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Concentration of wealth and income in post-pandemic Latin America: Measurement, results, and perspective

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High inequality of wealth and income (or its concentration) is nowadays an international concern, although in many Latin American countries the only concern is to reduce poverty due to a vision associated with the trickle-down economy (Roberts 2022). From the neoliberal perspective and from that of the groups of economic power, the problem of high inequality is not very relevant. Even for the World Economic Forum (2019), which brings together the world's great business and political leaders, high inequality was pointed to as one of the main trends and risks in the world economy. Increasing wealth and income disparities share priority with climate change, population aging, water crisis, and the increasing polarization of societies that contributes to deep social instability. In the wake of the Covid-19 pandemic, Roubini (2020) raised the possibility of a new lost decade until 2030. As evidenced, among others, by the articles in this dossier, the impacts of concentration and high inequality cover the economic, social, and political spheres in the short, medium, and long terms.

This article examines the difficulties of measuring inequality in Latin America, explores the different sources available, and places the depth of the problem in a comparative perspective. To this end, the paper is organized in four sections. The first considers the problems of measuring wealth, income, and high inequality at a global level, but especially in Latin America, where it is underestimated. The second section refers to the distributive situation, inequalities, and the concentration of wealth before the Covid-19 pandemic. The third shows the preliminary results generated by the pandemic with information available for 2020, 2021,

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and 2022 globally and in Latin America, and especially Peru. Finally, in the fourth section, some hypotheses are proposed as to what could happen with the concentration of wealth and high inequality at global level, but especially in Latin America and Peru. Indeed, it is a complex and vast reality, where there are many common elements, particularities, and national policies to consider.

Wealth measurement problems and economic inequalities

The analysis of the distribution and concentration of wealth, particularly the ownership of the means of production or productive wealth, is a key factor in explaining the functional distribution of income between capital and labor. Wealth is defined here as the total productive and financial assets owned by physical or natural persons in any economy, especially among the wealthier members of society. Likewise, when it comes to net wealth, debts or liabilities are deducted. The personal distribution of income is in turn conditioned by the chain of previous elements affected by a set of structural and economic (national and international), social, political, institutional, family, and personal factors (Alarco, Castillo, and Leiva 2019).

The task of ordering, systematizing, and analyzing statistical information on the distribution of wealth, the functional distribution of income, and the personal distribution of income is not easy, being more complex in the economies of Latin America and in Peru. In our region there are problems of non-existence and lack of continuity of the statistical series. These are issues that do not have due importance either from the perspective of the authorities or the power groups, who have exclusively diverted the discussion to addressing poverty. The status of statistical information on these three spheres of distribution is dissimilar. Currently, there is no official data on the distribution of wealth in all of Latin America, so the information comes from independent sources such as Allianz, Credit Suisse, Forbes, Fortune, and Knight Frank. All these sources are informative and built with various methodologies to determine potential clients for different international investment banks.

In the case of the factorial or functional distribution of income between earnings (capital income or profits), wages and salaries, and mixed income, the basic source is the National Accounts of the different countries, which are compiled based on the United Nations methodology. However, the problem is the successive changes in the base years of the data that sometimes modify the measurement criteria. Likewise, in some countries and periods, earnings are grouped with mixed income (OECD 2023). For example, in the case of Peru, the information was provided by the Central Reserve Bank of Peru until the 1980s. However, this role was then assumed by the National Institute of Statistics and Informatics (INEI), which integrated the information into two concepts: wages and salaries, and operating surplus. It was not until 2007 that INEI included the two previous concepts as well, separating mixed income, which considers self-employed workers in urban and rural areas.

Meanwhile, information for estimating personal income inequality (generally presented in deciles, quintiles, or percentiles) and measured in terms of the Gini indicator is sourced through household surveys in different countries. For example, in the case of Peru, it is the National Household Survey (ENAHU) developed by INEI, whose official continuous series begins in 1997. However, like most surveys of this type applied in underdeveloped economies, there is a serious relative problem: they do not capture properly the income of the middle and upper sectors of society.

