

Effect of the national economy, moral risk, adverse selection and corruption in times of covid 19 in Peru

Lucio Ticona Carrizales¹

*National University of Juliaca, Faculty of Business Management and Entrepreneurship,
Academic Department of Management and Social Sciences,
Professional School of Public Management and Social Development,
Av. Nueva Zelandia N ° 631, Juliaca, Perú,*

Olivia Magaly Luque Vilca²

*National University of Juliaca, Faculty of Industrial Process Engineering,
Professional School of Engineering in Food Industries,
Av. Nueva Zelandia N ° 631, Juliaca, Perú,*

Cynthia Milagros Apaza Panca³

*M.Sc. in Economics Mention in Planning and Public Management,
Universidad Nacional de Frontera, Faculty of Hotel and Tourism Administration,
Sullana, Piura, Peru,*

VarannyNelyda Ticona Campos⁴

Universidad Nacional Mayor de San Marcos, postgraduate student in the Master's degree in procedural law

Alcides Ponciano, Ponce Peñaloza⁵

*National University of Juliaca, Faculty of Business Management and Entrepreneurship,
Academic Department of Management and Social Sciences,
Professional School of Public Management and Social Development,
Av. Nueva Zelandia N ° 631, Juliaca, Perú,*

Cristóbal Rufino Yapuchura Saico⁶

National University of the Altiplano, Faculty of Economic Engineering, University City S/N. Puno, Peru,

Abstract: The covid-19 pandemic has significantly transformed the global and national economic horizon. The first revelations in our economy were through the fall in commodity prices and the disruption of global value chains due to the impact of COVID-19. The rapid spread of the virus to the rest of the world and social isolation measures have caused an unprecedented severe and abrupt contraction of economic activity in Peru. The first quarter GDP declined 3.4 percent, with production disruptions in all sectors and a contraction in private spending and exports. A fiscal deficit of 9.7 percent of GDP is projected for 2020, due to the higher non-financial expenditure 25.2 percent of the product, mainly current, and the lower income of 17.5 percent of the product. By 2021, it is estimated that the fiscal deficit would be reduced to 4.2 percent of GDP, a level that would reflect lower current spending and the recovery in income, consistent with the expected recovery in activity and commodity prices. The economic crisis caused by COVID-19 is caused by negative shocks in aggregate supply and demand. Thus, on the aggregate supply side, there is a limitation of workers to attend their work centers due to the pandemic and social confinement measures. On the side of aggregate demand, there is a sharp fall in private consumption caused by the loss of income of unemployed workers and the self-employed who cannot run their current businesses. In addition, Peru annually loses 23,000 million soles due to corruption and functional misconduct, in 2019, then the comptroller general of the republic revealed that 4,212 officials received livelihoods, from such public officials their salaries fluctuate between s /. 1,200 and 10,000 soles, in such a way that there is moral risk, adverse selection which is the form of opportunism, the person who makes decisions can choose to pursue their private interests at the expense of others in such a way that officials fundamentally implement corruption in management public executing the poor quality of works, deficiency in the provision of public services, some companies may manufacture poor quality or unsafe products when the quality is not easily observed.

Keywords: Social isolation, Effect of the economy, economic horizon, moral hazard, adverse selection, Covid 19 pandemic.

Introduction.

The COVID-19 pandemic is negatively affecting the global and national economy and its effects will continue at least through the current year 2020. It signifies a public health emergency and implies an economic shock to both supply and demand; that is, it is affecting both producers and consumers. While policies to contain the spread of the pandemic such as quarantines and temporary closures are necessary, they result in reduced international trade, disruptions in supply chains, lower productivity, contraction of economic activity, lower investment, business closures and job losses. This crisis is occurring in an environment where they had already been observed, the emergence of COVID-19 represents a public health emergency (Johnson, 2020).

Consequently, the economic crisis caused by COVID-19 originates from negative shocks to aggregate supply and demand. Thus, on the aggregate supply side, there is a limitation of workers to attend their workplaces due to the pandemic and social confinement measures. In addition, there are severe logistical limitations, particularly in terms of transportation, for economic activities that could continue to operate. On the aggregate demand side, there is a sharp drop in private consumption caused by the loss of income of unemployed workers and the self-employed who cannot run their current businesses in such a way that the COVID-19 pandemic will have a severe impact on the global and national economy that in addition to health policies, governments must implement actions to mitigate the effect of the virus on productive activities, employment and living standards (Hatheway, 2020).

During the first quarter, economic activity contracted across the board worldwide. Containment measures and the closure of several activities (particularly in the services sector) were reflected in a sharp decline in private consumption, a retraction in investment plans and a pronounced fall in international trade. It is estimated that in the first quarter the world economy would have registered a contraction of more than 10 percent; the largest declines are observed mainly in those countries whose social isolation measures were more severe and prolonged, furthermore, the COVID-19 pandemic will have a severe impact on the global economy and that in addition to health policies, governments must implement actions to mitigate the effect of the virus on productive activities, employment and living standards (Hatheway, 2020).

So far in the second quarter, this drop in output has been accompanied by record increase in unemployment. In the United States, the unemployment rate rose from 3.5 percent in December 2019 to 14.7 percent in April, the highest rate since the Great Depression, and subsequently moderated to 13.3 percent in May. The nonfarm payrolls, meanwhile, recorded a loss of 21 million jobs in April, three times that recorded during the Great International Financial Crisis (2008- 2009). However, it recovered slightly in may, with the creation of 2.5 million jobs. Moreover, not since the crisis of the 1930s has there been a situation in which a reduction in international trade and falls in the price of raw materials around the world converged; therefore, all the necessary fiscal and monetary policy tools must be used to prevent this health emergency from turning into a financial crisis (Reinhart, 2020).

The outlook for global economic activity with the COVID-19 pandemic has significantly changed the outlook on global economic activity. At the beginning of the year, a higher growth rate for 2020 than the previous year (3.2 percent) was expected due, among other factors, to favorable expectations following the signing of the trade agreement between China and the United states. However, the measures applied in response to the pandemic to contain the virus have led to a severe and abrupt contraction in economic activity, disruption of global chains, increased unemployment, a fall in domestic demand and a deterioration in consumer and investor confidence. The deterioration in growth prospects and greater risk aversion affected financial markets, led to a contraction in commodity prices (particularly oil) and to a capital outflow from emerging economies. In the same vein, Roach (2020) asserts that the monetary policy actions implemented by central banks will not be as effective this time, as this is not a financial crisis but a public health crisis, and that the containment actions, quarantines, transportation bans and restrictions on public meetings are generating a shock in the real sector of the economy with devastating consequences for businesses, workers and the financial sector. Roach points out that public spending should be focused on containing the virus through public health infrastructure. His recommendation is not to believe that this crisis will be solved with the same tools used in the 2008-2009 crisis, as it is a different type of crisis.

