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COVID-19 Pandemic Scenario: Known Unknowns

Introduction

The coronavirus is an existential threat to the record-long global economic expansion. The Centers for Disease Control and Prevention says it is likely that COVID-19 will become a global pandemic. If the CDC's warning comes to pass, then recession will be difficult to avoid.

COVID-19 Pandemic Scenario: Known Unknowns

BY MARK ZANDI

The coronavirus is an existential threat to the record-long global economic expansion. The Centers for Disease Control and Prevention says it is likely that COVID-19 will become a global pandemic. If the CDC's warning comes to pass, then recession will be difficult to avoid.

This is also the assessment of global investors, who have dumped stocks in recent days as they vastly mark up the probability of a downturn. The downdraft in stocks—as much as 12.5% from the record peak just a couple of weeks ago—has wiped out an astounding over $4 trillion in stockholder wealth (see Chart 1). For context, this is about one-fifth of annual U.S. GDP. Credit spreads in the bond market have also sharply widened, signaling heightened investor angst.

Global central banks are responding to the crisis by cutting rates. Before the U.S. stock market closed its historically bad week February 28, Federal Reserve Chairman Jerome Powell issued a statement all but saying that the Fed would soon lower interest rates. Sure enough, on March 3, the Fed implemented an emergency 50-basis point rate cut—the first since the 2008 financial crisis.

Cutting rates is the appropriate response, but the Fed's emergency cut had the unintended effect of spooking investors. Stock prices fell sharply. Investors probably figured that if the Fed felt compelled to such a dramatic action, then the economy was even more at risk than they had thought. Investors may also be wondering how much more room the Fed has to maneuver. The federal funds rate—the rate the Fed directly controls—is now hovering just over 1%.

Given this increasingly problematic backdrop, and the significant uncertainties regarding the path of COVID-19, it is prudent to consider various scenarios. The most likely (our baseline scenario) continues to be that, while the global expansion will be much diminished by the virus, the expansion will remain intact. But odds are uncomfortably high and rising that the global economy will suffer a downturn. Which scenario unfolds depends most critically on how widespread and virulent the pandemic becomes, whether businesses and consumers are able to keep their wits, and the monetary and fiscal policy response.

Direct hit

China's experience with COVID-19 is a case study of what a direct hit by the pandemic means for an economy. Travel, tourism and trade will be significantly disrupted, if not shut down. Global airlines and hotel chains are already grappling with cancellations. Workers will not be able to get to their jobs if they are sick or quarantined, and if schools and day care centers close, parents will have to stay home with their children and work fewer hours.

Without workers, businesses will produce less, and workers who are not working will buy less. It adds up to lower profits, or even losses. And that is what has stock investors particularly nervous. Most businesses will have little choice but to be more cautious and hold the line on investments and hiring. The hardest-hit will have no choice but to lay off workers.

China's travails also suggest that economic recovery from the virus will prove difficult. More than two months after the virus came on the scene in China, the country's economy shows only tentative signs of reviving. We estimate that, to date, the virus has reduced Chinese GDP by 1.3 percentage points (5.2% annualized in the first quarter), and the economic damage continues to quickly mount (see Chart 2). Real-time indicators of the

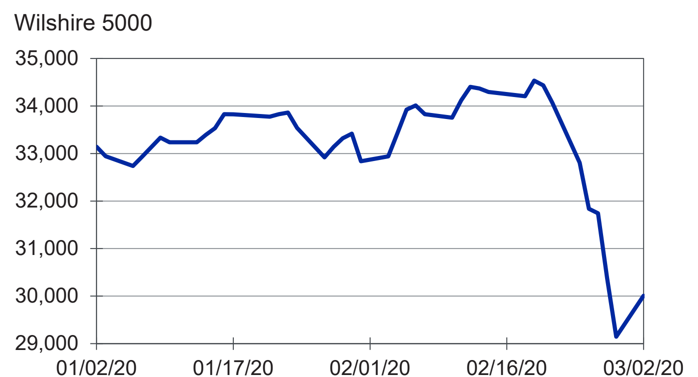
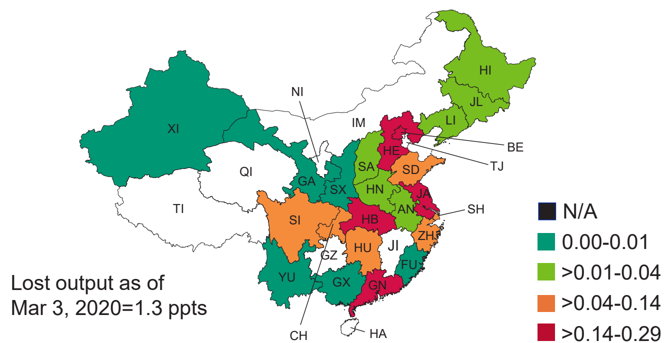


