Equivalent fiscal pressure in Latin America and the Caribbean (19902021): Updating the enlarged map of the region's fiscal revenues

Introduction to Equivalent Fiscal Pressure (EFP)

The tax burden is a crucial variable for public policies, defined as the amount of financial resources – as a percentage of the gross domestic product (GDP) – that a country raises through taxes and contributions to public social security arrangements to finance public spending. However, other sources of public revenues and alternative configurations of the basic functions of the State exist in different countries, which could affect the comparability of tax burden indicators.

For example, the availability of natural resources – whether renewable or non-renewable – may allow governments to supplement public finances by raising revenues through non-tax instruments such as royalties or dividends and interests, revenues not computed in the tax burden ratio. This is the case for certain hydrocarbon and mineral resources, of great relevance in several Latin American and Caribbean (LAC) countries, as well as the management of other infrastructure, such as the the Transoceanic Canal in Panama or the hydroelectric power stations of Itaipú and Yacyretá in Paraguay.

In a similar vein, in the areas of health and social security, some countries implement private schemes of individual capitalisation – of a mandatory nature, established in legislation – that replace, complement or compete with the public social security system. These private social security contributions, although not included in public financing and administered by private entities, are part of the overall amount of resources that are compulsory and collectively mobilised; their consideration allows for more homogeneous comparisons between countries.

In order to take into account these alternative ways to finance public spending, this chapter discusses the concept of 'Equivalent Fiscal Pressure' (EFP), which includes two additional sources of revenue beyond those traditionally considered (tax revenues including public social security contributions [SSCs]), which also represent a fiscal effort required from taxpayers when they are mandatory: contributions to a private social security system (pensions and health) and non-tax revenues (dividends, royalties, among others) from the exploitation of natural resources.

Consideration of all these additional components (when official data are available) helps nourish and enrich analyses of fiscal conditions in LAC countries. However, the EFP indicator does not invalidate or contradict conventional measures of public financing. Rather, the aim is to expand the possibilities for regional and international comparison and to provide new elements that are, at least for the specific context in LAC, crucial to a broad and comprehensive perspective of these issues¹.

Evolution of Equivalent Fiscal Pressure in the LAC region

The analysis in this chapter, as well as regional and sub-regional averages cited herein, refer to 25 of the 27 countries for which data appears in this publication, and does not include Cuba and Venezuela². The revenue indicators are not directly comparable with the results shown in Chapter 1, as it is based on data available prior to the publication of this report.

The tax-to-GDP ratio (which includes tax revenues and public SSCs) for the LAC countries considered in this chapter stood at 21.9% of GDP in 2021 (Figure 3.1). The additional revenues accounted for using the EFP methodology increase this ratio by 1.7% of GDP, bringing the total to 23.6% of GDP.

On average across the LAC region, social security contributions to private systems amounted to 0.9% of GDP in 2021, a value that has increased by 0.6 percentage points (p.p.) since 1990 and that has been stable over the five years up to and including 2021. Meanwhile, non-tax public revenues from natural resources amounted to 0.8% of GDP in 2021, a contraction of 0.3 p.p. since 1990, with an even greater decline relative to the figures recorded for such revenues in 2008 and 2013 (1.5% of GDP)

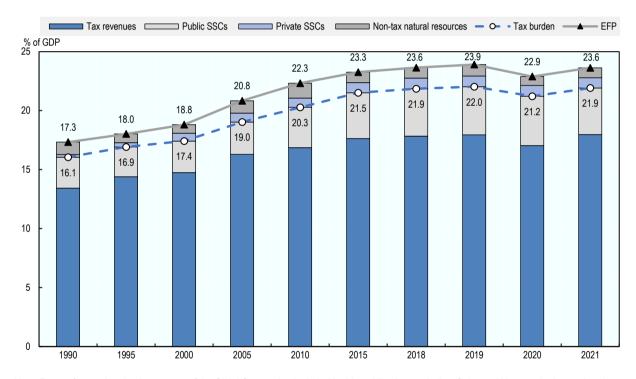


Figure 3.1. Equivalent Fiscal Pressure in Latin America and the Caribbean, 1990-2021

Note: Data refers to the simple average of the 25 LAC countries included in this publication excluding Cuba and Venezuela due to data issues. Source: Prepared by the authors based on data in (IDB-CIAT, 2023[1]).

