

Monetary and Fiscal Policies in the COVID-19 Crisis. Will They Work?

Daniel Lacalle

Professor Global Macroeconomics, IE Business School; dlacalle@gmail.com

Submitted: 20 April 2020, accepted: 22 April 2020, published: 20 June 2020

Abstract: The spread and mortality rate of the COVID-19 virus has created enormous strains on global healthcare systems and driven governments to take extreme measures to contain the virus, including the lock down of most citizens and shutting down most economic sectors. Due to these unique challenges and coming from an economy that was weak already in 2018 and 2019, the world faces a global crisis of unprecedented impact and high uncertainty about the recovery process. In this paper, we analyze how the world economy is addressing the COVID-19 pandemic. We start with the situation of the main economic regions at the end of last year to understand the tools available to fight against what could be the worst crisis since World War II, according to the IMF¹. Moreover, we review the estimated economic impact of COVID-19, as well as the expected recovery and its time frame. Additionally, we reflect on the fiscal and monetary measures adopted by different countries, especially G7 economies, to tackle the crisis. Finally, we discuss the optimal policies to overcome the situation and advance towards economic recovery and the stabilization of public finances. This crisis is a supply shock added to a forced shutdown of the economy. As such, traditional tools to boost credit demand and usual demand-side policies alone are likely to generate little positive effect, as any aggregate demand that may be incentivized will not likely be followed by aggregate supply. A combination of demand-side and supply-side measures may prove to be more effective to boost the recovery after the pandemic.

Keywords: aggregate demand; aggregate supply; COVID-19; coronavirus; fiscal policy; monetary stimulus; central banks; government; crisis; recovery; demand-side; supply-side

JEL Classification: E52; E58; H68; H25; H30; H51

How to cite: Daniel Lacalle. Monetary and Fiscal Policies in the COVID-19 Crisis. Will They Work?. *J. Bus. Account. Financ. Perspect.*, 2020, 2(3): 18; doi:10.35995/jbafp2030018.

© 2020 Copyright by the authors. Licensed as an open access article using a CC BY 4.0 license.



¹International Monetary Fund, World Economic Outlook, April 2020: Chapter 1. April 2020. Retrieved from https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020.

Introduction

The world may face the deepest economic decline since World War II due to the impact of COVID-19 and the shutdown of the economy.

According to the "Our World In Data" coronavirus database, at the end of April 2020 there were 16.1 confirmed deaths per million citizens in the world².

It is useful to look at our history to put in perspective this pandemic. According to Golier et al., the COVID-19 crisis has no equivalent in modern history, neither in its intensity nor in its treatment. The Spanish flu killed between 50 and 100 million people between 1918 and 1920, but the conditions at the time did not lead to a containment strategy at the state level. Asian influenza (H2N2) is estimated to have killed 2 million people between 1956 and 1958, in a context where the international surveillance network was still poorly developed. COVID-19 appears to have a spread rate and mortality rate much higher than that of influenza. In the 'laissez-faire' policy invoked at one time in the UK and the Netherlands, for example, some epidemiologists referred to a scenario involving the contamination of 70% of the population and a mortality rate of 2% among those contaminated, implying a death rate of 1.4% of the population. For France, this would result in an excess mortality of almost 1 million people (Gollier and Straub, 2020).

No one doubts the importance of COVID-19 as the main driver of the crisis, but we also cannot ignore that the global economy was showing important signals of weakness in 2018 and 2019, as global debt reached a record level amidst subdued levels of output growth and gross capital formation.

In February, the consensus between large investment banks and supranational entities was that there would be a one-time hit on GDP in the first quarter from the coronavirus impact, followed by a stronger, V-shaped recovery³. The International Monetary Fund (IMF) expected a modest correction of global GDP of 0.1%, and the largest cut on estimates for 2020 growth was $0.4\%^4$ (IMF, 2020).

In April 2020, global growth revisions included a slash of estimates for the first and second quarters and a very modest recovery in the third and fourth. JP Morgan expected the eurozone to enter into a deep recession in the first two quarters of 2020, followed by a very poor recovery that would still leave the full-year 2020 estimates in deep contraction, and complete output recovery would not happen until 2022⁵. The International Monetary Fund estimates that the global economy would contract sharply by -3 percent in 2020, much worse than during the 2008–2009 financial crisis⁶. This, unfortunately, looks like just the beginning of a downgrade cycle that adds to an already slowing economy in 2019 and estimates for a rapid recovery based on a strong response from policymakers may prove to be optimistic, as we will explain later.

The decision to shut down air travel and close all non-essential businesses is now a reality in major global economies. Depending on the effectiveness of containment measures, as well as fiscal and monetary policies all over the world, deaths caused by COVID-19 during 2020 can reach more than 15 million people globally and the economic impact could range between -0.2 percentage points and -8.4 percentage points (p.p.) in the Eurozone, -0.1 and -8.4 in the United States of America, and -0.4 p.p. and -6.2 p.p. in China, respectively (McKibbin and Fernando, 2020).

Currently, there is no certainty about how to return to normal, and that is one of the key points to reach a clear measure of the final impact of COVID-19 on the global economy. Studies have demonstrated that without containment measures, "the COVID-19 cases would be 64.81% higher in the 347 Chinese cities outside Hubei province, and 52.64% higher in the 16 non-Wuhan cities inside Hubei" (Fang et al., 2020), and we also found evidence that

²Max Roser, Hannah Ritchie and Esteban Ortiz-Ospina. Coronavirus Disease (COVID-19)—Statistics and Research. Retrieved from https://ourworldindata.org/grapher/total-daily-covid-deaths-per-million.