Chart 2: Chinese Body Blow

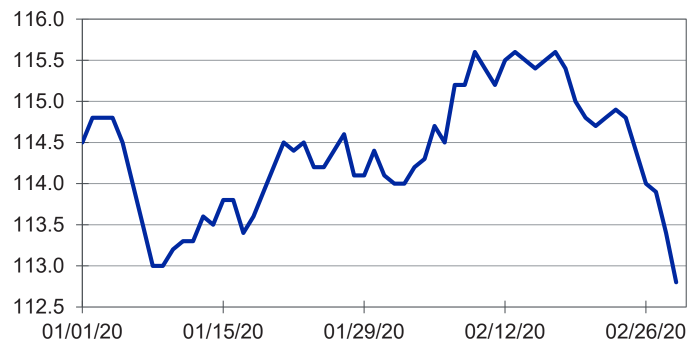
Cumulative lost output, % of Chinese GDP



Source: Moody's Analytics

Chart 3: American Consumers Get Anxious

Morning Consult's Index of Consumer Sentiment



Sources: Morning Consult, Moody's Analytics

economy's performance—such as coal consumption at Chinese utilities, property transaction volumes, and passenger volumes—remain moribund as of early March.

This is despite a strong desire by Chinese authorities to get the economy back up and running and may suggest the virus is more widespread and debilitating than thought. It also indicates how difficult it is to restart a complex economy after it goes off line.

Collective psyche

Magnifying the economic impact of the virus, and making it more difficult to gauge, is what it will do to the collective psyche. It does not augur well that global businesses were already skittish before COVID-19 hit. The trade war between the U.S. and China has been especially disconcerting for businesses. In the U.S., it has pushed the manufacturing, agriculture and transportation industries into recession. President Trump called a partial truce with the Chinese late last year, just in time to avoid a full-blown downturn, but businesses remain on edge. They understandably figure the president will double down on his trade war if re-elected. The trade war put the economy on its heels, and it would not take much of a push to put it flat on its back. COVID-19 looks more like a full body blow.

The American consumer is the firewall between continued global economic growth and a recession. Unlike businesses, consumers had been feeling pretty good. Buoyed by low unemployment and, until now, surging stock prices, consumers were upbeat as shown in all of the surveys. However, perceptions can rapidly turn, perhaps more quickly now than ever before. Members of the huge baby boom generation are far and away the largest owners of stocks, with well over half of all stockholdings. Baby boomers in their 50s and 60s hold stocks that make up the bulk of their retirement nest eggs. When stock prices are up, they feel great. But if stock prices stay down after the current slide, and that nest egg shrinks, you can imagine how they will feel and act. Indeed, consumer sentiment appears to be slipping and cracks in the firewall are forming (see Chart 3).

Policy stimulus

Whether the global economy suffers a recession will depend in significant part on how deft policymakers are in responding to the crisis. The Fed and other global central banks appear to be all in on fighting the economic fallout from the crisis. Like the Fed, Asian central banks have already begun cutting rates.

Much more monetary easing is coming, although most global central banks are constrained by the already exceptionally low global interest rates. European and Japanese interest rates are already firmly negative, and rates in much of the rest of the developed world are not far from zero. Even U.S. long-term Treasury rates are not immune from turning negative. Ten-year U.S. Treasury yields have fallen to a record less than 1%. With rates this low, quantitative easing—Fed purchases of bonds to lower longer-term rates—makes little sense. Emerging market central banks have more room to lower rates, and given that their currencies have remained stable so far in this crisis, they have some latitude to ease policy.

