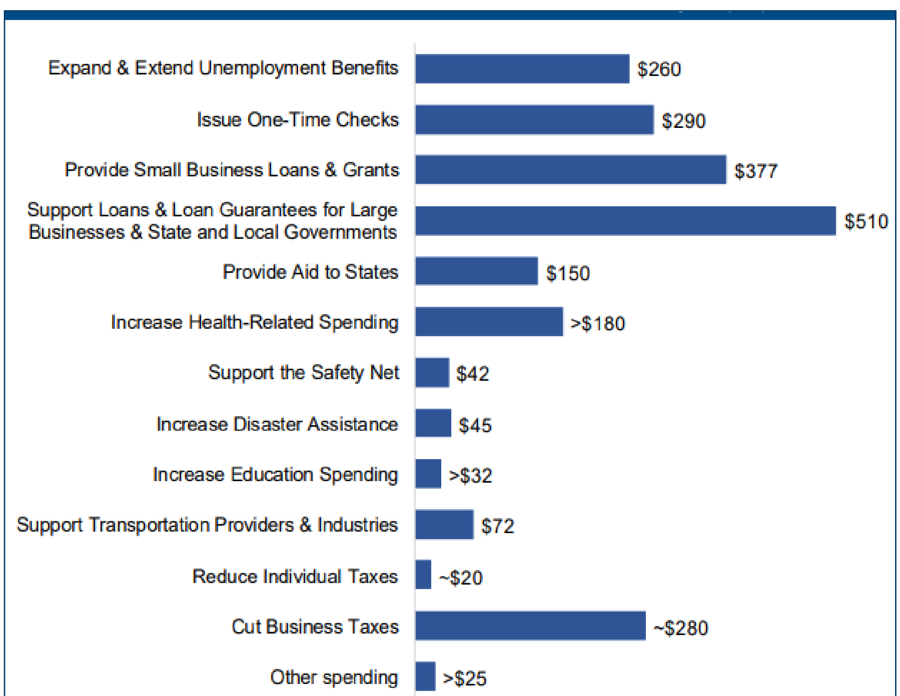
Economic Security (CARES) Act, which was signed into law on March 27th, seeks to directly aid individuals and businesses most affected by the virus. The act does so by expanding unemployment benefits (via duration, eligibility and payment amount), issuing one-time checks, and offering business loans and grants, as well as other components. Exhibit 4 breaks down the different components of the CARES Act.

The magnitude of the package is quite impressive relative to total federal spending, and it is likely not the last fiscal stimulus. Goldman Sachs Investment Strategy Group (ISG) put it this way:

The CARES Act and the prior Phase I bill (Coronavirus Preparedness and Responsible Supplemental Appropriations Act, March 6) and Phase 2 bill (Families First Coronavirus Response Act, March 18) amount to about 11% of US GDP. This package will be concentrated in 2020. These stimulus measures are collectively larger, were introduced faster and are more frontloaded than those seen in response to the financial crisis. Consider that the American Recovery and Reinvestment Act of 2009 was about $800 billion, or 5% of US GDP, and was spread over two years, whereas today's stimulus measures are concentrated in the first year.[14]

While these measures are unlikely to change the short-term outlook for growth, they should reduce the medium-term impact to affected businesses and the labor market, allowing for a faster recovery once the mitigation measures are eased. According to Alec Philips, US Political Economist at Goldman Sachs Global Investment Research, there will likely be one or two more bills in the next few months which could total another several hundred billion dollars.[15] Exhibit 5 (on the next page) details stimulus totals compared to other fiscal spending measures.

