

Systematic Review of Evidence on the Impact of Tax Incentives in Latin American and Caribbean Countries

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Inter-American Development Bank
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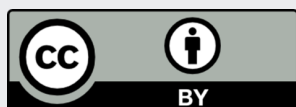
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Abstract*

Governments in Latin America and the Caribbean (LAC) heavily rely on corporate tax incentives to attract foreign investment or investment in particular sectors or activities. On average, tax incentives focused on investment and businesses account for approximately 1.1 percent of GDP in LAC, rising to 1.5 percent or more in some countries. However, despite the magnitude of these tax incentives, governments do not usually ask whether they are promoting the country's development aims at the lowest possible cost. This technical note presents a systematic review of the existing literature on the impact of tax incentives in LAC. The findings are mixed and frequently inconclusive. While some studies report increased investment in targeted sectors, others find little or no response. More importantly, most research assesses whether investment levels increase, without examining whether the incentives generate net economic benefits,

address a market failure, or improve productivity and long-term growth. Very few studies conduct an economic cost-benefit analysis. As a result, key questions about their overall allocative efficiency often remain unaddressed. The evidence suggests that tax incentives alone are rarely sufficient to influence investment decisions, which are more strongly driven by fundamentals such as profitability, labor availability, infrastructure, and country risk. To improve the quality of tax incentive policies, governments should adopt systematic ex ante assessments and ensure that incentive design is targeted, efficient, and based on clear economic rationale.

JEL Codes: E62, H25, O23

Keywords: tax incentives, tax expenditure, foreign direct investment, cost-benefit analysis, ex ante evaluation, ex post evaluation

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Introduction

Tax incentives have become a more common policy to promote investment in developing economies. Many governments, including those in Latin America and the Caribbean (LAC), are trying to reallocate and encourage foreign and domestic investment by using tax incentives that offer certain economic activities a more favorable tax treatment. These incentives include income tax holidays, reduced corporate income tax (CIT) rates, investment tax credits, investment allowances, accelerated depreciation, and value-added taxes (VAT) and customs duty exemptions.

The tax revenue that is forgone as a result of tax incentives related to investment and businesses, including CIT incentives and foreign trade tax expenditures, represents about 1.1 percent of GDP in LAC. According to data from the Tax Expenditure Database of Latin America and the Caribbean (TEDLAC) (Peláez Longinotti, 2025), the tax revenue forgone as a result of CIT incentives is equivalent to around 0.9 percent of GDP on average in the region. The countries with the highest forgone revenue from

CIT-related tax incentives include Honduras and Uruguay (1.7 percent), followed by Costa Rica (1.6 percent), Colombia (1.3 percent), Chile (1.2 percent), and Ecuador (1.1 percent). When considering foreign trade tax incentives (mainly duty exemptions and special regimes such as free trade zones [FTZs]), the magnitude is smaller but still relevant, with forgone revenue averaging 0.2 percent of GDP across the region. The highest forgone revenue is found in Jamaica (1.4 percent) and in Paraguay and the Dominican Republic (0.3 percent).

Proponents of such incentives assert that these mechanisms foster investment and employment opportunities, whereas critics argue that they lack efficacy, incur substantial tax expenditures, distort investment patterns, enable corrupt practices, and render the tax system convoluted and opaque.

In view of the above, the objective of this study is to review and analyze the existing literature on the effects of investment tax incentives in LAC economies. The remainder of the paper is

organized as follows: Section 1 outlines the advantages and disadvantages of general tax incentives, describes the main types of tax incentives offered in LAC countries, and provides an overview of key economic principles for evaluating such incentives. Section 2 presents the methodology used to conduct the systematic review, along with a descriptive analysis of the collected materials. Section 3 summarizes the empirical evidence on the effectiveness and efficiency of tax incentives. Section 4 draws lessons from international experience by highlighting alternative policy tools used to stimulate investment. The final section offers conclusions and policy recommendations. A set of annexes provides complementary material, including an inventory of corporate tax incentives by country (Annex A), details of the systematic review methodology (Annex B), and a synthesis table of the results from the sample studies (Annex C).

1.1 Types and Advantages and Disadvantages of General Tax Incentives

Tax incentives are special tax provisions that favor certain types of investments, investors, or products. They are used with the intention of lowering the effective rate of taxation. Tax incentives can apply to both domestic and foreign investments and for any purpose. They can be found throughout tax and investment laws. In statutory terms, a tax incentive can be defined as a special tax provision granted to qualified investment projects that represents a statutorily favorable deviation from a corresponding provision applicable to all other investment projects (i.e., projects that receive no special tax provision). An implication of this definition is that any tax provision that is applicable to all investment projects does not constitute a tax incentive. Hence, for example, a tax provision that allows the profits of a foreign-funded investment

project to be taxed at half the rate that applies to domestic companies would constitute a tax incentive, but a provision that simply sets a low CIT rate for all firms would not constitute a tax incentive (Zee et al., 2002).

Tax incentives take several different forms depending on where they fit into the structure and administration of the tax system. In general, they can be grouped into tax holidays, reduced CIT rates, investment allowances and tax credits, accelerated depreciation, exemptions from indirect taxes such as import tariffs on inputs, and export processing zones (special zones for exporters: enterprises in the zones are typically exempt from all indirect taxes and, in some cases, all direct taxes). Table 1 provides a summary of the distinct types of tax incentives.

The various types of tax incentives for investment shown in Table 1 can be broadly categorized into (i) profit-based incentives (i.e., those determined as a percentage of profit, including tax holidays, reduced CIT), (ii) expenditure-based (or capital investment-based) (i.e., those that reduce the after-tax cost of capital investment expenditure, including investment allowance, accelerated depreciation, tax credits, and the like), and (iii) other tax incentives such as reduced rates on indirect taxes (e.g., VAT, duties, and tariffs), taxes on labor, land, social security contributions, and other payments. Profit-based incentives provide tax relief based on earnings and not on new investments. In this regard, they are particularly attractive to mobile foreign direct investment (FDI), which can easily relocate across borders in response to changes in tax treatment, particularly tax rates. Expenditure-based incentives, by contrast, tend to promote reinvestment and therefore further integration into the local economy. In addition, expenditure-based incentives typically target specific types of capital investments or activities that can be associated with countries' sustainable development objectives (UNCTAD, 2022).

TABLE 1

MAIN FORMS OF TAX INCENTIVES

Instrument	Description	Example
Tax holidays	Temporary exemption of a firm or investment from certain specified taxes (typically at least CIT) for a specified period. Sometimes administrative requirements are also waived, notably the need to file tax returns. Businesses may be able to carry forward losses from the holiday period.	Company (A) is exempt from CIT for the first five years.
Reduced CIT rates	Reduction of the CIT rate without a full exemption on qualifying income to particular types of activity (e.g., manufacturing), locations, or regions.	Company (A) benefits from a lower CIT rate of 10% instead of the standard CIT rate of 22%.
Investment allowance	Deduction of a certain proportion of an investment from taxable profits (in addition to depreciation). The value of an allowance is the product of the allowance and the tax rate.	Company (A) investing an amount (X) in machinery can deduct 20% from taxable income.
Investment tax credit	Credit against the overall tax liability is given for a specified portion of the qualifying investment expenditures. Rules differ regarding excess credits (credits in excess of tax liability) and include the possibility that they may be lost, carried forward, or refunded.	Company (A) receives a tax credit of (X) amount for R&D spending, reducing tax owed (tax liability) by the same amount (X).
Accelerated depreciation	Certain investments may receive depreciation of capital assets at a faster rate than others available for the same type of investment. This can be implemented in many different ways, including higher first-year depreciation allowances or increased depreciation rates. The total tax liability is unchanged in nominal terms, but the timing changes, thus creating benefits in present value terms.	An investment project can depreciate 50% of the investment amount (e.g., plant and machinery, buildings) in the first year instead of the standard depreciation rate of 10%.
Exemptions from indirect taxes	Exemption from certain taxes, often those collected at the border, such as tariffs, excises, and VAT on imported inputs.	A manufacturer importing machinery worth an amount (X) avoids a 20% import duty.
Special zones	Geographically limited areas in which qualified firms can locate and thus benefit from exemption of varying scopes of taxes and/or administrative requirements (such as lower tax rates, duty exemptions, and streamlined regulations). Zones are often aimed at exporters and are located close to a port.	Company (A) setting up in a special economic zone (SEZ) enjoys exemption from CIT (or reduced CIT rate) and exemptions from customs duties and/or import taxes, VAT, or sales taxes.

Source: Based on Klemm (2010).

Theoretical studies conclude that not all tax incentives are equally effective in promoting investment, economic growth, and employment, with accelerated depreciation schemes, immediate deductions, and tax credits being preferable to tax holidays, other exemptions, and reduced rates. A joint report by four international organizations emphasizes that tax incentives

that reduce the cost of capital investment are often preferable to tax incentives based on corporate profits. The cost-based incentives seek to reduce the cost of capital to make more projects profitable and generate investments that would not otherwise have been undertaken. Tax incentives based on profits or benefits generally reduce the tax rate applicable to taxable income;

therefore, one of their effects is the forgoing of tax revenues to make investment projects—that would have been carried out even without the incentive—even more profitable than they already were (IMF, OECD, UN, and World Bank, 2015).

Table 2 summarizes the main advantages and disadvantages of the different tax incentives commonly used. Policymakers are encouraged to consider whether the potential costs associated with these fiscal incentives more than offset their benefits in terms of attracting investment.

1.2 Main Tax Incentives Offered in LAC Countries

This study has updated the tax-related incentives in the LAC region—as outlined in the ECLAC/Oxfam International (2019) report—with data from the International Bureau of Fiscal Documentation’s Tax Research Platform (IBFD, 2024), which provides up-to-date and detailed information on tax regulations and policies worldwide through 2024. The types of incentives utilized differ within

TABLE 2

PROS AND CONS OF VARIOUS TAX INCENTIVE INSTRUMENTS

	Pros	Cons
Profit-based instruments	<ul style="list-style-type: none"> Strong signaling effect to investors, easy to communicate and advertise. 	<ul style="list-style-type: none"> Disproportionately favor investments with high profit margins that would have likely occurred anyway and investments with short time horizons (in the case of time-bound holidays and concessions). Typically granted against upfront assurances from the investor rather than actual performance in terms of expected outcomes, such as investment or jobs generated. Prone to abuse through profit shifting within firms. High fiscal risk owing to the low predictability of actual fiscal cost.
	<ul style="list-style-type: none"> Tax holidays only: Investors may appreciate complete liberation from interaction with tax authorities for the duration of the holiday. 	<ul style="list-style-type: none"> Tax holidays only: Liberating investors from tax filing requirements makes it impossible to monitor the costs of incentives in terms of forgone revenue.
Expenditure-based instruments	<ul style="list-style-type: none"> The amount of benefit to investors is directly linked to the amount invested. Tax revenue loss is more predictable than under profit-based instruments. Less prone to abuse through profit shifting than profit-based instruments. Does not liberate firms from filing taxes, which makes the process more transparent and allows tracking of costs in terms of forgone revenue. Accelerated depreciation only: The nominal tax burden is not actually reduced; payment is merely deferred to a later stage of the investment. 	<ul style="list-style-type: none"> More challenging to administer. May bias production technology toward more capital-intensive investment.