We have discovered with an analysis of the microdata that the richest family in Peru in 2015 lived in the San Martín region with an annual income of around US\$350,000, and anecdotally in a house with a cement floor. This family probably receives 1,000 times less than the income

of the really richest billionaire families in the country, which is why other sources must be used. Castillo (2020) has estimated the differences between the personal disposable income of the INEI National Accounts for recent years with respect to the extrapolated income or the sample of households of the ENAHO considering the expansion factor of each household adjusted by other variables. Between 2014 and 2018 the omitted gap is significant and growing: 36.5%, 38.4%, 38.1%, 40.9%, and 41.4%, respectively. We have recently determined that the underestimates of the household surveys extrapolated to the entire population in Chile, Colombia, and Mexico also fluctuate between 40% and 45% of the national income of the National Accounts. However, it should be noted that there are methodologies to estimate and correct these anomalies. After these corrections, the levels of inequality obtained are higher than those determined by official sources.

Inequality and concentration in the pre-pandemic era

There is debate, but also consensus on the evolution of global inequality and within the different economies of the world. The variety of existing concepts and indicators makes agreement more complex: it all depends on what and how you want to measure. Bourguignon (2017) and Milanovic (2017) state that there has been an upward trend in concentration of wealth and income globally since the 19th century, with a slowdown and fall between the decades of the 1950s and 1970s, after which the growth trend continues. However, more recently, Milanovic (2023) uses the Gini coefficients of the different countries of the world to point out that the story of inequality in the 21st century is the reverse: the world is becoming more equal than it was for more than 100 years. The decline is in his view driven by the rise of Asia, particularly China. According to Milanovic, China made a massive contribution to reducing global inequality for reasons including that its economy started from a low base and was therefore able to grow at a spectacular rate for two generations, and by virtue of the country population. Similarly, India, the world's most populous country, could play a similar role to China's in the past 20 years. If more Indian people get richer in the coming decades, they will help reduce overall global inequality.

With the exception of what Milanovic (2023) describes has happened since the 1990s due to the greater growth of emerging economies and their middle classes, it is clear that the functional distribution of income in favor of profits become more important with respect to the share of wages from the 1980s onwards. The same occurred in favor of the richest 10% or 1% of the population (Piketty and Saez 2003; Piketty 2014; Deaton 2015). In this regard, two major stages can be clearly distinguished in the capitalism of the 20th century (Boyer 2007). The golden phase or the Fordist model, from the end of the Second World War to the end of the 1970s, sought a balance between the income that is distributed in favor of capital and labor and had among the central drivers improvement in the purchasing power of workers, higher levels of consumption, and synergies that were generated in productivity, investment, demand, and economic growth. The neoliberal phase, which clearly begins in the 1980s and is based on profits, the preeminence of the free market, the greater participation of the private sector, finance, and consumer credit, was accompanied by an increasing share of the profit in the product.

