Informality, social protection and welfare during the COVID-19 crisis in four Latin American countries[1]

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Abstract

We compare the effects of labour market shocks and social policy responses on people's welfare following the outbreak of the COVID-19 pandemic in Argentina, Brazil, Chile and Uruguay. We assess the role of formal and informal sector labour incomes and social transfers in the changes observed in the distribution of income and welfare. We worked with harmonized household survey microdata and performed a microdecomposition analysis by income source. In all four countries, the loss of earnings was the main mechanism behind the loss of income, and developments in the informal sector were crucial in explaining the rise in poverty. The effects of transfer incomes on welfare varied by country in terms of both the size of their impact and their consequences for equity.

Keywords

Employment, labour market, social policy, social security, family income, COVID-19, economic aspects, informal sector, employment statistics, Argentina, Brazil, Chile, Uruguay

JEL classification

D31, E24, H55

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I. Introduction

The coronavirus disease (COVID-19) pandemic unleashed an international socioeconomic crisis whose consequences have by no means dissipated. In 2020, the great lockdown resulted in global output dropping by 3.3%, one of the largest contractions since the Great Depression (IMF, 2020). Estimates by the International Labour Organization (ILO) indicate that 16% of potential hours worked were lost in 2020 because of the impact of health measures (ILO, 2021). The recovery of the global economy in 2021, while substantial, was not only regionally and sectorally heterogeneous but also unstable because of rising inflation and international financial volatility (ECLAC, 2022). Meanwhile, employment has yet to return to pre-pandemic levels.

The biological substratum of the disease meant that it was global in character. This aside, though, it is clear that the way countries weathered the pandemic cannot be separated from the way their societies were configured. Latin America and the Caribbean was the region hardest hit by the COVID-19 pandemic, in multiple dimensions. First, as of the end of 2021, the region accounted for 28.4% of all COVID-19 deaths in the world, with only 8.4% of the world's population. Second, the region's GDP fell by more than twice as much in 2020 (6.8%) as global output (ECLAC, 2022), and more jobs were lost than in the rest of the world (ILO, 2021). These results would suggest that the pandemic interacted with the special features of Latin America's socioeconomic structure and welfare regimes (Filgueira and others, 2020; Lustig and Tommasi, 2020).

The aim of this article is to examine how labour market shocks and social policy responses affected welfare after the outbreak of the COVID-19 pandemic in four Latin American countries: Argentina, Brazil, Chile and Uruguay. Although valuable aggregate information on the socioeconomic and employment impacts of the pandemic is available (ECLAC, 2022; ILO, 2021), what has been lacking is a thorough comparative examination that exposes the mechanisms behind the observed changes in income distribution and levels of welfare. As a hypothesis for further investigation, it may be surmised that the fragmented nature of the region's labour markets played a key role in the loss of welfare that affected households and individuals, while the differences in the scale and scope of the social policy implemented by States must have meant that this played a variable role in terms of its ability to cushion the effects of the crisis. The aim of this article is therefore to expose the mechanisms behind the changes in welfare that occurred after the outbreak of the pandemic relative to the previous situation.

One of the characteristic features of Latin America is its structural heterogeneity, a term that refers to productive and technological gaps between sectors, economic activities and firms (Abeles, Lavarello and Montagu, 2013; Cortés and Salvia, 2019; Infante, 2011). These divides are manifested in labour markets with a high prevalence of informal sector employment (occupations in very low-productivity sectors) and substandard working conditions, reinforced by the chronic economic instability of peripheral countries (Ffrench-Davis, 2015; Schteingart, 2018). In the absence of extensive unemployment insurance systems, and in the face of inadequate demand for labour in the formal sectors, the informal sector has traditionally functioned as a haven from unemployment. A recent report by the Inter-American Development Bank (IDB) noted that, prior to the COVID-19 pandemic, 39.3% of Latin America's economically active population was in the informal sector (Acevedo and others, 2021).

In this context, the COVID-19 pandemic had distinctive effects on labour markets in the region. The pandemic destroyed jobs most especially in services, commerce and construction, affecting non-wage and informal workers most severely (Weller, 2020). A crucial element of this crisis was the decoupling of the traditional adjustment mechanism in the region's labour markets, with sanitary restrictions leaving the informal sector unable to play its role as a "haven" for the labour force (Acevedo and others, 2021; Beccaria and Maurizio, 2020; Bertranou and Maurizio, 2020). The pandemic also intensified trends towards labour market restructuring, with increased employment in health-related sectors, e-commerce, the platform economy and knowledge-based services (Weller, 2020). Acevedo and others (2021)

estimate that the informal sector will grow again in the post-pandemic economic recovery because of people's need to recoup income lost during the health emergency.

Latin America has traditionally been characterized by fragmented welfare regimes (Filgueira, 1998), which have fostered very unequal degrees of social inclusion (Martínez Franzoni and Sánchez-Ancochea, 2016). This stratification has generally tended to reproduce the stark divides associated with the structural heterogeneity and segmentation of labour markets. The size of the surplus labour force in the informal sector has limited the viability of universal protection arrangements, while productive heterogeneity has resulted in a limited ability to finance such instruments (Tokman, 2007). During the 2000s, in a favourable global context, greater fiscal space and economic growth allowed both contributory and non-contributory social protection systems to expand. The proportion of the population covered by conditional cash transfers rose from 3.6% to 20.2% between 2000 and 2016 (Cecchini and Atuesta, 2017), while the proportion of older persons covered by pensions rose from 51.5% to 77.1% in the same period (Arenas de Mesa, 2019). This expansion was accompanied by persistent segmentation of the types of social coverage along socioeconomic lines (Filgueira, 2015; Martínez Franzoni and Sánchez-Ancochea, 2016). At the same time, in the absence of progressive tax reforms to make the funding of non-contributory protection systems viable, the fiscal sustainability of social protection systems in a context of economic stagnation has been called into question.

Where social protection was concerned, the authorities' reaction to the crisis caused by the COVID-19 pandemic varied from country to country, reflecting the broader characteristics of welfare regimes but also the political orientation of governments and epidemiological developments. According to Filgueira and others (2020, p. 50), the measures applied can be classified into two types: resources transferred directly to households and individuals, and exemptions and credits for households and families. The former, which are the focus of interest here, comprised social security-related actions, non-contributory transfers and in-kind transfers such as school meals and food baskets. New benefits targeting people particularly affected by the pandemic were created in many Latin American countries, such as the Emergency Family Income (IFE) in Argentina and Chile, the Ñangareko food assistance programme in Paraguay, the Universal Grant in the Plurinational State of Bolivia, the Universal Family Grant in Peru and Emergency Aid in Brazil (Filgueira and others, 2020). In addition, governments took spending measures to support enterprises and thence formal sector employment.

Substantively, this article presents a comparative study of four countries that share a number of structural features, albeit to differing degrees, like the stark productivity gaps between and within sectors that indeed are a feature of Latin American economies generally (Ffrench-Davis, 2015). According to Infante (2011), the region's countries can be classified into three groups: countries with moderate structural heterogeneity, which have the smallest productivity gaps; countries with high structural heterogeneity, which have large sectoral gaps and the lowest levels of income and output per employee; and a group of countries with intermediate structural heterogeneity, close to the average for Latin America. The four countries chosen for the analysis are situated at the moderate or intermediate levels of the structural heterogeneity classification (Infante, 2011). This means that they have attained higher levels of development and have a denser production fabric and more institutionalized labour markets than the average for the region. These four countries generate almost 40% of the region's output and a third of total employment (ECLAC, 2019) and are among the countries with the lowest rates of informality (ILO, 2021).

However, there are great differences in the size of their economies: the GDP of Argentina and Brazil is much larger than that of Chile and, especially, Uruguay (see table 1). If per capita GDP is taken as a proxy for welfare, it is possible to group Argentina, Chile and Uruguay together, in distinction to Brazil. Chile and Uruguay are countries with more open economies (as measured by the level of exports in relation to GDP) than Argentina or Brazil, while Chile is characterized by the substantial contribution from primary activities (agroindustry and mining). The extent of structural heterogeneity in all four economies is reflected in the large share of employment in the informal sector, although there are also significant differences in this respect, with much lower rates in Chile and Uruguay than in Argentina or Brazil.