As the pandemic is a global phenomenon, a high synchronization of the economic cycle is expected. The IMF, in its (preliminary) projections, estimates that around 95 percent of the economies will register a contraction of GDP per capita, a higher percentage than that observed during the Great Financial Crisis of 2008-2009 (62 percent). In the case of Latin America, the impact of COVID-19 on the domestic economy will be compounded by the fall in the price of commodities (particularly oil) and strong capital outflows, and the impact of COVID-19 on the economies of emerging countries will be different. Berglöf (2020) points out that once the

pandemic spreads to countries with fragile institutions and weak health systems, a large number of people could die in the short term and warned that the world must prepare for future waves of COVID-19 and other viruses.

Table 01
WORLDWIDE GROWTH
(Annual percentage changes)

	PPP	2019	2020*		2021*	
			RI Dic.19	RI Jun.20	RI Dic.19	RI Jun.20
Developed economies	40,3	1,7	1,5	-7,9	1,6	4,7
<i>Of which</i>						
1. Estados Unidos	15,1	2,3	1,9	-6,5	1,8	4,0
2. Eurozona	11,2	1,2	1,0	-9,1	1,4	6,2
3. Japón	4,1	0,7	0,4	-6,1	0,5	2,4
4. Reino Unido	2,2	1,4	1,2	-10,4	1,4	6,2
5. Canadá	1,3	1,6	1,7	-8,1	1,8	3,9
6. Otros	6,4	1,7	2,0	-8,8	2,5	5,1
Developing economies	59,7	3,7	4,5	-3,8	4,7	5,9
<i>Of which</i>						
1. China	19,3	6,1	5,9	1,0	5,9	8,1
2. India	8,0	4,2	7,0	-3,7	7,0	7,3
3. Rusia	3,1	1,3	1,5	-6,0	2,0	3,4
4. América Latina y el Caribe	7,3	0,1	1,3	-7,7	2,5	3,6
5. Otros	18,2	3,1	4,5	-7,9	4,6	5,7
World Economy	<u>100,0</u>	<u>2,9</u>	<u>3,2</u>	<u>-5,5</u>	<u>3,4</u>	<u>5,5</u>

* Proyección.

Fuente: FMI,

So far this year, financial markets have been affected by the outbreak and spread of COVID-19, particularly since the third week of January when the first case outside Asia was reported and fears of a pandemic increased. This was compounded by deteriorating economic activity and growing evidence of a global recession. This led to the liquidation of positions in various riskier instruments and increased demand for safe assets (treasury bonds of developed economies, gold, the US dollar and the Japanese yen). According to Johnson (2020), the emergence of COVID-19 represents a public health emergency and identifies three risks to the global economy. The first relates to the slowdown in the Chinese economy and the rapid fall in the price of financial assets. The second is the lack of leadership in the United States, for while the U.S. has the world's leading medical and research system, President Trump's administration has focused on keeping the virus out of the country. The third risk is that emerging markets are not sufficiently prepared to face the epidemic because they are characterized by poor nutrition and low standards in the quality of their housing, which may cause contagion to occur more rapidly. In view of this, it is important and fundamental to recommend that developed countries provide technical assistance and supply inputs and medicines to less developed economies; however, it is recognized that the lack of political leadership has prevented this.

The most conservative estimates speak of a five percent drop in GDP, while the most pessimistic estimate is fifteen to twenty percent. It will depend on the pace at which the economy opens up and how much the pandemic can be controlled. On the health issue, the objective in the short term is that the hospital infrastructure does not overflow, hence the importance of quarantine. On the other hand, if we sacrifice the economy too much, unemployment and hunger may grow too much. Rogoff (2020), mentions that countries will have to incur significant public deficits to boost their health sectors and economic activity. One of the main risks he sees in the COVID-19 expansion is that it is a crisis that has the potential to accelerate inflation in an environment of a pandemic, trade frictions, low growth and high debt in most countries, so recovery will require international cooperation.

In the current climate of uncertainty, GDP growth prospects show great variability and a wide range among different entities (from a 4 percent drop to a 20 percent contraction), and some institutions have not even disclosed their expectations for 2021. Furthermore, in the last 100 years, Peru has had three major recessions. One was linked to the 1930 crisis, which was due to external factors and produced the fall of markets in the

United States and the rest of the world. At that time, GDP fell by approximately ten percent. On the other hand, the GDP decline in 1983, during the government of Fernando Belaunde, was basically due to the problems caused by the El Niño phenomenon. This was compounded by the foreign debt problem in Latin America. Both factors generated a reduction of approximately ten percent of GDP. Then, the worst recession crisis of the last one hundred years took place at the end of Alan Garcia's first administration. Between 1988 and 1990, the economy declined by approximately twenty-five percent. These have been the three major recessions we have had in the last century, according to the statistics of the Central Reserve Bank. In addition, there are some studies, such as the one by Professor Bruno Seminario, which indicate that the worst historical fall was probably the one caused by the war with Chile. The GDP fell more than thirty percent. According to, Hatheway (2020) point out that the COVID-19 epidemic will have a severe impact on the global economy and that in addition to health policies, governments must implement actions to mitigate the effect of the virus on productive activities, employment and living standards.

From the point of view of the theoretical framework it is based on four lines of research the effect of the national economy in times of Covid 19, Moral hazard, Adverse selection, Corruption. While policies to contain the spread of the pandemic such as quarantines and temporary closures are necessary, they result in reduced international trade, disruptions in supply chains, lower productivity, contraction of economic activity, lower investment, business closures and job losses. This crisis is occurring in an environment in which trade frictions, low growth and high debt had already been observed in most economies (Rogoff, 2020).

Materials and Methods

The present study has a quantitative approach with a cross-sectional descriptive scope and non-experimental design. To determine the projection, the GDP was disaggregated at the level of 54 economic sectors taking into account their respective weighted weights, and a growth projection was estimated for each of these sectors, taking into consideration the resumption of economic activities in a gradual and progressive manner in four phases; according to the schedule set by the Government. The quarantine extensions and the particularity with which the economic activities have been operating were also considered.

