

The Structural Conditions for the Expansion of COVID-19 in Peru

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Peru is one of the most affected and infected countries by COVID-19. The expansion of the virus could not be contained by lockdowns and states of emergency. The re-opening of the economy increased the expansion of COVID-19. We argue that the role of Peru in the international division of labor is not only the structural condition for the persistence of labor precariousness in the country, but also the principal cause for the expansion of COVID-19 in Peru. Labor precariousness and the expansion of COVID-19 are the expressions of the country's economic and business structure. An economic structure heavily dependent on the non-tradable sectors and a business structure dominated by micro business undertakings, characterized by low productivity levels, do not permit the eradication of precarious labor conditions as economic growth hinges on economic progress abroad and precariousness is the source of profit of micro companies. The persistence of labor precariousness impedes the containment of COVID-19. Labor precariousness expressed in wages at the subsistence level and the lack of labor stability in the formal sector, in combination with the structural character of informality have been the catalysts for the expansion of the virus. We demonstrate that COVID-19 is not a democratic virus but a class virus. For Metropolitan Lima, districts with a more than average rate of informality have also a more than average rate of COVID-19 infections. The neoliberal development model has been responsible for the incapacity of the government to implement measures in accordance with the country's social and economic structure that might have contained the expansion of COVID-19. This model is the expression of Peru's function in the globalized world, the relation between this role and the country's economic and business structure, the functionality of the extractive development model for the Peruvian State, and the correlation of class forces within and outside the state apparatuses.

Keywords: *Peru, COVID-19, labor precariousness, international division of labor, neoliberal development model*

Introduction

At the end of December 2019 the world was notified about the existence of a new coronavirus in the city of Wuhan in China. This virus, SARS-COV-2 (COVID-19), rapidly spread and was declared a pandemic by the World Health Organization (WHO) on 11 March 2020. In response, Peru was the first country in Latin America to implement a nation-wide lockdown and strict quarantine measures. These measures were implemented through a declaration of a state of emergency, with the military and the police charged with controlling the population.

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This situation lasted for 3.5 months, from mid-March 2020 to the end of June. However, because of the expansion of the virus, in some regions the lockdown continued. In the whole of the country, the government of Martin Vizcarra maintained the prohibition on leaving one's residence between 10 pm and 4am.

This early response has not prevented the expansion of COVID-19 in the country. Currently (23 March 2021), Peru is ranked nineteen on the world ranking of the number of individuals infected by the virus. The slow but determined reopening of the economy seems to have increased the number of COVID-19 infections. Physical social contacts between economic agents augment the possibility for the virus to expand.

The expansion of COVID-19 in Peru during the lockdowns and now in times of the almost completely re-opened economy, appears to demonstrate the class character of the virus. Although the economic, social and health effects of COVID-19 might be diminished through concentrated efforts by the state apparatuses, the most affected are the salaried and non-salaried working class, in formal and informal situations, and self-employed workers.

The principal objective of this article is to show that the role of Peru in the international division of labor is not only the structural condition for the persistence of labor precariousness in the country, but also the principal cause for the expansion of COVID-19 in Peru. Labor precariousness is the transmission mechanism of COVID-19 expansion in Peru. A structural condition is a condition that is fundamental for non-structural conditions to help certain political and social developments, processes, and/or phenomenon to occur.

The expansion of the virus has a socioeconomic and class background. While it seems that the virus was brought into the country by travelers pertaining to what might be called the accommodated social classes, it rapidly turned into a disease of the laboring classes. First of all, these classes did not have the option to stay at home during the lockdowns as was mandated by law. Second, as the big majority of these classes perform manual labor, in general they are not able to do this work at home and, hence, they are more likely to be exposed to the virus. Third, the conditions for the expansion of the virus might have been eliminated if the government would have decided to actively intervene in the economy instead of providing late and uneven financial alleviation and repressing the population who have no other way to search for a job, income, and nutrition than by leaving their houses.

This paper intends to advance the discussion within the social sciences regarding the economic and social conditions for the expansion of COVID-19 in peripheral countries that are economically depended on their extractive economic sectors, especially the mining sector, and have implemented a neoliberal development model. Although we believe that economic conditions determine the social conditions for the expansion of the virus, both conditions are interrelated. Hence, in order to contain the virus, it would have been necessary that a coherent and interrelated set of structural economic and social measures would have been implemented that might have been able to eradicate the economic and social basis for the expansion of the virus. We analyze household surveys, statistical data on economic and labor development, and correlate data on employment in micro

companies and the number of own-account workers to the rate of COVID-19 infections.

The data we use in this paper to demonstrate the expansion of COVID-19 within the laboring classes has been limited to Metropolitan Lima, which is the most infected area in Peru. We rely on data from this area because it is the most reliable data and most accessible. Furthermore, data on the rate of labor informality at district level is able to be constructed and the social heterogeneity of Metropolitan Lima permits an analysis of districts that are heavily infected by COVID-19 and contain above average rates of labor informality, and thus enable a comparison between these and districts that are less infected by the virus and where the labor force is not principally informal.

