

Revenue Report COVID-19 (RRC) Year 2020



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CONTENT

In Memoriam: Juan Carlos Gómez Sabaini (1938-2021)	4
Acknowledgment	5
Executive Summary	6
Introduction	14
1. Monthly evolution of tax collection during year 2020	16
1.1 Evolution of Global Tax collection (Total)	16
1.2 Evolution of Income Taxes collection (IT)	20
1.3 Evolution of Value Added Taxes collection (VAT)	24
1.4 Evolution of Excise Taxes collection	27
1.5 Evolution of Other revenue collection	30
2. Evolution of economic activity (mobility of people) in different countries	34
3. Regional overview by groups of selected countries	44
Annex: RRC-CIAT Database (online)	55

In Memoriam: Juan Carlos Gómez Sabaini (1938-2021)

The authors wish to dedicate this Report, as a humble tribute, to the memory of **Juan Carlos Gómez Sabaini (1938-2021)**, an outstanding Argentine economist considered one of the most important specialists in tax policy in recent decades in Latin America. With a long professional career, he was in charge (as Undersecretary) of Argentina's tax policy in three different periods. In the region, he served as an OAS official, working at the Inter-American Center for Taxation and Financial Administration (CITAF) from 1971 to the end of the 1990s. Subsequently, he participated in technical assistance missions in various countries (especially in Central America) as a consultant to the IDB and the IMF. He also produced numerous reports and consulting studies for various international organizations -including CIAT-, mainly for the Regional Office of ECLAC (United Nations) in Santiago, Chile, in whose seminars he had an active, extensive and valued participation. As a professor, he taught undergraduate and graduate courses at the University of Buenos Aires, the National University of La Plata and, among others, at the Getulio Vargas Foundation in Rio de Janeiro. He will be remembered not only for all his professional achievements and his influence in tax debates along the region but, even more, for his pleasant personality and endearing camaraderie.

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EXECUTIVE SUMMARY

- The **tax collection** of the 23 member countries analyzed in the Report has fallen on average **during 2020** by -9.3% (Excise Taxes, -12.1%; Income Taxes, IT, -8.2%; VAT, -7.8%). **Latin America and the Caribbean** recorded a decline of -10.9% (Excise Taxes, -13.4%; IT, -9.3%; VAT, -7.8%), with the Central American + Dominican Republic region leading the declines (-14.4%), followed by the Caribbean (-12.0%), Andean countries + Chile (-11.7%) and Mercosur + Mexico (-3.2%). **By country**, the heterogeneity is significant, from -26.9% in Panama or -22.5% in Honduras, to +8.2% in Morocco (together with Mexico, +0.8%, the only two countries to end the year in positive territory). Econometric analysis of the figures shows that the evolution of tax collection is, in general, clearly correlated with the different **mobility indicators**, especially in the first half of the year.
- The **Revenue Report COVID-19 (RRC)** compiles available information on the evolution of the global collection of tax administrations and their main components (Income Taxes, VAT, Excise Taxes and Other revenues) with their monthly variations with respect to the same month of the previous year and cumulatively throughout the year in constant values. This fourth edition of this publication analyzes the data available for the period January-December 2020 and incorporates information from an additional country (Nicaragua) to reach a total of 23 CIAT member countries contained in the database built specifically for this purpose, which provides a complete perspective on the evolution of tax collection at the international level and, in turn, allows observing and analyzing a greater number of particular cases¹.
- **Global collection** recorded monthly declines (with respect to the same month of the previous year) starting in March, coinciding with the moment when most countries began to apply different confinement and social isolation measures to prevent the spread of the COVID-19 virus within their territories. After meager increases in constant values during the first two months of the year (4.8% in January and 5.6% in February), in March total collection decreased, on average, by 6.4% year-on-year, with deeper declines in April (-28.7%), May (-26.9%) and June (-22.6%). However, from July onwards, there was a strong rebound in overall revenue collection, which, while remaining in negative territory, reduced its relative monthly declines to an average of 10.0% in that month, 7.4% in August, 4.8% in September and 4.4% in October. In November, the average year-on-year variation returned to positive territory (1.1%), ending the year with a relatively slight monthly reduction (-2.1%). At the country level, while last May all the countries surveyed showed strong year-on-year decreases (also in April and June with a few exceptions), in December 9 of the 21 countries with available information showed monthly increases with respect to the same month of 2019 (in

¹ Although this may affect the figures presented in previous versions of the RRC, it does not invalidate or modify the general trends, which is precisely the focus of the analysis developed in this document.

November there were 14 countries, out of a total of 22 considered, with positive results).

- In terms of **accumulated global collection** during 2020 (Graph 0), the simple average for the countries surveyed has followed a clearly downward trend from the positive data of the first quarter (4.8% in January; 5.2% in February and 0.3% in March) to negative territory as of April (-8.7%), accentuating its accumulated year-on-year drop until June (-13.9%) and gradually recovering during the second semester to reach -9.3% in December. At the country level, after the deep falls observed between April and June of last year, a slight change in trend could be identified during the third quarter, and continued in the fourth quarter, in most cases. At the end of the year, the largest accumulated drops were observed in Panama (-26.9%), Honduras (-22.5%), Trinidad and Tobago (-21.4%) and Peru (-15.1%); although some countries (Colombia, Guatemala, Mexico) have shown a decline in the accumulated variations with respect to the values recorded in the month of June, the great majority of the countries showed a moderation in the reductions accumulated up to that month during the second semester, even though all countries -except Morocco- remained in negative territory up to December.
- **Income Taxes (IT)** had shown, on average, repeated decreases in collection between March and June (-8.7%; -26.0%; -14.8% and -21.2%, respectively), so that the month of July appears as a turning point in the declining trend that had been taking shape since the beginning of the pandemic and the multiple and changing measures of isolation and social distancing implemented in each country. Between August and November, the monthly IT average collection remained around a neutral result in the year-on-year comparison (between -0.4% and 0.1%), with a new decline in this average value in December (-9.5%), although this result is influenced by some significant

collection losses in specific cases. To a large extent, the results observed in the second half of the year (including the drop recorded in December) are linked to the deferred income of resources whose collection had been subject to the deferral or extension of the deadlines for the declaration or payment of the tax, as one of the main measures to mitigate the negative effects of the pandemic. By country, this particularity has allowed us to observe large jumps in the year-on-year variations of the monthly income tax collection, for example in the United States (225.0% in July), Panama (89.7% in July), Paraguay (67.9% in August and 211.0% in December), Honduras (31.8% in August and 207.8% in November), Ecuador (72.1% in September), El Salvador (33.8% in September) and Morocco (240.7% in November).

- After light increases in January and February (6.9% and 5.5%), accumulated Income Tax collection went into negative territory in March (-0.1%), and the fall became more pronounced in the following months, reaching -14.6% in June. From July onwards, a change in the trend towards a gradual recovery of this tax is evidenced, which is partly associated with revenues postponed from previous months. This has made it the main support and driver of the recovery observed in overall revenue collection during the second half of the year, even with the fall that, on average, the IT suffered in December, resulting in an accumulated annual loss of 8.2% (Graph 0). Trinidad and Tobago (-33.6%), Honduras (-28.3%) and Panama (-22.0%) are the countries with the largest cumulative drops in IT at the end of 2020, while Morocco (12.8%) and Mexico (1.0%) are the only three countries in the group surveyed with a positive cumulative variation.
- **Value Added Taxes (VAT)**, having partially cushioned the deep fall in overall collection during the month of April (-23.5%) with a subsequent sharp drop in May (-29.5%), shows more limited and decreasing relative year-on-year decreases in the following

months, reaching an average of -3.9% in October, and moving into positive territory in November (+1.7%) and December (+9.1%), all with respect to the same month of last year. At the country level, the high heterogeneity of cases is maintained, but there is a clear trend towards recovery, especially strengthened in the last two months of the year. In December, the year-on-year VAT increases in Trinidad and Tobago (68.0%), Costa Rica (41.9%), Morocco (37.2%) and Mexico (25.6%) stand out, which contrasts with the cases of Panama (-16.9%), Jamaica (-14.4%), Italy (-7.6%) and Colombia (-5.9%).

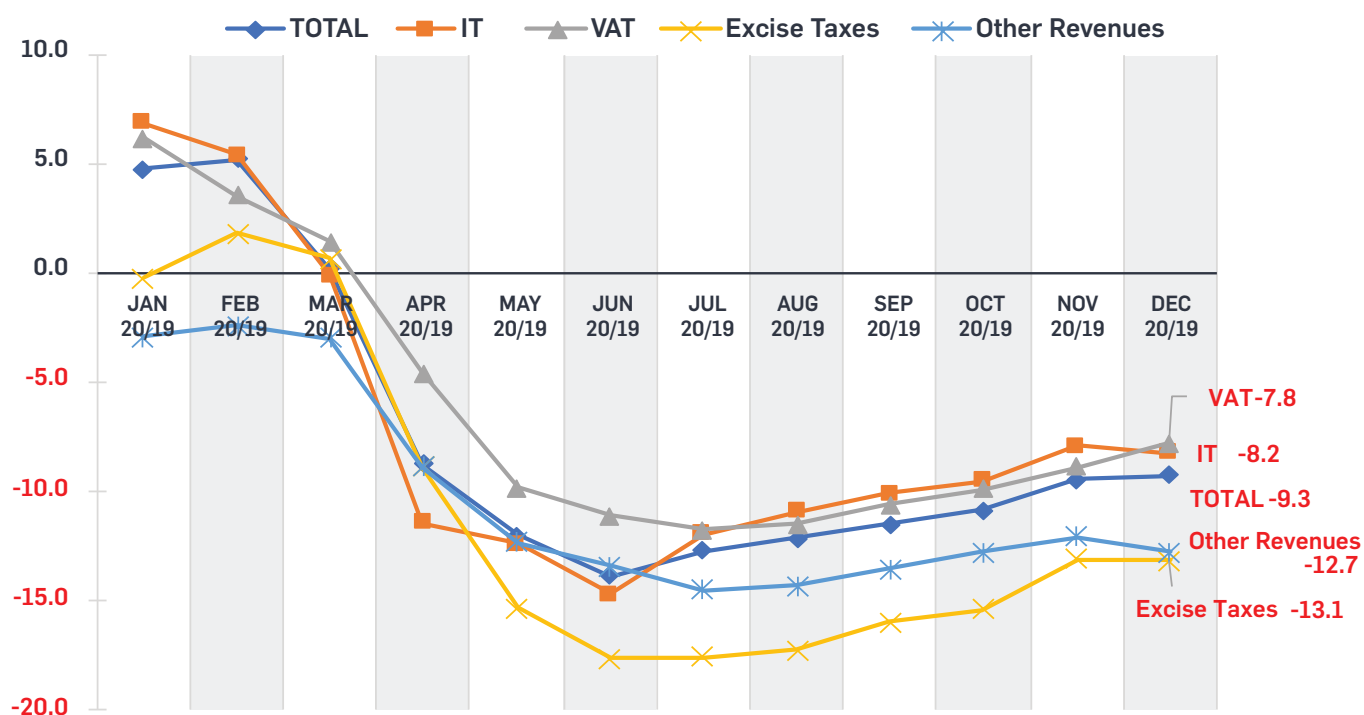
- In accumulated values for the year 2020, the decline in VAT revenues has been gradually reducing during the second half of the year, from a minimum of -11.7% in July, to -7.8% in the last month of the year. Together with IT, as mentioned, VAT has been the other pillar on which the slow and gradual recovery of overall revenue collection has been based, although the latter has shown a slightly better performance in the last two months, driven, as already mentioned, by the rebound in IT collection (Graph 0). Unlike other taxes, and due to the very mechanics of VAT settlement and payment, the variations observed in VAT collection occur with a lag of one or two months, depending on the case. The accumulated decreases through December in Panama (-35.0%), Honduras (-19.5%), Ecuador (-17.3%) and Jamaica (-17.2%) stand out; in the opposite direction are the cases of Trinidad and Tobago (+20.4%), Morocco (+7.0%), Paraguay (+2.4%) and Mexico (+2.3%).
- Since mid-March, restrictions on mobility and the paralysis of commercial and industrial activities have caused **Excise Taxes** to register the largest monthly drops in collections, reaching -37.0% in April, -39.9% in May, and -29.1% in June. From July onwards, the year-on-year collection of Excise Taxes showed a recovery, limiting the year-on-year decreases but

continuing in negative territory until November (-0.7%), ending the year with an average year-on-year variation of the monthly collection of Excise Taxes with a positive balance (2.1%). Among the countries surveyed, in December sharp drops continued to be observed in Morocco (-124.3%, although in November it had experienced a jump of 251.8%), Paraguay (-27.0%) and the United States (-25.0%). Some countries that had accumulated monthly drops since March or April 2020, in December had positive balances in these taxes: Panama (+27.6%), Peru (+15.4%) and Ecuador (+5.8%), among others. On the other hand, some countries recorded notable increases, especially in the last three months of the year, such as Brazil, Chile, and Uruguay, which, in December alone, had year-on-year increases in Excise Taxes collection of 22.1%, 40.0% and 18.3%, respectively.

- In spite of a moderation of the reductions observed in the year-on-year collection of these taxes, in accumulated terms in 2020, the collection of Excise Taxes recorded, on average, decreases below those observed in April, which are of greater magnitude (negative) with respect to the collection evolution of other taxes analyzed (being the group of taxes with the greatest accumulated loss in real terms and on average for all the countries surveyed: -13.1% in December). In terms of countries, at the end of the year Panama was the country with the largest cumulative decrease in tax collection (-35.0%), followed by Colombia (-32.9%), Costa Rica (-21.0%) and Paraguay (-20.3%). In general, although all the countries -except Morocco (+4.4%)- showed declines in their cumulative collections from May to December, some of them showed some recovery (even in negative territory) with smaller cumulative variations, such as Argentina (-1.5%), Brazil (-2.9%), El Salvador (-3.0%), Mexico (-3.3%) and Uruguay (-4.8%).

- The aggregate chapter of **Other Revenues** is of less analytical importance due to its high heterogeneity among the countries considered with available information. However, in some cases its weight is much more relevant than the average given the extended collection powers of their respective Tax Administrations (for example, in Argentina, Brazil and the United States). The average monthly evolution of "Other Revenues" is in line with the other taxes previously analyzed, with a maximum drop in May (-34.6%) and more limited year-on-year decreases during the following months, especially in the last quarter: -7.5% in October, -8.7% in November, and -4.7% in December, all with respect to the same month of 2019. By country, the marked declines began to be observed early in March in some cases, such as Panama (-54.8%), with sharp drops in April and May for most countries. Since August there has been a slight recovery in isolated cases (Argentina, Morocco, Mexico, Italy, and Spain), although in the last three months this recovery seems to have lost strength, which is why the relative magnitude of the monthly increases observed in the different countries has been limited, with consecutive monthly declines in some cases such as Colombia (-9.0% in December), Costa Rica (-36.0%) or Ecuador (-10.1%).
- Cumulatively, the drop in collections of **Other Revenues**, on average, and as of December (-12.7%), is somewhat higher than that of the overall amount of collections (-13.1%). As in the case of the Excise Taxes, the recovery of the collection contributed by these taxes has been slower and weaker during the second half of 2020, which has determined little improvement in relative terms (Graph 0). At the country level, Costa Rica is the country with the largest accumulated drop during the year (-30.0%), followed by Paraguay (-26.4%), Honduras (-25.2%) and the Dominican Republic (-23.6%). On the other hand, Italy (+2.2%), Morocco (+0.6%), Mexico (+3.3%) and Nicaragua (+3.3% in November) are the only cases where year-on-year increases were recorded in the accumulated collection of this heterogeneous set of taxes ("Other revenues"). In those countries where the relative weight of these taxes is more relevant, there are more moderate accumulated drops (Argentina -4.7%, Brazil -8.4%) or even relative increases in the case of the United States (+6.6%) which has allowed them to cushion the collection losses registered in the IT and Excise Taxes throughout the year.
- The CIAT web page (<https://www.ciat.org/the-revenue-report-covid-19/?lang=en>) "Monthly Collection Database (Annexes)" provides additional detailed information on the monthly and cumulative evolution -in constant and current values- of all the tax administrations analyzed.

Graph 0. Average evolution of cumulative tax collection by type of tax (year-on-year changes; constant prices; in percentages)



Source: Prepared by the authors based on official information from the tax administrations.

- To contrast the effects of the activity control measures implemented in the fight against the pandemic, this Report uses **mobility data** provided by Google, which provide the possibility of inferring or anticipating, at least to some approximate extent, the prospects for the evolution of tax revenues for the following months.
- After the slump in economic activity in April, the available data show, on average, a slow recovery of people's movements during the last months in four different categories. As could already be seen in the last² RRC edition (December 2020), **movements in retail and recreation places and passages through transit stations** were the most affected by the effect of the pandemic. Although until May both

categories show very similar movements, from June onwards there is a greater movement of people on public roads with the purpose of shopping in retail and recreation places, while transport stations, on average, show more dynamism only from August onwards. The recovery continued during the following months, accelerating in December 2020 with a strong increase in mobility in most of the countries, possibly linked to the end-of-year festivities, although this improvement suffered a clear retraction in January, only slightly lessened in February of the current year.

- From the weighting of the behavior observed in tax collection and in people's mobility indicators (as a proxy variable for the level of economic activity;

2 To consult previous editions of RRC, click on the following link: <https://www.ciat.org/the-revenue-report-covid-19/?lang=en>

category “Retail and Recreation”), a clear correlation between both variables can be deduced. After the sharp drop in the average monthly tax collection and in the mobility in stores and leisure places between February and April, a gradual improvement in the levels of the second variable and a notable rebound in the first variable were observed in the month of July, which, after a slight retraction in August, consolidated in September and October, still in negative territory. In November, the average year-on-year collection had another increase, even without variations in terms of mobility, while in December, a fall in the total collection was again observed, despite a relative increase in the number of people traveling to commercial stores.

- Taking advantage of the available data to infer the expected direction of general revenue levels over the coming months according to the mobility of individuals (Retail and Recreation), a simple linear regression model is proposed between both variables mentioned, which achieves a high level of fit ($R^2=0.87$) and an estimated parameter that suggests that 60% of the variations in mobility would have a direct impact on variations in total revenue. However, this relationship has not remained stable throughout the year 2020 so, in order to deepen the analysis of this relationship by period and by income category, we resort to estimating the relationships using panel data. Thus, it is distinguished that in the first half of the year the impact of the restrictions on mobility was clearly transferred to revenue; on the other hand, in the second period the relationship between both variables weakens, mainly in IT and Excise Taxes, but not in VAT, where the relationship remains clear and even strengthens with an acceptable level of adjustment. These data would allow projecting for the near future an evolution of collection still linked to the trajectory of the pandemic and the mobility constraints associated with its containment, although less clearly than in the first half of 2020

in terms of total collection due to the temporary impacts of taxpayer tax relief measures.

- The country-by-country data reflect the different trajectories adopted in terms of mobility, which are linked to the different strategies of national and sub-national governments to cope with the COVID-19 pandemic. While in all cases the largest relative drops were observed in the month of April, in terms of visits to retail and recreation activities, countries in the northern hemisphere have shown a more rapid recovery in mobility, with Spain and Italy standing out between the months of April and June. However, the appearance of a “second wave” of massive contagions in these countries forced the reestablishment of several containment measures that resulted in a gradual reduction, since September, of mobility levels more closely linked to commercial activities (Retail and Recreation). Beyond the differences, considering the entire period under analysis, we observe a reduction in the gaps between countries and a slow normalization of the levels of mobility of people, which allows us to maintain hope about the economic recovery and tax collection for the coming months.
- Finally, in order of taking advantage of the possibilities offered by the large amount of statistical information gathered, a final section was prepared to provide an **overview of selected countries by groups**, according to generally accepted geographic-economic criteria. In order of visualizing and identifying similarities and/or differences at the regional level in the recent evolution of variables related to tax collection and population mobility, five groups of countries were formed: “Mercosur + Mexico”, “Andean + Chile”, “Caribbean”, “Central America + Dominican Republic”, and “Others” (which includes CIAT member countries in the northern hemisphere included in the RRC database that do not belong to the Latin American and Caribbean

region). Additionally, the grouping “Latin America and the Caribbean (LAC)” was considered to provide a more conventional regional perspective.

- In terms of **overall tax collection by country groups**, there are clear differences since March, with the Andean countries, the Caribbean countries and, especially, the Central American countries being the most affected by the contractionary effects of the pandemic. The evolution of the three aforementioned groups contrasts with that of the Mercosur countries (including Mexico) and “Others”, whose average total revenue collection has been more resilient during the first quarter, with more vigorous and sustained recoveries as of May and June and shifting to positive year-on-year variations as of August. However, for all groups there has been a gradual improvement in the collection result, approaching neutral or positive values towards the end of 2020.
- In terms of cumulative collections, all groups remained in negative territory up to December. However, there was a weak recovery in the groups of Mercosur, Others and even in the Caribbean, especially as of July or August, depending on each group, but not in the Andean and Central American countries, where there was a deepening of relative declines until the most recent months. The evolution observed in the different groups (except for “Others”) is combined in the average for Latin America and the Caribbean (LAC), where significant monthly reductions of more than -20% were observed during the second quarter, which were partially offset in the following months and ended in December with an average accumulated drop of 10.9% in global collections at the regional level, still below the accumulated decline shown up to April (-9,3%).
- Additionally, it has been possible to identify similarities and differences in terms of the temporal evolution of **people’s mobility indicators by country groups**.

Regarding Retail and Recreation, all country groups show a deep drop in March and April, followed by a gradual recovery, at least until July. From August through November, a convergence in this mobility indicator is observed, determined by (i) a gradual improvement for the Andean and Central American countries, (ii) a stabilization of levels for the Mercosur + Mexico countries, and (iii) a retraction of mobility in the Caribbean and Other groups. In December, due to increased commercial activity during the holiday season, there was a unanimous increase in this indicator in all groups of countries, followed by a further decline in the movement of people to these benchmarks during January and a return to November levels during February. The average for the LAC countries is within these margins, following the above trends and below the Mercosur and Mexico and Caribbean group. Something similar can be noted with respect to mobility to workplaces, since in all the groups of countries analyzed the sharp drop in March and April was confirmed, followed by a generalized rebound in relative mobility levels during May and June. At a slower pace and remaining in negative territory, for all country groups a faint recovery trend is observed in the following months until November, with a gradual deterioration from December onwards and during the first two months of 2021.

- This type of analysis can also be extended to the **different main tax categories by country groups**. In the case of IT, it is confirmed that all groups of countries experienced a strong negative impact, on average, on tax collection in the second quarter, with a gradual recovery in the third quarter led by the Mercosur countries + Mexico, Central America + Dominican Republic, and Others (with a very important incidence of the US). The Andean countries, including Chile and in simple average, only show a slight recovery in September and more limited variations towards the end of the year and the Caribbean countries chain a continuous series of year-

on-year reductions since March until the last month with available information. For the average of LAC countries, these disparate evolutions of the different groups of countries determine an approximately neutral monthly income tax collection result for the third quarter of the year, after the deep relative drops observed especially in April (-23.4%) and June (-22.9%), and an encouraging rebound during the last quarter with three consecutive monthly increases (+4.6% in December).

