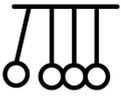


Tackling Economic Inequality with The Gini Coefficient in a Post-COVID World

ECONOMICS

Aslı Erdem



Introduction

With the shifting dynamics of economics as humankind finds its place between automation and traditional sectors, the future of many households is at stake. In such a period of turmoil and unpredictability, macroeconomics aim to tackle the obstacles that hinder economic growth in a country. The main goals of macroeconomics include maintaining a low and stable rate of inflation, maintaining low¹ unemployment, reducing the fluctuations created by the business cycle², promoting a stable economic environment for long-term and sustainable growth, and ensuring the equitable distribution of income³. Distributing income equally and the stances of certain countries in achieving this goal will be discussed extensively in this report; however, it must be borne in mind that absolute income equality is not a desired outcome⁴ nor is it achievable. The conflicting goals of economics, growth versus equity⁵ is central to this issue, as every attempt to achieve equity leads to welfare loss and hurts economic growth, both in the micro and macro scale. Therefore, countries are advised to, after due consideration, devise solutions that include a balance of both elements. This report will expand on the issue of distributing income equally with regards to the Gini

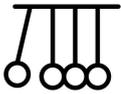
¹ Low in this context refers to the natural rate of unemployment, which includes the seasonal, frictional and structural unemployment of people in the labor force of a country.

² The business cycle is a diagram that displays economic activity (real GDP) over the course of time. It displays the inevitable economic fluctuations, where declines are referred to as “contractions” and local minimas are called “troughs”, and rises in real GDP are referred to as “expansions” and local maximas are called “peaks”. According to John Maynard Keynes, every economy will undergo recessionary and expansionary gaps and government intervention is necessary to revert the economies back to their equilibrium. The line of best fit, which follows an increasing trend, displays the growth of economies, the long-term growth trend (potential GDP). Although the business cycle theory is not central to the issue, it is discussed in several places throughout the report.

³ “Income distribution refers to the way in which the total national income is divided among individuals, taking into account factors such as wages, capital assets, and other sources of income. It involves analyzing the distribution of market income and the role of various factors such as supply and demand, institutions of the labor market, and government intervention in shaping income inequality.” (ScienceDirect) The distribution of income directly impacts the economy, such as the total output, and the social conditions, such as personal and social problems like social uprisings, depression and substance use, in a country.

⁴ Absolute income equality is not desired as *ceteris paribus*, this would lead to drawbacks in development, innovation and technological advancements. People wouldn't be incentivized to conduct further research and improve upon the current state of the world.

⁵ In economics, equity describes a state of fairness in which economic systems and outcomes are structured so that no individual or group is unfairly advantaged or disadvantaged. In a country where income is distributed unevenly, equity is not achieved. In addition, to achieve equity, efficiency has to be forgone, which is why most countries neglect implementing policies that centralize equity (interventionist policies).



coefficient, and the spillover impacts of the unequal distribution of income on society, including how the Gini coefficient is derived, its implications and interpretations, the Lorenz curve⁶ and monetary and social means to counter economic inequality.

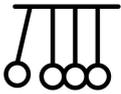
Economic inequality is the extent to which people in a country diverge in their ability to meet their economic needs, and exists as a result of many factors such as income, wealth, education, health, nutrition, gender and so on. Income inequality, however, results from the unevenness of the dispersion of income within a country/population. With this regard, income consists of “the money that people receive from their employment as well as other sources including interest from savings accounts and holdings of bonds, dividends from shares (stocks) in the stock market, rents from property that is owned and rented out, pensions or government benefits.”⁷ The unequal distribution of income is a pervasive repercussion of market-based/neoliberal policies that lack social safety nets and can bring about numerous social problems.

Measuring economic inequality

The distribution of income within a specific country can be understood by looking at the income that each level of the population earns. In a simplistic approach, dividing a country according to quintiles or quartiles whereby the first portion reflects the poorest 20% or 25% of the population and each consecutive portion follows an increasing level of affluence could give insight into the distribution of income in a country. To elaborate, if income in a country were distributed with absolute equality, every quintile or quartile would receive exactly 20% or 25% of income. In reality, this remains an impossibility. Therefore, the presence of unequal distribution of income implies that the poorest quartile receives less than 25% of total income where the richest quartile receives more than 25%.