Table 1
Selected countries: selected socioeconomic indicators, latest year with information available

Indicator	Argentina	Brazil	Chile	Uruguay
GDP *(Millions of purchasing power parity (PPP) dollars)*[a]	985 205	3 127 524	496 085	78 121
Per capita GDP *(PPP dollars)*[a]	21 507	14 615	25 821	22 415
Industry share of GDP *(Percentages)*[b]	15.5	9.6	8.7	10.7
Primary activities as a share of GDP *(Percentages)*[c]	10.7	11.6	17.8	7.1
Exports as a share of GDP *(Percentages)*[a]	18.3	20.1	31.9	31.5
Investment as a share of GDP *(Percentages)*[a]	17.1	18.9	25.3	18.4
Employment rate *(Percentages)*[d]	53.3	54.6	58.3	56.6
Unemployment rate *(Percentages)*[d]	9.8	11.9	7.2	8.9
Urban informal sector as a share of total urban employment *(Percentages)*[d]	41.3	40.6	28.1	35.0
Incidence of poverty (poverty line: US$ 5.50 a day in PPP) (2019) *(Percentages)*[e]	7.3	17.6	2.5	1.0
Gini coefficient (2019)[e]	0.428	0.545	0.438	0.378

Source: Prepared by the authors.
[a] World Bank, 2021.
[b] CEPALSTAT [online] https://statistics.cepal.org, 2021.
[c] CEPALSTAT, 2021: includes agriculture, stockbreeding, hunting, fishing, forestry and mining and quarrying.
[d] CEPALSTAT, 2019 (except Chile, where the data are for 2017).
[e] Prepared by the authors from national household surveys.

While social protection systems and, more generally, welfare regimes in the countries of the region have tended to reproduce the structural fragmentation of labour markets (Filgueira, 2015), there are some differences between the selected countries. Following the early work of Mesa-Lago (1989), who identified groups of countries that were "pioneers" in the implementation of social insurance systems, Filgueira (1998) distinguished three types of welfare regimes in the region. Countries with "stratified universalism" have broad social coverage, variable benefits and high degrees of inequality associated with employment status. This type of regime has historically characterized Argentina, Chile and Uruguay. Countries with "dual" welfare regimes have tended to combine a pattern of strong stratification with territorial heterogeneity. This model has predominated in Brazil and Mexico. "Exclusionary" regimes, lastly, have predominated in the Andean countries and Central America, being characterized by non-inclusive social security systems as a result of State capture by elites (Del Valle, 2010).

The four selected cases share similarities in the context of the region, which is characterized by pervasive and persistent structural heterogeneity and highly fragmented labour markets. Moreover, all four countries have developed extensive welfare regimes, albeit access and benefits are segmented. For the purposes of comparative study, then, these are countries that share marked structural features, albeit to differing degrees. At the same time, as described below, the four countries were impacted differently by the economic crisis resulting from the pandemic and, in addition, implemented different public policy strategies.

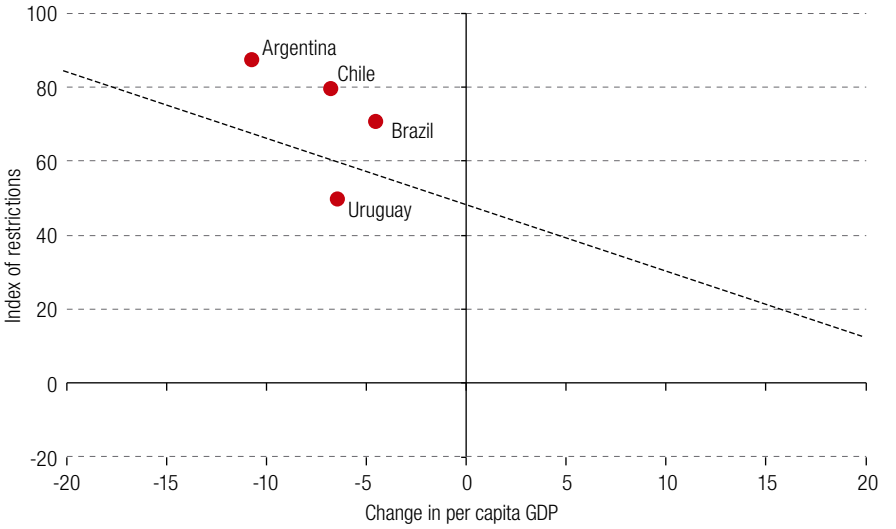
The next section presents the impact of the pandemic on the economies of the four selected countries and describes the policy responses implemented. The third section presents the data sources and describes the microdecomposition methodology used. The fourth section discusses the empirical results, and the final section presents the conclusions of the study.

II. The impact of the COVID-19 pandemic and policy responses in four Latin American countries

The COVID-19 pandemic hit the countries of the region particularly hard, owing to the structural fragility of their economies vis-à-vis external trade and financial flows and the need to implement rigorous mobility restriction measures. However, the macroeconomic effects of the pandemic varied from one Latin American country to another, owing to differences in their capacity to respond to the crisis, the severity of the lockdown measures applied and the dynamics of their economies in previous years (ECLAC, 2022). The economic crisis peaked in the second quarter of 2020, after which there was an incipient recovery.

In Latin America, the crisis was driven by all components of aggregate demand, although the main role was played by private consumption. The sectors most affected were manufacturing, construction, commerce and transport (ECLAC, 2022). The four countries considered in this study experienced dissimilar economic effects after the outbreak of the pandemic, while deploying containment measures of varying strictness (see figure 1). Argentina was the country where per capita GDP fell the most and where the restrictions applied were the most severe, while in Uruguay per capita GDP fell less sharply and less severe restrictions were applied. However, the cases of Brazil and Chile show that the relationship between restrictive measures and economic effects is not direct, revealing the fundamental role that developments in world trade flows played in the aggregate economic performance of the countries.

Figure 1
Selected countries: year-on-year changes in per capita GDP and restrictions on human mobility, 2020
(Percentages and values on a scale of 1 to 100)

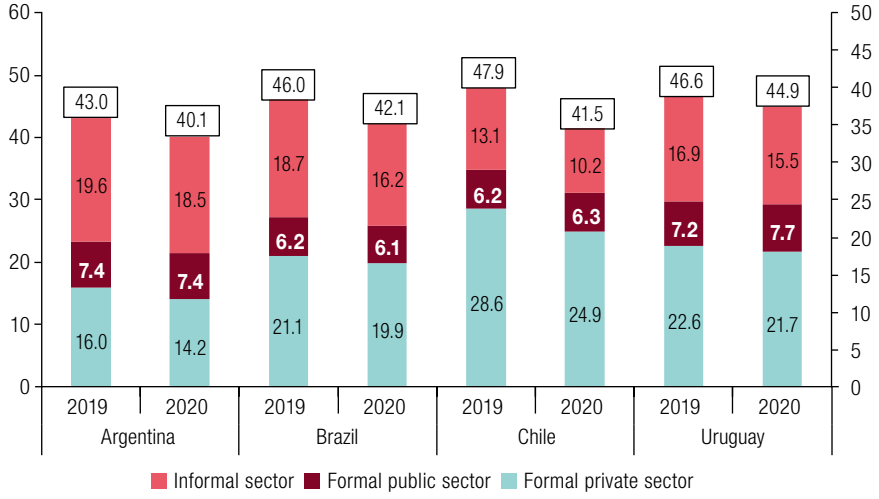


Source: Prepared by the authors, on the basis of data from the World Bank and Blavatnik School of Government of the University of Oxford, "Oxford COVID-19 Government Response Tracker (OXCGRT)".

The regressive effects of the health crisis on labour market aggregates have also been documented (Weller, 2020). ILO has highlighted the massive loss of hours worked globally and especially in the countries of the region (Maurizio, 2021). Household surveys showed an unprecedented drop in employment rates in the four selected countries (see figure 2). This reduction was the immediate effect of mobility restrictions and was reflected not by an equivalent increase in the unemployment rate, but by a rise in inactivity (Bertranou and Maurizio, 2020). An analysis of the composition of the employment rate before

and after the outbreak of the pandemic reveals the different roles played by the various economic and occupational sectors in its evolution: while employment in the public sector remained unchanged, the largest contractions in relative terms took place in the informal sector.[2]

Figure 2
Selected countries: composition of the employment rate, fourth quarter of 2019 and fourth quarter of 2020
(Percentages of the total population)



Source: Prepared by the authors on the basis of household survey microdata.