- In relation to **VAT**, when the effects of the pandemic and mobility restrictions began to fully manifest themselves, VAT was the tax whose collection proved to be the most resilient, within a context of sharp generalized declines. However, in recent months these impacts have been prolonged, resulting in negative figures (lower than those observed in March-April) for the LAC region and for all groups almost without exception. In line with these trends, the average variations in VAT collection in LAC countries have remained in negative territory since February, with a maximum relative drop of -29.9% in May and a moderation of these collection losses during the third quarter of the year until they turned into slight consecutive upturns in November (2.1%) and December (8.4%). In cumulative terms for the year 2020, the average cumulative variations for the groups of countries analyzed, and even for the LAC region (-7.8% at the end of the year), remain in negative territory since last April, within a range that goes from -2.6% in Mercosur + Mexico to -11.7% in Central America and -12.2% in the Andean countries.
- For its part, the average collection of **Excise Taxes by groups** of countries shows the unequal intensity and depth of the negative impacts of the economic crisis associated with the pandemic. This group of

taxes has been, in relative terms, the hardest hit in terms of the tax revenues they generate in all cases, with deep reductions during the second quarter of the year and (only partial) recoveries in the "Mercosur + Mexico" and "Others" group. By the end of the year, a somewhat more generalized recovery could be observed, especially in December for the Andean and Central American countries (15.2% and 2.8%, respectively), which contributed to the first average year-on-year increase (5.1%) for the LAC region since March 2020. At the regional level (LAC), in line with the evolution of VAT, the accumulated variations show, on average, a certain stagnation in negative territory during most of the second half of the year (ending with -13.4% in December).

- In line with what was observed with the Excise Taxes and after the deep falls during the second quarter, there is a slow recovery of the collection associated with the **Other Revenues**, which can be described as slight in the average of the Mercosur countries + Mexico, and moderate in the group of "Others". On the other hand, the rest of the groups considered, as well as the average calculated for the LAC countries surveyed in the RRC Database, show successive relative declines since April, with a slight moderation of these setbacks during the last few months. The average calculated for LAC countries shows a similar trend, with maximum year-on-year declines of -33.7% in April and -35.8% in May, which gradually narrowed to -7.1% in September and -3.7% in December, with no positive monthly balances during the entire year 2020.

INTRODUCTION

The crisis resulting from COVID-19 has created an unprecedented situation in history that makes information more necessary than ever for understanding the situation and designing responses.

The Revenue Reports COVID-19 (RRC) prepared by CIAT aim to collaborate in this task through the simultaneous preparation of a statistical database of international scope, which makes it possible to monitor the monthly evolution of tax collection and its corresponding analysis.

The information collected comes from the tax administrations of CIAT member countries, most often published in the form of monthly or quarterly³ bulletins, and must be interpreted for its advantages in terms of temporal proximity but also with its particularities given its origin and the context in which it is framed (the different responsibilities between institutions - internal taxes, customs, social security⁴; the different monthly collection and accounting schedules; the effects of deferrals granted to taxpayers⁵ publication times and formats; etc.). In turn, in some cases where the information is available, the figures are supplemented with information from other public institutions to incorporate, for example, the performance of subnational tax resources given their crucial relevance in certain countries.

The RRCs summarize the main information available up to their publication, which generally follows a monthly⁶ periodicity, including summary tables of the evolution of the administrations' global collection and its main components (Income Taxes, VAT, Excise Taxes and Other Revenues applied) with their monthly variations with respect to the same month of the previous year and cumulatively throughout the year. In general, except when the necessary official information is not available, the figures are presented in constant values to avoid distortions derived from the evolution of prices. Given that this is a dynamic process of obtaining and processing statistical information from different sources, various CIAT member countries have been incorporated throughout the successive editions of this Report (reaching a total of 23 cases with the recent inclusion of Nicaragua), which has provided greater robustness to the general trends identified based on the averages calculated.

The following section will summarize the most important developments by country, including information on the structure of tax collection, its monthly distribution, and the evolution of activity in the different territories based on the mobility reports provided by the major mobile telephone technology companies, and will also explore the possible

3 In any case, the information contained in these reports should not be considered official and should be referred to the corresponding sources. Any error contained in the processing of this data is the sole responsibility of the authors of the Report.

4 In this regard, see: [Díaz de Sarralde, S. \(2019\) "Overview of Tax Administrations: structure, income, resources and personnel; operation and digitalization ISORA \(International Survey on Revenue Administration\) / 2019"](#)

5 In this regard, see: [CIAT, OCDE, IOTA \(2020\) "Tax Administration Responses to COVID-19: Measures Taken to Support Taxpayers"](#).

6 Updates to the RRCs are published in the CIAT Working Paper series. See: <https://www.ciat.org/the-revenue-report-covid-19/?lang=en>.

links between the two variables based on an econometric analysis that takes advantage of the large amount of data collected. An analysis by regions or groups of countries will also be presented, with the aim of exploring both the aspects in common as well as the most notable differences between the different countries for which statistical information is available.

In addition to the information presented here, the complete information base in Excel format (RRC Database) will be made available to the interested public, with details by tax figures, constant and current values, and monthly⁷ collection structure.

7 See the link: <https://www.ciat.org/the-revenue-report-covid-19/?lang=en>, "Database monthly collection (Annexes)".

1. MONTHLY EVOLUTION OF TAX COLLECTION DURING YEAR 2020

This section analyzes the evolution of the global collection of tax administrations, in general, in constant terms (deflated by the evolution of consumer price indexes in each country) and its breakdown into income taxes (IT), value added tax (VAT), excise taxes and a group that includes Other Revenues.

1.1 Evolution of global tax collection (Total)

This new edition of the RRC contains information available for the entire year 2020, which allows observing a longer-term trend (since the beginning of the pandemic) and, at the same time, confirms a slow recovery of tax collection levels during the last months, unlike what was observed during the first part of the year. Overall year-on-year tax collection for the twenty-three countries for which data⁸ are available showed a sharp monthly drop, mainly from March onwards, which was accentuated by the confinement measures during the second quarter. This situation began to reverse in July, mainly because of the notable recovery in the United States, Morocco, and Panama, which is directly linked to the tax deferrals granted in previous months, strengthening for the rest of the countries since September and even returning to positive year-on-year variations in November, with a slight retraction towards the end of the year.

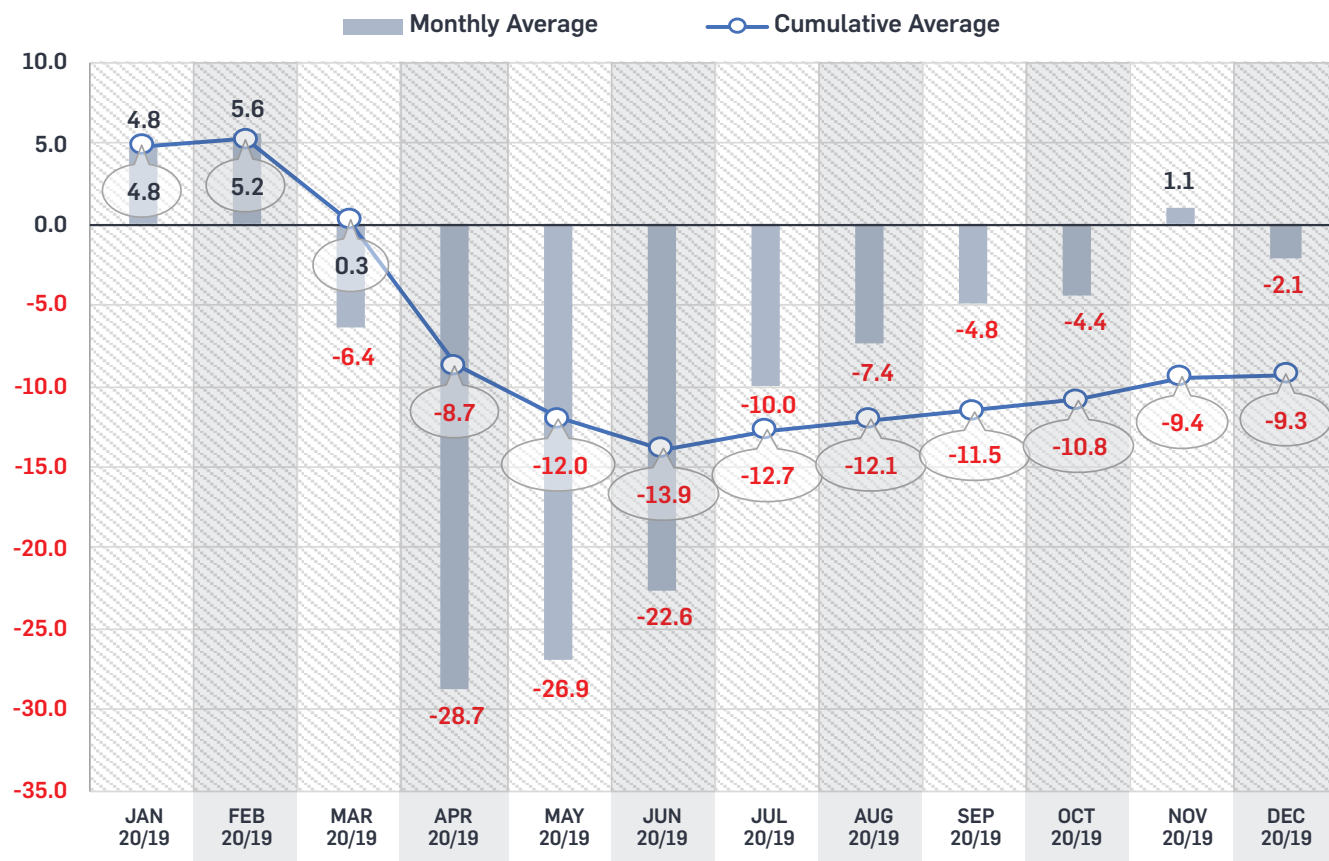
On average, overall monthly collections fell by more than 20% in April, May, and June, with smaller but still significant drops in July (-10.0%) and increasingly smaller figures towards the end of the year: in November there was a year-on-year increase of 1.1% and in December a slight drop of 2.1% with respect to the same month of the previous year (Graph 1). Evidently, beyond the persistent health and economic uncertainty afflicting most countries, this change in trend in the second half of 2020 bears some relation to the resurgence of activity levels, a greater degree of openness and significantly laxer containment measures, at least compared to those observed since the beginning of the pandemic.

In cumulative terms per month⁹ and on average for the countries considered, global tax collection has followed a clearly downward trend since the positive data of the first two months of the year (4.8% in January and 5.2% in February), remaining at practically neutral values in March (0.3%) and accentuating a deep fall as of April, which led to reaching its lowest point in June with a cumulative year-on-year reduction of 13.9%. However, the easing of monthly declines in the total tax collection of the countries analyzed as of July allowed us to observe a slow but clear change in trend. Even showing negative values in the last months of 2020, the negative variation in accumulated global tax collection has progressively narrowed to around -9.3% in the last month surveyed (Graph 1).

8 Data collection for this report closed on March 31, 2021.

9 When moving from the analysis of monthly variations to that of cumulative variations, it should be considered that the weight of the collection is not evenly distributed among the different months (nor with homogeneous patterns in the different countries). The RRC Database, used as the basis for the analysis, includes as a reference the temporal distribution patterns of collection for each of the countries throughout 2019.

Graph 1. Evolution of total tax collection by tax administrations (in percentage variation with respect to the same month of the previous year; simple averages; constant prices; January-December 2020)



Source: Prepared by the authors based on official information from tax administrations.

Note: Given that it presents variations outside the general range of the rest of the countries surveyed (which could bias the resulting figures and general conclusions), in this and the following graphs the case of Bolivia is not considered for the calculation of the (simple) average values of the year-on-year variations of monthly and accumulated revenues. Neither are included for the calculation of the averages those figures corresponding to other countries that represent inter-annual variations (monthly or accumulated) greater than +/- 100% of the values of the same period of the previous year (which can be verified in the different tables presented throughout this section). However, the averages calculated in the Annex to the Report (<https://www.ciat.org/the-revenue-report-covid-19/?lang=en>) include all available data.

The updated information shows that, at a general level, the last quarter saw the smallest year-on-year drop in total tax collection with respect to pre-pandemic levels. This is mainly due to significant year-on-year increases observed since August and September in some cases, such as Paraguay (which has accumulated five consecutive months of positive results) or Morocco (with a very different behavior from that of most countries in the region). Other countries such as Ecuador, El Salvador, Italy, Argentina, Brazil, Mexico,

Uruguay, Chile and Spain also showed year-on-year increases during the last months of the year, although of a lesser magnitude.

Despite this, a significant number of the countries analyzed continued to show significant drops in collections, notably several in the Central American region (Costa Rica, Honduras, Panama, and the Dominican Republic) as well as in the Caribbean (Jamaica and Trinidad and Tobago), including Colombia

and Peru within this segment of countries most affected by the crisis in terms of collections. Therefore, although it is recognized that, in most cases, the data available for the last quarter would suggest a certain recovery or, at least, a moderation of the negative effects of the pandemic, it is possible to note the existence of

a high degree of heterogeneity (Table 1), which for the moment prevents drawing general conclusions based on the different developments in the countries, especially considering the depth of the crisis still faced by the different countries.

Table 1. Evolution of monthly total collection of the tax administrations (in percentage variation with respect to the same month of the previous year; constant prices; January to December 2020)

Countries	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
Argentina	-5.5	-5.0	-8.2	-23.4	-20.2	-15.2	-12.5	-5.3	4.4	4.0	0.5	1.2
Bolivia ^{/1}	-24.5	-3.6	-13.4	-81.0	-43.9	-34.7	-9.7					
Brazil	4.4	-2.9	-2.0	-25.7	-30.4	-23.7	-12.1	2.0	3.4	6.9	7.8	1.3
Chile	13.5	-2.5	-1.0	-39.8	-29.8	-34.2	-5.8	-23.7	-7.6	7.7	12.8	9.9
Colombia	9.5	7.2	0.7	-26.0	-19.4	-15.2	-22.6	-15.2	-16.8	-6.7	0.6	-2.9
Costa Rica	-4.3	14.0	2.7	-24.1	-30.4	-36.6	-9.8	-12.3	-11.2	-16.7	-7.7	-9.7
Ecuador	5.2	-7.6	6.1	-35.6	-35.3	-26.4	-23.0	-20.2	15.6	-12.3	-7.9	4.3
El Salvador	4.1	5.7	0.5	-30.5	-29.2	-2.2	-7.5	0.8	7.6	-0.4	5.1	8.4
Spain	7.9	3.5	15.9	-31.5	-27.0	-29.5	-14.1	1.6	0.2	-11.7	5.1	-5.5
United States	6.8	9.8	1.9	-55.0	-25.2	-28.3	122.0	-3.3	-1.6	-4.3	-3.6	1.7
Guatemala	8.1	7.4	-29.5	9.6	-25.7	-18.6	-15.0	-15.5	-4.9	1.1	-3.2	-1.6
Honduras	4.4	-1.2	-14.0	-36.5	-42.1	-47.9	-30.3	-15.0	-26.8	-7.9	24.9	-38.3
Italy	3.6	8.9	-4.5	-20.4	-27.5	-19.7	-5.4	8.6	6.7	-15.2	0.9	-3.6
Jamaica	0.3	1.5	2.2	-26.8	-28.9	-22.6	-19.0	-20.8	-21.7	-12.1	-19.1	-14.8
Morocco	7.1	12.3	12.0	-21.2	-16.0	12.7	2.6	12.8	15.2	4.7	129.9	-36.9
Mexico	10.9	-1.9	30.1	-15.3	-14.6	-10.0	-6.7	1.5	-3.9	2.8	7.6	8.5
Nicaragua	18.4	73.2	-38.8	-3.4	-15.6	-28.5	-10.1	-1.4	6.0	4.5	8.8	
Panama	4.1	10.3	-41.4	-52.7	-50.7	-63.4	27.4	-36.5	-27.2	-27.8	-23.6	-9.8
Paraguay	1.3	4.6	-10.0	-54.7	-34.0	0.3	-3.0	17.4	22.5	0.8	15.5	61.4
Peru	4.0	-0.4	-15.9	-36.6	-21.0	-38.6	-19.6	-15.3	-15.4	-9.2	-7.8	-0.8
Dominican Republic	4.0	3.3	-15.6	-49.0	-38.6	-21.8	-8.0	-8.3	-6.8	0.5	-1.9	-5.3
Trinidad & Tobago ^{/2}	-3.2	-13.0	-35.2	-22.2	-11.9	-24.2	-15.4	-11.5	-45.1	-1.9	4.9	-13.8
Uruguay	1.3	-3.4	2.9	-9.9	-19.2	-3.4	-0.3	-2.6	1.5	-3.1	3.2	2.9
Monthly Average ^{/3}	4.8	5.6	-6.4	-28.7	-26.9	-22.6	-10.0	-7.4	-4.8	-4.4	1.1	-2.1

Source: Prepared by the authors based on official information from the tax administrations.

^{/1} The January through July data for Bolivia in this and the following tables include customs tax revenues, but only up to and including May. No information is available as of August 2020.

^{/2} The data for Trinidad and Tobago are, in this and the following tables, expressed in current values due to the lack of the most recent price evolution; however, large differences with respect to the figures at constant values (deflated by a reference retail price index) would not be expected given the low inflation registered in the period when information is available.

^{/3} In order to calculate the average values (simple) of the year-on-year variations of monthly and accumulated collections, and to avoid possible biases in the resulting figures and in the general conclusions due to the presence of variations outside the general range of the rest of the countries surveyed, the case of Bolivia is not considered in this table and in the following tables due to lack of sufficient information. Neither are included for the calculation of averages those figures corresponding to other countries that represent inter-annual variations (monthly or accumulated) greater than +/- 100% of the values of the same period of the previous year. Nevertheless, the averages calculated in the Annex to the Report (<https://www.ciat.org/the-revenue-report-covid-19/?lang=en>) do consider all available data.

As in the monthly analysis, the identification of certain general trends in terms of accumulated collections for the year (in constant values) is not enough to hide the great diversity of realities among the countries analyzed. Up to April, the countries showing the largest accumulated drops were Bolivia (-38.2%), Panama (-23.3%), United States (-19.5%), Trinidad and Tobago (-22.0%) and Paraguay (-18.9%). An analysis of data through June shows that, in addition to these countries, some others such as Honduras (-26.2%), Dominican Republic (-20.9%), Peru (-18.7%), Ecuador (-17.6%) and Chile (-17.1%) joined the group with the largest accumulated drops in the first half of the year (Table 2).

However, the break in the general trend from July onwards, pushed in the following months by a varied

group of countries in the sample, was very evident in some cases. For example, in the United States, the cumulative collection loss fell significantly in July (-4.6%) and continued along the same path until December (-3.5%); in Paraguay there was also a continuous reduction in cumulative collection losses, reaching -1.3% in the last month of the year. In general, if we compare collections through June with those accumulated through December, most of the other countries show a gradual improvement, despite being in negative territory, except for Colombia, Jamaica and Trinidad and Tobago. Indeed, these are the countries that continue to show a deterioration in their tax revenues. Morocco and Mexico are the only two countries under analysis that show positive cumulative variations at the end of 2020.

Table 2. Evolution of cumulative total collection by tax administrations (percentage change compared to the same month of the previous year; constant prices; January-December 2020)

Countries	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
Argentina	-5.5	-5.3	-6.2	-10.4	-12.5	-13.0	-12.9	-12.0	-10.3	-9.0	-8.1	-7.4
Bolivia	-24.5	-16.4	-15.6	-38.2	-39.4	-38.8	-34.7					
Brazil	4.4	1.2	0.3	-6.2	-10.6	-12.6	-12.5	-10.8	-9.3	-7.7	-6.3	-5.5
Chile	13.5	5.9	3.8	-13.8	-14.5	-17.1	-15.6	-16.6	-15.6	-13.5	-11.3	-9.5
Colombia	9.5	8.7	6.2	-2.3	-6.1	-7.7	-9.8	-10.3	-11.3	-10.9	-9.8	-9.4
Costa Rica	-4.3	3.1	2.9	-3.0	-7.4	-12.7	-12.4	-12.4	-12.2	-12.7	-12.3	-11.9
Ecuador	5.2	-0.2	1.8	-12.3	-16.2	-17.6	-18.3	-18.5	-15.1	-14.8	-14.3	-12.9
El Salvador	4.1	4.8	3.4	-10.3	-13.3	-11.8	-11.3	-10.0	-8.3	-7.6	-6.6	-5.5
Spain	7.9	5.2	7.6	-5.0	-9.0	-11.0	-11.9	-10.1	-9.3	-9.8	-8.7	-8.5
United States	6.8	7.8	6.0	-19.5	-20.4	-21.8	-4.6	-4.5	-4.1	-4.1	-4.1	-3.5
Guatemala	8.1	7.8	-4.8	-0.6	-5.1	-7.0	-8.5	-9.2	-8.8	-7.5	-7.2	-6.7
Honduras	4.4	1.8	-3.5	-16.2	-20.6	-26.2	-26.7	-25.5	-25.7	-24.2	-20.5	-22.5
Italy	3.6	6.0	2.7	-3.0	-8.3	-10.3	-9.3	-6.6	-5.4	-6.5	-5.7	-5.3
Jamaica	0.3	0.8	1.4	-4.5	-8.8	-11.3	-12.3	-13.2	-14.3	-14.1	-14.5	-14.5
Morocco	7.1	9.3	10.5	3.8	0.8	3.0	3.0	3.9	5.4	5.3	14.3	8.2
Mexico	10.9	5.2	13.3	5.6	2.0	0.1	-0.8	-0.5	-0.9	-0.5	0.1	0.8
Nicaragua	18.4	45.6	4.9	3.1	-0.6	-5.7	-6.3	-5.7	-4.6	-3.7	-2.7	
Panama	4.1	7.0	-14.7	-23.3	-28.0	-36.6	-29.8	-30.5	-30.0	-29.8	-29.4	-26.9
Paraguay	1.3	2.8	-1.7	-18.9	-22.6	-19.2	-16.4	-13.1	-8.4	-7.6	-5.2	-1.3
Peru	4.0	2.0	-4.0	-14.0	-15.3	-18.7	-18.9	-18.5	-18.1	-17.2	-16.4	-15.1
Dominican Republic	4.0	3.7	-2.6	-16.5	-20.8	-20.9	-19.0	-17.8	-16.6	-14.8	-13.7	-13.0
Trinidad & Tobago	-3.2	-7.0	-21.9	-22.0	-20.6	-21.3	-20.4	-19.7	-25.3	-23.8	-22.3	-21.4
Uruguay	1.3	-0.8	0.4	-2.2	-5.9	-5.5	-4.8	-4.5	-3.9	-3.8	-3.2	-2.7
Cumulative Average	4.8	5.2	0.3	-8.7	-12.0	-13.9	-12.7	-12.1	-11.5	-10.8	-9.4	-9.3

Source: Prepared by the authors based on official information from the tax administrations.

As will be seen below, the global fall has affected the different taxes unevenly, which, given the different tax structures and the unique temporal distribution of their revenues throughout the year¹⁰, offers much more detailed information on the impact of the crisis on the countries' tax collection.