Source: Andersen et al. (2018).

the region in terms of their design and coverage due to the varying goals of the individual countries. Table 3 summarizes the main fiscal incentives offered in the LAC region in 2024 (see Annex A for a detailed description of tax incentives by country). In general, tax incentives are targeted to attract investment in specific types of activity or geographic areas. The main specific sector targets in the region are manufacturing (13 countries), tourism (10 countries), renewable energy (10 countries), and development (10 countries). In parallel, every country also offers location-based incentives, typically through special zones that focus on export-oriented activities and regional development.

In 15 of the 17 LAC countries analyzed, corporate tax holidays are a prominent feature; Argentina and Mexico are the exceptions. These incentives last for varying periods of time, based on industry and location factors. The range spans from 3 years in Ecuador for new microenterprises to 50 years in Chile for businesses that invest in Region XII focusing mainly on industrial, mining, and tourism activities. Chile also extends other long-term incentives like 44-year tax holidays for companies operating within special zones (i.e., Tierra del Fuego). The average duration of tax holidays across the region tends to fall between 10 and 15 years, with countries such as Bolivia, Brazil, Guatemala, Paraguay, and Uruguay providing tax exemption within this range. The principal target of most of these incentives is the special zones.

In addition to corporate tax holidays, reduced CIT rates are offered in 12 out of 17 LAC countries. Some countries use this incentive to achieve specific regional development goals. In Brazil's northeastern regions, companies are encouraged with a 75 percent decrease in taxes for initiatives located in SUDENE and SUDAM development zones aimed at boosting infrastructure improvements.

Other countries, such as Costa Rica and Panama, use reduced CIT rates to promote

investment in industrial activities. For instance, Costa Rica provides reduced rates of 0 percent, 5 percent, 6 percent, or 15 percent for industries located in FTZs, depending on the location and amount of investment. Panama provides a reduced CIT rate of 5 percent to the multinational companies providing manufacturing services.

Investment tax credits are also commonly used to promote spending in industries such as productive investments (Argentina, Chile, Mexico, Peru, Uruguay), research and development (R&D) (Argentina, Brazil, Colombia, Ecuador, Mexico), and renewable energy projects (Dominican Republic, Ecuador, El Salvador). In addition, Honduras uses an employment tax credit to encourage job creation.

Businesses in sectors that seem to depend excessively on capital assets are often granted accelerated depreciation incentives to recover their investment expenses at a faster pace. For example, Chile, along with Ecuador, Mexico, and Nicaragua, are known for using depreciation in new fixed assets or new projects in general. Furthermore, in LAC this tax benefit is aimed at assisting industries like the construction sector in Peru, the tourism sector in Uruguay, the mining industry in Argentina, manufacturing in Bolivia, and renewable energy in Argentina, Colombia, and Panama.

Nearly all countries in the region have special incentive regimes for companies located in underdeveloped areas or designated special zones, like FTZs and SEZs. The typical SEZ policy package includes import and export duty exemptions, streamlined customs and administrative controls and procedures, liberal foreign exchange policies, and income tax incentives, all meant to boost an investment's competitiveness and reduce business entry and operating costs.

In Guatemala, a tax holiday of up to 10 years is granted for export-oriented activities carried out by international service providers and textile manufacturers located in public economic development zones under the regime of the

TABLE 3

MAIN TAX INCENTIVES FOR COMPANIES IN LATIN AMERICA AND THE CARIBBEAN, 2024

Country	Corporate Income Tax Incentives															
	Tax holidays (years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Agriculture, fishing	Forestry	Mining	Renewable energy	Industry	Tourism	International services	Other	Location incentives	Free/special zones	Exemption from indirect taxes/tariffs
Argentina	n.a.	Yes, tax reduction	Yes, both	Yes, certain sectors	Yes, certain sector		✓	✓	✓	✓			✓	Yes	Yes	Yes, free zones, Tierra del Fuego, certain sectors
Bolivia	10 (cities of Oruro and Potosí)	No	No	Yes	n.a.		✓			✓			✓	Yes	Yes	Free zones, certain sectors
Brazil	10 (north and northeast)	Yes, certain sectors	Yes, both	Yes	No					✓		✓	✓	Yes	Yes	Export sector, free zones, certain sectors, some imports of machinery and equipment
Chile	44, 50	Yes, certain sectors	Yes, certain sectors	Yes	Yes		✓			✓			✓	Yes	Yes	VAT exemption on imported capital assets for qualified foreign investors/free zone imports
Colombia	5, 15, 20 depending on sector and area (SEZs)	Yes, certain sectors	Yes, both	Yes, certain sectors	Yes		✓	✓			✓		✓	Yes	Yes	Temporary importation, machinery, supplies in certain sectors, border

(continued on next page)

TABLE 3

MAIN TAX INCENTIVES FOR COMPANIES IN LATIN AMERICA AND THE CARIBBEAN, 2024 *(continued)*

Country	Corporate Income Tax Incentives													Exemption from indirect taxes/tariffs				
	Sectoral Incentives																	
	Tax holidays (years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Agriculture, fishing	Forestry	Mining	Renewable energy	Industry	Tourism	International services	Culture		R&D/R&D+I	Other	Location incentives	Free/special zones
Costa Rica	6, 8, 12 (FTZ depending on location)	Yes, smaller companies, FTZ	Yes, certain sector	Yes, certain sectors and according to TA	n.a.	✓	✓			✓						Yes	Yes	Export sector; machinery, equipment, and supplies in certain sectors
Dominican Republic	5, 10, 15, 25 (depending on sectors and areas)	No	Yes, both	Yes (innovation incentives)	Yes			✓	✓	✓	✓	✓	✓		✓	Yes	Yes	Export sector, free and special zones, others/certain machinery, equipment, and materials
Ecuador	3, 5, 8, 10, 12, 15, 20 (depending on sector and area, SEZs)	Yes (reinvestment and SEZs)	Yes, both	Yes, according to TA	Yes	✓	✓	✓	✓	✓	✓	✓	✓	✓		Yes	Yes	Exporters, machinery and supplies, certain sectors
El Salvador	5, 10, 15 (depending on sectors and areas)	Yes, smaller companies	Yes, certain sector	No	n.a.			✓		✓	✓	✓	✓			Yes	Yes	Importation of machinery, equipment, and supplies for certain sectors, free trade zones

(continued on next page)

TABLE 3

MAIN TAX INCENTIVES FOR COMPANIES IN LATIN AMERICA AND THE CARIBBEAN, 2024 (continued)

Country	Corporate Income Tax Incentives													Exemption from indirect taxes/tariffs				
	Tax holidays (years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Agriculture, fishing	Forestry	Mining	Renewable energy	Industry	Tourism	International services	Culture		R&D/R&D+I	Other	Location incentives	Free/special zones
Guatemala	10 years (depending on areas)	No	No	No	No				✓	✓	✓	✓				n.a.	Yes	Maquiladora, free zone; importation of machinery, materials in certain sectors
Honduras	10, 12, 15, 20 (certain sectors and areas)	Yes, SEZs	Yes	Yes	No	✓		✓	✓	✓	✓					Yes	Yes	Free zones; certain sectors; imports of capital goods, etc. for the RIT
Mexico	n.a.	No	Yes, both	Yes	n.a.	✓		✓	✓	✓	✓		✓	✓		Yes	Yes	Export sector, maquiladora/IMMEX companies, certain sectors
Nicaragua	7, 10, 15, 20 (depending on sectors and areas)	Yes, fishing activities and lower-income companies	n.a.	Yes (exporters)	n.a.	✓	✓	✓	✓	✓	✓				✓	Yes	Yes	Export sector; free zones; certain raw materials, capital goods, etc.
Panama	5, 10, 13, 15, 25 (depending on sector and area, SEZs)	Yes, MNCs	Yes, both	Yes (wind power)	Yes		✓	✓	✓	✓	✓				✓	Yes	Yes	Export sector; free trade zones; other sectors

(continued on next page)

TABLE 3

MAIN TAX INCENTIVES FOR COMPANIES IN LATIN AMERICA AND THE CARIBBEAN, 2024 (continued)

Country	Corporate Income Tax Incentives													Exemption from indirect taxes/tariffs					
	Sectoral Incentives										Tax stability contracts	Accelerated depreciation	Deductions or credits for investment		Reduced rates or income tax reduction	Tax holidays (years)			
	Agriculture, fishing	Forestry	Mining	Renewable energy	Industry	Tourism	International services	Culture	R&D/R&D+I	Other							Location incentives	Free/special zones	
Paraguay	✓				✓								✓	Yes	No	Yes	Yes	Yes	Export sector, free zones, maquiladora, other sectors, capital goods for certain investments
Peru	✓		✓		✓							✓		Yes	Yes, certain sectors	Yes	Yes	Yes	Export sector, free zone, SDZs, certain sectors, and jungle regions
Uruguay	✓	✓	✓		✓	✓								n.a.	Yes, certain sectors	No	Yes	Yes	Export sector, free zones, free ports, others/machines, equipment, etc. for certain sectors

Source: ECLAC/Oxfam International (2019), IBFD (2024).

Notes: FTZ: free trade zone; IMMEX: Industria Manufacturera, Maquiladora y de Servicios de Exportación (Manufacturing Industry, Maquiladora, and Export Service); maquiladora: Spanish term for a factory located near the United States–Mexico border that operates under a favorable duty- or tariff-free basis; MNC: multinational corporation; R&D+I: research and development and innovation; RT: Regimen de Importación Temporal (Temporary Import Regime); SDZ: special development zone; SEZ: special economic zone; TA: tax administration.

Santo Tomás de Castilla Free Trade and Industrial Zone. Similarly, Honduras has established industrial processing zones for exports, which provide up to 20 years of complete income tax exemption for companies focused on manufacturing goods intended for international markets, particularly those targeting countries outside of Central America. In addition, the importation of production machinery, raw materials, and supplies is exempted from indirect taxes. Panama also participates in this framework through its Colón Free Zone. Companies incorporated in the Colón Free Zone that engage in the activities established in Law 9 of 2016 will enjoy exemption from CIT for 10 years. Also, there are no import duties on goods brought into the Colón Free Zone for re-export. In Nicaragua, the Export Free Trade Zone Law provides for several types of export-free zones (e.g., for processing, industrial production, logistics, and outsourcing services). FTZ users are qualified for a 10-year income tax holiday, which can be extended for an additional 10 years. Once the full tax exemption expires, qualifying companies will be entitled to a 60 percent exemption. Furthermore, raw materials, machinery, equipment, spare parts, samples, molds, and accessories required for the operation of companies in the FTZs are exempt from import duties.