⁶ The Lorenz curve is “a graph on which the cumulative percentage of total national income (or some other variable) is plotted against the cumulative percentage of the corresponding population (ranked in increasing size of share). The extent to which the curve sags below a straight diagonal line# indicates the degree of inequality of distribution.” (Oxford Languages) It forms the graphical basis upon which the Gini coefficient is derived#. The closer the Lorenz curve is to the line of absolute equality, the lower the Gini coefficient and better the distribution of income.

⁷ Ellie Tragakes, Economics for the IB Diploma Coursebook - Page 353

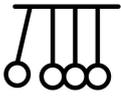


Country	Poorest 20%	Second 20%	Third 20%	Fourth 20%	Richest 20%	Gini coefficient
Australia 2014	6.8	12.0	16.1	22.1	43.0	0.36
Belarus 2017	9.9	14.2	17.9	22.5	35.5	0.25
Bolivia 2017	4.1	9.5	15.0	22.8	48.5	0.44
Brazil 2017	3.2	7.4	12.2	19.5	57.8	0.53
China 2015	6.4	10.6	15.3	22.3	45.4	0.39
Denmark 2015	9.4	13.9	17.2	21.8	37.7	0.28
S. Africa 2014	2.4	4.8	8.2	16.5	68.2	0.63
United Kingdom 2015	7.5	12.2	16.8	23.0	40.6	0.33
United States 2016	5.0	10.2	15.3	22.6	46.9	0.42

Picture 1: Distribution of income by quintiles and gini coefficients in selected countries in the years 2014-2017⁸

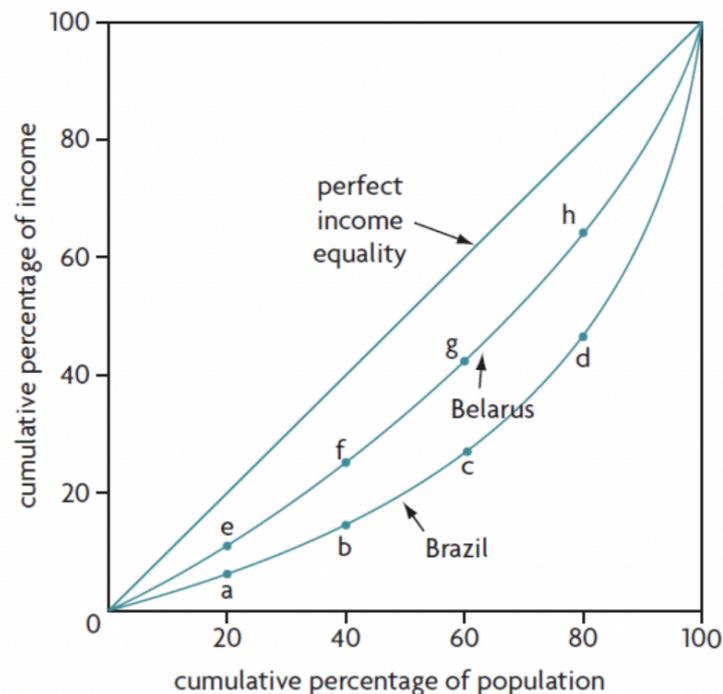
The table above demonstrates how much income each quintile receives in certain countries. As each quintile gets closer to receiving 20% of the total income, the income gets more equally distributed. This is compatible with the data presented, as Denmark in 2015 which has a wide middle class and 3 quintiles that almost have 20% of income is given the lowest Gini coefficient. On the other hand, Brazil in 2017 and South Africa in 2014 have very poor distribution of income as most of it has accumulated in the richer fragments of the population, resulting in the highest Gini indices.

⁸ Ellie Tragakes, Economics for the IB Diploma Coursebook - Page 354



Introduction to the Lorenz Curve

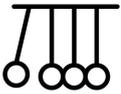
The Lorenz curve is a graphical demonstration of the dispersion of income in economics. American economist Max Otto Lorenz, after whom the curve was named, developed this measure of the distribution of income in 1905. The Lorenz curve allows to visually represent the data that has been provided in Picture 1, where the x-axis plots the total population in a country, in an accumulating fashion, and the y-axis represents the total amount of income in the economy also in a cumulative distribution. The diagonal that crosses the diagram represents the line of perfect income equality; therefore, it can be said that the more inward-oriented a Lorenz curve is, the more unequally distributed the income within that country.