1.2 Evolution of Income Taxes collection (IT)

Income taxation, considering jointly the contribution of individuals and legal entities¹¹, recorded, on average, increases in collection in the first two months of the year (6.9% in January and 6.5% in February), confirming the trends identified in the previous RRC with the addition of new countries and definitive official figures in the database constructed for this purpose (Graph 2). From March onwards, resources associated with the IT entered negative figures, very high in April and somewhat less pronounced in May and June (-8.7%; -26.0%; -14.8% and -21.2%, respectively). Especially in the case of this tax, it should be considered that the collection calendar is very different according to the month considered and, in many countries, April is usually one of the strongest periods of revenue (among them Bolivia; Dominican Republic, Peru, Mexico, United States, El Salvador, Ecuador, Colombia, Chile, and Paraguay)¹².

However, one of the fiscal relief measures (and protection of household liquidity) most widely used in most of the countries analyzed in response to the crisis caused by the COVID-19 pandemic has been the

granting of deferrals in the payment of income tax, which has produced a significant alteration in the tax revenue schedule usually observed for this tax. As can be seen at the level of general tax collection, since July there has been a change in trend with a strong recovery of resources generated by IT in most of the countries, possibly reinforced by the delayed entry of tax revenues whose obligation had been intentionally deferred in previous months. Between August and November, monthly income tax collection, on average, remained around a neutral result in the year-on-year comparison (between -0.4% and 0.1%), with a new decline in this average value in December (-9.5%), although this result is influenced by some significant collection losses in specific cases which also, due to the aforementioned calendar effects, could respond more to changes in the income pattern of income tax collection rather than to specific year-on-year decreases.

After slight increases in January and February (6.9% and 5.5%, respectively), the accumulated collection of IT entered slightly negative territory in March (-0.1%), accentuating the fall in the following months until reaching its minimum negative variation (-14.6%) in June (Graph 2), showing slightly higher reductions (but in the same trend line) than those registered in the overall amount of tax revenues due to the effect of the aforementioned collection calendar and the deferrals adopted by the countries. These changes in the calendars, in turn, had as a correlate an increase in the collection of this tax in the following months, causing the downward trend that had been observed

10 The "RRC Database" includes the detail of the monthly composition of the total collection by tax figures in 2020 and 2019 and, as previously mentioned, the patterns of temporal distribution of the collection for each of the countries in 2019.

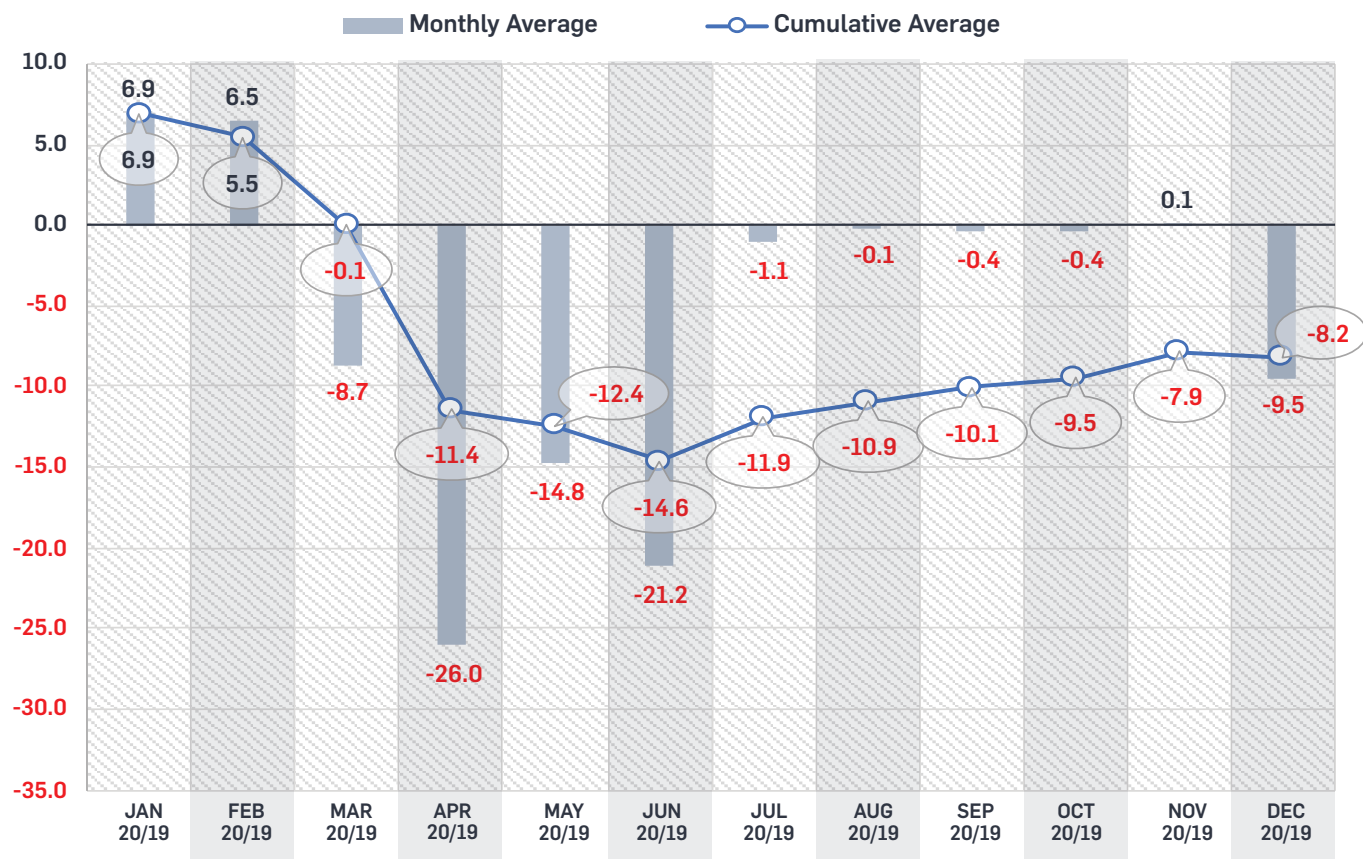
11 These reports have opted for the aggregation of personal and corporate income taxes due to the difficulty of separating sources in many cases. The information by country will allow for a more detailed analysis when information is available. In the work of Morán, D. and Rojas A. (2019) "[Equivalent fiscal pressure in Latin America and the Caribbean: An analysis of the stylized facts in the past decade / 2019](#)," CIAT Working Papers 5-2019" the possibility of disaggregation between personal and corporate income in the different countries can be consulted.

12 There are clear exceptions such as Spain (July, October), Italy (December) or Brazil (between August and December). The rest usually have a peak in March (Panama, Costa Rica, Morocco) or May (Argentina).

since March to reverse as of July, despite continuing to register decreases in the accumulated collection (although in lesser amounts than in previous months)

to an average of -7.9% in November and -8.2% in the last month of 2020.

Graph 2. Evolution of income tax collection (in percentages of variation with respect to the same month of the previous year; simple averages; constant prices; January-December 2020)



Source: Prepared by the authors based on official information from tax administrations.

Note: The considerations of Graph 1 are applied to calculate the averages of the interannual variations of monthly and accumulated tax collection.

As observed for global tax collection, the general trends are the result of very different year-on-year variations among the countries analyzed. In the case of IT, although most countries show a clear recovery in tax collection levels as of July, it is possible to identify very different behaviors over the past year depending on the country considered. Among the countries showing the most notable recoveries are the United States (with a 225% year-on-year jump in July, followed by more limited reductions in the following months), El Salvador (with positive variations from June to December), Paraguay (with strong increases in August and September and an extraordinary jump of 211.0% in December) and Morocco (with results diametrically

opposed to those of most of the countries analyzed, with year-on-year increases in most of the year). With more limited results, but mostly in positive territory, the case of Mexico stands out among the Latin American countries. Another set of cases, such as Argentina, Brazil, Colombia, and Chile, showed a consolidation of the recovery in income tax collection during the last quarter of 2020. In stark contrast, countries such as Costa Rica, Jamaica and, above all, Panama, Peru and Trinidad and Tobago exhibit the deepest declines during the last months of the year, suggesting greater difficulty in recovering pre-pandemic collection levels (Table 3).

Table 3. Evolution of monthly income tax collection (in percentages of variation with respect to the same month of the previous year; constant prices; January to December 2020)

Countries	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
Argentina	-11.8	-10.8	-11.7	-30.6	-23.6	-23.1	-23.7	-2.3	5.5	28.2	30.1	19.6
Bolivia	-66.6	-2.6	-7.2	-90.5	3.4	140.6	-29.8					
Brazil	11.0	-8.8	3.8	-19.5	-14.3	-1.3	-11.9	-10.0	10.0	11.8	-2.3	2.9
Chile	19.2	4.6	4.9	-52.5	-23.9	-54.3	5.3	-21.7	-6.1	-3.9	2.9	16.6
Colombia	18.3	6.4	4.3	-28.1	0.1	-11.5	-12.6	-9.3	-8.6	1.6	15.7	0.8
Costa Rica	-26.6	14.2	-4.5	10.4	18.6	-38.6	-6.6	2.9	-9.2	-7.8	-3.5	-25.1
Ecuador	5.5	-1.2	-6.6	-33.6	-6.9	-2.8	-12.1	-13.9	72.1	-6.3	-13.5	10.4
El Salvador	5.0	10.5	-3.7	-36.3	-17.2	24.2	18.0	25.8	33.8	5.1	12.7	13.0
Spain	15.0	6.2	25.5	-38.2	-19.0	-26.7	-4.5	6.0	12.1	-16.9	13.8	-7.0
United States	8.7	18.0	1.0	-79.1	-55.9	-49.5	225.0	-13.6	-14.4	-12.4	-15.8	-3.0
Guatemala	16.5	5.7	-36.6	30.6	-14.1	-17.7	-5.4	-18.7	-17.4	5.1	-5.5	-25.6
Honduras	24.3	-4.9	-29.6	-33.9	-27.3	-63.6	-22.7	31.8	-34.2	9.1	207.8	-70.2
Italy	2.6	3.9	-0.9	-8.9	-13.8	-5.9	0.8	26.8	12.2	-28.0	-6.1	-1.0
Jamaica	3.2	14.9	1.7	3.9	8.0	-10.1	-8.3	-10.0	-15.0	10.1	-11.1	-19.0
Morocco	3.2	8.7	12.7	-25.4	7.9	28.8	15.8	5.2	24.0	14.1	240.7	-49.0
Mexico	0.7	-2.7	39.9	-26.2	2.3	1.7	0.8	0.3	-9.0	3.6	5.6	2.5
Nicaragua	37.9	169.5	-63.7	-2.9	-15.7	-43.3	-6.7	0.9	-1.5	2.7	6.6	
Panama	12.6	41.1	-44.9	-31.5	-26.8	-66.1	89.7	-25.0	-23.1	-24.2	-17.6	-15.2
Paraguay	-9.3	33.1	-12.3	-68.2	-61.9	7.2	-8.1	67.9	36.5	-3.7	20.7	211.0
Peru	4.2	6.7	-24.4	-34.0	22.0	-45.4	-18.3	-14.9	-21.5	-12.8	-19.6	-6.0
Dominican Republic	16.1	7.8	-7.0	-42.8	-26.0	-30.0	6.6	5.6	4.4	25.1	-3.9	-8.6
Trinidad & Tobago	-5.1	-11.6	-43.7	-21.3	-17.8	-38.7	-23.6	-28.3	-56.7	-11.3	-4.5	-27.3
Uruguay	0.8	-6.4	5.2	-4.3	-19.6	1.3	4.0	-6.9	-2.6	2.0	-3.0	2.1
Monthly Average	6.9	6.5	-8.7	-26.0	-14.8	-21.2	-1.1	-0.1	-0.4	-0.4	0.1	-9.5

Source: Prepared by the authors based on official information from the tax administrations.

The analysis at the country level in terms of accumulated income tax collection shows that, even considering the encouraging positive results recorded in several countries during the last months of the year, almost all the countries analyzed accumulated losses in income tax collection at the end of 2020. The exceptions are Morocco and Mexico, which, at the end of December, accumulated year-on-year increases equivalent to 12.8% and 1.0%, respectively (Table 4). However, the change in the general trend observed since July, of very significant magnitude in several cases, has made it possible to limit the deep

falls that had accumulated during the second quarter of the year, when the most damaging effects of the crisis were felt on global tax collection performance and on income tax. This has caused a sort of gap between a group of countries that show reductions of up to -10% in accumulated IT collection and others such as Trinidad and Tobago, Honduras, Panama, Peru, or Chile, in which the accumulated losses have only been partially compensated and show the depth of the contractionary effects of the crisis derived from the COVID-19 pandemic.

Table 4. Evolution of cumulative income tax collection (in percentages of variation with respect to the same month of the previous year; constant prices; January to December 2020)

Countries	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
Argentina	-11.8	-11.3	-11.4	-16.2	-18.5	-19.6	-20.2	-17.9	-15.9	-12.5	-9.4	-7.2
Bolivia	-66.6	-55.5	-45.8	-69.7	-55.3	-45.2	-42.7					
Brazil	11.0	3.7	3.7	-2.6	-4.4	-4.0	-5.2	-5.7	-4.3	-2.7	-2.7	-2.2
Chile	19.2	12.2	9.9	-24.0	-24.0	-27.6	-23.4	-23.2	-21.5	-20.1	-18.1	-14.8
Colombia	18.3	12.4	10.3	-4.8	-4.0	-5.8	-6.5	-6.8	-7.0	-6.3	-4.8	-4.4
Costa Rica	-26.6	-14.3	-9.5	-6.1	-3.4	-11.5	-10.9	-9.8	-9.7	-9.6	-9.2	-11.7
Ecuador	5.5	3.1	-0.4	-19.3	-17.8	-16.4	-16.0	-15.8	-8.3	-8.1	-8.5	-7.4
El Salvador	5.0	7.2	3.9	-17.4	-17.4	-13.0	-9.8	-6.6	-3.5	-2.8	-1.8	-0.8
Spain	15.0	11.6	14.9	-6.0	-8.3	-9.8	-8.0	-5.7	-4.6	-7.4	-5.7	-5.8
United States	8.7	10.7	7.9	-36.0	-38.4	-40.5	-10.3	-10.6	-11.2	-11.3	-11.5	-10.6
Guatemala	16.5	12.1	-10.3	2.7	0.2	-2.0	-2.7	-4.1	-5.2	-3.6	-3.7	-5.4
Honduras	24.3	10.7	-5.3	-23.5	-24.0	-35.7	-34.8	-31.1	-31.7	-30.1	-20.0	-28.3
Italy	2.6	3.1	2.1	-0.2	-2.6	-3.1	-2.3	1.9	2.9	-1.1	-1.5	-1.4
Jamaica	3.2	8.9	4.1	4.1	4.5	1.3	0.5	-0.3	-2.5	-1.8	-2.3	-4.4
Morocco	3.2	5.5	9.9	3.4	3.9	9.8	10.4	10.0	12.3	12.4	23.8	12.8
Mexico	0.7	-0.8	13.0	1.0	1.2	1.3	1.2	1.1	0.2	0.4	0.8	1.0
Nicaragua	37.9	102.5	1.2	0.5	-2.3	-10.3	-9.9	-8.8	-8.1	-7.3	-6.3	
Panama	12.6	25.8	-12.1	-15.9	-17.7	-34.6	-23.7	-23.8	-23.7	-23.7	-23.3	-22.0
Paraguay	-9.3	5.9	-1.6	-32.1	-41.5	-34.7	-29.4	-23.6	-14.2	-13.3	-9.5	-2.1
Peru	4.2	5.3	-6.8	-16.5	-10.7	-14.6	-15.0	-15.0	-15.5	-15.3	-15.6	-14.9
Dominican Republic	16.1	12.6	6.3	-12.8	-15.0	-17.2	-13.7	-11.7	-10.2	-6.7	-6.5	-6.6
Trinidad & Tobago	-5.1	-7.2	-30.9	-28.3	-27.3	-30.1	-29.2	-29.1	-36.5	-35.4	-34.5	-33.6
Uruguay	0.8	-2.5	-0.1	-1.2	-5.2	-4.2	-3.2	-3.6	-3.5	-2.9	-2.9	-2.5
Cumulative Average	6.9	5.5	-0.1	-11.4	-12.4	-14.6	-11.9	-10.9	-10.1	-9.5	-7.9	-8.2

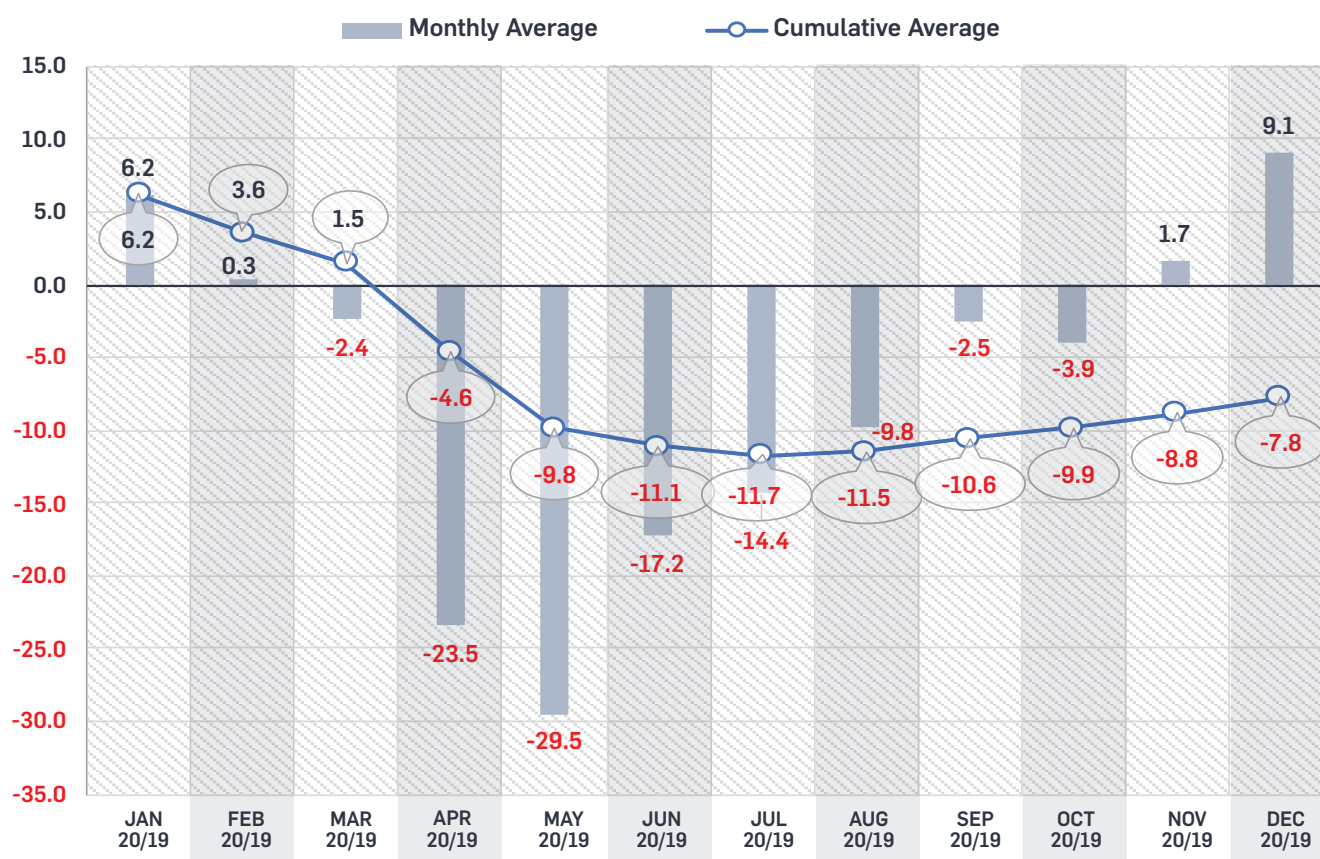
Source: Prepared by the authors based on official information from the tax administrations.

1.3 Evolution of Value Added Taxes collection (VAT)

VAT, being the main instrument of tax collection in most of the countries analyzed and having partially cushioned the deep fall in overall collection during the second quarter of the year, showed a progressive improvement in its average collection performance since July, reaching positive figures in the last two months of 2020. Indeed, after the largest monthly decline observed in May (-29.5%), the relative falls in average VAT collection in subsequent months have been narrowing to -17.2% in June, -14.4% in July, -9.8% in August, -2.5% in September, and -3.9% in October, with increases in real terms in November (1.7%) and December (9.1%), all with respect to the same month of 2019 (Graph 3).

In cumulative values, the decline in VAT revenues is aligned with that of overall collection, reaching -11.7% in July, after the first three months of the year in positive territory, although with limited variations. In the second half of the year, in line with the behavior of other taxes, the evolution of the accumulated VAT collection shows a slow but sustained recovery, reaching a relative year-on-year variation of -7.8% in December. This stylized fact could be associated both with the depth of the falls in previous months (which are difficult to compensate) as well as with a relatively slower reopening of people's mobility (as will be assessed in the next section of the Report) and a level of economic activity still well below pre-pandemic levels, which are holding back VAT collection in most countries.

Graph 3. Evolution of VAT collection (in percentage variation with respect to the same month of the previous year; simple averages; constant prices; January to December 2020)



Source: Prepared by the authors based on official information from tax administrations.

Note: The considerations of Graph 1 are applied to calculate the averages of the interannual variations of the monthly and accumulated collection.

Despite the heterogeneity that characterizes the set of countries included in the database that provides information for this Report, the general trends are confirmed in the case of VAT. In this sense, the data available up to December 2020 suggest a process of recovery of VAT collection in most of the countries under analysis, although many of them continue to show negative values. However, the magnitude of these variations shows clear differences among the different cases (Table 5). At the individual level, several countries continued to experience sharp monthly declines in tax collection during most or all the second half of 2020, as seen in Panama (-16.9%), Jamaica (-14.4%), Colombia (-5.9%), Honduras (-4.1%) and the Dominican Republic

(-3.1%) for the month of December. This contrasts sharply with the continuous increases observed during the second half of the year in countries such as Paraguay (17.7% in December), Trinidad and Tobago (68.0%), Morocco (37.2%), Mexico (25.6%) and Nicaragua (8.1% in November). There are even encouraging figures in positive territory for several countries only in the last months of the year, for example, in the cases of Argentina, Brazil, Chile, Costa Rica, El Salvador, Peru and Uruguay: 13 of the 20 countries for which statistical information is available for the month of December show positive interannual variations in that monthly period.