1.3 Economic Principles for Evaluation of Tax Incentives

Investment tax incentives ultimately aim to contribute to a country's development and improved living conditions for its citizens. Countries that choose to offer tax incentives must ensure that they are underpinned by sound economic rationale. Otherwise, because countries are faced with a limited productive resource, such incentives will lead to an inefficient allocation of resources and a reduction in the overall level of economic welfare. In this context, the concepts of neutrality, market failure, and the opportunity cost of

capital are particularly important for the design and evaluation of tax incentives.

Tax incentives are typically provided by governments in order to encourage additional investments that would not otherwise be forthcoming. A useful criterion in the selection of efficient tax incentives is that of neutrality in the allocation of capital between subcomponents of the incentivized sector. According to Harberger (1980), a tax incentive to investment is neutral when an incentive does not induce new covered subcomponents investments with low rates of social yield, while failing to induce covered investments within the overall sector that have a higher rate of social yield. Therefore, a non-neutral tax incentive (such as an investment tax credit) can create welfare losses if it changes the ranking of investment projects such that lower-return activities become more attractive than those with higher social returns.

The theoretical grounding for the use of tax incentives is to correct for the allocation of resources resulting from some market failure—that is, where the market left to its own devices does not maximize the welfare of society. In this respect, a tax incentive can potentially play a role in mitigating the cause or effect of the market failure. Market failures include externalities (where private actions impose costs or benefits on others), the underprovision of public goods, market power distortions, and imperfect information, all of which can lead to underinvestment or suboptimal economic outcomes. In the absence of a clearly identifiable market failure, tax incentives will lead to inefficiency and deadweight loss, situations resulting in an inefficient allocation of resources. If the market failure is correctly identified, the tax incentive offers an efficient solution if it yields social benefits that exceed social costs, and the incentive may make sense from an economic perspective. The costs of a tax incentive include the distortions introduced by taxing some activities at different rates and taxing some firms engaged in the same activities at different

rates than others. The benefits of the tax incentives include the net positive externalities created for non-beneficiaries, such as the benefits for consumers of increased competition that leads to lower prices and employment that is created where the wage rate paid in the incentivized sectors is greater than the opportunity cost of the incremental labor employed.

Another fundamental principle of economics that must be considered in the evaluation of tax incentives is that economic resources have an opportunity cost, reflecting their value

in alternative uses. Tax incentives divert resources from other parts of the economy to the sectors or regions that receive preferential treatment. Therefore, in calculating the net economic benefit (or cost) of a tax incentive, it is essential to apply an appropriate economic discount rate that reflects the true economic opportunity cost of capital to society. This ensures that the evaluation properly accounts for what is foregone when resources are redirected, such as investments in infrastructure, education, or other public goods that may yield higher social returns.

Methodology and Summary of Reviewed Studies

This study follows the systematic review guidelines of Tranfield et al. (2003) to identify, screen, and analyze empirical literature on the effects of tax incentives on stimulating investment, employment, and economic growth in Latin American and Caribbean (LAC) countries.

The systematic review is guided by the following key research questions:

- What types of tax incentives are investigated in the LAC region?
- What methods are employed to perform the ex ante and ex post evaluations of tax incentives?¹
- To what degree do tax incentives effectively stimulate investment, employment, and economic growth in the LAC region?
- Do the benefits attributable to the tax incentive outweigh the costs?

Literature searches were conducted across Scopus, Web of Science, Business Source Complete, and additional repositories from inter-

national organizations, covering the period 2000–2024. The detailed inclusion criteria, database coverage, search strings, and screening are provided in Annex B. Following the multi-stage screening process, 31 studies that are empirical, apply quantitative models, focus on LAC countries, and have significant contributions to the topic were selected for the discussion and interpretation stages.² The complete list of included

¹ Ex ante evaluations are conducted before a tax incentive is implemented and aim to estimate its likely impact using forecasts, assumptions, or simulation models. In contrast, ex post evaluations take place after implementation, drawing on observed empirical data to assess the policy's actual outcomes and real-world effectiveness.

² It is worth mentioning that the total number of references discussed in this report goes beyond the 31 papers included directly in the systematic review. The discussion of various concepts incorporates insights from an additional 30 scholarly works, including foundational studies, investor surveys, and international survey papers (e.g., De Mooij and Ederveen [2003], which synthesized findings from 25 empirical studies, and Feld and Heckemeyer [2009], which synthesized findings from 46 empirical studies). This ensures that the conclusions drawn in this report are based on a comprehensive and diverse range of literature.

articles is presented in Annex C, which summarizes the results and methodologies used in these empirical studies.

After defining the sample, a descriptive analysis of the collected materials was conducted to provide an overview of the documents across a set of variables:

- Geographic distribution of the studies
- Types of tax incentives analyzed
- Methods and types (ex ante/ex post) of evaluation of the impact of tax incentives

2.1 Geographic Distribution of the Studies

As shown in Table 4, the sample literature includes nine cross-country analyses. This way, broader trends spanning several countries can be observed. Brazil, Colombia, and the Dominican Republic are at the top as far as the number of citations is concerned, each being mentioned in four different works, while Chile and Ecuador each

TABLE 4

GEOGRAPHIC DISTRIBUTION OF THE SAMPLE LITERATURE

Country / Region	Count
LAC/Caribbean countries (cross-country analysis)	9
Brazil	4
Colombia	4
Dominican Republic (DR)	4
Chile	3
Ecuador	3
Argentina	1
Costa Rica	1
Mexico	1
Uruguay	1
Total Studies	31

have three citations to their names. Argentina, Costa Rica, Mexico, and Uruguay are referred to in just one study each in the analyzed sample.

2.2 Types of Tax Incentives Analyzed

The review of the typical types of tax incentives analyzed shows that more than half of the sample is focused on the evaluation of the effects of tax holidays and the reduction of corporate income tax (CIT), as illustrated in Figure 1. Import duties exemptions and investment tax credits have been investigated five times and investment allowances three times. Accelerated depreciation and R&D credits have been examined two times. Other forms of tax incentives were analyzed once each.³

2.3 Methods and Types of Evaluation of the Impact of Tax Incentives

Figure 2 shows the methods used in the sample literature for measuring the impact of different types of tax incentives. Econometric techniques are the main method, as evidenced by 19 out of 31 cases in the sample. The econometric evaluations usually concentrate on the direct effect of changes in tax incentive policies on the country's or company's economic activity (e.g., investment growth due to a reduction in the effective tax rate). Econometric evaluation includes methods such as regression models, multiple linear regression, fixed-effects models, generalized method of moments (GMM), difference-in-differences (DID) approach, matching method, regression discontinuity, seemingly unrelated regressions, and dynamic panel data techniques.

The cost-benefit analysis method focuses on the net economic impact by comparing the costs caused by the application of tax incentives (e.g., tax revenue loss) and benefits (e.g., additional

³ Some studies analyze multiple types of tax incentives within the same paper.

FIGURE 1

TYPES OF TAX INCENTIVES ANALYZED BY FREQUENCY

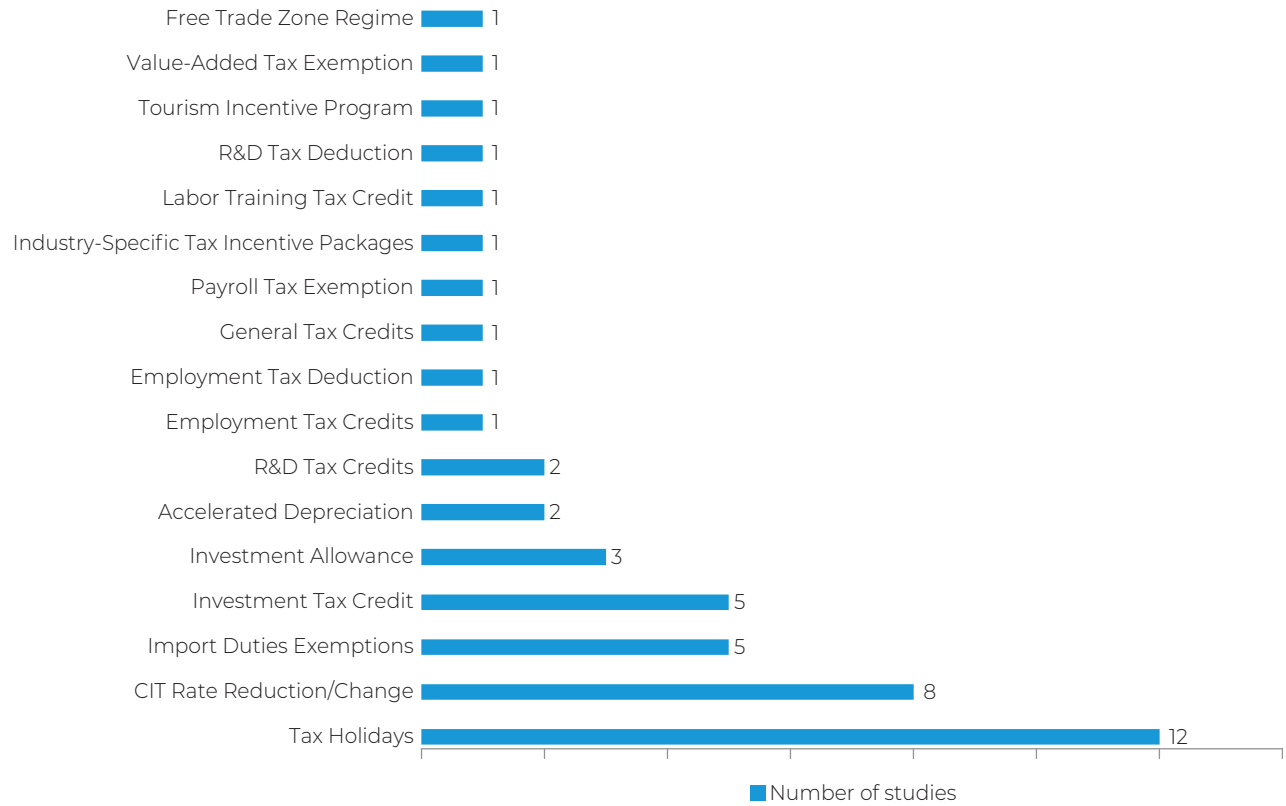
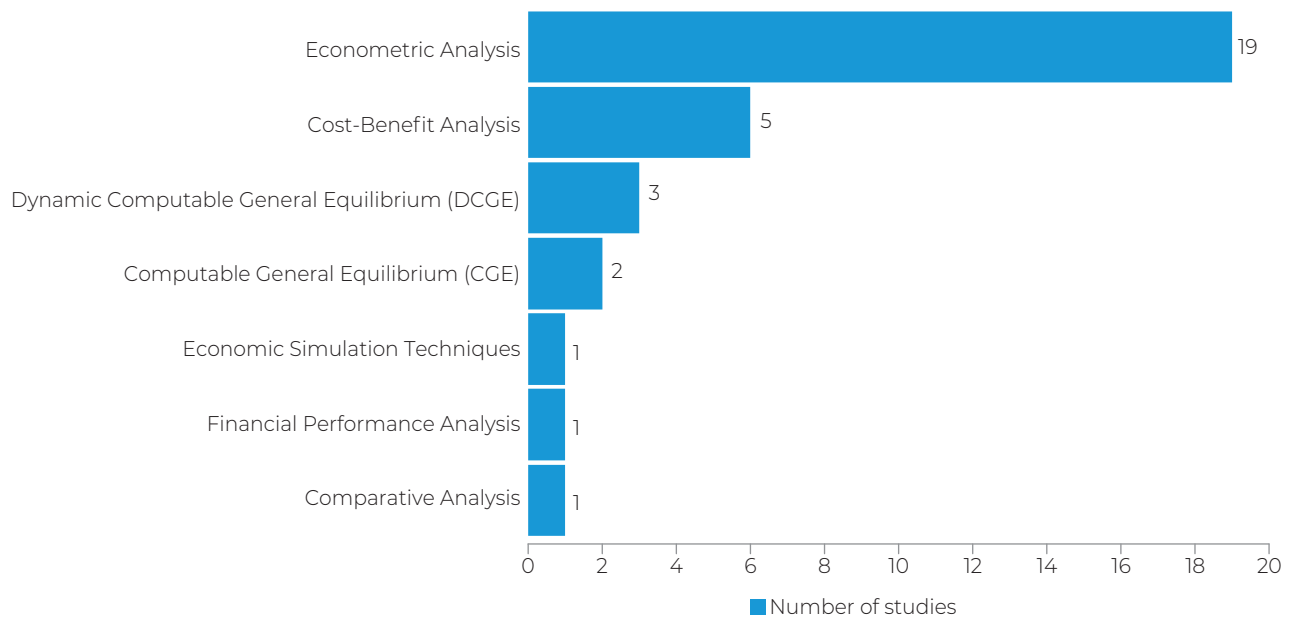