Three scenarios (optimistic, moderate and pessimistic) were used, based on the probable date for the restart of economic activities; for the optimistic scenario, the restart is planned for October 2020; for the moderate scenario, there would be a delay of 14 days; and for the pessimistic scenario, phase 1 would be delayed by 14 days and the following phases would be delayed by 30 days. The problem of adverse selection is a problem of "Hidden Information", which brings as a consequence; Hiring who should not be hired, buying what should not have been bought, choosing who was not relevant; However, public investment has been accompanied with positive management attitudes with high levels of corruption, by rulers, ministers, advisors and public officials.

Results and Discussion

At the COVID-19 pandemic juncture, the current account of the balance of payments recorded a deficit in the first quarter of 2020 equivalent to 2.2 percent of GDP, lower than in the same period of 2019 (3.1 percent of GDP). This result mainly reflected the reduction in the factor income deficit, as a result of lower profits of foreign direct investment companies (mining, services and industrial), in line with the contraction of local production and lower commodity prices. In this scenario, the current account deficit is expected to amount to 1.4 percent of GDP in 2020, a level that would be maintained in 2021. These current account levels are sustainable and lower than the average of the last 10 years (2.8 percent). In 2021, the recovery of goods exports and profits of foreign direct investment companies would stand out, in a context of global and local GDP expansion. According to Ramelli and Wagner (2020), the market responded fairly quickly to concerns about the potential economic consequences of the coronavirus. The reaction initially occurred in an orderly fashion, focusing on international trade. However, beginning in late February and early March, large aggregate market price movements occurred and investors began to worry about potential amplifications of the COVID-19 shock through financial channels (Ramelli and Wagner, 2020).

Table 2
BALANCE OF PAYMENTS
 (Millones de US\$)

	2019	2020*		2021*		
		I Trim.	RI Dic.19	RI Jun.20	RI Dic.19	RI Jun.20
I. CURRENT ACCOUNT BALANCE	-3 531	-1 141	-3 845	-2 781	-4 092	-3 166
<i>Porcentaje del PBI</i>	-1,5	-	-1,6	-1,4	-1,6	-1,4
1. Balanza comercial	6 614	832	7 040	5 540	7 086	8 428
a. Exportaciones	47 688	10 008	49 761	39 051	52 149	44 793
De las cuales:						
<i>i) Tradicionales</i>	33 751	6 919	34 658	28 064	35 615	31 885
<i>ii) No Tradicionales</i>	13 783	3 050	14 945	10 871	16 378	12 812
b. Importaciones	-41 074	-9 176	-42 721	-33 512	-45 063	-36 365
2. Servicios	-3 114	-741	-2 809	-3 317	-3 186	-3 129
3. Renta de factores	-10 749	-1 837	-11 914	-8 234	-11 984	-11 089
4. Transferencias corrientes	3 718	606	3 838	3 230	3 992	2 624
Del cual: Remesas del exterior	3 326	494	3 514	2 067	3 690	2 274
II. FINANCIAL ACCOUNT	11 726	847	6 186	9 481	5 152	4 091
1. Sector privado	7 309	231	2 802	1 564	3 180	466
a. Largo plazo	5 512	-842	2 752	759	3 180	466
b. Corto plazo ^{1/}	1 796	1 073	50	805	0	0
2. Sector público ^{2/}	4 417	616	3 385	7 917	1 972	3 625
III. CHANGE IN RIN	8 195	-294	2 341	6 700	1 060	925

1/ Incluye errores y omisiones netos, y efecto valuación de RIN.

2/ Incluye inversión de portafolio en bonos soberanos por no residentes. RI: Reporte de Inflación.

* Proyección.

The trade balance for the first quarter of 2020 recorded a surplus of US\$ 832 million, US\$ 452 million less than that recorded in the same period of 2019 (US\$ 1 284 million), due to lower exports, in a scenario of local and global economic crisis caused by the COVID-19 pandemic. The reduction in the trade surplus would be accentuated in the following months (so far this year to April it fell to US\$ 169 million), but a gradual reversal is expected from the second half of the year, in addition, the trade balance is projected to reach a surplus of US\$ 5 540 million in 2020, lower by US\$ 1 075 million than that observed in the previous year, as a result of lower exports of traditional products (US\$ 5 687 million), mainly mining, and non-traditional (US\$ 2 912 million). The trade surplus is expected to increase in 2021 to US\$ 8,428 million, with the highest growth in exported volumes, as a result of the recovery of local production and international demand.

In the first quarter of 2020, exports amounted to US\$ 10 008 million, which represented a reduction of 11.1 percent compared to the result achieved in the same period of 2019, mainly due to lower volumes exported of traditional mining, fishing and hydrocarbon products; and, to a lesser extent of non-traditional ones (except for agricultural products that grew). This evolution occurred in an environment of paralysis of non-essential local production with an impact on foreign trade logistics operations such as the reduction in the frequency of entry of vessels and the lower availability of containers, in addition, it is expected that this reduction in exports will be accentuated in the second quarter of this year (already in April exports were reduced by 56 percent compared to the same month of 2019). This evolution would gradually reverse from the second half of the year. However, in 2020, the value of exports would decline mainly due to lower shipments of traditional mining and hydrocarbon products and non-traditional agricultural, fishing and iron and steel products, in line with the projected contraction of local activity and global demand, affected in the supply chain, in the context of the

crisis associated with COVID-19. In the first quarter, imports totaled US\$ 9 176 million, lower by 8.0 percent compared to the same period of 2019, in a context of contraction of domestic demand and significant reduction in oil prices. Imported volumes decreased (5.5 percent), due to lower purchases of consumer goods (7.6 percent), following the reduction in income and formal employment; and of capital goods excluding construction materials (-8.0 percent), following the reduction in private investment. Meanwhile, the price of input imports contracted by 2.6 percent (oil and derivatives -8.5 percent), reflecting the international reduction in the price of oil to historic lows. In April 2020, imports fell 33 percent, accentuating the trend observed in the first quarter. In addition, it is noted that governments can make use of a lax monetary policy, without concerns about generating inflation (as there are no demand pressures). Other measures that could be used are: reducing consumption taxes (since the effects need to be immediate and not delayed); increasing liquidity, raising unemployment benefits temporarily and increasing health spending to attend the most at-risk population (such as the elderly and the extremely poor).