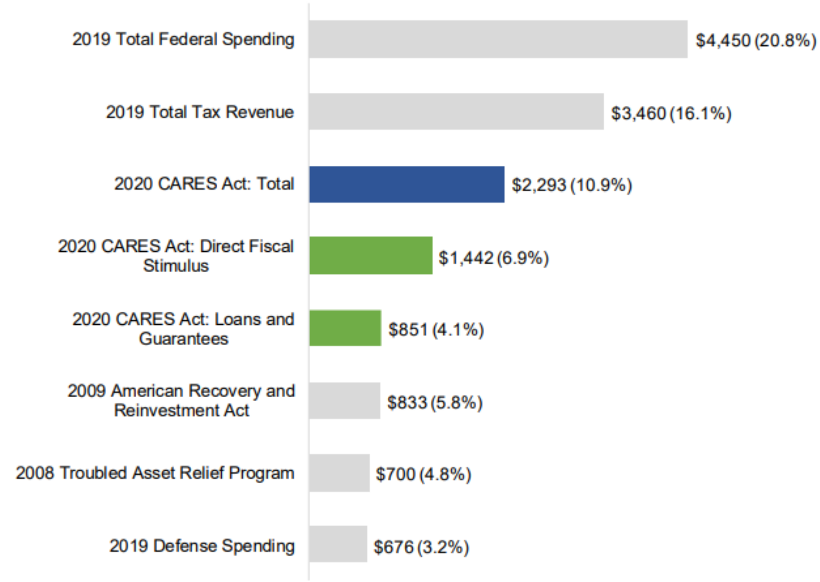
Exhibit 4: Overview of Coronavirus Aid, Relief & Economic Security Act ($bn)



Source: Investment Strategy Group, Committee for Responsible Federal Budget, Bill Text.

Lastly, and importantly, while

Exhibit 5: Relative Size ($bn) & Percent of US GDP*

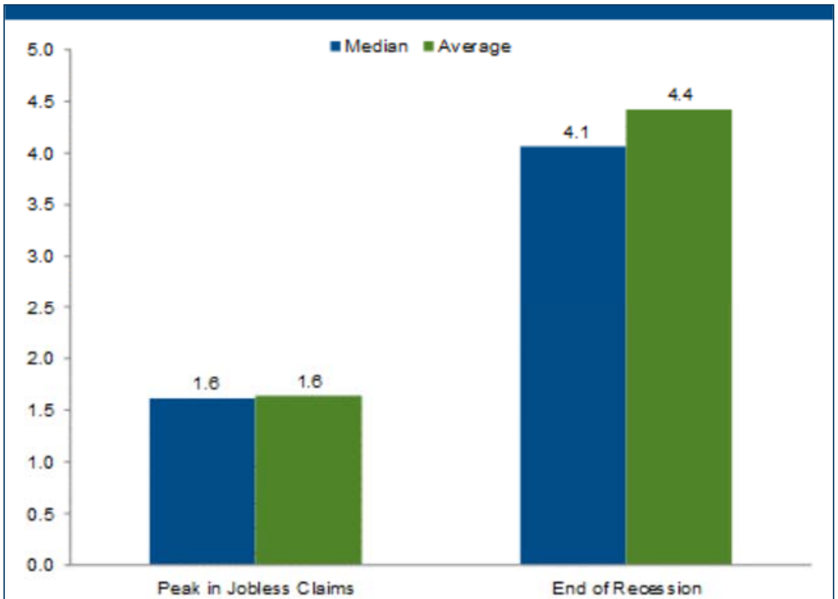


*Nominal GDP: $20,0945.3bn (2020 estimated), $21,427.1bn (2019), $14,448.9bn (2009), $14,712.8 (2008)
Source: Investment Strategy Group; Committee for a Responsible Federal Budget; CBO, Washington Post, IMF, Goldman Sachs Global Investment Research.

this stimulus is very large and will result in significant deficits, ISG does not believe that the CARES Act will jeopardize the safe haven and reserve currency status of US assets. In total, these rapid efforts are an important positive towards stabilizing markets.

What Are The Investment Implications From Here?
It is too early to know the full extent of the sudden halt to the US economy brought on by COVID-19 and the need for social distancing to slow its spread.