³Bank of America fund managers' poll of growth estimates in February 2020 as reported by Bloomberg. Source: https://www.bloomberg.com/news/articles/2020-02-18/growth-outlook-slashed-on-virus-woes-in-bofa-fund-manager-poll.

⁴International Monetry Fund. World Economic Outlook, Tentative Stabilization, Sluggish Recovery. Retrieved from https://www.imf.org/en/Publications/WEO/Issues/2020/01/20/weo-update-january2020.

⁵J.P. Morgan growth estimates retrieved from CNBC https://www.cnbc.com/2020/04/09/jpmorgan-now-sees-economy-contracting-by-40percent-and-unemployment-reaching-20percent.html.

⁶IMF. World Economic Outlook, April 2020: Chapter 1, April 2020.

shows the importance of communicating the expectations about the duration of social isolation measures to maximize the public's intention to comply (Briscese et al., 2020). This is why both politicians and scientists must find a way to balance public health and the preservation of the business fabric to ensure a solid recovery.

Markets have rapidly repriced given the deterioration in the outlook. Indeed, the sell-off is not remarkable in its magnitude but it is in terms of speed. Market returns in the US fell 25% between 17 January and 3 April 2020, and this was not the worst impact. In countries such as Germany, the United Kingdom or Italy, the slump in equity markets reached -30% (JP Morgan, 2020). Global stock markets lost USD 16 trillion in less than a month, according to CBS News⁷.

The concerns about financial markets have triggered important defense actions, such as an increase in cash reserves from institutional investors, margin calls that force highly leveraged financial firms (such as real estate investment funds) to sell liquid assets, and significant volatility in government bond markets that slide towards safe-haven assets (Martin, 2020), which could be a reflection of the poor market sentiment regarding the medium term.

This is an important factor because the capital loss in markets added to the forced shutdown may cause significant challenges in the following years, as global businesses will focus their attention on repairing balance sheets.

We also see some defense movements in other markets, such as an increase in cash reserves from institutional investors, margin calls that force highly leveraged financial firms (such as real estate investment funds) to sell liquid assets, and significant ups and downs in government bond markets that slide towards safe-haven assets (Martin, 2020), which could be a reflection of the poor market sentiment regarding the medium term.

The Starting Point across Economic Areas Was Poor

Before analyzing the different policies taken to tackle COVID-19, it is convenient to consider the starting point of the different major economies. The world economy, the United States and China have been on a steady growth trend since 2010. The Eurozone, over and above, suffered a second crisis during 2011 and 2012, and countries such as Spain or Italy, which are also the most affected by COVID-19, did not show growth until 2013.

During 2019, the evidence of a global slowdown was clear in the major economies, with different situations across regions:

China reported its weakest annual growth in 29 years, 6.1% annual rate, in 2019, with significant expansive fiscal and monetary policies helping the main macroeconomic figures. Forecasts already showed a year-over-year growth to decline from +6% in Q4 2019 to -3.8 2020 Q1 (Lyu and Nie, 2020). Advanced and short-term indicators showed weaker growth ahead, with some important indicators, such as manufacturing and service sector PMIs (Purchase Manager's Index) from consulting firm IHS Markit pointing close to contraction before COVID-19 appeared (51.1 and 51.8, respectively, in January 2020, where 50 indicates contraction⁸). In fact, State Grid China, the largest utility in the country, warned that China GDP was at risk of slipping to 4% in 2024^9 (Financial Times, 15 January 2020), a signal of the possible structural weakness of the economy.

A key to understanding why further expansionary demand-side measures may not be effective is to monitor the past.

Fiscal measures were already expansionary. The Chinese government deficit was 4.2% of GDP in 2018, 0.6 p.p. higher than in 2017, and 3.8 higher than in 2008. Chinese debt rose to 300% of GDP¹⁰, a high indebtedness rate that has not been reduced during expansionary years (Ferrarini and Hinojales, 2018). Chinese moderate economic slowdown was happening with a potent fiscal and monetary program in place, with the People's Bank of China (PBOC) responding strongly by cutting reserve requirement ratios, injecting trillions of yuan in the economy, which led to increasing social financing, which jumped 14% to USD 3.7 trillion in 2019¹¹.

 $^{^{7}} Retrieved\ from\ https://www.cbsnews.com/news/coronavirus-has-cost-global-stock-markets-16-trillion-in-less-than-a-month-2020-03-12/.$

⁸Retrieved from https://ihsmarkit.com/research-analysis/caixin-china-manufacturing-pmi-falls-to-survey-low-on-coronavirus-countermeasures html

⁹Retrieved from https://www.ft.com/content/0bb37c2e-3755-11ea-a6d3-9a26f8c3cba4.

 $^{^{10}} Retrieved\ from\ https://www.scmp.com/economy/china-economy/article/3018991/chinas-total-debt-rises-over-300-cent-gdp-beijing-loosens.$

¹¹Retrieved from https://www.yicaiglobal.com/news/china-social-financing-jumped-14-to-usd37-trillion-in-2019.

The United States finished 2019 with 2.3% growth, which is a similar rate than in 2017, and the highest amongst developed regions. We must note that the Federal Reserve (FED) cut interest rates three times, leaving them at 2018 levels. Moreover, Government deficit reached 4.6% of GDP, increasing 0.8 p.p. during the year due to higher public spending. However, the US growth was more solid than in the Eurozone and less dependent on the external sector. The labor market also remained solid, with the unemployment rate at 3.5%, active population increasing and no signs of weakness in economic activity. Monetary policy remained expansionary and the balance sheet of the Federal Reserve expanded to 24% of GDP.

The Eurozone was the main center of the economic slowdown in 2019. Some important countries, such as Germany or Italy, were threatened by the shadow of technical recession during the third and fourth quarter of the year. The indicators of economic activity pointed to downturn, and COVID-19 drastically worsened the situation.