As such this work is structured in five sections. Section one provides a panoramic view on the expansion of COVID-19 in Peru and discusses the expansion of the virus and its effects. Section two argues that the neoliberal conception of the State disabled the Peruvian Government's ability to implement effective measures that might have contained COVID-19. In section three we examine the structural conditions for COVID-19 to expand and to maintain its devastating health effects until an adequate vaccine against the virus has been implemented. Section four delves into the relation between informality and COVID-19 in Metropolitan Lima. It demonstrates that the expansion of the virus is principally located in what might be called the capital's working-class districts, characterized by above average rates of informality. In section five we present our conclusions.

The Rise of COVID-19 and its Effects

On 16 March 2020, the Peruvian government declared the state of emergency for the whole of the country in order to contain COVID-19. Three days later a complete and total lockdown began. Only pharmacies, grocery stores, supermarkets, public marketplaces, and banks were accessible to the public. Essential state institutions maintained in operation though were not open to the public.

During the lockdown, the military and the police were in charge to control the movements of the population. A curfew was implemented restricting people to their house from 5 p.m. until 6 a.m. the following day. On Sundays the lockdown was 24-hours.

As a response to the continuing expansion of the virus throughout the whole country, after months the lockdown measures were sharpened. In some parts of the country the curfew started earlier, and the use of face masks became mandatory when leaving one's residence.

The end of the total lockdown in July 2020 and the subsequent reopening of the economy (semi-lockdown) has not meant that all measures to contain the spread of the virus were also lifted. At the time of writing, the use of face masks is still mandatory and new restrictive measures are to be expected, at the same time maintaining the state of emergency in force, in order to reduce infections caused

by the “Second Wave” and the possible “Third Wave”. The lockdown measures vary according to the rates of COVID-19 infections.

Despite these efforts, the Peruvian regime has not been able to control the virus and the death toll. In Latin America, Peru occupies the fifth position regarding the number of COVID-19 affected individuals, after Brazil, Colombia, Argentina, and Mexico. In August 2020 the country rated as the world’s number one country in terms of mortality rate.¹ It was only since mid-September 2020 that the State was finally getting some control over the virus when daily reported positive cases started to reduce. However, the “Second Wave” of COVID-19 infections is putting the clock back at the time when the State was incapable to really fight the virus. In the last months the number of infections and deaths are rapidly increasing. The process of vaccination is very slow and has been subject to corrupt of authorities.

Even though the Peruvian government has been praised for its quick response to COVID-19, the lockdowns did not impede people from getting infected. As a matter of fact, what the lockdowns should have impeded was actually taking place during all these months of supposed social distancing. The first reopening of the economy (July 2020) directly increased the daily number of infections. 8.000 to 9.000 infections a day became rule. Currently (January-March 2021), the number of deaths and infected is comparable with the most dangerous periods of 2020.²

Although leaving one’s house was restricted to the purchase of the necessary food and to do financial transactions, a major part of the population, principally in working class districts, did not abide to these rules. In addition, the military and the police were not able to impede a massive number of people from ‘trespassing’.³ The use of force to control the population might have met violent responses.

It is possible that the government foresaw an increase of informality and massive unemployment as a consequence of the lockdowns. It is to be expected that the loss of jobs and the lack of a universal social security system that would have protected individuals against the financial consequences of unemployment, has increased informality as the informal sector is the only social security individuals have when their employers or their own businesses have to close.⁴ At mid-August 2020, the unemployment rate in Metropolitan Lima reached 16.4%, a more than 100% increase since March 16. Half December it had reduced to 15.2% (INEI 2020c, p. 1).⁵ However, not only did unemployment increase, also the labor

¹On 22 March 2021, Peru ranked seventh on the world ranking of COVID-19 mortality rates. Source: <https://coronavirus.jhu.edu/data/mortality>. [Accessed 29 January 2021]

²Source: <https://gestion.pe/peru/covid-19-exceso-de-fallecidos-bordea-los-300-casos-por-dia-segun-datos-del-sinadef-noticia/>. [Accessed 20 January 2021]

³Source: https://www.clarin.com/mundo/coronavirus-peru-vendedores-ambulantes-esperan-fin-cuarentena-toman-calles_0_jh5yCTC8w.html. [Accessed 28 August 2021]

⁴According to data of the International Labour Organization (ILO), informality is on the rise in Peru. In June 2020 it had increased 1.7 percent points in comparison with June 2019 (OIT 2020, p. 3). In March 2021 the rate of informality was estimated between 75% and 80% of the occupied active population, in <https://udgtv.com/noticias/informalidad-laboral-aumento-peru-menos-75-pandemia/>. [Accessed 16 March 2021]

⁵See also: <https://es.investing.com/economic-calendar/peruvian-unemployment-rate-516>. [Accessed 29 January 2021]

force participation rate dropped (Weller et al. 2020, pp. 18, 20). Moreover, the government did not account for the health consequences that an increase of informality and unemployment might have on the population. The search for jobs, income, and food by the informal and recently fired working classes have driven them into positions that expose them to catching COVID-19.