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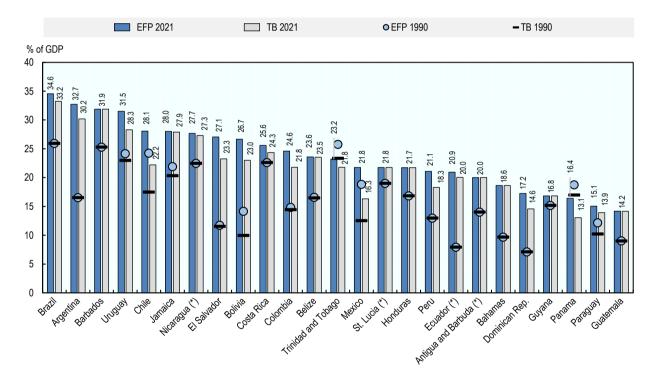
As regards the composition of EFP, the share of tax revenue (including public social security contributions) has remained relatively stable since 1990. In 2021, it accounted for 92.8% of total EFP; excluding public SSCs, this proportion has fluctuated around 75% throughout the period. Private SSCs have increased their share since their implementation in several countries across the region in the 1990s, and in 2021 they accounted for 3.7% of the LAC region's EFP. The share of non-tax revenues from natural resources was 3.6% of the EFP in 2021 but has been more volatile within the structure of the EFP over time.

Evolution of EFP by country

Individual countries in the LAC region show a high degree of heterogeneity in terms of the evolution and level of tax revenues and EFP (Figure 3.2). Although tax revenues have increased in all the countries analysed between 1990 and 2021 with the exceptions of Panama and Trinidad and Tobago, the magnitude of the change has been very uneven, with particularly large increases in Argentina (+13.7 p.p.), Bolivia (+13.0 p.p.), Ecuador (+12.1 p.p.) and El Salvador (+11.7 p.p.).

Similar trends can be noted with respect to EFP levels. With the exception of Panama and Trinidad and Tobago (where EFP fell by 2.4 p.p. and 2.5 p.p., respectively, between 1990 and 2021), all countries in the region show an increase in this indicator. The increases of Argentina (+16.2 p.p.), El Salvador (+15.3 p.p.), Ecuador (+13.0 p.p.), Bolivia (+12.5 p.p.), Dominican Republic (+10.2 p.p.) and Colombia (+9.8 p.p.) stand out.

Figure 3.2. Tax Burden and Equivalent Fiscal Pressure, Latin American and Caribbean (1990 and 2021)



Note: Countries were ordered from highest to lowest according to the level of the Equivalent Fiscal Pressure (EFP) in 2021. For countries marked with an asterisk (*) there is no data for 1990. In these cases, both for tax revenues and EFP, the first year with available information was used as a reference, namely: 1991 in Antigua and Barbuda and Nicaragua; 1992 in Saint. Lucia; and 1993 in Ecuador. This figure does not present the cases of Cuba (according to official figures, in 1990, the EFP stood at 29.1% of GDP and in 2021 it was 17.7%) or Venezuela (due to lack of official information from 2016 to date), although the figures collected can be consulted in the updated EFP database (see the Statistical annex at the end of this chapter).

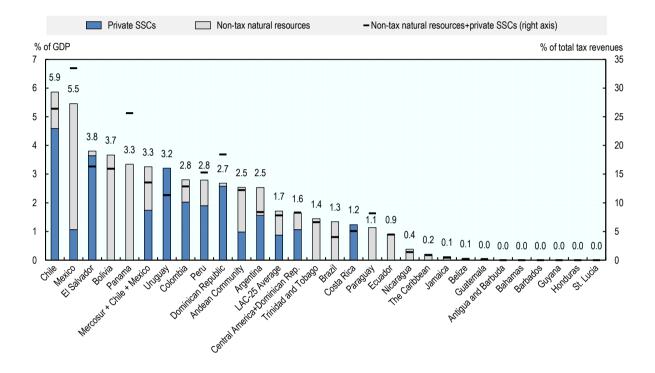
Source: Prepared by the authors with data from the Equivalent Fiscal Pressure for Latin America and the Caribbean 1990-2021 (IDB-CIAT, 2023[1]).

