



# Working Papers

ISSN 2219-780X

3

MAY  
2022

## Subnational finance and digital economy:

*Indirect taxation on digital activities in  
subnational governments*



CIAT

Juan Pablo Jiménez  
and Andrea Podestá





# **Subnational finance and digital economy:**

*Indirect taxation on digital activities in  
subnational governments*

**Juan Pablo Jiménez  
and Andrea Podestá**

**Serie:** *Working Papers*  
ISSN 2219-780X

## **Subnational finance and digital economy:**

*Indirect taxation on digital activities in subnational governments*

WP-03-2022

© 2022 Inter-American Center of Tax Administrations - CIAT

**Diagramming:** CIAT Communication and Publications Coordination

### **Copyright**

The Inter-American Center of Tax Administrations –CIAT, authorizes the total or partial reproduction of this work by any means or procedure, whether known or to be known, provided that the source and copyright holders are properly quoted. [www.ciat.org](http://www.ciat.org)

# C contents

<b>1</b>	<b>Introduction</b>	19
<b>2</b>	<b>Overview of the digital economy in Latin America</b>	22
<b>3</b>	<b>Challenges of indirect taxation on the digital economy</b>	26
<b>4</b>	<b>Intergovernmental allocation of indirect taxation and the challenges of digital taxation</b>	29
	4.a. The subnational allocation of indirect taxation in Latin America	31
	4.b. The allocation of digital taxes between levels of government	34
<b>5</b>	<b>Initiatives implemented by subnational governments to address the challenges of digital economy</b>	38
<b>6</b>	<b>Conclusions and policy recommendations</b>	52
	<b>Bibliographical References</b>	54



# 1 Introduction

The crisis generated by the COVID-19 pandemic has had a double effect on the digital economy and its possible taxation. On the one hand, the pandemic has implied, through an important change in the consumption pattern, a significant expansion of some segments of this sector. On the other hand, the impact of the pandemic on fiscal accounts and the need to obtain additional revenues makes it urgent to adequately tax these activities, both at the level of central governments and at the level of subnational governments when this corresponds to the organization of the country and its tax allocation between levels of government.

One of the consequences of the pandemic and its associated confinement measures has been the growth of consumption via digital platforms, which in some countries is not taxed yet, or at least not to the desirable extent. This not only has a significant cost in terms of collection but is also creating strong unfair competition with traditional sectors, especially against small businesses.

In view of the accelerated growth of the digital economy and cross-border transactions it is crucial that countries adapt their tax laws, whether national, provincial, or state, to tax services and intangible goods purchased abroad by resident companies and consumers. This is especially relevant in federal or more decentralized countries, where intermediate or local governments have their own indirect taxes.

This is key both for obtaining tax revenues and for “leveling the playing field” with local suppliers so that they can operate under equal conditions of competition. If this is not done, tax revenue losses will be increasingly significant, not only because of the expansion of this sector, but also because companies in traditional sectors will look for ways to migrate to the digital sector and operate from abroad, with the consequent damage to employment, economic growth and the development of the local digital economy.

Against this backdrop, some central and subnational governments in Latin American countries have been incorporating digital services into the VAT tax base or some indirect taxes at the subnational level, although progress has been very uneven.

Options for the taxation of digital services at the subnational government level are being discussed around the world. The different initiatives being evaluated range from making slight modifications to

existing tax regimes to novel approaches that may more appropriately tax digital services, specifically those services that extract and monetize user data (Appleby, 2021). These options, at the subnational level, face different constitutional and institutional challenges across countries.

Existing tax regimes do not adequately tax digital services, especially those based on data mining and digital advertising, which are particularly problematic as tax systems do not adequately consider the enormous value derived from user data. The cross-border digital economy makes proper taxation even more difficult because there is often no clear answer as to which jurisdiction can impose taxes and to what extent.

At the international and central government level, tax jurisdictions have recognized these weaknesses and have begun a path towards taxation of digital services, through indirect taxation (Jiménez and Podestá, 2021). Subnational governments are facing similar problems and are looking for solutions.

Justifications for the introduction of a new tax regime are underpinned by the fact that existing regimes do not adequately capture the benefits of new business models, particularly those that rely on valuable data extracted from users of the taxing jurisdiction. Unlike a traditional two-party transaction in which a seller provides a service to a consumer and the consumer pays the seller a market price, the prevailing digital services business model reflects at least a three-party transaction. A digital service provider supplies a service to an end user, but instead of charging that end user a market price for the service, the digital service provider charges a very low price or no charge, and extracts the end user's personal data, which it uses to sell targeted advertising that the provider incorporates into its services to end users. In this business model, digital service providers are monetizing user data and jurisdictions are struggling to adequately tax the value that the digital service provider makes. (Appleby, 2021).

A subnational tax on digital services is likely to face constitutional and federal or institutional challenges in countries in the region. Some jurisdictions already impose sales and use taxes on digital services. Therefore, a new digital services tax regime could impose multiple levels of taxation on the same income, which may reflect a poor tax policy.

It should be noted that in the case of the more decentralized countries in Latin America, a large share of indirect taxation depends on subnational governments, as in the case of the ICMS in Brazil and the gross income tax in Argentina. Some local governments also have indirect taxation, such as the industry and commerce tax (ICA) in Colombia or the Monthly Income Tax (IMI) in Nicaragua, although in the latter case VAT is not yet levied nationally on digital services.



Some subnational governments in these countries are already applying indirect taxes on digital activity, such as several Argentine provinces (Buenos Aires, Capital Federal, Córdoba, Chubut, Mendoza, Neuquén, Salta, San Juan, Tucumán, etc.), Brazilian states (such as Sao Paolo, Paraiba, Goias, Piaui and Rondonia) and local governments in Colombia. However, this implementation has not been uniform or homogeneous, and in some cases it has risen intergovernmental conflicts such as, for example, between municipalities and states in Brazil regarding the collection of the municipal services tax (ISS) and the ICMS in the case of software downloads, or legal conflicts such as claims to courts regarding the possible unconstitutionality of applying the gross income tax in Argentina, since these would be imports of services, which, it is argued, could imply a possible excess of the provinces' competences.

That is why, in this article, we propose to analyze the challenges of indirect taxation on digital activity in those countries where indirect taxation is the responsibility of more than one level of government, as in the case of Argentina, Brazil and Colombia.

For this purpose, the allocation of indirect taxation powers between levels of government in these countries will be reviewed. In particular, the allocation between levels of government and the mechanisms used for indirect taxation at the subnational level will be examined, differentiating between intermediate and local governments. Areas of overlapping taxation powers between levels of government and possible intergovernmental conflicts will be analyzed.

Thus, this article will deepen the analysis of the challenges of taxation on the digital economy carried out in Jiménez and Podestá (2021) and will review the indirect taxation of digital services at the level of subnational governments.

The purpose of this article is to provide an analysis of the challenges of taxation on the digital economy and to collaborate in the development of mechanisms to coordinate and collect subnational indirect taxes generated by transactions with non-resident companies operating in the digital economy.

To this end, the document will be organized as follows. First, the landscape of the digital economy in Latin America will be described. Then the challenges of indirect taxation on the digital economy will be analyzed, followed by a consideration of the allocation of indirect taxation between different levels of government and the challenges of digital taxation at the subnational level of government. The next section will review the initiatives implemented by subnational governments in the region to address the challenges of the digital economy. Finally, a section of conclusions and policy recommendations will be presented.

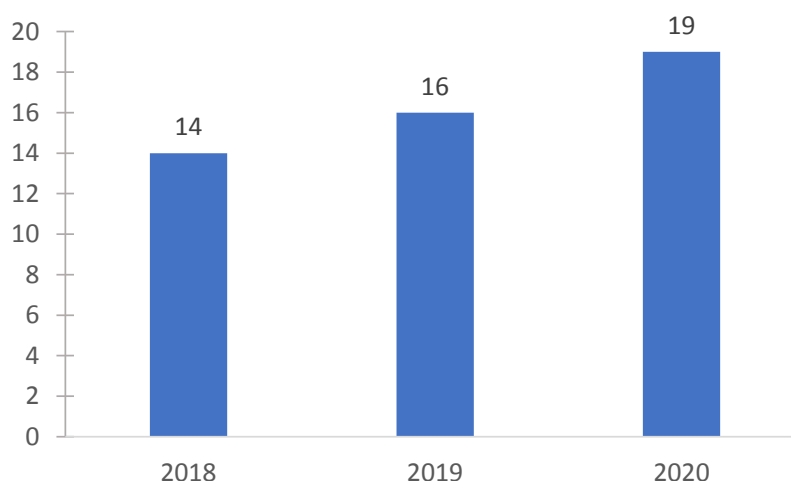
## 2 Overview of the digital economy in Latin America

The COVID-19 pandemic has had an immense impact on Internet traffic globally, as most activities are increasingly conducted online according to UNCTAD's latest Digital Economy Report (2021a). This document forecasts that global Internet Protocol (IP) traffic in 2022 - domestic and international - will exceed all Internet traffic recorded up to 2016. In addition, global Internet bandwidth increased by 35% in 2020, which is the highest one-year growth since 2013 and it is estimated that about 80% of all Internet traffic is related to video, social networking, and gaming. Global monthly data traffic is also expected to experience a significant increase: from 230 exabytes in 2020 to 780 exabytes in 2026.

In particular, movement restrictions introduced in several countries to combat the pandemic have led to an increase in e-commerce, whose relative share of retail sales rose from 16% in 2019 to 19% in 2020, according to UNCTAD (2021b) estimates for a group of seven countries, which accounted for 65% of global B2C (business-to-consumer) e-commerce in 2019 (figure 1).

**Figure 1. Online retail sales in selected countries. 2018- 2020**

As a percentage of total retail sales.



**Note:** Includes the following countries Australia, Canada, China, Republic of Korea, Singapore, United Kingdom and USA.

