The distribute impact of labour market and cash transfer policies during the COVID-19 pandemic in Latin America

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Abstract

The COVID-19 pandemic has generated an unprecedented economic, health, labour and social crisis in the world. Latin America is one of the regions that has been most strongly affected. The main aim of this paper is to assess the dynamics of family income inequality and its components since the onset of the pandemic in six Latin American countries -Argentina, Brazil, Colombia, Costa Rica, Peru and Uruguay-. The unequalizing impact of the worsening of the labour market during the contraction phase was mainly associated with the significant loss of informal, low-paid, jobs. This effect was offset, at least partially, by the equalizing role of cash transfers policies put in place in the outbreak of the pandemic. An opposite impact of these income sources appears during the recovery phase, as most countries gradually reduced or stopped those transfers as employment and, therefore, labour incomes partially recovered. Nearly two years into the COVID-19 pandemic inequality is higher than 2019 in almost all countries studied exacerbating existing high-income gaps in one of the world's most unequal regions.

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1. Introduction

The COVID-19 pandemic has caused an economic recession of unprecedented magnitude and duration in Latin America and the Caribbean. The year 2020 saw a contraction in level of activity of 6.8%, according to the Economic Commission for Latin America and the Caribbean (ECLAC), and of 7%, according to International Monetary Fund (IMF) estimates. This generalized drop in the level of activity was seen despite the positive impact of public policies to maintain income implemented in most of the economies in the region. ECLAC (2021) has stated that this is the greatest economic crisis that Latin America and the Caribbean as a whole have experienced since statistical records began in the early twentieth century. For example, during the so-called "debt crisis", the GDP of the region contracted 2.6% in 1983, while the fall in GDP due to international financial turbulence in 2009 was 1.8%.

At the same time, the drop in aggregate production in the region in 2020 was very intense in comparison to other regions, more than doubling the decline recorded for the world as a whole (3.2%), and is the largest of all the regions, greater even than the fall in the Eurozone economies (6.5%).

At the outbreak of COVID-19 pandemic the region was going through a period of economic slowdown, if not reversal, of improvements registered in the labour market performance that characterized previous years. At the same time, the region's structural characteristics persisted, as the high incidence of labour informality, low average incomes, significant wage gaps, and weaknesses in social protection in terms of coverage and adequacy of benefits.

It is therefore not surprising that, notwithstanding the implementation of a wide spectrum of response policies, the economic collapse had a disproportionate impact on certain population groups, widening the region's existing wage and social gaps.

Since the second half of 2020, signs of economic recovery appeared as the regional GDP grew in 2021, on average, 6.2%, mainly because of the "rebound effect". This economic recovery has translated into an insufficient improvement in labour indicators. Nearly two years after the onset of the COVID-19 pandemic, in the third quarter of 2021 the employment rate and economic participation rate were still below those of 2019, while the unemployment rate was higher.

The main aim of this paper is to assess the dynamics of family income inequality and its components since the onset of the pandemic in six Latin American countries -Argentina, Brazil, Colombia, Costa Rica, Peru and Uruguay.

Data coming from national household surveys is employed to estimate inequality indicators and to analyse the effect of different variables through decomposition methods. The study emphasizes the behaviour of informal employment (and of labour incomes coming from informal jobs) as it is one of the major factors associated to the evolution of aggregate labour incomes and its distribution during the period under analysis. The distributive effects of cash transfer programs implemented during the pandemic is also particularly assessed.

While there is empirical evidence on the impact of COVID-19 on the labour market, incomes and inequality in Latin America, this paper makes several contributions on this regard. First, to the best of our knowledge, this study is the first that looks at the evolution of income distribution until the third quarter of 2021, almost two years since the onset of the pandemic. Second, the use of data for six countries –that account for more than 50% of the total population in the region– provides a broad picture of the impacts of COVID-19 in Latin America, as it makes it possible to consider cases with different occupational and income structures, and also diverse labour and distributive dynamics during this crisis. Third, unlike some previous studies, in this paper we evaluate the distributive changes actually observed without resorting to assumptions or simulations. Finally, this study pays particular attention to the dynamics of labour informality and its impacts on inequality, taking into account the atypical behaviour that informal employment has had during this crisis.

The paper continues as follows. Section 2 contains the literature review. Section 3 details the sources of information and the measurement of labour informality. Section 4 provides a brief overview of the magnitude and extent of the economic and labour crisis triggered by the COVID-19 pandemic in the region. Section 5 analyse the heterogenous impacts of the initial massive loss of jobs and the subsequent partial employment recovery. Section 6 details the policies implemented in the countries under study to support family incomes, especially those living in informality. Section 7 focuses on the dynamics of total labour and family incomes. Section 8 analyses the behaviour of total household income inequality and assesses the contribution of different income sources. Finally, section 9 concludes.

2. Literature review

The considerable progress witnessed by Latin America in terms of income distribution since the beginning of 2000s (World Bank, 2013; Cornia, 2014; Maurizio, 2015; Stampini et al.,2016; Lustig et al.,2016; ECLAC 2016; Messina and Silva, 2021, among others), began to slow down by the middle of the following decade and came to a complete halt with the emergence of the COVID-19 pandemic. The policies implemented to face the health situation, in particular lockdown and social-distancing measures, impacted on the economic activity and employment as already indicated, and consequently on the labour and household incomes.

Several studies have estimated the *potential* effects of the reduction of labour incomes associated with the restrictions in economic activity in Latin America. Among them, Lustig et al (2020) and Lustig et. al (2021) used microsimulation methodologies to estimate the probable distributive impacts of the COVID-19 pandemic in Argentina, Brazil, Colombia and Mexico. They first estimated the counterfactual family incomes losses in the absence of social assistance and found significant increases in the Gini coefficient (between 0.8 points in Brazil and 2.6 points in Argentina). Then, they found a significant role of the cash transfers. In Brazil, these programmes completely offset the fall

of labour incomes. To a lesser extent, social assistance schemes were also substantial in reducing the increase in the Gini coefficient in Argentina and Colombia. The authors also concluded that the greatest negative impact of this crisis was concentrated among individuals / households placed in the middle of the income distribution, rather than by the poorest.

Lopez and Ruiz-Arranz (2020) also carried out microsimulation exercises for several countries. They found that, in general, and specifically in Costa Rica, the Dominican Republic, Guatemala, Mexico and Panama, incomes of the low-income middle class (a group called "vulnerable middle class") and of the first percentiles of the "non-vulnerable middle class" would be potentially the most affected by the crisis; such evolution meant an increase in inequality as measured by the Gini coefficient.

Similar to these results, Castilleja-Vargas (2020) estimated for some Andean countries (Bolivia, Colombia, Ecuador and Peru) the potential distributive impacts of the sudden interruption of the flow of labour incomes as a consequence of lockdown, as well as of the public cash transfers. They found a generalized reduction of family incomes together with a shrinking of the middle class and an increase in poverty, that would rise –for the average of the four countries– from 26% (previous to the pandemic) to 29.3% at the outbreak of the crisis.

The potential role of cash transfers, their scope and coverage in this context was the main subject of other studies. Busso et al. (2020) developed for 10 Latin American countries indicators of potential programme coverage and calculated replacement rates in household located in different terciles of labour income distribution. They estimated that more than 75% of households of the first tercile would be receiving cash transfers. In the case of Brazil or Peru, it would be even higher, between 98% and 100%, but substantially lower in Uruguay and Chile (52% and 35%, respectively). The estimated value of cash transfers as a proportion of monthly labour income during the pandemic would vary between less than 25% and more than 50% in the most vulnerable households, depending on the country under consideration.