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Figure 3.2 ranks countries according to the level of their EFP in 2021. This ranking differs from when countries are ordered according to the level of tax revenues, due to significant gaps between the respective indicators for some countries in particular, as can be appreciated in Figure 3.3.

Figure 3.3. Non-tax revenues from natural resources and private SSCs components of Equivalent Fiscal Pressure, Latin American and Caribbean Countries, 2021

As percentage of GDP (left axis) and percentage of total tax revenues (right axis)



Source: Prepared by the authors with data from the Equivalent Fiscal Pressure for Latin America and the Caribbean 1990-2021 (IDB-CIAT, 2023_[11]).

StatLink https://stat.link/n4zlt5

In two countries, mandatory private social security contributions and non-tax revenues from natural resources (which are included in the EFP indicator but not in the tax-to-GDP ratio) amounted to more than 5% of GDP in 2021: Chile (5.9% of GDP) and Mexico (5.5% of GDP). In four countries, they amounted to more than 3% of GDP (El Salvador, Bolivia, Panama and Uruguay); and in another four countries more than 2% of GDP (Colombia, Peru, Dominican Republic and Argentina). In contrast, there is a set of countries (mostly in the Caribbean) where these revenues are practically nil.

In relative terms as regards the tax-to-GDP ratio, considering compulsory private SSCs and non-tax natural resources substantially changes the picture for comparision among countries. Most notably, the EFP is 33.5% higher than the tax-to-GDP ratio in Mexico, 26.4% higher in Chile and 25.6% higher in Panama.

By subsets of countries, considering EFP instead of the tax-to-GDP ratio significantly increases the average for Mercosur+Chile+Mexico (+3.3% of GDP and 13.6% more resources) while the figures for other sub-regions remain practically unchanged (notably among Caribbean countries). The average EFP for all LAC countries considered is 1.7 p.p. of GDP higher than the tax-to-GDP ratio (or 7.8% higher).

The balance between the additional contribution of compulsory private SSCs and non-tax natural resources also varies among countries. Private SSCs account for the bulk of the additional resources in Chile, El Salvador, Uruguay, Dominican Republic and Costa Rica, while non-tax revenues from natural resources do so in Mexico, Bolivia, Panama, Trinidad and Tobago, Brazil, Paraguay, Ecuador and Nicaragua.³

Final Comments

Countries' different approaches to designing and structuring public spending and, in particular, how these approaches are financed, can lead in some specific cases to misleading or biased interpretations of the indicators and ratios generally used to evaluate their dimensions and economic effects. EFP aims to complement the benchmark tax-to-GDP ratio for countries that adopt significantly different options, as is the case of LAC countries, to raising public revenues from natural resources (tax or non-tax instruments) or to collecting compulsory contributions to social security systems (public and private schemes).

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Annex 3.A. Statistical annex

Annex Table 3.A.1. Structure of the Equivalent Fiscal Pressure (by main tax type) in Latin American and Caribbean countries, 2021 Individual data, as a percentage of GDP