The only relief strategy the government implemented was that of short-term financial assistance. In May and June 2020, the poor, the extremely poor and the self-employed workers, about 7 million families (Vergara 2020), received a subsidy of around US\$ 210. In August, again a subsidy of US\$ 210 was handed out to what are called the most vulnerable families. However, this amount was not enough to finance the monthly basket of basic foodstuffs for a family of four. In 2019, the poverty line stood at around US\$ 390 per month. Thus, the subsidy of US\$ 210 is actually closer to that of being in extreme poverty, for the extreme poverty line for a family of four is set at US\$ 207 per month. In February 2021, a subsidy of US\$ 170 was starting to be handed out to about 4.2 million poor families.

The decision to reopen the economy in July 2020 was primarily economically grounded. In the second trimester of 2020, the Gross Domestic Product (GDP) had reduced with 30.2%. In the first semester GDP already fell with 17.3%. This decrease was not only the product of the almost complete standstill of the national economy (a drop of internal demand with 27.7%), but it was also the result of reduced economic growth of its most important commercial partners, principally China that even saw its economy decrease in the first quarter of 2020. This caused, according to statistical data of the Peruvian Central Bank and the National Institute for Statistics and Informatics (INEI 2020b, p. 4), a global reduction for the prices of the country's mining products (followed by a weak recovery) and export volumes, Peru's main export products.⁶ In the second trimester, total export value decreased by 40.3%. Gold reduced by 51.6%, zinc by 49.7%, copper by 40.7% and lead by 22.4% (INEI 2020a, pp. 1, 7). Data for 2020 show that GDP has fallen with 11.2%.⁷ The number of exporting companies diminished with around 13%.⁸

The principal sources of income of the Peruvian State are Value Added Tax (VAT) and income tax. The economic, social and sanitary crisis reduced governmental income from both sources and increased governmental expenditures in healthcare and financial assistance to the most vulnerable families. The result will definitively be a phenomenal increase of the country's fiscal deficit. The Peruvian Central Bank (Banco Central de Reserva del Perú 2020a, p. 81, 2020b, p. 87) expects for 2020 a fiscal deficit of 8.6%, up from 1.6% in 2019. In the first semester the deficit was already 6.7%.

The reopening of the Peruvian economy not only caused an increase of COVID-19 infections due to reduced social distancing at the workplace, but also

⁶It should be underlined that the commodity prices were already falling before the COVID-19 outbreak in Peru (Tröster 2020, pp. 5–7, IDB 2020, p. 3). According to the International Development Bank (IDB), starting from early 2019 goods exports from Latin America were reducing (IDB 2020, p. 2).

⁷Source: <https://www.eleconomista.com.mx/economia/PIB-de-Peru-cayo-11.12-en-2020-peor-de-semperno-en-tres-decadas-20210215-0062.html>. [Accessed 16 March 2021]

⁸Source: <https://portalportuario.cl/peru-cantidad-de-empresas-exportadoras-disminuye-125/>. [Accessed 16 March 2021]

because of the increased use of public transport. The lack of regulation and enforcement of this industry has led to an intense competition between private transport companies. Prices are also too low to properly finance the transport of citizens at current international standards of safe public transport. These companies are not really abiding to these standards and the Peruvian citizens are not complaining in order not to face increasing prices in these times of economic recession. Especially in the working-class districts safe public transport is non-existent.

The Peruvian State and COVID-19

Since the 1990s, Peru has been ruled by firm neoliberal governments such as those led by Alberto Fujimori (1990-2000), Alan García (2006-2011) and Pedro Pablo Kuczynski (2016-2018) or regimes that coupled market-oriented policies with programs of social inclusion like the governments presided by Alejandro Toledo (2001-2006) and Ollanta Humala (2011-2016). In general terms, all these governments considered the market the principal mechanism to distribute the wealth produced in the country. The neoliberal constitution of 1993 radically reduced the role of the Peruvian State in productive activities.

The pandemic demonstrates that only the State has sufficient power to impose measures in order to contain COVID-19, to finance the economic consequences of the expansion of the virus and to develop a vaccine. The State is not only fundamental for the economic reproduction of the system, but also for its social and ecological reproduction.