Picture 2: Lorenz curves constructed using data from Picture 3 for Brazil and Belarus⁹

As seen above, the Lorenz curve illustrates the real distribution of income across a population by showing the relationship between the percentage of people and the proportion of total income they earn. Since it was previously stated that Belarus has a better distribution of income than Brazil in the given years, Brazil has a curve oriented inwards compared to the

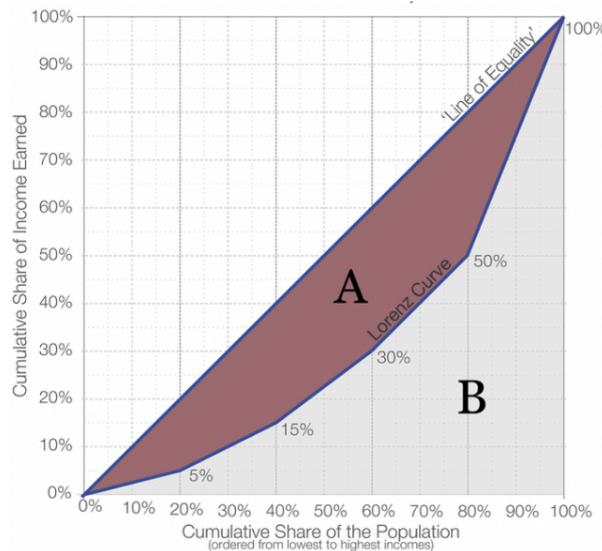
⁹ Ellie Tragakes, Economics for the IB Diploma Coursebook - Page 355



Lorenz curve of Belarus. Therefore, Brazil will have a higher Gini index than Belarus as it is further away from the line of perfect income equality. This statement is consistent with Picture 3, where the Gini indices of Belarus and Brazil were reported to be 0.25 and 0.53, respectively.

Deriving the Gini coefficient

The Gini coefficient (or index) is a measure that shows the distribution of income in an economy. Developed by the Italian statistician Corrado Gini, the index measures the level of inequality on a scale from 0 to 1, 0 indicating no inequality and 1 indicating absolute inequality. The Gini coefficient calculates how far the Lorenz curve of a country is from the line of absolute equality, measured by $A/(A+B)$ where A and B are shown on Picture 5. Therefore, the closer the Lorenz curve is to the line of equality, lower the Gini coefficient and



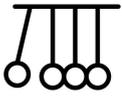
better the distribution of income.

Picture 3: Visual explanation of the Gini coefficient¹⁰

Interpreting and evaluating the Gini coefficient

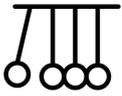
The Gini coefficient/index is the most frequently utilized scale for inequality and is usually utilized as a measure of income inequality. Although this is the coefficient's most common use, it can also be used to display the varying distribution of life expectancy, wealth

¹⁰ Our World in Data - Measuring inequality: What is the Gini coefficient?



and so on. The Gini coefficient is determined on a scale from 0 to 1, where increasing values of the coefficient correspond to a high degree of inequality. A value of 0 implies absolute equality where everyone in an economy generates the same amount of income, and a value of 1 implies absolute inequality where only a single person collects all the income in the economy and everyone else doesn't generate any income at all. "The Gini coefficient is an important tool for analyzing income or wealth distribution within a country or region, but it should not be mistaken for an absolute measurement of income or wealth. A high-income country and a low-income country can have the same Gini coefficient, as long as incomes are distributed similarly within each. For example, Turkey and the United States have nearly identical Gini coefficients, according to the Organisation for Economic Co-operation and Development (OECD), despite Turkey's vastly lower gross domestic product (GDP) per person." (Investopedia) Despite the Gini index providing general insight into a country's distribution of income, it has some significant limitations. First of all, the measure's accuracy depends on official income data and GDP; therefore, the impacts of the underground economy and labor are overlooked. In developing countries and among lower-income groups within developed nations, underground economic activity and parallel markets¹¹ often account for a substantial share of actual economic output and income. As a result, the Gini index of recorded incomes tends to overstate the actual value of income inequality. "Accurate wealth data is even more difficult to come by due to the popularity of tax havens that obscure the amounts of money held by the wealthiest. Another flaw is that very different income distributions can result in identical Gini coefficients. Because the Gini attempts to distill a two-dimensional area (the gap between the Lorenz curve and the equality line) down to a single number, it obscures information about the shape of inequality." (Investopedia) The Gini coefficient also overlooks the demographic divergences among subgroups in the distribution, namely the dispersion of incomes across different races, social groups and ages.

¹¹ A parallel market is "an unofficial market for shares, currencies, etc., which works at the same time as the official market". (Cambridge) The Gini coefficient undermines the impact of parallel markets on income distribution.