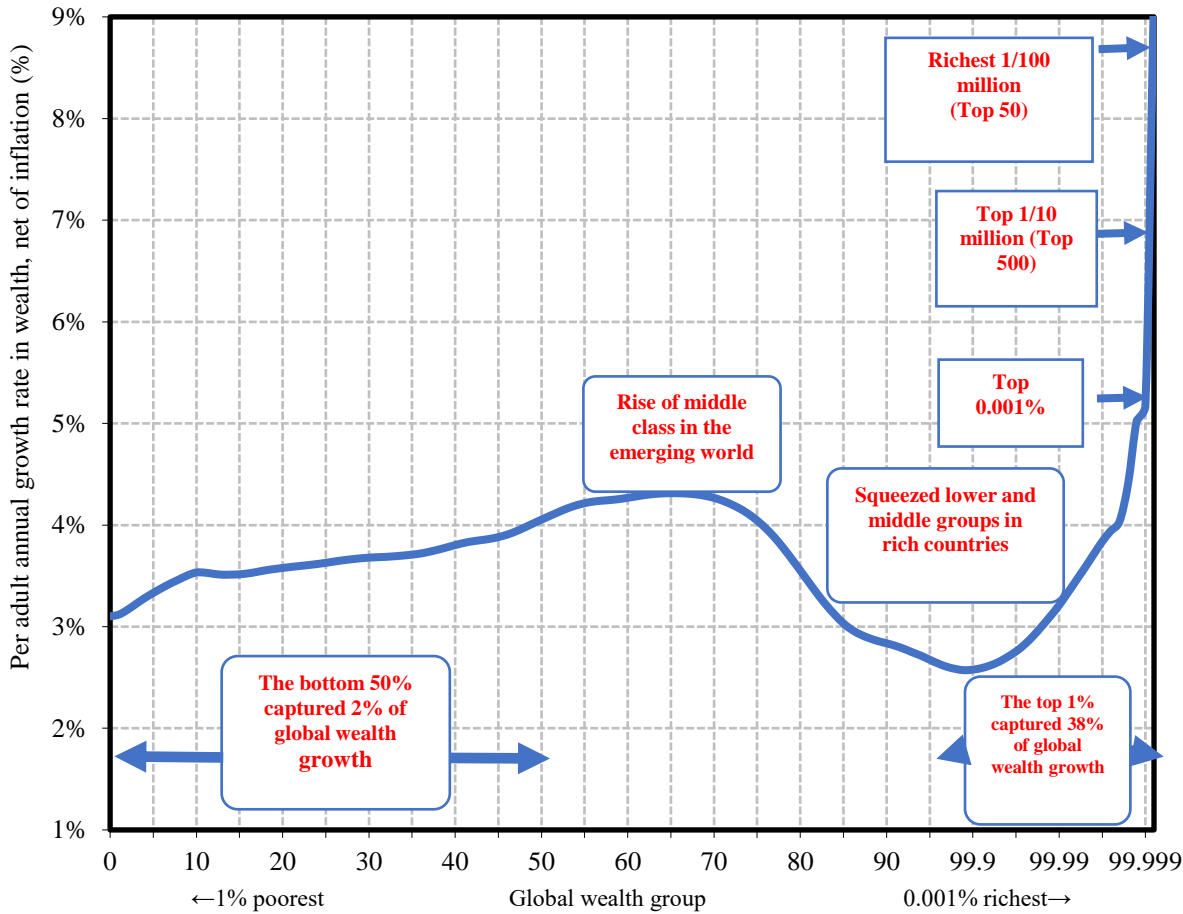
Latin America shares a similar trajectory, although the phase change came in the 1990s. The factor distribution of income shows a sinusoidal trajectory in relation to the share of wages and profits (Alarco 2017), in which the peak of the share of wages was obtained simultaneously with the golden age of capitalism (1960s), despite national peculiarities. It should not be forgotten that the region has moved from a model of economic growth oriented towards the internal market and industrialization directed by the state to one linked to the exterior and led

by the market. The start-up processes, specific orientation, consolidation, and critical periods were particular to each economy in the region, although there are many common elements and milestones. The weight of the different internal and external factors that triggered these processes was not homogeneous either. In the same way, the new modality of economic growth has gone through different stages with greater or lesser progress in the different economic variables and social indicators. In this process of outward orientation, some economies have intensified manufacturing exports, others extractive products from the mining and hydrocarbons sector, and still others a mixture with greater or lesser technological and value-added content.

The other way of measuring how inequality has developed is that of the group of researchers operating the world wealth and income database WID.world (www.wid.world), which looks at the percentage of income obtained by each stratum of the population to give a clearer picture of the distances between the richest and the poorest. Precisely with this methodology, Chancel et al. (2021) remind us that global wealth inequalities are more pronounced than income inequalities. The poorest half of the world's population owns barely 2% of total wealth; in contrast, the richest 10% owns 76% of all wealth. Piketty (2019) designed the so-called elephant curve to show what has happened to global income inequality from the lowest to the highest strata in the world between 1980 and 2018. In this case, it was found that inequalities have decreased between the bottom and the middle of the distribution, while they have increased between the middle and upper part. More recently, Chancel et al. (2021) have presented the evolution of this curve for global wealth between 1995 and 2021, which is shown in Figure 1. The rise in private wealth has also been uneven within countries and globally. Global billionaires have captured a disproportionate share of global wealth growth over the past few decades: the top 1% took 38% of all additional wealth accumulated since the mid-1990s, while the bottom 50% captured only 2%.