The effects of COVID-19 demonstrate that in the last 20 years social progress in Peru has been very thin, although the size of the Peruvian economy, measured in real GDP, in the years between 2000 and 2019 increased with around 145%. There are definitively more shopping malls, more cars, more credit card holders, and more internet connections than 20 years ago, however informality and underemployment have maintained high. While in 2002 it was estimated that 85.3% of all employed workers were informal workers (Gamero Requena and Carrasco n.d.) and 42.9% of the Economically Active Population (EAP) was underemployed (Murukami 2007, p. 430), in 2019 still 72% of the EAP was informal (Lust 2020, p. 323) and 42.5% was underemployed⁹. In the period 2000-2018, that includes the years of impressive economic progress triggered by the commodities boom in the period 2005-2011 (Lust 2019a, p. 1234), the Gini coefficient only reduced with a bit more than six points, i.e., from 49.1 in 2000 to 42.8 in 2018¹⁰.

During 2020 the demand for oxygen and medicines to combat COVID-19 increased phenomenally. As this increase was not matched by a corresponding increase of supply, prices rose spectacularly. In Peru, many people have died

⁹Of course, during the pandemic the rate of underemployment must have increased significantly (Weller et al. 2020, p. 24).

¹⁰Source: <https://datos.bancomundial.org/indicador/SI.POV.GINI?locations=PE>. [Accessed 12 October 2020]

because of a scarcity of medical oxygen or for not having sufficient income to pay for the dramatic price increases of medical oxygen.¹¹ Cases are registered in which patients have been asked to take their own oxygen to the hospital.¹²

The lack of supply is principally the consequence of the ideology of non-intervention in the markets. The market of oxygen is dominated by two companies that do not have the capacity and/or the interest to produce more oxygen.¹³ And although the State, in August 2020, took some measures to increase the production of oxygen,¹⁴ it was just recently (end of January) that oxygen plants were implemented in some hospitals. The Peruvian State has not taken measures to ensure the production of oxygen for the population that needs it for their families at home (the mass of the COVID-19 infected individuals). Oxygen was starting to be imported from Ecuador and Chile.

The reduced role of the State in the economy and the preference of market-based solutions to social problems or a healthcare system that for one part is based on the market mechanism (private healthcare) and for another part is public (with differentiated units for salaried workers and informal workers), is for a considerable part responsible for the collapse of public healthcare. The permanent shortage of intensive care units and hospital beds in public hospitals causes that many individuals infected by the virus are attended in wheelchairs outside the hospital buildings, in tents in the hospital's parking lots or not at all and stay at home connected to big oxygen cylinders. In addition, there is a lack of doctors and nurses (Caretas 2020).

Notwithstanding the fact that the pressure on public healthcare is immense, its collapse is not only due to increased demand, but also to the continued lack of support from the different governments. Governmental expenses in healthcare are not near to what is expected by the Pan American Health Organization. In the last two and half decades, only between 4% to 5.5% of GDP was expended on healthcare. Furthermore, the country has a low number of intensive care units (ICU), principally located in its capital city Lima, and a scarcity of professionals to work in the ICU's (Schwalb and Seas 2021, p. 1).

In this context it is interesting to observe that, when we compare Peru with Uruguay at the moment of writing, in Peru the total number COVID-19 infections stood at 1.472.790 and 50.339 people had died from the virus, in Uruguay the number of accumulated confirmed COVID-19 cases was 84.230 and 811 deaths.¹⁵ Uruguay spends around 9% of its GDP to healthcare (Vergara 2020, pp. 7–8)¹⁶.

¹¹In August 2020, the government took measures to increase the production of oxygen, in https://www.eldiario.es/sociedad/peru-espera-reducir-la-escasez-de-oxigeno-con-65-nuevas-plantas_16176562.html. [Accessed 26 August 2020]. At the end of January, oxygen plants were implemented in some hospitals.

¹²Source: <https://especiales.elcomercio.pe/?q=especiales/la-crisis-del-oxigeno-en-el-peru-ecpm/index.html>. [Accessed 26 August 2020].

¹³Source: <https://ojo-publico.com/1842/dos-companias-globales-dominan-negocio-del-oxigeno-en-peru>. [Accessed 17 March 2021]

¹⁴Source: https://www.eldiario.es/sociedad/peru-espera-reducir-la-escasez-de-oxigeno-con-65-nuevas-plantas_1_6176562.html. [Accessed 26 August 2020]

¹⁵Source: <https://coronavirus.jhu.edu/map.html>. [Accessed 23 March 2021]

¹⁶See also: <https://www.bbc.com/mundo/noticias-52843655>. [Accessed 11 January 2021]

The idea that the private healthcare system should function in combination with public healthcare has created a segmented healthcare system, that is, a healthcare system according to income. As the mass of the population is attended in the public healthcare system, the capacity of the private system has been limited. The collapse of the public system would not be mitigated by the capacity of the private healthcare system.

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The principal role of Peru in the international division of labor is to provide the country's raw materials for productive processes abroad, predominantly to transnational corporations that originate in the advanced capitalist countries and China. Its secondary function is to participate in the globally organized value chains.