However, to avoid a downturn, the global economy will likely need timely help from fiscal policymakers. Asian governments have turned aggressive in their fiscal response, with various tax cuts and increased spending occurring in China, Hong Kong, India, Singapore and Thailand. Elsewhere, the fiscal policy response has been more muted, at least so far. The problem in Europe is a lack of fiscal space given already-high government debt loads, with the exception of Germany. But German politics and laws around using discretionary fiscal policy are vexed.

In the U.S., the Trump administration and Congress could get together and pass legislation to provide fiscal stimulus to the economy. An effective stimulus package might include at the very least a payroll tax holiday and expanded SNAP (food stamps) and unemployment insurance benefits. Such stimulus was provided in the midst of the financial crisis when the Obama administration won just enough Republican support in the Senate to pass a recovery act. That worked, and the recession ended a few months after the stimulus was implemented.

However, given the highly charged partisan environment in the lead-up to the presidential election, it is hard to imagine Trump, who keeps hammering congressional Democrats over their criticism of his handling of the administration's response to the virus, striking any such deal—at least not any time soon.

Global Pandemic scenario

Under our alternative Global Pandemic scenario, we expect that there are ultimately millions of infections across the globe, including in Europe and the U.S. COVID-19's mortality rate is assumed to be 2%-3%, consistent with the experience so far, and a similar percentage of those infected become so sick they need some form of hospitalization. The peak of the pandemic is assumed to occur in March and April, winding down quickly by this summer, with a vaccine in place before next winter.

Once the pandemic becomes significant in a country, that economy shuts down much as has happened in China. Businesses are disrupted, and many schools and day care centers are closed, making it difficult for parents to get to work. International travel and trade are impaired. Stock prices decline, consistent with declines suffered on average in past recessions. In the U.S., there is an approximately 20% decline in stock values, resulting in over $7 trillion in lost wealth.

The Fed and other global central banks slash interest rates in response. The Fed pushes short-term rates to the zero lower bound, and 10-year Treasury yields flirt with going negative. Asian and other emerging market central banks also lower rates further, but generally do not push them to the zero lower bound, since doing so would put too much pressure on their currencies.

Most governments have so-called automatic stabilizers in their budgets—countercyclical tax and government spending policies designed to provide support to their economies in tough times. These stabilizers are helpful in cushioning the economic blow of the virus in the pandemic scenario. The scenario also assumes there is some additional discretionary fiscal stimulus, particularly in Asia, but not in the U.S. and Europe, where the politics are assumed to be too difficult to overcome to pass legislation in time to do any good.

Under the pandemic scenario, the global economy suffers a recession during the first three quarters of 2020. Real GDP decreases by almost 2 percentage points peak to trough and declines for 2020 (see Table 1). Economic activity slumps across the globe, but the most severe declines occur in Latin America, as the region's economy is hit badly by the slump in global commodity prices expected in this scenario and the lack of an effective monetary and fiscal policy response.

Table 1: Global Real GDP Growth Under Different Baseline and Pandemic Scenarios

% change

		2020Q1	2020Q2	2020Q3	2020Q4	2019	2020
World	Jan baseline	2.7	2.9	2.7	2.6	2.5	2.6
	Feb baseline	1.4	3.6	3.1	2.6	2.5	2.4
	Mar prelim baseline	1.0	2.2	3.6	2.7	2.4	2.0
	Pandemic	-1.0	-3.5	-0.9	1.4	2.4	-0.1
U.S.	Jan baseline	1.5	2.2	1.5	1.2	2.3	1.8
	Feb baseline	1.2	1.8	1.8	1.4	2.3	1.7
	Mar prelim baseline	1.0	0.8	1.8	2.1	2.3	1.5
	Pandemic	-0.8	-2.9	-2.0	-0.2	2.3	-0.2
China	Jan baseline	7.2	6.6	5.5	5.8	6.1	6.2
	Feb baseline	-0.2	11.5	8.2	5.8	6.1	5.4
	Mar prelim baseline	-0.8	5.2	11.5	5.8	6.1	4.5
	Pandemic	-1.8	-8.7	0.0	6.4	6.1	0.1
Brazil	Jan baseline	2.0	2.4	2.5	2.6	1.1	2.2
	Feb baseline	2.0	2.4	2.5	2.6	1.1	2.2
	Mar prelim baseline	1.6	2.0	2.5	2.6	1.1	2.0
	Pandemic	-6.1	-6.8	-1.6	1.6	1.1	-2.2
U.K.	Jan baseline	1.2	1.1	1.1	1.1	1.3	1.0
	Feb baseline	1.1	1.3	1.1	1.1	1.3	1.0
	Mar prelim baseline	0.7	0.9	1.2	1.0	1.4	0.8
	Pandemic	0.7	-0.8	-0.2	0.3	1.3	0.3
Euro zone	Jan baseline	1.4	1.5	1.8	1.4	1.2	1.3
	Feb baseline	1.7	1.6	1.7	1.4	1.2	1.3
	Mar prelim baseline	1.1	1.2	1.3	1.3	1.2	1.0
	Pandemic	-0.5	-1.3	-0.1	0.8	1.2	-0.1