According to WID.world, the wealth of the world's richest people has grown between 6% and 9% per year since 1995, while average wealth has increased by 3.2% per year. Since 1995, the share of world wealth owned by the richest 0.01% has grown from 7% to 11%. The share of wealth held by billionaires increased during the Covid-19 pandemic; in fact, 2020 marked the steepest rise on record in billionaires' share of the world's wealth.

Figure 1. Average annual wealth growth rate, 1995-2021



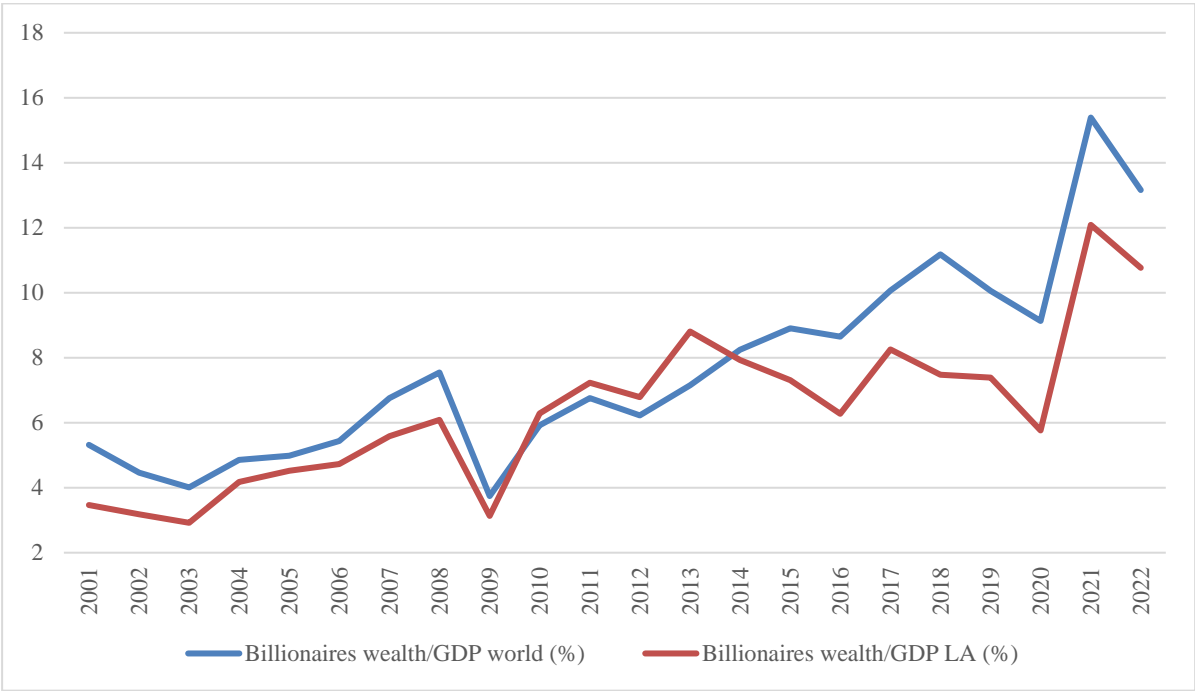
Interpretation: Growth rates among the poorest half of the population were between 3% and 4% per year between 1995 and 2021. Since this group started from very low wealth levels, its absolute levels of growth remained very low. The poorest half of the world population only captured 2.3% of overall wealth growth since 1995. The top 1% benefited from high growth rates (3% to 9% per year) and captured 38% of total wealth growth between 1995 and 2021. Net household wealth is equal to the sum of financial assets (e.g. equity or bonds) and non-financial assets (e.g. housing or land) owned by individuals, net of their debts.

Source: World Inequality Database (WID.world)

Latin American super-rich

The number of super-rich reported by Forbes (2001-2022), who have a fortune of more than US\$1,000 million, grows over time both in our region of Latin America and in the World, according to Figure 2. Between 2000 and 2021, the number increased three times from an equivalent of 5.4% to 15.4% of world product. Only in the 2008/2009 international financial crisis was there a slight overall drop, although it continued to grow in Latin America. In the time of the Covid-19 pandemic, the fortunes of these billionaires also grew. In 2000 there were only 538 super-rich people globally, while in March 2021 there were 2,755. Between 2019 and 2021 alone, the number of billionaires grew from 2,095 to 2,755 (an increase of 31.5%). Likewise, their wealth value rose from an equivalent of 9.1% in 2019 to 15.4% of world GDP in 2021, at a time when world production and income had decreased 4% in 2020. Likewise, we must not forget that along with poverty, unemployment and job insecurity increased in all parts of the world.