Economic growth (and slowdown) is mainly the consequence of increasing demand for the country's natural resources and rising commodity prices in international markets. Metal minerals are by far the country's most important export products. The motors of economic growth in Peru are concentrated in a few large exporting companies, principally mining corporations (Lust 2020, pp. 6–7).

Peru's chief role in the globalized capitalist world has been translated into the extractivist economic development model that is in place since the 1990s. It is believed that lasting economic progress can be attained through a model based on the export of the country's commodities and foreign investment in, principally, the mining sectors.

In order to 'operate' the current development model and to 'comply' with the country's assigned principal role in the international division of labor, only a very small part of Peru's EAP is necessary. In addition, as argued by Palma (1988, p. 37), the role of countries at the periphery of the world capitalist system, such as Peru, does not permit 'sufficient' accumulation to provide employment for all.

In 2018, around 70% of the EAP was not necessary to 'run' the economic development model based on the export of the country's commodities and investments in the extractive sectors, principally the mining sector. The sectors and branches that are directly and indirectly needed to comply with Peru's function in the globalized capitalist world such as mining, transport, communication, finance, manufacturing, water, gas, electricity, private and social community services, and the state sector (excluding public education), provide employment to about 30% of the EAP (Lust 2020, p. 323).

Peru's particular economic structure is product of the country's principal role in the international division of labor. In 2019, the non-tradable sectors such as electricity, water, construction, commerce, and most of the services, contributed with more than 60% to GDP. This is all understandable as there does not exist any real interest in the development of high value-added exportable goods and services by national and international capital. The most important tradable sectors pertain to the extractive sectors. The non-tradable sectors are too weak to stimulate economic growth as their own prosperity depends on economic progress abroad and because the country's internal markets are too small to provide an "autonomous

internal push for new and/or extended economic activities in the non-tradable sectors” (Lust 2020, p. 324, Lust 2019a, p. 1235).

Peru’s business structure is dominated by what are called very small companies. According to the country’s National Institute of Statistics and Informatics (INEI for its acronym in Spanish), in 2018 94.9% of all private enterprises were micro companies, defined as businesses with annual sales not higher than US\$ 176.400 (S/. 622.500) or less than 150 Taxation Units and 4.2% were small companies (annual sales between 150 and 1700 Taxation Units). In absolute numbers these were 2.370.856 small and micro companies (INEI 2019, p. 22). In 2018, about 72.4% of the EAP worked in micro companies, defined as corporations that employ between one and ten individuals.

The around 70% of the EAP that is not directly necessary to operate the economic model, are laboring in what we call the capitalist subsistence economy (CSE). The CSE is an “economy of micro-enterprises characterized by low levels of productivity and expressed in remuneration rates at or near (below or above) the minimum wage level” (Lust 2019b, p. 782).

In part, the CSE can be seen as a social security network as it provides employment for all those who have not been able to find a job in the advanced economy. The CSE is not only a provider of employment, but also the necessary starting point, and most of the time also the end point, of emerging micro businesses. On the other hand, the CSE is functional for the development and the profitability of the advanced economy as it is “a key provider of labour and materials (at low costs) for the advanced economy”, “the principal supplier of the goods and services for the reproduction of labour-power in the advanced economy” (Lust 2019b, p. 786), and executes outsourcing functions for the advanced economy. Most of the individuals infected by COVID-19 are employed in the CSE.

Individuals who are employed in what we have called the advanced economy are, in general, laboring’ in medium-sized and big companies. It’s the advanced economy that receives most of the foreign direct investments¹⁷ and is composed of the principal exporting sectors and companies.¹⁸

Without the lockdowns, the Peruvian economy would also have been hit hard by the outbreak and worldwide expansion of COVID-19. Not only through the reduction of the export of mining products due to diminishing demand in the Global North¹⁹ and the reduction of the commodity prices, but also through its

¹⁷Data for the period 2008-2018 for instance, show that the three principal foreign direct investments (FDI) receiving sectors were mining, finance, and communication. The energy sector and the industrial manufacturing sector alternated to occupy the fourth place in importance (Source: <https://www.proinversion.gob.pe/modulos/LAN/landing.aspx?are=0&pfl=1&lan=10&tit=institucional-popup>; accessed 03/05/2020).

¹⁸In 2018, 2.836 big companies contributed with 96.1% to total export value. The participation of 2.782 micro business was 1.0%. (Ministerio de la Producción 2020, pp. 12, 32, 91)

¹⁹“The Global North consists of those countries that used to be called advanced capitalist countries. These countries form part of the Organisation for Economic Co-operation and Development (OECD). However, not all OECD member states are advanced capitalist countries. Although China is not considered an advanced capitalist country and is not a member of the OECD, on the basis of its global economic power we consider it part of the Global North.” (Lust 2019b, p. 791)

insertion in the globalized value chains organized by transnational capital. As a matter of fact, the emergence of a mass of micro businesses is not only the consequence of Peru's main role in the international division of labor, but also of the worldwide restructuring of productive processes since the start of the economic crisis of the 1970s (Lust 2020, pp. 318–319, 327).