**Source:** UNCTAD (2021b).

Latin American countries are lagging behind in their readiness for online sales compared to those in other regions. According to UNCTAD<sup>1</sup>, B2C e-commerce index, Latin America and the Caribbean has the second lowest regional score globally, surpassing only African countries, with a regional average of 49 points in 2020, which is below the global average (55). In Latin America and the Caribbean, postal reliability is the greatest weakness of the e-commerce infrastructure (with a score of only 29). Another limitation in the countries of the region is low banking penetration: the proportion of people who have an account with a financial institution or mobile money service provider is only 53% (compared to 60% globally and 93% in developed economies). In the case of Internet access, almost two-thirds of the region's population uses the Internet, a higher proportion than the world average. In terms of access to secure Internet servers, the region is worse positioned than the global average and far behind developed economies.

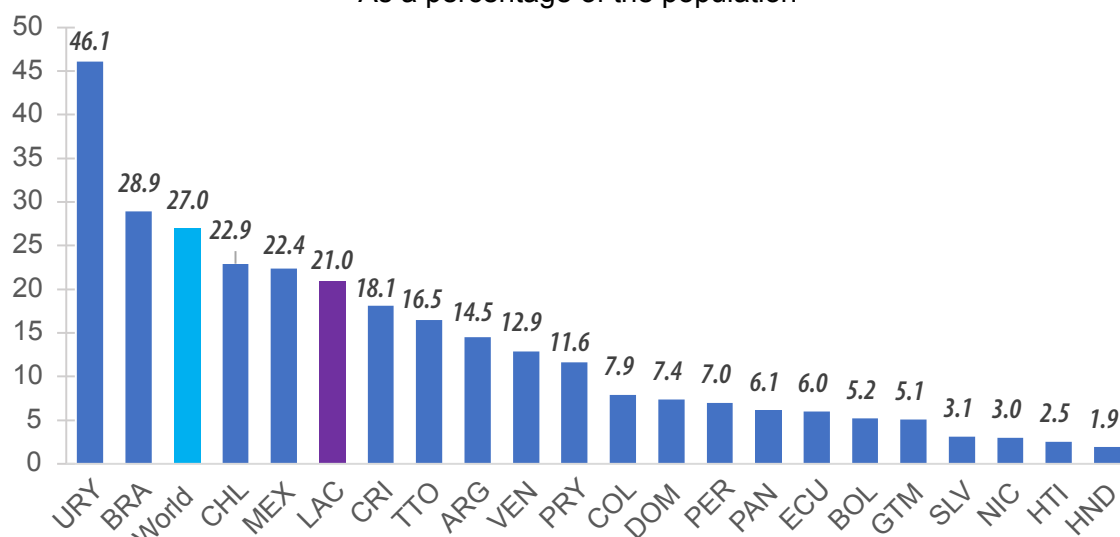
However, compared to the 2019 index, Latin America and the Caribbean is the only region to show an improvement in its regional value. According to UNCTAD (2021c), in 2019, approximately 1.5 billion people, or 27 percent of the global population aged 15 and over, shopped online, which represented a 7 percent increase over 2018. In Latin America and the Caribbean, it is estimated that, on average, 21 percent of its population shopped online in 2019, while in Canada, the United States and 10 European nations, this proportion exceeds 70 percent. Only two countries in the region are above the world average: Uruguay and Brazil, although they are far behind developed countries. At the other extreme of the region are El Salvador, Nicaragua, Haiti, and Honduras, where the percentages of the adult population making online purchases are less than 3% (figure 2). In addition, the five main markets in Latin America and the Caribbean (Brazil, Mexico, Argentina, Chile, and Colombia) increased B2C e-commerce sales by 13.4% over the previous year, equivalent to 1.7% of GDP, considerably lower than the 5% at the global level.

---

1 This index ranks countries according to their readiness for online shopping, those that receive a score based on access to secure Internet servers, reliability of postal services and infrastructure, and the proportion of their population that uses the Internet and has an account with a financial institution or mobile money service provider.

**Figure 2: Online shopping in Latin America, the Caribbean, and the world**

As a percentage of the population



Source: UNCTAD (2021c).

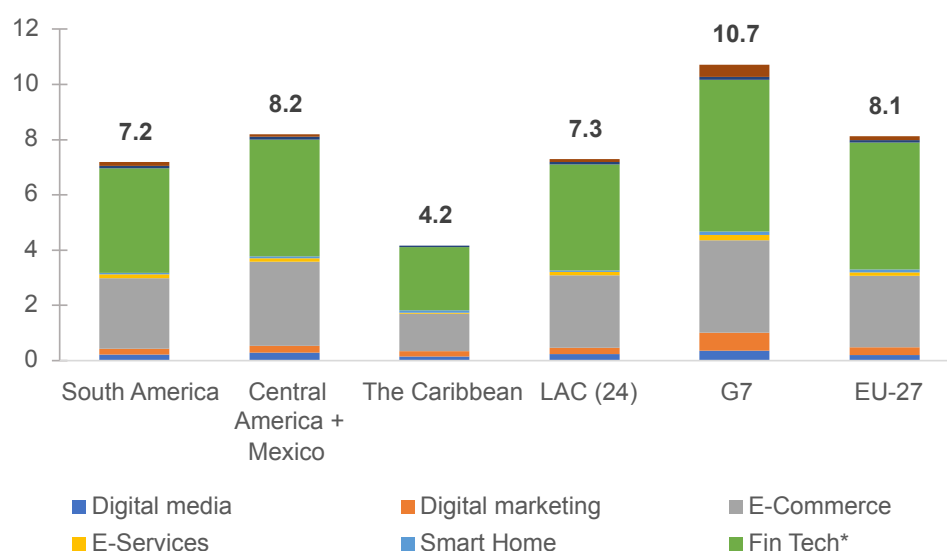
However, e-commerce is only one segment of the transactions that take place digitally. Measuring the digital economy and the value creation and capture associated with it is fraught with difficulties, as there is no generally accepted definition of what the digital economy is, nor are reliable statistics available, especially in developing countries. Depending on the definition adopted, estimates of the size of the digital economy range from 4.5% to 15.5% of global GDP (UNCTAD, 2019).

One way to estimate the digital economy is through the sales revenues of the following sectors<sup>2</sup>: eCommerce; eServices; digital marketing; digital media (digital video content, digital music, digital games, e-books, press, etc.); Smart Home; FinTech (Financial Technology, although only the digital payments segment is included in the estimates); Digital Health (fitness devices and applications, nutrition and health, telemedicine, etc.); and apps (those that can be downloaded from the main app stores, such as App Store and Google Play). According to information available as of December 2021, it is estimated that revenues from the digital economy in the Latin American and Caribbean region will grow by nearly 30% annually in 2021, reaching USD 372 billion, equivalent to 7.3% of regional GDP. This indicator is lower compared to 10.7% of GDP in the group of the seven most advanced economies (Canada, France, Germany, Italy, Japan, United Kingdom and United States) and 8.1% of GDP in the European Union (figure 3). The Latin American and Caribbean region accounts for approximately 3% of global digital economy revenues in 2021.

2 For more details on the segments included in each sector, see <https://www.statista.com/outlook/digital-markets>

**Figure 3. Latin America, the Caribbean, G7 countries and the European Union. Revenues of the digital economy by subregions and segments. 2021**

As a percentage of GDP



**Note:** \*/ It considers only digital payments.

The following countries are included. South America: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname and Uruguay. Central America: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama. The Caribbean: Cuba, Dominican Republic, Haiti, Jamaica and Puerto Rico.

**Source:** Own elaboration based on Statista- <https://www.statista.com/outlook/digital-markets> (Accessed December 17, 2021) and IMF and ECLAC for GDP data.

The size of the digital economy, as a proportion of GDP, is larger in Central America, South America, and Mexico than in the Caribbean countries, although in all subregions, the FinTech sector (which includes digital payments) stands out as the main source of revenue from digital services. In the regional average, it represents 52% of the total, followed by eCommerce (35%) and digital media and online advertising (with 3% each).

The quick expansion of the digital economy generates important challenges for tax policy in general and for indirect taxation in particular, both at the central and subnational government levels, as discussed in the following section.

# 3

## Challenges of indirect taxation on the digital economy

In general, countries tend to use two different types of sales or consumption taxes: a) single-stage, non-cumulative, such as the general sales tax used in the United States and selective taxes on certain goods or services, and b) multi-stage, non-cumulative, such as the value added tax (VAT) used in all Latin American countries.

VAT is a tax whose objective is to tax the final consumption of households, through the non-cumulative multiphase method, that is, it is applied at each stage of the productive chain, but in each of them the value added is taxed, that is, the difference between purchases and sales (ECLAC 2019 and Jorrat, 2020).

Cumulative or “cascading” taxes, which are levied at each stage of production, distribution, and marketing, are less frequent, but exist in the region at the subnational level. These taxes manage to generate significant revenue with a low tax rate by repeatedly taxing the same taxable base; such is the case of the gross income tax applied by the Argentine provinces, which is their main source of own resources.

Likewise, specific or excise taxes can be a good source of revenue for these levels of government thanks to the relative ease of administering them and the possibility of differentiation by tax rates between regions, although the aspect to be highlighted is related to the jurisdictional principle applied.

To the extent that both general sales or consumption taxes and excise taxes are levied in the place where consumers reside (destination principle) and not in the place where goods are produced or services are rendered (origin principle), these taxes do not generate distorting effects on the economic decisions of taxpayers.

For cross-border transactions, there are two possibilities or principles for the application of VAT or other indirect taxes. First, the “origin principle”, according to which VAT should be levied on domestically produced goods and services, thus taxing exports, while imports would be exempt. Secondly, there is the “destination principle”, which suggests that VAT should be levied on goods and services consumed domestically, so that in this case imports would be taxed, while exports would be exempt.