While Germany or Netherlands maintained the financial orthodox and registered fiscal surplus of +1.5% and 1.7%, and a public debt of 56.93% and 48.6% of GDP, respectively, countries such as Spain, Italy or France registered higher deficits despite a sixth year of economic growth. In the eurozone, monetary policy remained highly expansionary, with the European Central Bank balance sheet expanding to 40% of the eurozone GDP, negative deposit rates and an ongoing asset repurchase program.

Is COVID-19 Response Effective?

This is a supply shock to which the world has added a mandatory shutdown of the economy. As such, an effective response must be supply-side driven. Trying to stimulate aggregate demand with liquidity and public spending measures in a forced lockdown where any extra demand will not drive supply higher, may even drive it down.

A mandatory shutdown due to a supply shock cannot be solved alone with government spending or demand-side measures. Liquidity and lending facilities may support the already indebted and governments with already historic-low bond yields, as deficits are already going to soar due to automatic stabilizers. However, the economic sectors that are most at risk are the ones that find themselves with zero sales and no credit availability, predominantly small and medium enterprises in the service sector that have no assets to leverage and find rising working capital and no sales driving businesses to close.

The pandemic crisis can be addressed by providing safety protocols and sanitary equipment for businesses to continue to run and keep employment, as shutting down everything may create a larger social problem in the long term regardless of liquidity and fiscal policies. Demand-side policies rarely generate the desired effect in a forced shutdown of almost every sector. There is no demand to incentivize when the government orders the closing of all activities, and there is no supply to follow when the economic crisis creates a collapse in employment and consumption.

Shutting down the economy is an essential measure to gain time to control the virus, but we must understand the ripple effects and important ramifications of a complete shutdown. The global economy cannot go back to normal in one month. The impact may be severe, widespread, and exponential.

The decision to shut down the economy may cause long-lasting damages to job creation and businesses that cannot be unwound in a few months. It is essential to contain the virus spread, and drastic measures are warranted, but each month means millions of unemployed and thousands of business closures.

Each month of lockdown means more than millions of unemployed. It means thousands of businesses that go bankrupt and must close forever.

The investment and financial implications are also severe.

The healthcare crisis must be tackled from three angles: prevention, testing and ensuring that treatment and vaccines will be widely available when ready. If governments fall prey to panic and damage the economic fabric of the country, the economy may add a lasting recession to the fatalities of the epidemic, thus creating a larger, longer-lasting social and health challenge.

As Allen et al. (2020) state, governments cannot freeze an economy, thaw it out a few months later and expect it to come back to life. Economies do not hibernate for the winter like a sleepy but otherwise unharmed and intact bear. Unless some specific steps are taken—steps we will outline in this book—the most likely outcome is that the economy thaws into a pile of mush¹².

Implications of freezing the economy are wide and varied.

Capital expenditure and research and development investment decisions are cut as companies focus on restoring balance sheet as well as reducing indebtedness that may soar due to the collapse in sales.

Citizens' consumption and investment decisions must be postponed due to the loss of jobs, reduction of salary or reduction of disposable income and savings due to the loss of asset values. Furthermore, those consumption decisions may be changed dramatically due to fear of new waves of virus or simply concerns about new lockdowns.

The main issue here is the capacity of the monetary institution to support the economy in this crisis, given that interest remained below the zero-bound in many countries during the expansion years, and balance sheet expansion and asset purchases were in place before the COVID-19 outbreak in the eurozone, United States, Japan, United Kingdom and China.

Additionally, Latin America may be one of the most impacted regions, and one with few fiscal and monetary tools to address the crisis. A combination of loss of tourism, weaker trade, lower commodity prices and loss of foreign exchange reserves may lead to an economic recession and solvency problems in some of the most important economies.

We are already seeing sharp currency declines that are amplifying some dynamics we already saw in the past in the financial system regarding both record outflows in bonds and local currency bond spreads over international benchmarks (Hofmann et al., 2020).

Countries such as Mexico or Brazil, which are important for the stability of the region and global growth, are not capable of solving their structural problems alone. Both fiscal and commercial deficit, jointly with a downturn in their main trading partners, can lead to solvency problems.

In this context, we should keep in mind the high U.S. dollar-denominated indebtedness. The IMF estimates that emerging economies' funding needs total USD 2.5 trillion (Gourinchas and Hsieh, 2020), but this figure may prove to be conservative if the crisis deepens. According to Reuters, emerging-market currencies have about USD 34 billion in USD-denominated debt maturing over the next 12 months (Chen, 2020).

The current economic crisis, caused by an external shock, can be transformed into a banking crisis if the current measures are not effective enough to stop the expected increase in delinquency rates, bankruptcies, and mistrust in financial markets or in the economy.

Banks have been preparing in the past years to cover the risks of rising non-performing loans and loss of revenues, but the capital shortfall risk may be significant, particularly as most governments' policies are designed to increase borrowing for businesses.

If this happens, the world banking system may not be ready to address the risk. Studies, such as the COVID-19 Stress Test (Money & Banking, 2020), point out that "neither stress tests nor financial supervision in general has prepared us for a shock of this magnitude". Some indicators to gauge the aggregate shortfall of capital in the financial system during a crisis (defined as a 40 percent drop of the global equity market over the next six months), are showing that aggregate capital shortfall could reach USD 3 trillion. The United States is the developed region less impacted by capital shortfalls. (Money & Banking, 2020)

The Scenarios for Economic Recovery

To understand the speed and shape of the recovery, it is useful to look at the two possible exit phases from the COVID-19 pandemic (Dynan et al., 2020): "Two phases in advanced economies. Phase 1. Getting the infection rate down. Baked in. End by early summer. Phase 2. Keeping infection rate down. Large uncertainty. Uncertainty

¹²Darcy W. E. Allen, Chris Berg, Sinclair Davidson, Aaron M. Lane and Jason Potts. The problem of 'freezing' an economy in a pandemic. Draft excerpt from Cryoeconomics: How to Unfreeze an Economy. Version 10TH April 2020.

about virus (immunity?), about drugs, vaccines, tests about scaling up potential of test production. Will determine path of lockdown. Could last 6–18 months."