The Peruvian micro businesses are not only nationally oriented, also a number of them are incorporated in globalized productive process. In the context of a business structure dominated by micro companies, outsourcing is a highly lucrative strategy to increase profits. Fierce price competition caused by the huge number of micro enterprises, a surplus of workers that exerts downward pressure on wages, and a labor legislation that attempts to reduce the labor costs of micro enterprises (Lust 2020, p. 4), provide the basic conditions for profitable outsourcing.

The worldwide reduction of productive activities and the drastic restrictions on international transport, have meant an important blow to the global value chains. Complete supply chains came abruptly to a halt as the chain cut. For this reason, it can be argued that through their worldwide insertion in globalized productive processes, the Peruvian workers in micro business or self-employed workers might have contributed to the expansion of COVID-19 as it urged them to 'trespass' the regulations regarding social distancing when the global value chains broke down.

The reopening of the economy has principally been the restart of the activities of large companies. Of course, since July 2020 not only large but also small and medium-sized companies have restarted their businesses. However, in the case of micro businesses a restart of activities is a very difficult question. As most of these companies are of precarious nature, lots of them have closed down permanently. Furthermore, the sanitary regulations to which companies have to abide before they can reopen are very difficult to finance by these companies.

The economic problems of micro enterprises can be clearly illustrated when we analyze the data of companies that have received loans against an average interest rate of 1.69% in the context of the reactivation of the economy.²⁰ Although the majority of these companies were micro or small businesses, it is but a very small part of the total number of micro and small companies in Peru. Data of the Peruvian Central Bank for October 2020 show that only 471.642 of all small and micro businesses received a loan, i.e., 19.9% of all micro and small companies according to the total number of these companies in 2019.²¹

The lockdowns caused the doors to close of micro companies, medium-sized enterprises, and big corporations. Massive layoffs are currently allowed by the government. Individuals working in micro businesses were directly fired and workers in medium-sized and big corporations maintained their salaries, saw their wages reduced or were also fired, temporarily laid-off or their working hours

²⁰Of course, not all micro businesses that restarted their activities asked for financial support. However, it is a strong indicator for the economic strength and weakness of these companies as the average interest rate lies around 1.69%. In other words, it is very lucrative or convenient to ask for a loan. Data on how many micro and small companies currently operate is not available.

²¹Source: <https://gestion.pe/economia/bcr-reactiva-peru-alcanza-ya-480122-empresas-98-de-ellas-mypes-noticia/>. [Accessed 23 March 2021]

reduced. Data for Metropolitan Lima show that in July 2020 around 50% of the total jobs lost during the lockdowns, around 1.7 million, were in companies that employed between one and ten individuals. Also, in the case of adequate employment²², individuals working in micro enterprises had to pay the biggest price. Adequate employment reduced by almost 70% (INEI 2020c, pp. 2, 6, 12).

It is the character of the Peruvian economy that can explain this dramatic situation for the mass of the Peruvian workers. In the first place, the absolute majority of the working population is employed in companies that are principally pertaining to the CSE. This makes the precarious nature of their employment a structural reality. As they are employed in low productivity companies (micro business undertakings) that do not add much value to national production (Lust 2020, p. 4) and which contribution to total export value is insignificant, there is no real economic sacrifice for the Peruvian State to oblige these businesses to close.²³ Second, companies in the CSE are mainly performing manual and low-skilled labor. This type of labor can only physically be executed at the workplace, or the employer should move some means of production to the residences of these workers in order to continue the productive process. This last option is not to be expected.

The lockdowns urged the mass of the Peruvian workers to look for other sources of income and by 'breaking' the lockdowns they might have contributed to the expansion of COVID-19 in Peru. Previously formally employed individuals are forced to look for work in the informal sector. The precarious social and economic situation of the informally employed further aggravated when their informal businesses were forcefully closed.²⁴

The workers who were fired due to the pandemic were formal and informal workers. Formal workers have access to unemployment benefits. However, as these benefits are individualized and based on one's salary, in general these benefits are not sufficient to maintain one unemployed for more than three months. Because these individuals are forced to look for work, they contribute to the expansion of the virus.

The socioeconomic welfare effects of informality are well-known. Informal workers have no contract, their labor conditions are precarious, and they do not have an unemployment insurance. In addition, most of them are not insured for healthcare. The total and semi-lockdowns caused extremely negative income effects for the large majority of the Peruvian labor force and contributed to the unfolding of a social and healthcare drama.²⁵

²²An individual who works less than 35 hours a week but wants to work more but cannot find employment, is not adequately employed. When someone works 35 hours a week, but remuneration is less than the established minimum wage level, this person is also not adequately employed. A not adequately employed individual is an underemployed individual.

²³The mining corporations, however, did not have to suspend their activities. As outlined, mining is crucial for economic progress in Peru.