While in the case of VAT on goods the destination principle is usually applied, the same has not occurred with VAT on services, which can give rise to situations of double or zero taxation.

Although the harmonized application of a VAT at source would allow the tax's objective of taxing consumption to be met, there is consensus among specialists regarding the superiority of the destination principle, since this principle gives the tax its main characteristic of neutrality in the value chain and in international trade. This is recognized by the OECD<sup>3</sup>, which states that “for consumption tax purposes, internationally traded services and intangibles should be taxed according to the rules of the consumption jurisdiction”.

However, in order to apply the destination principle to cross-border transactions of services and intangibles, there must be mechanisms in place to determine in which country or jurisdiction consumption is expected to take place. VAT systems require rules to implement the destination principle not only for business-to-consumer (B2C) supplies, which involve final consumption, but also for business-to-business (B2B) supplies, even if such supplies do not involve final consumption. In the latter case, the rules applied should facilitate the objective of VAT, which is to tax final consumption at the rate of the country where it takes place. Thus, in the case of B2B transactions, the OECD establishes that it is the jurisdiction in which the customer is located that has the right to tax VAT on services or intangibles traded internationally<sup>4</sup>.

It also considers the case of companies that have branches or establishments in several countries, where the purchase of services or intangibles is made centrally, and then distributed among the different branches. In this case, the OECD indicates that when the customer has establishments in more than one jurisdiction, the right to tax with VAT falls on the jurisdiction or jurisdictions where the establishments that use the service or intangible<sup>5</sup> are located.

With respect to B2C transactions, the right to tax with VAT should correspond to the jurisdiction where the services or intangibles are actually consumed, in order to ensure the neutrality of the tax. Nowadays, it is extremely easy for any person to acquire services and intangibles, through the web, from suppliers located anywhere in the world. Likewise, the customer can use those services and intangibles in any country in the world, although it is certainly more likely to do so in the country in which the client usually resides.

---

3 Guideline 3.1 about “Determining the Place of Taxation for Cross-Border Supplies of Services and Intangibles” in OECD (2014), International VAT/GST guidelines.

4 Guideline 3.2 OECD (2014).

5 Guideline 3.4.

In this context, the OECD recommends two general rules for determining the place of application of VAT for business-to-consumer supplies of services and intangibles: (i) for supplies that are physically performed at a readily identifiable place and that are normally consumed at the same time and place where they are physically performed in the presence of the person making the supply and the person consuming the supply (e.g., accommodation services, cinemas or restaurants), the OECD<sup>6</sup> recommends that VAT should be applied at the place where the service is performed; (ii) for other supplies of services and intangibles (e.g., purchase of applications, software or subscription to a platform), the OECD recommends applying VAT in the jurisdiction where the customer has its habitual<sup>7</sup> residence. These recommendations allow to allocate the taxing rights on B2C supplies of services and intangibles to the jurisdiction where the final consumer can be assumed to be actually located when consuming the supply.

---

6 Guideline 3.5

7 Guideline 3.6



## 4 Intergovernmental allocation of indirect taxation and the challenges of digital taxation

There is a vast literature discussing the criteria that should guide the allocation of specific forms of revenue to subnational governments (Ter Minassian, 2020).

Desirable characteristics of such taxes include low mobility of the tax base, minimizing distortions and risks of adverse spillover effects in other jurisdictions (e.g., export taxes or predatory tax competition), a relatively even distribution of the tax base across the national territory, significant revenue-raising potential, low sensitivity to cyclical fluctuations and other exogenous shocks, relative ease of administration, low compliance costs, and relative political acceptability.

No single type of tax meets all of these criteria, therefore, the choice, design and reform of subnational own revenue sources must balance the benefits and costs of each potential revenue driver, taking into account the relevant institutional, economic and socio-political circumstances of each country.

In the particular case of VAT, and in accordance with what was analyzed in the previous section, it is evident that if the destination principle is applied for the same good, but with different levels of rates among the jurisdictions of the same country, this will create an incentive to make purchases outside the jurisdiction itself and, therefore, will generate distorting effects in the allocation of resources, which will be very difficult to avoid unless the levels of taxation among the different jurisdictions are harmonized.

The various technical alternatives used to solve the problem of double taxation at the local level range from setting up clearing funds between jurisdictions to deferring payment of the levy at the time of sale or setting up an integrated system involving both central and local governments to avoid duplication of the levy. The experience of the European Union, however, indicates that these alternatives are not free of complexities and technical issues.

A regional invoice-based value-added tax (VAT) would, in principle, have the advantages of a relatively high revenue potential and compared to a cumulative tax, would avoid the so-called cascading effect and distortions in relative prices. It is also more favorable to competitiveness because it can be levied on imports and credited against exports. Compared to cumulative taxes, its use is more effective

because it is applied to all stages of production with the well-known self-control mechanism of invoice crediting. Moreover, if VAT is levied on consumption, i.e., if it includes a credit for investment, its base tends to be more evenly distributed than in the case of income taxes and is less cyclically sensitive.

The costs of a subnational VAT, however, must be weighed against its advantages (Ter Minassian, 2020). These include:

- (i) limited subnational capacities to administer a multi-stage tax, especially if applied with multiple rates and multiple exemptions;
- (ii) high compliance costs for taxpayers (businesses) operating in several states or provinces, if subnational VAT is levied on differently defined tax bases, or with different administration and procedures; and most importantly,
- (iii) the difficulties related to the taxation of interstate trade, namely the lack of internal borders which makes it difficult to tax this trade on a destination basis, and the significant importance of distortions, in particular the extent of predatory tax competition, under an origin-based VAT.

The problems with the administration of a subnational VAT are clearly exemplified in the case of Brazil. The only country that efficiently operates a dual VAT so far (national and subnational) is Canada; it is destination-based and therefore avoids most of the problems of origin-based taxation.

In fact, in most countries of the world, VAT is based on the destination principle. Apportionment formulas are often used to mitigate such unequal distribution, but they require interjurisdictional agreements and can be computationally demanding.

An alternative source of revenue based on value added is a tax levied on the value added of individual businesses, calculated by the subtraction method, i.e., sales minus the cost of individual businesses (Bird, 2010). This type of tax, the best example of which is the Italian Imposta Regionale sulle Attività Produttive (IRAP), has the advantages of being non-cumulative and avoiding the problems related to the taxation of interstate trade (Ter Minassian, 2020). Being relatively easy to calculate, it also involves limited compliance and administration costs, although it lacks the self-monitoring features of the invoice crediting method. However, being origin-based, it is not refundable on exports, nor can it be levied on imports, thus negatively affecting external competitiveness. It is also a more visible tax than a proper VAT and therefore politically unpopular as evidenced by the repeated attempts to repeal it in Italy.

Subnational taxes are often levied on the consumption of specific goods and services, either independently or, more commonly, as surcharges on central government excise taxes. Typical bases for subnational excise taxes are gasoline, tobacco products, alcohol, and soft drinks. Excise taxes are also increasingly being levied, particularly in metropolitan and/or tourist areas, on hotel occupancy and restaurant services. Their advantages are reasonably good revenue collection potential, low visibility and administration costs (especially when collected at the point of production). They can also meet other objectives such as environmental or health policy. However, in some cases their incidence can be regressive, as for example in taxes on soft drinks or tobacco.

Indirect taxes related to consumption and economic activity involve greater risks of tax coordination, insofar as the differences between the rates applied in neighboring regions of the same country may induce taxpayers to “export” consumption and production or marketing decisions to areas with a lower relative tax burden within the same country.

#### **4.a. The subnational allocation of indirect taxation in Latin America**

The allocation of taxation powers to subnational governments in the region has been relatively weak in most countries, although it has been subject to the particularities of each country.

Gómez Sabaini and Jiménez (2017) highlight the disparate and mostly low participation of subnational governments in the total revenue collection of Latin American countries.

The exceptions, however, are those countries that have reallocated a large part of their indirect taxation to these levels of government. The main exception is Brazil, where the states and municipalities together contribute more than 30% of the country’s tax revenues, indicating a significant degree of decentralization of taxation powers. In a second tier of countries are Argentina and Colombia, where the subnational levels have contributed approximately 15% of total revenues.

Thus, there is great heterogeneity among Latin American countries with respect to the tax powers of subnational governments, which is reflected in levels of own tax collection ranging from 0.1% to 10% of GDP (Table 1). In general, the taxes collected by intermediate and local governments are those levied on real estate and motor vehicles.

With respect to indirect taxation, the main taxes in the region are assigned to the central level of government, as in the case of VAT, with the sole exception of Brazil, where ICMS is the taxing power of the state governments.

In the cases of Argentina and Colombia, general consumption taxes have been decentralized in favor of subnational governments: the gross income tax in the Argentine provinces and the industry and commerce tax (ICA) in the Colombian municipalities.

Excise taxes (on fuel, cigarettes, beverages, etc.) are also levied mainly by central governments. Among the countries that have assigned part of these taxes at the subnational level, Colombia stands out with the taxation of alcoholic beverages and cigarettes.

In countries that have assigned the exclusive power to levy some general consumption tax to subnational governments, such as Argentina, Brazil, Colombia, and Nicaragua, these are the main source of their own tax resources at their respective levels of government.