Fewer studies have evaluated the *actual* distributive impacts of the pandemic. Berniell and de La Mata (2021) find that the negative behaviour of the labour market and the disruption in education and training were main channels through which COVID-19 exacerbated pre-existing inequalities. They highlight the more pronounced fall in labour participation of women, low-skilled people and young people.

Acevedo et al (2022) study the evolution of inequality in Latin America. They estimated an increase in inequality -on average- of 2% between 2019 and 2020, with a high diversity across gender, urban or rural areas and sectors of economic activity. Within non-labour incomes, they found a minor role of remittances and, on the contrary, a significant effect of public cash transfers to partially offset the negative distributive impacts of the pandemic on labour incomes.

Finally, focusing on the phase of partial recovery of the crisis (from the second to third quarter of 2020), Agrawal et al. (2021) argue that it was unequal within and among the countries of the region. However, they show that even when the recovery of employment was uneven and insufficient for the most affected groups –such as women, younger, urban workers and those without university education–, it made it possible to reduce food insecurity incidence from 13% to 9% of the population –although for those who lived in rural areas the improvement was slower.

This paper is in line with the second group of studies as it contributes to estimate the actual (not potential) behaviour of income distribution in six Latin American countries. However, unlike those studies, it considers a broader period of analysis, which extends until the third quarter of 2021; therefore, it covers both the contractionary phase, associated to the outbreak of the pandemic, and the partial recovery phase initiated late in 2020. It also evaluates the role of different income sources in a more disaggregated way by differentiating the effect of the evolution of formal and informal employment, as well as the role of cash transfers.

3. Data and measurement of informality

Data used in this paper come from regular household surveys carried out by the national statistical institutes of each country.

For Argentina, the data source is the Encuesta Permanente de Hogares (EPH) carried out by the Instituto Nacional de Estadística y Censos (INDEC). Micro-data is available for 31 urban areas. Brazil's data come from the Pesquisa Nacional por Amostra de Domicilios Contínua (PNADC), conducted by the Instituto Brasileiro de Geografia e Estadistica (IBGE) It covers urban and rural areas.[1]

Data for Colombia come from the Gran Encuesta Integrada de Hogares Contínua (GEIH). It is carried out by the Departamento Nacional de Estadística and has a national coverage (urban and rural). For Costa Rica, two different surveys are employed; the first one is the quarterly Encuesta Continua de Empleo (ECE) and the second one is the yearly Encuesta Nacional de Hogares (ENAHO). Both surveys cover urban and rural areas and are carried out by the Instituto Nacional de Estadıstica y Censos (INEC). ECE collects only incomes from labour sources while ENAHO also inquire on all sources of family incomes.

In Peru, the Encuesta Nacional de Hogares (ENAHO), the regular household survey conducted by the Instituto Nacional de Estadistica e Informática (INEI) is used. It also covers urban and rural areas. Finally, the survey employed for Uruguay is the Encuesta Continua de Hogares (ECH), carried out by the Instituto Nacional de Estadística (INE) in urban and rural areas.

[1] Non-labour incomes are inquired only to a part of the whole sample; information on these components, including the microdata, are released only once a year. Consequently, only information until 2020 were available at the moment of writing the paper.

One of the key dimensions analysed in this paper is labour informality. The definition of informal employment is based on the recommendations of the Conferences of Labour Statisticians (CIET). Specifically, informal employees are those in jobs not subject to national labour laws or those concerning taxes or social security regulations. Non-salaried workers are considered informal if they carry out their activities in the informal sector, i.e., those who work in units that are not registered in the tax or other registers that are required for them to operate. Regarding, the empirical identification, we follow the criteria of ILO's Regional Office that takes into account data availability in each of the national surveys. As a result, in some countries the informal wage earners are those whose employers do not contribute to the social security system (pensions and / or health) of their behalf. In other, the criteria refer to the lack of a labour contract. To identify informal establishments, the lack of registration in certain institutions (as tax agency) is used. The existence or not of bookkeeping is another criterion which is used in various cases. Where information on these variables is not reported, the ILO regional office resorts to different proxies, including the place where the activities are mostly carried out (e. g., in the streets) and/or the size of establishment.

The comparability of data employed in the paper is adequate as all countries employ fairly similar definitions of their basic labour, sociodemographic and income variables (following international recommendations). Regarding the identification of the formal / informal character of the job, even if empirical definitions differ to some extent among countries, in all cases they take into account the same approach to informality.

4. An overview of the economic and labour market dynamics: going through an unprecedented crisis

The COVID-19 pandemic has triggered an economic recession of unprecedented magnitude and scope in Latin America as aggregate GDP contracted about 7% in 2020. This fall is more than doubled that of the world as a whole and is the largest of all the regions.

In addition to its depth and scope, a salient feature of this crisis -even for a region characterized by recurring macroeconomic shocks- was the speed of the impact resulting from an immediate supply shock, associated with lockdown and social-distancing measures, and the consequent sharp decline in aggregate demand. The most significant effects on activity occurred in the second quarter of 2020, when GDP had fallen -–according to data for a sample of 10 countries- 14%. In Peru, for example, the decline in the level of activity reached 30%.

The drastic reduction in GDP had an also rapid impact on employment with an intensity that is also unprecedented in the region: it declined by 15% between the first and second quarter of 2020. Considering the whole 2020, the employment dropped almost 10% in comparison to the previous year, a more pronounced decline than that of the GDP, which implies an extremely high employment-output elasticity of nearly 1.5. At the same time, Latin America has been the region with the greatest reduction in hours of work around the world, with an estimated loss of the order of 16% during 2020 in comparison to 2019. This figure is almost double the global estimate of 8.8% (ILO, 2020).

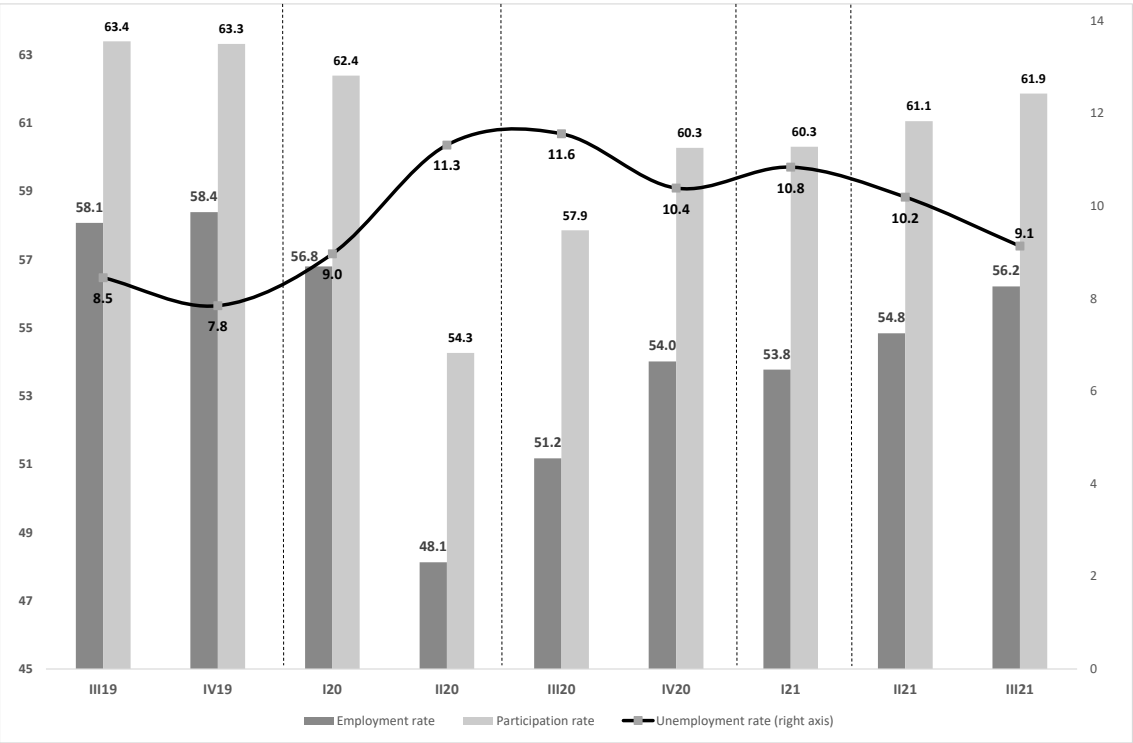
This severe decrease in aggregate employment, and its great magnitude *vis a vis* the level of activity, arises from the particular and exceptional characteristics of the recession experienced in the region. The pandemic and the restrictions imposed, that limited or prevented the continuation of certain economic activities or jobs, generated a series of previously unseen responses and account for this behaviour.