Tabla 3
BALANCE OF TRADE
(Percentagechanges)

	2019	2020*		2021*		
		I Trim	RI Dic.19	RI Jun.20	RI Dic.19	RI Jun.20
1. Valor:						
Exportaciones	-2,8	-11,1	4,9	-18,1	4,8	14,7
<i>Productos tradicionales</i>	-5,3	-12,9	3,6	-16,8	2,8	13,6
<i>Productos no tradicionales</i>	4,1	-6,6	8,4	-21,1	9,	17,8
Importaciones	-1,9	-8,0	4,5	-18,4	5,5	8,5
2. Volumen:						
Exportaciones	0,7	-10,3	4,2	-14,7	4,6	12,4
<i>Productos tradicionales</i>	-1,2	-12,7	3,3	-13,2	2,	12,9
<i>Productos no tradicionales</i>	5,7	-4,8	7,2	-19,1	7,4	14,8
Importaciones	-0,2	-5,5	3,8	-13,2	4,3	6,4
3. Precio:						
Exportaciones	-3,4	-0,8	0,7	-4,0	0,2	2,1
<i>Productos tradicionales</i>	-4,1	-0,2	0,3	-4,2	0,1	0,7
<i>Productos no tradicionales</i>	-1,6	-1,8	1,1	-2,5	2,	2,6
Importaciones	-1,7	-2,6	0,7	-6,0	1,1	2,0

* Proyección.

RI: Reporte de Inflación.

On March 16, the beginning of the period of social isolation was decreed, which has been extended until June 30, resulting in an unprecedented abrupt drop in the economy. The isolation period, a measure aimed at preserving public health, considers both the total or partial suspension of most activities considered non-essential, as well as the mandatory confinement of families. This measure caused the GDP to register a contraction of 16.3 percent in March and 40.5 percent in April. With the announcement of the four phases of resumption of economic activities by the Government, a smaller fall is expected in May due to the beginning of the first phase; thus, a recovery of the economy would begin, particularly from the third quarter of the year. An adequate reopening of the economy, as well as the adaptation of companies to the new business environment (digitalization, adaptation to sanitary protocols, innovations in their production processes, etc.), would allow mitigating the deterioration of the GDP with a fall of 12.5 percent in 2020, a rate not observed in the last one hundred years. The recovery is expected to continue in 2021, reaching 11.5 percent growth and recovering its pre-crisis level (fourth quarter of 2019) in the first quarter of 2022. These projections assume a scenario of preservation of macroeconomic and financial stability and reforms aimed at achieving an adequate business

environment that promotes job creation and investment, in that sense it is indicated that the policy actions to be implemented should aim to prevent this temporary health, economic crisis from having permanent effects on individuals and companies (unemployment and bankruptcies), seeking to maintain relations between workers and businesses, creditors and debtors and suppliers and demanders. The various countries affected could help by increasing public spending to strengthen their health systems through personnel, equipment, monitoring mechanisms, diagnostic tests and additional hospital beds. In addition, this specialist points out that without a vaccine, measures should be put in place to limit the spread of the virus, impose travel restrictions, temporary school closures and quarantines (measures that provide valuable time to avoid future health consequences). Quarantines and temporary closures lead to lower capacity utilization in companies and interruptions in supply chains (China is a major supplier of intermediate goods to the rest of the world in sectors such as electronics, automotive and machinery and equipment), which reduces productivity and economic activity (Gopinath, 2020).

Table 4
GDP BY ECONOMIC SECTOR
(Real percentage changes)

	Prom 2014- 2018	2019	I Trim.	2020*		2021 *	
				RI Dic.19	RI Jun.20	RI Dic.19	RI Jun.20
				PBI primario	4,0	-1,3	-2,8
Agropecuario	3,6	3,2	2,9	4,0	1,3	3,6	3,6
Pesca	3,0	-25,9	-	23,0	9,5	-3,9	8,5
			15, 3				
Minería metálica	7,1	-0,8	-6,3	3,6	-10,2	5,5	10,7
Hidrocarburos	-3,2	4,6	0,2	0,9	-14,4	0,2	6,9
Manufactura	0,9	-8,8	-0,8	9,3	2,1	0,9	7,7
PBI no primario	3,0	3,2	-3,5	3,6	-14,5	3,8	12,6
Manufactura	-0,6	1,2	-	2,7	-23,8	3,5	16,9
			12, 3				
Electricidad y agua	4,7	3,9	-2,1	4,0	-7,9	4,5	12,6
Construcción	0,0	1,5	-	5,3	-25,4	5,1	23,2
			13, 0				
Comercio	2,7	3,0	-6,2	3,5	-23,6	3,7	17,4
Servicios	4,2	3,8	-0,5	3,6	-9,9	3,7	10,1
Producto Bruto Interno	3,2	2,2	-3,4	3,8	-12,5	3,8	11,5

* Proyección.

RI: Reporte de Inflación.

Table 5
Summary of Projection Differential between GDP and Potential GDP and Inflation Report

	2018	2019	2020		2021	
			1/		1/	
			RI Dic.19	RI Jun.20	RI Dic.19	RI Jun.20
Var. % real						
1. Producto brutointerno	4,0	2,2	3,8	-12,5	3,8	11,5
2. Demandainterna	4,2	2,3	3,7	-11,9	3,8	9,9
a. Consumo privado	3,8	3,0	3,5	-9,4	3,7	9,0
b. Consumo público	0,1	2,1	2,5	4,3	2,5	2,5
c. Inversión privada fija	4,5	4,0	3,8	-30,0	4,0	20,0
d. Inversión pública	5,6	-1,4	6,0	-8,5	4,0	9,0