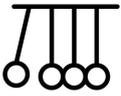
Income inequality and its impact on employment, level of education and economic growth of a country

As written in the *World of Work Report 2013* of the International Labor Organization, “The US economy is caught in a vicious spiral of weak aggregate demand and lack of productive investment. Stagnating wages are adversely affecting demand, which in turn is dampening real investment, leading to poor job creation – reinforcing weak demand and so on. The result is persistent uncertainty, weak GDP growth and widening inequality.” Unequal distribution of income decreases the purchasing power of many relative to others, decreasing their ability to invest or consume, negatively affecting the GDP. In addition, income inequality also often leads to underemployment¹² as the economy is shaped into a structure where the high-paying, skilled employment opportunities are reserved for the affluent and poor have to settle for low-paying, insecure jobs. Skilled members of the labor force will therefore have to settle for jobs below their qualifications, or perhaps even jobs in the underground or parallel markets. Another consequence of unequal distribution of income is poor education. As the purchasing power of lower classes decline, their ability to provide their children with proper and quality education also declines. Since poverty and wealth are inherited among generations, this cycle of poverty is transferred from one generation to the next, thereby leading to the loss of human capital, the loss of skilled workers. Therefore, unequal distribution of income has potential negative effects on the future GDP as it negatively affects the level of education and the quality of the labor force of the future.

Some countries with notable Gini indices: Colombia

Colombia is a highly notorious country when it comes to the distribution of income, with a Gini coefficient of 54.8 in 2022, the highest in the Central American, the Caribbean and the South American region. Colombia is also ranked 3rd in the world in terms of having the highest Gini coefficient. The income of Colombia is mostly accumulated by the richer

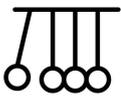
¹² “Underemployment is a condition in which workers are employed in less than full-time or regular jobs or insufficient jobs for their training or economic needs.” (Clear Tax) Underemployment is an undesirable consequence of the unequal distribution of income and is discussed in various places in this report. It must be borne in mind that underemployment leads to a loss of GDP as workers being underworked can't realize their full potential and contribute to the economy with the best of their ability.



population; in 2017, only 10% of the richer population received nearly 40% of the income of Colombia according to the data of the World Bank. The most affluent earn a huge amount of the country's income, and the rest is distributed disproportionately between the rich and poor because of the absence of a middle class. In addition, women earn 13-23% less than men for the same positions, demonstrating clearly not only the gender discrimination in Colombia, but contributing to the discrepancies in wage dispersion.

Between the years of 2002 and 2013, Colombia underwent a time of sustainable economic growth, which resulted in the lowest Gini value of 53.5 since 1995. Even during the prosperous period, Colombia was still the 127th out of 138 countries in the rank of income equality. In hopes of achieving a more equal distribution of income, the government of Colombia established a program, namely the 2014-2018 National Development Plan, which yielded improvements. Unfortunately, due to the foundations of economics and the tradeoffs between the clashing objectives of economics, efficiency/growth versus equity, government intervention¹³ was revoked. This, in return, hurt the distribution of income even further. The root cause of the current dismal state of Colombia in terms of the distribution of income can be traced back to 3 main factors: the historic unequal distribution of land and the role of women and children in Colombia. The highly concentrated system of land ownership arose when the Colombian government sold extensive public lands between the years of 1823 and 1931 to settle its debts. This has led to a generational legacy of unequal distribution of wealth, which eventually led to the unequal distribution of income since the owners of these lands generate income from their property. Colombia utilized tax waivers to concentrate land, which soared inefficacy in the cultivation of land and inhibited economic growth. Other methods used to concentrate land included the forced displacement of peasant communities, which aggravated the unequal dispersion of income. The violent expropriation resulted in higher poverty levels in rural areas compared to urban centers.

¹³ As stated in the introduction, every act of government intervention leads to welfare loss, which hinders economic growth. The eradication of all forms of government intervention, however, leads to the loss of equity and the social safety net. Therefore, governments in liberal countries often implement laissez faire policies, favoring economic growth at the opportunity cost of achieving equity.