Throughout the period from the outbreak of the pandemic to the third quarter of 2021, it is possible to identify four well-defined phases in the dynamics of the Latin American labour markets, as it can be observed in Figure 1 when data for the average of the region is considered.[2]

[2] Data come from statistical annex, ILO (2022).

During the first phase (first semester 2020) the average employment rate at the regional level dropped an abrupt 15%. The sharp contraction in the volume of employment led to transits into unemployment, but mostly strong outflows from the labour force. Between the first and second quarters of 2020, the labour force participation rate declined by 9 pp; such reduction significantly curbed the impact of job losses on the unemployment rate. Consequently, compared with previous crises, this indicator only partially reflects the magnitude of the region's labour markets difficulties during the initial phase of the pandemic.

Figure 1. Latin American quarterly evolution of labour market indicators. IIIQ 2019 - IIIQ 2021



Source: Own elaboration based on ILO (2022)

Towards mid-2020, the region begins to go through a second phase associated with a process of partial recovery of employment hand in hand with the reactivation of the economic activity. The employment rate registered an increase of 3 percentage points (pp) in the third quarter and 2.8 pp in the fourth quarter of 2020.

In parallel to this, the gradual lessening of mobility restrictions during the second half of 2020 caused some of the people who were out of the labour force to go directly to work, but also others who had lost their jobs at the beginning of the pandemic began an active search.

However, the pathway of partial recovery of regional labour indicators stops in the first months of 2021. The new waves of infections and the measures to contain them in the face of an insufficient speed in the vaccination rate, the uncertainty regarding macroeconomic and sectoral evolution, the greater reaction of working hours than the creation of jobs, and the complex situation experienced by a significant group of companies, particularly micro and small enterprises, were some of the factors associated with the weak labour demand experienced in those months.

Subsequently, to the extent that the region resumed the path of economic recovery since mid-2021 (depending on the country) on the back of a higher vaccination rate and better control of the health situation, labour indicators showed again positive variations during the second and, more intensely, during the third quarter of 2021 -the last quarter with available data at the regional level.

However, these recovery phases were not intense enough to go back to pre-pandemic values. When comparing the regional average figures of the third quarters of 2019 and 2021, a negative difference of 2.1 pp is observed in the employment rate (58.1% and 56.2%, respectively), of 1.5 pp in the economic participation rate (63.4% and 61.9%, respectively) and a positive gap of 0.6 pp in the unemployment rate (8.5% and 9.1%).

In general, a similar pattern in the evolution of these labour indicators appears in the countries under analysis, although with different intensity between them (Table 1).

Table 1. Quarterly evolution of employment rate, unemployment rate, participation rate, informality rate, formal and informal employment. IVQ 2019 - IIIQ 2021

	IVQ2019	IQ2020	IIQ2020	IIIQ2020	IVQ2020	IQ2021	IIQ2021	IIIQ2021
Argentina								
Employment rate	55	54	44	49	52	54	54	56
Unemployment rate	9	10	13	12	11	10	10	8
Participation rate	60	60	50	56	59	60	60	61
Informality rate	45	44	34	41	45	44	43	44
Formal employment	*100*	*100*	*94*	*94*	*94*	*100*	*102*	*104*
Informal employment	*100*	*96*	*59*	*79*	*95*	*96*	*92*	*98*
Brazil								
Employment rate	57	56	50	50	52	52	53	55
Unemployment rate	11	12	14	15	14	15	14	13
Participation rate	65	64	58	59	61	61	62	63
Informality rate	39	38	35	37	37	37	38	39
Formal employment	*100*	*99*	*93*	*91*	*94*	*94*	*95*	*98*
Informal employment	*100*	*95*	*80*	*82*	*88*	*87*	*92*	*97*
Colombia								
Employment rate	62	58	47	52	57	55	55	57
Unemployment rate	10	9	16	18	14	16	15	13
Participation rate	68	64	56	63	66	65	64	65
Informality rate	59	58		58	60	60	59	59
Formal employment	*100*	*99*		*90*	*92*	*89*	*90*	*94*
Informal employment	*100*	*93*		*86*	*95*	*91*	*90*	*94*
Costa Rica								
Employment rate	55	56	44	46	49	49	49	52
Unemployment rate	12	12	14	22	20	19	18	15
Participation rate	63	63	58	59	61	61	59	61
Informality rate	43	44	37	41	42	44	41	41
Formal employment	*100*	*100*	*89*	*88*	*92*	*90*	*94*	*100*
Informal employment	*100*	*102*	*68*	*80*	*86*	*92*	*85*	*91*
Peru								
Employment rate	72	68	42	58	67	66	68	68
Unemployment rate	5	7	17	13	9	10	7	7
Participation rate	75	72	51	67	73	73	73	73
Informality rate	71	71	72	73	73	75	74	73
Formal employment	100	94	57	76	89	80	87	90
Informal employment	*100*	*95*	*60*	*85*	*97*	*99*	*101*	*101*
Uruguay								
Employment rate	58	57	54	55	56	56	56	
Unemployment rate	9	10	10	11	11	10	10	
Participation rate	64	63	60	61	63	63	62	
Informality rate	25	22	21	22	21	21	19	
Formal employment	*100*	*101*	*98*	*98*	*101*	*101*	*105*	
Informal employment	*100*	*88*	*79*	*86*	*83*	*85*	*76*	

Source: Own elaboration based on household surveys

Notes: *For informality rate in Colombia data for IQ2020 includes only January and February, and for IIIQ2020 includes only August and September.

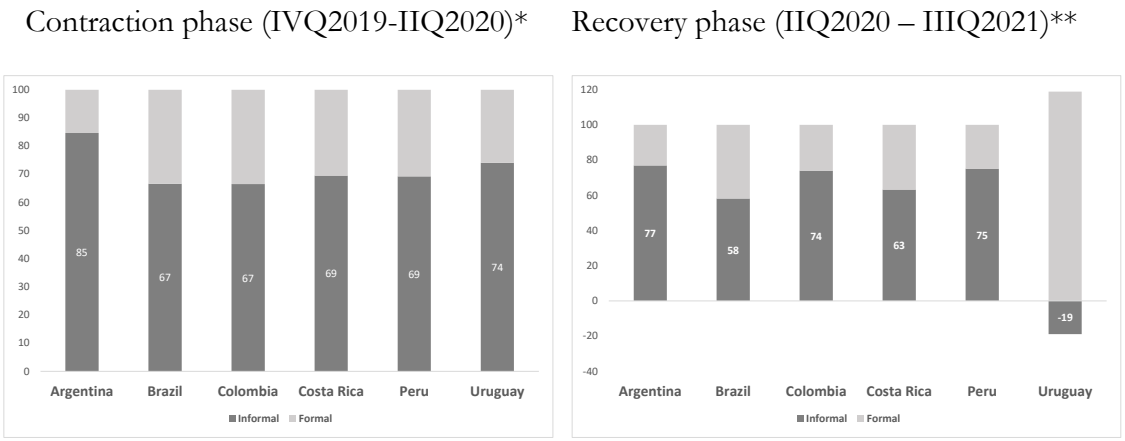
5. Heterogenous impacts of the initial massive job loss and its subsequent partial recovery pathway

The significant reduction in the level of occupation that took place immediately after the outbreak of the pandemic differed among types of employment. In the six countries under analysis, both informal and formal employment experienced pronounced contractions, but in Argentina, Brazil, Costa Rica and Uruguay it was larger among the former. The greater fall in informal employment meant that the rate of informality dropped (temporarily) between the fourth quarter of 2019 and the second quarter of 2020 in these countries (Table 1).[3] In Peru there was a slight increase in informality rate as formal employment fell more than informal employment. No data for the second quarter is available for Colombia.