3. Exportaciones de bienes y servicios	2,4	0,8	4,5	-18,9	4,8	14,1
4. Importaciones de bienes y servicios	3,2	1,2	4,0	-16,9	4,8	7,5
5. Crecimiento del PIB mundial	3,6	2,9	3,2	-5,5	3,4	5,5
Nota:						
Brecha del producto ^{2/} (%)	0,4	-0,6	-1,3 ; -0,4	-20 ; -10	-0,9 ; 0,0	-13,0 ; -3,0
Var. %						
6. Inflación	2,2	1,9	2,0	0,0	2,0	0,5
7. Inflación esperada ^{3/}	2,1	2,3	2,2	1,3	2,4	1,9
8. Depreciación esperada ^{3/}	3,6	-0,3	0,1	1,3	-0,4	-0,4
9. Términos de intercambio	-0,4	-1,8	0,0	2,2	-0,9	0,1
a. Precios de exportación	6,3	-3,4	0,7	-4,0	0,2	2,1
b. Precios de importación	6,7	-1,7	0,7	-6,0	1,1	2,0
Var. %						
10. Circulante	7,9	4,6	6,0	12,0	6,0	4,0
11. Crédito al sector privado	8,7	6,9	8,5	15,0	8,5	0,0
% PBI						
12. Inversión bruta fija	22,4	22,6	22,5	19,2	22,7	20,3
13. Cuenta corriente de la balanza de pagos	-1,7	-1,5	-1,6	-1,4	-1,6	-1,4
14. Balanza comercial	3,2	2,9	2,9	2,8	2,8	3,7
15. Financiamiento externo privado de largo plazo ^{4/}	0,4	2,4	1,1	0,4	1,3	0,2
16. Ingresos corrientes del gobierno general	19,3	19,7	20,0	17,5	19,9	19,5
17. Gastos no financieros del gobierno general	20,2	20,1	20,3	25,2	20,3	22,3
18. Resultado económico del sector público no financiero	-2,3	-1,6	-1,7	-9,7	-1,6	-4,2
19. Saldo de deuda pública total	25,8	26,8	27,3	33,9	27,3	33,1
20. Saldo de deuda pública neta	11,3	13,0	13,7	23,6	14,6	25,3

RI: Reported

eInflación.

1/ Proyección.

2/ Diferencial entre el PBI y el PBI potencial (en porcentaje del PBI potencial).

3/ Encuesta de expectativas a los analistas y entidades financieras realizadas al momento de la publicación del respectivo Reporte de Inflación. Para 2018 y 2019 se ha considerado la información observada en el caso de la depreciación y el promedio de las expectativas a lo largo del año en el caso de la inflación.

4/ Incluye inversión directa extranjera neta, inversión extranjera de cartera neta en el país y desembolsos netos de largo plazo del sector privado.

Regarding economic activity on the demand side, private spending contracted in the first quarter of 2020, explained by a 16.9 percent drop in investment and a 1.7 percent drop in consumption. On the one hand, the suspension of activities halted the execution of several investment projects, such as Quellaveco, the new Talara refinery and the construction of housing complexes and shopping centers. On the other hand, the effect of the suspension of activities on employment and household income affected their consumption decisions. On the external front, exports showed a negative performance (-11.1 percent) due to a slowdown in global demand and the limitation of local production by mining, textile and metal-mechanic companies. Given that households remained under social restraint during the entire second quarter, while companies have maintained a limited level of operations, domestic demand is expected to register a greater drop in this period than that observed in the first quarter. As long as social restraint restrictions are eased with adequate health controls and fiscal and monetary measures prove effective in sustaining payment chains and stimulating demand, the third quarter should mark a reversal from the previous period, supported by the gradual normalization of private spending and exports.

Table 6
DOMESTIC DEMAND AND GDP
 (Real percentagechanges)

	2019	I Trim.	2020*		2021*	
			RI Dic.19	RI Jun.20	RI Dic.19	RI Jun.20
Demanda interna	2,3	-2,0	3,7	-11,9	3,8	9,9
Consumo privado	3,0	-1,7	3,5	-9,4	3,7	9,0
Consumo público	2,1	6,0	2,5	4,3	2,5	2,5
Inversión privada	4,0	-16,9	3,8	-30,0	4,0	20,0
Inversión pública	-1,4	15,8	6,0	-8,5	4,0	9,0
Var. de inventarios (contribución)	-0,5	1,4	0,0	0,0	0,0	0,0
Exportaciones	0,8	-11,1	4,5	-18,9	4,8	14,1
Importaciones	1,2	-6,5	4,0	-16,9	4,8	7,5
Producto Bruto Interno	2,2	-3,4	3,8	-12,5	3,8	11,5
Nota:						
Gasto público	1,0	8,0	3,5	0,7	3,0	4,2
Demanda interna sin inventarios	2,9	-3,4	3,6	-11,7	3,7	9,8

* Proyección.

RI: Reporte de Inflación.

Private consumption indicators showed a deterioration during the months covered by the State of Emergency. The labor market continues to be affected by the paralysis of non-essential activities and the loss of jobs, which added to the uncertainty about the future of the economy, has led to a contraction in consumer confidence. Other more recent and higher frequency indicators show an initial reversal in May, evidencing that April registered the most critical level of the crisis. In the quarter to May, there was a 47.6 percent drop in the employed population in Metropolitan Lima, equivalent to a loss of 2.3 million jobs. This drop occurred mainly in the services sector and in companies with 1 to 10 workers. The drop in employment and income led the wage bill in Metropolitan Lima to contract by 52 percent in the quarter to May. Consumer confidence, measured through agents' expectations about their household economic situation for the next 12 months, moved into pessimistic territory in April, reflecting the deterioration of the labor market. However, the index showed a reversal in May, driven by optimism regarding the resumption of activities launched by the Executive Branch, and some indicators related to private investment have reached historic lows, suggesting prospects of a significant contraction of this variable in the short and medium term. Data as of May show an initial reversal in the businessmen's outlook, after reaching its most critical level in April, such that business confidence, measured through businessmen's expectations about the future of the economy, reached in April its lowest level since the BCRP's Macroeconomic Expectations Survey (April 2004). In May, expectations about the future of the economy at 3 and 12 months both experienced an increase with respect to the previous data, specifically on the part of the surveyed companies belonging to the manufacturing and services sectors; although the total indexes still remain at historically low levels in the pessimistic terrain, and depending on their administrative capacity, governments can help individuals and companies at this time in several ways (Gaspar & Mauro, 2020).

Social insulation entailed the use of the ample fiscal space generated in the commodity boom period. The fiscal measures implemented during the quarantine period were aimed at generating a health response to the spread of the virus, and mitigating the effects of the isolation measures on households and businesses; health prevention and operational continuity (S/ 4.1 billion) to strengthen the health system, favor social distancing (through the use of tele-education and management of areas of potential contagion such as markets) and take control measures to preserve public order. Under this concept, purchases of supplies and personnel expenses in the health system by MINSA, the regions and Essalud for S/. 1,420 million; purchases of tests to detect COVID-19 for S/. 224 million; expenses for the improvement of hygiene levels in public schools, prisons, markets and urban transportation and personal protection equipment for S/. 511 million; expenses in tele-education for S/. 681 million and expenses to supervise the mandatory measures of social distancing (police and armed forces) for S/. 396 million stand out. To provide liquidity to companies at a time when their sales are reduced due to the social immobilization measures. Within this group of measures, the deferral of tax payments for S/ 7,400 million