Some countries with notable Gini indices: Brazil

Brazil is yet another highly notorious country when it comes to the distribution of income, with a Gini coefficient of 52 in 2022, the second highest in the Central American, the

POVERTY	Number of Poor (million)	Rate (%)	Period
National Poverty Line	N/A	N/A	N/A
International Poverty Line 5.1 in Brazilian real (2020) or US\$1.90 (2011 PPP) per day per capita	3.7	1.7	2020
Lower Middle Income Class Poverty Line 8.6 in Brazilian real (2020) or US\$3.20 (2011 PPP) per day per capita	9.2	4.3	2020
Upper Middle Income Class Poverty Line 14.7 in Brazilian real (2020) or US\$5.50 (2011 PPP) per day per capita	27.9	13.1	2020
Multidimensional Poverty Measure		5.6	2019
SHARED PROSPERITY			
Annualized Income Growth per capita of the bottom 40 percent		-1.40	2014-2019
INEQUALITY			
Gini Index		48.9	2020
Shared Prosperity Premium = Growth of the bottom 40 - Average Growth		-1.54	2014-2019
GROWTH			
Annualized GDP per capita growth		-1.28	2014-2019
Annualized Income Growth per capita from Household Survey		0.13	2014-2019
MEDIAN INCOME			
Growth of the annual median income/consumption per capita		0.11	2014-2019

Sources: WDI for GDP, National Statistical Offices for national poverty rates, POVCALNET as of April 2022, and Global Monitoring Database for the rest.

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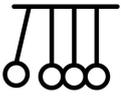
Poverty Economist: Gabriel Lara Ibarra

Caribbean

Picture 4: Table showing Brazil's income distribution, poverty level and economic growth between the years 2014-2019 and since the COVID-19 pandemic¹⁴

and the South American region. Brazil also ranks 7th in the world in terms of having the highest Gini coefficient. After being hit by the COVID-19 pandemic, the economy of Brazil ameliorated with a 4.6 increase in its gross domestic product (GDP) in 2021, which had decreased by 3.9 percent previously. By 2019, the income of households in the bottom 40 percent of income dispersion had fallen below the recession levels before 2014, in real terms. Although the economy expanded in the years following the crisis, job creation was slow. In 2020, a social safety net program was introduced to protect the ill-protected; however, it was not implemented with the same force. Therefore, between the years of 2014-2019, 6.5 million more people were in poverty and 4.5 million more were in extreme poverty. By the fourth quarter of 2019, the rates of unemployment saw double digits, 11%, and women, mostly Afro-Brazilian women, felt the impact most, with 13.1% and 18.8%, respectively. Although

¹⁴ World Bank DataBank: Poverty & Equity Brief Latin America & the Caribbean - Brazil

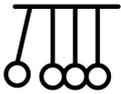


the real average income per capita increased between 2014-2019, the real average income of the bottom 40% declined. Following this, in 2020, Brazil's dispersion of income, as demonstrated by the Gini index, improved significantly, to 0.489 from 0.534 in 2019, essentially because of the generosity of the immediate government measures.

The improvement seen in the distribution of income, dissimilar to the high and stagnant levels recorded since 2012, is expected to be reversed in the upcoming future. Persistent disparities in employment opportunities, human capital and access to essential services based on gender, race and location are anticipated to be reflected in income inequality once the emergency aid programs are retracted. As such, the Gini index of Brazil rose to 0.52 in 2022, after a promising index of 0.489 in 2020.

Some countries with notable Gini indices: Panama

In 2018, monetary poverty in Panama slightly declined, dropping from 14.1 percent in 2017 to 12.7 percent, leaving just under 575 thousand Panamanians, around 17 thousand fewer people, living below the international poverty line of USD 5.5 per day. Amount of people stuck in extreme poverty remained the same at 2.5%, corresponding to 103 thousand people. Although marginal, the decline aligns with the trend of important reduction in poverty as seen in recent years. The decline in poverty was paired with swift economic growth. Programs such as universal school scholarships to improve education, conditional cash transfers and noncontributory pensions for the elderly have played a crucial role in reducing poverty in rural areas. However, Panama's inclusive growth model does not provide equal benefits to all Panamanians. The poverty reduction approach focused on jobs has mainly benefited urban regions, where extreme poverty level is significantly lower than in rural regions, six times to be exact. In rural regions, poverty continues to impact the Comarcas disproportionately. In general, the level of inequality is quite high with a Gini index of 49.2. Although the rise in income for people in the poorest 40% in terms of income distribution was promising, it remains close to the growth in average income; therefore, it wasn't highly effective in closing the gap between the poor and rich classes.