²⁴According to Weller et al. (2020, p. 234), workers with relatively low qualifications, low incomes, and precarious jobs, were the most affected by the sanitary crisis.

²⁵Data of the ILO shows that in months of June to August 2020 the monthly real income of the 3.6 million working individuals in Lima reduced with 10.5%. The average real income in these months was equivalent to the real income in the same months in 2011 (OIT 2020, p. 20).

The absolute majority of workers in the private sector has a temporary contract (Cuadros Luque 2017, p. 55). Hence, as the companies had to close their doors, also these contracts came to an end without any possibility to proceed with a legal claim regarding the loss of income and to demand a certain compensation. This obliged these workers to not only use their unemployment benefits to survive, but also parts of their personalized retirement funds. When their savings run out, they began to look for work, resulting in more people interacting and a resulting expansion of the virus.

The question of temporary contracts or the generalization of labor instability that was introduced during the neoliberal adjustment programs in the 1990s and maintained still then, is not reduced to particular businesses or companies of specific size. Public and private education use temporary contracts as also, for instance, transnational telecommunication businesses and small textile producing companies. However, the use of temporary contracts is not crucial for micro businesses to maintain competitive because normally they do not use any contract at all.

As the big majority of the EAP labors in micro enterprises, it is easy to understand how the financial consequences of COVID-19 for these workers and their families might have given a formidable boost to the expansion of the virus. In Table 1 we present data on the type of contracts of workers in micro companies for the years between 2004 and 2018.²⁶

Table 1. *Type of Contract of Workers in Companies that Employ One to Ten Individuals, Excluding the Own-Account Workers: 2004-2018 (As a Percentage of Total Remunerated Workers in Micro Companies, Excluding Own-Account Workers)*

	Permanent contract	Temporary contract	Without contract
2004	1.8%	5.2%	91.5%
2005	1.6%	5.4%	91.6%
2006	1.5%	4.4%	92.6%
2007	1.9%	4.5%	91.8%
2008	1.9%	4.7%	91.3%
2009	1.6%	4.9%	91.9%
2010	1.6%	4.9%	91.9%
2011	1.9%	4.9%	91.3%
2012	2%	5.9%	90.4%
2013	2%	6.7%	89.7%
2014*	17.8%	28.6%	45.2%
2015	2.1%	6.8%	89.7%
2016*	18%	29.6%	45.1%
2017	2.4%	7.7%	88.2%
2018	2.2%	7.8%	88.2%

*We believe that the percentages in these years are incorrect because they radically break with the trend of the entire series.

Source: Household Surveys of Peru, 2004-2018.

²⁶Micro companies are defined as companies that employ between one and ten individuals.

Informality and COVID-19

As argued above, we think that informality or the ‘expulsion’ to the informal sector of previously formally employed individuals has worked as a catalyst for the expansion of COVID-19. As a matter of fact, we believe that there might exist a positive relationship between the rate of informality and the rate of COVID-19 infections. This section pretends to examine this relation.

In Peru, data on informality exists at the level of departments and provinces, but not at district level. Information on the number of COVID-19-infected individuals is available at the level of departments, provinces, and districts. In order to determine the existence of a relation between the rate of informality and the rate of COVID-19 infections, data at the level of departments and provinces is not suitable. For instance, a province might have a relatively low number of COVID-19 infections in comparison with the rest of the country, but in some of its districts it might be extremely high and tightly related to the rate of informality. An analysis at the provincial level does not visualize this possible particularity.

Before we present the evidence that our hypothesis holds, it is important to explain what is meant by the rate of informality at district level. It is not a specific number as there is no data available to calculate it.²⁷ In this article the rate of informality at district level includes the percentage of individuals that labor in companies that employ between one and five individuals and the percentage of self-employed workers.²⁸ In the case the rate of individuals working in companies that employ one to five individuals is higher than the average rate in Metropolitan Lima (55.5%), the rate of informality is considered to be high. The same analytical determination applies to the rate of self-employed workers. The average rate of self-employed workers at the level of Metropolitan Lima is 32.4%. Although it is only necessary that one of the two variables must be higher than the average in order to be counted as a district with high informality, in general a more than average rate of individuals working in very small companies is ‘accompanied’ by a more than average rate of individuals working on their own account. We have considered to include the variable “without health insurance” as an indicator of informality, however as formal and informally employed individuals may contract private health insurance companies, the validity of this variable reduces.²⁹

It is important to underline that this section only intends to find out how a more than average rate of informality is related to a more than average rate of COVID-19-infected individuals. We analyze individuals instead of companies. In

²⁷It should be noted that the yearly published rate of informality at nation-wide level is an estimation. Estimations may differ according to the definition of informality.

²⁸According to the literature, workers who labor in companies that employ between one and five individuals or work on their own account might be considered informal workers (Maloney and Saavedra 2007, pp. 29–30, 39, ILO 2012, Salazar-Xirinachs and Chacaltana 2018, pp. 18, 20, 21).