Table 5. Evolution of monthly VAT collection (percentage change compared to the same month of the previous year; constant prices; January-December 2020)

Countries	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
Argentina	-2.7	-9.0	-15.3	-25.6	-27.7	-22.2	-22.7	-20.6	-10.1	-6.3	-0.7	11.5
Bolivia	-11.6	-17.1	-20.1	-79.9	-65.2	-82.3	-26.2					
Brazil	4.7	2.9	2.8	-14.8	-24.3	-11.3	-3.0	3.4	6.6	-6.8	9.7	-4.3
Chile	18.1	-3.0	-6.2	-19.9	-39.9	-28.0	-9.2	-18.5	-7.1	13.3	28.3	9.5
Colombia	6.8	8.8	-1.3	-12.2	-29.9	-24.6	-27.0	-21.5	-18.0	-14.7	-4.8	-5.9
Costa Rica	16.3	26.0	16.5	-36.1	-41.5	-22.3	-4.3	-9.2	-9.7	-8.9	1.1	41.9
Ecuador	6.6	-10.7	-6.8	-38.6	-46.9	-37.9	-32.0	-25.1	-4.9	-15.6	-2.4	5.2
El Salvador	8.6	3.2	4.4	-20.7	-33.6	-22.3	-19.7	-9.6	-0.9	0.1	5.8	9.5
Spain	-5.9	2.2	16.1	-28.7	-28.8	-31.6	-32.3	-5.2	-7.9	-1.0	-4.5	2.6
United States												
Guatemala	7.4	4.8	-28.2	7.5	-23.5	-14.6	-15.9	-13.3	-3.4	-7.9	-2.3	4.1
Honduras	0.1	-0.4	-11.6	-41.3	-44.4	-34.3	-33.3	-23.2	-18.9	-10.6	-14.3	-4.1
Italy	5.9	-1.0	-15.0	-32.7	-29.3	-25.2	-8.1	-7.1	9.7	0.8	-5.2	-7.6
Jamaica	2.9	-5.4	3.6	-30.5	-41.4	-24.6	-21.8	-17.3	-15.0	-16.2	-20.9	-14.4
Morocco	22.6	9.6	14.1	-7.3	-23.4	-5.1	1.0	11.4	8.8	4.4	7.8	37.2
Mexico	20.9	9.0	24.4	8.3	-36.5	-26.3	-19.5	14.2	-3.7	7.6	14.7	25.6
Nicaragua	3.6	4.3	9.9	0.1	-17.4	-12.5	-7.2	2.6	9.8	7.0	8.1	
Panama	-7.1	-12.2	-20.6	-61.2	-67.5	-63.1	-31.1	-47.8	-43.1	-33.0	-28.5	-16.9
Paraguay	9.5	-2.7	-6.7	-35.4	4.4	-2.1	6.5	3.5	11.6	8.0	13.4	17.7
Peru	0.8	-3.3	-11.1	-35.6	-39.5	-35.9	-22.9	-17.3	-12.1	-4.5	-2.6	4.8
Dominican Republic	4.5	5.6	-24.4	-46.4	-34.6	-12.5	-18.4	-9.5	-10.6	-7.3	3.3	-3.1
Trinidad & Tobago	1.5	-18.0	5.9	-12.2	22.4	94.9	17.2	8.3	68.2	12.1	23.0	68.0
Uruguay	6.2	-3.8	-0.3	-9.3	-16.2	-0.7	2.1	-4.1	-1.6	-2.3	6.8	1.6
Monthly Average	6.2	0.3	-2.4	-23.5	-29.5	-17.2	-14.4	-9.8	-2.5	-3.9	1.7	9.1

Source: Own elaboration based on official information from tax administrations.

Note: In the United States and Brazil there is no VAT at the federal level. In the latter case, however, the figures corresponding to the state ICMS are considered.

As can be seen in Table 6, and in contrast to what was observed in the IT, the deepest relative drops in cumulative terms occurred with a certain delay in August and September of this year, dragging on very significant losses generated during the second quarter of the year. At the country level, the accumulated declines through December were in Panama (-35.0%), Honduras (-19.5%), Ecuador (-17.3%), Jamaica (-17.2%), Peru (-14.5%) and Argentina (-13.0%). On the other

hand, despite representing a minority in the group of countries analyzed, the relative resilience of this tax in terms of its collection despite the contractionary effects of the pandemic -which also helped to prevent the fall in overall collection from being greater than that recorded- stands out in specific cases such as those of Trinidad and Tobago (+20.4%), Morocco (+7.0% in December), Paraguay (+2.4%) and Mexico (+2.3%)¹³.

¹³ Both in this and in most of the cases surveyed, VAT revenues in the domestic market and those derived from actual imports of goods and services are considered together, which, however, could have been affected in different ways by the consequences of the pandemic.

Table 6. Evolution of cumulative VAT collection (percentage change compared to the same month of the previous year; constant prices; January-December 2020)

Countries	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
Argentina	-2.7	-5.6	-8.7	-12.9	-16.0	-17.0	-17.8	-18.2	-17.3	-16.2	-14.9	-13.0
Bolivia	-11.6	-14.1	-16.0	-31.9	-38.2	-45.0	-42.4					
Brazil	4.7	3.8	3.5	-1.1	-5.7	-6.6	-6.1	-4.9	-3.6	-3.9	-2.6	-2.8
Chile	18.1	8.2	3.7	-2.3	-9.9	-12.7	-12.2	-13.1	-12.4	-9.8	-6.8	-5.3
Colombia	6.8	7.2	4.2	2.2	-6.5	-8.0	-11.5	-12.2	-13.2	-13.3	-12.2	-11.9
Costa Rica	16.3	20.6	19.3	6.6	-2.8	-5.8	-5.6	-6.1	-6.5	-6.8	-6.0	-1.5
Ecuador	6.6	-0.9	-2.6	-11.2	-18.5	-21.6	-23.1	-23.3	-21.4	-20.8	-19.2	-17.3
El Salvador	8.6	6.1	5.6	-1.0	-7.5	-9.8	-11.3	-11.1	-10.0	-9.0	-7.6	-6.2
Spain	-5.9	0.6	3.1	-4.9	-9.1	-11.2	-15.9	-15.0	-14.4	-12.3	-11.9	-11.2
United States												
Guatemala	7.4	6.2	-4.9	-1.8	-6.3	-7.6	-8.8	-9.4	-8.7	-8.7	-8.1	-7.0
Honduras	0.1	-0.1	-3.8	-13.0	-19.1	-21.5	-23.3	-23.3	-22.8	-21.5	-20.9	-19.5
Italy	5.9	1.6	-4.7	-12.2	-17.0	-18.3	-16.9	-15.1	-13.0	-11.7	-10.8	-10.3
Jamaica	2.9	-1.2	0.3	-7.7	-15.1	-16.6	-17.4	-17.4	-17.1	-17.0	-17.4	-17.2
Morocco	22.6	16.4	15.6	9.6	2.9	1.6	1.5	2.8	3.4	3.5	3.9	7.0
Mexico	20.9	15.5	18.3	16.2	4.5	-0.6	-3.7	-1.8	-2.0	-1.1	0.2	2.3
Nicaragua	3.6	4.0	5.9	4.5	-0.1	-2.2	-3.0	-2.3	-1.0	-0.2	0.6	
Panama	-7.1	-9.4	-12.8	-24.9	-33.2	-38.0	-37.1	-38.4	-38.9	-38.3	-37.5	-35.0
Paraguay	9.5	3.5	0.2	-8.3	-5.8	-5.2	-3.5	-2.6	-1.0	-0.2	1.1	2.4
Peru	0.8	-1.0	-4.0	-11.7	-17.2	-20.3	-20.6	-20.2	-19.3	-17.8	-16.4	-14.5
Dominican Republic	4.5	5.0	-4.5	-15.0	-19.1	-18.0	-18.1	-17.0	-16.3	-15.4	-13.7	-12.8
Trinidad & Tobago	1.5	-7.1	-3.8	-5.6	0.3	10.2	11.6	11.2	16.9	16.4	17.0	20.4
Uruguay	6.2	1.6	1.0	-1.4	-4.6	-4.0	-3.1	-3.2	-3.1	-3.0	-2.1	-1.8
Cumulative Average	6.2	3.6	1.5	-4.6	-9.8	-11.1	-11.7	-11.5	-10.6	-9.9	-8.8	-7.8

Source: Prepared by the authors based on official information from the tax administrations.

1.4 Evolution of Excise Taxes collection

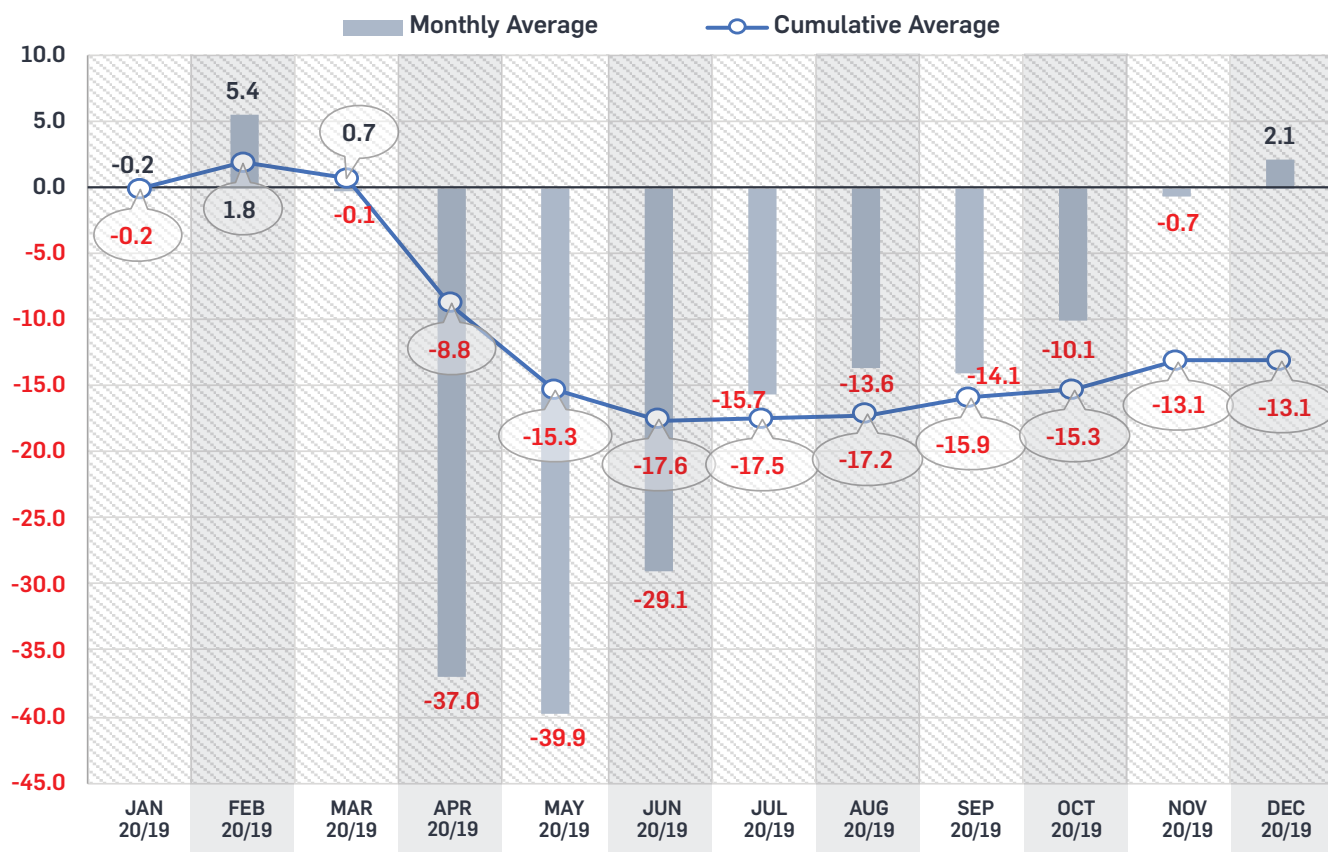
As was pointed out in previous editions of this Report, the initial restrictions on mobility and the suspension of commercial and industrial activities adopted to prevent the spread of the Covid-19 pandemic in the context of the different countries (which, even with a certain gradual relaxation, were also maintained or extended in several cases until September) have been determining factors for the Excise Taxes to register, on average, the largest monthly drops in collections, especially since

September, especially since April (-37.0%) and extending until May (-39.9%) and June (-29.1%). Similar to what has been observed with respect to other main taxes, from July onwards, the monthly collection of Excise Taxes showed a recovery, limiting the average year-on-year decreases but continuing in clear negative territory at least until October 2020 (Graph 4). In November, the average of variations relative to the previous year was around a neutral result (-0.7%), while only in December did this average reach positive values (+2.1%).

Despite a moderation of the reductions observed in the year-on-year collection of these taxes during the second half of the year, in cumulative terms the collection of Excise Taxes is the one that has shown, on average, the deepest declines since May onwards. In fact, the average year-on-year drop in the month of

June was 17.6%, slowly reducing to -13.1% in November and December of last year, above the average decrease evidenced in VAT (-7.8%) and in the average value of global tax revenues (-9.3%) for the last month of 2020.

Graph 4. Evolution of Excise Taxes (in percentage variation with respect to the same month of the previous year; simple averages; constant prices; January to December 2020)



Source: Prepared by the authors based on official information from tax administrations.

Note: The considerations of Graph 1 are applied to calculate the averages of the interannual variations of the monthly and accumulated collection.

At the country level, despite the large gaps observed, which are partly due to different tax structures on specific consumption (fuels, tobacco, beverages, various services, among others), in the last months of the year several countries seem to have reversed the negative trend and the sharp declines experienced during both the second and third quarters. Cases such as Colombia

stand out, with monthly reductions of -67.2% in May and -49.5% in September, but only -0.5% in December. Something similar could be said about Jamaica (-42.9% in September and -1.0% in December) or Trinidad and Tobago (-30.0% and -1.4%, respectively). However, another important portion of the group of countries analyzed showed significant drops in the collection

of Excise Taxes even in the last months of 2020 (for example, Paraguay with a year-on-year decline of -27.0% in December). On the contrary, some countries recorded notable increases in the last months surveyed (Table 7). For example, Argentina has shown sustained growth in the year-on-year collection of Excise Taxes

since June, with a 58.1% jump in July and more limited positive variations in August and September. Both Brazil and Uruguay have shown higher Excise Taxes revenues since August, while this increase was observed only in the last quarter for Chile, El Salvador, Mexico, and Nicaragua.

Table 7. Evolution of monthly Excise Taxes collection (in percentages of variation with respect to the same month of the previous year; constant prices; January to December 2020)

Countries	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
Argentina	-20.8	1.1	-20.4	-40.6	-7.3	6.5	58.1	5.1	5.8	-0.3	-1.1	0.6
Bolivia	10.5	11.1	-4.3	-97.8	-92.3	-96.4	109.3					
Brazil	-7.8	-3.8	-10.9	-27.6	-34.2	-26.8	-11.3	6.3	12.7	14.3	28.1	22.1
Chile	-15.4	3.7	44.7	27.8	-8.8	-4.9	-11.9	-51.9	-22.2	25.5	5.0	40.0
Colombia	-2.9	13.3	-12.2	-63.1	-67.2	-28.7	-56.3	-15.0	-49.5	-22.8	-33.4	-0.5
Costa Rica	11.9	4.4	10.8	-41.3	-51.6	-48.1	-9.4	-28.0	-19.8	-43.1	-16.2	1.4
Ecuador	4.0	-4.6	5.3	-48.9	-58.8	-35.4	-29.6	-20.8	-20.9	-10.5	-5.4	5.8
El Salvador	-4.7	16.7	5.3	-14.8	-18.1	-24.2	-1.8	2.2	-11.9	9.4	4.9	2.3
Spain	4.2	3.5	4.4	-7.1	-45.6	-33.6	-12.2	-10.9	-15.5	-5.6	-9.9	-11.0
United States	-9.2	22.0	-19.4	-95.0	-64.5	-48.6	-21.6	-4.0	115.6	-22.3	-26.3	-25.0
Guatemala	6.2	21.6	-14.7	-29.6	-41.2	-30.0	-11.6	-22.4	-2.2	-6.6	-1.5	14.2
Honduras	1.2	-0.9	1.9	-29.8	-47.0	-32.1	-27.0	-26.8	-20.5	-9.5	-4.2	-14.8
Italy	1.9	2.4	2.8	-52.5	-65.8	-51.7	-37.8	-31.3	-19.7	-14.1	88.9	-14.8
Jamaica	-2.4	13.6	1.8	-43.0	-11.2	-42.3	-1.5	-34.6	-42.9	-10.8	-20.5	-1.0
Morocco	-14.7	30.5	-4.2	-31.4	-12.4	4.4	-12.2	35.8	-8.2	5.2	251.8	-124.3
Mexico	33.1	-19.8	-3.8	-0.3	-25.7	-14.7	-0.7	-15.3	10.3	-7.3	1.4	0.3
Nicaragua	5.3	22.3	10.9	-11.4	-11.8	-13.8	-21.2	-11.3	16.5	2.9	16.1	
Panama	2.6	1.0	-26.9	-77.9	-79.7	-72.3	-44.4	-52.7	-38.0	-36.4	-22.7	27.6
Paraguay	9.4	-6.8	-18.8	-49.4	-20.2	-19.9	-13.1	-21.4	-32.3	-25.9	-19.3	-27.0
Peru	20.7	-1.1	15.1	-51.6	-61.6	-57.1	-24.2	-21.6	-28.5	-21.7	4.9	15.4
Dominican Republic	-9.7	-0.2	-4.5	-51.6	-45.0	-17.6	-7.4	-17.5	-13.7	-10.3	-1.5	-10.8
Trinidad & Tobago	-4.4	-11.6	14.6	-48.4	-54.4	-9.4	-23.5	2.3	-30.0	-12.1	-16.7	-1.4
Uruguay	-12.3	12.3	16.1	-26.6	-45.1	-39.0	-25.0	33.9	33.8	-20.7	15.2	18.3
Monthly Average	-0.2	5.4	-0.1	-37.0	-39.9	-29.1	-15.7	-13.6	-14.1	-10.1	-0.7	2.1

Source: Prepared by the authors based on official information from the tax administrations.

According to Table 8, Panama continues to show the largest decline in cumulative Excise Taxes collection in 2020 (-35.0% as of December), followed by Colombia

(-32.9%), Costa Rica (-21.0%) and Paraguay (-20.3%). In general, all the countries in the sample show declines in their cumulative collection from May to

December; some countries such as Argentina, Brazil, the Dominican Republic and Trinidad and Tobago show declines throughout 2020; In the last quarter, a significant group of countries showed some recovery (even in negative territory) and smaller cumulative

variations, as in the cases of Morocco (+4.4%, the only country in the sample to end the year with a positive Excise Taxes balance), Chile (-1.2%), Argentina (-1.5%), Brazil (-2.9%), El Salvador (-3.0%), Mexico (-3.3%), and Uruguay (-4.8%).

Table 8. Evolution of cumulative Excise Taxes collection (in percentages of variation with respect to the same month of the previous year; constant prices; January to December 2020)

Countries	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
Argentina	-20.8	-9.7	-13.0	-20.3	-18.1	-14.2	-4.4	-3.2	-2.0	-1.9	-1.8	-1.5
Bolivia	10.5	10.7	5.9	-19.1	-32.0	-41.7	-22.4					
Brazil	-7.8	-5.9	-7.6	-12.6	-16.9	-18.5	-17.5	-14.6	-11.5	-8.7	-5.2	-2.9
Chile	-15.4	-7.2	3.2	7.3	4.4	3.4	1.1	-5.8	-7.6	-4.4	-3.8	-1.2
Colombia	-2.9	0.1	-4.8	-11.1	-26.1	-26.3	-32.5	-31.6	-34.6	-34.1	-34.0	-32.9
Costa Rica	11.9	8.0	8.9	-7.0	-16.2	-21.1	-19.9	-21.1	-21.0	-23.7	-23.0	-21.0
Ecuador	4.0	0.2	1.8	-10.3	-20.3	-22.8	-23.8	-23.4	-23.2	-21.9	-20.4	-18.3
El Salvador	-4.7	4.2	4.6	-0.3	-3.7	-7.0	-6.3	-5.2	-5.9	-4.4	-3.5	-3.0
Spain	4.2	3.8	4.0	1.0	-8.5	-12.8	-12.7	-12.5	-12.8	-12.1	-11.9	-11.8
United States	-9.2	4.6	-4.8	-28.3	-36.1	-38.3	-35.6	-31.3	-6.1	-7.4	-9.1	-10.3
Guatemala	6.2	13.0	3.2	-4.9	-12.9	-15.6	-15.1	-16.1	-14.6	-13.7	-12.6	-10.3
Honduras	1.2	0.2	0.7	-7.0	-15.1	-17.8	-19.1	-20.1	-20.1	-19.1	-17.7	-17.5
Italy	1.9	2.2	2.4	-14.1	-25.4	-30.2	-31.4	-31.3	-30.0	-27.9	-18.5	-17.6
Jamaica	-2.4	4.8	3.8	-7.2	-8.0	-15.0	-13.3	-16.2	-19.6	-18.9	-19.0	-17.7
Morocco	-14.7	4.3	1.1	-6.9	-7.7	-5.8	-6.9	-1.3	-2.1	-1.4	21.0	4.4
Mexico	33.1	8.1	4.6	3.6	-2.0	-4.0	-3.5	-5.2	-3.7	-4.1	-3.6	-3.3
Nicaragua	5.3	13.4	12.6	5.8	1.6	-1.1	-4.2	-5.2	-3.0	-2.3	-0.6	
Panama	2.6	1.8	-7.8	-26.1	-36.7	-42.3	-42.6	-43.8	-43.1	-42.3	-40.7	-35.0
Paraguay	9.4	0.2	-5.8	-16.0	-16.8	-17.2	-16.7	-17.3	-19.0	-19.7	-19.6	-20.3
Peru	20.7	10.5	11.9	-3.9	-14.7	-22.4	-22.6	-22.5	-23.2	-23.0	-20.4	-17.4
Dominican Republic	-9.7	-5.4	-5.1	-16.2	-22.5	-21.8	-19.7	-19.4	-18.8	-17.9	-16.5	-15.9
Trinidad & Tobago	-4.4	-8.3	-1.4	-14.9	-23.6	-21.6	-21.9	-19.2	-20.6	-19.8	-19.5	-17.8
Uruguay	-12.3	-2.7	2.9	-4.4	-11.5	-15.8	-17.2	-12.3	-7.5	-9.0	-7.1	-4.8
Cumulative Average	-0.2	1.8	0.7	-8.8	-15.3	-17.6	-17.5	-17.2	-15.9	-15.3	-13.1	-13.1

Source: Prepared by the authors based on official information from the tax administrations.