That characteristics of the dynamic of informal employment in the initial phase, that explains part of the aggregate evolution above described, differs from previous economic crises. In Latin America, and other developing countries, it is usual that informal jobs have a countercyclical role and tended to grow when formal employment decreased. Such "adjustment mechanism" that traditionally come into play in the region during economic crisis was greatly weakened in this context. That is, own-account occupations and, to a certain extent, informal salaried jobs, that usually moderate the change in aggregate employment, exacerbated it negative variation. Consequently, the reduction in informal employment explained from 67% to 85% of the net reduction in overall employment (Figure 2).

[3] A larger fall of informal than formal employment was a widespread phenomenon in the region (see ILO, 2021).

Figure 2. Contribution of formal and informal employment to total employment in the contraction and partial recovery phases. IVQ2019-IIIQ2021



Notes: *In Colombia the period considered is IV2019-IIIQ2020. **In Colombia the period considered is IIIQ2020-IIIQ2021 and in Uruguay is IIQ2020-IIQ2021

Source: Own elaboration based on household surveys

Several factors can explain the different evolution of formal and informal employment during this crisis. The number of self-employed workers in 2020 plummeted because a significant share of their activities was suspended on account of lockdown and social-distancing measures. For many of them homeworking was not an option. The lower costs, and restrictions, of firing informal salaried worker could be another reason behind the larger fall of informal employment. Furthermore, informal workers are mainly concentrated in smaller enterprises, which find it more difficult to manage long periods without activity.

In addition, the greater stability of formal employment compared to that experienced by informal occupations could be reflecting the employer's expectation that the crisis would be short-lived. Furthermore, firms also used strategies such as a shorter working day, suspensions or teleworking which facilitated the stability of formal labour contracts. Indeed, as described in ILO (2021), work from home was an employment modality mainly used by formal salaried workers. Lastly, the better behaviour of formal employment could be associated with the effectiveness of policies implemented to protect formal employment in the countries under study (Section 6).

The employment recovery phase that began by the mid-2020 was mostly driven by growth in informal occupations, except in Uruguay. As can be seen in Figure 2, these jobs have accounted for about 58% or more of the net creation of jobs between the second quarter of 2020 and third quarter of 2021.

Consequently, informality rate grew in three of the countries between the second quarter of 2020 and the third of 2021 (Table 1). It was not the case in Peru and Uruguay where the proportion of informality in total employment did not show major changes, although in the former it tended to rise slightly, while the contrary occurred in the later. This means that overall employment recovery in this country was led by formal jobs.

The faster recovery of informal workers may be reflecting, on the one hand, that the increase in level of activity did not completely require new formal workers, inasmuch as companies handled the growing production by raising the hours worked, including the return to work of furloughed employees and those who had been temporarily absent. On the other, it is a reflection of the fact that, at least in part, own-account workers, many of whom are informal, were able to go back to activities that had been interrupted by the restrictions. The increase in the number of informal salaried jobs can also be linked to some extent to the reopening of small businesses (that have a higher rate of informality).

When the net effect of the contraction phase and the recovery phase is considered, different situations appear. In particular, the informality rate was the same in the fourth quarter of 2019 and in the third quarter of 2021 in Argentina, Brazil and Colombia. In Costa Rica and Uruguay, the comparison shows a reduction in informality rate, especially in the latter case. Finally, the opposite situation is observed in Peru.

6. Country income protection policies implemented during the pandemic[4]

The response to the pandemic-induced economic crisis in Latin America has resulted in an array of direct actions to support enterprises, protect jobs and compensate for household income losses. In particular, one important group of strategies and policies was that aimed at offsetting, at least partially, the loss of monetary resources for families in vulnerable situations as were directed to those whose incomes mainly comes from informal jobs. For them, non-contributory cash transfer programmes were scaled up and/or created. A brief description of these type of actions implemented in the countries under analysis follows.

In Argentina, the "Asignación Universal por hijo" (Universal Child Allowance, UCA) and the "Asignación Universal por Embarazo" (Universal Pregnancy Allowance, UPA) doubled in March. In addition, a bonus of up to US$45 was granted to approximately 4.6 million retirees who received a single pension benefit, up to a total of US$280. However, the largest income transfer measure was the "Ingreso Familiar de Emergencia" (Emergency Family Income), which was created by the end of March. It targeted informal formal workers, domestic workers and low-income formal own-account workers. The beneficiaries of the UCA and the UPA were the first groups to be included in this new benefit. The amount of the IFE was equivalent to about 60% of the minimum wage (about US$140). The first payment was made in April and May 2020. The second payment was made in June and July. and a third and last in August and September. The number of beneficiaries has been around 9 million, compared to the 4.3 million children and adolescents included in the UCA.

Brazil implemented the "Auxílio Emergencial" ("Emergency aid"), a cash transfer for informal workers, individual microentrepreneurs, self-employed workers and unemployed, all belonging to families whose monthly income per person does not exceed half the minimum wage, or whose total family income is up to three minimum wages. Households benefiting from the Bolsa Familia

[4] For a more detailed description of these policies see CEPAL (2022), Gentilini et al. (2020), ILO (2020), Robles and Rossel (2021).

programme received the benefit automatically. The programme consisted initially of five payments of about US$115 (double the amount for single mothers). In September the programme was extended until December 2020, but the amount of the payments was reduced 50%. The transfer was reintroduced from April to October 2021 and the benefit during these months varied from US$35 – for one person households– to US$70 –for single parent's households with children headed by women-.

Colombia already had two conditional transfer programmes in place: "Familias en Acción" (Families in Action), "Jóvenes en Acción" (Youth in Action) and "Colombia Mayor" ("Elder Colombia). During the first months of the pandemic, the national government authorized the payment of two extraordinary transfers, one in March and the other in May to support both programmes. At the same time, in April 2020 the "Programa de Ingreso Solidario" (Solidarity Income Programme) was created aimed at vulnerable families who were not beneficiaries of those three programmes, neither of VAT refunds. Initially, three monthly payments were considered, but it was successively extended for 2021 and 2022.There were also an increase in the coverage of the program, reaching in 2021 to more households than in the previous year. The benefit was of US$40 each month.

In Uruguay, the most important cash transfer programme became the unemployment benefit as it was extended to cover temporary "suspensions" and reductions of working day to all types of formal workers (before the pandemic, only day laborers could claim benefits for these events). In addition, the monthly value of the "Tarjeta Uruguay Social" ("Uruguay Social Card") (TUS) and of the "Asignaciones Familiares ("Family Allowances") were increased by 50% for four months in 2020, paid in eight instalments (from March to December), and additionally for three months in 2021. These two cash transfers programmes already existed before the pandemic. In addition, at the beginning of the pandemic, the "Canasta de Emergencia Alimentaria" ("Emergency Food Basket") was established, a monthly voucher to informal workers not covered by other protection mechanisms to be used to buy only food and hygienic product. It began to be paid in April 2020 and is still being active.