Governments worldwide had to implement policy measures to mitigate the economic impact of the crisis. The massive shutdown of activities necessitated the implementation of some form of income support. This was particularly challenging in Latin America because of the strong effect that the shutdown of activities had on the informal sector, in which a substantial portion of the population is employed (Beccaria and Maurizio, 2020). Although the four countries analysed had more developed welfare regimes than the regional average, their policy responses were characterized by the development of ad hoc institutional architectures that were subjoined to existing ones, while being sensitive to epidemiological developments in each country.

In Argentina, State efforts combined two components. First, extraordinary top-up payments were approved for beneficiaries of the contributory pension and retirement system and for recipients of non-contributory transfers (the Universal Child Allowance (AUH), food card and old age, disability and invalidity pensions). The period for which unemployment insurance benefits were paid was also increased, as were the amounts. The main innovation in the area of social protection was the introduction of the Emergency Family Income (IFE): a set of successive extraordinary non-contributory transfers designed for wage earners in low-quality jobs, informal sector workers and unemployed persons without contributory insurance (Rubio and others, 2020; Poy and Pla, 2022). Second, the government implemented policies aimed at sustaining employment levels and the activity of formal private enterprises affected by the mobility restrictions. Layoffs were banned, credit lines for SMEs were extended and various fiscal relief measures were put in place. The most important initiative was the Emergency Aid Programme for Employment and Production (ATP), which included the deferral of employer contributions and payment by the State of up to 50% of workers' net wages (subject to a maximum of two minimum wages).

[2] It is important to note that the data in figure 2 are limited to the fourth quarter of each year for reasons of comparability, and in 2020 there was already an incipient economic recovery by this time. Other information suggests that the impact of the COVID-19 pandemic on the informal sector was much more substantial than is indicated by the figures presented here (Maurizio, 2021).

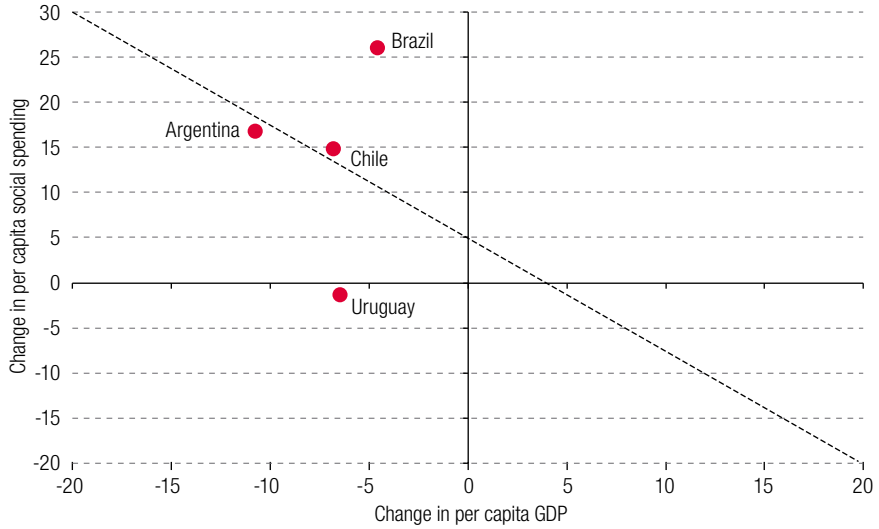
Brazil also implemented a combination of new social interventions and reinforcement of existing social protection programmes. Some of the most important of the former were the easing of the conditions for entering and remaining in the Bolsa Família transfer programme, advance payment of benefits to contributory pension recipients and the option of making one-off withdrawals from the pension fund. Innovative social policies included the Emergency Aid programme. This scheme, which achieved high coverage, consisted of successive monthly transfers with a total of up to five instalments and was targeted mainly at informal sector workers. Later, it also incorporated groups of people who were economically inactive but deemed vulnerable (Filgueira and others, 2020). As for measures targeting formal employment, the government implemented the Emergency Employment and Income Preservation Benefit, calculated as a percentage of the unemployment insurance that workers would be entitled to in the event of dismissal (ILO, 2021).

Chile also introduced innovations and modified existing schemes. An extraordinary grant was made to households that were registered in the various conditional transfer systems, the Single Family Allowance (SUF) and the Subsystem of Security and Opportunities (SSyOO). As in the cases described above, the Emergency Family Income (IFE) was a novel instrument created in response to the pandemic. With per capita amounts that decreased according to the number of household members, this instrument targeted households with no formal income or with formal income below a certain threshold (Rubio and others, 2020; Filgueira and others, 2020). With respect to formal sector employment and income, the Chilean government established various tax relief measures and expanded credit lines for small and medium-sized enterprises. At the same time, the resources of the Solidarity Unemployment Fund were increased and the criteria for access to and use of unemployment insurance were made more flexible. Thus, the contribution requirements for access to the benefit were successively reduced, people working in domestic service were incorporated into the scheme, and companies were allowed to reduce working hours in exchange for workers becoming eligible for part of the insurance payment (ILO, 2020).

Lastly, Uruguay is a special case. In contrast to the three countries just discussed, the Uruguayan government did not implement an extraordinary quantitative increase in per capita social spending during the COVID-19 pandemic (ECLAC, 2020). Nor did it introduce novel social policy transfer programmes in response to the emergency. Nonetheless, on an exceptional basis, payments under the two main conditional transfer mechanisms, the Uruguay Social Card and the Family Allowance - Equity Plan, were successively doubled (Rubio and others, 2020; Velásquez Pinto, 2021). With regard to support measures for formal sectors, the government created the Coronavirus Fund, and the unemployment insurance scheme was made more flexible to accommodate temporary workers, workers who were temporarily laid off or had their hours reduced and workers in the economic activities Most affected by the pandemic (ILO, 2020).

Figure 3 shows the relationship between the economic impact of the pandemic, as measured by changes in per capita GDP between 2019 and 2020, and the scale of the policy response implemented, as expressed by the increase in per capita social spending. The values associated with the horizontal axis show that the greatest economic impact was in Argentina, a country whose economic outlook was already negative because of a macroeconomic crisis that had begun in 2018. Brazil, Chile and Uruguay performed similarly. In contrast, the vertical axis shows the significant difference in policy responses: Brazil increased per capita social spending the most, followed by Argentina and Chile. Uruguay, on the other hand, performed very moderately in terms of consolidated public social spending. As described above, the response of the Uruguayan State combined limited assistance, centred on the use of existing instruments, with relatively few restrictions on mobility.

Figure 3
Selected countries: changes in per capita GDP and per capita social spending, 2019–2020
(Percentages)



Source: Prepared by the authors, on the basis of data from the World Bank and Economic Commission for Latin America and the Caribbean (ECLAC).

III. Methodology

1. Data sources

The information in this article comes from household surveys that are regularly conducted by national statistical offices in the different countries selected. The main purpose of these surveys is usually to collect information on occupations, employment and income. They also provide data on the sociodemographic characteristics of the population and households. In all cases, the incomes recorded by the surveys are disposable, i.e., net of tax liabilities.

The data for Argentina come from the Permanent Household Survey (EPH) conducted by Argentina's National Institute of Statistics and Censuses. EPH is a quarterly survey that collects information on employment and income in 31 urban areas of 100,000 inhabitants and more, representing 62% of the total population. The survey provides information on the labour and non-labour income sources of all household members. In the context of the pandemic, a mixed (face-to-face and telephone) EPH survey system was implemented, depending on the epidemiological situation of each locality (INDEC, 2020).

In the case of Brazil, the information was compiled from the Continuous National Household Survey (PNAD-C), implemented by the Brazilian Institute of Geography and Statistics (IBGE). This is a quarterly survey aimed at analysing activity, employment and unemployment indicators. The survey covers both urban and rural areas and is representative of the entire Brazilian territory. PNAD-C records information on labour and non-labour income, but only in the fourth quarter of each year in the case of the latter.