That means that, in most countries, the level of economic activity and confidence could not be reestablished in a year and a half due to the health situation. Before considering economic policies, the return to normal is the first test for governments.

Moreover, the most complete plans to ease the health crisis face operational difficulties due to the lack of tests and other medical health requirements. According to The New England Journal of Medicine (Harvey and Fineberg, 2020), countries may be able to defeat COVID-19 in 10 weeks by following the next steps:

- 1. Establish unified command. "This commander carries the full power and authority of the American President to mobilize every civilian and military asset needed to win the war."
- 2. Make millions of diagnostic tests available. "The nation needs to gear up to perform millions of diagnostic tests in the next 2 weeks." (. . .) "Without diagnostic tests, we cannot trace the scope of the outbreak."
- 3. Supply health workers with PPE and equip hospitals to care for a surge in severely ill patients. "Ample supplies of PPE (personal protective equipment) should be standard issue to every U.S. health worker who is in the front lines caring for patients and testing for infection."
- 4. Differentiate the population into five groups and treat accordingly. "We first need to know who is infected; second, who is presumed to be infected (i.e., persons with signs and symptoms consistent with infection who initially test negative); third, who has been exposed; fourth, who is not known to have been exposed or infected; and fifth, who has recovered from infection and is adequately immune" (. . .) "This would be a game-changer in restarting parts of the economy more quickly and safely."
- 5. Inspire and mobilize the public. "Everyone has a part to play and virtually everyone is willing." (...) "If everyone wears a surgical mask outside the home, those who are presymptomatic and infected will be less likely to spread the infection to others."
- 6. Learn while doing thorough, real-time, fundamental research. "Decisions to shape the public health response and to restart the economy should be guided by science."

It is well known that the key point in tackling COVID-19 pandemic is testing (Berger et al., 2020; Gros et al., 2020), because it can dampen the economic impact of the coronavirus and reduce peak symptomatic infections.

Unfortunately, we are not seeing these reactions in many countries. In most cases, this is because of a shortage of key material, as markets have been seriously intervened globally and supply chains have been affected. This delay in social and health policies make us consider some important points:

- 1. We cannot assume that consensus estimates for global and country growth are too pessimistic. If we have learned anything from the history of global growth estimates it is that most analysis tends to have an optimistic bias even in crisis periods. Most analysts did not see a crisis in 2008 and, even more importantly, a majority still did not see it in 2009, when it was evident. It is true that estimates at the beginning of any given year must be revised, but not because they are too pessimistic, usually the opposite. Budget agencies over-optimism is also evidenced by (Frankel, 2011¹³).
- 2. Calls for large fiscal packages to offset the pandemic may be ineffective. Not just because the economy was slowing down in 2019 with large fiscal programs in place. Admittedly, estimating multipliers is notoriously difficult, but there are several reasons why fiscal multipliers are probably lower than they were previously (Allen-Reynolds, 2020), because output gaps are almost inexistent. This is not a demand problem, it is a supply shock followed by a forced shutdown, and governments must apply the correct measures to outpace it.
- A rapid recovery is now virtually impossible. The shutdown of developed economies will likely last for months.
 The shutdown of emerging economies is likely to start just as developed economies gradually lift the lockdown,

¹³ Jeffrey Frankel. Over-optimism in forecasts by official budget agencies and its implications. Oxford Review of Economic Policy, 27(4), 536–562.

and impact 2021 and 2022 growth estimates. The financial implications in a world were debt was already at record highs may add a string of credit events to an economic shutdown.

4. The diminishing returns of monetary easing were already evident in 2018 and especially in 2019, with global manufacturing PMIs (purchasing managers' index) in contraction and growth estimates that came down significantly throughout the year. Growth downward revisions were widespread in the middle of significant coordinated central bank injection operations and widespread interest rate cuts.

The recovery path in China can be used as an example. The Caixin China General Services PMI experienced only a partial recovery in March at 43.0 basis points (less than 50 basis points reflects contraction), up from a record low of 26.5 in February but far below 51.9 in January. Other leading indicators, such as passenger flows, business start-up fees and hotel reservations, also show a partial rebounded from the lows in February, but again in contraction territory.

Before macroeconomic figures are published, the main effect of COVID-19 on the economy we are seeing is on labor markets. Both in the United States and Europe, unemployment is rising. During the last three weeks, jobless claims in the US increased by 17 million people. In seasonally and calendar-adjusted terms, the impact of COVID 19 would be slightly below, but as frightening as, 14.6 million people across the country (Rinz, 2020).

It is likely that we may see a scenario where unemployment rates in developed countries reach record levels, impacting consumption and travel and leisure decisions for many months. In fact, the National Association for Business Economics predicted a United States unemployment rate of nearly 10 percent at the end of 2020 (Schneider, 2020), with some analysts predicting an unemployment rate of 20% (Faria e Castro, 2020). It is remarkable that it would be the highest unemployment rate showed by the US economy since the financial crisis.

Labor markets in Europe are also reacting to an unexpected economic shock. Only in Spain did nearly 900,000 workers lose their job in the last 15 days of March, according to the official Social Security figures. Countries such as Italy, France and Germany are also seeing severe adjustments in their labor markets.