FIGURE 2

TYPE OF ANALYSIS BY FREQUENCY



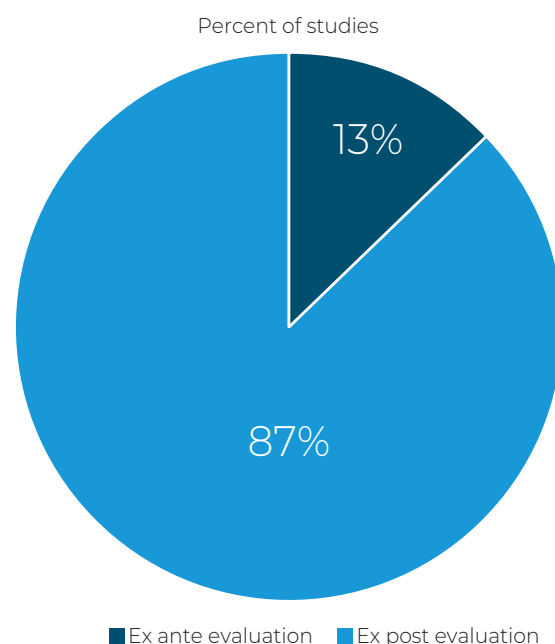
investment or employment). This method ranks second and appears in five documents in the sample analyzed in this study. Structural models such as computable general equilibrium (CGE) and dynamic computable general equilibrium (DCGE) models were utilized five times. Other methods, such as simulation models, comparative assessments, and financial analysis were employed only once each.

Due to the sample literature's tendency to apply econometric models, there is more evidence concentrated on tax incentives' effectiveness in achieving their desired objective to increase sectoral activities; on the other hand, the cost efficiency and overall economic viability of tax incentives have rarely been studied. The infrequent use of cost-benefit analysis indicates a significant gap in the adoption of a comprehensive evaluation framework that enables quantification of the net economic benefit (or cost) of introducing tax incentives.

Regarding the type of evaluation used in the study of tax incentives, Figure 3 shows that most studies reviewed (87 percent) have applied a post-introduction (ex post) evaluation. Only four studies (13 percent) of the sample of 31 studies used the ex ante method, which takes place before the introduction of tax incentives.

The lack of ex ante evaluations of tax incentives highlights a notable deficiency within the current literature. This deficiency can be ascribed to the deficit of skills in cost-benefit analysis and applied economic welfare analysis. Unlike evaluations conducted post-implementation that analyze results after a policy is put into effect, ex ante evaluations offer distinct value by examining the possible impacts of tax incentives on investments

FIGURE 3
TYPE OF EVALUATION BY FREQUENCY



before they are put into action. Having the ability to model investment outcomes is crucial for making informed decisions because it enables policymakers to effectively simulate scenarios to reduce negative consequences and maximize the advantages of tax incentives. For instance, conducting an ex ante evaluation can indicate when the incentive may lead to tax revenue losses without generating the necessary benefits that would lead decision-makers to increase investment. This insight can help governments adjust or even revamp the policy altogether. This becomes particularly important in industries where incentives could potentially focus on investments that would have happened anyway, making the tax benefits unnecessary and costly.

Literature Review on the Impact of Tax Incentives

Most of the literature review in this section is of econometric studies that are focused on the question of whether tax incentives lead to an increase in a targeted activity (such as foreign direct investment [FDI]), which generally addresses the question of effectiveness. However, even if the analysis indicates that there is a positive relationship between the incentive and the desired outcome, this does not mean that the tax incentive has a positive impact on the economic welfare of the country (an issue of efficiency). For example, the tax incentive may increase the private rate of return to the owners of the foreign investment, causing them to invest in activities that have a lower-than-average economic return to society. Such results will reduce the overall economic welfare of the country rather than increase it, even though the effectiveness in transferring economic resources to the targeted sector is achieved.

Based on the body of evidence reviewed, the findings on the effectiveness of tax incentives are mixed. Roughly half of the econometric

studies report little or no measurable impact, or only modest effects on the targeted activity or sector, while the other half find a clear positive effect. When considering efficiency, as assessed through cost-benefit analysis, approximately 80 percent of the studies reviewed conclude that the incentives examined are not efficient—that is, their social cost exceeds the estimated economic benefit.⁴

Studies use various approaches and data from both developed and developing countries to determine the importance of tax incentives in explaining investment and other economic outcomes, with mixed results reflecting the complexity of their effects. Despite the potential benefits, the use of tax incentives usually comes with significant and sometimes overlooked costs (Klemm and Van Parys, 2012). This section provides an overview of the empirical literature

⁴ These results, while indicative, should be interpreted with caution given the diversity of incentive types, economic contexts, and methodological approaches across studies.

assessing the impact of tax incentives on investment and other economic variables.

Corporate tax incentives are frequently used as policy instruments aimed at fostering investment, which in turn is expected to drive economic growth and boost employment. The underlying rationale is that, through changes in the corporate income tax (CIT) via temporary exemptions (tax holidays) or simply by the reduction of the CIT rate, an investment could be incentivized, with additional investment being made in a sector there is the potential to boost economic performance and generating employment. The employment effect would be realized when the effect of the lower cost of capital creates an increase in the demand for the output of the incentivized sector, which in turn raises labor demand. However, firms also face incentives to substitute capital for labor as capital becomes relatively cheaper. Net employment gains will occur only if the increase in labor demand driven by output growth more than offsets the labor-displacing substitution effect.

The effects of tax incentives are inconclusive globally. Applying regression and other quantitative methods as well as undertaking investor motivation survey studies on the topic yield uncertain conclusions for a number of reasons such as the research methodologies applied, the scope of analysis, the variety of variables examined, and the analysis periods. It is often challenging to determine if the impacts caused by the tax incentives introduced are only owing to the use of these incentives or if other factors, such as a change in other public policies or macroeconomic variables, might also affect the results.

The choice of tax variables can also be problematic because the true effective tax rate in a country depends on complex interactions between statutory rates, depreciation regimes, loss-carry forward provisions, inflation, and other variables. Nonetheless, a few preliminary conclusions regarding tax incentives can be made from

this literature. Overall, the evidence indicates that changes in tax policies may have an important impact on drawing investment into a specific sector, especially foreign investment.

3.1 The Impact of Tax Incentives on Foreign Direct Investment

This section explores the impact of tax incentives on foreign investment, drawing on findings from the existing literature. Empirical studies on the sensitivity of FDI to taxation indicate that foreign investment in developed countries shows a strong response to incentives, with an average investment elasticity relative to the tax rate exceeding 1. In contrast, while variations in corporate tax rates influence FDI in developing countries, the responsiveness tends to be lower than in developed countries, with an investment elasticity to tax rate of less than 1.

The literature generally confirms that efficiency-seeking FDI is more responsive to tax incentives.⁵ This type of FDI is primarily in manufacturing to produce exports. Tax incentives, particularly tax holidays and corporate tax reductions, have been key policy tools aimed at promoting FDI in Latin America and the Caribbean (LAC) and developing countries. Evidence suggests that these incentives have been effective for attracting FDI in some countries, particularly in sectors like tourism. However, tax incentives constitute only one of the factors that can affect FDI, and their effectiveness depends on a combination

⁵ Efficiency-seeking FDI refers to investment motivated by the aim of reducing production costs and enhancing global competitiveness. Such investment is typically export oriented and driven by factors such as lower labor and operational costs, availability of skilled workers at competitive wages, proximity to key markets, and low relocation costs. These firms are generally highly responsive to tax incentives, as they operate in sectors where global cost competitiveness is critical. Reductions in tax burdens (e.g., through tax holidays or lower CIT rates) can significantly enhance after-tax profitability, making a location more attractive for efficiency-driven investors. See Dunning and Lundan (2008).

of other non-tax factors, including overall investment climate, the quality of the infrastructure, and the quality of the legal institutions.

The central theme in the empirical studies is the measurement of the impact of tax incentives in boosting the inflows of FDI as well as aggregate investment. Results in the literature reveal complex dynamics of employing tax policies to stimulate the economy. Some studies suggest that tax incentives can indeed affect investment decisions significantly, particularly in relation to FDI. However, others highlight constraints associated with this approach in less-developed nations where factors like institutional frameworks and data accuracy pose hurdles.

First, there is more general literature on the sensitivity of FDI to taxation. This literature addressing the question of whether taxes affect FDI has found a significant effect, but uncertainty remains about its size. Hines (1999), Hassett and Hubbard (2002), De Mooij and Ederveen (2003), and Feld and Heckemeyer (2009) provide a good analysis of the existing empirical evidence regarding the relationship between corporate tax rates and FDI.