The information for Chile comes from the Supplementary Income Survey (ESI), which is applied in the fourth quarter of each year as a supplementary module of the National Employment Survey (ENE). ENE, a labour force survey conducted by the National Institute of Statistics (INE), does not capture information on personal incomes. The purpose of ESI is to capture the labour incomes of persons

classified as employed in ENE, as well as other sources of household income.[3] This is a nationwide operation, representative of urban and rural areas (INE of Chile, 2021).

For Uruguay, lastly, the information was compiled from the Continuous Household Survey (ECH). ECH is conducted monthly in urban and rural areas of Uruguay and captures information on the sociodemographic characteristics, occupations and incomes of the population and households. The survey methodology of ECH was modified in 2020 from that of previous years, incorporating two significant changes: first, a rotating panel design (replacing the previous cross-sectional method) and, second, a telephone survey procedure, given the epidemiological context (INE of Uruguay, 2021).

The use of different information sources made various methodological decisions necessary. First, it was decided to restrict the analysis to urban areas with a view to homogenizing the comparison between the four countries chosen. Second, the income concept used was current disposable income. In particular, the welfare measures described below were computed net of imputed rental income (a normal practice in Brazil, Chile and Uruguay but not followed in Argentina). Third, it should be noted that the epidemiological context forced national statistical offices to make changes to their usual data collection procedures that affected implementation methods and the type of sampling. These changes limit the comparability of sources between 2019 and 2020, so all the comparisons that follow should be treated with reserve. Notwithstanding, it must be stressed that these are the most robust sources of information available for an analysis like the one presented here. Fourth, to maintain comparability between countries, it was necessary to limit the analysis to the fourth quarter of each year. This decision was based on the availability of microdata. While we consider the fourth quarter of 2020 to be representative of the socioeconomic dynamics induced by the pandemic, it may well be conjectured that the situation reflected by the findings presented here would look worse if the two quarters in which the effects of the restrictive measures were most severe (the second and third quarters of 2020) were included.

In accordance with this article's objective of explaining the mechanisms behind the changes in welfare that followed the outbreak of the pandemic, the different income sources whose role is to be assessed were defined (see table 2).

Table 2
Operational definition of the income sources analysed

Income type	Source	Operational definition
Labour	Formal private sector income	Wages and salaries and self-employment income in private sector establishments with more than five employees. Self-employment income of own-account workers engaged in activities requiring professional qualifications.
	Formal public sector income	Wages and salaries for work in public sector establishments.
	Informal sector income	Wages and salaries and self-employment income in establishments with up to five employees in the private sector and in private households. Self-employment income of own-account workers engaged in activities not requiring professional qualifications.
Non-labour	Retirement and pension income	Income from retirement, old-age and/or other pensions, whether contributory or non-contributory.
	Income from social transfers	Income from family allowances, social benefits and assistance, conditional cash transfers and study grants.
	Other non-labour income	Other non-labour income not included in the above. This includes property income, maintenance payments, transfers between individuals and remittances, among other items.

Source: Prepared by the authors on the basis of data from national household surveys.

[3] Beginning in 2021, the ESI was due to be discontinued and a Labour Income Module (MIT) to be incorporated into ENE, according to information from the Chilean INE.

2. Microdecompositions

This study uses current per capita family income net of tax liabilities and without imputed rental income to assess changes in welfare after the onset of the COVID-19 pandemic relative to the previous situation. The per capita income y_{pc}^{h} of household h can be formalized as the sum of the individual incomes, y_i, of the n members of the household with income, divided by the number of household members c_h.

$$y_{pc}^{h} = \frac{1}{c_h}\sum_{i=1}^{n} y_{ih} \tag{1}$$

If there are two income sources, a labour income source (y_{ih}^{L}) (and a non-labour income source (y_{ih}^{NL}), equation (1) can be reformulated as:

$$y_{pc}^{h} = \frac{1}{c_h}\left(\sum_{i=1}^{n} y_{ih}^{L} + \sum_{i=1}^{n} y_{ih}^{NL}\right) = y_{pc}^{L_h} + y_{pc}^{NL_h} \tag{2}$$

In turn, it follows from the above that it is possible to express per capita family income in terms of the sources defined in table 2. To this end, the individual incomes from each of these sources were aggregated at the household level, giving:

$$y_{pc}^{h} = y_{pc}^{FS_h} + y_{pc}^{PS_h} + y_{pc}^{IS_h} + y_{pc}^{R\&P_h} + y_{pc}^{Transf_h} + y_{pc}^{ONL_h} \tag{3}$$

In (3), FS is per capita labour income earned in the formal private sector, PS that earned in the formal public sector and IS that earned in the informal sector. Meanwhile, $R\&P$ is per capita income from retirement and pension payments, $Transf$ is social transfers and ONL is other non-labour incomes. Equation (3) can be used to decompose the contribution of the different income sources to the observed change in per capita family income and, more generically, in any distributional indicator (Azevedo, Inchauste and Sanfelice, 2013). According to Bracco, Gasparini and Tornarolli (2019) and Obando and Andrián (2016), because ϑ is a distributional indicator, the cumulative distribution function of per capita family income will be a function of F(.):

$$\vartheta = F\left(y_{pc}^{h}, \left(y_{pc}^{FS_h}, y_{pc}^{PS_h}, y_{pc}^{IS_h}, y_{pc}^{R\&P_h}, y_{pc}^{Transf_h}, y_{pc}^{ONL_h}\right)\right) \tag{4}$$

Given the distribution function accumulated in two time periods, F_t and F_{t+1}, and the known values of the distributional indicator (e.g., average income, the poverty rate or the Gini coefficient), Azevedo, Inchauste and Sanfelice (2013) propose the construction of a counterfactual distribution. In this approach, observations are arranged into quantiles by income (per capita income in this case) in each period, and the average of each of the variables introduced in (2) in period t is obtained. These characteristics are then assigned to each household or person in the same quantile in period $t + 1$. As an example, in the case of per capita labour income, individuals are arranged into quantiles by their income in periods t and $t + 1$, and for each quantile in period $t + 1$ the observed value of labour income is replaced by the average labour income in period t of the households in that quantile (Azevedo, Inchauste and Sanfelice, 2013). This procedure allows counterfactual cumulative distribution functions, F*, to be computed by adding one variable at a time. As the above-mentioned authors point out, this procedure is dependent on the way the simulations are arranged; accordingly, an average of the decompositions following all possible paths is computed, this being known as the Shapley-Shorrocks decomposition (Azevedo, Inchauste and Sanfelice, 2013).[4]

[4] Previous studies in which this methodology has been applied to examine changes in poverty or inequality include those by Azevedo, Inchauste and Sanfelice (2013), Bracco Gasparini and Tornarolli (2019), Obando and Andrián (2016) and Sánchez Torres (2015).

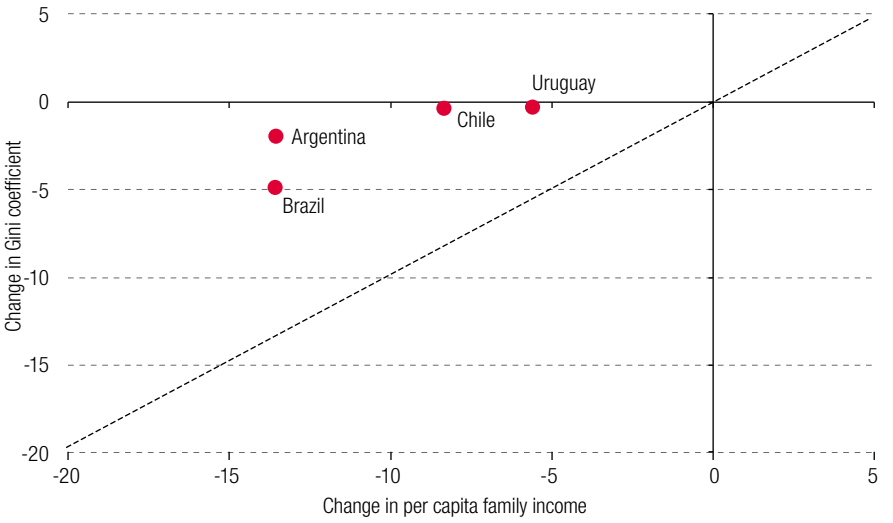
The distributional indicators analysed here are average per capita family income, the Gini coefficient of inequality and the poverty rate. Incomes were converted into purchasing power parity (PPP) dollars for comparability. In the case of the poverty rate, two standard measures were considered: the more usual US$ 5.50 PPP and a US$ 10 PPP measure, which takes into account the degree of economic development of the countries included. The latter is the boundary that separates poverty and vulnerability from "middle class" status, according to a World Bank study (Ferreira and others, 2013).