The key point regarding employment, as we already saw during 2008 crisis, is flexibility. The German labor market is one of the most flexible in the world. Companies can reduce their working hours easily, and they do not have to bring on layoffs to face the situation. This is why one of the first measures of the German Government was to pay the difference between full-time and part-time wages due to COVID-19 restrictions.

Another important issue regarding employment is the ease of doing business. The United States (US) is the sixth country over 190 evaluated by the World Bank in its Doing Business ranking. This, jointly with an economy that is less dependent on the banking system than the European one, supposes more recovery capacity when growth returns. In fact, unemployment could come back to 6% in 2021 (Schneider, 2020), a partial recovery supported by the absence of a banking crisis during this year.

The most effective policy responses against a sharp deterioration of the labor market are tax cuts and public transfers as well as unemployment insurance where it is not already working (Faria e Castro, 2020). Tax deferrals also work, with a budget balance that is likely to deteriorate in 2020 but will improve later thanks to the recovery in economic activity (Anderson et al., 2020).

During the last financial crisis, the US suffered a discouragement effect in the labor market that cut down the labor force participation rate to 62.7% in 2015, which could lead to some unemployment in the non-active population. This effect can be dangerous in terms of social inclusion and wellness, because these citizens are not part of jobless statistics but have lower disposal income and opportunities.

The last key point regarding the medium-term perspective with COVID-19 is inflation. Powerful disinflationary forces remain in place, mainly technology, demographics, and overcapacity. Added to these, some studies suggest that a period of deflationary risk is inevitable, even in a low interest rate environment (see Leduc and Liu, 2020; Scott and Miles, 2020): "Our analysis nonetheless suggests that, through the uncertainty channel, the pandemic is likely to weigh on the economy persistently, depressing economic activity and inflation well beyond the near term."

The economic implications of a pandemic are not solved with large spending increases. Governments will likely implement large demand-side policies that are the wrong answer to a shutdown of the economy. Most small

businesses suffer from the collapse in sales and subsequent working capital build and very little of these effects is mitigated by deficit spending. Demand-side policies may increase debt and overcapacity in the already indebted sectors but do not help the sectors that suffer an abrupt collapse in activity.

A forced temporary shutdown should also include a shutdown of the tax collection system. Governments already finance themselves at negative rates. They must eliminate (not defer) tax payments for companies in the period of crisis to avoid a massive unemployment increase and a domino of bankruptcies and facilitate working capital liquidity lines without recourse to allow businesses and self-employed workers to navigate a shutdown. Governments that make the mistake of maintaining the current tax structure or just prolong the payment period for six months may see important negative consequences. Moreover, governments that benefit from extraordinary measures to increase intervention on the economy, including the burden of employee containment to companies, could generate long-term negative effects (Gollier and Straub, 2020).

Unlike other economic downturns, the fall of output in this crisis is not driven by demand; it is an unavoidable consequence of measures to limit the spread of the disease. That is why demand-driven measures alone will not work and governments should apply supply-side policies. Support should help people stay at home while keeping their jobs (Dell'Ariccia et al., 2020).

Policies should be global and local, considering the important differences in each country. Unemployment in France does not show the same characteristics as in the United States. The compensation of self-employed workers forced to interrupt their activity must be driven by a cheque or a tax rebate, proportional to the duration of this interruption and based on declared income from 2019. Solutions such as the "helicopter money", adopted by the US Government, "is only useful if it is a response to a demand shock, which is not (yet) the case" (Gollier and Straub, 2020).

The main objective of public policy, hence, may be reoriented to increase public health care capacity and government expenditures should help remedy some of the economic losses produced by containment and mitigation measures, reducing the direct pain inflicted on individuals and businesses and aligning incentives for social distancing (Loayza and Pennings, 2020).

Monetary and Fiscal policies to Tackle COVID-19

The main economies have implemented a wide variety of fiscal and monetary measures to tackle the COVID-19 crisis.

- Central banks cut interest rates (POLAND, UK, US, CHILE, BRAZIL and MEXICO).
- Quantitative easing programs in (EUROPE, UK, US, POLAND, BRAZIL and CHILE).
- LTROs (long-term refinancing operations) in EUROPE, POLAND.
- Other programs to ensure liquidity.
- Mortgage holiday for citizens affected by COVID-19. The length of mortgage holiday: 3 months.
- Some countries extend loan holidays to Small and Medium Enterprises (SMEs).
- Temporary capital and operational reliefs in EUROPE, POLAND, UK, US and BRAZIL.
- EU-wide EBA (European Banking Association) stress test postponed to 2021 to allow banks to prioritize
 operational continuity.
- Relief on forbearance.
- State-backed guarantees.
- Liquidity lines with public guarantees.
- Tax deferrals to self-employed and SMEs.
- Cash injections and wage subsidies.

Fiscal measures with budget impact have been, so far, small, due to the limited fiscal space of most economies. The United States has launched the largest package, worth 6% of GDP, followed by Germany, at 4.5% of GDP.

Liquidity and Guarantee programs have been the main tool used by governments, with Germany launching a total program equivalent to 24% of GDP, the United Kingdom at 13.7% of GDP, the United States at 4.5%, and other eurozone countries such as Italy (20% of GDP), France (13% of GDP) and Spain at 8% of GDP, all according to official figures.

The wide and ample reliance on liquidity and guarantee programs reduces the risk of abrupt rises in deficits from governments, but adds significant strain to the banking sector, as most countries are launching large lending programs for businesses that may result in rising non-performing loans in the near future and will, in any case, increase the risk of the asset base of banks that have struggled in recent years to achieve return on tangible assets above their cost of capital, particularly in the eurozone.