²⁹Weller et al. (2020, p. 29) use the lack of health insurance of employed individuals as their principal and only indicator to determine labor informality. Although it is not correct to use the question of health insurance as a proxy for formal and informal labor, our data on the percentage of individuals without health insurance according to district show almost full coincidence with the data on individuals who work in companies that employ between one and five individuals and the percentage of own-account workers.

the case an individual works in a very small company in the district of Villa El Salvador (with a high rate of informality) but lives in Pueblo Libre (less than average rate of COVID-19 infections), this individual is counted as working in a company that employs between one and five individuals for the district of Pueblo Libre.

Metropolitan Lima consists of 43 districts. The smallest has 1,090 inhabitants (Santa María del Mar). The biggest is San Juan de Lurigancho with 1,150,470 residents. The differences regarding the number of individuals per district, causes that the relation between the rate of informality and the rate of COVID-19 infections becomes diffuse. For example, the number one district for COVID-19 infections is San Juan de Lurigancho. San Juan de Lurigancho is the most populous district in Lima (1,150,470), however its high rate of informality does not correspond with a high rate of COVID-19 infections. Santa María has above average rates of COVID-19 infections, but not many people live in this district.

These above considerations have led us to conclude that districts such as Ate, Comas, San Juan de Lurigancho, San Martín de Porres have to be excluded from our analysis as the number of their citizens is bigger than the upper limit. This upper limit is determined by dividing the total number of Metropolitan Lima citizens by the number of districts. The average population is 222,787 per district. We consider the lower limit at 1 resident and the upper limit at 445,575 inhabitants.

The rate of informality and the rate of COVID-19 infections demonstrates that a positive relation exists between both variables. Data show that 52.1% of Metropolitan Lima individuals live in districts for which a positive relation exists between the rate of informality and the rate of COVID-19 infections.

The relation between the rate of informality and the rate of COVID-19 infections might be stronger when we take the uneven access to health services into consideration. It is to be expected that individuals working in the informal sector have difficulties to access these services due to financial barriers. As a consequence, the number of COVID-19 infections might be much higher than reported. Furthermore, the precarious financial and labor situation of informally employed individuals might not 'allow' them to report themselves sick due to a COVID-19 infection.

Research on the mortality rate in working class districts appears to be crucial in order to determine if the uneven access to health services of individuals employed in the informal sector is expressed in a more than average rate of COVID-19 mortality. This investigation would increase in importance when it also enables to establish a relation with food habits and the overall health situation in these districts.

Conclusion

COVID-19 is not a democratic virus. Although every human being can be infected, some human beings have more chance to be infected than others. The Peruvian laboring classes in Metropolitan Lima seem easier to be infected by COVID-19 than the accommodating classes, through our demonstration that a

more than average rate of informality is related to a more than average rate of COVID-19 infections.

The lockdowns and the different states of emergency could not prevent the expansion of the virus. When the country started to reopen, COVID-19 got a tremendous boost. The principal function of Peru in the globalized capitalist world has called into existence an economic and a company structure (the big majority of the Peruvian EAP are low-skilled and are employed in micro companies) that have functioned as the structural conditions for the expansion of the virus. The economic development model in place expresses Peru's primary role in the international division of labor as a provider of the raw materials for capitalist development abroad, principally in the advanced capitalist countries and China.

The expansion of COVID-19 is for a major part product of the overall labor precariousness and informality in Peru, the result of the above-mentioned structural conditions for the expansion of the virus. The general use of temporary contracts, the product of the neoliberal adjustment programs in the 1990s, enabled the companies to rapidly reduce personnel and labor costs, but also forced their former workers to put their lives and of others in danger by neglecting social distancing. For these workers the question has been simple: dying from hunger or from COVID-19.

A social and economic structure that contributes to the expansion of COVID-19, a development model that through the elimination of the regulating role of the State and the privatization of its social obligations has converted the country in a permanent social emergency, leading to the incapacity of the government to develop and implement measures against the expansion of COVID-19 in accordance with the country's characteristics, makes discussions over the future design of the social and economic structure of Peruvian society and the role of the State in society more than urgent. These discussions should begin with the current economic development model.

COVID-19 has demonstrated that the prevailing model must change if Peru wants to be prepared for new pandemics. It has shown that Peru has been living in an economic statistical fantasy, where some believed that the country was near of becoming a member of the organization of the most advanced capitalist countries, i.e., the OECD (CEPLAN 2014). However, as recounted here, economic development in the last twenty years has been very thin. Peru is still heavily depended on foreign direct investments in its extractive sector and for the demand for its commodities, the laboring classes are principally performing manual labor, the big majority of the EAP is informal and is employed in very small companies characterized by low productivity, and healthcare is structurally deficient. Without acknowledgement of these factors, it will be difficult to prepare effectively for future pandemics and avoid repeating Peru's experience with COVID-19.

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