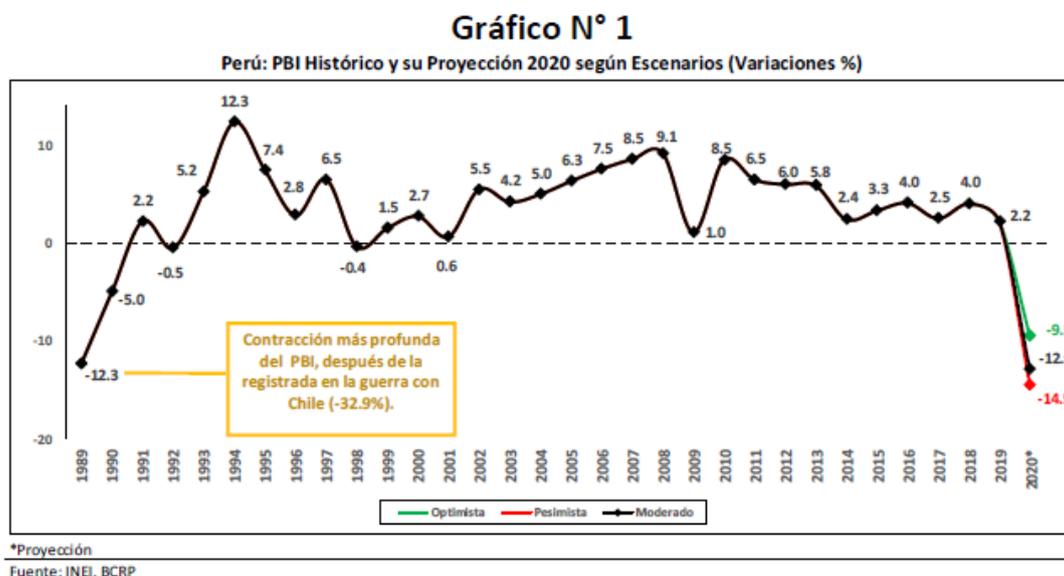
stands out. This deferral was gradually extended in coverage (until reaching companies with annual sales of less than 5,000 UIT or S/ 21.5 million) and in terms during the quarantine period. The payment on account of income tax was also reduced for companies with a drop in sales. These postponements would not have an impact on the economic result of 2020 since they would be cancelled within the year. In addition, the payment of tax debts was split up to August with a grace period of 6 months and a term of 3 years at a monthly interest rate of 0.4 percent.

The current global crisis associated with the COVID-19 pandemic is significantly but temporarily affecting the general government's public finances, with lower current revenues and higher levels of expenditures. These results reflect the impact: (i) tax collection, mainly in income tax and IGV, as a result of the measures to contain the virus in economic activity, as well as tax deferral measures and (ii) the fiscal stimulus that has been implemented to address the health crisis and to lessen and reverse the negative impacts on activity. In this context, the accumulated fiscal deficit in the last twelve months to May 2020 stood at 4.6 percent of GDP, higher by 3.0 percentage points of output with respect to that accumulated in the last twelve months to December 2019. The result was mainly a product of higher general government non-interest expenditures (1.9 percentage points of GDP), lower revenues (0.3 percentage points of GDP) and a higher primary deficit of state-owned enterprises (0.5 percentage points of GDP) in addition health spending should occur regardless of how much budget space a country has. Low-income countries urgently need grants or interest-free loans to finance health spending that they would not otherwise be able to afford. Experience with past epidemics, such as Ebola, shows that speed in deploying this type of financing is essential to contain the spread of disease. In addition, they recognize that the development of an effective vaccine will also require public resources (Gaspar & Mauro, 2020).

On the other hand, in the most optimistic scenario the 2020 GDP would fall -9.5%, while in the moderate and pessimistic scenario the economy would fall -12.9% and -14.5%, respectively as shown below.

Thus, the Peruvian economy would contract considerably between -9.5% and -14.5%, due to a lower domestic productive supply, as well as to a lower domestic and foreign demand, explained in turn by the advance of Covid-19 in all economies.

It is important to point out that this fall that would be registered under the moderate scenario (-12.9%) would be similar to the one registered during the hyperinflation and stagnation of 1989 when the GDP contracted -12.3%; while the pessimistic scenario (-14.5%) would be the largest fall in Peru's history without considering the war with Chile when the GDP plummeted -32.9%, as shown in Graph N° 1.



In the faced of the economic crisis caused by the pandemic of the new coronavirus, the Government has issued a set of measures to ensure, on the one hand, the flow of the payment chain and the stability of the financial system, and, on the other hand, the viability of the mandatory social distancing. The first two objectives are aimed at avoiding a recessionary cycle that would lead to massive layoffs and bankruptcies that would hinder future economic recovery. The third objective is formulated recognizing that the success of containing the virus depends on the economic incentives to respect social distancing measures.

From the perspective of households, the fundamental mechanism to ensure that a contraction in spending is avoided and that quarantine compliance is optimized is to provide them with liquidity in the short term. An

increase in household disposable income stimulates current consumption, but also reduces the need to go out to work and generates better expectations about the future situation of the family and other households.

The government is operating with direct and indirect forms of liquidity provision to families. The first type of measures includes: (i) monetary and in-kind transfers to households; (ii) the suspension of mandatory deductions from gross wages (such as contributions to the AFP); and (iii) the power to withdraw cash from forced savings accounts, both those established for pension purposes and those for unemployment contingency. The indirect provision of liquidity includes measures to reduce different household expenses, among which tax relief and the payment of public services (electricity, natural gas, sanitation and telecommunications) in installments stand out.

In addition, the injection of liquidity has been accompanied by a certain extension of the social safety net, which would provide some coverage against the contingencies of the crisis. The extension of the social safety net has focused on access to health care (support network for the elderly and people with disabilities, continuity of EsSalud benefits for workers affected by the perfect suspension of work, among others), and benefits for the temporary reduction of income (subsidy to MSE workers affected by the perfect suspension of work).

Given the limited fiscal resources, direct liquidity provision was initially targeted to the most vulnerable households. In the context of the crisis, the most vulnerable households are those with little economic protection against the loss of income, and whose source of labor income is sensitive to the quarantine due to the nature of their activities. Thus, in the first 15 days of the State of Emergency, subsidy programs were initiated for poor households in health emergency zones (Bono "Yo me quedo en casa", DU 027-2020 of March 16), and for non-poor low-income households that depend on an independent worker (Bono Independiente, DU 033-2020 of March 27). Then, a little over a month into the quarantine, a third subsidy was implemented for rural households in poverty (Bono Rural, DU 042-2020 of April 19). All three types of households fit the profile of a vulnerable group given the above-mentioned criteria.