South Korea has been one of the most effective countries at fighting the COVID-19 pandemic. Its number of cases has been extraordinarily low, with no forced economic shutdown required, thanks to a testing ratio that is, for example, 2.3 times that for China (Ravikumar and Vandenbroucke, 2020). Moreover, some analysts point out its economic response as basic principles that can be applied in most countries (Loayza and Pennings, 2020). Its economic plan included a special fiscal budget allocation. From mid-January 2020 until March 2020, the government of Korea has allocated a budget of USD 22 billion, around 1.5 percent of GDP, to respond to the COVID-19 outbreak. The special budget has three main categories: (1) Disease prevention and treatment (around 10 percent of the budget), which includes funding for testing, quarantine, isolation and treatment; purchasing medical equipment; and loans to hospitals. (2) Support for households and young adults (25 percent), through such means as cash vouchers for low-income families, childcare subsidies, and an expansion of the existing employment support package for young adults (Republic of Korea, Ministry of Economy and Finance 2020). (3) Support for small-and-medium enterprises and local economies (65 percent), through loans and guarantees, as well as wage subsidies to preserve employment.

The economic response to COVID-19 among developed countries, especially in Europe, has revolved around monetary policy coming from central banks and adding credit mechanisms.

The ECB had few weapons after years of expansionary policy with interest rates below zero and the Asset Purchase Program already working since 3Q2019. The ECB had to inject EUR 360 billion into the European economy in March 2020. A program that increased liquidity in the Eurozone by EUR 40 billion per month, half of the monthly amount injected during 2016 and 2017. A new stimulus plan was announced shortly, adding EUR 750 billion until end of 2020.

The Federal Reserve also approved an unlimited quantitative easing program, aimed at widening the asset purchase program to include municipal bonds and increasing the size of its balance sheet to record levels.

Regarding fiscal policy, the most widely used is being non-contributory transfers, included in 150 programs in 84 countries according to Gentilini et al. (2020). Other common measures to tackle COVID-19 are:

- 1- An increase in health spending. All countries are experiencing an unexpected expenditure due to COVID-19 treatment and social care needs related to containment measures.
- 2- Exemption and deferred taxes. Most economies understood that companies, especially SMEs, are facing a liquidity crisis. This is why they are financing working capital with taxes, focusing on VAT or social contributions. As I already noted, this is the most effective policy to maintain employment. In the case of self-employed workers, social security contributions have been deleted during 2 or 3 months.
- 3- Unemployment insurance where it has not been yet established (such as the USA and Canada), and more flexibility on their conditions in the European countries.
- 4- Concessional loan facilities at 0% interest rates and public guarantee schemes. Liquidity in markets is guaranteed by monetary policy. With these schemes, access to funds is ensured, where public guarantee schemes are probably more useful for corporates, and concessional loan facilities through public banks will be used by SMEs that do not have counterparts.
- 5- A relaxation of capital requirements and permits for high-quality liquid assets below the minimum liquidity coverage ratio requirement.

There has been an important movement towards labor market flexibilization. In countries such as Germany, where it is already flexible, main labor policies have been reduced to partially financing the difference between full-time salary and part-time wage received by workers. However, in other rigid markets, such as the Spanish, more flexible schemes have been introduced (ERTEs, or temporary job restructuring plans where the government pays part of wages for six months under a commitment from the company to re-hire the worker once the period ends) to try to keep employment when the economy restarts.

Countries such as the United States, Canada or Japan have already noticed the high impact of COVID-19 and started to implement plans that add to up to 10% of GDP combining fiscal measures with monetary policies.

It is undeniable that these efforts will lead to high deficits and an increase in public and private debt in 2020. Fiscal responsibility during expansionary years may reduce the long-term impact. The incidence of COVID-19 on public spending and the increase in automatic stabilizers may strain public accounts significantly. The key issue is to use the fiscal space to strengthen the recovery and preserve the business fabric as well as understand that supply measures can reactivate the economies rapidly and help recover the financial health in most countries. This is why governments should be careful and selective about demand-side policies and disincentives to private activity which could lead to a prolonged time of recession or stagnation.

What is important is that this public fiscal space is helpful to restart the economy and allow businesses (especially Small and Medium Enterprises, SMEs) to stay alive.

Some governments, like the United States administration, are combining both demand and supply-side measures. Others, like most of the large eurozone economies except maybe Germany, are only focused on policies driven to provide credit relief and increased spending.

With these measures in mind, and considering the slump in economic activity, corporate profits, wages and tax revenues that will be generated, global debt is likely to soar. This means that the vast majority of the stimulus packages will be aimed at financing higher debt created by government non-economic-return current spending and hibernating large companies, while small and medium enterprises, which have little access to debt and maybe no assets to leverage, simply disappear. Start-ups and small businesses may face a double negative of zero access to equity as well as collapse in sales.

The evidence shows that the global economy has recovered in a much slower and indebted way from each of the past crises. However, none of the crises of the past 50 years have been remotely like this one. We have never witnessed a global shutdown of the entire economy, and policymakers may be unaware of the mid and long-term ramifications, which is why doubling-down on debt and liquidity measures should, at least, be carefully monitored.

The main risk we see from unprecedented demand-side stimuli in a forced shutdown comes from a deflationary period followed by stagflation. The process that policy makers should avoid could be as follows:

The crisis is created by the pandemic and the subsequent closing of entire economies in a domino effect, causing strains on supply chains as well as a wave of credit events in highly indebted sectors.