IV. Results

1. Descriptive analysis

Figure 4 provides a descriptive approximation of what happened between 2019 and 2020. It analyses the changes in average per capita family income and in the Gini coefficient following the outbreak of the COVID-19 pandemic. In all four countries, an aggregate or generalized process of impoverishment is observed, albeit of varying intensity. The economic impact of the crisis on real per capita family income was smallest in Chile and Uruguay, ranging from -6% to -8%. The effect was much greater in Argentina and Brazil, where per capita household incomes changed by an average of some -14%. From the microdecomposition analysis, it will be seen below what underlying factors explain the differences in magnitude of these results. Figure 4 also shows that the crisis resulting from the pandemic seems to have had different effects on inequality: while the Gini coefficient remained practically unchanged in Chile and Uruguay, there was a movement in Argentina and Brazil towards greater equity in conjunction with the impoverishment already referred to.[5]

Figure 4
Selected countries: changes in average per capita family income (constant values) and in Gini coefficients (constant values) between the fourth quarter of 2019 and the fourth quarter of 2020
(Percentages)

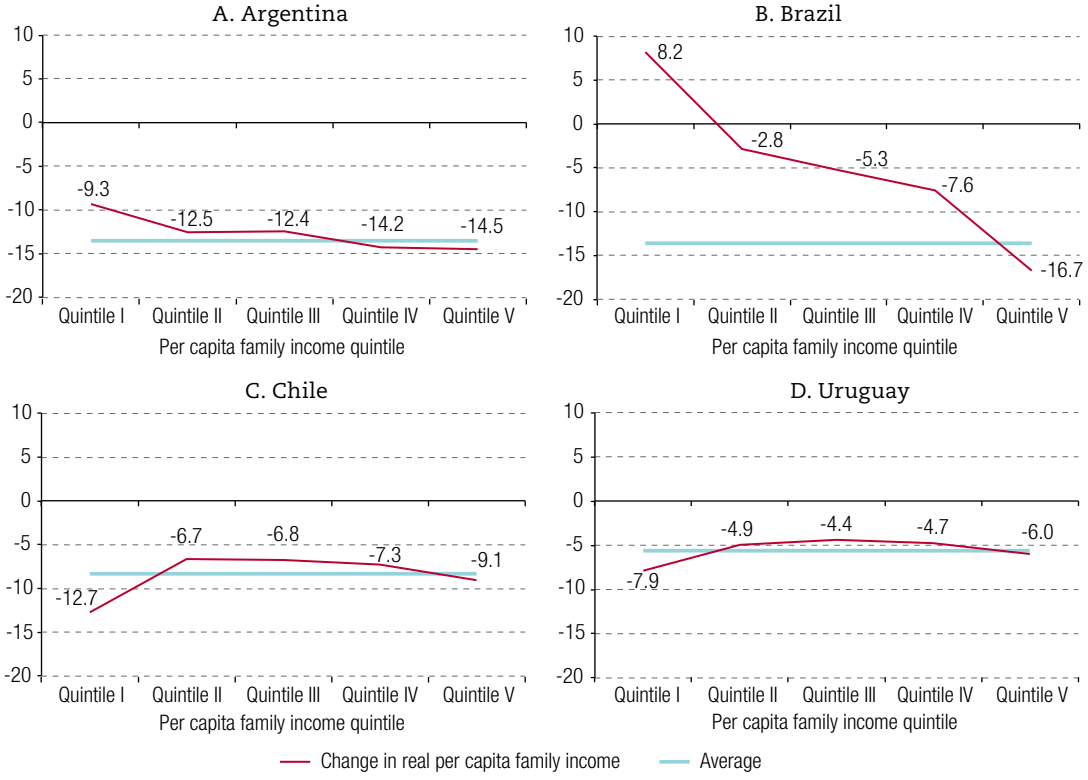


Source: Prepared by the authors on the basis of data from national household surveys.

[5] The expression "equity by impoverishment" was coined by Fernando Cortés and Rosamaría Rubalcava (1991) for Mexico and refers to the peculiar dynamics that economic crises can produce. Since the mechanisms behind the situation analysed in Mexico are different from those involved in the situation we present here, it is perhaps more appropriate to refer in this case to "equity with impoverishment".

The above approximation can be disaggregated by analysing growth incidence curves. These were originally developed to evaluate the role of economic growth in improving the incomes of the poorest people (Ravallion and Chen, 2003) but can be generalized to analyse changes in average income between quantiles of the distribution between two time periods. Figure 5 presents growth incidence curves for the per capita family income quintiles in the four countries analysed. Applied to our analytical context, the curves can be used to analyse the magnitude of income loss by quintile and thence to detect some implications for inequality.

Figure 5
Selected countries: growth incidence curves for per capita family income, fourth quarter of 2019 to fourth quarter of 2020
(Percentages)



Source: Prepared by the authors on the basis of data from national household surveys.

The curves describing each case depict the unequal distribution of losses between the per capita family income quintiles between the end of 2019 and the end of 2020, when these losses are compared with average income for each country and between countries. As mentioned, there is a general pattern of real income impoverishment in the population, worse in Argentina and Brazil and somewhat more moderate in Chile and Uruguay. Not only do levels of impoverishment differ, however, but so do the underlying social distributional processes, as figure 5 reveals.

From the descriptive analysis, two very different types of growth incidence curves emerge in the four countries analysed. On the one hand, the growth incidence curves describing the situations in Argentina and Brazil, where overall losses of real income were greater, clearly show that incomes declined more steeply in the upper quintiles than in the lower quintiles. In Brazil, real per capita income in the first quintile actually improved (8.2%). A distinctive feature of both countries was the large loss of income in the fifth quintile (14.5% in Argentina and 16.7% in Brazil) and, in Argentina, in the fourth quintile as well (14.2%).

On the other hand, the growth incidence curves of Chile and Uruguay present a different configuration. In a context of declines in overall per capita income that were more moderate than in the other two countries, it was the average incomes of people in the bottom quintile that were worst affected. In contrast, the middle and top quintiles in these countries experienced smaller losses of a similar magnitude.

In sum, the descriptive information allows us to delimit two types of distributional reconfiguration in the countries analysed as a result of the COVID-19 economic and health crisis: (i) a direct impact on the welfare of the population, manifested by the substantial decline in average real incomes that took place in all the countries (but was larger in Argentina and Brazil than in Chile or Uruguay); and (ii) a less direct impact on the inequality of income distribution resulting from a differential dynamic of impoverishment, with this being more acute in the lowest quintiles in Chile and Uruguay and in the upper middle quintiles in Argentina and Brazil. This differential dynamic makes it necessary to investigate the role of the various income sources in the welfare changes that occurred in the context of the COVID-19 pandemic and, in particular, to examine how each circuit and source of monetary income influenced changes in per capita income overall and in the different quintiles.

2. Factors explaining the distribution and welfare changes

Table 3 presents the application of the decomposition methodology set out in equation (4) (Azevedo, Inchauste and Sanfelice, 2013) to the year-on-year changes in average per capita family income in PPP dollars. The decomposition by income source makes it possible to answer the question of what underlying factors explain the aggregate losses in the income levels of the population during the COVID-19 crisis in the four countries studied.

Table 3
Selected countries: decomposition of changes in per capita family income, by income source, between the fourth quarter of 2019 and the fourth quarter of 2020
(Percentage points)

Income source	Argentina	Brazil	Chile	Uruguay
Labour incomes	**-11.1**	**-8.4**	**-11.7**	**-4.2**
Formal private sector income	-6.0	-3.6	-8.2	-2.6
Formal public sector income	-1.6	-1.0	0.1	0.9
Informal sector income	-3.4	-3.9	-3.6	-2.5
Non-labour income	**-2.5**	**-5.1**	**3.4**	**-1.4**
Retirement and pension income	-1.3	-4.5	1.1	0.9
Transfer income	1.2	2.3	3.4	-0.4
Other non-labour income	-2.4	-2.9	-1.1	-1.9
Total	**-13.5**	**-13.6**	**-8.3**	**-5.6**

Source: Prepared by the authors on the basis of data from national household surveys.