Hines (1999) reviewed U.S. literature and indicated that a sizable literature is devoted to measuring behavioral responses to international tax rules, finding that tax rate differences have an impact on the location and scope of foreign investment. He suggests a consensus estimate of a tax elasticity of FDI (based on the findings of much of the literature) between 0.5 and 0.6 (i.e., a 1 percent higher tax rate leads to a reduction in inward FDI by 0.5 to 0.6 percent), implying that high tax rates may generate tax revenue at the cost of considerable loss of foreign investment.

In their work about the effectiveness of tax policy, particularly tax incentives, in promoting investment, Hassett and Hubbard (2002) provide a good review of the literature. Based on firm-level data, the results reveal that investment can be reduced between 0.5 and 1 percent,

corresponding to a 1 percent increase in the user cost of capital. Furthermore, macroeconomic data does not provide proof of the impact of tax policies on investments. This ambiguity is due to macroeconomic data errors, inter-asset reallocation of capital, and the issue of simultaneity, which complicates establishing a clear causal relationship or making correct attributions using these data. Additionally, investment incentives tend to focus on equipment, creating inter-asset distortions between types of capital, which can lead to attracting weaker investment. Hence, it is crucial to consider the efficiency costs associated with investment incentives.

De Mooij and Ederveen (2003) and Feld and Heckemeyer (2009) carried out meta-analytical methods aggregating the outcomes of several econometric studies focusing on the impact of company taxation on FDI. With a special focus on developed countries, De Mooij and Ederveen (2003) constructed a meta-sample from 25 different empirical studies in order to quantify the relationship between corporate tax rates and FDI flows by computing the tax rate elasticity. They found that FDI is remarkably elastic in relation to tax rates, estimating that the median value of the tax rate elasticity of foreign capital in the literature is around -3.3 . This indicates that a 1 percent rise in the tax rate might result in a 3.3 percent drop in investment (FDI), showing a strong and negative correlation between tax rates and investment inflows. Feld and Heckemeyer (2009) expanded the meta-analysis, adding 21 studies for a total of 46 studies. The findings confirm that FDI remains highly responsive to tax rates; however, the elasticity is slightly lower than calculated by De Mooij and Ederveen (2003), with a range between -1.39 and -1.68 . These findings underscore the role tax policies play in influencing investment choices, especially in developed nations.

Most of the 46 empirical studies analyzed in Feld and Heckemeyer (2009) are dominated by literature in developed countries, with only a

few studies focusing on examining the tax rate effects on FDI in developing nations. This glaring gap in research is largely attributed to the limited availability of microdata in many developing countries. Consequently, although tax is recognized as being an important factor in the decisions of foreign investors, it is imperative to understand that this conclusion is based on elasticities derived from empirical evidence that predominantly stems from developed countries, especially the United States.

In the case of developing countries, Agostini and Jalile (2009) carried out an empirical analysis to estimate the magnitude of the effects of CIT rates on FDI in Latin American countries.⁶ The estimates were made by adapting a Logit model and using panel data for foreign investment made in 11 Latin American countries by 30 countries during the period 1990–2002.⁷ The results show that foreign investment does respond to changes in CIT rates with a 1 percentage point increase in the CIT rate associated with a decrease of between 0.75 percent and 0.96 percent in the proportion of FDI that a country receives. In addition, the authors highlight that good infrastructure and institutional quality are important determinants of the share of FDI that a country receives in Latin America, indicating that governments should consider other types of public policies aimed at attracting foreign investment.

Sosa (2006) adopted the marginal effective tax rates (METRs) approach to analyze the impact of tax incentives, particularly through tax holidays, on investment decisions in Eastern Caribbean Currency Union (ECCU) countries, considering two sectors (tourism and manufacturing) for two types of assets (machinery and buildings). The findings indicate that METRs in the case of companies that benefit from a tax holiday are substantially lower than those without such a concession. However, while these tax holidays cause a substantial reduction of METRs, this incentive in some cases is offered on

a discretionary basis; therefore, it would cause an inefficient allocation of resources due to distortions across incentivized investments and those not benefited by the concession. Therefore, the research advocates considering an alternative incentive scheme consisting of a lower CIT rate and an initial depreciation allowance to obtain a similar reduction in the METRs. Furthermore, the study indicates that there is a small dispersion of the size of METRs across sectors and across assets, which implies that both the intersectoral and cross-asset distortions are not of substantial magnitude.

Van Parys and James (2010a) evaluate the impact of tax incentives on stimulating FDI in the tourism industry within countries of the ECCU over the period 1997–2007. The authors apply the approach of difference-in-differences (DID) to determine how effective the expansion of income tax exemptions for tourism firms from 5 to 25 years was in inducing increased FDI in Antigua and Barbuda by comparing the period before and after the change took place in 2003. Other ECCU countries are the control group because they are fairly homogeneous and, therefore, their incentive regimes remain invariant; they also maintain control over other factors that may affect FDI in tourism. This study reveals that after the reallocation of tourism-specific tax incentives in 2003, FDI in Antigua and Barbuda's tourism sector rose far above the FDI for the other six ECCU countries because of those changes in tourism tax incentives.

⁶ The LAC countries used in the sample are Argentina, Bolivia, Brazil, Colombia, Chile, Costa Rica, Ecuador, Mexico, Paraguay, Peru, and Venezuela.

⁷ The countries providing FDI that are considered in the study are Argentina, Australia, Bahamas, Belgium, Bermuda, Brazil, British Virgin Islands, Canada, Cayman Islands, Chile, Colombia, Denmark, England, Finland, France, Germany, Italy, Japan, Luxembourg, Mexico, Netherlands, Netherlands Antilles, Panama, Portugal, Spain, Sweden, Switzerland, United States, Uruguay, and Venezuela.

Despite their growing use, tax incentives alone have not been especially successful in attracting investments, especially FDI. Other econometric evidence shows that tax incentives constitute only one of the factors that can affect investment; other elements external to the tax system have proven to be more relevant, such as the quality of institutions, infrastructure, market size, and economic, political, and social stability. Hence, studies find that taxes are generally not the most important factor affecting investment. For example, in a study of 45 countries, Wei (2000) finds that reducing the level of corruption from that of Mexico to that of Singapore would have approximately the same effect on inward foreign investment as a reduction in the marginal corporate tax of 50 percentage points.

Cubeddu et al. (2008) evaluate the impact of tax incentives in the Caribbean region. Using different estimation techniques, they analyze whether tax policies and tax incentives can help explain FDI flows in 15 Caribbean countries for the period from 1990 to 2004. The study first indicates that statutory CIT rates are found to have an impact on FDI, with a 1 percentage point reduction in statutory tax rates leading to about 0.6 percent in inbound FDI as a share of GDP, on average. To better capture the effect of tax incentives, the analysis was extended by estimating the METRs on foreign investments and finding that METRs have a much smaller impact on FDI. While the study found that tax incentives have some effect on FDI, other factors such as institutional quality, infrastructure development, and FDI restrictions are also important determinants of FDI flows. This suggests that there are limits to the role that tax incentives and, more generally, tax policy can play in attracting FDI. Instead, improving the economic and institutional environment—particularly the quality of institutions, infrastructure, and transparency—would appear to be a more promising avenue to foster foreign investment inflows and economic development.

Furthermore, the authors emphasized that even if taxes play a role in attracting FDI, decisions about tax incentives should be based on whether the benefits to the economy and society from the higher investment levels outweigh their costs.

Another study for the Caribbean suggests that tax incentives have played a limited role in attracting FDI. Using a panel sample of six ECCU countries for the period 1990–2003, Chai and Goyal (2008) find that the benefits of tax incentives, in terms of increased FDI, are far outweighed by the tax revenues forgone from import-related tax incentives and CIT holidays, estimated in the range of 9.5 percent to 16 percent of GDP per year for the ECCU countries. To further assess the broader effectiveness of tax incentives, the authors conducted a cross-country econometric analysis using a sample of 80 countries. Their regression results indicate no statistically significant relationship between an FDI incentives index and actual FDI inflows. By contrast, variables such as lower statutory CIT rates,⁸ absence of FDI restrictions, and stronger institutional and infrastructure quality were significantly associated with higher FDI. These findings underscore the importance of considering alternative, more cost-effective policy measures to promote investment and call into question the efficiency of relying heavily on tax concessions.

The success of incentives in attracting FDI depends strongly on country-level characteristics. For countries with bad investment climates, it is ineffective to lower the tax rate to compensate for that. Instead, these countries should focus on building capacities and creating conditions that improve the investment climate (Bellak et al.,

⁸ While both lower statutory CIT rates and targeted tax incentives may affect investment decisions, they are conceptually distinct. A uniformly low CIT rate applicable to all firms is not considered a tax incentive, because it does not confer preferential treatment. Tax incentives, by contrast, are special provisions that offer tax relief to specific firms, sectors, or activities, creating a deviation from the general tax regime (Zee et al., 2002).

2009; Kinda, 2014; Van Parys and James, 2010b). According to James (2014), although lowering effective tax rates helps boost FDI, the effect is eight times stronger for countries with good investment climates, which helps explain why incentives have encouraged investment in some countries yet failed to do so in others.

Similarly, surveys of investors have generally found that when choosing where to invest, a country's tax system is significantly less important than its basic economic and institutional environment. An earlier survey carried out by Wunder (2001) found that only 4 of 75 Fortune 500 companies surveyed identified tax factors as being the most important variable in their investment decisions.

Another survey conducted by the Multilateral Investment Guarantee Agency (MIGA, 2002) of 191 companies with plans to expand operations overseas found that only 18 percent in manufacturing and 9 percent in services considered grants and incentives to be influential in their choice of location.

In like manner, a survey conducted by the World Bank's Foreign Investor Advisory Service (FIAS) in 2004 (World Bank, 2004) of 159 multinational firms operating in the Caribbean showed that fiscal incentives did not rank among the most important factors in their overseas investment location decisions; they were surpassed by factors such as the availability of telecommunications services, power supply, political stability, a favorable attitude toward FDI, and labor productivity. According to World Bank (2005), firms generally make their investment location decisions in a two-stage process, and tax differences may be more important at the second stage when comparing shortlisted locations deemed in the first stage to have the necessary fundamentals.⁹

The Global Investment Competitiveness (GIC) survey (World Bank, 2017) of 750 multinational investors with investments in developing countries shows that political stability, along with

the presence of a stable legal and regulatory environment in the country, and market size are generally considered more important by investors than tax rates and incentives. These findings are consistent with previous survey results on the subject (UNIDO, 2011). The GIC survey also points out that investment incentives can help attract FDI, but they generally are only effective when investors hesitate in choosing between similar locations to use as a new base for exports. When investments are motivated by the desire to access a domestic market or to extract natural resources, incentives are often ineffective.

A survey of foreign investors in 10 middle-income countries by Kusek et al. (2020) also finds that many factors influence investor decisions. Tax incentives are among the factors influencing investors, but government transparency, investment protection guarantees, and ease of establishing a business all rank higher in importance. Some types of investments are more responsive to tax incentives. The survey finds that influence on the investment decisions of companies is more relevant in those cases where companies are on the margin (efficiency-seeking), which would relate to competitive, labor-intensive activities.