Country	ISO		Income	Tax	Public	Property		Goo	ds and ser	rvices	Other	Tax	Private	Non tax	Total	
	Code	Personal	Corporate	Non	Total	SSCs			neral	Excise	International	taxes	Revenue	SSCs	Natural	EFP
				classifiable	IT			VAT	Other		Trade		(TR)		Resources	
Antigua and Barbuda	ATG	0.0	2.1	0.0	2.1	3.3	0.6	6.1	1.9	3.5	2.4	0.1	20.0	0.0	0.0	20.0
Argentina	ARG	2.2	2.5	0.4	5.1	5.1	1.3	7.0	3.8	3.5	3.1	1.3	30.2	1.6	1.0	32.7
Bahamas	BHS	0.0	0.0	0.0	0.0	2.2	1.5	7.5	0.0	2.6	2.9	1.9	18.6	0.0	0.0	18.6
Barbados	BRB	3.8	4.4	0.6	8.8	5.8	2.0	8.7	0.0	4.2	2.2	0.1	31.9	0.0	0.0	31.9
Belize	BLZ	2.2	2.9	0.0	5.1	2.4	0.2	6.6	0.0	5.1	4.1	0.1	23.5	0.0	0.1	23.6
Bolivia	BOL	0.2	2.6	0.0	2.8	6.0	0.1	6.9	1.8	1.9	1.1	2.4	23.0	0.0	3.7	26.7
Brazil	BRA	2.9	3.6	1.3	7.8	7.7	1.6	7.4	4.9	1.5	0.7	1.6	33.2	0.0	1.3	34.6
Chile	CHL	2.4	3.8	2.3	8.5	1.2	0.8	9.5	0.0	1.5	0.2	0.5	22.2	4.6	1.3	28.1
Colombia	COL	1.3	4.5	0.3	6.1	4.6	1.0	5.9	0.9	1.7	0.4	1.1	21.8	2.0	0.8	24.6
Costa Rica	CRI	1.6	3.1	0.5	5.2	9.9	1.1	5.1	0.4	2.2	0.5	0.0	24.3	1.2	0.0	25.6
Dominican Rep.	DOM	1.3	2.8	1.0	5.1	0.1	0.6	4.8	0.0	3.2	0.8	0.1	14.6	2.6	0.1	17.2
Ecuador	ECU	0.1	0.6	3.2	3.9	5.0	0.6	6.2	0.0	2.1	1.1	1.0	20.0	0.0	0.9	20.9
El Salvador	SLV	3.0	3.5	1.1	7.6	2.8	0.1	9.7	0.0	1.7	1.0	0.3	23.3	3.6	0.2	27.1
Guatemala	GTM	0.7	2.8	0.8	4.3	2.2	0.3	5.6	0.0	1.1	0.5	0.3	14.2	0.0	0.0	14.2
Guyana	GUY	2.6	4.5	0.3	7.4	1.6	0.3	2.9	0.0	2.8	1.5	0.4	16.8	0.0	0.0	16.8
Honduras	HND	2.1	3.1	0.0	5.1	3.5	0.2	7.2	0.0	4.0	0.8	0.9	21.7	0.0	0.0	21.7
Jamaica	JAM	3.5	3.1	2.4	9.0	1.4	0.4	8.8	0.0	3.8	2.9	1.5	27.9	0.0	0.1	28.0
Mexico	MEX	3.6	3.4	0.2	7.2	1.8	0.0	4.3	0.0	1.6	0.3	1.2	16.3	1.1	4.4	21.8
Nicaragua	NIC	1.6	6.7	0.0	8.3	6.5	0.3	6.7	0.9	3.5	0.7	0.4	27.3	0.0	0.4	27.7

Panama	PAN	1.7	0.9	0.5	3.1	5.6	0.5	1.8	0.0	8.0	0.4	0.8	13.1	0.0	3.3	16.4
Paraguay	PRY	0.1	2.4	0.0	2.6	3.8	0.2	5.1	0.1	1.1	0.9	0.2	13.9	0.0	1.1	15.1
Peru	PER	1.5	4.7	0.8	7.0	1.9	0.4	7.2	0.0	1.1	0.0	0.8	18.3	1.9	0.9	21.1
St. Lucia	LCA	2.7	1.8	0.3	4.8	2.4	0.2	6.4	0.0	3.5	4.3	0.1	21.8	0.0	0.0	21.8
Trinidad and Tobago	TTO	3.6	7.1	0.0	10.8	2.8	0.0	5.2	0.5	0.8	1.4	0.2	21.8	0.0	1.4	23.2
Uruguay	URY	3.7	2.4	0.3	6.4	8.9	1.9	7.9	0.0	2.5	1.1	-0.3	28.3	3.2	0.0	31.5
Mercosur + Chile + Mexico		2.5	3.0	0.8	6.3	4.7	1.0	6.8	1.5	1.9	1.1	0.7	24.0	1.7	1.5	27.3
Andean Com	munity	0.8	3.1	1.1	5.0	4.4	0.5	6.5	0.7	1.7	0.7	1.3	20.8	1.0	1.6	23.3
Central America and Dominican Rep.		1.7	3.3	0.6	5.5	4.4	0.4	5.8	0.2	2.4	0.7	0.4	19.8	1.1	0.6	21.4
Caribbea	an	2.3	3.3	0.5	6.0	2.7	0.6	6.5	0.3	3.3	2.7	0.6	22.8	0.0	0.2	23.0
Average LA	C-25	1.9	3.2	0.7	5.8	3.9	0.6	6.4	0.6	2.5	1.4	0.7	21.9	0.9	8.0	23.6
Cuba	CUB	1.4	6.8	0.0	8.2	4.4	0.0	0.0	1.2	0.8	0.0	3.2	17.7	0.0	0.0	17.7

Note: "Other taxes" includes payroll taxes, taxes on financial transactions, taxes and simplified non-classifiable regimes, among others.