POVERTY	Number of Poor (thousand)	Rate (%)	Period
National Poverty Line	891.5	22.1	2016
International Poverty Line 1.2 in U.S. dollar (2018) or US\$1.90 (2011 PPP) per day per capita	71.2	1.7	2018
Lower Middle Income Class Poverty Line 2.1 in U.S. dollar (2018) or US\$3.20 (2011 PPP) per day per capita	217.8	5.2	2018
Upper Middle Income Class Poverty Line 3.5 in U.S. dollar (2018) or US\$5.50 (2011 PPP) per day per capita	528.4	12.7	2018
Multidimensional Poverty Measure		N/A	N/A
SHARED PROSPERITY			
Annualized Income Growth per capita of the bottom 40 percent		5.29	2013-2018
INEQUALITY			
Gini Index		49.2	2018
Shared Prosperity Premium = Growth of the bottom 40 - Average Growth		1.42	2013-2018
GROWTH			
Annualized GDP per capita growth		3.18	2013-2018
Annualized Income Growth per capita from Household Survey		3.87	2013-2018
MEDIAN INCOME			
Growth of the annual median income/consumption per capita		4.87	2013-2018

Sources: WDI for GDP, National Statistical Offices for national poverty rates, POVCALNET as of February 2020, and Global Monitoring Database for the rest.

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Poverty Economist: Jose Cuesta

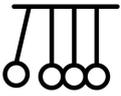
Picture 5: Table showing Panama’s income distribution, poverty level and economic growth between the years 2013-2018¹⁵

Unfortunately, Panama and poverty in Panama was impacted perilously by the COVID-19 pandemic in 2020. Attempts to better target major social spending programs and implement a new anti-poverty plan are still incomplete and exclude the vulnerable populations and the middle class, who may also be impacted by the disruptions in public service and unemployment. These deficiencies limit the ability of the social assistance system to rapidly address the socioeconomic effects of a COVID-19 crisis.

Some countries with notable Gini indices: Guatemala

Although the biggest economy in Central America, Guatemala has one of the highest rates of inequality in the entirety of Latin America, including some devastating malnutrition, poverty and child mortality rates, mostly in indigenous and rural regions. Deeply entrenched in poverty, around 49% of the population of Guatemala reside in rural areas. Poverty is

¹⁵ World Bank DataBank: Poverty & Equity Brief Latin America & the Caribbean - Panama



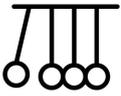
especially prevalent among indigenous people, who make up almost half of the total population. Recent findings show that 8 in 10 individuals of indigenous descent are suffering from poverty. “According to the most recent data for Guatemala (2014), about 49 percent of the population are poor, or live below the upper- middle income poverty line (defined as US\$5.5 per day in 2011 PPP¹⁶). The share of the population considered poor in 2014 increased from 43 percent in 2006 (date of the previous household survey), after having fallen in previous years. While economic growth since 2000 has been close to the LAC¹⁷ average, per capita growth has been below the LAC average due to high population growth rates.” (Poverty & Equity Brief: Guatemala, World Bank) Because of the minimal economic growth in Guatemala between 2006 and 2014 where GDP per capita grew only 1.3% every year, scarce investment in social safety net schemes, the reductions in the level of poverty were also very limited. Income per capita between 2006 and 2014 declined, yet income level for the people at the bottom 40% of dispersion of income was near 0. “The size of the middle class decreased from 21 percent of the population in 2006 to 15 percent in 2014. Inequality in Guatemala (48.3 as measured by the Gini index) is comparable to the inequality observed in other countries in Central America and higher than the average in the LAC region (Gini index of 46.9).” (Poverty & Equity Brief: Guatemala, World Bank) Well-structured mitigation and recuperation measures are essential to protect households and to enhance their resilience against COVID-19’s widespread destructive impacts because over 80% of Guatemala’s workforce lack social security coverage, 85% of the people are either living in poverty or at risk of falling into it and the existing social assistance programs provide minimal coverage, small transfers and irregular payments.

Some countries with notable Gini indices: Honduras

Honduras is yet another country with poor income distribution, with the top 20 percent of the population holding most of the income, 52.2%, in the country. It should be noted that this number is the lowest recorded between the years 2010 and 2019, and in 2012, the richest 20% of the population had accumulated 57.4% of the total income, the highest percentage during the interval of 2010-2019. The country had a Gini index of 0.482 in 2019,

¹⁶ Purchasing power parity

¹⁷ Latin America and the Caribbean



ranking 6th in the Central American, the Caribbean and the South American region and ranking 15th the world in terms of having the highest Gini coefficient.