**Table 1. Latin America: Tax collection by subnational governments - Around 2019/2020**

Country	Total subnational collection % of GDP	Taxes on goods and services		General taxes	
		% of GDP	% of total	% of GDP	% of total
Argentina	5,1	4,2	82%	3,9	77%
Bolivia	1,1	0,0	0%	..	..
Brazil	10,0	8,6	86%	7,9	79%
Chile	1,7	1,0	57%	0,0	0%
Colombia	3,4	1,8	52%	0,9	25%
Costa Rica	0,7	0,4	54%	0,0	0%
Ecuador	0,5	0,2	36%	0,1	14%
El Salvador	0,4	0,05	12%	..	..
Guatemala	0,1	0,0	0%	..	..
Honduras	0,8	0,0	0%	..	..
Mexico	0,9	0,1	12%	0,0	0%
Nicaragua	1,6	1,1	69%	0,8	54%
Panama	0,2	0,2	1,0	..	..
Paraguay	0,4	0,2	0,4	0,0	0%
Peru	0,4	0,1	0,2	0,0	0%
Uruguay	1,6	0,6	0,4	0,0	0%

**Note:** the data for Argentina, Brazil and Colombia correspond to 2020 and the rest to 2019.

**Source:** Own elaboration based on OECD.Stat and official information.

In the case of **Argentina**, the main source of tax revenue for the provinces is the gross income tax (which is also allocated, in much smaller percentages, to some municipalities). In 2020, this tax contributed 77% of total provincial revenue, equivalent to 3.9 percentage points of GDP. The rates applied are

differentiated between provinces and activities, and there are also differences in the relative weight of the tax in each province (ranging from 60% to 94%), although in all of them it is the tax with the highest collection. Despite being criticized for the inefficiencies it generates as a “cascade” tax (it distorts the allocation of resources by changing the relative price structure and harms domestic producers with respect to international competition), this tax has shown a high tax yield and contributes to provincial autonomy in terms of financing needs.

In **Brazil**, all three levels of government have adopted sales taxes, which implies difficulties of inter-jurisdictional coordination. In addition to the tax on industrialized products (IPI), levied by the federal government on an extensive list of produced goods, and whose amount is determined following that of a value-added tax, state governments have full taxing power over the tax on the circulation of goods and services (ICMS). The ICMS also taxes goods and certain services at all stages, but in a general manner, i.e., it covers a much broader tax base than the IPI. Although it is a consumption tax, it does not cover all services, since it is levied only on interstate and intermunicipal transportation services and on communication services. The municipalities also administer and collect the service tax (ISS), which is levied on all services stipulated in the legislation that are provided within the geographical limits of each municipality. As it is an exclusive power, each municipality may establish the rate it deems appropriate, with a maximum of 5% of the invoicing.

If ICMS and ISS are considered together, Brazilian subnational governments collect almost 80% of their tax resources from sales taxation or, in other words, they have fiscal resources equivalent to 7.9% of GDP thanks to this type of taxation, according to 2020 figures. This makes these taxes, especially the state ICMS, the main and fundamental source of revenue for subnational levels of government in that country.

**Colombia**, for its part, also assigns sales taxes on goods and services a preponderant role in the set of tax resources under subnational jurisdiction. The collection of taxes on goods and services in 2020 was 1.8% of GDP, which represents more than half of total subnational own tax revenues. In particular, at the level of departmental governments there are mainly three excise taxes: on liquor, beer and cigarettes that concentrate almost half of their tax revenues and represent 0.4% of GDP. In the municipalities, the industry and commerce tax (ICA) together with the property tax constitute the main source of their own tax revenues. In 2020, ICA accounted for 37% of total municipal revenues and 0.9% of GDP.

In **Chile**, subnational governments have resources generated from the collection of commercial patents, which are applied by the respective municipality to the exercise of any profession, trade, industry, commerce, art or other secondary or tertiary lucrative activity, whatever its nature or denomination (including alcohol patents). Taxes on goods and services contributed 57% of municipal tax revenues in 2019, equivalent to 1% of GDP.

In the case of **Costa Rica**, the patent tax constitutes the main tax collected by local governments, since in 2019 it contributed more than half of the tax collection of these governments (54% of the total and 0.4% of GDP). In this case, the taxable base is the net taxable income and the annual sales or gross income received by individuals or legal entities engaged in the exercise of lucrative activities.

Finally, in **Nicaragua**, any individual or legal entity engaged in an economic activity must pay the Municipal Income Tax (IMI), the taxable base of which is the gross income received. According to the latest available information, Nicaraguan municipalities collect about 0.8% of GDP through this tax.

#### **4.b. The allocation of digital taxes between levels of government**

Options for the taxation of digital services at the subnational government level are currently being discussed around the world, ranging from making slight modifications to existing tax regimes to novel approaches that may more appropriately tax digital services, specifically those services that extract and monetize user data (Appleby, 2021). These options, at the subnational level, face different constitutional and institutional challenges across countries.

Existing tax regimes do not adequately tax digital services. As warned in Appleby (2021), digital services based on the extraction and monetization of user data, especially digital advertising, are particularly problematic because tax regimes do not adequately account for the enormous value derived from user data. The cross-border digital economy makes proper taxation even more difficult because there is often no clear answer as to which jurisdiction should impose taxes and to what extent.

At the international and central government level, tax jurisdictions have recognized these weaknesses and have started on a path towards taxation of digital services (Jiménez and Podestá, 2021). Subnational governments are facing similar problems and are looking for solutions.

Digital services taxes are leading international tax discussions and policy debates. While most prevalent in Europe, countries around the world are adopting or proposing new taxes on digital services.

Although taxes on digital services vary from country to country, they share many fundamental characteristics. Several countries have based themselves on the proposal made by the European Commission (EC) for a tax on gross revenues from digital<sup>8</sup> services, although with certain variations, either in the determination of the non-taxable minimums; in the rates applied (ranging from 1.5% to 7.5% depending on the country); or in the definition of the services included in the tax base (some only tax online advertising or a single type of service and others are broader and also include online intermediation services, audiovisual services, data transmission, etc.).

Thus, taxes on digital services can be levied on revenues from online advertising, sales of data collected from users, and on digital platforms that facilitate interactions between users. However, some countries have narrowed the scope of these taxes to focus only on digital advertising services, while others cover most digital services, including the transmission of content. Although these taxes are levied on the service provider, not the customer, providers can pass the taxes on to customers, whether end users or advertisers, thus changing the incidence.

While the digital services tax movement is progressing internationally, there is a subnational digital tax movement (Appleby, 2021). For example, some states in the United States have proposed novel tax regimes on data mining. This is important because if a jurisdiction imposes sales taxes only on consumers who pay for digital services, it incentivizes consumers to choose providers of free services that rely on mining user data and selling targeted advertising. These subnational regimes directly target companies that mine and monetize users' personal data in the respective jurisdiction. These proposals have varied in form, ranging from an excise tax to a gross receipts tax to a natural resource compensation-type tax.

A subnational tax on digital services similar to those in Europe is likely to face constitutional and federal challenges in countries in the region. Some jurisdictions already levy sales and use taxes on digital services. Therefore, a new digital services tax regime could impose multiple levels of taxation on the same income, which is not inherently unconstitutional, but may reflect poor tax policy.

In the United States of America, several options for subnational digital taxation are being discussed, as presented below (Appleby, 2021):

---

8 The EC model consists of a 3% tax on gross revenues from the provision of the following digital services: i- the placement of advertising on a digital interface directed to the users of such interface; as well as the transmission of data collected about users that have been generated on such digital interfaces; and ii- services consisting of the provision to users of multifaceted digital interfaces that allow them to locate and interact with other users, and which may also facilitate the delivery of goods or services directly between users. This proposal considers as taxable entities those that exceed the following two thresholds: i- total annual worldwide revenues exceed EUR 750 million; and ii- total revenues earned within the European Union are above EUR 50 million.

- **Digital Services or Advertising Gross Receipts Tax**

Taxes on digital advertising are so far the most common approach used by subnational jurisdictions in the United States. The trend towards these taxes is probably due to the need for states to raise revenues and tax large technology companies, with European-style taxes on digital services being a tool to achieve these objectives. However, there is much international controversy about such regimes, coupled with possible constitutional and federal restrictions.

- **Corporate income tax surcharge or surtax**

Another option within the existing tax regimes of many jurisdictions in the United States is a surcharge or surtax on corporate income tax. However, in Latin America, this type of income tax surcharge is not customary for intermediate or local governments.

- **Stock-Based Tax**

An alternative is to tax the value of stock on corporations enjoying excessive market valuations and listed on stock market. If taxing jurisdictions are correct that the largest corporations are not paying their fair share of taxes under existing regimes, the stock market should reflect that additional profitability through increased stock prices. Those stock prices would also theoretically reflect the value of the corporation's assets plus its discounted future earnings potential. One option, according to this author, is to impose an annual tax on publicly traded corporations based on the market price of each share of outstanding stock. While this is an interesting alternative in the United States, where the large technology companies are located, it makes less sense in Latin American countries.

- **Data ad valorem tax**

A data ad valorem tax would achieve the objective of taxing the value of data that companies extract, usually without direct payment, from a jurisdiction's residents. While ad valorem taxes on data are the most direct approach to taxing the value of user data, there are myriad obstacles, constitutional and practical, for jurisdictions to navigate, such as valuing the data for tax purposes (given that there is no market price for the data), establishing how often to determine its value and collect the tax, etc.

- **Data mining tax**

A direct tax on data collection is an optimal approach if a jurisdiction's primary motivation is to tax the value associated with the collection and monetization of user data. Rather than using a proxy for the value of user data, as digital advertising would be, a data mining tax has a more direct connection to



the value that corporations derive from user data. However, companies will likely pass at least a portion of these taxes to their customers.

In the case of Latin America, some subnational governments have made progress in the indirect taxation of digital activities, although without taxing a particular digital service providers and platforms that extract user data and, in general, monetize such data directly or indirectly through online advertising.

However, for the purpose of an adequate taxation of the digital sector, a comprehensive look at the tax instruments applicable to this sector, both indirect taxes and income tax, is required.

The most commonly used approach in the region to tax digital activity is through existing general consumption taxes (Jiménez and Podestá, 2021), both at the central and subnational government levels.

- **General sales taxes**

A simpler approach for taxing digital services in general is that taxing jurisdictions simply expand their existing sales and use tax regimes to include all services. Several recent proposals and initiatives have suggested expanding existing sales and use tax regimes to cover services, in particular, digital goods, content streaming services and other electronically delivered services, as discussed in detail in section 5 for some Latin American countries.