The loss of labour income was the crucial mechanism behind the sharp reduction in average per capita family incomes. The crisis caused by the pandemic was regressive for the labour market, and some sources of income disappeared or were abruptly curtailed in the four countries studied. Labour income from the formal private sector played the decisive role in the loss of per capita income. The economic crisis triggered by COVID-19 clearly affected the ability of firms to pay wages and salaries, while at the same time reducing the incomes of self-employed professionals and small and medium-sized businesses. This occurred despite the great fiscal effort made by the region's States to sustain the payment of wages and salaries in the private sector, which is revealing of the magnitude of the crisis.[6]

[6] The scale of the influence of formal private sector labour incomes on changes in average per capita family incomes is connected to the share of this source in total family incomes, which ranges from 35% (Argentina) to 54.1% (Chile); in fact, it constitutes the bulk of labour income.

The reduction of labour incomes in the informal sector was also important in explaining the deterioration of per capita family incomes. The loss of jobs, hours worked and income in informal occupations was reflected in household income levels. The restrictions imposed on human mobility entailed a sudden reduction in income from occupations of this type, some of which rely heavily on intensive interpersonal contact. At the same time, these activities were generally ill-suited to remote working arrangements and difficult to include in State interventions aimed at sustaining wages and salaries.

Labour incomes in the public sector played a much more limited role in the loss of per capita income (in Argentina and Brazil), or even offset some of the decline in other incomes (especially in Uruguay). The public sector's ability to continue paying wages and salaries to its workers during the crisis and the need to take on more staff (in view of the health situation resulting from the pandemic) could explain these results.

Non-labour income also contributed to the reduction in per capita family income during the COVID-19 crisis. Retirement and pension income contributed negatively to per capita income in Argentina and Brazil and played a positive, albeit very limited, role in Chile and Uruguay. Overall, this behaviour highlights the limited role of these types of social policy benefits in the context of the economic crisis. In contrast, income from social transfers played a positive and very significant role in mitigating the impact of the crisis. These are policies such as the Emergency Family Income in Argentina and Chile and Emergency Aid in Brazil. It is clear that this positive role was confined to those countries that actually increased their social spending, while in Uruguay such transfers did not play any role in cushioning the crisis.

Households' other non-labour income, especially that from property and other rents, maintenance payments and remittances, played a crucial role in the aggregate decline in per capita family income. The dissaving experienced by traditional upper middle-income sectors (who were unable to work for some months) and its consequences for bank deposits, together with the freezing of rents and greater difficulty in receiving remittances from abroad, could be the fundamental explanatory mechanisms in this process.

The above analysis needs to be supplemented by a specification of the role of the various income sources in the different per capita income quintiles (see table 4). The exercise of decomposing income changes is useful for examining average welfare and distributional outcomes in respect of per capita income in accordance with social and employment considerations and social policy parameters. In this respect, it can be conjectured that the role played by these sources should present some differences depending on the position of households in the socioeconomic stratification scale.

The crisis caused by the pandemic had a regressive effect on the labour market across the board. However, a detailed analysis reveals different behaviour in the different income quintiles. In all four cases analysed, incomes in the first quintile were particularly eroded by employment developments in the informal sector. At the other extreme, incomes in the fifth quintile were most affected by the loss of formal private sector earnings resulting from declines both in wages and salaries and in profits from people's own businesses, while informal sector earnings played a secondary role. In Argentina, Brazil and Chile, losses of employment income in the middle quintiles were also substantial and were explained by developments in both the formal private sector and the informal sector.

State intervention through social transfers played a compensatory role in Argentina, Brazil and Chile, as discussed above, but this effect was dissimilar across income quintiles. Such transfers were decisive in sustaining the incomes of the first two quintiles in Argentina and Brazil. In Chile, on the other hand, they contributed positively to per capita income up to the fourth quintile, which is evidence that the social assistance provided during the pandemic was less targeted. In Uruguay, as already noted, these benefits do not seem to have played an important role in sustaining incomes in the context of the economic crisis. The greater impact of transfers in moderating or preventing loss of income in the first two quintiles in Argentina and Brazil, in the context of a transversal loss of labour income, could explain the particular shape of the growth incidence curves analysed earlier, with a bias in favour of the lower quintiles of the distribution.

Table 4
Selected countries: decomposition of changes in per capita family income, by income source and by quintile, between the fourth quarter of 2019 and the fourth quarter of 2020
(Percentage points)

Country	Income source	Quintile I	Quintile II	Quintile III	Quintile IV	Quintile V
Argentina	**Labour incomes**	**-10.8**	**-11.2**	**-9.1**	**-13.5**	**-10.6**
	Formal private sector incomes	-4.3	-6.8	-2.1	-5.3	-7.6
	Formal public sector incomes	-1.8	-1.6	-2.4	-3.2	-0.7
	Informal sector incomes	-4.8	-2.9	-4.7	-4.9	-2.4
	Non-labour incomes	**1.5**	**-1.3**	**-3.3**	**-0.8**	**-3.9**
	Retirement and pension incomes	-2.3	-3.6	-3.9	0.6	-0.9
	Transfer incomes	5.7	3.8	2.3	0.6	0.1
	Other non-labour incomes	-1.8	-1.6	-1.7	-2.0	-3.1
	Total	**-9.3**	**-12.5**	**-12.4**	**-14.2**	**-14.5**
Brazil	**Labour incomes**	**-15.1**	**-12.0**	**-10.5**	**-8.1**	**-8.0**
	Formal private sector incomes	-3.2	-4.5	-5.7	-3.0	-4.0
	Formal public sector incomes	-0.7	-0.5	0.3	-2.0	-1.6
	Informal sector incomes	-11.2	-7.0	-5.2	-3.0	-2.4
	Non-labour incomes	**23.3**	**9.2**	**5.3**	**0.4**	**-8.7**
	Retirement and pension incomes	-2.7	-5.4	-0.8	-3.2	-5.3
	Transfer incomes	28.1	15.5	7.1	4.5	-0.3
	Other non-labour incomes	-2.1	-0.9	-1.0	-0.9	-3.1
	Total	**8.2**	**-2.8**	**-5.3**	**-7.6**	**-16.7**
Chile	**Labour incomes**	**-15.7**	**-15.9**	**-16.0**	**-12.1**	**-9.1**
	Formal private sector incomes	-7.4	-9.2	-10.8	-9.2	-6.9
	Formal public sector incomes	-0.4	-1.0	-0.6	-0.2	0.6
	Informal sector incomes	-7.9	-5.7	-4.7	-2.7	-2.8
	Non-labour incomes	**3.1**	**9.3**	**9.3**	**4.8**	**0.1**
	Retirement and pension incomes	-3.4	1.5	2.7	1.7	0.9
	Transfer incomes	7.6	8.1	7.1	4.2	0.7
	Other non-labour incomes	-1.2	-0.3	-0.6	-1.0	-1.5
	Total	**-12.7**	**-6.7**	**-6.8**	**-7.3**	**-9.1**
Uruguay	**Labour incomes**	**-4.7**	**-6.1**	**-2.5**	**-2.1**	**-5.1**
	Formal private sector incomes	-1.3	-0.2	-0.9	-2.4	-3.9
	Formal public sector incomes	0.0	-0.7	0.8	3.1	0.4
	Informal sector incomes	-3.3	-5.2	-2.4	-2.8	-1.6
	Non-labour incomes	**-3.2**	**1.2**	**-1.8**	**-2.6**	**-0.9**
	Retirement and pension incomes	0.6	3.0	-0.1	-0.7	1.6
	Transfer incomes	-0.1	-0.3	-0.3	-0.6	-0.3
	Other non-labour incomes	-3.8	-1.5	-1.4	-1.4	-2.2
	Total	**-7.9**	**-4.9**	**-4.4**	**-4.7**	**-6.0**

Source: Prepared by the authors on the basis of data from national household surveys.