Governments would subsequently bail out the large and strategic sectors as well as citizens with massive loans and grants and fiscal measures but may leave behind the preservation of supply chains at a global level. As the crisis deepens and lasts longer, governments could decide to take protectionist and interventionist measures that further erode supply chains. This period would be deflationary because money velocity would collapse, investment stops, consumption is weaker, and citizens try to hold on to the little savings they have.

The deflationary and indebted spiral would be addressed with even more liquidity and more debt, but by that time the supply chains may have been irreparably damaged and interventionist measures would add to rising inflation in essential goods and services. This can lead to an economy that remains in stagnation, but prices creep up.

This chain of actions and reactions can be avoided with the right combination of supply-side measures, policies that support the business fabric and demand-side measures. The Korea example shows that health and the economy are not mutually exclusive.

Some European countries, such as Spain or Italy, are not doing the necessary fiscal efforts to tackle COVID-19. Furthermore, some of their measures are going in the wrong direction, such as banning lay-offs or placing private

property rights at risk, which may make it more difficult to restart the economic activity due to a loss of confidence of both domestic and international players. Some of the most effective measures, such as tax exemptions, are likely to be implemented, in order to avoid a loss in the production system in addition to the already high impact on the labor market. Without tax exemption policies, it may be more difficult to recover employment in the country and achieve a rapid economic recovery.

Conclusion

The world is suffering a pandemic that led to an unprecedented economic stop in many countries, and uncertainty persists about when normality will be recovered. According to our estimates, the Eurozone is likely going to be the most affected region, and the reaction of some of its main partners can lead to stagflation and even the risk of a banking crisis. The United States will also be hit, but, due to its flexible economic structure, we expect a faster recovery, with China and the main Asian economies recovering strongly.

The measures taken by governments and central banks are also unprecedented. As such, we warn about the high risks of placing the entire burden of the crisis and the recovery on an already challenged banking sector through large loan programs to troubled businesses that may lead to significant solvency and liquidity challenges in the mid-term, as non-performing loans will likely rise. We would also like to warn about large spending and stimulus packaged in a prolonged and forced shutdown of the economy that may have long-lasting ramifications. Incentivizing demand through fiscal and monetary policies might create a double challenge: function as a subsidy to sectors that already had overcapacity and sustainability issues while not reaching the small businesses that have no access to credit and collapse with no sales and job losses.

We believe that unprecedented challenges merit unprecedented measures but also think that there may be a risk of implementing large stimuli too early. Government stimulus programs may be targeting the wrong parts of the economy, and a selective and carefully analyzed combination of policies throughout a longer period of time may work more effectively.

In this scenario, it is important to consider that large fiscal and monetary stimuli have proven to be less effective than expected in the past during a growth period, and that the world faces an unprecedented supply shock added to a forced shutdown of the economy where incentivizing demand is unlikely to reduce the output contraction and very unlikely to be followed by supply. We must highlight the risk of some of these policies creating more stagnation risk and deflationary pressures.

We believe that combining government plans with supply measures and especially the reallocation of spending added to tax exemptions and deferrals can help significantly in this crisis.

References

Allen, D. W. E., Berg, C., Davidson, S., Lane, A. M., & Potts. J. (2020, April 10). The problem of 'freezing' an economy in a pandemic. Draft excerpt from Cryoeconomics: How to Unfreeze an Economy. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3572365.

Allen-Reynolds, J. (2020, February). Euro-zone fiscal policy less effective than it once was. Capital Economics. Retrieved from https://www.capitaleconomics.com/publications/european-economics/european-economics-focus/euro-zone-fiscal-policy-less-effective-than-it-once-was/.

Anderson, J., Bergamini, E., Brekelmans, S., Cameron, A., Darvas, Z., & Domínguez, M. (2020). The fiscal response to the economic fallout from the coronavirus. Bruegel Datasets. Retrieved from https://www.bruegel.org/publications/datasets/covid-national-dataset/.