Efficiency-seeking FDI is observed to concentrate in a small number of successful host countries whereas market- and natural resource-seeking FDI are more widely distributed across geographical regions. This clustering pattern is consistent with the nature of efficiency-seeking FDI, which is highly mobile and driven by firms strategically organizing their value chains by locating in cost-competitive host countries. Depending on the industry, this means that countries must compete for efficiency-seeking FDI and

⁹ According to World Bank (2005), the fundamentals include the match between country-specific conditions and the investment, the overall investment climate, and the availability and cost of key factors of production, labor, and infrastructure.

not all of them will win. On the other hand, market and natural resource-seeking FDI, by their intrinsic nature, must go where the market or natural resource is located and are thus more geographically dispersed (Kusek and Silva, 2018).

Within this scope, one of the earlier findings of the literature is that the impact of tax rates on investment decisions is generally higher for export-oriented companies than those seeking the domestic market or location-specific advantages. Surveys show that managers of these firms tend to respond more favorably to tax incentives (Reuber, 1973; Guisinger, 1985). Mutti and Grubert (2004) confirm that a multinational corporation that is geared toward export markets, rather than the domestic market, is particularly sensitive to host country taxation. Also, the sensitivity of these companies appears to be greater in developing host countries than in developed ones.

This finding is not surprising; because exporters prioritize cost efficiency to maintain competitiveness in international markets, making them highly responsive to incentives that reduce operational expenses. In contrast, investors focused on domestic markets may not prioritize such incentives because their market dynamics and competitive pressures differ. In domestic markets, most if not all CIT can be passed on to final consumers through higher prices. This is not an option for exporters from any single country because they are competing in the international market (James, 2014).

Moreover, manufacturing exporting firms are often highly mobile and, because taxes can be an important part of their cost structure, more likely to compare taxes across a variety of locations (Wells, 1986). Such firms can easily move to take advantage of more favorable tax regimes.

As per these insights, studies disclosed that tax incentives had a greater effect on location decisions for greenfield foreign investments¹⁰ (Hebous et al., 2010) and vertically integrated FDI (Overesch and Wamser, 2009), characteristics

that are consistent with efficiency-seeking behavior. Thus, the literature generally confirms that efficiency-seeking FDI is more responsive to tax incentives.

3.2 The Impact of Tax Incentives on Total Investment

Although the empirical analyses have focused largely on measuring the effect of the corporate tax rate on foreign investment, the impact of tax incentives on general investment has not received as much attention, particularly in developing countries where studies are still limited and the overall conclusion from them is that tax incentives are often ineffectual at the aggregate level. This section explores the impact of different types of tax incentives on the total investment.

The findings reveal that tax incentives exhibit varied effectiveness across different countries and sectors. In some countries, regional tax incentives will move potential investments from high-growth regions to low-growth regions. Single-country studies provide evidence of the effectiveness of tax credits and income tax exemptions in Brazil's tourism sector, in the Dominican Republic, in Ecuador's manufacturing and trade sectors, and in Uruguay's industrial sector. However, tax holidays, reduced CIT rates, tax credits, investment allowances, and accelerated depreciation are found to be less effective or not effective in Colombia, Ecuador, and other LAC countries.

3.2.1 Cross-Country Studies

To examine whether tax incentives are an effective tool for stimulating investment in developing countries, Klemm and Van Parys (2012) constructed a panel dataset from 1985–2004 over 40 Latin American, Caribbean, and African countries

¹⁰ Greenfield investment refers to establishing new facilities or operations abroad, as opposed to mergers and acquisitions of existing firms.

to evaluate the use of tax incentives as a tax competition tool, as well as to determine the effectiveness of corporate tax rates and tax incentives in attracting investment. They found evidence of cross-country tax competition and an impact on FDI through lower corporate income tax rates (a 10-percentage point increase in the income tax rate reduces investment by 0.5 percentage points of GDP) and longer tax holidays (a 10-year extension increases investment by 1 percent of GDP), while investment tax credits and deductions (allowances) seem to not affect FDI inflows. Regarding the impact of these incentives on total investment, none of the four types of tax incentives seems to be effective in stimulating gross private fixed capital formation or boosting economic growth, suggesting that FDI crowds out other investments. This is particularly the case if FDI simply involves a change of ownership rather than a new net investment entering the country.

In another cross-country study, Stausholm (2017) utilizes a panel dataset comprising 51 developing countries across Latin America, the Caribbean, Africa, and Asia, covering the period 1985–2014. The study analyzed the impact of tax holidays and decreasing tax rates on different indicators of economic outcomes including net FDI inflows, private investment (as measured by gross fixed capital formation), and GDP growth, as well as public finance. The results are in line with Klemm and Van Parys (2012), indicating that while overall FDI might increase as an effect of tax incentives, the level of capital in the economy is not affected. Furthermore, there are no significant results when looking at the correlation between tax incentives with GDP growth and total factor productivity growth. In terms of public finance, implementing a tax holiday has a statistically significant negative effect on tax revenues in developing countries because it can shrink the tax base. The correlation indicates that introducing a tax holiday will decrease tax revenue by 0.70 percentage points as a percentage of GDP.¹¹

Abbas and Klemm (2013) discuss the changes in the structure of CITs in 50 emerging and developing economies (11 from the LAC region) during the years 1996–2007. The particular emphasis is on how such effective tax rates (considering special regimes, tax exemptions, and tax rate reductions) affect not only domestic investment but also FDI flows. The findings reveal that effective average tax rates exhibit a significant negative correlation with both aggregate private investment and FDI, whereas effective marginal tax rates do not exert any influence on aggregate private investment. Evidence of a “partial race to the bottom” in corporate taxation is observed in those countries that strategically reduce taxes on mobile capital through special regimes while keeping rates on other investments higher.

3.2.2 *Within-Country Studies*

3.2.2.1 *Brazil*

Regazzini et al. (2021) applied a static interregional computable general equilibrium (CGE) model to compare the economic and social effects of tax exemption policies (lowering tax rates) targeting the Brazilian automotive industry in 2009 with policies that could have targeted the agriculture sector in the same year. The results show that lowering taxes on agricultural products can be considered superior to the same reduction applied to vehicles, in terms of the effects on the main economic variables analyzed including income,

¹¹ In regions other than LAC, Van Parys and James (2010c) investigated the effectiveness of tax incentives on investment (using FDI and private gross fixed capital formation as a share of GDP as dependent variables) in 12 CFA Franc countries (in West and Central Africa) over the period 1994–2006, corresponding to the period after the devaluation of the CFA Franc. The study employs a dynamic fixed effects panel data analysis in order to control for both year-specific and country-specific variations. The result shows that changes in tax holidays for regular investment projects did not have an effect on FDI inflows or fixed capital formation. However, there is a tendency for investments made by exporting companies to be positively affected by tax holidays.

household consumption, employment, and GDP, especially when considered at the regional level. The authors highlight the importance of prioritizing the agriculture sector in future tax relief policies because tax reliefs for this sector produce much better economic results than cutting taxes for the automotive sector.

Using a DID methodology, Garsous et al. (2015) assess the effect of the fiscal incentives program put in place by the federal authorities in Brazil in 2002. The program included a series of tax incentives and aimed to develop the tourism industry by increasing investment and employment in the undeveloped northeast region of the country. The analysis provides evidence that tax credits to tourism firms increased municipal employment in the tourism sector by about 34 percent. According to the authors, in 2009, approximately one job out of four was the result of this fiscal policy. For the sector, this corresponds to employment growth 84 percent higher than it would have been without the program. In addition, other findings suggest that this job creation was not the result of either a displacement effect or job destruction in neighboring municipalities that could not benefit from the tax incentives. However, the authors do raise concerns over the efficiency of this policy because its marginal cost in terms of forgone revenues might be higher than its marginal benefit in terms of job creation.

Porsse et al. (2006) applied a CGE model to assess the economic effects of regional tax incentive programs aimed at attracting new investment in the economies of two Brazilian regions (the State of Rio Grande do Sul and the Rest of Brazil). The analysis of these incentives focuses on aspects such as employment, household welfare, GDP, and the change in tax revenue collection induced by new investment.

The results show that the implementation of such incentive programs has a positive effect on employment resulting from an

increase in demand generated by new investments. The household welfare of consumers is also positively affected, driven by the decrease in the price of final consumer goods and by the increase in household disposable income due to the positive impact on primary factor income. Nevertheless, the effect on real GDP is negative; this is likely due to the specialized pattern of production in the region. Regarding the effects on the public finances of regional and federal governments, the net result on the indirect tax revenue is positive due to the increase in the tax base, even considering the tax revenue relief offered by the regional government to thoroughly finance the increase in private investments.

A more recent study that utilized a dynamic computable general equilibrium (DCGE) model was conducted by Porsse and Carvalho (2019). The study aims to evaluate the economic impacts of the payroll tax exemption policy that was instituted in Brazil in 2012 and expanded in the following years in terms of sectoral scope, as well as to evaluate the impacts of changes in the payroll tax exemption policy carried out in 2015 by the federal government to reduce the level of exemptions. The changes were justified by the conclusion that the policy produced distortions because not all sectors were covered by the law, the distribution of tax relief was uneven across sectors, and the policy would benefit labor-intensive sectors more than capital-intensive sectors. Considering a baseline scenario for the period 2013–2025, the results show that the exemption policy would imply a cumulative growth impact of 0.34 percent in GDP, while the new policy leads to a cumulative economic loss of 0.37 percent. According to the authors, these findings can be explained by the sectoral distortions resulting from the changes in the exemption policy, which increases the cost of payroll in capital-intensive sectors as well as in the production cost of these goods, leading to reductions in the aggregated investment rate.

3.2.2.2 Colombia

Aiming at promoting investment, a tax stimulus policy was introduced in Colombia in 2003 by which firms were allowed to deduct 30 percent of investment in fixed assets from taxable income during the period 2004–2007. To explore the effectiveness of the policy, Galindo and Meléndez (2010) conducted a formal evaluation using a yearly dataset of plant-level investment in Colombian firms during the period 1997–2007. The study found that investment increased significantly after the tax stimulus was adopted, with a firm in a sector that claimed the benefit having an investment rate 3.5 percentage points higher than a firm in a sector that did not claim the benefit. However, when the overall economic conditions are controlled for, the impact of the tax policy is eliminated, indicating that the tax reduction policy implemented in Colombia since 2003 has not promoted investment and the rise of investment is instead explained by countrywide or regional factors.

García-García et al. (2023) assessed the effectiveness of four fiscal incentives—investment allowances, accelerated depreciation, customs duty exemptions, and value-added taxes (VAT) exemptions—on the financial feasibility of microgrid projects in Colombia. Based on a financial model, this study compares the key financial indicators such as net present value (NPV) and internal rate of return (IRR), calculated from cash flows with and without incentives. The results indicate that tax incentives improve the prospective feasibility of microgrid projects significantly and that the most important incentives are accelerated depreciation and VAT exemptions, followed by investment allowances and customs duty exemptions.