Figure 2. Net wealth total value with respect to world and Latin American GDP 2001-2022 (%)



Source: Own elaboration based on Forbes (2022) and World Bank (2022).

According to Forbes (2022), Latin America was not left behind. With the pandemic, the number of super-rich billionaires increased from 72 to 104, with wealth as of March 2021 of US\$446.6 billion, equivalent to 12.3% of regional GDP compared to 5.8% in 2019. The economy with the largest number of billionaires is Brazil, followed by Mexico, Chile, Peru, Argentina, Colombia, and Venezuela. In Chile, Brazil, and Mexico, the super-rich have a greater presence than in other economies in the region, with proportions equivalent to 16.9%, 14.7%, and 12.7% of their respective GDP.

Brazil had 65 billionaires, Mexico 13, and Chile 9. Peru then follows on the list with 6; Argentina and Colombia with 5, and finally Venezuela with one. The richest man in the region is the Mexican Carlos Slim, with a fortune of US\$62.8 billion from telecommunications and other sectors. He is followed by the Chilean Iris Fontbona with US\$23,300 million from mining, and four Brazilian families – Lehman, Saverin, Herman, and Moll Filho – with US\$16.9 billion, US\$14.6 billion, US\$11.5 billion, and US\$11.3 billion, respectively. The Colombian Luis Carlos Sarmiento closes this short list with US\$11,000 million.

According to Credit Suisse (2011-2017), people with wealth greater than US\$100 million have become the fastest growing group, followed by those with a net worth between US\$50 and 100 million. On the other hand, the situation of the set of economies analyzed is stationary between those with US\$5 and 50 million; while the number of millionaires between US\$1 and 5 million has decreased in Argentina, Brazil, Colombia, and Mexico due to the lower market value of their net worth. Wealth has concentrated among the richest of the rich. Only in Chile and Peru is there significant growth in the number of millionaires in the range between US\$1 and 5 million.

The only economies where the number of adults with net worth between US\$100,000 and 1 million has increased are Bolivia, Ecuador, El Salvador, Nicaragua, Paraguay, and Peru. In the

subregional average of Argentina, Brazil, Chile, and Colombia, the richest 1% have 42% of the total wealth and the top 10% have 71.2%. With these results, Latin America is located at an intermediate level above Europe and Asia-Pacific and slightly above North America. However, Latin America has a lower concentration in the richest percentile than India, Africa, and China.

The economies with the highest levels of concentration of wealth in our region are Brazil, Peru, and Chile, while those with the lowest level of concentration are Uruguay, El Salvador, Costa Rica, Ecuador, Colombia, Panama, and Nicaragua. At an intermediate level are Argentina, Bolivia, Mexico, and Paraguay. Clear increasing trends are observed in the series for Brazil and Chile. There is a growing but fluctuating trend in Argentina and Peru. In the rest of the economies, such as Bolivia, Colombia, Costa Rica, Ecuador, El Salvador, Mexico, Nicaragua, Panama, Paraguay, and Uruguay, greater variability is observed. In the weighted average of the different economies of the region, a clear upward trend is observed. So far in the 21st century, the concentration of wealth shows a growing trend, as it does globally.

It is useful to compare the information on concentration levels in Latin America with respect to other regions and the world average. For this purpose, the regional information processed by Credit Suisse (in terms of the Gini indicator) is used. In 2010, the highest levels of concentration were found in the Asia-Pacific region followed by Africa. China and Latin America were among the regions with lower levels of concentration than the rest of the regions. As of 2016, the highest levels of concentration in the world are in the Asia-Pacific region, followed by Africa, India, North America, and Europe. In general, almost all regions have increasing levels of concentration in the last decade. According to that source of information, it is no great consolation that Latin America is not the region with the highest levels of concentration of wealth in the world, since the concentration coefficients (Gini) are extremely high, which would condition a functional distribution of income in favor of benefits and a high concentration on the personal distribution of income for the wealthiest families. In addition, the redistributive role of fiscal policy is less important in Latin America than in developed economies.