1.5 Evolution of Other revenue collection

The aggregate chapter corresponding to other revenues is of less analytical importance given its high heterogeneity and residual nature. However, in some administrations its weight is much more relevant than in the average

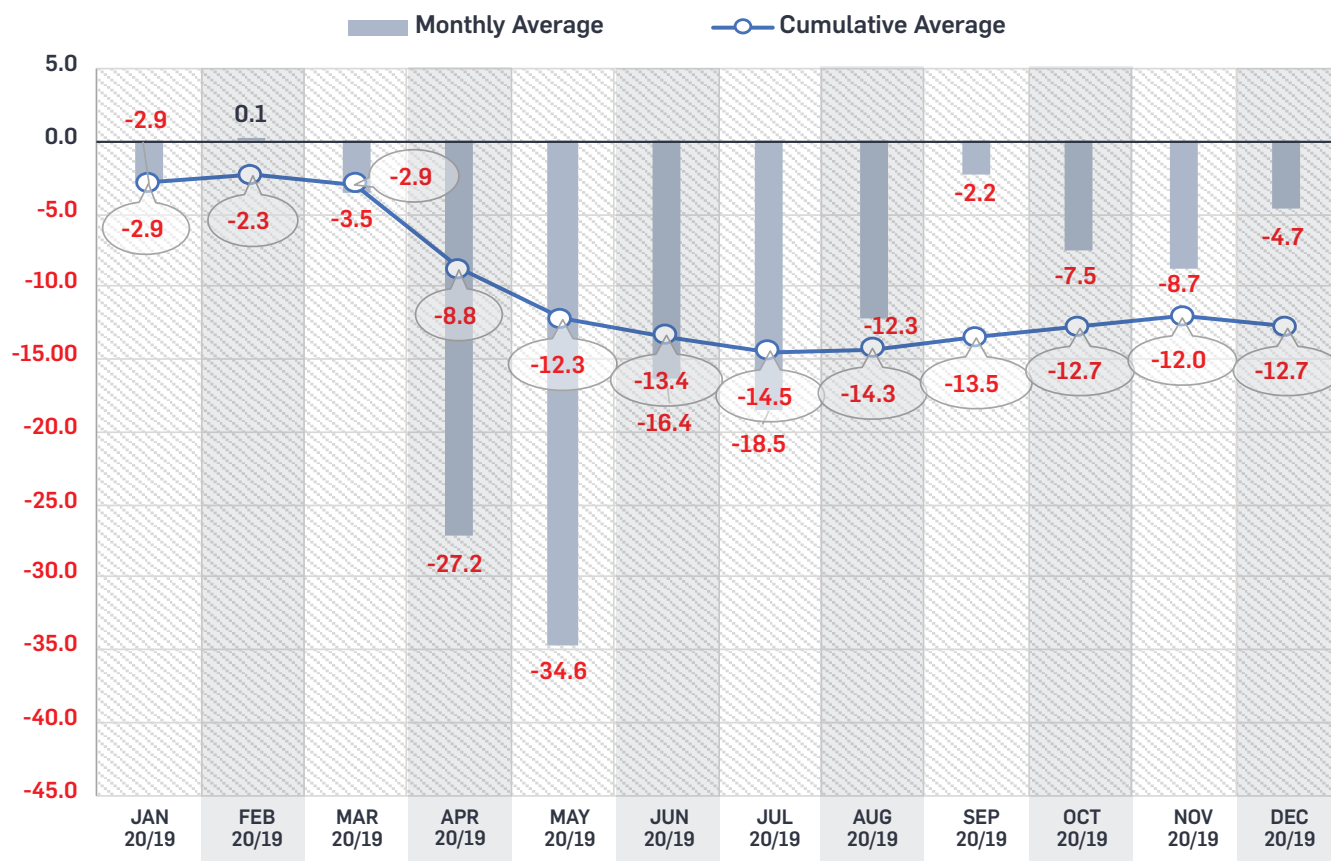
given their extended collection powers -especially those related to social security contributions-, and it can significantly affect the aggregate evolution of revenues. Specifically, in Argentina, the weight of the Other revenues has ranged between 47% and 55% of the total during 2020, in Brazil between 41% and 54% of the total,

and in the United States between 21% and 72%, while in the other countries surveyed the representativeness of this component of the tax structure is generally below 20%¹⁴.

The average monthly evolution of “Other Revenues” is in line with the other taxes previously analyzed, with a maximum drop in May (-34.6%) and more limited year-on-year decreases during the last months, especially in the last quarter: -7.5% in October, -8.7% in November and -4.7% in December, all with respect to the same month of 2019 (Graph 5). If the accumulated variations

throughout the year are analyzed, it is verified that the fall in the collection of Other Revenues, on average and to December (-12.7%), is somewhat higher than that of the overall amount of collection (-9.3%). Up to June, the fall of Other Revenues on average, had been similar to that of the overall amount collected (-13.4% and -13.9%, respectively). However, as in the case of the Excise Taxes, the recovery of the collection contributed by these taxes has been slower and weaker during the second half of the year, which has led to little improvement in relative terms in the effective performance of this remaining set of taxes.

Graph 5. Evolution of collection of Other Revenues (in percentages of variation with respect to the same month of the previous year; simple averages; constant prices; January to December 2020)



Source: Prepared by the authors based on official information from tax administrations.

Note: The considerations of Graph 1 are applied to calculate the averages of the interannual variations of the monthly and accumulated collection.

¹⁴ The percentage structures of monthly tax collection for each country can be consulted at the following link: <https://www.ciat.org/the-revenue-report-covid-19/?lang=en> “Monthly Tax Collection Database (Annexes)”.

By country, except for the exceptional case of Chile, marked declines began to be observed early in March in some cases, such as Panama (-54.8%), with generalized declines in April in Bolivia (-60.3%), Costa Rica (-50.9%), Honduras (-51.9%), Panama (-59.7%), Paraguay (-63.0%) and the Dominican Republic (-74.1%), and in May Guatemala (-74.5%) and El Salvador (-50.4%) joined the list of countries most affected in this group of taxes. Although Morocco and Spain also belonged to this group of affected countries, they have been recovering since August, with increases of 12.1% and 16.2% in September, respectively (Table 9). In turn, this recovery can be seen, among others, in the cases of Argentina, Brazil,

Italy, Mexico and Uruguay, countries that had previously recorded insignificant collection losses. In September, there were 10 countries (out of 22 with available information) that showed positive monthly year-on-year variations in the "Other Revenues" category. However, in the last three months this upturn seems to have lost strength, which is why the relative magnitude of the monthly increases observed in the different countries has been limited, not to mention the maintenance of consecutive monthly declines in some cases such as Colombia (-9.0% in December), Costa Rica (-36.0%), Ecuador (-10.1%), Honduras (-9.8%), Jamaica (-15.7%) and Peru (-10.1%).

Table 9. Evolution of monthly collection of Other Revenues (in percentages of variation with respect to the same month of the previous year; constant prices; January to December 2020)

Countries	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
Argentina	-3.5	-1.0	-1.1	-17.1	-14.3	-7.5	-8.2	1.8	13.4	2.7	-9.0	-11.2
Bolivia	-1.6	7.4	-11.3	-60.3	-56.8	-17.8	1.1					
Brazil	1.7	-3.4	-5.7	-33.9	-38.7	-38.8	-16.3	5.6	-1.0	11.1	9.8	2.4
Chile	-27.4	-89.3	-41.1	16.2	141.6	88.8	-77.1	-49.4	26.3	-1.5	-25.4	-409.3
Colombia	-4.4	6.8	7.5	-34.6	-14.9	-24.7	-18.8	-27.6	-23.0	-17.4	-5.7	-9.0
Costa Rica	-3.6	-7.8	-10.9	-50.9	-54.8	-49.8	-44.9	-30.2	-14.4	-21.6	-31.6	-36.0
Ecuador	-0.3	-7.4	73.1	-35.3	-37.7	-22.8	-10.6	-15.9	-14.6	-13.5	-15.6	-10.1
El Salvador	-14.9	-1.9	-4.3	-23.0	-50.4	13.0	-34.0	-33.4	-24.3	-21.1	-17.5	-9.3
Spain	-3.3	7.8	-32.8	-15.1	-41.5	-17.4	-37.7	16.1	16.1	-23.3	0.9	-10.8
United States	4.8	4.9	4.2	7.2	3.9	3.0	5.5	6.0	12.8	6.7	9.5	11.7
Guatemala	1.3	20.7	-4.5	-5.6	-74.5	-49.4	-26.7	-9.8	61.8	16.1	-7.2	17.4
Honduras	-2.4	0.3	-23.3	-51.9	-51.3	-20.5	-37.0	-27.1	-25.1	-17.1	-26.3	-9.8
Italy	7.8	71.8	7.0	2.4	-31.5	-21.7	-5.6	26.9	3.9	18.8	-8.1	6.1
Jamaica	-4.0	-5.3	2.1	-33.0	-41.2	-26.1	-31.5	-24.7	-26.7	-21.0	-21.5	-15.7
Morocco	5.9	9.6	17.0	-36.9	-50.0	-22.4	-7.5	3.4	12.1	-10.5	114.7	-36.8
Mexico	-5.1	1.1	41.1	-0.4	21.4	-25.0	-1.8	8.0	9.0	-2.9	4.1	0.3
Nicaragua	24.8	31.9	13.1	3.5	-19.8	-1.1	-12.8	-7.6	7.2	6.3	-0.8	
Panama	12.1	0.4	-54.8	-59.7	-48.0	-40.6	67.2	-28.2	-10.9	-17.7	-27.8	10.9
Paraguay	-42.9	-17.1	-22.9	-63.0	-35.3	-19.5	-40.2	-31.8	-17.6	-29.6	10.0	12.0
Peru	7.7	-4.3	-14.5	-40.5	-31.1	-30.5	-13.0	-9.7	-11.3	-10.8	-6.8	-10.1
Dominican Republic	-6.4	-6.3	-24.6	-74.1	-65.1	-33.2	-18.9	-20.5	-10.2	-15.8	-11.1	4.4
Trinidad & Tobago	-5.1	-4.6	4.5	-28.9	-41.4	-19.2	-35.6	-14.9	-35.2	4.7	-0.0	5.5
Uruguay	-6.5	-3.9	-5.3	-23.8	-11.5	4.8	-2.4	-6.9	2.8	-6.9	-2.7	-5.1
Monthly Average	-2.9	0.1	-3.5	-27.2	-34.6	-16.4	-18.5	-12.3	-2.2	-7.5	-8.7	-4.7

Source: Prepared by the authors based on official information from the tax administrations.

Also at the individual country level, Costa Rica is the country with the largest accumulated drop for the year (-30.0%), followed by Paraguay (-26.4%), Honduras (-25.2%) and the Dominican Republic (-23.6%). On the other hand, Italy (2.2%), Morocco (0.6%), Mexico (3.3%) and Nicaragua (3.3% up to November) are the only cases where year-on-year increases in the accumulated collection of this heterogeneous set of

taxes ("Other revenue") were recorded. Finally, in those countries where the relative weight of these taxes is more relevant, more moderate decreases (Argentina -4.7%, Brazil -8.4%) or even relative increases in the case of the United States (+6.6%) were observed up to December 2020, which has allowed them to cushion, in part, the important collection losses registered in the IT and the Excise taxes throughout the year (Table 10).

Table 10. Evolution of accumulated collection of Other Revenues (in percentages of variation with respect to the same month of the previous year; constant prices; January to December 2020)

Countries	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
Argentina	-3.5	-2.3	-2.0	-5.6	-7.3	-7.4	-7.5	-6.3	-4.3	-3.6	-4.1	-4.7
Bolivia	-1.6	2.4	-1.7	-18.7	-26.7	-25.5	-22.1					
Brazil	1.7	-0.6	-2.1	-9.6	-15.0	-18.6	-18.3	-15.4	-13.9	-11.4	-9.5	-8.4
Chile	-27.4	-69.1	-53.4	-26.0	-4.5	1.1	-6.9	-11.2	-9.4	-8.9	-11.1	-21.7
Colombia	-4.4	0.8	3.0	-6.8	-8.7	-11.3	-12.4	-14.4	-16.2	-16.4	-15.5	-14.9
Costa Rica	-3.6	-5.3	-6.7	-15.1	-21.6	-25.7	-28.2	-28.4	-27.2	-26.7	-27.3	-30.0
Ecuador	-0.3	-3.7	21.9	7.9	-0.7	-4.4	-5.3	-6.5	-7.4	-8.0	-8.7	-8.8
El Salvador	-14.9	-9.0	-7.6	-14.6	-19.8	-15.8	-17.9	-19.5	-19.9	-20.0	-19.8	-19.1
Spain	-3.3	2.4	-10.1	-12.0	-18.3	-18.1	-21.1	-18.1	-14.3	-15.2	-13.8	-13.6
United States	4.8	4.8	4.6	5.4	5.1	4.7	4.8	4.9	5.8	5.9	6.2	6.6
Guatemala	1.3	3.2	2.7	-1.0	-6.1	-8.8	-15.1	-14.9	-13.1	-6.8	-6.8	-5.7
Honduras	-2.4	-1.1	-8.6	-22.3	-28.0	-26.9	-28.2	-28.1	-27.8	-26.7	-26.6	-25.2
Italy	7.8	41.0	29.1	20.3	8.7	0.9	-1.0	1.7	1.9	3.1	1.4	2.2
Jamaica	-4.0	-4.6	-2.4	-9.9	-15.9	-17.5	-19.5	-20.1	-20.8	-20.8	-20.9	-20.5
Morocco	5.9	7.2	11.0	3.3	-4.7	-7.0	-7.1	-6.1	-4.6	-5.2	3.7	0.6
Mexico	-5.1	-2.2	11.7	8.6	11.1	3.9	3.1	3.7	4.3	3.6	3.6	3.3
Nicaragua	24.8	28.3	23.0	18.1	10.2	8.2	4.7	3.0	3.5	3.8	3.3	
Panama	12.1	5.9	-26.3	-34.0	-36.1	-36.7	-26.4	-26.6	-25.3	-24.6	-24.9	-21.6
Paraguay	-42.9	-32.2	-28.3	-36.3	-36.1	-33.8	-34.8	-34.4	-32.9	-32.6	-28.7	-26.4
Peru	7.7	1.5	-3.7	-17.1	-20.1	-21.9	-20.6	-19.2	-18.3	-17.5	-16.4	-15.8
Dominican Republic	-6.4	-6.4	-12.9	-29.3	-36.3	-35.9	-33.5	-32.0	-29.6	-27.9	-26.3	-23.6
Trinidad & Tobago	-5.1	-4.9	-1.9	-8.9	-15.9	-16.5	-20.2	-19.5	-21.7	-18.6	-16.6	-14.9
Uruguay	-6.5	-5.2	-5.2	-9.5	-10.1	-7.5	-6.8	-6.8	-5.7	-5.9	-5.6	-5.6
Cumulative Average	-2.9	-2.3	-2.9	-8.8	-12.3	-13.4	-14.5	-14.3	-13.5	-12.7	-12.0	-12.7

Source: Prepared by the authors based on official information from the tax administrations.

2. EVOLUTION OF ECONOMIC ACTIVITY (MOBILITY OF PEOPLE) IN THE DIFFERENT COUNTRIES

More than a year after the World Health Organization (WHO) began to characterize the COVID-19 situation as a global pandemic, the succession of facts, events, consequences, and policy responses has shown a frenetic, erratic, and uncertain pace in most countries of the planet. In general, although with differences in criteria, governments have been forced to implement various measures to control and restrict economic activity and the mobility of people in all its forms, which has had a very negative impact on tax collection. In order to contrast its effects, we have resorted to the mobility data collected and disseminated by Google, which also allow us to anticipate to a certain extent the revenue prospects for the following months.

On the one hand, Figure 6 shows what has happened, on average, with the movement of people over the last year in four different categories. After the deep drop in these indicators during the months of March and, especially, April 2020, a growing trend in mobility has been observed, which could indicate a gradual recovery of economic activity in the countries under analysis, even

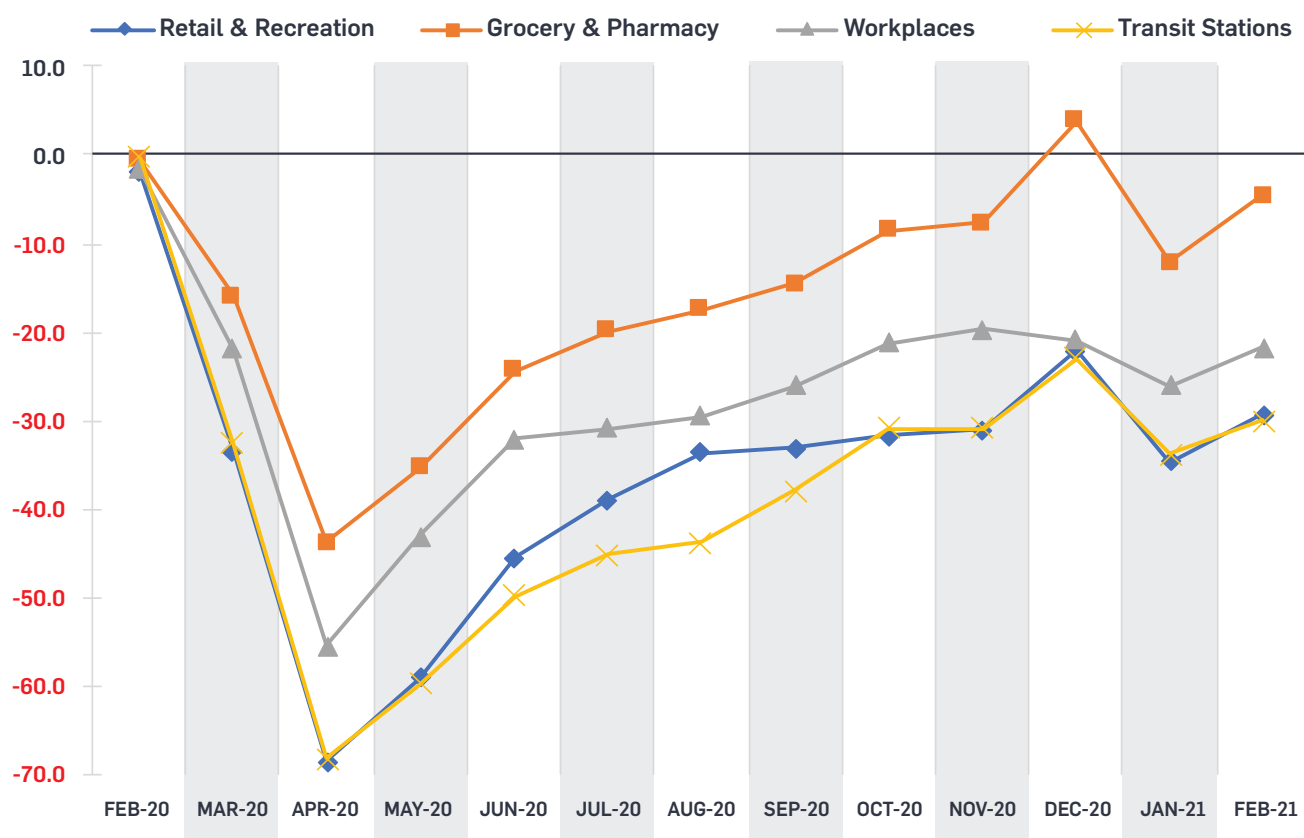
though the movement of people is still limited compared to the massive movements prior to the pandemic. However, those movements related to supermarkets and pharmacies, which in April reflected a reduction of 43.6%, have shown a gradual improvement, decreasing to -7.7% (average) in November. In December, this indicator shows a jump, probably linked to a higher commercial activity at the end of last year, moving into positive territory with respect to the values of January 2020 (+3.8%), to then retract again in January of this year (-12.1%) with a slight improvement in February (-4.6%).

It is followed in order of importance by the movement of people to their places of work, where a recovery is also observed from the collapse in April (-55.5%) to June (-32.1%) and, somewhat more slowly, to November (-19.7%). Unlike the mobility more related to commercial and social activity, this labor market indicator deteriorated again in December and January (due to the recesses for holidays and vacation periods), reaching a value of -21.7% in February of this year, with respect to the pre-pandemic values.

15 According to the speech made on March 11, 2020 by the Director of WHO (Dr. T.A. Ghebreyesus).

16 The data used show the rate of change in the number of visitors to the categorized sites (or the time spent there) compared to a "reference day", which represents a normal value on that day of the week and is calculated as the average value for the five-week period from January 3 to February 6, 2020. This paper considers the monthly average of the daily data for each of the countries analyzed.

Graph 6. Variations in the mobility of persons (monthly average by category for all countries analyzed, in percentages)



Source: Own elaboration based on Google LLC "Google COVID-19 Community Mobility Reports." <https://www.google.com/covid19/mobility/> (Accessed: March 1, 2021).

On the other hand, as could already be seen in the previous RRC, movements in stores and places of leisure, as well as movements through transportation stations, were the most affected by the effect of the pandemic, with a drop of almost -70% in April. Although until May, when the beginning of a gradual recovery was noted, both categories presented practically the same movements, from June onwards there was a greater movement of people on public roads with the purpose of shopping in stores and visiting places related to leisure, while transport stations, on average, showed more dynamism from August onwards. Since October, the movements linked to both reference sites again show the same trend, showing values similar to those observed during March

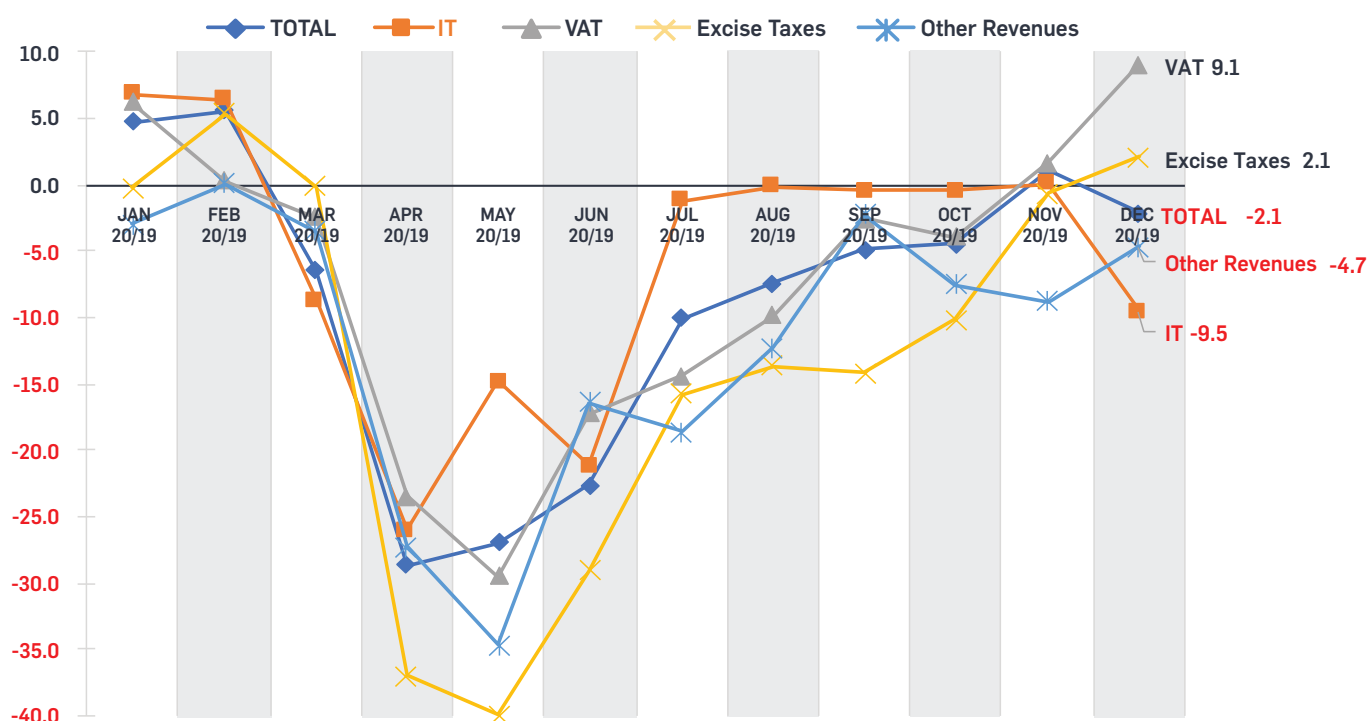
at around -30%, with a clear upturn at the end of the year followed by a relatively higher decline in January (to values close to -35%) and a slight improvement in February 2021 which, nevertheless, keeps them as the most affected sectors in terms of people mobility for the average of the countries under analysis.