Costa Rica implemented the “Bono Proteger” (“Protect subsidy”), a cash transfer to help workers (wage earners or independent workers) who had to reduce their workday due to the pandemic. Three transfers of US$ 220 each were paid during 2020 to those with a decrease of more than 50%, and of half this amount to the rest.

Different cash transfer instruments were implemented in Peru after the beginning of the pandemic to reach the most vulnerable populations. The "Yo Me Quedo en Casa" (“I stay at home”) subsidy was targeted to vulnerable households: the "Independiente" (“Independent”) subsidy benefits households with low-income independent workers, the "Bono Rural" (“Rural subsidy”) is a transfer to rural families in a situation of poverty or extreme poverty, and the "Bono Familiar Universal" (“The universal family subsidy) is paid to vulnerable households not covered by the previous schemes. One transfer of US$220 was made to the beneficiaries of these programmes in 2020 and another in 2021. In August 2021 a new cash transfer to vulnerable households of US$100 was established, the “Yanapay” subsidy. One payment was made in 2021.

Given the relevance of these cash transfers in the context of the pandemic, they are a crucial component in the analysis of the dynamics of total family income and its distribution. The following two sections deal with these aspects.

7. Evolution of total labour and family incomes

One indicator that summarizes the joint behaviour of employment and individual earnings is the mass of per capita labour income (including workers who did not work even a single hour in the reference weak). Between the fourth quarter of 2019 and the second quarter of 2020, the average per capita labour income dropped in all the countries, a reduction that was significant, except in Uruguay (Table 2). The magnitude of these contractions, which occurred in the space of two or three months, shows

the depth of the crisis associated with the pandemic. The differences between countries are closely linked to those between the intensities of total employment reduction in the same period.

Such strong contractions in each country, in turn, derived from falls in the mass of income from both, formal and informal jobs, except in Uruguay where only incomes from informal jobs fell. However, consistent with what was previously observed regarding the behaviour of occupations in each employment category, the fall in the contraction phase was substantially higher among informal workers than formal workers, even in Peru.

The increase in employment during the recovery phase generated a positive variation (or reduced the fall) in the mass of per capita labour incomes. Despite this, however, total labour income generated in the third quarter of 2021 was still below that of 2019. In all the countries under analysis, but Colombia and Peru, this is even more evident in incomes from informal jobs despite the fact of greater creation of this type of occupations since mid-2020. In Uruguay, the continuous fall of labour incomes generated in informal jobs even during the recovery phase reflects -at least partially- the fact that the informality rate maintained its downward path (or at least it did not increase) throughout this entire process.

Table 2. Changes in total per-capita labour incomes (%). IVQ 2019- IIIQ 2021

	Contraction phase (IVQ2019-IIQ2020)*	Recovery phase (IIQ2020-IIIQ2021)**	Net Variation
Argentina			
Total labour income	-21.4	23.5	-3.0
Formal income	-10.7	9.6	-2.1
Informal income	-50.7	92.2	-5.2
Brasil			
Total labour income	-7.5	-1.5	-8.9
Formal income	-4.6	-4.3	-8.7
Informal income	-18.3	10.9	-9.4
Colombia			
Total labour income	-18.7	14.6	-6.8
Formal income	-14.1	6.2	-8.7
Informal income	-27.3	33.8	-2.8
Costa Rica			
Total labour income	-23.0	19.9	-7.7
Formal income	-15.9	13.6	-4.5
Informal income	-45.0	49.9	-17.5
Peru			
Total labour income	-64.9	147.5	-13.5
Formal income	-59.6	99.3	-19.4
Informal income	-72.8	248.4	-5.2
Uruguay			
Total labour income	-2.3	-0.9	-3.2
Formal income	0.0	0.1	0.0
Informal income	-24.2	-12.9	-33.9

Notes: *Contraction phase in Colombia covers the period IVQ2019-IIIQ2020. ** Recovery phase in Colombia covers the period IIIQ2020-IIIQ2021and in Uruguay, IIQ2020-IIQ2021

Source: Own elaboration based on household surveys

Since labour incomes constitute the largest part of the total family incomes, the latter followed –in general– similar pathway as the former, although with different intensity. During the economic contraction phase, total family incomes fell less than labour incomes as non-labour components dropped less intensely or, in some countries, even increased- Such evolution was almost fully associated to the abovementioned cash transfer policies put in place in the onset of the pandemic as they offset reductions in labour incomes; however such compensation was only partial; it was relatively important in Brazil (where the increase in per capita transfers represented 65% of the fall

of labour incomes) Uruguay (35%), Costa Rica (33%) and Argentina (20%), but almost negligible in Peru and Colombia (1 or 2%);. In Costa Rica and Colombia, pensions also expanded, as other components did in Peru. (Table 3).

On the contrary, during the recovery phase, the rise in labour incomes was more intense than that experienced by the sum of all sources, except for Uruguay. In fact, in Argentina, Colombia and Costa Rica there was a contraction in total non-labour incomes during this period while in Peru they kept growing -even faster than during the contraction phase-, but less than the labour component. In Uruguay, the former also expanded but labour incomes continued falling. In Argentina, Costa Rica and Peru the amount of cash transfers fell, as these countries gradually reduced or discontinued those programmes at the same time that employment and, therefore, income from work recovered. In Colombia, the reduction in non-labour incomes derived from the fall in aggregate pensions as the amount of cash transfers grew. Incomes coming from these programmes also expanded in Uruguay (Table 3).

The increase in per-capita family incomes during the recovery phase fully (or almost fully) offset the initial losses experienced by household total incomes in Costa Rica, Peru and Uruguay notwithstanding the reduction of the labour component. Cash transfers had scarce relevance in explaining the compensating role of non-labour incomes in the first two cases (they either fell or showed no change). In these cases the main factors were the expansion of pensions (in Costa Rica) or of other incomes (Peru). Instead, cash transfers were an important offsetting component in Uruguay: the increase in the per capita amount of this source was equivalent to 79% of the fall in labour incomes. In Argentina and Colombia, the aggregate of non-labour components also dropped, compounding the effects of the reductions of labour incomes. Such declines were associated to the contraction of pensions and other incomes, as the amount of cash transfers were larger at the end than at the beginning of the period (Table 3).

Table 3. Percentage variations in total per-capita familiar incomes and their sources. IVQ 2019- IIIQ 2021

	Contraction phase (IVQ2019-IIQ2020)*	Recovery phase (IIQ2020-IIIQ2021)**	Net Variation
Argentina			
Total	-16.8	13.2	-5.8
Labour income	-21.4	23.5	-3.0
Non-labour income	-4.3	-9.3	-13.2
Cash Transfers	193.4	-55.9	29.4
Pensions	-11.3	2.0	-9.5
Other incomes	-36.4	-6.1	-40.3
Brazil			
Total	-8.9		
Labour income	-9.4		
Non-labour income	-7.8		
Cash Transfers	216.3		
Pensions	-21.9		
Other incomes	-41.6		
Colombia			
Total	-16.1	8.4	-9.0
Labour income	-18.7	14.6	-6.8
Non-labour income	-5.9	-12.5	-17.7
Cash Transfers	52.4	63.0	140.0
Pensions	7.8	-24.4	-16.9
Other incomes	-25.2	-5.1	-31.0
Costa Rica			
Total	-11.3	12.1	-0.6
Labour income	-20.2	21.2	-3.3
Non-labour income	20.4	-9.7	8.7
Cash Transfers	203.8	-67.1	0.0
Pensions	7.2	6.2	13.9
Other incomes	-24.0	34.5	2.2
Peru			
Total	-52.8	110.5	-0.6
Labour income	-65.0	147.5	-13.5
Non-labour income	33.7	42.2	90.2
Cash Transfers	153.1	-67.1	-16.8
Pensions	-20.9	14.4	-9.5
Other incomes	48.6	58.6	135.7
Uruguay			
Total	-2.1	4.2	2.0
Labour income	-2.3	-0.9	-3.2
Non-labour income	-1.6	15.3	13.4
Cash Transfers	28.7	47.5	89.9
Pensions	-0.4	14.9	14.4
Other incomes	-13.0	4.1	-9.4