Preliminary results with the pandemic: 2020, 2021, and 2022

There are various studies evaluating the impacts of the Covid-19 pandemic on inequality. Most of them highlight, based on historical studies, that a pandemic increases inequality both at the time it occurs and in subsequent years. This section shows some of the literature that we developed in Alarco and Castillo (2022 and 2022a). Likewise, business information from *Fortune* magazine (2022 and 2023) is presented, showing what happened with the income and profitability of the 500 largest companies in the world and the general results on the wealth of billionaires globally from *Forbes* magazine. In addition, information on the functional distribution of income in some developed economies, such as Germany, France, Great Britain, and the US, is then presented, and in the economies of Latin America: Brazil, Chile, Colombia, Mexico, and Peru. Despite the different sources of information considered, in general there is a trend towards greater inequality during and after the pandemic, although with many national particularities because of the policies applied during the period. We will not present here, due to space issues, the information related to the personal distribution of income.

Furceri et al. (2020) study the impact of the main epidemics of the last two decades on income distribution. Past events of this type, albeit on a smaller scale, have led to increases in the Gini coefficient, raising the income share of the highest income deciles, and reduced the employment-population ratio for those groups with basic education compared to those with a higher level of education. They provide evidence that the distributional consequences of the coronavirus may be greater than those derived from the historical pandemics of the sample they analyze. In a similar vein, Galletta and Giommoni (2020) examine the effects of the 1918

influenza pandemic on income inequality in Italian municipalities. They show that in the short/medium term (i.e., after five years), income inequality was higher in the Italian municipalities most affected by the pandemic.

The estimates provided by the ILO (2020) indicate that during the pandemic in 2020, 345 million full-time jobs were lost. Similarly, Hill and Narayan (2021) argue that the pandemic increased inequality through three mechanisms: a strong impact on job losses, long-term costs of the strategies of poor households to deal with the pandemic, and the disruptions that affect education among children from poor families and make it difficult for them to complete their studies and enjoy the economic benefits in the long term.

At the same time, as noted in the previous section, the record number of billionaires (2,755) and the value of wealth (US\$13.1 trillion) was higher in March 2021 than in March 2022 (2,668 billionaires and 12.7 trillion) and March 2023 (2,640 billionaires and 12.2 trillion) according to *Forbes* magazine (2021; 2022; 2023). Likewise, according to information from *Fortune* magazine, in 2021 the volume of profits obtained was highest both in absolute terms (US\$1.84 trillion) and relative to sales (11.4%) compared to all previous years and above the financial results of 2022 (Fortune 2022; 2023). All these indications allow us to affirm that not everyone lost during the pandemic due to the lower level of economic activity, but rather the profits and the value of the wealth of the richest grew. According to Forbes, it should be clear that 2021 was the record year, but the wealth concentration levels of 2020, 2022, and 2023 are in all cases higher than the pre-pandemic levels of 2019.

It is important to note that the distributional impacts of the pandemic are accompanied by an intensification of technological change associated with a greater use of digital technologies, robotics, and artificial intelligence (AI), among others, that imply a lower use of labor, especially less qualified labor. In this regard, Chernoff and Warman (2020) show that Covid-19 accelerated job automation, as employers invest in technology to adapt the production process to protect themselves against current and future pandemics. The International Federation on Robotics (2021) reported that annual orders for robots from non-automotive sectors exceeded cumulative orders for automotive robots for the first time. In the midst of the Covid-19 pandemic, in which GDP decreased worldwide by around 4%, sales of robotic units in the United States increased by 7% in 2020 compared to 2019. Acemoglu (2021) reminds us that there was a serious problem before the pandemic with technological change and economic growth. He points out that much of this decline is attributable to automation, as well as other factors such as globalization and the diminishing power of labor over capital. Driven by machine learning and AI, the next phase of automation is advancing apace and putting the world's economies at a crossroads. AI and other ongoing technologies could further exacerbate inequality.

The future: Higher inequality but more complexity?