Source: Prepared by the authors with data from the Equivalent Fiscal Pressure for Latin America and the Caribbean 1990-2021 (IDB-CIAT, 2023[1]).

Annex Table 3.A.2. Structure of the Equivalent Fiscal Pressure (by main tax type) in Latin American and Caribbean countries, 2021

Individual data, as a percentage of total EFP

Country	ISO		Income	Public	Property		Goo	ds and ser	vices	Other	Tax	Private	Non tax	Total		
	Code	Personal	Corporate	Non classifiable	Total IT	SSCs		Ge VAT	General VAT Other		International Trade	taxes	Revenue (TR)	SSCs	Natural Resources	EFP
Antigua and Barbuda	ATG	0.0	10.4	0.0	10.4	16.5	3.0	30.4	9.3	17.7	12.2	0.5	100.0	0.0	0.0	100.0
Argentina	ARG	6.6	7.6	1.3	15.5	15.7	3.9	21.4	11.8	10.6	9.6	3.9	92.3	4.8	3.0	100.0
Bahamas	BHS	0.0	0.0	0.0	0.0	12.0	7.8	40.4	0.0	14.0	15.7	10.0	100.0	0.0	0.0	100.0
Barbados	BRB	11.9	13.9	1.9	27.7	18.4	6.3	27.3	0.0	13.1	6.8	0.4	100.0	0.0	0.0	100.0
Belize	BLZ	9.2	12.5	0.0	21.6	10.0	0.7	27.8	0.0	21.7	17.3	0.6	99.8	0.0	0.2	100.0
Bolivia	BOL	0.6	9.7	0.0	10.3	22.6	0.3	25.8	6.8	7.2	4.0	9.1	86.2	0.0	13.8	100.0
Brazil	BRA	8.5	10.5	3.7	22.7	22.3	4.7	21.4	14.1	4.3	2.0	4.7	96.1	0.0	3.9	100.0
Chile	CHL	8.6	13.5	8.2	30.3	4.2	2.9	33.8	0.0	5.4	0.7	1.8	79.1	16.4	4.5	100.0
Colombia	COL	5.3	18.5	1.2	25.0	18.9	4.1	23.8	3.6	7.1	1.4	4.7	88.6	8.2	3.2	100.0
Costa Rica	CRI	6.2	12.0	1.9	20.1	38.7	4.4	19.9	1.4	8.7	1.9	0.1	95.2	4.8	0.0	100.0
Dominican Rep.	DOM	7.4	16.2	5.7	29.4	0.4	3.2	28.1	0.0	18.5	4.6	0.3	84.4	14.9	0.6	100.0
Ecuador	ECU	0.6	2.9	15.3	18.8	23.9	3.1	29.6	0.0	10.2	5.4	4.7	95.7	0.0	4.3	100.0
El Salvador	SLV	11.1	12.9	4.0	28.1	10.5	0.5	35.7	0.0	6.3	3.7	1.1	86.0	13.5	0.6	100.0
Guatemala	GTM	5.1	19.6	5.7	30.4	15.2	2.0	39.2	0.0	7.5	3.7	1.8	99.8	0.0	0.2	100.0
Guyana	GUY	15.2	26.9	1.9	43.9	9.5	1.8	17.1	0.0	16.4	9.1	2.2	100.0	0.0	0.0	100.0
Honduras	HND	9.6	14.1	0.0	23.7	16.2	0.7	33.2	0.0	18.5	3.6	4.2	100.0	0.0	0.0	100.0
Jamaica	JAM	12.6	11.1	8.5	32.2	5.1	1.5	31.4	0.0	13.7	10.2	5.4	99.6	0.0	0.4	100.0
Mexico	MEX	16.4	15.8	1.0	33.2	8.2	0.0	19.6	0.0	7.2	1.3	5.4	74.9	4.9	20.2	100.0
Nicaragua	NIC	5.7	24.2	0.0	29.9	23.5	1.3	24.2	3.2	12.8	2.4	1.3	98.6	0.0	1.4	100.0
Panama	PAN	10.6	5.6	3.0	19.2	34.2	3.1	10.8	0.0	4.9	2.7	4.6	79.6	0.0	20.4	100.0
Paraguay	PRY	0.9	16.1	0.0	17.0	25.2	1.6	33.6	0.6	7.4	5.9	1.1	92.5	0.0	7.5	100.0
Peru	PER	7.0	22.5	3.7	33.2	8.9	1.8	34.0	0.0	5.1	0.2	3.7	86.7	9.0	4.3	100.0
St. Lucia	LCA	12.5	8.1	1.5	22.1	10.9	0.8	29.6	0.0	16.3	19.6	0.7	100.0	0.0	0.0	100.0
Trinidad and Tobago	TTO	15.6	30.7	0.0	46.4	12.2	0.0	22.4	2.4	3.5	6.2	0.8	93.8	0.0	6.2	100.0