Notes: *Contraction phase in Colombia covers the period IVQ2019-IIIQ2020 and in Costa Rica Jun 2019-Jun 2020. **Recovery phase in Colombia covers the period IIIQ2020-IIIQ2021, in Costa Rica Jun 2020-Jun 2021

and in Uruguay IIQ2020-IIQ2021. ***Data for Brazil and Costa Rica are somewhat different from those included in Table 2 as different surveys were employed. In the case of Brazil, the source employed in this table is the special module of the PNADC and data was not available for 2021 at the time of writing the paper; instead, figures in Table 2 were estimated from the regular quarterly results of PNADC. For Costa Rica, ENAHO was the source used in this table while, in Table 2, ECE survey was the one considered.

Source: Own elaboration based on household surveys

8. Dynamics of total family income distribution and its sources

This section analyses the influence of changes experienced by different income sources on household income distribution during both, the phase of strong reduction in employment and labour incomes, and the recovery phase. As the dynamic of incomes from formal and informal jobs differ so strongly, as shown before, a distributive impact is expected given the traditional larger share of informal occupations at the lower tail of the distribution. Such effect, however, could be offset by the evolution of non – labour incomes. Therefore, the analysis will also assess to what extent the abovementioned cash transfers schemes implemented by national governments had an equalizing role.

For this, two types of analysis will be carried out. Initially, a descriptive analysis of changes in total per capita family income and its sources by income quintiles. Then, a Gini decomposition by income sources.

Except in Brazil and Costa Rica, the inequality of per-capita household income increased during the initial phase (Table 4). The rise was particularly intense in Peru. Then, hand in hand with the recovery of employment, there was a distributive improvement in all countries, with the exception of Costa Rica. However, this positive behaviour did not compensate for the initial worsening and the inequality indicators show a worse distributive situation almost two years after the onset of the pandemic, except in Argentina.

Table 4. Inequality indicators. Per capita family income. IVQ 2019- IIIQ 2021

	Gini			Theil		
	IV19	II20	III21	IV19	II20	III21
Argentina	0.442	0.462	0.442	0.353	0.395	0.350
Brazil	0.548	0.515		0.609	0.529	
Colombia*	0.532	0.578	0.541	0.594	0.781	0.605
Costa Rica**	0.526	0.525	0.538	0.529	0.519	0.566
Peru	0.465	0.671	0.500	0.409	1.004	0.542
Uruguay***	0.413	0.461	0.437	0.304	0.450	0.477

Notes: *II20 corresponds to Aug20 and Sep20, **IV19 corresponds to Jun19, II20 corresponds to Jun20 and III21 corresponds to Jun21, ***III21 corresponds to II21.

Source: Own elaboration based on household surveys

Figure 3 shows the change in per capita income of each source –labour income from a formal job, labour income from an informal job, income from pensions, public cash transfers and other household incomes (interests, rents, etc)– between the end of 2019 and the second quarter of 2020 (the most critical moment of the pandemic crisis), across income quintiles. In particular, Figure 3 indicates the percentage variation in total per capita income of each quintile due to the change experienced by each source; i.e it measures the percentage of the variation of the per capita aggregate income of each source with respect to the total per capita income of the initial period.[5]

As it was expected given the evolution of inequality indices, quintile's average household income fell with an intensity inversely related to the income level, except in Brazil and Costa Rica. Such behaviour is mainly associated to that of labour incomes as their reduction affected more intensively households at the lower tail of distribution; the latter even occur in those two countries whose overall inequality fell or remained constant.

[5] If m^q_{jt} is the aggregate amount of per capita income of source j in period t in quintile q, the values shown in Figure 3 (and in Figure 4, below) for quintile q and for source j are computed as follows:

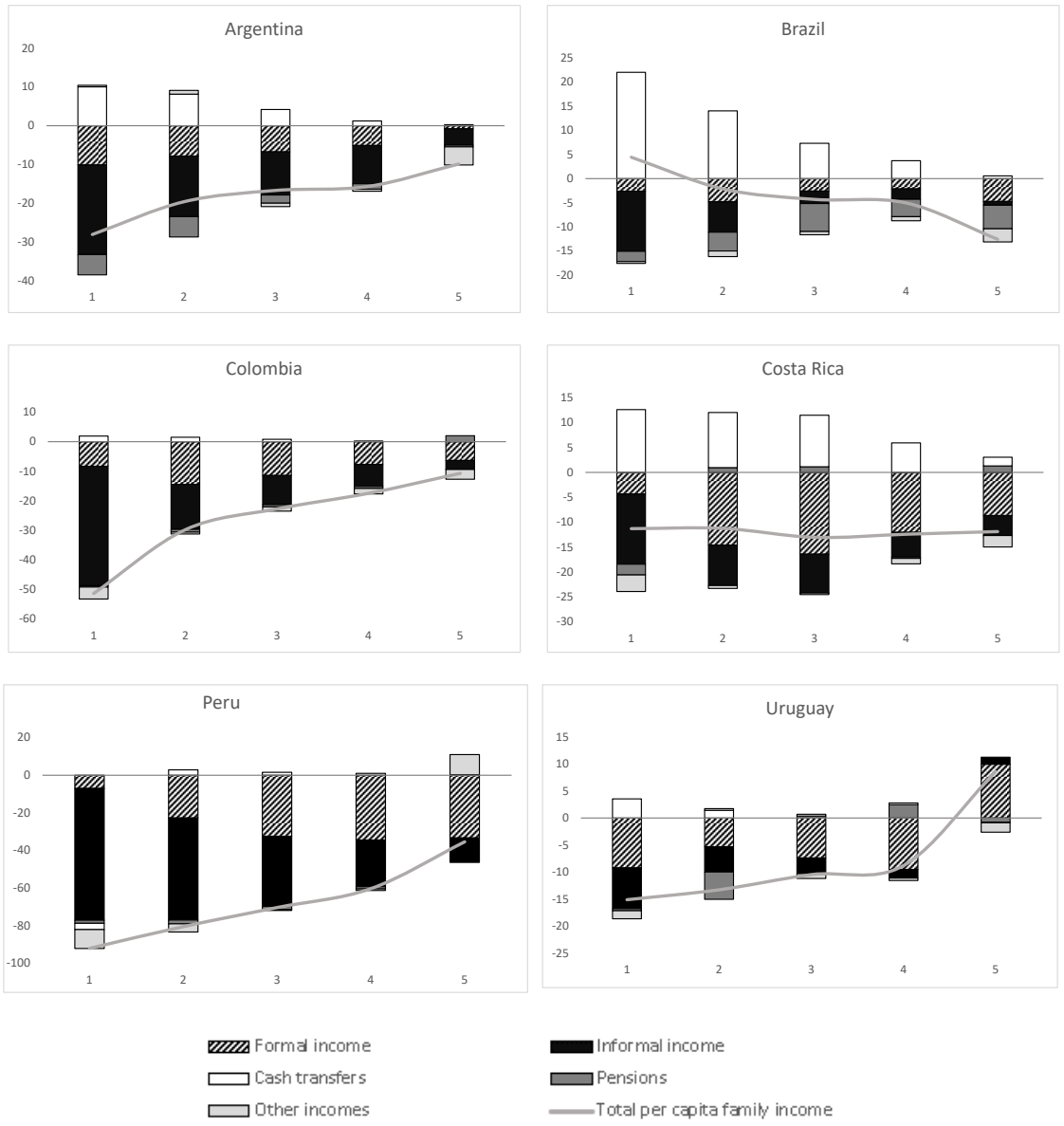
$$(m^q_{jt} - m^q_{j0})/(\sum j \; m^q_{j0})$$

In turn, the influence of labour incomes derived from the significant loss of informal jobs. In particular, in all the countries under analysis the reduction of incomes from informal positions suffered by the first 20% of households was significant stronger than in higher rungs of the income ladder. This result is explained, on the one hand, by the concentration of informal employment in the lowest quintiles; on the other hand, by the stronger reduction in the aggregate of labour incomes from informal jobs in lower quintiles than in the mid/high quintiles.