In parallel to the implementation of the first subsidies, the Government approved withdrawals from forced savings accounts in order to mitigate the impact of the loss of income. Through DU 033-2020 and DU 034-2020, respectively, for the first time during the State of Emergency, the withdrawal of cash from Compensation for Time of Services (CTS) accounts and from the Individual Capitalization Accounts of the AFPs was enabled. Although these measures benefit households with formal workers, who would be, on average, the least vulnerable to the crisis, they would serve to alleviate the contraction of economic activity. Intervention is particularly relevant with respect to the CTS, since it operates as a substitute for unemployment insurance and its funds should respond to these contingencies. Thus, for example, in addition to the general withdrawal of S/ 2,400 initially proposed for all formal workers, the DU 038-2020 allowed all workers affected by the perfect suspension of work to withdraw each month an amount equivalent to their gross monthly remuneration. On the other hand, the release of pension savings could affect the sustainability of the pension system.

At a second stage, recognizing the limitations in identifying all vulnerable households, the strategy was changed to one that privileges coverage over targeting. According to the 2019 ENAHO, about 40 percent of non-poor households in Peru are composed only of informal workers, for whom complete information on their income level and type of occupation is not available. Thus, it becomes impossible to target vulnerable households within this group, and extending aid to ensure macroeconomic and social stability requires accepting a high level of leakage. In this context, the Bono Familiar Universal was implemented (DU 052-2020 of May 5), which proposes to provide a monetary subsidy to all households that: (i) have not been previous beneficiaries of another bonus, (ii) do not have a household member on the private or public sector payroll, and (iii) do not have a household member with income above S/ 3 000 according to information available in the financial and tax system.

Direct subsidies amount to S/ 760 per household, the cost of a basic monthly food basket for four people, and will cover a total of 6.2 million households (70 percent of the total). The logic behind the amount of the subsidy follows the fact that households in Peru are composed, on average, of 3.5 persons. However, there would be households that would be receiving more or less aid per capita by not considering household size when allocating resources (although solving this would require even greater targeting efforts); and doubts remain as to whether the amount is sufficient to modify incentives (especially considering the extension of the State of Emergency beyond 90 days).

On the other hand, the coverage of 6.2 million households, although extensive, has suffered in practice from delays in the approval of the rolls and delivery of subsidies, which could undermine effectiveness if the aid is not provided in a timely manner and households are still forced to work. For example, the second tranche of the Bono Independiente took two weeks to become effective after its announcement, the Bono Rural began payment on May 13 (having been announced on April 19), and the Bono Familiar Universal began operations with an incomplete registry two weeks after the emergency decree that made it official. According to the

MIDIS, as of June 14, around 5.1 million households had received a voucher, leaving almost 15 percent of beneficiaries pending delivery. The following table summarizes the delivery progress:

Table 7

MONETARY SUBSIDIES DURING THE STATE OF EMERGENCY

Subsidio	Entidad responsable	Normal legal	Nº beneficiarios (miles)		Inicio Avance Según Segundo		
			DU	final2/ tramocobro(%)	Primer tramo	Segundo	
Bono Yo me quedo en casa	MIDIS	DU 027-2020 DU 044-2020	2749	2 727	26-Mar.	Inicios de mayo	92%
Bono Independiente	MTPE	DU 033-2020 DU 036-2020	780	773	8-Abr.	28-Abr.	87%
Bono Rural	MIDIS	DU 042-2020	1098	980	13-May.		61%
Bono Familiar Universal	MTPE/MI DIS	DU 052-2020	1613	1 596	20-May.		
<i>Ámbito urbano</i>	MTPE		606	594			77%
<i>Ámbito rural</i>	MIDIS		263	258			78%
<i>Programas sociales</i>	MIDIS		743	743			94%

MIDIS social programs 743 743 94%. Prepared by the authors based on information from the MIDIS press release. Information as of June 14

The delivery of the subsidies will also serve to improve the information systems for targeting social assistance, facilitating a faster and more effective response in the future. The first three subsidies showed that the availability of information was insufficient for a quick identification of households with the available databases. The “I stay at home” subsidy was approved by the MIDIS and used the Household Targeting System (SISFOH), and the Rural Subsidy also used this database together with the information managed by MINAGRI. The Bono Independiente, on the other hand, was targeted by the MTPE and had to mix information from SUNAT, INEI, SBS, SIS and EsSalud. Processing all this information was costly in terms of time, and for this reason, it is now being sought to create a National Household Registry under the responsibility of RENIEC to consolidate and systematize the information of all beneficiary households.

Finally from the point of view of the theoretical framework It is based on four lines of research that have been developed on the subject which are as follows , effect of the national economy, moral hazard, adverse selection, corruption in times of Covid 19 in Peru; also moral hazard is the form of opportunism, the decision maker may choose to pursue their private interest at the expense of others in such a way that officials fundamentally implement corruption in public management realizing the poor quality of works, deficiency in the provision of public services. Some companies may manufacture poor quality or unsafe products when quality is not easily observed, Public employees may spend hours on the cell phone or computer (chatting), when there is a lot of work to be done, an executive may pursue own interests at the expense of institutional objectives, so that Moral Hazard: Principal Agent Model (MPA) In information economics (Stiglitz, Spence and Akerlof asymmetry), the MPA corresponds to one of “Hidden Action”, in which one party called the principal hires or takes the services of the other party called agent, to perform a certain task or activity, also in the Unobservable Case: Moral Risk Problem (MR) When the effort of the “unobservable” agent, the moral hazard problem occurs. The theory suggests that MR, is reduced or eliminated, by monitoring or tracking or implementing incentive mechanisms. Then it is shown as moral risk when the main agent model is the State who through the different emergency decrees allocates resources to the different sectors, regional and local governments and as an agent we have the Ministries, MINSA (CENARES), Local and Regional Governments who perform tasks or activities such as the allocation of bonds (Bono 380 “I stay at home”, Bono Independencia, Bono Rural, Bono Familiar Universal, Bono for police, military and INPE),