# 5

## Initiatives implemented by subnational governments to address the challenges of digital economy

In some federal or more decentralized countries where VAT is a tax under central government jurisdiction and where its tax base has been broadened to tax digital goods and services, subnational levels of government have also begun to apply their indirect taxes on the digital economy, as in the cases of Argentina<sup>9</sup> and Colombia.

Most Argentine provinces have expanded the scope of the gross income tax in order to include digital economy activities in the taxable base. The first Argentine province to move forward on this path was Córdoba, which in 2017 adapted its tax code to consider the taxation with the gross income tax to the commercialization of digital services carried out by subjects domiciled, based or incorporated abroad that meet certain criteria in the province. Thus, in May 2018, it began to charge this tax to digital platforms that commercialize online subscription services for access to all kinds of audiovisual entertainment (Netflix, Spotify, Google Play, Amazon, etc.), to those that offer intermediation services in the provision of services (Uber, Airbnb, among others) and to gambling activities that are developed through any media, digital platform, technological application or similar.

Then, in 2019, the provinces of Mendoza, Neuquén, Salta and Tucumán also started collecting gross income tax on these same digital sector activities. More explicitly and in detail, the tax code of the province of Neuquén considers the following digital services: the provision and hosting of websites and web pages; digitalized products in general (such as software and digital books); remote maintenance of software and equipment; remote system administration and online technical support; web services (data storage and online advertising); software services; access or download of digital content; databases; online clubs or dating websites; blogs, magazines or online newspapers; internet services; distance

9 A key precedent on this issue is the ruling issued on 06/21/2018 by the Supreme Court of the United States, in the framework of the case South Dakota vs. Wayfair Inc. (Perlati, 2020). In this ruling, a jurisprudential criterion in force for several decades was set aside and it was admitted that the state of South Dakota could collect Sales Tax from the companies Wayfair Inc, Overstock.com, for the online sale of furniture and household goods, and Newegg. Inc, for the online sale of electronic goods; even if they do not have a place of business, employees, representatives and/or any physical presence in that jurisdiction. For a long time and as a result of the interpretation of the American Court's constitutional commerce provision in the cases of "National Bellas Hess" (1967) and "Quill Corp" (1992), American states could not collect such subnational sales tax from companies located outside their jurisdiction for sales made to customers located within their territory, if the company did not comply with the "physical presence rule" (having a local physical office, employees or representatives in the territory of the state).

learning; online markets and auctions; data manipulation and calculation; and cryptocurrencies, digital banks and fintech. The incorporation of these financial technologies as digital services reached by the tax took place recently, starting in 2021.

Subsequently, in 2020, in the provinces of Catamarca, Chaco, Chubut, Corrientes and San Juan, the commercialization of goods and services through the Internet, digital media or any other digital technology began to be subject to the gross income tax, while in 2021, the provinces of Buenos Aires, the Autonomous City of Buenos Aires, Entre Ríos, Jujuy, La Pampa, Río Negro and Santiago del Estero became subject to the tax.

The average general gross income tax rate on digital services is 3.5%, although the rates vary among provinces and, in some cases, according to the type of digital good or service and the status of the registered taxpayer.

The lowest general rates for digital services are applied in La Pampa (1%) and in the province and city of Buenos Aires (2%); while the highest general rates, between 5 and 6% depending on the province, are applied in Entre Ríos, Tucumán, Chaco and Jujuy. Additionally, some jurisdictions apply higher rates to certain activities, such as gambling and video games in Chaco (13.2%) and Jujuy (12%); digital platforms for the commercialization of goods and services in Buenos Aires (4%); online intermediation services and digital advertising in Córdoba (between 3 and 6.5%) and electronic payments in Jujuy (8%). In the provinces of Corrientes and Chubut, digital service providers registered as taxpayers are taxed at a lower rate of 2% (instead of 2.5% in the former and 3% in the latter).

On the other hand, Argentine jurisdictions have basically defined two criteria to determine the gross income taxation of digital services: the significant digital presence and/or the domicile of the user of the digital services.

The provinces of Buenos Aires and Corrientes use the concept of significant digital presence, while Catamarca, Chaco, Chubut, La Pampa, Mendoza, Neuquén, Río Negro, Salta, San Juan and Santiago del Estero use different criteria to identify whether the domicile of the user is in the provincial jurisdiction and therefore define whether the transaction should be taxed. In the cases of the Autonomous City of Buenos Aires and the provinces of Córdoba, Entre Ríos, Jujuy and Tucumán, the legislation allows the use of both approaches.

To determine the existence of significant digital presence in their territories, the Argentine provinces use some of the following parameters:

- Gross revenues of the digital service provider above a certain amount in a certain period of time.
- Number of domiciled users in the province above a certain amount.
- Number of transactions, operations and/or contracts with domiciled users in the province that exceed a certain threshold established in the tax legislation.
- Transactions for more than a certain number of months in the province.
- The provider uses or contracts suppliers in the province.
- The provider offers services in the province or is licensed there.
- The provider requires a connection and/or transmission point in the province.
- The provider has an Internet.ar domain or digital platform oriented to residents in the jurisdiction, or its access is made through IP addresses within the province.

As for the provinces that contemplate different variables to identify whether the purchaser of the digital service is domiciled in their jurisdiction, the provincial legislations consider similar indicators, such as the IP address of the device used by the customer, the provincial code of the SIM card, the domicile of the purchaser, the address registered in the financial institution, the place of issue or registration of the credit or debit card or means of payment, among others.

Regarding the collection method, the provinces apply a withholding on the gross income tax to the financial entities that manage the means of payment used to pay for the digital service. In general, these withholdings are made on the basis of a list of non-resident companies prepared by the AFIP for the withholding applicable on VAT or is prepared by the provincial tax administration itself.

Recently, on December 27, 2021, the Argentine provinces and the national Executive Branch signed a new Fiscal Consensus which includes provisions on subnational taxation of the digital economy. In the new consensus, the concept of jurisdictional nexus is introduced to replace the concept of territorial support or physical presence for the commercialization activities of digital goods and services. For those transactions, the jurisdictional nexus is present when there is digital presence of the seller, provider and/or lessor or when the domicile of the acquirer is located in provincial territory. In addition, it is established that the gross income tax will be levied on the electronic commerce of digital services, including online subscription services for access to entertainment (music, videos, audiovisual transmissions in general, games, etc.), intermediation in the provision of services of all kinds through digital platforms (hotel, tourism, financial, etc.), and gambling activities that are developed or exploited through any digital media. It also sets maximum rates of this tax according to the sector of economic activity, which in the case of commerce is 5% and communications 5.5%.

On the other hand, in Brazil, the National Council for Tax Policy (CONFAZ) published in September 2017 the ICMS 106 Agreement that determines the procedures for the collection of the state tax on the circulation of goods and services (ICMS) with respect to transactions with digital goods and merchandise traded through electronic data transfer.

Thus, as of April 2018, Brazilian states may charge ICMS (state VAT) on transactions with digital goods and merchandise, such as software, programs, electronic games, applications, electronic files and the like, which are standardized. Only transactions destined to the final consumer are taxed and the tax is paid in the state where the download or transmission takes place and where the purchasing consumer is located, i.e. where the acquirer has his domicile or establishment.

Regarding the tax rate, ICMS Agreement 181/15 stipulates that the taxable base for the calculation of ICMS is reduced in transactions with software, programs, applications and standardized electronic files, so the tax liability results in 5% of the transaction value.

In accordance with the fourth clause of Agreement 106/17, the legal entity that owns the website or electronic platform that carries out the sale of digital goods, through electronic data transfer, is the taxpayer of the operation and must be registered in the federated units in which they practice the internal or import outputs destined to the final consumer. This registration should preferably be made through the Internet by means of a simplified procedure established by each federated unit.

In addition, Agreement 106/17 provides that federated units may assign responsibility for tax collection:

- To anyone who offers, sells or delivers digital goods or merchandise to the consumer.
- To the financial intermediary, such as a credit card or other payment method manager.
- To the acquirer of the digital good or merchandise, in the event that the taxpayer or the previous responsible parties were not registered in the federative unit.
- To the credit or debit card administrator or financial intermediary in import operations.

In particular, the state of São Paulo has clarified in Normative Decision CAT 04/2017 that based on recognized case law, operations with prefabricated, standardized or ready-to-use software are subject to ICMS, since once developed they are marketed on a large scale, with little or no customization to the needs of the consumer who acquires it. This is because the absence of customization inserts the software into a mass marketing chain, giving it a mercantile character and, therefore, subject to ICMS taxation. On the other hand, transactions with customized software, developed to order, for

which there is a preponderance of services, since they are specially produced to meet the specific needs of the contracting party, are not subject to ICMS, but to municipal ISS.

Likewise, this regulation establishes that transactions with software, programs, applications, files, electronic games and similar that are standardized are subject to ICMS (even if they have been or could be adapted), regardless of the way they are commercialized, that is, whether they are distributed through physical or digital means, either by download or streaming (use of the software in a cloud). CAT Ordinance 24/2018 also mentions as an example of digital goods and merchandise audio, video, image and text content, with definitive transfer (“download”), respecting the exemption of books, newspapers and periodical publications.

However, there are interjurisdictional conflicts. Recently in February 2021, the Brazilian Supreme Court (ruling ADI 5,659 and ADI 1,945) determined that software licenses can only be taxed with the municipal services tax (ISS), although in this case the Court did not address the constitutionality of Agreement 106/2017, mentioned above, which authorizes states to impose ICMS on digital goods, which must be decided in another direct action of unconstitutionality (ADI 5,958).