Source: Moody's Analytics

The U.S. economy contracts in all four quarters of 2020 in the pandemic scenario, with real GDP falling by approximately 1.5 percentage points peak to trough and the unemployment rate rising by 175 basis points. The struggling manufacturing, transportation, agriculture and energy industries are hit hard, but so too are the travel and tourism industries and the construction trades. However, there are significant layoffs across nearly all industries, with healthcare and government being the notable exceptions.

Handicapping the path of COVID-19 and its economic fallout is all but impossible. There are too many known unknowns and plenty of unknown unknowns. This caveat aside, we attach a 35% probability to this downside Global Pandemic scenario or something even more severe. The baseline scenario, in which the global economy slows significantly during the first quarter of this year but does not suffer an outright recession, has a 50% probability. This leaves a 15% probability for a scenario that is meaningfully more positive than the baseline.

COVID-19 is an especially pernicious danger to the global economy. Not only is it a personal health threat, which is unnerving, but it is both a supply and demand shock to the economy. It is a hit to the economy's productive capability and to the ability and willingness of consumers and businesses to spend and invest. The policy response is also complicated by the already-low interest rates and high government debt loads across the globe. The global economy will navigate this storm. But it is prudent to buckle in; there is turbulence ahead.

About the Author

Mark Zandi is chief economist of Moody's Analytics, where he directs economic research. Moody's Analytics, a subsidiary of Moody's Corp., is a leading provider of economic research, data and analytical tools. Dr. Zandi is a cofounder of Economy.com, which Moody's purchased in 2005.

Dr. Zandi's broad research interests encompass macroeconomics, financial markets and public policy. His recent research has focused on mortgage finance reform and the determinants of mortgage foreclosure and personal bankruptcy. He has analyzed the economic impact of various tax and government spending policies and assessed the appropriate monetary policy response to bubbles in asset markets.

A trusted adviser to policymakers and an influential source of economic analysis for businesses, journalists and the public, Dr. Zandi frequently testifies before Congress on topics including the economic outlook, the nation's daunting fiscal challenges, the merits of fiscal stimulus, financial regulatory reform, and foreclosure mitigation.

Dr. Zandi conducts regular briefings on the economy for corporate boards, trade associations and policymakers at all levels. He is on the board of directors of MGIC, the nation's largest private mortgage insurance company, and The Reinvestment Fund, a large CDFI that makes investments in disadvantaged neighborhoods. He is often quoted in national and global publications and interviewed by major news media outlets, and is a frequent guest on CNBC, NPR, Meet the Press, CNN, and various other national networks and news programs.

Dr. Zandi is the author of *Paying the Price: Ending the Great Recession and Beginning a New American Century*, which provides an assessment of the monetary and fiscal policy response to the Great Recession. His other book, *Financial Shock: A 360º Look at the Subprime Mortgage Implosion, and How to Avoid the Next Financial Crisis*, is described by The New York Times as the "clearest guide" to the financial crisis.

Dr. Zandi earned his BS from the Wharton School at the University of Pennsylvania and his PhD at the University of Pennsylvania. He lives with his wife and three children in the suburbs of Philadelphia.

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