By applying the approach developed in equation (4) to changes in the Gini coefficient (see table 5), it is possible to identify the role of the different income sources in changes in distributional inequality. In general, the effect of the decline in labour income was to increase inequality, albeit very modestly. This was mainly because of the clear pro-inequality role played by the loss of labour income from informal sector occupations. Non-labour family income, in contrast, played a decisive role in reducing inequality. This was mainly due to the role of social transfer income. Thus, the application of new emergency instruments in the context of the COVID-19 pandemic and the strengthening of existing ones had a positive, albeit moderate, effect in cushioning the rise in the Gini coefficient. The only exception in this regard is Uruguay.

Table 5
Selected countries: decomposition of changes in the Gini coefficient, by income source, between the fourth quarter of 2019 and the fourth quarter of 2020
(Points of the Gini coefficient)

Income source	Argentina	Brazil	Chile	Uruguay
Labour incomes	**0.2**	**0.8**	**2.1**	**0.0**
Formal private sector incomes	-0.4	0.3	1.1	-0.4
Formal public sector incomes	0.1	-0.4	0.0	-0.4
Informal sector incomes	0.5	0.9	1.0	0.8
Non-labour incomes	**-1.0**	**-3.5**	**-2.1**	**-0.2**
Retirement and pension incomes	0.1	-0.4	-0.2	-0.3
Transfer incomes	-0.9	-2.8	-1.9	-0.1
Other non-labour incomes	-0.2	-0.3	0.0	0.2
Total	**-0.8**	**-2.6**	**-0.2**	**-0.1**

Source: Prepared by the authors on the basis of data from national household surveys.

Lastly, table 6 shows what happened to monetary poverty in the four countries and the role played by the different income sources in the changes observed. As noted, we are working here with two absolute PPP monetary poverty lines of US$ 10 and US$ 5.50. The changes in poverty levels reveal that the evolution of absolute deprivation was very closely related to changes in per capita family income.

Table 6
Selected countries: decomposition of changes in the monetary poverty rate (using poverty lines of US$ 10 and US$ 5.50 in purchasing power parity), by income source, between the fourth quarter of 2019 and the fourth quarter of 2020
(Percentage points)

Income source/poverty line	Argentina		Brazil		Chile		Uruguay	
	US$ 10	US$ 5.50	US$ 10	US$ 5.50	US$ 10	US$ 5.50	US$ 10	US$ 5.50
Labour incomes	**4.4**	**1.4**	**4.5**	**3.0**	**6.0**	**3.6**	**1.7**	**1.1**
Formal private sector incomes	1.7	0.6	2.0	0.8	3.7	2.2	0.4	0.4
Formal public sector incomes	0.8	0.0	0.2	-0.1	-0.1	-0.2	-0.3	-0.4
Informal sector incomes	1.8	0.8	2.3	2.2	2.5	1.6	1.6	1.1
Non-labour incomes	**0.0**	**-1.1**	**-1.3**	**-2.9**	**-3.7**	**-2.1**	**0.2**	**0.0**
Retirement and pension incomes	0.6	0.3	1.4	1.0	-0.5	-0.3	-0.7	-0.7
Transfer incomes	-1.4	-1.5	-3.6	-4.6	-3.6	-2.1	0.0	-0.2
Other non-labour incomes	0.8	0.2	1.0	0.7	0.4	0.3	0.9	0.9
Total	**4.4**	**0.3**	**3.2**	**0.1**	**2.3**	**1.5**	**1.9**	**1.0**

Source: Prepared by the authors on the basis of data from national household surveys.

A detailed analysis of the information shows that changes in labour incomes contributed to an increase in poverty in all the countries. Income from the low-productivity informal sector played a more decisive role in increasing monetary poverty than income from the formal sector, especially when the US$ 5.50 PPP line is considered, something that is related to the impacts on the bottom two quintiles of the distribution described above. However, it is clear that the deterioration of the labour market as a whole also affected the formal sectors. Accordingly, the negative role of formal private sector incomes in monetary poverty could be related in turn to the socioeconomic performance of the lower middle-income quintiles.

Social transfer incomes played a decisive role in the evolution of monetary poverty, cushioning the impact of the COVID-19 crisis. With the exception of Uruguay, whose characteristics have already been described, social policy transfers reduced the increase in income poverty that would have occurred by between 1.4 percentage points (Argentina) and 3.7 percentage points (Brazil and Chile) if the US$ 10 PPP poverty line is taken, and by between 1.5 percentage points (Argentina) and 4.6 percentage points (Brazil) if the US$ 5.50 PPP poverty line is taken.

V. Conclusions

The worst health effects of the COVID-19 pandemic seem to have subsided after an extensive lockdown followed by a new normal with many changes in daily life. In contrast, the economic consequences are far from over. The world economy is in turmoil, beset by geopolitical shifts, crises in global supply chains, an energy crisis and higher inflation. In Latin America, the economic recession associated with the pandemic came on top of the gradual stagnation and socioeconomic deterioration that characterized the second decade of the twenty-first century. In this context, the region faces renewed challenges in its pursuit of a path of economic development with social equity and environmental sustainability.

This article has examined how the welfare and economic inequality situation in Argentina, Brazil, Chile and Uruguay was affected both by the economic crisis caused by the COVID-19 pandemic and by their governments' compensatory social policy responses. The general premise of the study is that the impacts of the crisis should be assessed in the light of the structural configuration of labour markets in the region's countries and the characteristics of their welfare regimes. By addressing the ways in which the crisis impacted income distribution and living conditions, the study has provided material for a broader reflection on the constraints currently affecting labour markets and welfare regimes in the effort to achieve adequate welfare thresholds.

A first finding is that the COVID-19 crisis led to impoverishment across the board, observable in the decline in average per capita incomes. This reduction in monetary income was mainly explained by labour market developments: according to the microdecompositions presented, the decline in household labour incomes (due to loss of jobs and hours worked and reduced remuneration) was the main factor underlying the erosion of average per capita income. However, the structural processes behind the loss of income were not homogeneous across the income distribution. In the bottom quintile of the distribution (with differences in magnitude between countries), this deterioration was more strongly driven by developments in the informal sector, while in the top quintile, the deterioration of incomes in the formal private sector was more important. In the middle quintiles, the effects of income losses from both labour sources were combined, demonstrating the magnitude of the crisis.

A second finding was that there was clearly a degree of independence between changes in welfare and inequality. The decline in average per capita income was not necessarily coupled with higher inequality. This was generally due to the crucial role of social transfers, especially in Argentina, Brazil and Chile. While income from labour activities, both formal and informal, led to a distributional deterioration (an increase in the Gini coefficient), State action played a decisive role in cushioning the process. This dynamic was most in evidence in Argentina, Brazil and Chile (the countries that increased their level of social spending the most of the four considered in this study). In the case of Uruguay, on the other hand, transfers had practically no distributional consequences.

A third important finding is that the social protection policies implemented by governments in the context of the health emergency also played a key role in relation to poverty. Here we refer to standard PPP poverty lines of US$ 10 and US$ 5.50, used for strictly comparative purposes. One consequence of the COVID-19 pandemic and the restrictive measures implemented was a significant increase in poverty in all four countries analysed. From the microdecompositions carried out, it was found that the determinant of this trend was the loss of households' labour income, and especially informal sector income. At the same time, it was documented that income transfer policies had a large poverty-reducing effect, which varied from case to case. Given that this study used microdata for the fourth quarter of 2020, it is possible that the effects described may have been further-reaching in the quarters when human mobility was more restricted, which could not be considered here.

The isolation and restrictive sanitary measures taken in response to the outbreak of COVID-19 highlighted the structural fragmentation of the labour market and the socioeconomic fragility in which

the living conditions of the Latin American population are reproduced. The results of this study suggest two main conclusions. First, the structural heterogeneity of labour markets remains an obstacle to improving the material living conditions of households, something that is demonstrated by the decisive role played by informal sector activities in the livelihoods of many Latin American families. This being so, efforts must be made to reduce the sectoral socioproductive gaps impeding the convergence of living conditions and to improve the quality of jobs.

Second, the persistent institutional weakness of Latin American labour markets and the resulting stratification of welfare regimes are obstacles to the achievement of social equity in the face of crises and shocks. Although the study was limited to what happened during the pandemic, it is clear that these conclusions also apply to the situation of economic stagnation and rising inequality that our region has been experiencing. In this context, there is a need to develop new, more inclusive welfare systems that are less dependent on people's labour market situation and more capable of providing social protection and inclusion. In particular, it is becoming urgent to discuss income insurance mechanisms that can enable the entire population to lead a decent life.