Exhibit 6: Number of Months That US Stocks Bottom Before Peak in Jobless Claims & End of Recessions



Source: Investment Strategy Group, Bloomberg, NBER

What seems likely is a relatively strong resumption of economic activity in the second half of 2020 and into 2021. ISG sees that economic recovery, coupled with the removal of election uncertainty, likely to leave the market higher by the end of 2020. ISG's base case sees the S&P 500 ending the year around 3000.[16]

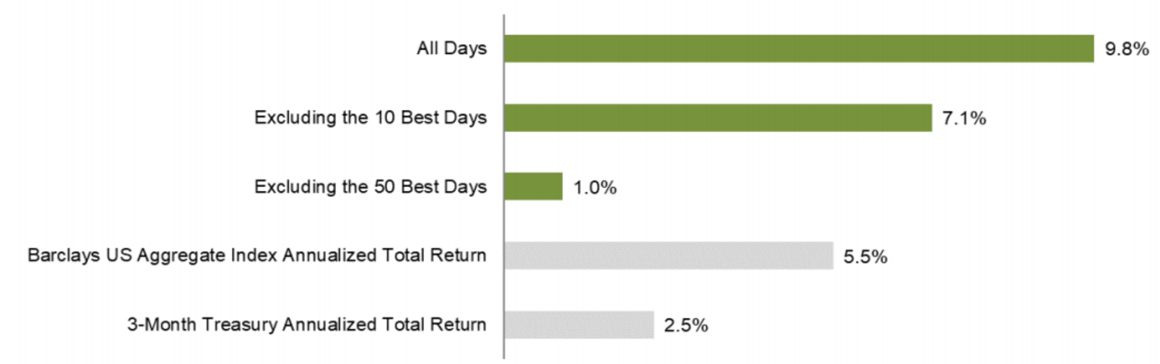
History has shown that stocks generally tend to move lower in anticipation of weaker growth and typically reach their nadir well before economic data begins to improve. As illustrated in Exhibit 6, "equities have bottomed about 2 months before the peak in jobless claims and about 4 months prior to the end of post-WWII recessions."[17] ISG has stated its expectation that this is likely to be a short-lived recession with a relatively rapid peak in jobless claims. Equity markets are forward-looking in nature and with that in mind, we would tend to agree with the assertion of our colleagues now is the time to increase (or at least maintain) exposure to equities.

Further, the risk of trying to time the market, or catch the bottom, can be costly. Exhibit 7 (on the next page) shows what returns on the S&P 500 look like going back to the beginning of 1992 through the end of 2019, when including all trading days, excluding the 10 best performing days and excluding the 50 best performing days. What becomes abundantly clear under this framework is that missing the best days of performance is significantly detrimental to long term results. If an investor missed the best 50 days (less than 1% of all trading days), nearly all total return was lost.

The rear-view mirror is always clear, but we are not market timers here in Seattle and have never managed our investment strategies with a market timing framework. In hindsight, having a more defensive posture beginning several weeks ago would have been prescient. However the speed with which the S&P 500 experienced a 34% drawdown from all-time highs, which marks as the 5th steepest drawdown in the post-WWII period,[18] was not predictable. There is no crystal ball and ISG echoes this notion by saying, "no market participant can predict the

Exhibit 7: Historical Consequences of Market Timing

S&P 500 Annualized Total Return: January 1, 1992 to December 31, 2019[1]



If you had invested $1 on January 1, 1992, and held the position until December 31, 2019....

Value of $1		Percent of Total Days		Percent of Total Return Contributed	
Invested for All Days:	$13.66	All Days:	100.0%	All Days:	100%
Missed the 10 Best Days:	$6.82	Best 10 Days:	0.1%	Best 10 Days:	54%
Missed the 50 Best Days:	$1.31	Best 50 Days:	0.7%	Best 50 Days:	98%

[1]Excluded days assume a 0% return. "Total Days" refers to open-market days.
Source: Portfolio Advisory Group, Bloomberg.

top or bottom in any market with consistency."[19] At this stage we, along with our ISG colleagues, try to assess the most likely outcome, which is that the COVID-19 pandemic will eventually dissipate and the ability to withstand the current volatility is likely to eventually reward long-term investors.

Conclusion

This global pandemic has dramatically altered how most of us operate, at least in the near term. One thing it has not changed is our objective to serve clients to the best of our ability. Here in Seattle we have been working from home already for several weeks and about 98% of our Goldman Sachs colleagues around the world are working from home as well.[20] Thanks to the technology provided within United Capital and all of Goldman Sachs, our work flow goes on uninterrupted. This means that we can communicate with you, our valued clients, via phone, email and even video conferencing. Your access to us has not changed (though our work from home wardrobes may have) and we've attempted to be proactive in communications with you and will remain vigilant on that front. You'll continue to receive communications from our local Seattle office, where we still manage your portfolios in the same fashion we always have, as well as from our newly expanded resources from peers and colleagues within Goldman Sachs. The people and shared objective of serving clients is what makes Goldman Sachs a world-class working environment.