Some countries with notable Gini indices: Costa Rica

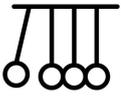
Costa Rica is also among the countries with disproportionately distributed income, with the richest 20% of the population accruing 52.1% of the total income in 2023. It should be noted that this number is the lowest recorded between the years 2013 and 2023, and in 2020, the richest 20% of the population had accumulated 54.4% of the total income, the highest percentage during the interval of 2013-2023. The country has a Gini index of 0.472 in 2022, ranking 7th in the Central American, the Caribbean and the South American region and ranking 16th the world in terms of having the highest Gini coefficient.

Some countries with notable Gini indices: Nicaragua

In Nicaragua, income is distributed in a severely disproportionate manner, with the lowest 20% of the population generating only 5.1% of the total income in the country in 2014. Between the years of 1993 and 2014, this was the second highest percentage, the highest being in 2009 with the lowest 20% generating 5.4% of the total income. In all the remaining years, this number was drastically lower, the lowest being 2.3% in 1993. The country has a Gini index of 0.462 in 2022, ranking 8th in the Central American, the Caribbean and the South American region and ranking 17th the world in terms of having the highest Gini coefficient.

Some countries with notable Gini indices: Ecuador

Ecuador is yet another country with poor income distribution, with the top 20 percent of the population holding most of the income, 49.8%, in the country in 2023. It should be noted that this number is the lowest recorded between the years 2013 and 2023, and in 2020, the richest 20% of the population had accumulated 52.3% of the total income, the highest



percentage during the interval of 2013-2023. The country had a Gini index of 0.455 in 2022, ranking 9th in the Central American, the Caribbean and the South American region and ranking 19th the world in terms of having the highest Gini coefficient.

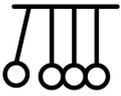
Some countries with notable Gini indices: Argentina, Uruguay, Peru

Argentina, Uruguay and Peru are countries with relatively low Gini indices, corresponding to a relatively more even distribution of income. However, it should be noted that although these countries have low indices compared to the rest of the countries in the Latin American and Caribbean region, they are still quite high in comparison with the rest of the world, implying the prevalence of income inequality across the LAC region, and in need of immediate attention. Argentina had a Gini coefficient of 0.407 in 2022, ranking 14th in the Central American, the Caribbean and the South American region and ranking 40th the world in terms of having the highest Gini coefficient. Uruguay had a Gini coefficient of 0.406 in 2022, ranking 15th in the Central American, the Caribbean and the South American region and ranking 41st the world in terms of having the highest Gini coefficient. Peru had a Gini coefficient of 0.403 in 2022, ranking 16th in the Central American, the Caribbean and the South American region and ranking 43th the world in terms of having the highest Gini coefficient.

How have we attempted to tackle income inequality in the past?

First attempt to tackle income inequality was the implementation of trickle-down economics. Trickle-down economics included policies focusing on tax cuts for the wealthy and corporations, under the assumption that economic benefits would "trickle down" to lower-income groups through job creation and increased investment. Unfortunately, this resulted in wealth often accumulating at the top, with limited benefits for lower-income groups, exacerbating inequality in countries like the United States during the Reagan and Bush eras. Another past solution attempt was the introduction of flat tax¹⁸ systems. According

¹⁸ "[Flat tax or proportional tax] is an income tax system that levies the same percentage tax to everyone regardless of income. A proportional tax is the same for low, middle, and high-income taxpayers." (Investopedia) Proportional taxes are also valuable tools for combatting unequal income distribution since

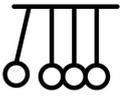


to this policy, a single income tax rate was implemented for all income levels, as seen in some Eastern European countries. While simple, flat taxes often disproportionately burden low and middle income earners, failing to redistribute wealth effectively and widening income inequality. As another solution, governments granted subsidies to low-income populations, whereby low-income populations would be granted economic support through direct government provision, such as for fuel, food, or housing. However, subsidies were often poorly targeted, benefiting wealthier groups or middlemen instead. For instance, fuel subsidies in developing countries have historically favored corporations and wealthier individuals, leaving the intended beneficiaries with little relief. To boost the level of employment, governments then introduced minimum wage policies without enforcement¹⁹, which included raising minimum wages without implementing strong enforcement mechanisms or accompanying measures to address informal labor markets. Unfortunately, higher minimum wages pushed more workers into informal, unregulated jobs, where they lacked benefits or legal protections. There were also some land reforms aimed at redistributing land to address rural inequality; however, poor planning, corruption, and lack of support for new landowners led to reduced agricultural productivity, economic decline, and worsening poverty. Furthermore, flawed tax-and-transfer systems, often undermined by tax evasion among the wealthy or unsustainable fiscal strategies, have limited the redistributive potential of welfare programs. Large-scale privatization efforts have concentrated wealth among a small elite, while trade liberalization without safeguards has devastated local industries and led to wage stagnation, particularly in parts of Latin America. Even well-intentioned programs like conditional cash transfers and universal basic income²⁰ trials have fallen short when underfunded or poorly scaled, failing to address the structural issues underlying inequality, such as limited access to education and healthcare.

the net amount of tax levied increases as income increases; however, proportional taxes are more effective.