Bibliography

Abeles, M., P. Lavarello and H. Montagu (2013), "Heterogeneidad estructural y restricción externa en la economía argentina", *Hacia un desarrollo inclusivo: el caso de la Argentina*, R. Infante and P. Gesterfeld (eds.), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC)/International Labour Organization (ILO).

Acevedo, I. and others (2021), "Informality in the time of COVID-19 in Latin America: Implications and policy options", *PLos ONE*, vol. 16, No. 12, Washington, D.C.

Arenas de Mesa, A. (2019), *Los sistemas de pensiones en la encrucijada: desafíos para la sostenibilidad en América Latina*, ECLAC Books, No. 159 (LC/PUB.2019/19-P), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).

Azevedo, J. P., G. Inchauste and V. Sanfelice (2013), "Decomposing the recent inequality decline in Latin America", *Policy Research Working Paper*, No. 6715.

Beccaria, L. and R. Maurizio (2020), "Los impactos inmediatos de la pandemia: cuando la diferencia es entre quienes continúan percibiendo ingresos y quienes los perdieron", *Alquimias Económicas*, 24 April.

Bertranou, F. and R. Maurizio (2020), "The labor market in Latin America at the time of the COVID-19 pandemic: impacts, responses and perspectives", *Gaceta Médica de Caracas*, vol. 128.

Bracco, J., L. Gasparini and L. Tornarolli (2019), "Explorando los cambios de la pobreza en Argentina: 2003-2015", *Económica*, vol. LXIV, No. 1.

Camarano, A. (2020), "Os dependentes da renda dos idosos e o coronavírus: órfãos ou novos pobres?", *Ciência & Saúde Coletiva*, vol. 2, No. 25.

Cecchini, S. and B. Atuesta (2017), "Conditional cash transfer programmes in Latin America and the Caribbean: coverage and investment trends", *Social Policy series*, No. 224 (LC/TS.2017/40), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).

Cortés, F. and R. M. Rubalcava (1991), *Autoexplotación forzada y equidad por empobrecimiento: la distribución del ingreso en México*, Mexico City, Colegio de México.

Cortés, F. and A. Salvia (2019), "Introducción. La desigualdad en la distribución del ingreso en Argentina y México", *Argentina y México: ¿igualmente (des)iguales?*, F. Cortés and A. Salvia (coords.), Mexico City, Siglo XXI/Development Studies Programme at the National Autonomous University of Mexico (UNAM).

Del Valle, A. H. (2010), "Comparando regímenes de bienestar en América Latina", *Revista Europea de Estudios Latinoamericanos y del Caribe*, vol. 88.

ECLAC (Economic Commission for Latin America and the Caribbean) (2022), *Preliminary Overview of the Economies of Latin America and the Caribbean, 2022* (LC/PUB.2022/18-P/Rev.1), Santiago, December.

___(2020), "Addressing the growing impact of COVID-19 with a view to reactivation with equality: New projections", *Special Report COVID-19*, No. 5, Santiago, 15 July.

___(2019), *Social Panorama of Latin America, 2019* (LC/PUB.2019/22-P/Rev.1), Santiago.

Ferreira, F. H. G. and others (2013), *Economic Mobility and the Rise of the Latin American Middle Class*, Washington, D.C., World Bank.

Ffrench-Davis, R. (2015), "Neoestructuralismo y macroeconomía para el desarrollo", *Neoestructuralismo y corrientes heterodoxas en América Latina y el Caribe a inicios del siglo XXI*, ECLAC Books, No. 132 (LC/G.2633-P/Rev.1), A. Bárcena y A. Prado (eds.), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), April.

Filgueira, F. (2015), "Models of development, the welfare State matrix and Latin American social policy tools", *Towards universal social protection: Latin American pathways and policy tools*, ECLAC Books, No. 136 (LC/G.2644-P), S. Cecchini and others (eds.), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).

___(1998), "El nuevo modelo de prestaciones sociales en América Latina: eficiencia, residualismo y ciudadanía estratificada", *Ciudadanía y política social*, B. Roberts (ed.), San José, Latin American Faculty of Social Sciences (FLACSO).

Filgueira, F. and others (2020), "América Latina ante la crisis del COVID-19: vulnerabilidad socioeconómica y respuesta social", *Social Policy series*, No. 238 (LC/TS.2020/149), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), December.

ILO (International Labour Organization) (2021), *2021 Labour Overview of Latin America and the Caribbean*, Lima.

___(2020), *Labour Overview in times of COVID-19: Impact on the labour market and income in Latin America and the Caribbean*, Technical Note [online] https://www.ilo.org/americas/publicaciones/WCMS_756697/lang--en/index.htm.

IMF (International Monetary Fund) (2020), *World Economic Outlook: A Long and Difficult Ascent*, Washington, D.C.

INDEC (National Institute of Statistics and Censuses) (2020), "Mercado de trabajo: tasas e indicadores socioeconómicos (EPH)", *Trabajo e Ingresos*, vol. 6, No. 115, Buenos Aires.

INE of Chile (National Institute of Statistics) (2021), *Síntesis de Resultados: Encuesta Suplementaria de Ingresos 2020*, Santiago.

INE of Uruguay (National Institute of Statistics) (2021), *Boletín técnico. Microdatos de la Encuesta Continua de Hogares 2020*, Montevideo.

Infante, R. (2011), "La teoría estructuralista del desarrollo", *El desarrollo inclusivo en América Latina y el Caribe: ensayos sobre políticas de convergencia productiva para la igualdad*, ECLAC Books, No. 112 (LC/G.2500-P), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), September.

Lustig, N. and M. Tommasi (2020), "El COVID-19 y la protección social de los grupos pobres y vulnerables en América Latina: un marco conceptual", *CEPAL Review*, No. 132 (LC/PUB.2021/4-P), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), December.

Martínez Franzoni, J. and D. Sánchez-Ancochea (2016), "Regímenes de bienestar en América Latina: tensiones entre universalización y segmentación", *Los Estados de bienestar en la encrucijada: políticas sociales en perspectiva comparada*, E. del Pino and M. J. Rubio Lara (eds.), Madrid, Tecnos.

Maurizio, R. (2021), "Empleo e informalidad en América Latina y el Caribe: una recuperación insuficiente y desigual. Nota técnica", *Panorama Laboral en América Latina y el Caribe series*, Lima, International Labour Organization (ILO), September.

Mesa-Lago, C. (1989), *Ascent to Bankruptcy: Financing Social Security in Latin America*, Pittsburgh, University of Pittsburgh Press.

Obando, N. and L. Andrián (2016), "Measuring changes in poverty in Colombia: the 2000s", *IDB Technical Note*, No. 1074, Washington, D.C.

Poy, S. and J. L. Pla (2022), "Introducción", Coordenadas teórico-metodológicas para el estudio de las consecuencias sociales de la pandemia de Covid-19 en la Argentina, *La sociedad argentina en la pospandemia*, A. Salvia, S. Poy and J. L. Pla (comps.), Buenos Aires, Siglo XXI Editores.

Ravallion, M. and S. Chen (2003), "Measuring pro-poor growth", *Economics Letters*, vol. 78, No. 1.

Rubio, M. and others (2020), *Social protection and response to COVID-19 in Latin America and the Caribbean*, Panama City, United Nations Children's Fund/International Policy Centre for Inclusive Growth (UNICEF/IPC-IG).

Sánchez Torres, R. M. (2015), "Identificación y caracterización de los trabajadores pobres en Colombia, 2002-2012", *Revista de Economía Institucional*, vol. 17, No. 32.

Schteingart, D. (2018), "El rompecabezas del mercado laboral latinoamericano", *Nueva Sociedad*, No. 275.

Tokman, V. (2007), "Informalidad, inseguridad y cohesión social en América Latina", *Social Policy series*, No. 130 (LC/L.2694-P/E), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).

Velásquez Pinto, M. (2021), "La protección ante el desempleo: medidas aplicadas durante la crisis del COVID-19", *Project Documents* (LC/TS.2021/214), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).

Weller, J. (2020), "La pandemia del COVID-19 y su efecto en las tendencias de los mercados laborales", *Project Documents* (LC/TS.2020/67), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).