On the other hand, at the end of 2016, Supplementary Law 116 was amended to explicitly include digital services taxed with the tax on services of any nature (ISS) under the jurisdiction of the municipalities and the Federal District. Thus, the list of computer and similar services subject to ISS currently includes:

- Systems analysis and development.
- Programming.
- Data processing and similar.
- Software development, including electronic games
- Processing, storage or hosting of data, texts, images, videos, electronic pages, applications and information systems, among other formats, and similar.
- Development of computer programs, including electronic games, regardless of the constructive architecture of the device on which the program will run, including tablets, smartphones and the similar.
- Licensing or assignment of the right to use computer programs.
- Advice and consultancy in information technology.
- Computer technical support, including installation, configuration and maintenance of computer programs and databases.

- Planning, preparation, maintenance and updating of electronic pages.
- Supply, without definitive assignment, of audio, video, image and text content through the Internet, respecting the exemption for books, newspapers and periodical publications.

In general, this law establishes that the ISS must be paid in the municipality where the establishment or domicile of the supplier is located, although with certain exceptions. In the case of services provided from outside the country, it is considered that the tax must be paid in the municipality where the establishment or domicile of the service provider or intermediary is located.

It also establishes a minimum rate of 2% and a maximum rate of 5% to be determined by each municipality and prohibits the granting of exemptions, tax or financial incentives or benefits, including the reduction of the tax base, tax credits or others that result in a lower tax liability than that resulting from the application of the minimum rate. For example, in São Paulo the ISS rate for digital services is 2.9%, while in Rio de Janeiro it is 2%.

On the other hand, in the case of **Colombia**, the industry and commerce tax (ICA) is paid on the income generated in a municipality by industrial, commercial and service activities.

In 2017, the Council of the Municipality of Medellín published Agreement 66, which establishes that industrial, commercial, service and financial activities carried out through information and communication technologies (ICT) are taxed by ICA in this jurisdiction. Among the taxed activities of the digital economy are:

- Massive data processing and storage services.
- Collaborative economy platforms that allow the connection between demanders and suppliers.
- Services for downloading or online consumption of digital content.
- Services for the use of mail platforms and other digital applications
- Sale of goods and services through e-commerce platforms

The aforementioned activities are taxed at a rate of three per thousand.

In order to determine the territoriality of ICA with respect to digital economy activities in Medellín, it means, for digital operations to pay the tax in that jurisdiction, the following rules are followed:

- Collaborative economy services that allow the connection between offerers and demanders: in transportation services when the good or person is dispatched from Medellín; in lodging services when the real estate is located in this jurisdiction; in the sale of goods or merchandise when the product is dispatched from there and for other intermediation activities carried out through ICTs,

they will be taxed in Medellín when the beneficiary is located there or when the commercial or service activity is carried out in that municipality.

- Services of downloading or online consumption of digital content; massive data processing and storage services; electronic mail services and digital applications: are taxed according to the subscribers that inform as domicile the city of Medellín or that having the subscription outside the municipality make the consumption, downloading of content, uploading of data or use of the applications from connections in the city of Medellín.

In addition, the regulation establishes that financial entities must withhold the industry and commerce tax in those cases in which the consumer, through debit and credit cards and other authorized means of payment, makes purchases, consumptions and/or transactions of goods or services from the city of Medellín with any of the platforms defined and informed by the Undersecretary of Revenue, regardless of whether such platforms have presence or not in the municipality.

Finally, in November 2020, Agreement 780 was approved in Bogotá, which provides that the service of ordering, purchase, distribution and delivery of products through contact platforms or applications and that use a network of domiciliary will be taxed with ICA from the taxable year 2022. The rate to be applied will increase each year as follows: 1.014% in 2022; 1.063% in 2023 and 1.104% in 2024.

The table below presents in comparative form the main characteristics of subnational indirect taxes applied to the digital economy in some jurisdictions of countries in the region.



**Table 2. Selected subnational governments in Latin American countries: Main characteristics of subnational indirect taxes on the digital economy**

Country/ jurisdiction	Starting year	Tax rate	Criteria for determining taxation		Method of collection	Taxable activity
			Significant digital presence	Digital services user address		
ARGENTINA: Gross Income Tax (GIT)						
Buenos Aires	2021	<ul style="list-style-type: none"><li>Digital services: 2%</li><li>Digital platforms for the commercialization of goods and services: 4%</li></ul>	Parameters: <ul style="list-style-type: none"><li>Gross income over \$500,000 per year</li><li>Number of users in the province over 1,000</li><li>Number of transactions, operations and/or contracts with users in the province over 10,000</li></ul>		<ul style="list-style-type: none"><li>Withholding on means of payment according to the list of providers published by the TA</li><li>Self-payment by providers if they have a significant digital presence and are enrolled</li><li>Payment by users (substitute responsible parties)</li></ul>	Digital services: website hosting; digitized products; remote maintenance of software and hardware; remote system administration, online technical support; web services, data storage; software; accessing or downloading content; databases; online clubs or dating sites; blogs, online magazines or newspapers; Internet services; distance learning; online marketplace; data manipulation and calculation via the Internet.
Catamarca	12/29/2020	3%		<ul style="list-style-type: none"><li>Buyer, holder or user of the credit card, purchase or payment is domiciled in the province</li><li>SIM card code</li><li>IP Address</li></ul>	Withholding in means of payment	Provision and hosting of websites; digitized products; remote maintenance, remote systems, online technical support; web services, data storage, online advertising; software; access or download of audiovisual content.
Chaco	2020	<ul style="list-style-type: none"><li>Digital services provided by parties domiciled abroad: 5.5%.</li><li>Gambling and video games: 13.2%.</li></ul>		Services used in the territory of the province of Chaco	<ul style="list-style-type: none"><li>Withholding in means of payment according to AFIP list.</li><li>Direct payment by the borrower (substitute responsible)</li></ul>	Marketing of online subscription services for access to all kinds of audiovisual entertainment; intermediation in the provision of gaming services and activities.
Chubut	2020	Registered taxpayers: 2%. Unregistered taxpayers: 3%.		The purchaser's domicile is located in the provincial territory, or the service is economically used in Chubut.	Withholding in means of payment	Marketing of goods and services through the Internet, digital media or any other digital technology.

Country/ jurisdiction	Starting year	Tax rate	Criteria for determining taxation		Method of collection	Taxable activity
			Significant digital presence	Digital services user address		
City of Buenos Aires	2021	2%	Parameters (previous fiscal period): <ul style="list-style-type: none"> <li>- Transactions with users domiciled in CABA.</li> <li>- Internet domain .ar or digital platform oriented to CABA residents.</li> <li>- Make available to CABA residents a multifaceted digital interface that allows them to locate and interact with other users; or facilitates the delivery of goods and services; or is powered by user data; or is accessed through IP addresses within CABA.</li> </ul>	<ul style="list-style-type: none"> <li>• Credit card payments: address in CABA of the cardholder borrowers.</li> <li>• Debit cards: bank account located in CABA.</li> </ul>	<ul style="list-style-type: none"> <li>• Withholding in means of payment according to the list of providers published by the TA.</li> <li>• Payment by the borrower (substitute liable party)</li> </ul>	Marketing of online subscription services for audiovisual entertainment; intermediation in the provision of gaming services and activities.
Cordoba	2018	<ul style="list-style-type: none"> <li>• Online intermediary services: 3.5, 5.5 or 6.5%.</li> <li>• Digital advertising: 3; 4.75 or 5.5%.</li> <li>• Subscription-based audiovisual services: 3%.</li> </ul>	Online subscription services or intermediation of digital services. If the provider: <ul style="list-style-type: none"> <li>• Offers successive services in the province.</li> <li>• Contracts suppliers domiciled in the province.</li> <li>• Requires connection in the province.</li> </ul>	Marketing of services in general: <ul style="list-style-type: none"> <li>• SIM card code</li> <li>• IP address</li> </ul>	Withholding in means of payment	Marketing of online subscription services for audiovisual entertainment; intermediation in the provision of gaming services and activities.
Corrientes	2020	Registered taxpayers: 2%. Unregistered taxpayers: 2.5%.	Transactions that, in a calendar month, are equal to or greater than 10 and the total amount is equal to or greater than \$20,000		Withholding in means of payment	Sales of movable property, leases and rendering of works and/or services for which payment is made through a platform or website, computer applications, interfaces, Internet pages and/or any other electronic or digital means.
Entre Ríos	2021	5% (subscription web portals)	When the provider or lessor has a significant digital presence under the terms determined by regulation or the TA.	When the use or consumption of such activities is verified by parties based, domiciled or located in provincial territory	Withholding on means of payment	Marketing of online subscription services for audiovisual entertainment; intermediation in the provision of gaming services and activities.

Country/ jurisdiction	Starting year	Tax rate	Criteria for determining taxation		Method of collection	Taxable activity
			Significant digital presence	Digital services user address		
Jujuy	2021	<ul style="list-style-type: none"> <li>- 6%: digital platforms for orders and shipments, services, digital advertising, intermediation.</li> <li>- 8%: electronic payments.</li> <li>- 12%: gaming</li> </ul>	Parameters, when the provider: <ul style="list-style-type: none"> <li>- Performs services for more than 3 months in the province.</li> <li>- Uses or contracts with providers in the province</li> <li>- Offers services in the province or is licensed there</li> <li>- Registers a certain number of users in the province</li> <li>- Requires a connection and/or transmission point in the province</li> </ul>	<ul style="list-style-type: none"> <li>- SIM card code</li> <li>- IP address</li> <li>- Customer's billing address</li> <li>- Address of the bank account used for payment, customer's billing address at the bank or on the credit or debit card with which the payment is made</li> </ul>	Withholding on means of payment	Marketing of online subscription services performed by parties domiciled, based or incorporated abroad, when the provider or lessor has a significant digital presence in the Province.
La Pampa	2021	1%		<ul style="list-style-type: none"> <li>- SIM card code- Dirección IP</li> <li>- The user of the credit, debit or payment card is domiciled in the province.</li> </ul>	Withholding on means of payment	Marketing of goods and/or services and provision of services through any electronic media, digital platform or similar carried out in the province.
Mendoza	2019	4%		<ul style="list-style-type: none"> <li>- Purchaser, cardholder or user of the credit card, purchase or payment, has address in the province</li> <li>- SIM card code</li> <li>- IP address</li> </ul>	Withholding on means of payment	E-commerce of digital services (online subscription for entertainment, brokerage on digital platforms, digital advertising)
Neuquén	2019	5%		<ul style="list-style-type: none"> <li>- Customer's billing address</li> <li>- Bank account used for payment or customer billing address available to the bank.</li> </ul>	Withholding on means of payment	Commercialization of goods or provision of digital services: online subscription services for audiovisual entertainment; intermediation in the provision of services, games, software, cloud, data storage, online advertising, remote systems, online technical support, digital content downloads, databases, online clubs and marketplaces, distance learning, cryptocurrencies, digital banks, fintech, etc.