Purchases of medical supplies and materials and reactivation of public investment in such a way that the Adverse Selection (AS). The problem of adverse selection is a problem of "Hidden Information", which brings as a consequence, Hiring who should not be hired, Buying what should not have been bought, Choosing who was not relevant, then the solution to the problem of AS is to hire professionals or specialists with integrity otherwise corruption occurs at all levels in the administration and public management then according to the Royal Spanish Academy (RAE) corruption is the use of the functions and means for the economic benefit of its managers, According to Tanzi (1998), it is the abuse of public power for private benefit, and political actors manipulate the economic system to create economic rents that will be used to ensure government control, so that Corruption and Public Management in the theoretical framework conceives two models of Public Management; Normative Management, circumscribed to rules and norms, Positive Management, with a high degree of discretionality, linked to customs, myths, beliefs and traditions, according to North the first obeys formal rules and the second informal ones, however, public investment has been accompanied with positive management attitudes with high levels of corruption, by rulers, ministers, advisors and public officials, in addition there is macro and micro Corruption: at the macro level we refer to presidents, ministers, advisors and officials of the different ministries and institutions, have been involved in acts of corruption and at the micro level we consider regional and local government officials, immersed in different acts of corruption. According to Ferras and Finan (2009), in a study of Brazilian municipalities, fraud in procurement processes, detour of funds, overvaluation of goods and services, payment for unfinished works, use of false receipts and simulation of bids stand out. In addition positive and Normative management, Corruption and Gender According to Tanzi (1998), analyzes the costs of corruption in terms of economic growth and highlights that it is not cheap to fight it, on the other hand, Glaeser and Saks (2004), concludes that states with higher per capita income and education, are less corrupt in such a way regarding corruption and Public Investment, the work of Tanzi and Davoodi, is a good reference, Aghion, Akcigit, Cage and Kerr (2016), build a model to analyze the relationship between taxes and corruption and economic growth also regarding the corruption perception index, Transparency International is taken into account, also according to Avis, Ferraz and Finan (2016), audits of public resources can reduce corruption, then Corruption and Gender According to Dollar, Fisman and Gatti, the higher the representation of women the lower the level of corruption then Ferreira et. al. (2014) concludes that women are more honest and less tolerant to corruption and that the greater presence of women would coincide with less corruption Fisar Kubak, Spalek and Tremewan (2016), evidence that women are less likely to participate in corruption and that men are more likely to offer bribes furthermore Graf and Frank (2011), women are more resistant to corruption, likewise corruption is everywhere. In countries such as ECUADOR, Mexico and Colombia cases of corruption occurred in procurement processes for respiratory ventilators, body bags, ambulances and various biosecurity inputs, let us point out that Ecuador buys body bags for 130 dollars, the market price being 20 dollars, Mexico buys ventilators for 63 thousand dollars (other equipment was purchased for 35 thousand dollars and in Colombia there is overvaluation in the purchase of ambulances, etc.

Anti-Corruption Strategies:

As it could be evidenced corruption cases are linked to Moral Risk and Adverse Selection then the Office of the Comptroller General of the Republic must implement and deploy efforts to reduce corruption, considering the strengthening of control procedures the control visits the ex officio Orientations the concurrent control, the previous control and subsequent control.

Conclusions

On the one hand, in the most optimistic scenario the GDP in 2020 would fall -9.5%, while in the moderate and pessimistic scenario the economy would fall -12.9% and -14.5%, respectively, as shown below.

Thus, the Peruvian economy would contract considerably between -9.5% and -14.5%, due to a lower domestic productive supply, as well as to a lower domestic and foreign demand, explained in turn by the advance of Covid-19 in all economies.

It is important to point out that this fall that would be registered under the moderate scenario (- 12.9%) would be similar to the one registered during the hyperinflation and stagnation of 1989 when the GDP contracted -12.3%; while the pessimistic scenario (-14.5%) would be the largest fall in Peru's history without considering the war with Chile when the GDP plummeted -32.9%.

It is important to mention that our estimates are far from the projections of recognized institutions such as the IMF, World Bank or ECLAC, however, these estimates were published in mid-April, while more recent estimates point to a double-digit GDP drop, as presented in Annex No. 2 of this document.

The corruption cases that have occurred during the pandemic are those related to Moral Risk and Adverse Selection.

The cases of corruption related to Moral Risk occur when the agents do not perform the activities as desired by the principal.

Corruption cases related to Adverse Selection occur when bad acquisitions and overpriced goods are made, causing economic damage to the state.

Corruption is closely linked to the positive management of public investment, in which agents act with great discretion.

Corruption generates millions of dollars in losses in the different national and subnational organizations.

Corruption during the pandemic has also occurred in other countries, which as a consequence, will see their score and location deteriorate, considering the Corruption Perception Index.

The Comptroller's Office has been strengthening its strategies to fight corruption.

In order to reactivate the economy, the government has issued several emergency decrees to transfer resources to subnational governments, which have not been properly managed.

Ultimately, the only sustainable solution to the socioeconomic problems generated by COVID-19 will be the coordinated containment of the virus. The scale, speed and scope of its spread require greater multilateral policy coordination. This pandemic has the potential to reshape the geopolitics of globalization, and is also an opportunity to recall the benefits of multilateral measures and initiate much-needed action to achieve a sustainable and inclusive development model.

Bibliographic References

- [1]. Gaspar, V., & Mauro, P. (2020). Políticas fiscales para proteger a las personas durante el brote de coronavirus. Retrieved from INFBlog website: <https://blogs.imf.org/2020/03/05/fiscal-policies-to-protect-people-during-the-coronavirus-outbreak/>
- [2]. Gopinath, G. (2020). Limitar las consecuencias económicas del coronavirus con grandes políticas dirigidas. Retrieved from INFBlog website: <https://blogs.imf.org/2020/03/09/limiting-the-economic-fallout-of-the-coronavirus-with-large-targeted-policies/>
- [3]. Hatheway, L. (2020). Un plan de respuesta a emergencias COVID-19. Retrieved from Project Syndicate website: <https://www.project-syndicate.org/commentary/covid-19-economy-response-plan-by-larry-hatheway-2020-02?barrier=accesspaylog>
- [4]. Johnson, S. (2020). Coronavirus y economía global. Retrieved from Project Syndicate website: <https://www.project-syndicate.org/commentary/coronavirus-global-economy-lack-of-american-leadership-by-simon-johnson-2020-02?barrier=accesspaylog>
- [5]. Rogoff, K. (2020). Ese sentimiento de los 70. Retrieved from Project Syndicate website: <https://www.project-syndicate.org/commentary/next-global-recession-hits-the-supply-side-by-kenneth-rogooff-2020-03?barrier=accesspaylog>