There are no perfect answers at this time and this pandemic and corresponding market correction is truly full of uncertainty. We touched upon unknown unknowns briefly at the start of the year and this definitely qualifies as one. We reiterate our view and that of ISG that the odds are likely tilted towards rewarding long-term investors that can withstand the current volatility in capital markets. To that end, we encourage you to contact us with any questions or concerns about your own financial situation. At this time of elevated uncertainty it may be helpful to review your aversion to further losses, portfolio allocations and overall financial plans prior to making any significant changes. In the meantime, stay at home if you can, and stay safe and healthy.

MARKET STATS

S&P 500	DOW JONES	10 YR T-BOND
2585	21917	0.70%
As of 3/31/2020		Source: Bloomberg

Footnotes:

[1] https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html#cumulative
[2] "Light at the End of the Tunnel or an Oncoming Train?" Goldman Sachs Investment Strategy Group Sunday Night Insight, 3.29.20
[3] https://www.nytimes.com/2020/03/29/us/seattle-washington-state-coronavirus-transmission-rate.html?searchResultPosition=1
[4] https://www.nytimes.com/interactive/2020/04/02/us/coronavirus-social-distancing.html?action=click&module=Top%20Stories &pgtype=Homepage
[5] https://www.nytimes.com/2020/03/29/us/seattle-washington-state-coronavirus-transmission-rate.html?searchResultPosition=1
[6] https://www.nytimes.com/2020/03/29/world/coronavirus-live-news-updates.html
[7] https://www.cnbc.com/2020/04/01/florida-gov-ron-desantis-issues-stay-at-home-order-amid-coronavirus-outbreak.html
[8] https://www.dol.gov/ui/data.pdf?mod=article_inline
[9] "The Sudden Stop: A Deeper Trough, A Bigger Rebound," Goldman Sachs Economic Research, US Equity Analyst, 03.31.20
[10] https://www.dol.gov/ui/data.pdf?mod=article_inline
[11] "The Sudden Stop: A Deeper Trough, A Bigger Rebound," Goldman Sachs Economic Research, US Equity Analyst, 03.31.20
[12] "The Sudden Stop: A Deeper Trough, A Bigger Rebound," Goldman Sachs Economic Research, US Equity Analyst, 03.31.20
[13] "The Sudden Stop: A Deeper Trough, A Bigger Rebound," Goldman Sachs Economic Research, US Equity Analyst, 03.31.20
[14] "Light at the End of the Tunnel or an Oncoming Train?" Goldman Sachs Investment Strategy Group Sunday Night Insight, 3.29.20
[15] The US Coronavirus Aid, Relief, and Economic Security Act & the Economic and Investment Implications Conference Call (Seventh in a Series), Goldman Sachs Investment Strategy Group, 3.31.20 Goldman Sachs Investment Strategy Group, SARS-CoV-2 and the Economic, Investment and Political Implications, 03.09.20
[16] "Light at the End of the Tunnel or an Oncoming Train?" Goldman Sachs Investment Strategy Group Sunday Night Insight, 3.29.20
[17] "Light at the End of the Tunnel or an Oncoming Train?" Goldman Sachs Investment Strategy Group Sunday Night Insight, 3.29.20
[18] "Light at the End of the Tunnel or an Oncoming Train?" Goldman Sachs Investment Strategy Group Sunday Night Insight, 3.29.20
[19] "Light at the End of the Tunnel or an Oncoming Train?" Goldman Sachs Investment Strategy Group Sunday Night Insight, 3.29.20
[20] GS PFM All-Hands Call, Commentary from Tucker York, PWM Global Management, 04.01.2020

SEATTLE OFFICE

1420 Fifth Ave
Suite 3020
Seattle, WA 98101

206-583-8300

PFM.Seattle@GS.com
goldmanpfm.com/seattle