Country/ jurisdiction	Starting year	Tax rate	Criteria for determining taxation		Method of collection	Taxable activity
			Significant digital presence	Digital services user address		
Río Negro	2021	3%		<ul style="list-style-type: none"> <li>- Purchaser, cardholder or user of the credit card, purchase or payment, has address in the province</li> <li>- SIM card code</li> <li>- IP address</li> </ul>	Withholding in means of payment according to AFIP list	Marketing of services provided through online subscription and intermediary services.
Salta	2019	3.6%		<ul style="list-style-type: none"> <li>- Address of receipt of the account statement of the client, holder and/or user of the credit card, purchase or payment with which the service is cancelled.</li> <li>- Bank credit cards from branches in the province.</li> <li>- Debit cards from bank accounts located in branches in the province.</li> </ul>	Withholding in means of payment according to AFIP list	Marketing of online subscription services for audiovisual entertainment; intermediation in the provision of gaming services and activities.
San Juan	2020	3%		<ul style="list-style-type: none"> <li>- Customer's billing address;</li> <li>- Bank account used for payment;</li> <li>- IP address or SIM card code</li> </ul>	Withholding on means of payment	Marketing of services carried out by non-residents when it is verified that the provision of services is used in the province (online subscription services, games and intermediation through digital platforms).
Santiago del Estero	2021	3%		When the use or consumption is verified by parties located, domiciled or domiciled in the provincial territory.	Withholding on means of payment	Digital services provided by non-residents when the service is used or consumed in the province
Tucumán	2019	5%	When the provider has a significant digital presence under the terms determined by the regulations.	When the use or consumption is verified by parties located, domiciled or established in the provincial territory.	Withholding on means of payment	Marketing of online subscription services for audiovisual entertainment; intermediation in the provision of gaming services and activities.

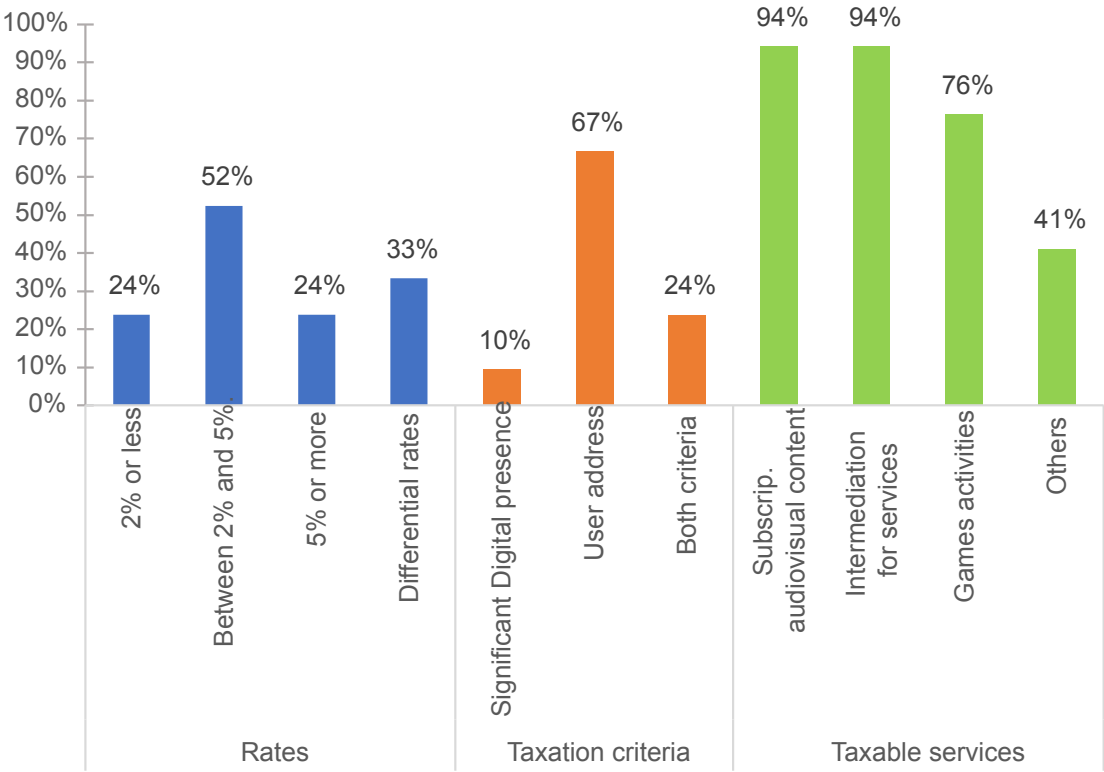
Country/ jurisdiction	Starting year	Tax rate	Criteria for determining taxation		Method of collection	Taxable activity
			Significant digital presence	Digital services user address		
<b>BRASIL</b> <b>ICMS</b> (Agreement 106/2017)	2018	5%		Buyer's or business address	Provider registration or withholding on means of payment	Transactions with digital goods and merchandise, such as software, programs, electronic games, applications, electronic files and similar, which are standardized.  However, the Brazilian Supreme Court ruled that only the municipal services tax (ISS) can be levied on software licenses.
<b>ISS</b> (Complementary Law 116 and 157)	2017	2 to 5% depending on municipality		In general, the ISS is paid in the municipality where the establishment or domicile of the provider is located, except in services provided from abroad where the establishment or domicile of the service provider or intermediary is considered.		Computer and similar services. Ex: systems; computer programs, electronic games; processing and storage of data, texts, images, videos, electronic pages, etc.; computer technical support; web pages; provision of audio, video, image and text content through the Internet (except books, newspapers and periodical publications).
<b>COLOMBIA: Industry and Commerce Tax (ICT)</b>						
Bogotá	2022	1.014%		Use of a home delivery network		Service for ordering, purchasing, distribution and delivery of products through contact platforms or applications and using a home delivery network.
Medellín	2017	0.3%		<ul style="list-style-type: none"> <li>Subscribers who are domiciled in Medellín</li> <li>Use a connection in Medellín</li> </ul>	Withholding in means of payment to the platforms defined and reported by the Undersecretariat of Revenue.	Industrial, commercial, service and financial activities carried out through ICTs: <ul style="list-style-type: none"> <li>Mass data processing and storage services</li> <li>collaborative economy platforms digital content services</li> <li>services for the use of mail platforms</li> <li>sale of goods and services through e-commerce platforms</li> </ul>

**Source:** Own elaboration based on official legislation.

In summary, the review of subnational taxation on the digital economy shows that more than half of the subnational governments analyzed have established tax rates between 2% and 5%. In addition, to define whether a transaction should be taxed in their jurisdiction, two thirds of them use some type or types of criteria to identify whether the domicile of the user of the digital or good service is in their territory, while 10% are based on the concept of significant digital presence and a quarter allow the use of both approaches. Regarding the taxable sectors, almost all the subnational governments analyzed levied with indirect taxes the online subscription services for accessing audiovisual content as well as platforms that offer intermediation services in the provision of services. Likewise, 76% of the jurisdictions include in the taxable base gambling activities that are developed through a digital platform, app, or similar technology, while 41% also include other digital services or goods, such as data processing and storage services, online advertising, databases, remote system administration, online technical support, etc. (figure 4).

**Figure 4 Latin America (selected countries): Summary of the main characteristics of subnational indirect taxes on the digital economy.**

As a percentage of total jurisdictions



**Source:** Own elaboration based on the information in Table 2.

Finally, with respect to subnational indirect tax revenue generated by digital services, unfortunately it is not easily available at this depth level. Only in the case of Brazil, according to the State Tax Collection Bulletin, published by CONFAZ (National Council for Tax Policy)<sup>10</sup>, the communications services sector, as a whole, accounted 8.22% of ICMS collection in 2020, equivalent to 0.6% of GDP. However, there is no individual value for digital goods and services. In the case of Argentina, only VAT statistics (of national jurisdiction) are available by branch of economic activity, where the Information and communications sector accounted for 9.8% of total VAT; while in Colombia this sector contributed 6% of the revenue collected by this tax under the jurisdiction of central government in 2020.

---

10 See <https://www.confaz.fazenda.gov.br/boletim-de-arrecadacao-dos-tributos-estaduais>

# 6

## Conclusions and policy recommendations

The accelerated growth of the digital economy and cross-border transactions makes it necessary for countries to modernize their tax systems, both national and subnational, and adapt them to tax intangible goods and digital services more appropriately. This is especially relevant in federal or more decentralized countries, where intermediate or local governments have their own taxes.

This is crucial both for obtaining tax revenue and for generating more equal conditions of competition between local and foreign suppliers. If this is not done, tax revenue losses and the negative effects of not taxing these activities will grow over time due to two main factors. First, the continued expansion of the digital economy and its lack of taxation, which prevents competition on a fair playing field, implies increasing damage to the economic activity of resident companies that are taxpayers, negatively affecting their revenues and future collection levels. Second, companies in the traditional sectors will look for ways to move to the digital sector and operate from abroad, which would further increase the loss of revenue and harm employment, economic growth, and the development of the local digital economy.