The behaviour of incomes from formal jobs was different between the countries considered. In some of them the intensity of the fall was similar across quintiles while in others it was stronger in the middle part of distribution. This is the net result of the increasing proportion of formal workers along the distribution and a more intense reduction in their incomes at the bottom part of distribution. In Uruguay even in the lower quintiles the reduction of incomes from formal jobs was also important and contributed with similar intensity to the increase in inequality

The unequalizing effects of labour income distribution were fully offset by those of cash transfers in Costa Rica, and even had a larger effect in Brazil. Those public policies were also important in Argentina and to a lesser extent in Uruguay. In all these cases, as mentioned, such subsidies reached an important aggregate figure and were targeted to low-income families, although in Costa Rica they were even important for those in the fourth quintile.

Figure 3. Changes in total per capita family incomes and its sources by income quintiles. IV2019-II2020



Notes: In Colombia de period considered is IV2019-IIIQ2020 and in Costa Rica is Jun2019-Jun2020

Source: Own elaboration based on household surveys.

In Brazil, the increase in cash transfers led to a rise of 20% of total per capita household income of the first quintile, and it was equivalent to the double of the reduction of labour per capita family incomes in this group of households. These transfers also almost fully compensated the fall registered by total labour incomes in the second quintile. In Costa Rica, public cash transfers represented three quarters of the fall of aggregate per capita labour incomes in the first quintile, and about 40% in the

following three. In Argentina, they also reduced the increase in inequality and compensate about 25% of the decline of per capita household incomes of the first quintile, 35% in the second quintile and 23% in the third. In Uruguay, the proportion was 10% for the first quintile. In Colombia and Peru public transfers also increased their amount, but to a lesser extent and had a negligible redistributive effect during the first period of the crisis.

Pensions reinforced the unequalizing effect of labour income, except in Brazil. On the contrary, other sources of non-labour incomes had an opposite behaviour in Argentina, Brazil and Colombia, while was fairly neutral in Costa Rica and Uruguay. In Perú, however, they reinforce the increase in inequality as transfers from other households of the country fell in the first quantile and grew in the fifth.

The results from the exercises of decomposition of the Gini index by income sources are consistent with this descriptive analysis (Table 5). As mentioned before, Gini coefficient increased the most in Peru (+21 pp), followed by Uruguay, Colombia and Argentina. It remained constant in Costa Rica and actually decreased in Brazil.

The strongly unequalizing role of the labour market and, conversely, the equality-enhancing behaviour of cash transfers are evident in all the cases. Regarding labour incomes, except in Brazil, in the rest of countries changes in both, incomes from a formal and income from an informal. job contributed to the increase in inequality. In most of them, as expected, the unequalizing impact of the latter type of occupation was stronger than the former. This was not the case, however, in Costa Rica and Uruguay where incomes from formal employment tended to affect more the lower part of the distribution.

The increase in cash transfers was the most equalizing change among incomes sources. Indeed, in Brazil the reduction in inequality was almost completely explained by this income source. In

Argentina and Costa Rica, the absolute and the relative contribution of this income component was very significant as well.

Table 5. Gini decomposition by income sources. Contraction phase

Source	Argentina	Brazil	Colombia	Costa Rica	Peru	Uruguay
Total labour incomes	4.4	0.5	4.2	2.2	14.9	5.4
Formal	1.9	-0.4	1.9	1.4	6.1	3.8
Informal	2.5	0.9	2.3	0.7	8.8	1.5
Cash transfers	-2.3	-3.1	-0.4	-2.3	-1.0	-0.5
Pensions	0.9	-0.3	1.2	0.4	1.1	0.1
Other incomes	-1.0	-0.5	-0.4	-0.3	5.7	-0.2
Gini variation (pp)	2.0	-3.3	4.6	-0.1	20.6	4.8

Source: Own elaboration based on household surveys.

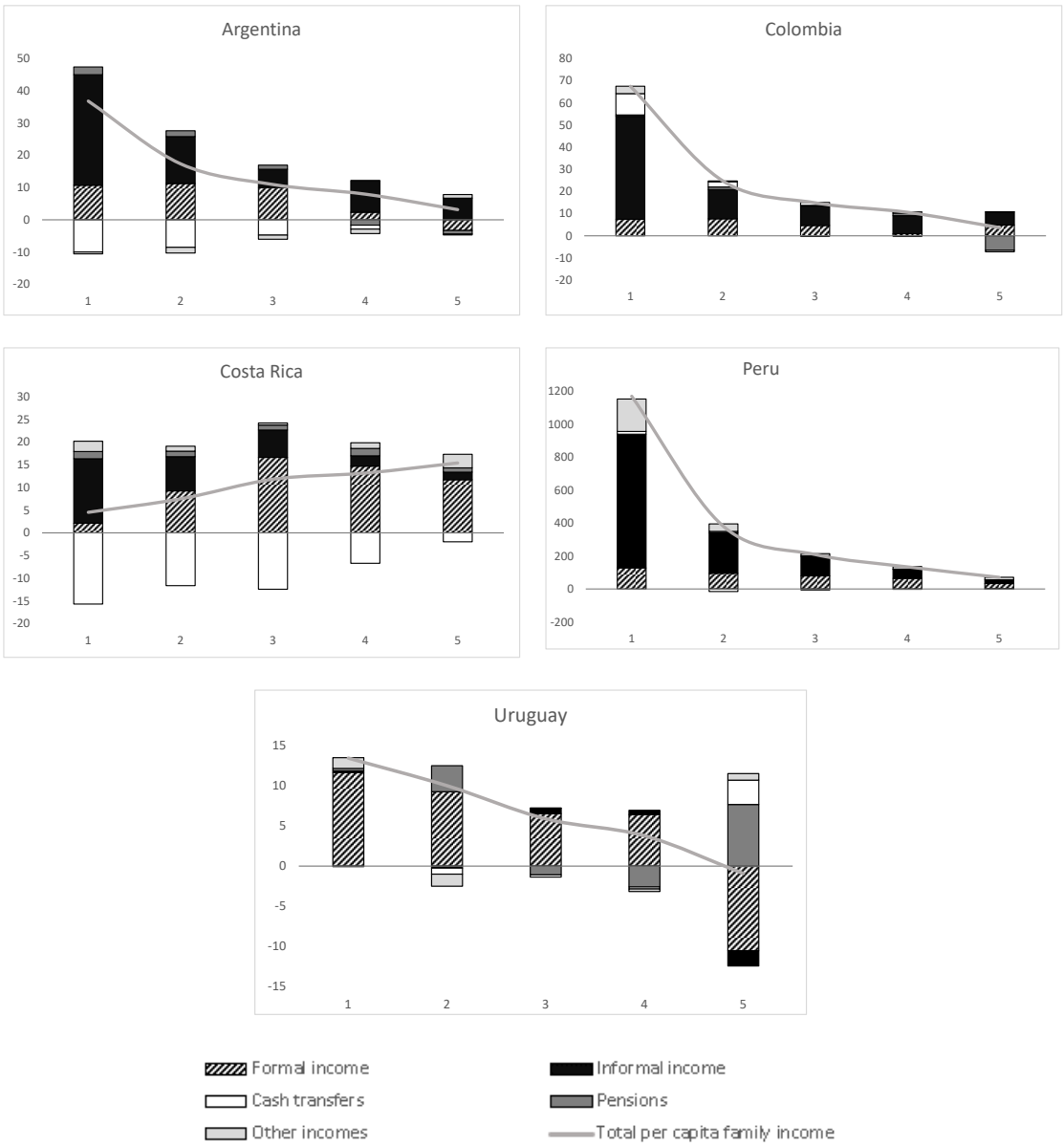
The mentioned improvement in income distribution (except in Costa Rica) during the recovery phase, was explained by the intense increase in labour incomes at the bottom part of distribution (Figure 4). The main driver of this expansion were the incomes coming from informal jobs as their employment recovered intensively. Only in Uruguay the growth of labour incomes in the first quintiles, that explains the reduction in overall inequality, was associated almost completely with the intense generation of incomes from formal jobs.