Uruguay	URY	11.7	7.5	1.0	20.3	28.1	5.9	25.0	0.0	7.8	3.6	-1.0	89.8	10.2	0.0	100.0
	Mercosur + Chile + Mexico		11.1	2.8	23.0	17.4	3.5	25.1	5.4	7.1	3.9	2.7	88.1	6.4	5.6	100.0
Andean Com	Andean Community		13.4	4.6	21.3	18.8	2.3	28.0	2.9	7.4	2.8	5.7	89.1	4.2	6.7	100.0
	Central America and Dominican Rep.		15.2	2.6	25.8	20.4	2.1	27.2	8.0	11.0	3.1	1.8	92.3	5.0	2.7	100.0
Caribbea	ın	10.0	14.1	2.0	26.1	11.9	2.8	28.4	1.3	14.4	11.8	2.4	99.1	0.0	0.9	100.0
Average LA	Average LAC-25		13.5	2.8	24.4	16.7	2.7	27.1	2.6	10.4	6.0	2.9	92.8	3.7	3.6	100.0
Cuba	CUB	7.6	38.5	0.0	46.2	25.0	0.0	0.0	6.7	4.2	0.0	17.9	100.0	0.0	0.0	100.0

Note: "Other taxes" includes payroll taxes, taxes on financial transactions, taxes and simplified non-classifiable regimes, among others.

Source: Prepared by the authors with data from the Equivalent Fiscal Pressure for Latin America and the Caribbean 1990-2021 (IDB-CIAT, 2023[1]).

Notes

¹ For more detail about the methodological basis of the EFP and previous analysis of the figures available during the last decade, refer to the IDB-CIAT Revenue Collection database webpage (https://www.ciat.org/idb-ciat-revenue-collection-database/?lang=en) and (Barreix et al., 2013_[2]). The figures used in this chapter are based on Morán and Solera (2023). The chapter updates previous analysis of EFP, prior to the COVID-19 pandemic, contained in the 2020 edition of this report (OECD et al., 2020_[4]).

² In the case of Cuba, a recent monetary reform and the inflation triggered by the COVID-19 pandemic led to a sharp increase in nominal GDP between 2020 and 2021 (a more than five-fold increase in nominal terms) and created a sructural break in the country's tax level and structure. This resulted in an unprecedented drop in EFP from 37.5% percent of GDP in 2020 to 17.7% of GDP in 2021, which is mainly explained by the drop in the sales tax rate and the reclassification of extraordinary revenues as non-taxable. In a medium-term analysis, this would undoubtedly introduce an artificial bias in the averages calculated for the region as a whole. In the case of Venezuela, no official data are available since 2016. However, figures compiled at the individual level are included (in Cuba until 2021 and in Venezuela until 2015), which are made available to interested users in the EFP online database. There is also no official statistical information available for certain countries in particular years, namely: Antigua and Barbuda (1990), Ecuador (1990-92), Nicaragua (1990) and Saint Lucia (1990-91).

³ Detailed figures can be found in the statistical annex at the end of the chapter while methodology and sources of information may be consulted in (Morán and Solera, 2023_[3]).



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