¹⁹According to the dynamics of demand and supply, as wages increase (which can also be worded as the price of workers, workers in this case construct supply), the demand towards labor by workers decreases. Therefore, although minimum wage legislations are equitable, they contribute to unemployment and inefficiency.

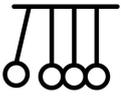
²⁰ "UBI is the concept of a government program in which every adult citizen receives a set amount of money regularly. The goals of a basic income system are to alleviate poverty and replace other need-based social programs that potentially require greater bureaucratic involvement. The idea of universal basic income has gained momentum in the U.S. as automation increasingly replaces workers in manufacturing and other sectors of the economy." (Investopedia) There are many discussions surrounding UBI, since these are to be allocated to everyone in an economy, rich or poor.



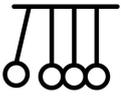
What can be done to tackle economic and income inequality?

Progressive taxation²¹ is a very favorable solution as it includes the implementation of a tax system where higher-income individuals and corporations pay a larger percentage of their income in taxes. This ensures that the excessive wealth/income of the highly rich is distributed amongst the poorest populations, once again contributing to income redistribution. With this regard, closing tax loopholes, enforcing stricter measures against tax evasion, and introducing wealth taxes to ensure fair contributions from the affluent could also contribute to the resolution of the issue. Second, social safety nets could be strengthened. For instance, expanding access to unemployment benefits, healthcare, pensions, and housing assistance, introducing or enhancing conditional and unconditional cash transfer programs, ensuring they are well-funded, transparent, and targeted to the most vulnerable populations could highly benefit the income equality of a country. As stated previously, most social safety net programs (and direct provision of merit goods by the government) utilize the government budget, therefore, lead to opportunity cost. Bearing this in mind, governments have to make sure that their social safety net systems, the allocation of pensions and so forth are regulated by a robust system to minimize losses and corruption, which have huge burdens on the government budget. Increasing or finding an optimum point for minimum legislations and enforcing that, bearing in mind the caveat on efficiency this solution will have, could also lead to short term results. Setting living wages that keep pace with inflation and local cost-of-living variations and pairing wage hikes with enforcement mechanisms to protect workers, particularly in informal sectors could benefit the lower-income families significantly. Universal basic services, such as free or low-cost access to education, healthcare, childcare, and public transportation, can significantly reduce the financial burdens on low and middle-income households, bearing in mind the impact of this on the government budget. Therefore, the provision of universal basic services should be implemented alongside a policy or practice that targets increasing the government budget. Investing in education and skills training is equally vital, with expanded access to quality schooling in underserved areas and subsidies for vocational training to prepare workers for evolving job markets and reduce wage disparities, while also ensuring sustainable growth in the long term. Although education

²¹ "A progressive tax involves a tax rate that increases or progresses as taxable income increases. It imposes a lower tax rate on low-income earners and a higher rate on those with higher incomes." (Investopedia) Progressive taxes are valuable tools for combatting unequal income distribution while benefiting the government budget.



does not seem directly correlated with the issue of income inequality, it is very important to consider in the long-run because of its impacts on both income distribution and economic growth. Along with this, to tackle intergenerational inequality, wealth redistribution measures, such as inheritance taxes, employee ownership models, and profit-sharing schemes, can democratize wealth and provide a long-term solution as well. Gender equality must also be prioritized by closing pay gaps through legislation to mitigate the income inequality between genders, providing parental leave (bearing the impact this has on productivity, efficiency and cost of production), and improving access to affordable childcare to enhance workforce participation and therefore income generation for women. Lastly, experimenting with UBI through large-scale trials, paired with complementary policies, can provide insights into its potential as a long-term solution, although this practice has not so far yielded results.



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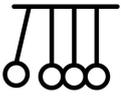
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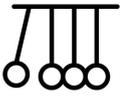
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