As can be seen in the previous section referring to the behavior of tax revenues, the monthly data of average monthly collection by type of tax up to December 2020 (Graph 7) show the continuation of a slow recovery of the levels observed as of June, after the deep falls observed in April and May, as mentioned in the previous RRC. This general improvement in tax collection, although

observed in all its main components, has been especially supported by the evolution of income taxes (IT), which, as of July, began to show positive variations, offsetting much more relevant drops (although somewhat lower than those recorded in previous months) in taxes more closely linked to economic activity, such as VAT or, particularly, Excise Taxes. These last two elements, typical of the tax structures of most of the countries

analyzed, as developed in greater detail in the previous section, showed a strong recovery in the month of November, allowing overall revenues to reach a positive year-on-year variation (+1.1%) for the first time since February 2020, falling slightly again in the last month of the year (-2.1%) but evidencing a clear strengthening, on average, of the main tax revenue bases.

Graph 7. Average evolution of monthly revenues by type of tax (year-on-year changes; constant prices; in percentages)



Source: Prepared by the authors based on official information from the tax administrations (RRC database).

From the weighting of the behavior observed in tax collection and in people's mobility indicators (as a proxy variable for the level of economic activity), a clear correlation between both variables can be deduced (Graph 8) -even with a slight time lag due to the collection

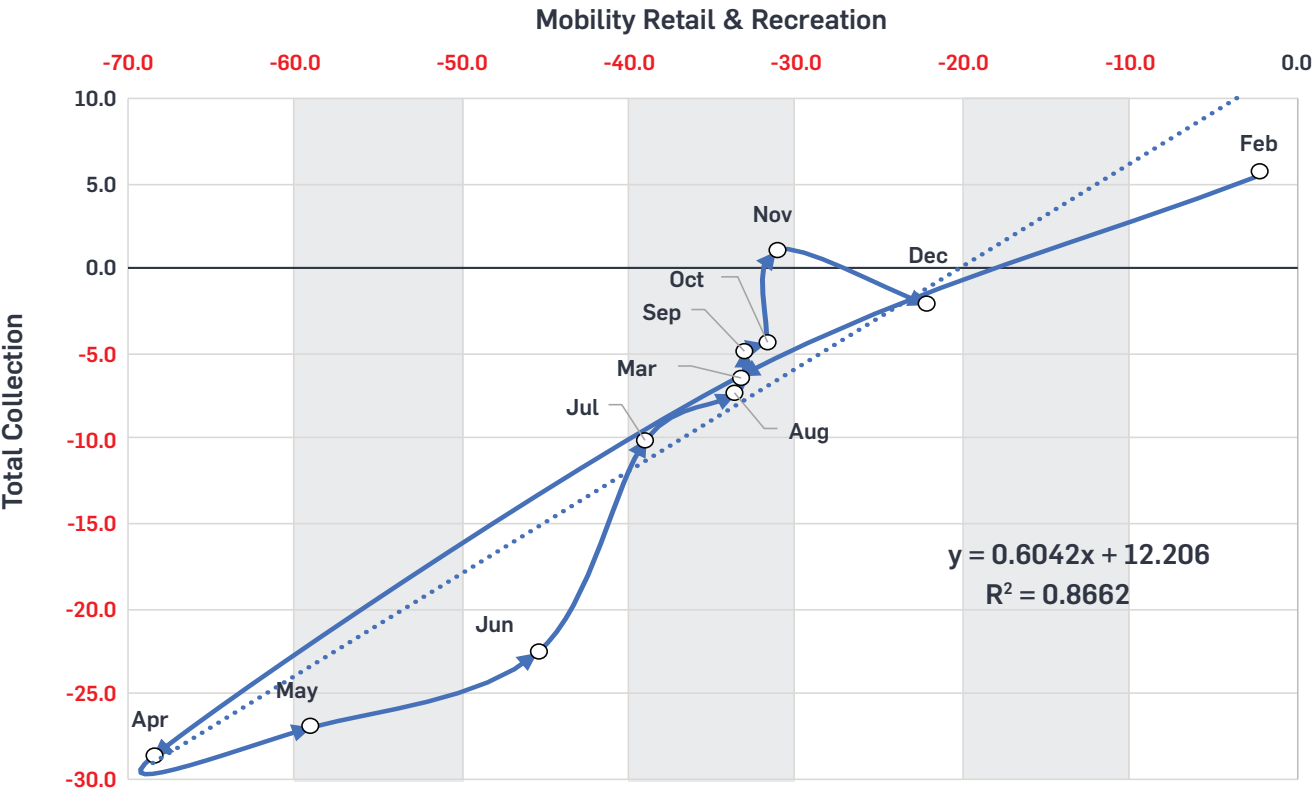
mechanics- which would allow anticipating, to some extent, the evolution of collection in the following months. After the sharp drop in the average monthly collection and in mobility in stores and places of leisure between February and April, there has been a gradual and gradual

improvement in the levels of the second variable and a notable rebound in the first variable in the month of July which, despite a slowdown in August, consolidated in the following months until November (when the variations of total collection returned, on average, to the field of positive figures, followed by a slight decline at the close of the year.

Therefore, following the trends shown in Graphs 6 and 7, it would be possible to take advantage of the data available so far to infer the expected direction of overall

tax collection levels in the coming months, according to the mobility of individuals in various dimensions, which will also depend on the effect of the tax relief measures still in place in several of the countries analyzed. For this purpose, a simple linear regression model is proposed between both variables (Graph 8), which achieves a high level of fit ($R^2=0.8662$; 87%), with an estimated parameter for variations in travel (Retail and Recreation) of 0.60 (60% of the variations in mobility would have a direct impact on variations in total revenue).

Graph 8. Average monthly changes in total revenue and people’s mobility in Retail and Recreation (monthly average; in percentages; February to December 2020)

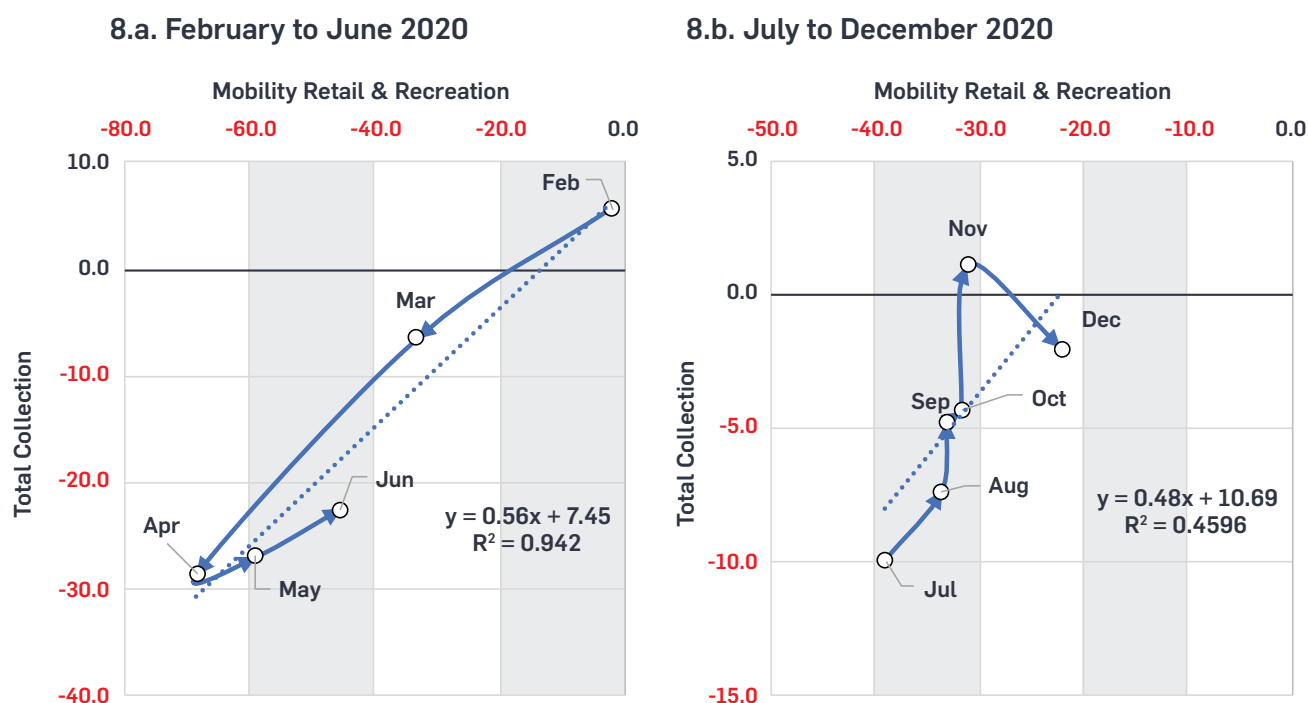


Source: Own elaboration based on Google LLC “Google COVID-19 Community Mobility Reports”. <https://www.google.com/covid19/mobility/> (Accessed: March 1, 2021) and RRC Database (CIAT).

However, observation of the evolution of the points in the scatter plot suggests that this relationship, although it adequately summarizes what happened during the year, has not remained stable throughout the year. Thus, up to June (Graph 8.a, left) the explanatory capacity of variations in mobility was extraordinarily high (the R^2

of the linear regression reaches a value of 0.94), while from the middle to the end of the year (Graph 8.b, right) the relationship between variations in mobility and total revenue becomes somewhat more diffuse (R^2 of 0.46 and parameter of the explanatory variable “mobility” of 0.48)¹⁷.

Graphs 8.a y 8.b. Average monthly changes in total revenue and people's mobility in Retail and Recreation (monthly average; in percentages; February-June and July-December 2020)



Source: Own elaboration based on Google LLC “Google COVID-19 Community Mobility Reports”. <https://www.google.com/covid19/mobility/> (Accessed: March 1, 2021) and RRC Database (CIAT).

¹⁷ In addition, it should be considered that in this second part of the year the averages have been calculated without including the outliers of some countries that distorted their value; without these corrections, the adjustment between mobility and tax collection becomes even weaker (R^2 of 0.25 and estimated parameter for mobility of 0.23).

To deepen the analysis of this relationship by period and by income category, instead of limiting the analysis to the regression of averages, we will resort to estimating the relationships using panel data, maximizing the usefulness of the information contained for a group of 21 countries selected¹⁸ over eleven months, resulting in a set of 210 observations for the revenue and mobility

variables (in the "stores and leisure" dimension). Table 11 and Graph 9 summarize the results of the estimations for total revenue and each of the revenue categories (IT, VAT, Excise Taxes and Other Revenues), carried out for the whole year, for the first semester (February to June -1-), and for the second semester (July to December -2-).

Table 11. Mobility (Retail and Recreation) and Collections. Panel data estimation results

REVENUE	MOBILITY PARAMETER	SIGNIFICANCE LEVEL	R ²
TOTAL	0.48	***	0.34
TOTAL1	0.46	***	0.60
TOTAL2	0.28	**	0.27
IT	0.44	***	0.13
IT1	0.41	***	0.40
IT2	0.01	NO	0.17
VAT	0.49	***	0.58
VAT1	0.44	***	0.56
VAT2	0.66	***	0.68
Excise Taxes	0.65	***	0.28
Excise Taxes1	0.65	***	0.58
Excise Taxes2	0.35	NO	0.16
Other Revenues	0.34	*	0.13
Other Revenues1	0.38	*	0.33
Other Revenues2	-0.25	NO	0.25

Source: Own elaboration based on Google LLC "Google COVID-19 Community Mobility Reports". <https://www.google.com/covid19/mobility/> (Accessed: March 1, 2021) and RRC Database (CIAT).

Note 1: Panel data estimation with Gretl (21 countries; 11 months; divided into two periods for partial estimations 1: February-June; 2: July-December); fixed effects and robust estimation of standard errors (with respect to heteroscedasticity and autocorrelation). The estimation is considered conditional on the selection of countries used (not random sample). It considers heterogeneity between countries (different constant or intercept).

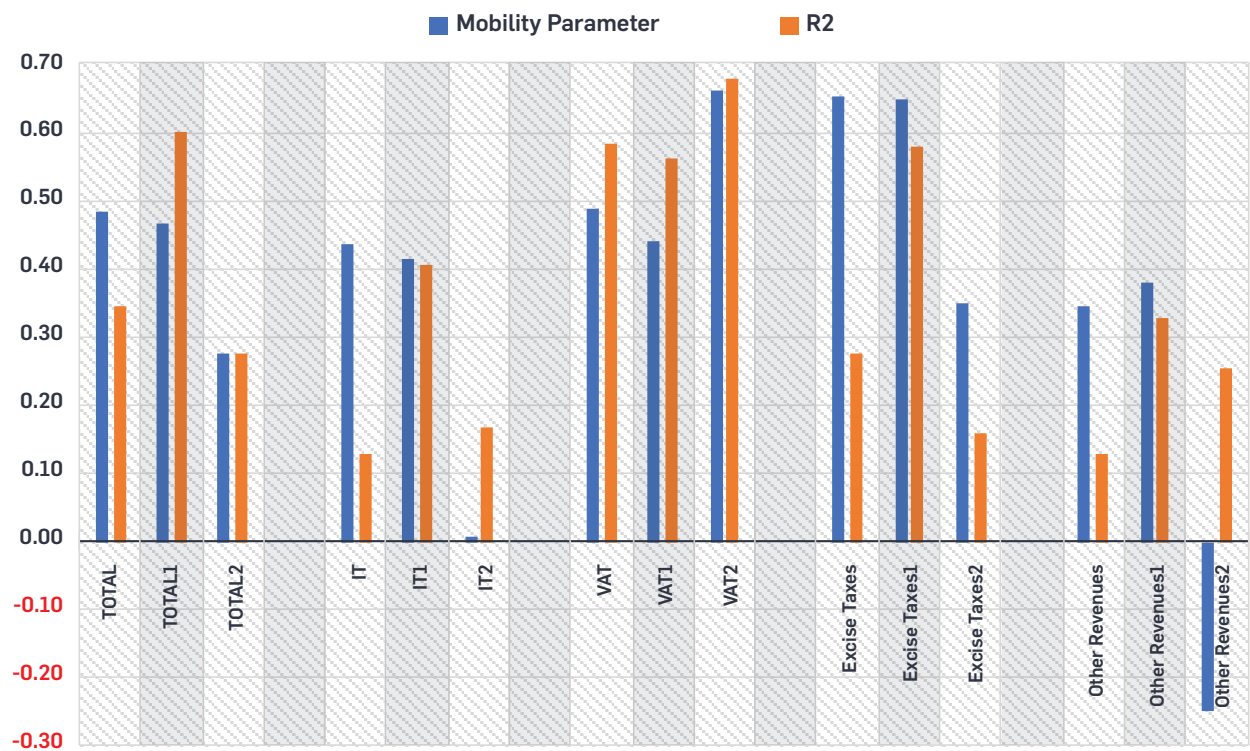
Note 2: Significance levels (*** $p < 0.001$ or 999 per thousand; ** $p < 0.01$ or 99 percent; * $p < 0.05$ or 95%).

18 Of the total number of countries with data in the RRC database, Bolivia and Nicaragua were not considered due to insufficient information to have a complete monthly panel up to December.

For the complete year, the estimated parameters for the explanatory variable (mobility) are significant in all cases, reaching a value of 0.48 for total tax collection, with a maximum value for Excise Taxes of 0.65, followed by VAT (0.49), and income taxes (0.44). However, except for VAT, the explanatory quality of the model (expressed in the R^2) is very low. When estimations are made distinguishing two time periods (1 and 2), it is observed that in the first

half of the year the impact of the restrictions on mobility was clearly transferred to revenue (the R^2 coefficients exceed 0.5 in the estimates for Total, VAT and Excise Taxes), with estimated parameters that place the impact at up to 65% for Excise Taxes and between 40% and 50% in the other cases (with the logical exception of Other revenues, with a residual composition in most cases and clearly heterogeneous between countries).

Graph 9. Mobility (Retail and Recreation) and Collections. Panel data estimation results



Source: Own elaboration based on Google LLC “Google COVID-19 Community Mobility Reports”. <https://www.google.com/covid19/mobility/> (Accessed: March 1, 2021) and RRC Database (CIAT).

In the second period, a change in the situation can be observed. Probably due to the combination of different factors (reversal of tax payment deferral measures -especially in the case of income tax-; progressive adaptation of consumer and producer behavior; growth of digital economic activity at a distance; etc.), the relationship between collection and mobility restrictions weakens in income and excise taxes (with estimated parameters not significantly different from zero and reduced levels of adjustment $-R^2$ -).

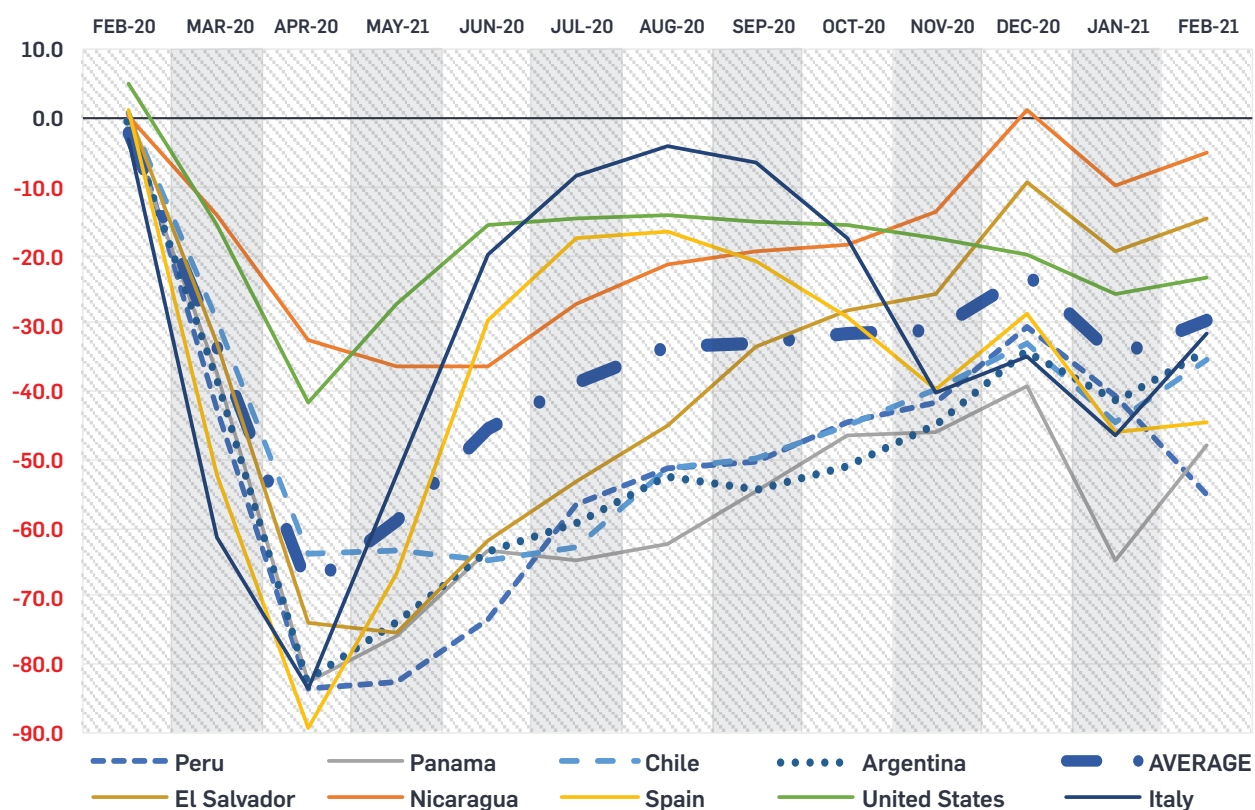
In any case, it should be noted that in the case of VAT the relationship remains clear and even strengthens (adjustment of 56% in the first period and 68% in the second; 44% of the variations in mobility were transferred to revenue -estimated parameter- in the first half of the year, and up to 66% in the second period). Given the importance of VAT in the tax structure of most countries, especially in the LAC region, these data would allow projecting for the near future an evolution of collection still linked to the trajectory of the pandemic and to the limitations of mobility associated with its containment, although less clearly than in the first half of 2020 in terms of total collection due to the temporary impacts of taxpayer relief measures, especially in income taxes.

Beyond the analysis of general trends, as in the case of the collection of the main taxes, a more detailed analysis of the evolution of mobility in the countries analyzed reveals the different trajectories adopted in this regard, which

respond mainly to the different strategies of national and subnational governments to deal with the COVID-19 pandemic. To exemplify the above, although in all cases the largest relative drops were observed in the month of April (Graph 10), in terms of visits to stores and leisure activities, the countries of the northern hemisphere have shown a more rapid recovery in mobility, with Spain and Italy standing out, which recovered around 60 percentage points between April and June and continued, at a slower pace, to return to mobility levels closer to those recorded in February 2020.

However, the emergence of a "second wave" of mass contagions in these countries, and in Europe in general, has caused the new measures of compulsive confinement to lead to a reduction in the levels of mobility more closely linked to commercial and social entertainment activities (Retail and Recreation). This declining trend is accentuated in October and November, which raises further questions about the speed of future recovery of tax collection, at least in those countries. In the case of the United States, the rapid rebound in this dimension of personal mobility after April has been halted from July to November and is still at levels that are approximately 15% below those recorded at the beginning of the year. In December there was an increase in mobility, possibly linked to the Festivities at the end of the year, although this improvement suffered a clear retraction in January, which was only slightly lessened in February of the current year in the three cases mentioned above.

Graph 10. Changes in mobility in selected countries - Retail and Recreation (monthly average; in percentages; February 2020 to February 2021)



Source: Own elaboration based on Google LLC "Google COVID-19 Community Mobility Reports." <https://www.google.com/covid19/mobility/> (Accessed: March 1, 2021).

The general average of the countries analyzed in this paper, notwithstanding what was observed in the northern hemisphere, shows a slow recovery trend from the minimum values of April. However, within Latin America there are also different evolutions with respect to this approximate indicator of the level of commercial activity. It is possible to find cases such as Nicaragua, which is the country where mobility suffered the smallest reductions throughout last year, or El Salvador, which, having experienced one of the largest drops in mobility in April and May 2020, shows a sustained recovery in the following months. This rebound in mobility in the commercial area (Retail and Recreation) is also observed in countries such as Argentina and Chile, although at a slower rate of growth. In clear contrast, the cases of Panama and Peru appear, which experienced the

largest declines in this indicator in the second quarter of last year and, although with a slight recovery in the following months, experienced a sharp decrease in mobility levels during the first two months of this year due to the reestablishment of restrictive measures and confinement to prevent the resurgence of COVID-19 infections.