The distributive outlook is clearly determined by structural factors and technological change trends that tend to reduce the labor component per unit of product in the short, medium, and long term, which was boosted by the Covid-19 pandemic. Subsequently, the inflationary pressures were added as a more conjunctural element that has been aggravating inequality. On the positive side, as Milanovic (2023) suggests, the greater growth of China, India, and other Asian economies contributes to an improvement in global equality at the base due to the growth of their middle classes, but negative in the upper part since it is the richest 1% that are likely to achieve a larger share of global wealth and income. We must also subtract from this positive effect the probable negative impact of what is occurring in Africa. However, although the greater inequality sounds paradoxical, geostrategic conflicts, deglobalization, and the

slowdown in global growth expected for the coming years, until the end of this decade, could generate social and political counterweights so that the share of wages in GDP is not further reduced.

There is no doubt that new technologies can have positive impacts by improving production processes, creating new goods and services, generating new jobs, and raising our living standards; but most of the studies are proposing that the net balance in terms of job creation could be negative. Between 47% of current jobs could be lost in the US in the most pessimistic scenario and 9% in the least pessimistic. For our region, ECLAC and OEI (2020) recall that there is a certain consensus that the main tasks or occupations most likely to be automated are routine tasks, both manual and cognitive, defined as those that can be fully codified and, therefore, programmed to be carried out by machines. Non-routine tasks require skills such as flexibility, judgment and reasoning, common sense, and intuition and creativity, among others, which, unlike routine tasks, cannot yet be performed by machines.

According to ECLAC and OEI (2020), 32.6% of the occupations in Latin America would be potentially automatable with high risk, with 21.6% in the primary sector, 35.4% in manufacturing, and 34.1% in services. In the case of Peru, those estimates would be lower due to the low levels of productivity in which there would be no incentive to replace people with machines (19% of total employment). The primary sector would only replace 5% of the labor force, the secondary sector 29.5%, and the tertiary sector 22.9%.

In the case of Latin America, another important variable to consider are the changes in the political regimes of the various economies in the region, although without a permanently defined trend. In this regard, it must be remembered that, at the beginning of the 21st century, the political changes in Argentina, Brazil, Ecuador, Bolivia, and Uruguay from conservative schemes based on the drip economy to more progressive ones concerned with wages and salaries and equality generated the increase in the share of wages and salaries in the GDP of the entire region. Now, at the beginning of the third decade of the millennium, those spaces are once again shared by Argentina, Bolivia, Brazil, Chile, and Colombia.

For our region, it is also relevant to consider the evolution of the terms of foreign trade, since when these are positive due to the higher and rising prices of export products, the internal economies become more dynamic, but the share of profits in GDP generally increases to the detriment of wages and salaries. This occurs in economies that export mining products and hydrocarbons, such as Chile, Colombia, and Peru.

Without considering the political variables and the previous terms of trade, Alarco and Castillo (2022) used simulation exercises that extrapolate the trends in terms of labor per unit of product and an input-output model for Peru between 2020 and 2030 to show significant effects in terms of the employed population and greater inequality. In the base scenario that assumes the continuation of the current pattern of growth, a higher level of economically inactive population, unemployment, and greater inequality would be generated. Likewise, intensifying the orientation towards producing and exporting mining products would cause these results to worsen due to the fact that the extractive industries are capital-intensive. Similarly, the appreciation of the national currency due to the greater inflow of foreign currency could contribute to a lower internal production of the agricultural and industrial sector (sectors plus employers) that would be satisfied by imported goods.

The future direction of global inequality is difficult to predict. There is no inexorably negative result in relation to the concentration of wealth and high inequality in the coming years. However, if we do not apply public, fiscal, and redistributive policies such as those proposed

by Piketty (2019), Oxfam (2023), and other authors, along with measures that regulate ongoing technological changes, as proposed by Acemoglu (2021), and regulated digital technology platforms, negative trends will dominate. The challenges are even greater for Latin America, where inequality is more persistent, natural resource-based economies do not guarantee the generation of more jobs, and weak institutions call into question the ability of governments to distribute wealth in a sustainable manner. For this reason, the urgency of working locally and globally to achieve better shared economic growth is clear.

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