Figure 4 also shows that cash transfers tend to have an unequalizing effect in –Argentina Costa Rica and Uruguay; in the first two cases, they fell in the first quantile ana in the latter it rose in the fifth stratum. On the contrary, they reinforced the equalizing effect in Colombia as added to the larger rise of incomes of those in the bottom part of the distribution. In Peru their role appears to be scarce and neutral as they led to a proportionally limited rise of the first quintile income, but also to very small reductions in the second and third ones.

Pensions have also led to a reduction in inequality in Argentina, Peru and Colombia as they contributed to increase the incomes at the bottom of the distribution (in the latter case, they also reduced those of the fifth quintile). In Costa Rica, the effect is less clear as they contributed to the

rise of all quintiles' incomes. On the contrary, in Uruguay the effect was unequalizing as they rose to a larger extent income of the fifth quintile. Other incomes contributed to a fall inequality in Colombia but especially in Peru; in the latter case, this was mainly associated with the increase of transfer from other household of the country in the first two quantiles.

Figure 4. Changes in total per capita family income and its sources by income quintiles. II2020-III2021



Notes: Notes: In Colombia de period considered is IIIQ2020-IIIQ2021, in Costa Rica is Jun2020-Jun2021 and in Uruguay is IIQ2020-IIQ2021

Source: Own elaboration based on household surveys.

The results of the Gini decomposition included in Table 6 are, again, consistent with the descriptive analysis. They show in all the countries that the recovery of labour incomes played an equalizing role. In turn, and except for Uruguay and Peru, the figures indicate that the contribution of informal positions was higher than formal occupations.

The exercise also confirms the negative impact of the evolution of cash transfers on distribution in most countries, including Peru. In Argentina, Peru and Uruguay, it partly offset the equalizing impact of labour incomes recovery while in Costa Rica, it surpassed this positive change, resulting in the mentioned rise in overall inequality during this phase. The figures in Table 6 also show the equalizing role of cash transfers in Colombia already mentioned during the descriptive analysis.

Table 6. Gini decomposition by income sources. Recovery phase

Source	Argentina	Colombia	Costa Rica	Peru	Uruguay
Total labour incomes	-3.2	-1.4	-1.3	-14.3	-5.0
Formal	-1.2	-0.4	-0.3	-7.3	-4.6
Informal	-2.1	-1.0	-1.0	-7.0	-0.4
Cash transfers	1.9	-0.4	2.4	1.3	0.8
Pensions	-1.0	-1.7	-0.3	-1.1	1.7
Other incomes	0.4	-0.2	0.4	-3.0	0.2
Gini variation (pp)	-1.9	-3.7	1.3	-17.0	-2.4

Source: Own elaboration based on household surveys.

Finally, Table 7 presents the contribution of these sources of incomes along the whole period. The net result of the two contrasting behaviours experienced by labour incomes was unequalizing (except Peru), being one of the most important drivers of the distributive worsening between 2019 and 2021. The net impact of cash transfers was mixed: they contributed to a reduction in inequality in Argentina and Colombia; they have a null or negligible effect in Costa Rica and Peru, and were unequalizing in Uruguay.

Table 7. Gini decomposition by income sources. Whole period

Source	Argentina	Colombia	Costa Rica	Peru	Uruguay
Total labour incomes	1.2	2.8	0.9	-0.3	0.3
Formal	0.8	1.5	1.1	-2.1	-0.9
Informal	0.4	1.4	-0.2	1.9	1.1
Cash transfers	-0.4	-0.8	0.0	0.2	0.3
Pensions	-0.1	-0.6	0.1	-0.1	1.8
Other incomes	-0.7	-0.6	0.1	3.6	0.0
Gini variation (pp)	0.1	0.8	1.2	3.5	2.4

Source: Own elaboration based on household surveys.

9. Final remarks

The COVID-19 pandemic has generated an unprecedented economic, health, labour and social crisis in the world. Latin America and the Caribbean is one of the regions that has been most strongly affected.

The main aim of this paper was to assess the dynamics of family income inequality and its components since the onset of the pandemic in six Latin American countries -Argentina, Brazil, Colombia, Costa Rica, Peru and Uruguay-.

While there is empirical evidence on the impact of COVID-19 on the labour market, incomes and inequality in Latin America, this paper made several contributions on this regard. First, this is the first study that looks at the evolution of income distribution until the third quarter of 2021, almost two years since the onset of the pandemic. Second, the use of data for six countries provides a broad picture of the impacts of COVID-19 in Latin America, as it makes it possible to consider cases with different occupational and income structures, and also diverse labour and distributive dynamics during this crisis. Third, unlike some previous studies, this paper evaluates the distributional changes actually observed without resorting to assumptions or simulations. Finally, this study paid particular

attention to the dynamics of labour informality and its distributive impacts, taking into account the atypical behaviour that informal employment has had during this crisis.

Results from the Gini decomposition show that during the economic contraction phase, family incomes fell somewhat less than labour incomes, as a result of the cash transfer policies put in place in the outbreak of the pandemic. The unequalizing impact of the worsening of the labour market was mainly associated with the significant loss of informal jobs, which concentrate the largest share of overall employment at the lower tail of distribution. This effect was offset, at least partially, by the equalizing role of those cash transfers. The opposite impact of these income sources appears during the recovery phase, as most countries gradually reduced or stopped those transfers as employment and, therefore, labour incomes partially recovered.

Regarding these transfers, it is possible to identify progress but also challenges. Rapid and timely intervention not only mitigated the immediate loss of income and access to basic goods and services, but also limited the spread of these shocks in the medium term. Previous experience of developing intervention mechanisms helped make it possible to reach the population affected by labour income losses more rapidly. However, the widespread impact of the crisis engulfed the middle-income segments of the population, whose incomes were also severely affected. In the management of the crisis, transfer schemes have thus faced the challenge of expanding and improving the registration of these newly vulnerable people and households.

Given this critical context, it is necessary to continue with the policies put in place in the region in 2020 and 2021, but also to adopt a broader agenda of far-reaching and comprehensive policies. A path of economic growth and stability is required, one that creates more and better jobs along with the reconstruction of the productive sector. Moreover, it is necessary to move forward towards strengthening income support policies as well as towards long-lasting social protection schemes to reach the most vulnerable, informal, population.

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