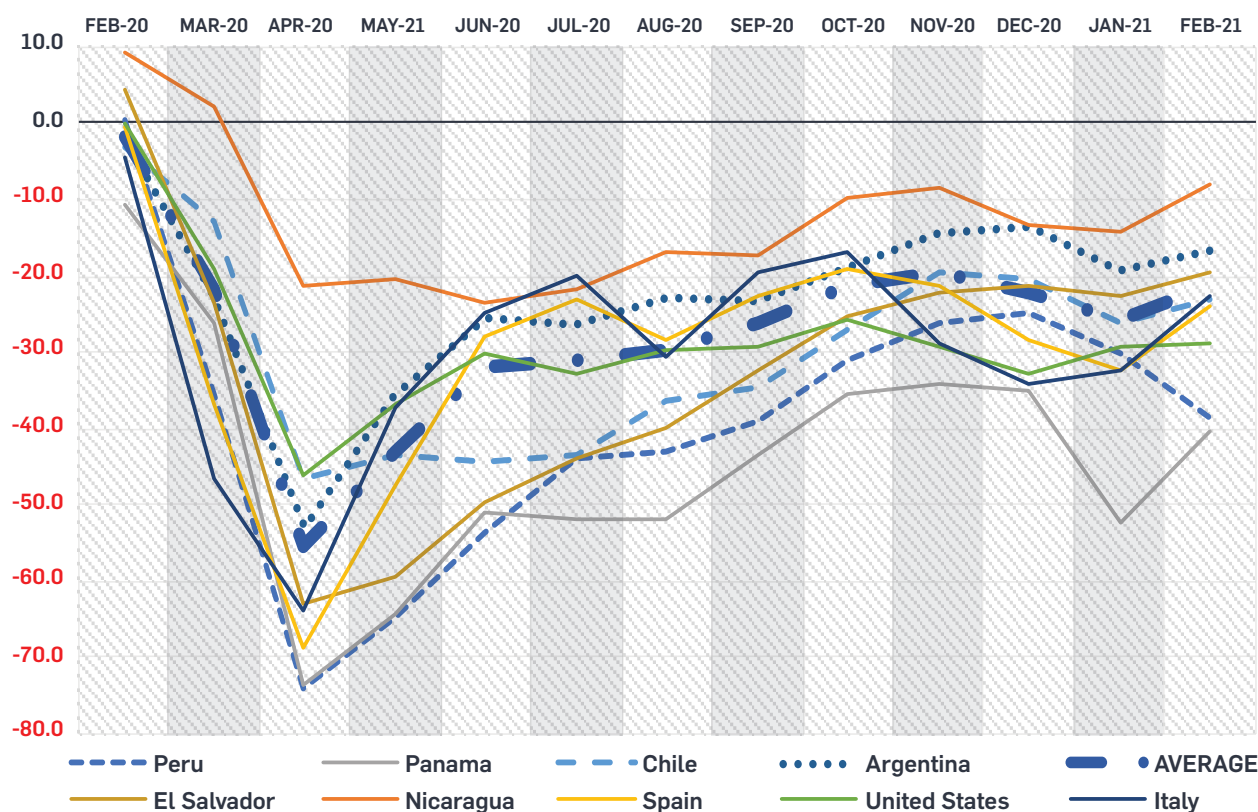
Although the statistics collected on the mobility of people in its different dimensions maintain some general patterns, a detailed analysis can provide some useful conclusions. For example, the evolution of mobility in Workplaces (Graph 11) shows some coincidences with what was observed in the commercial sector (Retail and Recreation) such as the deep drop in the month of April and the subsequent recovery in the following months.

However, there are also very evident differences: Nicaragua, as mentioned, appears as the country with smaller reductions in mobility indicators, even without recovering the levels observed before 2020; Argentina and El Salvador also showed to be, in the last months and thanks to a strong recovery from the minimums recorded in April 2020, of the Latin American countries with smaller cumulative decreases in commuting to workplaces with respect to pre-pandemic references.

Then there are cases with more oscillations and ups and downs, such as those of Italy and Spain, where retractions are perceived in August and at the end of

the year due to vacation periods, holiday breaks and new measures of forced confinement. At the other extreme, we can mention Peru and Panama which, having shown much deeper falls in April last year and after a gradual recovery in the following months, experienced a deterioration in mobility to workplaces during the first two months of 2021. These setbacks have gone against the general trend, in which a reduction in the gaps between countries and a gradual normalization of the observed levels are perceived, allowing us to maintain hope about the recovery of economic variables and, in particular, of tax collection for the coming months.

Graph 11. Changes in Mobility in Selected Countries - Workplaces (monthly average; in percentages; February 2020 to February 2021)



Source: Own elaboration based on Google LLC "Google COVID-19 Community Mobility Reports." <https://www.google.com/covid19/mobility/> (Accessed: March 1, 2021).

3. REGIONAL OVERVIEW BY GROUPS OF SELECTED COUNTRIES

As it can be seen, the large amount of information collected, organized, and systematized for a wide range of CIAT member countries makes it possible to identify certain general trends such as those presented in the previous sections, both in terms of tax revenues and indicators of personal mobility (used as a proxy variable for effective levels of economic activity). However, as is usually the case and has been highlighted above, within the averages calculated there is a high degree of heterogeneity and variety of cases.

One option for observing these particularities is to carry out an analysis by selected countries, as presented in previous versions of the RRC. Another very useful alternative is the one adopted in this section of this Report, which seeks to group all the countries for which official information is available according to generally accepted geographic-economic criteria. This complementary approach to the data contained in the RRC Database aims to visualize and identify similarities and/or differences at the regional level in the recent evolution of variables related to tax collection and population mobility, thus enhancing the potential variants of the information collected so far.

For this purpose, based on available statistical information, the following country groupings are considered:

- **Mercosur + Mexico:** Argentina, Brazil, Paraguay, Uruguay, and Mexico¹⁹.
- **Andean countries²⁰ + Chile:** Chile, Ecuador, Colombia, and Peru.
- **Caribbean:** Jamaica and Trinidad & Tobago.
- **Central America + Dom. Rep.:** Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama, and Dominican Republic.
- **Others:** United States, Spain, Italy, and Morocco.
- **Latin America and the Caribbean:** Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Trinidad & Tobago, and Uruguay.

Taking the criteria for grouping the countries surveyed, the analysis focuses first on the evolution of total, monthly and accumulated tax revenues, according to the averages calculated for each of the groups formed (Table 12). In this way, it can be seen how the tax revenues of countries that share certain characteristics have been affected by the COVID-19 pandemic and the extraordinary measures of confinement and social isolation that all of them, with different scopes, were forced to adopt in response to this tragic and uncertain context.

19 Although Mexico's geographic location could be grouped with Central American countries, its macroeconomic and tax characteristics make it more comparable to the Mercosur countries, mainly Argentina and Brazil.

20 Bolivia would also be included in this group, although to maintain consistency with the averages calculated in the first section of the Report, it has been decided to exclude it to avoid biases in the average values given the extraordinary variations observed in its collection throughout the period for which official information is available.

Table 12. Evolution of total collection by country group (in percentages with respect to the same month of the previous year; constant prices; January to December 2020)

Monthly Percentage Changes

Regions or country groups	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
MERCOSUR + Mexico	2.5	-1.7	2.6	-25.8	-23.7	-10.4	-6.9	2.6	5.6	2.3	6.9	15.1
ANDEANS + Chile	8.1	-0.8	-2.5	-34.5	-26.4	-28.6	-17.8	-18.6	-6.0	-5.1	-0.6	2.6
CENTRAL AMERICA + Dom. Rep.	5.5	16.1	-19.5	-26.7	-33.2	-31.3	-7.6	-12.6	-9.1	-6.7	0.3	-9.4
THE CARIBBEAN	-1.0	-3.8	-11.0	-16.3	-13.6	-15.6	-11.5	-10.8	-22.3	-4.7	-4.7	-9.5
OTHERS	6.4	8.6	6.3	-32.0	-23.9	-16.2	26.3	4.9	5.1	-6.6	33.1	-11.1
LATIN AMERICA AND THE CARIBBEAN	4.5	5.0	-9.2	-27.9	-27.6	-24.0	-10.7	-10.1	-7.0	-3.9	1.1	0.1

Cumulative Percentage Changes

Regions or country groups	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
MERCOSUR + Mexico	2.5	0.6	1.2	-6.4	-9.9	-10.0	-9.5	-8.2	-6.6	-5.7	-4.5	-3.2
ANDEANS + Chile	8.1	4.1	1.9	-10.6	-13.0	-15.3	-15.6	-16.0	-15.0	-14.1	-12.9	-11.7
CENTRAL AMERICA + Dom. Rep.	5.5	10.5	-2.1	-9.5	-13.7	-17.3	-16.3	-15.9	-15.2	-14.3	-13.2	-14.4
THE CARIBBEAN	-1.0	-2.1	-6.8	-8.8	-9.8	-10.9	-10.9	-11.0	-13.2	-12.6	-12.3	-12.0
OTHERS	6.4	7.1	6.7	-5.9	-9.2	-10.0	-5.7	-4.3	-3.4	-3.8	-1.0	-2.3
LATIN AMERICA AND THE CARIBBEAN	4.5	4.8	-1.2	-9.3	-12.6	-14.7	-14.3	-13.8	-13.3	-12.4	-11.3	-10.9

Source: Prepared by the authors based on official information from the tax administrations.

As for the monthly inter-annual variations for the year 2020, clear differences are observed from March onwards, where the Andean countries (plus Chile), the Caribbean countries and, especially, the Central American countries (plus the Dominican Republic) are the most affected in their total collections by the contractionary effects of the pandemic. In particular, the Andean countries show the largest monthly drop for the month of April (-34.5%) and then begin an oscillating recovery until reaching positive territory in the month of December (+2.6%). The Caribbean countries (at least those surveyed in the RRC Database) show much more limited average drops, being equal to -16.3% in April and with a slower and weaker recovery, maintaining an average variation of -9.5% in the last month of last year. On the other hand, the average calculated for Central America shows deeper and more prolonged falls during the March-June period (-33.2% in May), with a significant rebound in July (-7.6%) and a relapse in August and September, before turning to a practically neutral result (0.3%) in December and a subsequent decrease in December (-9.4%). As was to

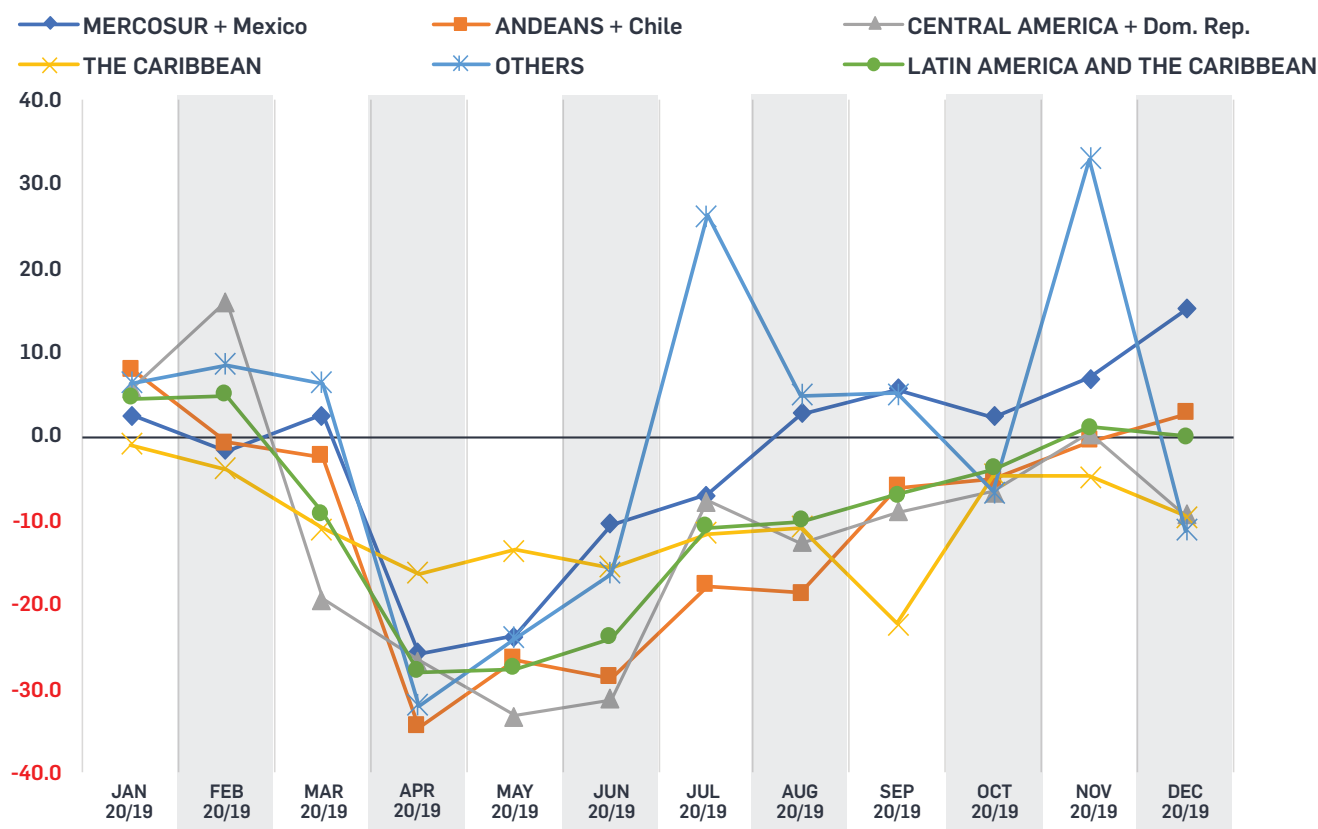
be expected, these developments have had a concrete influence on the average variations for the Latin American and Caribbean (LAC) group, with significant monthly reductions of more than -20% during the second quarter. However, from July onwards, an upturn in overall revenue collection at the regional level began to become evident, ending with a neutral result in the last month of 2020 (Graph 12).

Beyond the global scope of the harmful consequences of the COVID-19 pandemic, the evolution of the three groups mentioned in the previous paragraph contrasts notably with that corresponding to the Mercosur countries (including Mexico) and Others (all of them in the northern hemisphere), whose total average revenue has been more resilient to the impacts of the pandemic (remaining in positive territory up to and including March), with more vigorous and sustained recoveries as of May and June and turning to positive year-on-year variations as of August of the current year. It should be clarified that in "Others" the strong rebound in July, as

explained in the first section of the Report, is related to the extraordinary result of the United States due to the postponed tax revenue associated to the IT. There was also a jump in the series in November, explained by an extraordinary result in Morocco²¹. During the second half of the year, the “Mercosur + Mexico” group also

exhibited growing year-on-year increases, reaching an average of 15.1% in December, which caused the average calculated for the LAC region to consolidate its gradual improvement in the last quarter.

Graph 12. Evolution of monthly total collection by country group (year-on-year changes; constant prices; in percentages; January-December 2020)



Source: Prepared by the authors based on official information from the tax administrations.

In terms of cumulative collections during the year 2020, the analysis by country groups allows us to disaggregate the general average calculated in the first section of

the Report and to confirm the different intensity of the impacts of the pandemic according to the countries considered. In principle, despite the uneven recovery

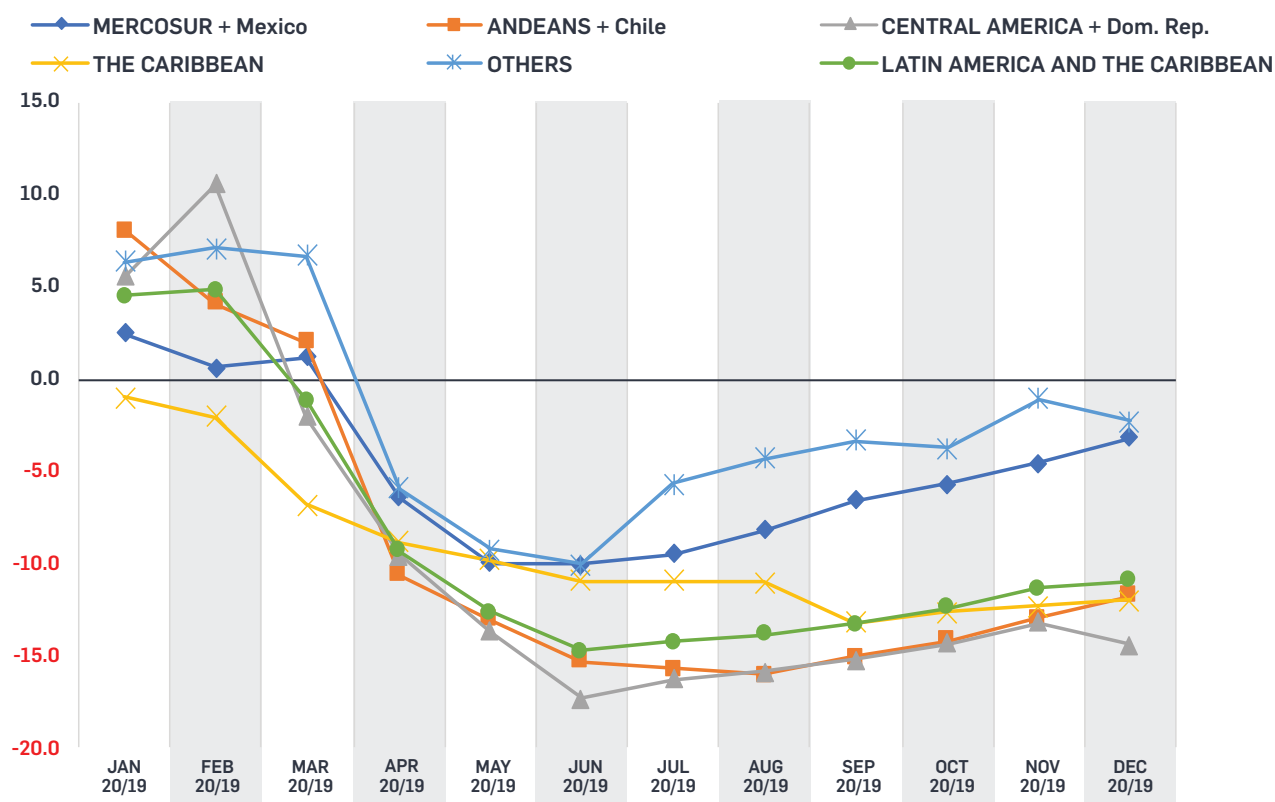
21 Unlike the averages calculated in the first section of the Report, the values presented for the regions consider all available figures and do not exclude those extraordinary variations that could generate jumps in the resulting series. The clearest case, as far as total collections are concerned, is that of “Others” where, if the figures for the United States (July) and Morocco (November) were excluded, a smoother trend would be perceived throughout the periods under analysis.

observed during the last few months in some countries, all groups remain in negative territory at the end of the year (Graph 13).

However, even though all of them had a strong impact on the total collection last April, the evolution in the following months is very different in terms of the levels and trends that can be identified. It is feasible to note a weak but concrete gradual recovery²² in the Mercosur and Other groups, especially from July onwards. For these two groups of countries, the cumulative drops in overall collections never fell more than -10% with respect to the

same periods of the previous year. On the other hand, for the Andean and Central American countries - including those belonging to the Caribbean - which are, on average, those that fell the most in the month of April, the rebound in revenue collection has been much more tenuous, showing greater difficulty in recovering the levels recorded before the pandemic (for the first quarter they showed positive year-on-year variations). These sharp reductions dragged down the average calculated for the LAC region, which in December recorded a cumulative drop of 10.9% in overall revenue collection, still below the cumulative decline shown up to April (-9,3%).

Graph 13. Evolution of cumulative total collection by country group (year-on-year changes; constant prices; in percentages, January-December 2020)



Source: Prepared by the authors based on official information from the tax administrations.

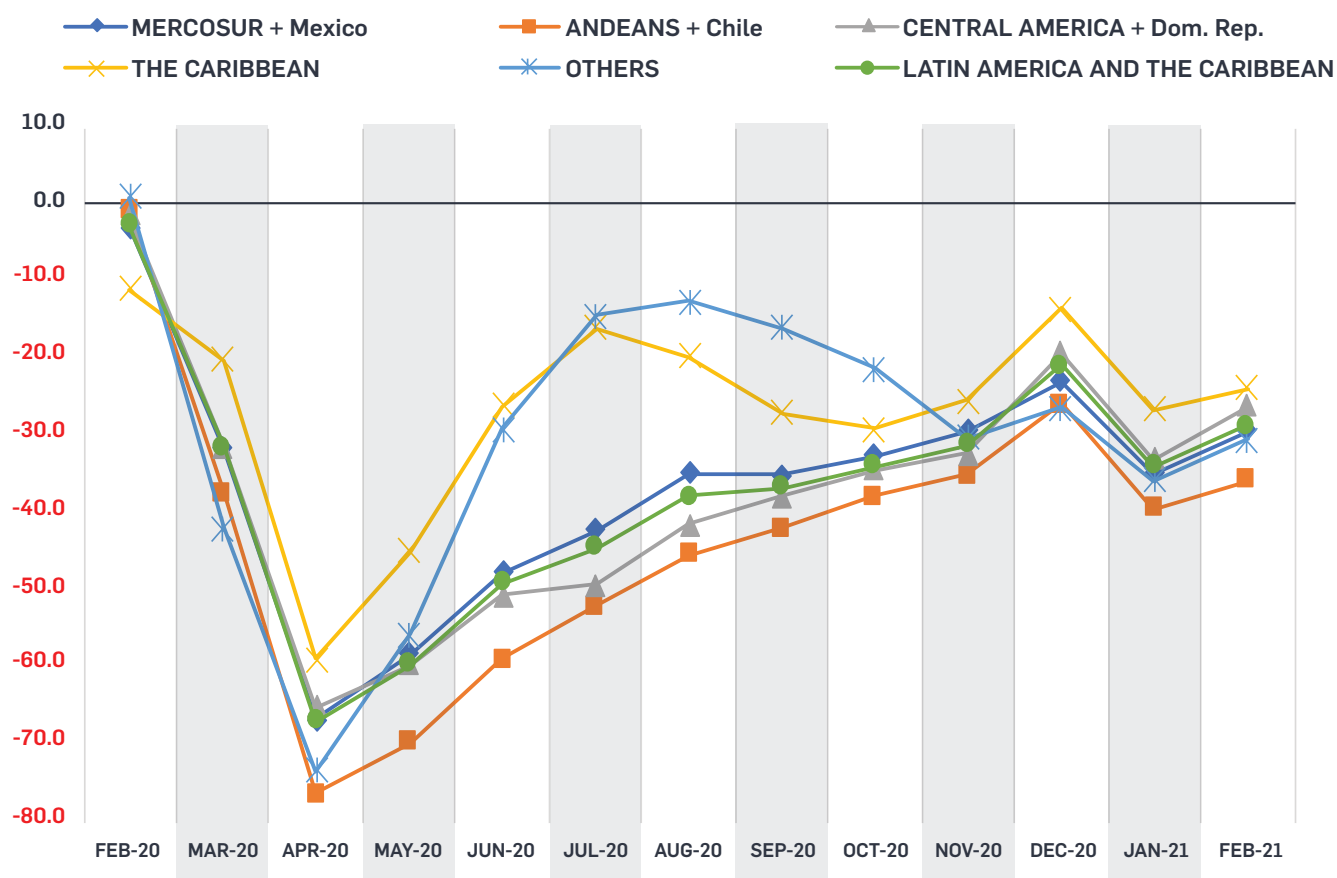
22 In fact, throughout the Report we speak of recoveries when the relative declines in a given month are reduced with respect to previous periods, even when this means remaining in negative territory in most of the cases.