Against this overview, countries can modify existing tax regimes to include the different sectors of the digital economy as taxable activities, or they can create new taxes that appropriately tax digital services. Some central and subnational governments in Latin American countries have been incorporating digital services into the tax base of VAT or some indirect taxes at the subnational level, although progress is very uneven.

For example, in some federal or more decentralized countries in the region, subnational levels of government have begun to apply their indirect taxes on the digital economy, as in the cases of Argentina, Brazil and Colombia. Most of the subnational governments analyzed in this paper have established levies on digital transactions that range between 2% and 5%, although there is some variability in rates across jurisdictions and, in some cases within the same jurisdiction, depending mainly on the type of the digital good or service.

In addition, to determine the indirect taxation of digital services in each jurisdiction, the subnational governments of Brazil, Colombia and most Argentinean provinces use one or more indicators to



identify whether the domicile of the user of the digital service or good is in their territory, although some Argentinean provinces apply the concept of significant digital presence.

Regarding the scope of these taxes, almost all the subnational governments examined levy indirect taxes on the marketing of online subscription services for access to audiovisual content and intermediation services. Likewise, most jurisdictions include gambling activities in the taxable base and some also tax other digital services or goods, such as data processing and storage services, online advertising, databases, remote system administration, online technical support, etc.

At the subnational levels of government in the countries of the region, there is room for progress in modernizing tax regimes and broadening tax bases to tax all digital services. Intermediate and local governments can expand existing sales, gross receipts and use tax regimes to include, to the greatest extent possible, digital goods and services. This expansion would better address the transition to an economy based more and more on digital services.

It is also important for countries, both central and subnational governments, to follow the international debate on how to tax the sector's income, so as to explore and analyze in greater depth the possibility of creating new subnational taxes such as those analyzed at the end of section 4 of this document. In particular, those instruments that impose taxes on the extraction and mining of user data extracted by companies, so as to tax the value derived from the extraction and monetization of this data, although it is clear that determining the value of this information can be complex. The advantage of a data mining tax is that it has a more direct connection to the value that companies gain from collecting data from their users, as opposed to a tax on digital advertising, as a proxy for the value of the data extracted. However, both central and subnational governments need to be careful when designing these novel schemes and consider that companies could transfer the tax incidence to consumers or their employees.

Finally, it is essential that the different jurisdictions within the same country make greater efforts to move towards harmonization, both in relation to the types of digital goods and services taxed and the rates applied, to reduce the possibility of distortion in the allocation of resources and tax competition between different subnational governments.

## Bibliographical References

- Appleby, Andrew (2021). Subnational Digital Services Taxation, 81 *Maryland Law Review*.
- Asen, E. (2020). *What European OECD Countries are Doing about Digital Services Taxes*, Tax Foundation (Oct. 14, 2020). <https://taxfoundation.org/digital-tax-europe-2020>
- Bird, R. (2010). Subnational Taxation in Developing Countries: A Review of the Literature. *World Bank Policy Research Working Paper No. 5450*. Washington, DC: World Bank.
- CEPAL (2019). *Panorama Fiscal de América Latina y el Caribe: políticas tributarias para la movilización de recursos en el marco de la Agenda 2030 para el Desarrollo Sostenible*. (LC/PUB.2019/8-P). <https://www.cepal.org/es/publicaciones/44516-panorama-fiscal-america-latina-caribe-2019-politicas-tributarias-la-movilizacion>
- Cui, W. y Hashimzade, N. (2019). The Digital Services Tax as a Tax on Location-Specific Rent. [\*CESifo Working Paper Series No. 7737\*](#).
- Gómez Sabaini, J. C. y Jiménez, J.P. (2017). La tributación de los gobiernos subnacionales, en Gomez Sabaini, Jiménez y Martner, editores (2017) *Consensos y Conflictos en la política tributaria de América Latina*, Libro de la CEPAL, Santiago de Chile.
- Jiménez, J.P., J.A. Ocampo, A. Podestá y M.F. Valdés (2020). *Explorando sinergias entre la cooperación tributaria internacional y los desafíos tributarios latinoamericanos*, FES.
- Jiménez, J.P. y Podestá A., (2021). Tributación indirecta sobre la economía digital y su potencial recaudatorio en América Latina: emparejando la cancha en tiempos de crisis, *Documento de Trabajo 02/2021*, Centro Interamericano de Administración Tributaria -CIAT, Panamá.
- Jorratt, M. (2020). Experiencias internacionales en la tributación de la economía digital, *Nota Técnica IDB-TN 1939*, Banco Interamericano de Desarrollo. <https://publications.iadb.org/es/experiencias-internacionales-en-la-tributacion-de-la-economia-digital>
- KPMG (2021). *Taxation of the digitalized economy*, Developments Summary, mayo.

Lucas-Mas, C. O. y R. F. Junquera-Varela (2021). *Tax Theory Applied to the Digital Economy: A Proposal for a Digital Data Tax and a Global Internet Tax Agency*, Washington, Banco Mundial.

Naciones Unidas (2020). *Tax consequences of the digitalized economy – issues of relevance for developing countries*, Committee of Experts on International Cooperation in Tax Matters, 20ª sesión, 22 de junio, E/C.18/2020/CRP.25.

Naciones Unidas (2021). *Tax consequences of the digitalized economy - issues of relevance for developing countries*, Committee of Experts on International Cooperation in Tax Matters, 22ª sesión, 19-28 de abril, E/2021/45/Add.2-E/C.18/2021/2.

OCDE (2014). *Directrices internacionales sobre IVA/IBS*, OCDE, París.

OCDE (2014). *Cómo abordar los desafíos fiscales de la economía digital*, Proyecto OCDE/G20 de Erosión de la Base Imponible y Traslado de Beneficios, Acción 1: Objetivo del 2014 (versión preliminar).

OCDE (2015). *Addressing the Tax Challenges of the Digital Economy*, Action 1 - 2015 Final Report, OECD/ G20 Base Erosion and Profit Shifting Project, París, OECD Publishing. <https://doi.org/10.1787/9789264241046-en>

OCDE (2016). *Documentación sobre precios de transferencia e informe país por país*, Acción 13 - Informe final 2015, Proyecto de la OCDE y el G20 sobre la Erosión de la Base Imponible y el Traslado de Beneficios, París, Éditions OCDE. <http://dx.doi.org/10.1787/9789264267909-es>

OCDE (2019). *Addressing the Tax Challenges of the Digitalisation of the Economy*, Base Erosion and Profit Shifting Project, Public Consultation Document, 13 de febrero-6 de marzo.

OCDE (2020a). *Tax Challenges Arising from Digitalisation- Economic Impact Assessment: Inclusive Framework on BEPS*, OECD/G20 Base Erosion and Profit Shifting Project, París, OECD Publishing. <https://doi.org/10.1787/0e3cc2d4-en>

OCDE (2020b). *Tax Challenges Arising from Digitalisation- Report on Pillar One Blueprint: Inclusive Framework on BEPS*, OECD/G20 Base Erosion and Profit Shifting Project, París, OECD Publishing. <https://doi.org/10.1787/beba0634-en>

OCDE (2020c). *Tax Challenges Arising from the Digitalisation of the Economy*. Update on the Economic Analysis& Impact Assessment”, Webcast, 13 de febrero. <http://www.oecd.org/tax/beps/presentation-economic-analysis-impact-assessment-webcast-february-2020.pdf> .

OCDE (2020d). *Statement by the OECD/G20 Inclusive Framework on BEPS on the Two-Pillar Approach to Address the Tax Challenges Arising from the Digitalisation of the Economy*, Paris, OECD. [www.oecd.org/tax/beps/statement-by-the-oecd-g20-inclusive-framework-on-bepsjanuary-2020.pdf](http://www.oecd.org/tax/beps/statement-by-the-oecd-g20-inclusive-framework-on-bepsjanuary-2020.pdf)

Perlati, S. (2020). *Digital economy and its taxation at the subnational level: The experience in the province of Cordoba (Argentina)*. Inter-American Center of Tax Administration - CIAT.

Ter Minassian, T. (2020). *Intergovernmental Fiscal Cooperation and Subnational Revenue Autonomy*, IADB, Washington DC.

UNCTAD (2021a). *Digital Economy Report 2021*. Cross-border data flows and development: For whom the data flow. United Nations publication, Sales No. E.21.II.D.18, New York, and Geneva.

UNCTAD (2021b). *Estimates of Global E-Commerce 2019 and Preliminary Assessment of COVID-19 Impact on Online Retail 2020*, UNCTAD Technical Notes on ICT for Development No. 18, Mayo.

UNCTAD (2021c). The UNCTAD B2C E-commerce Index 2020: Spotlight on Latin America and the Caribbean - *UNCTAD Technical Notes on ICT for Development No. 17*, febrero, (TN/UNCTAD/ICT4D/17) <https://unctad.org/webflyer/unctad-b2c-e-commerce-index-2020-spotlight-latin-america-and-caribbean>

UNCTAD (2019). *Informe sobre la Economía Digital 2019*. Creación y captura de valor: Repercusión para los países en desarrollo, Naciones Unidas, Ginebra. [https://unctad.org/system/files/official-document/der2019\\_es.pdf](https://unctad.org/system/files/official-document/der2019_es.pdf)





# Working Papers *Serie*



**CIAT**

**CIAT Executive Secretary**

P.O. Box: 0834-02129, Panama, Republic of Panama

Phone: (507) 307.2428

Fax: (507) 264.4926

E-mail: [ciat@ciat.org](mailto:ciat@ciat.org)

Web: [www.ciat.org](http://www.ciat.org)