- Berger, D. W., Herkenhoff, K. F., & Mongey, S. (2020, March). An SEIR infectious disease model with testing and conditional quarantine. Retrieved from https://www.nber.org/papers/w26901.pdf.
- Briscese, G., Lacetera, N., Tacis, M., & Tonin, M. (2020). Compliance with Covid-19 social-distancing measures in Italy: The role of expectations and duration. NBER Working Paper Series. Working Paper 26916. Retrieved from https://www.nber.org/papers/w26916.pdf.
- Chen, M. (2020, March). A Strong Dollar Could Spell Trouble for Emerging Market Bond ETFs. ETF Trends. Retrieved from https://www.etftrends.com/core-equity-channel/a-strong-dollar-could-spell-trouble-for-emerging-market-bond-etfs/.
- Dell'Ariccia, G., Mauro, P., Spilimbergo, A., & Zettelmeyer, J. (2020, April). *Economic Policies for the COVID-19 War*. IMF. Retrieved from https://blogs.imf.org/2020/04/01/economic-policies-for-the-covid-19-war//.
- Dynan, K., Blanchard, O., & Chorzempa, M. (2020, April). Global Economic Prospects, Spring 2020. PHE. Retrieved from https://www.piie.com/events/global-economic-prospects-spring-2020.
- Fang, H., Wang, L., & Yang, Y. (2020). Human mobility restrictions and the spread of the novel coronavirus (2019-NCOV) in China. NBER Working Paper Series. Retrieved from https://www.nber.org/papers/w26906.pdf.
- Faria e Castro, M. (2020). Fiscal Policy and COVID-19: Insights from a Quantitative Model. Federal Reserve Bank of St. Louis. Retrieved from https://research.stlouisfed.org/publications/economic-synopses/2020/03/27/fiscal-policy-and-covid-19-insights-from-a-quantitative-model.
- Ferrarini, B., & Hinojales, M. (2018). State-owned enterprises leverage as a contingency in public debt sustainability analysis: The case of the People's Republic of China. ADB Economics Working Paper Series, No. 534, Asian Development Bank (ADB), Manila. Retrieved from https://www.econstor.eu/bitstream/10419/203374/1/1014310 628.pdf.
- Frankel, J. (2011). Over-optimism in forecasts by official budget agencies and its implications. Oxford Review of Economic Policy, 27(4), 536–562, Retrieved from https://www.nber.org/papers/w17239. [CrossRef]
- Gentilini, U., Almenfi, M., & Orton, I. (2020). Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures. World Bank and ILO. Retrieved from http://www.ugogentilini.net/wp-content/uploads/2020/03/Social-protection-responses-to-COVID19_March27.pdf.
- Gollier, C., & Straub, S. (2020). Some micro/macro insights on the economics of coronavirus. Part 1: Impact assessment and economic measures. VOXEU CEPR Policy Portal. Retrieved from https://voxeu.org/article/some-micromacro-insights-economics-coronavirus-part-1.
- Gourinchas, P., & Hsieh, C. (2020, April). *The COVID-19 Default Time Bomb*. Project Syndicate. Retrieved from https://www.project-syndicate.org/commentary/covid19-sovereign-default-time-bomb-by-pierre-olivier-g ourinchas-and-chang-tai-hsieh-2020-04.
- Gros, C., Valenti, R., Valenti, K., Gros, D., & Spandau, V. K. (2020). Strategies for controlling the medical and socio-economic costs of the Corona pandemic. Department of Economics, University of California, Berkeley, CEPS (Centre for European Policy Studies). Retrieved from https://clausen.berkeley.edu/wp-content/uploads/2020/04/Corona.pdf.
- Harvey, V., & Fineberg, M. D. (2020). Ten Weeks to Crush the Curve. *The New England Journal of Medicine*, 382, e37, Retrieved from https://www.nejm.org/doi/full/10.1056/NEJMe2007263.

- Hofmann, B., Shim, I., & Son Shin, H. (2020, April). Emerging market economy exchange rates and local currency bond markets amid the Covid-19 pandemic. Bank of International Settlements (BIS). Retrieved from https://www.bis.org/publ/bisbull05.pdf.
- IMF. (2020, January). World Economic Outlook. Retrieved from https://www.imf.org/en/Publications/WEO/Issu es/2020/01/20/weo-update-january2020.
- JP Morgan. (2020, April 3). Markets Insights. Retrieved from https://am.jpmorgan.com/blob-gim/1383664458401/8 3456/COVID19 Market Bulletin.pdf?segment=AMERICAS US ADV&locale=en US.
- Leduc, S., & Liu, Z. (2020). *The Uncertainty Channel of the Coronavirus*. Research from Federal Reserve Bank of San Francisco. Retrieved from https://www.frbsf.org/economic-research/files/el2020-07.pdf.
- Loayza, N. M., & Pennings, S. (2020). Macroeconomic Policy in the Time of COVID-19: A Primer for Developing Countries. World Bank Group. Retrieved from http://documents.worldbank.org/curated/en/951811585836124198/pdf/Macroeconomic-Policy-in-the-Time-of-COVID-19-A-Primer-for-Developing-Countries.pdf.
- Lyu, Y., & Nie, J. (2020, April). Coronavirus Dampens China's First-Quarter GDP. Federal Reserve Bank of Kansas City. Retrieved from https://www.kansascityfed.org/en/publications/research/eb/articles/2020/coronavirus-dampens-chinas-first-quarter-gdp.
- Martin, F. M. (2020). Economic Realities and Consequences of the COVID-19 Pandemic. Federal Reserve Bank of St Louis. Retrieved from https://research.stlouisfed.org/publications/economic-synopses/2020/03/30/economic-realities-and-consequences-of-the-covid-19-pandemicpart-i-financial-markets-and-monetary-policy.
- McKibbin, W. J., & Fernando, R. (2020, February). The Global Macroeconomic Impacts of COVID-19: Seven Scenarios. Centre for Applied Macroeconomic Analysis. Crawford School of Public Policy. Australian National University. CAMA Working Paper 19/2020. Retrieved from https://poseidon01.ssrn.com/delivery.php?ID=221000 00209312307012711809910107600902603504107708807007701009106809307312108309611310703204412202012611 10181121171120811041250220320920790361261010941191130640750790230080771181120660200670670250920001 27107122014073104096118019079083098019094071064012&EXT=pdf.
- Money & Banking. (2020, March 30). Covid-19 Stress Test. Retrieved from https://www.moneyandbanking.com/commentary/2020/3/29/covid-19-stress-test.
- Ravikumar, B., & Vandenbroucke, G. (2020). *COVID-19 and the Importance of Testing*; Federal Reserve Bank of St. Louis. Retrieved from https://www.stlouisfed.org/on-the-economy/2020/march/covid-19-importance-testing.
- Rinz, K. (2020, April). Understanding Unemployment Insurance Claims and Other Labor Market Data During the COVID-19 Pandemic. Retrieved from https://kevinrinz.github.io/covid19 labordata.pdf.
- Schneider, H. (2020, April). *High U.S. unemployment, 2.5 million jobs lost through 2021—Survey*. Reuters. Retrieved from https://www.reuters.com/article/health-coronavirus-usa-forecast/high-u-s-unemployment-2-5-million-jobs-lost-through-2021-survey-idUSL2N2BX2SH.
- Scott, A., & Miles, D. (2020). Will inflation make a comeback after the crisis ends? VOX EU CEPR Policy Portal. Retrieved from https://voxeu.org/article/will-inflation-make-comeback-after-crisis-ends.