Regarding the mobility of people, it is also feasible to identify similarities and differences in the temporal evolution of these indicators for the different groups of countries considered. For example, regarding trips to retail stores and places of recreation, all country groups show a deep drop in the months of March and April of this year (the “Andean + Chile” group fell 76.4% in that last month), after which they all began a gradual recovery, at least until the month of July (Graph 14). It should be noted that the speed of recovery was considerably greater in the Others group (with countries in the Northern Hemisphere) and in the Caribbean, being slower and more gradual in the groups corresponding to the Latin American countries (Mercosur + Mexico, Andean + Chile and Central American + Dominican Republic).

From August to November, there was a convergence in the year-on-year changes in mobility in Shops and Leisure, determined by (i) a gradual improvement for the Andean and Central American countries, (ii) a stabilization of the

levels, in negative territory around -30%, for the Mercosur countries and Mexico, and (iii) a retraction of mobility in the group of Others and the Caribbean, despite having been the fastest recovering in terms of mobility since the minimum values recorded in the month of April. This last result is influenced by the notable setbacks in the European countries (Spain and Italy) included in “Others” in the face of the emergence of a “second wave” of mass infections and the consequent restrictions on mobility imposed to prevent the undesirable spread of COVID-19 throughout their respective national territories. In the month of December, due to increased commercial activity during the Festivities, there was a unanimous increase in this indicator in all the groups of countries analyzed, followed by a further decline in the movement of people to these points of reference during January and a return to November levels during February. Accordingly, the resulting average for the LAC countries is within these margins, following the trends indicated and slightly below the Mercosur group and the Caribbean countries.

Graph 14. Average changes in mobility by country group - Retail and Recreation (monthly average; percentage change rates, February 2020 to February 2021)



Source: Own elaboration based on Google LLC "Google COVID-19 Community Mobility Reports." <https://www.google.com/covid19/mobility/> (Accessed: March 1, 2021).

Something similar can be noted with respect to the relative year-on-year changes in mobility to workplaces when weighted by the selected groups of countries (Graph 15). All of them experience the aforementioned sharp drop in March (except the Caribbean²³) and April (between -48.4% and -65.3% with respect to the beginning of the year), followed by a generalized rebound in relative mobility levels during May and June. Although at a slower pace and always remaining in negative territory, for all

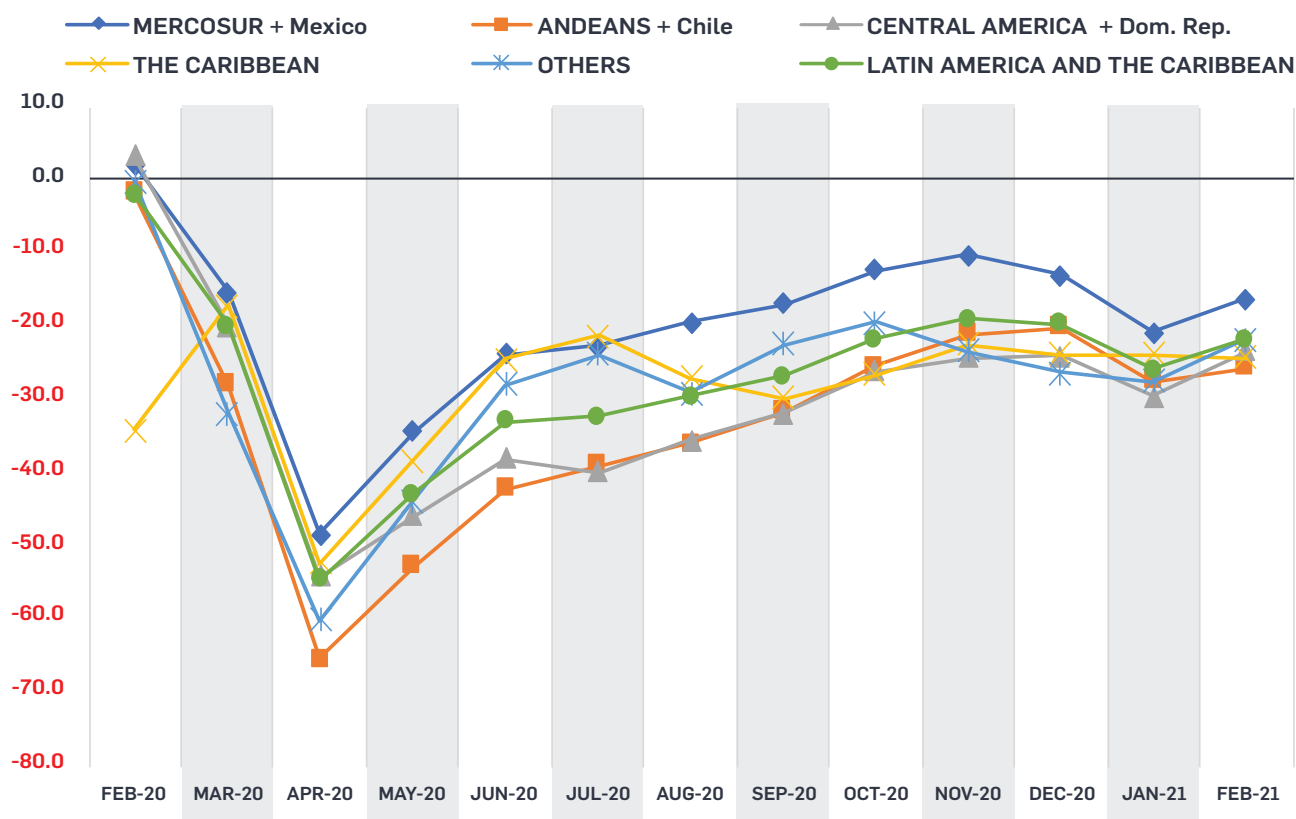
groups of countries (including the LAC regional average) there was a slow but sustained recovery trend for this indicator in the months up to November. Unlike what was observed with respect to mobility in Stores and Leisure, the Mercosur + Mexico group shows a recovery of the indicator for Workplaces that even exceeds that of the countries of the northern hemisphere (Others) and the Caribbean. Thereafter, there is a decrease in commuting to work since December and especially in January due

23 The "Caribbean" group shows a singular reduction in mobility (very significant in the Workplaces) during the month of February which may be linked to the effects derived from the earthquake that affected Jamaica on January 28, 2020.

to holiday breaks in most of the countries, even though there had already been an intensification of work from

home modalities that had reduced these levels compared to the beginning of 2020.

Graph 15. Average changes in mobility by country group - Workplaces (monthly average; percentage change rates, February 2020 to February 2021)



Source: Own elaboration based on Google LLC "Google COVID-19 Community Mobility Reports." <https://www.google.com/covid19/mobility/> (Accessed: March 1, 2021).

Just as certain trends and regularities can be verified at the level of groups of countries in terms of total tax revenues and selected indicators of personal mobility, the analysis can be extended to the different categories of main taxes identified in the tax structures of the countries surveyed. For example, in the case of income tax, it is confirmed that all groups of countries

experienced a strong negative impact on the average collection of this tax during the second quarter of the year (Table 13). Then, in the second half of the year, monthly percentage variations began to move into positive territory for the Mercosur countries and Mexico, Central America and the Dominican Republic, and the "Others" group, where the strong recovery is led by the United

States and Morocco. In the first case, the year-on-year growth of income tax collection from August onwards stands out, with a sharp jump in December (47.6%). The Andean countries, including Chile and in simple average, only show a slight recovery in September and more limited variations towards the end of the year, and the Caribbean countries chain a continuous series of year-on-year reductions from March until the last month with available information. For the average of LAC countries, these disparate evolutions of the different groups of countries determine an approximately neutral monthly income tax collection result for the third quarter of the year, after the deep relative drops observed especially in April (-23.4%) and June (-22.9%), and an encouraging rebound during the last quarter with three consecutive monthly increases (+4.6% in December).

In sum, and despite recent upturns in some of the groups and countries, the average cumulative variations for the income tax result in declines of varying magnitude up to December 2020 for all the groups analyzed, within a range of -1.3% for the "Others" group and -12.6% for the Caribbean countries. The greater relative weight and number of countries with strong accumulated reductions in the income tax makes the average for the LAC region reach -9.3% in the last month of the year, even recovering some ground from the -15.5% it showed last June. Nevertheless, observing what happened with other taxes, the income tax appears in the recent evolution as the main stabilizing instrument for tax collection in the different countries and groups considered, cushioning to some extent the drastic impacts derived from the COVID-19 pandemic.

Table 13. Average changes in income tax collection by country group (in percentages compared to the same month of the previous year; constant prices; January to December 2020)

Monthly Percentage Changes

Regions or country groups	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
MERCOSUR + Mexico	-1.7	0.9	5.0	-29.8	-23.4	-2.8	-7.8	9.8	8.1	8.4	10.2	47.6
ANDEANS + Chile	11.8	4.1	-5.4	-37.0	-2.2	-28.5	-9.4	-15.0	8.9	-5.3	-3.6	5.4
CENTRAL AMERICA + Dom. Rep.	12.3	34.9	-27.1	-15.2	-15.5	-33.6	10.4	3.3	-6.7	2.1	28.1	-18.8
THE CARIBBEAN	-0.6	1.1	-14.0	-5.8	-3.2	-16.3	-10.6	-12.8	-23.9	-0.4	-5.2	-15.4
OTHERS	7.4	9.2	9.6	-37.9	-20.2	-13.3	59.3	6.1	8.5	-10.8	58.2	-15.0
LATIN AMERICA AND THE CARIBBEAN	6.8	14.9	-12.7	-23.4	-13.6	-22.9	-2.0	-1.4	-2.4	1.9	12.1	4.6

Cumulative Percentage Changes

Regions or country groups	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
MERCOSUR + Mexico	-1.7	-1.0	0.7	-10.2	-13.7	-12.2	-11.3	-9.9	-7.5	-6.2	-4.7	-2.6
ANDEANS + Chile	11.8	8.2	3.3	-16.2	-14.1	-16.1	-15.2	-15.2	-13.1	-12.4	-11.7	-10.4
CENTRAL AMERICA + Dom. Rep.	12.3	22.4	-3.7	-10.4	-11.4	-17.7	-15.1	-13.7	-13.2	-12.0	-10.1	-10.7
THE CARIBBEAN	-0.6	0.6	-8.9	-8.1	-7.6	-9.6	-9.6	-9.8	-13.0	-12.4	-12.3	-12.6
OTHERS	7.4	7.7	8.7	-9.7	-11.4	-10.9	-2.5	-1.1	-0.2	-1.8	1.3	-1.3
LATIN AMERICA AND THE CARIBBEAN	6.8	10.4	-2.0	-11.8	-12.6	-15.5	-14.0	-13.1	-12.3	-11.2	-9.9	-9.3

Source: Prepared by the authors based on official information from the tax administrations.

As for VAT, the average evolution of its collection according to the selected groups of countries shows some particular characteristics. For example, when the effects of the pandemic and mobility restrictions first began to show, VAT was the tax whose collection proved to be the most resilient, within a context of sharp generalized declines, especially in April and May. The following months saw a prolongation of these impacts, resulting in negative figures for all groups up to August. However, the latter part of the year saw a reversal of this trend. The Mercosur + Mexico group stood out, showing a neutral result in September and October, and ending the year with an average increase of 10.4% in December. Positive balances were also observed in the Caribbean countries and in "Others". The sharp consecutive declines experienced since March by the Andean and Central American countries -with average drops of over 35% with respect to the previous year- have been sharply

reduced in the last quarter, reaching slight year-on-year increases, on average, during the month of December (3.4% and 4.5%, respectively). In line with these trends, the average variations in VAT collection in LAC countries have been negative since February, with a maximum relative drop of -29.9% in May and a moderation of these collection losses during the third quarter of the year until they turned into slight consecutive upturns in November (2.1%) and December (8.4%). Given these behaviors throughout 2020, it is not surprising that the average accumulated variations for all the groups of countries analyzed (except for the Caribbean only in December), and even for the LAC region (-7.8% at the end of the year), have remained in negative territory since last April, within a range that goes from -2.6% in Mercosur + Mexico to -11.7% in Central America and -12.2% in the Andean countries (Table 14).

Table 14. Average changes in VAT collection by country group (in percentages compared to the same month of the previous year; constant prices; January-December 2020)

Monthly Percentage Changes

Regions or country groups	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
MERCOSUR + Mexico	7.7	-0.7	1.0	-15.4	-20.1	-12.5	-7.3	-0.7	0.5	0.0	8.8	10.4
ANDEANS + Chile	8.1	-2.1	-6.3	-26.6	-39.1	-31.6	-22.8	-20.6	-10.5	-5.4	4.6	3.4
CENTRAL AMERICA + Dom. Rep.	4.8	4.5	-7.7	-28.3	-37.5	-25.9	-18.5	-15.7	-11.0	-8.7	-3.8	4.5
THE CARIBBEAN	1.5	-7.8	3.2	-14.2	-6.3	23.5	-1.5	-3.0	17.7	-1.4	0.7	17.9
OTHERS	5.6	2.7	3.8	-17.2	-20.4	-15.5	-9.9	-0.2	2.6	1.1	-0.5	8.1
LATIN AMERICA AND THE CARIBBEAN	6.0	-0.2	-3.6	-23.5	-29.9	-16.7	-14.6	-11.4	-3.5	-4.8	2.1	8.4

Cumulative Percentage Changes

Regions or country groups	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
MERCOSUR + Mexico	7.7	3.8	2.9	-1.5	-5.5	-6.7	-6.9	-6.1	-5.4	-4.9	-3.7	-2.6
ANDEANS + Chile	8.1	3.3	0.3	-5.8	-13.0	-15.6	-16.9	-17.2	-16.6	-15.4	-13.6	-12.2
CENTRAL AMERICA + Dom. Rep.	4.8	4.6	0.7	-6.4	-12.6	-14.7	-15.3	-15.4	-14.9	-14.3	-13.3	-11.7
THE CARIBBEAN	1.5	-2.8	-1.2	-4.4	-5.0	-2.1	-1.9	-2.1	-0.1	-0.2	-0.1	1.1
OTHERS	5.6	4.7	3.5	-1.9	-5.8	-7.0	-7.8	-6.8	-6.0	-5.1	-4.7	-3.6
LATIN AMERICA AND THE CARIBBEAN	6.0	3.1	1.0	-4.9	-10.1	-11.4	-11.9	-11.8	-11.0	-10.4	-9.2	-7.8

Source: Prepared by the authors based on official information from the tax administrations.

As was mentioned in the case of IT, the average inter-annual variations in the collection of Excise taxes by groups of countries reflect the unequal intensity and depth of the negative impacts of the economic crisis associated with the COVID-19 pandemic. Table 15 shows that this group of taxes has been, in relative terms, the hardest hit in terms of collection performance in all cases, with deep reductions during the second quarter of the year. For the LAC region, the average year-on-year falls in April (-34.9%) and May (-38.3%) stand out. From July and August onwards, the variations observed in each group began to show some divergence: on the one hand, the average relative drops remained at a high level or increased (Andean, Central American, and Caribbean) while, on the other hand, there was a substantial improvement in the collection of these taxes in the groups of Mercosur + Mexico and Others (again with a very important incidence of the United States). Towards the end of the year, a somewhat more generalized

recovery could be observed, especially in December for the Andean and Central American countries (15.2% and 2.8%, respectively), which contributed to the first average year-on-year increase (5.1%) for the LAC region since March 2020.

Beyond the above, the falls in the accumulated collection of Excise Taxes for the groups analyzed are, on average, the deepest and most prolonged in time, being located at the end of last year within a range of -6.6% for Mercosur (plus Mexico) and -17.5% for the Andean countries (plus Chile). At the regional level (LAC), in line with the evolution of VAT, the accumulated variations show, on average, a certain stagnation in negative territory during most of the second half of the year (ending with -13.4% in December), which highlights the fragility and narrowness of the recovery observed so far, especially in taxation linked to consumption and production, so severely affected by the COVID-19 pandemic.

Table 15. Average changes in Excise Taxes collection by country group (in percentages compared to the same month of the previous year; constant prices; January to December 2020)

Monthly Percentage Changes

Regions or country groups	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
MERCOSUR + Mexico	0.3	-3.4	-7.6	-28.9	-26.5	-18.8	1.6	1.7	6.0	-8.0	4.9	2.9
ANDEANS + Chile	1.6	2.8	13.2	-34.0	-49.1	-31.5	-30.5	-27.3	-30.3	-7.4	-7.2	15.2
CENTRAL AMERICA + Dom. Rep.	1.8	9.3	-2.4	-36.6	-42.1	-34.0	-17.5	-22.4	-12.8	-13.4	-3.6	2.8
THE CARIBBEAN	-2.3	0.7	5.5	-30.5	-21.9	-17.3	-8.3	-10.8	-24.3	-7.6	-12.4	-0.8
OTHERS	-4.5	14.6	-4.1	-46.5	-47.1	-32.4	-21.0	-2.6	18.1	-9.2	76.1	-43.8
LATIN AMERICA AND THE CARIBBEAN	0.8	3.4	0.8	-34.9	-38.3	-28.3	-14.5	-16.1	-14.1	-10.3	-3.7	5.1

Cumulative Percentage Changes

Regions or country groups	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
MERCOSUR + Mexico	0.3	-2.0	-3.8	-9.9	-13.1	-14.0	-11.9	-10.5	-8.7	-8.7	-7.5	-6.6
ANDEANS + Chile	1.6	0.9	3.0	-4.5	-14.2	-17.0	-19.5	-20.9	-22.2	-20.9	-19.7	-17.5
CENTRAL AMERICA + Dom. Rep.	1.8	5.0	2.4	-8.0	-15.1	-18.1	-18.1	-18.7	-18.1	-17.6	-16.4	-14.7
THE CARIBBEAN	-2.3	-1.2	0.8	-7.4	-10.5	-12.2	-11.7	-11.8	-13.4	-12.9	-12.8	-11.8
OTHERS	-4.5	3.7	0.7	-12.0	-19.4	-21.8	-21.7	-19.1	-12.8	-12.2	-4.6	-8.9
LATIN AMERICA AND THE CARIBBEAN	0.8	1.4	0.7	-8.1	-14.4	-16.7	-16.6	-16.8	-16.6	-16.0	-14.9	-13.4

Source: Prepared by the authors based on official information from the tax administrations.

Finally, Table 16 shows the evolution of the year-on-year, monthly and cumulative variations of the collection linked to Other Revenues, on average for each of the groups of countries analyzed. In line with what was observed with the Excise Taxes, after the deep drops in collection during the second quarter, the different reactions of each group of countries during the rest of last year are confirmed. On the one hand, a slight recovery of the resources associated with Other Revenues is identified in the average of the Mercosur countries + Mexico and in the "Others" group, although both end with falls in December (-0.3% and -7.4%, respectively). On the other hand, the rest of the groups considered show successive relative reductions since April (in "Central America + Dom. Rep." since March inclusive) with a slight moderation of these setbacks during the last months, although always in clearly negative figures. A similar trend is shown by the average calculated for LAC countries, with maximum year-on-year declines of -33.7% in April and -35.8% in May, which gradually narrowed to -7.1% in September and

-3.7% in December, with no positive monthly balances during the entire year 2020.

In cumulative terms up to December, even with some particular upturns, all groups of countries continue to show year-on-year declines with respect to the same periods of the previous year, with no clear trend of improvement in the collection results of "Other Revenues" in the most recent months. The figures observed in the Andean countries (-13.2%) and Central American countries (-17.9%) stand out, although it is recognized that this set of taxes is not as significant in several of the particular cases that make up these groups. Additionally, the accumulated average for the region (LAC) has been -14.2% in the last month of the year, making this component of tax collection the most affected, in relative terms, by the economic crisis associated with the pandemic.

Table 16. Average changes in collection of Other Revenues by country group (in percentages compared to the same month of the previous year; constant prices; January to December 2020)

Monthly Percentage Changes												
Regions or country groups	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
MERCOSUR + Mexico	-11.2	-4.9	1.2	-27.7	-15.7	-17.2	-13.8	-4.7	1.3	-5.1	2.5	-0.3
ANDEANS + Chile	1.0	-1.6	22.0	-36.8	-27.9	-26.0	-14.1	-17.7	-16.3	-13.9	-9.4	-9.7
CENTRAL AMERICA + Dom. Rep.	1.5	5.3	-15.6	-37.4	-52.0	-26.0	-15.3	-22.4	-2.3	-10.1	-17.5	-3.2
THE CARIBBEAN	-3.0	-3.3	2.2	-20.6	-27.5	-15.1	-22.4	-13.2	-20.7	-5.4	-7.2	-3.4
OTHERS	3.8	23.5	-1.1	-10.6	-29.8	-14.6	-11.3	13.1	11.2	-2.1	29.2	-7.4
LATIN AMERICA AND THE CARIBBEAN	-3.0	-0.1	-1.8	-33.7	-35.8	-23.0	-16.8	-16.1	-7.1	-9.1	-9.4	-3.7

Cumulative Percentage Changes												
Regions or country groups	Jan 20/19	Feb 20/19	Mar 20/19	Apr 20/19	May 20/19	Jun 20/19	Jul 20/19	Aug 20/19	Sep 20/19	Oct 20/19	Nov 20/19	Dec 20/19
MERCOSUR + Mexico	-11.2	-8.5	-5.2	-10.5	-11.5	-12.7	-12.9	-11.9	-10.5	-10.0	-8.9	-8.3
ANDEANS + Chile ^{/1}	1.0	-0.5	7.1	-5.3	-9.9	-12.5	-12.8	-13.4	-14.0	-13.9	-13.5	-13.2
CENTRAL AMERICA + Dom. Rep.	1.5	2.2	-5.2	-14.0	-19.7	-20.2	-20.7	-20.9	-19.9	-18.4	-18.4	-17.9
THE CARIBBEAN	-3.0	-3.2	-1.4	-6.3	-10.6	-11.3	-13.2	-13.2	-14.2	-13.1	-12.5	-11.8
OTHERS	3.8	13.8	8.6	4.2	-2.3	-4.9	-6.1	-4.4	-2.8	-2.8	-0.6	-1.0
LATIN AMERICA AND THE CARIBBEAN	-3.0	-2.2	-2.7	-10.9	-15.1	-16.3	-16.9	-16.8	-16.3	-15.3	-14.8	-14.2

Source: Prepared by the authors based on official information from the tax administrations.

^{/1} For the calculation of the average in "Other Revenue" (in the tables and graphs referring to this item), the data for Chile are not considered because they present extreme variations that would artificially bias the average values (in addition to Bolivia, due to lack of sufficient information), although it has been proven that this item represents only 1% of the total collection of this country.

Annex: RRC-CIAT Database (online)

As a fundamental complement to this Report, a Monthly Collection Database has been built based on official information from the different tax administrations of a wide range of CIAT member countries. The tax revenue series obtained were opportunely processed and deflated using retail price indexes available at the national Statistical Institutes of each country. Additional detailed information on the monthly and cumulative evolution -in constant and current values- of all the tax

administrations analyzed is available on the CIAT web page (<https://www.ciat.org/the-revenue-report-covid-19/?lang=en> "Monthly Collection Database (Annex)"). In addition, the "RRC-CIAT Database" includes the detail of the monthly composition of the total collection by tax figures in 2020 and 2019 and the patterns of temporal distribution of the collection for each of the countries in 2019.



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