3.2.2.3 Dominican Republic

Amendola et al. (2023) investigated the national and regional effects of CIT exemption on the performance of Dominican firms by using

economic and financial indicators capable of expressing the value created by the firms. To this end, the authors implemented a propensity score matching method and used data from tax returns provided by the local fiscal authority. The panel data comprise administrative CIT declarations by more than 18,000 firms distributed across 31 provinces from 2006 to 2015. The results showed that the CIT exemption had a positive effect on growth and on most performance indicators, while they did not affect profitability. However, the regional analysis highlighted some significant differences in terms of performance between geographical areas within the Dominican Republic. This investigation powerfully highlights the critical importance of acknowledging local contexts when assessing the repercussions of fiscal policies on business results.

3.2.2.4 Ecuador

Mogro (2023) evaluates the impact on formal employment and business investment of a tax incentive program introduced by the Ecuadorian government. Using a DID strategy, the author compares the different types of investment created in the prioritized sectors versus non-prioritized sectors before and after the implementation of the law enacted in August 2018, particularly focusing on temporary exemptions and reductions in the CIT rate. The results clearly show that fiscal incentives by themselves do not have a significant effect on private investment or formal employment for prioritized sectors compared to non-prioritized sectors over the last quarter of 2018 and 2019. The author also indicates that other important factors prevent investment in Ecuador, such as corruption, quality of institutions, country risk, inequalities, country size, and ease of doing business.

Using financial information obtained from companies' financial statements and applying a multiple regression model, Córdova-León et al. (2022) analyzed the impact of tax incentives on

the financial performance of trade and manufacturing firms in Ecuador from 2015 to 2018. The research indicates that applying tax incentives improved the economic performance of the companies that received them. These firms enjoy better financial positions due to a lower tax burden, which encourages investment. However, this positive impact can be fostered by improving other factors such as political, economic, and legal conditions that result in an environment conducive to business activity.

3.2.2.5 Mexico

Utilizing a DCGE model, Feltenstein and Shah (1995) examined the impact of certain tax incentives on private investment in Mexico, including general and industry-specific tax credits, employment tax credits, and CIT rate reductions.¹² The findings show that corporate tax rate reductions have the most stimulative impact on investment. Unlike investment tax credits, tax rate reductions increase the demand for all capital assets rather than new capital alone. Accordingly, the public is induced to expand its holdings of domestic government debt, which in turn causes the price of domestic bonds to rise, real interest rates to fall, and ultimately leads to an increase in domestic investment.

3.2.2.6 Uruguay

Llambí et al. (2018) evaluate the effects of obtaining a tax credit through the new investment promotion regime law regulated by ED-455 in Uruguay on investment and employment outcomes. The authors performed a matched difference-in-differences (MDID) method with a panel database of taxpayers' firms based on administrative records from the National Tax Agency and the Social Security Bank between 2005 and 2011.

According to the results, the new investment promotion regime has an overall significant and positive effect on the investment rate. On average, capital accumulation increased by

11.5 percent in the five years after the policy was implemented.

Regarding the effect on employment outcomes, the findings were more ambiguous; the study found positive effects on the employment growth rate (3.7–5.3 percent, on average, in the four years after policy implementation), but they are not significant when the sample is restricted to firms with a high propensity to participate in investment promotion programs. In addition, part of the positive effect on employment may reflect the formalization of existing jobs rather than net job creation alone.

3.3 Cost-Benefit Analysis Studies

While tax incentives are often designed to stimulate investment, their use should be predicated on the belief that the expected benefits to the economy resulting from an increase (if any) in the incentive-favored activities would outweigh the total costs of the tax incentives granted. In general, tax incentives generate significant costs: they distort investment between economic sectors or types of investment, reduce tax revenue (which, if it must be compensated, increases the distortions generated by other taxes), increase the costs of administration and oversight of the tax system, and produce social costs of corruption and rent-seeking (Zee et al., 2002).

In the context of developing countries, including those in the LAC region, despite the widespread use of tax incentives, there is a notable absence of systematic evaluation of both the benefits and the costs associated with implementing such incentives, leaving a critical gap in understanding of their actual impact. Therefore, it is imperative to undertake a proper assessment,

¹² This study falls outside the time frame of the systematic review but is included because its unique focus on the general equilibrium analysis addresses a gap in the empirical studies literature analyzing the impact of tax incentives in Mexico.

given that the nature of the incentives employed in developing countries differs markedly from those utilized in developed nations.

The few research studies that utilize cost-benefit analyses in LAC, including in Chile, Costa Rica, the Dominican Republic, and Ecuador, demonstrate that tax incentives might not deliver the efficacy that policymakers presume. For instance, investigations conducted by Agostini and Jorratt (2013), Monge-González and Rivera (2022), Jorratt de Luis (2010), Chen et al. (2018), and Mele (2017) reveal that only a few countries have evaluated the efficiency of their tax incentives in meeting economic objectives. While incentives may achieve their purpose, this must be balanced against the associated costs. Where studies have been conducted, they often conclude that the economic costs, such as lost taxes and increased administrative burden, outweigh the benefits; hence, the efficiency question related to the overall value for money of the incentives becomes crucial.

This section discusses the studies by Agostini and Jorratt (2013), Jorratt de Luis (2010), and Chen et al. (2018). The studies by Mele (2017) and Monge-González and Rivera (2022), which focus on the impact of tax incentives implemented in special zones, are presented in Section 3.5.

In Chile, Agostini and Jorratt (2013) analyze two investment incentives: the exemption of tariffs on capital goods imports and income tax credit for purchases of fixed assets. The incentives are justified by the existence of some positive externality influencing the country's economic growth when investment in capital goods increases.

The effectiveness of tariff exemptions is estimated based on information from import records and shows that the reduction of tariffs to zero increases capital goods imports significantly. To compare the benefit generated by the incentive with its costs (i.e., loss of revenue, greater loopholes for tax evasion, increase in the administrative and control costs of the system), an evaluation was done on the increase in imported

capital goods in relation to the loss of revenue, with the former being higher by approximately US\$184 million. However, the authors warn that this does not necessarily translate into a positive impact, because not all imported capital goods have a positive impact on economic growth and not all potential costs have been estimated. Finally, they conclude that there are better instruments that can be used to increase investment, such as instantaneous depreciation and excluding interest payments as an expense for the purposes of calculating the tax base.

Regarding credit for purchases of new fixed assets, the authors used CIT returns to estimate the additional investment resulting from this incentive and determined that it is about four times lower than the estimated cost. They also stress that this treatment would have a negative impact on income distribution because it mostly benefits the high-income population. Finally, they recommend replacing this incentive with a more accelerated depreciation regime than the current one or implementing certain improvements in the design of this credit incentive, such as eliminating the limit but restricting it to small and medium-sized enterprises (SMEs) and granting the tax credit only for investments exceeding depreciation plus GDP growth.

In Jorratt de Luis (2010), the cost-benefit analysis was applied to evaluate three tax incentives in Ecuador: deduction for net increase in jobs, reduced rate for reinvestment of profits, and deferral for accelerated depreciation. Based on information from the sworn declarations, the study analyzes the use of incentives by company size and economic sector and compares the behavior of companies that take advantage of the incentive with that of companies with tax losses that have not been able to use the incentive.

In the case of the deduction for net job increases, the analysis uses the expenditure on wages as a proxy for the hiring of workers and concludes that the incentive is not aligned with

the objectives of the 2007–2010 National Development Plan (Plan Nacional de Desarrollo, or PND) because it is not focused on SMEs or strategic sectors. Furthermore, it is not cost effective because its benefit is practically equal to the fiscal cost; thus, the study proposes replacing the incentive with adequate training of the workforce.

The evaluation of the reduced rate on reinvested profits concludes that it is also not aligned with the PND because 90 percent of the fiscal cost ultimately benefits large companies. Its effectiveness is low because only about 1.4 percent of companies use the incentive and it is not cost effective (negative net benefit). It also highlights the disadvantage of benefiting only investments financed with retained earnings and encouraging the postponement of investments until profits are realized to be able to take advantage of the benefit.

Analysis of the deferral for accelerated depreciation also shows that it is not aligned with the objectives of the PND and that its effectiveness is limited by the treatment of losses from prior periods. Therefore, the study proposes repealing the reduced rate for reinvestment of profits and designing a depreciation acceleration regime that allows for faster rates than the current ones, which would effectively allow the deferral of the tax and focus on smaller companies and strategic sectors.

Another study conducted by Chen et al. (2018) executed a comprehensive cost-benefit analysis of the Dominican Republic's tax incentive program for tourism (TIPT) during the time frame 2002–2015. The analysis elucidates that the tourism sector is predominantly influenced by global economic variables, and tax incentives do not constitute a significant determinant in its expansion and progression. The benefits attributable to incentives include tourism investments, their impact on GDP, and prospective tax revenues generated by such additional

investments, whereas the costs comprise loss of tax revenues, adverse effects on GDP, and inefficiencies stemming from the misallocation of investments. The research posits that the costs surpass the benefits; therefore, these incentives have not been an efficient tax instrument. Ultimately, the study argues that if the forgone revenue had been allocated to public infrastructure, there would be a net gain in GDP and the benefits would outweigh the costs, making this type of investment a more cost-effective fiscal instrument to support tourism and economic growth. The findings of this research are intended to guide policymakers in refining the design and implementation of tax incentives to maximize their economic impact.

3.4 R&D Studies

This section explores three selected studies focusing on the effectiveness of R&D tax incentives in three LAC countries (Argentina, Chile, and Colombia). The findings indicate that while an R&D tax credit has been effective in promoting innovation in Argentina, the impact of such a credit in Chile has been limited. Evidence from Colombia shows that the R&D tax deduction has not been effective in stimulating investment in the manufacturing sector.

For Argentina, Crespi et al. (2016) investigate the effectiveness of Argentina's R&D+I (research and development and innovation) tax incentive policy implemented in 1998, focusing on its impact on firm-level innovation investments. The study employs dynamic panel data methods, particularly system generalized method of moments (GMM) estimation, and examines data from two rounds of Argentina's National Innovation Surveys. The findings clearly show that the tax credit policy significantly boosts private sector investment in R&D+I, with a noticeably stronger impact on capital goods investments (exhibiting elasticity greater than 1) compared to pure R&D

investments (where elasticity is below 1), hinting at a possible crowding-out effect on R&D activities. Larger firms and those in low-tech sectors are the primary beneficiaries of these incentives, because large firms are evidently more responsive than SMEs. The study underscores the necessity for policy measures that specifically target balanced support for both capital goods and R&D investments, which are, of course, essential for sustained innovation.

In the specific case of Chile, Mardones and Madrid Becerra (2020) analyzed the impact of the R&D tax incentive law on innovative inputs using data from the 9th Innovation Survey conducted in 2013 and 2014 and applying DID and MDID techniques. The study concludes that the tax incentive does not increase the total expenditure on innovation. Although the law had some positive effects on fostering innovation, the overall results were modest. When firms that are already familiar with the law are considered, there is no positive effect on overall innovation spending. This study highlights the urgent need to reform R&D tax incentives in Chile to make them more effective.

For Colombia, the effectiveness of R&D tax incentives in stimulating investment in the manufacturing sector was examined by Mercer-Blackman (2008), with a particular focus on whether these measures increase investment in science and technology. Using a comprehensive dataset of tax incentive applications for R&D, special research, and the manufacturing survey from 2000 to 2002, the study uses a seemingly unrelated Zellner regression method to estimate the effect of tax incentives. The results show that despite the high elasticity of demand for R&D investments, especially in SMEs, current tax incentives cannot sufficiently stimulate R&D efforts to the desired extent. The study points to the need to improve policies to better focus on companies that will benefit the most and thus increase the impact on innovation.

3.5 The Impacts of Location-Specific Tax Incentives

This section examines various types of tax incentives targeted at specific locations such as free trade zones (FTZs). The findings indicate that the effectiveness of these incentives varies across the LAC countries studied, with mixed results observed in different contexts.

The impact of location-targeted tax incentives such as those implemented in special economic zones (SEZs) has been the subject of a limited focus of investigation in developing countries. These SEZs provide a bundle of benefits; tax incentives traditionally form the backbone of this structure and are often considered key for SEZ success to attract FDI and stimulate economic growth. However, their effectiveness and consequences are debated.

Frick and Rodríguez-Pose (2023) provide a summary of empirical research on the effectiveness of tax incentives in SEZs in developing countries and stress that the evidence is mixed. While certain studies suggest that these incentives are important for the success of SEZs, other research shows that there is no significant correlation between tax incentives and SEZ performance, especially in low-income countries. Farole (2011) finds no link between tax exemptions and the efficacy of SEZs, whereas Frick et al. (2019) illustrate that fiscal incentives are only associated with SEZ performance in higher-income developing countries. Ciżkowicz et al. (2021) affirm that variations in tax incentives among Polish SEZs do not significantly influence their attractiveness. The Asian Development Bank (ADB, 2015) suggests that, while countries feel compelled to offer generous tax incentives, their effectiveness in attracting investment is well below that of other factors in SEZ policies. Older studies, however, have a more positive view of fiscal incentives and underline their role in SEZ development (Aggarwal, 2005; Rolfe et al., 2004).

According to Frick and Rodríguez-Pose (2023), the effectiveness of tax incentives in SEZs is complex and depends on certain conditions. According to their research, tax exemptions and other fiscal incentives are widely included in SEZ policies in developing countries, but they have little effect on attracting FDI. Investors expect such incentives, viewing them as a standard feature rather than a pivotal decision-making factor. Although incentives can influence the choice of a particular SEZ within the country, they do not independently attract investment. These results show that although tax incentives play an important role, they are not enough to influence investment choices. On the other hand, key elements such as industrial infrastructure, strategic location, and political support do attract investment. To attract investment effectively, the study emphasizes the need to develop a comprehensive strategy that includes these elements and is adapted to the specificities of SEZs.

Based on a sample of the reviewed literature, six studies concentrate on analyzing the effects of various types of location-specific tax incentives in Colombia, Costa Rica, the Dominican Republic, and El Salvador.¹³

An econometric analysis of the efficacy of tax incentives in export-free zones in Costa Rica, the Dominican Republic, and El Salvador was carried out by Artana (2015). The study evaluates the effect of these incentives on firm performance using data from company income tax returns. Overall, the empirical data indicate that these incentives are ineffective because SEZs frequently have no influence on exports, job creation, economic growth, or drawing in FDI. For example, in Costa Rica, the results of the analysis of both aggregate and microdata show that exemptions from import duties and CIT did not have a favorable impact on employment or investment in the export-free zones. This inefficiency most likely results from the fact that some extremely profitable ventures would have been undertaken even in the absence

of such tax incentives. The author proposes a more neutral incentive structure that rewards continuous investments.

The results also show that, much like Costa Rica, companies that benefited from tax benefits in El Salvador's free zones did not outperform non-beneficiary companies in terms of sales growth. The findings cast doubt on the efficacy of the current fiscal policies by implying that reform is required to produce more effective fiscal policies and that the incentives may not be well targeted.

In contrast, fiscal incentives seem to lead to better performance in the Dominican Republic, with firms in free zones managing to achieve higher sales growth and increased labor intensity. However, while these incentives are claimed to have had positive effects at the firm level, their actual contribution to broader economic growth remains questionable. Maximizing the benefits of these incentives requires more focused policies targeting strategic sectors.

Jenkins and Kuo (2017) analyzed the economic effects of removing the CIT exemption in the Dominican Republic's FTZs using a simulation model. The results indicate that removing this incentive could place a rather significant burden on low-wage workers, estimated to be about 10 times the additional CIT revenue collected. This suggests a substantial negative effect on the lower-income group of the workforce. Furthermore, the study concludes that this policy shift may conveniently result in significant real income gains for the wealthier segments of society.

For Colombia, Moller et al. (2012) utilized a DCGE model to conduct an assessment of tax expenditures, focusing on the effectiveness and fiscal impacts of various types of tax incentives, including the free trade zone (RZF) regime. The study concludes that although the RZF

¹³ Two of these studies apply a cost-benefit analysis to evaluate the efficiency of tax incentives.

creates a moderate amount of employment and investment, much of this would likely occur even without tax incentives. Additionally, the regime incurs a fiscal cost of 0.1 percent of GDP, with estimates suggesting this might rise to 0.33 percent by 2020. Given that businesses in FTZs enjoy lower tax rates compared to those operating under the regular tax framework, this naturally leads to horizontal inequality. The findings underscore the pressing necessity for more equitable economic policies that could potentially reduce disparities and enhance the effectiveness of tax incentives.

Mele (2017) applies a cost-benefit analysis to evaluate the efficiency of tax incentives in stimulating investment and creating jobs specifically in SEZs in the Dominican Republic, which enjoy comprehensive and widespread tax exemptions. The study analyzes the net benefits of tax incentives granted to firms by comparing the investment and employment benefits generated by the tax incentive system against their cost in terms of forgone revenue. The analysis highlights that, although companies within SEZs create three times more jobs than companies outside the free zones, the fiscal cost of using tax incentives to create new jobs appears to be higher in SEZs.

Each job created within SEZs costs five times as much in terms of forgone revenue as each job created under the standard tax regime. These results seem to indicate that the Dominican Republic's tax incentives are not an efficient means of promoting employment growth, especially in SEZs, and that other public investment alternatives could have better results. This study underscores the importance of considering all the costs associated with these incentives when assessing their long-term viability and effectiveness.

Monge-González and Rivera (2022) compare the amount of positive externalities that arise from the FDI operating under the regime of FTZs in Costa Rica and the costs associated with tax incentives provided to investments made by multinational corporations (MNCs) operating within the FTZs. The positive externalities in the study represent the aggregate intangible benefits in terms of productivity gains of domestic suppliers that engage with MNCs (through greater efficiency) as well as higher wage premiums received by workers employed by MNCs that operate in the FTZs. The study estimates that these positive externalities are between 1.5 and 2.3 times greater than the costs associated with tax incentives offered during the period 2010–2017.

International Evidence on the Impact of Tax Incentives and Alternative Policy Tools

While market failures may justify public intervention to stimulate investment or promote economic development, it is important to highlight that whatever type of tax incentive is chosen, its fundamental objective is to divert resources from other parts of the economy to the sectors or regions that receive preferential treatment. Therefore, in addition to the fundamental question on the efficiency of tax incentives (i.e., the benefits generated by the incentive outweighing the costs), the incentive must also be more efficient than other policy alternatives. In fact, in many cases, empirical evidence increasingly shows that alternative policy tools that may directly reduce costs, simplify procedures, or minimize resource misallocation can achieve the intended objectives more effectively and efficiently than tax incentives with fewer distortions. Therefore, sound economic analysis requires that tax incentives be evaluated against other possible instruments.

This section highlights selected international experiences that illustrate how such alternative approaches have, in practice, outperformed traditional tax incentives in achieving their intended policy objectives.

4.1 Strategic Trade Policies over Income Tax Incentives

Contrary to the popular belief that income tax incentives and subsidized finance policies are important policies for bringing about rapid industrialization, Jenkins et al. (2003) found that trade and macroeconomic policies have had a much greater impact than tax and subsidy policies in Taiwan. For example, the strategic use of tax exemptions for imported inputs used for export has significantly reduced production costs and improved the international competitiveness of the Taiwanese industry.

Such insights from Taiwan's strategy can guide the structuring of trade policies in other contexts, ensuring that they not only stimulate economic growth and industrial development but also maintain fairness and administrative simplicity. By adopting these proven strategies—considering local economic conditions and industrial goals—policymakers can craft policies that drive sustainable development. Box 1 offers insights into Taiwan's experience with tax incentives and export promotion.

4.2 Supporting Export-Oriented Firms

In estimations of the amount of tax expenditures in an economy, the tax exemptions given to export

processing zones or duty exemptions for capital and intermediate inputs are sometimes included in the total tax expenditures. In an accounting sense, they can be viewed as preferential taxation for export-oriented enterprises. However, many of these tax preferences are desirable and consistent with sound economic policy.¹⁴

To enhance the competitiveness of export-oriented firms, it is essential to implement tax policies that reduce production costs. Duty exemptions on imported inputs such as machinery, raw materials, and intermediate goods are critical. These exemptions lower the financial burden on producers, allowing them to maintain

¹⁴ This section is based on insights from Jenkins et al. (2003).

BOX 1

TAIWAN'S EXPERIENCE WITH TAX INCENTIVES AND EXPORT PROMOTION

Taiwan is considered by many policymakers to be a model of economic growth for developing countries. During the period 1955–1995, Taiwan transformed its economy. To promote the country's industrial development, the government of Taiwan implemented a variety of fiscal incentives, complemented by favorable movements in key macroeconomic variables. Over this period tax incentives were a popular policy instrument to attempt to influence the allocation of investment toward exporting industries.

To evaluate the relative impact of tax incentives and other economic variables on the rate of return on equity, Jenkins and Kuo (2007) constructed a detailed financial model of the cash flow profile of a typical firm from each sector and calculated the net present value (NPV) of an investment. Their financial models of the investment and operation of these firms enabled them to integrate a wide range of tax and tariff measures, as well as the movement of the real exchange rate, real wages, and real interest rates, into their study. These models allowed them to estimate the impact of these fiscal and economic variables on the financial profitability of the sector.

The results show that the duty drawback and duty exemption programs are by far the most important policy measures for exporting firms. Another popular incentive policy for export promotion is to subsidize the interest rate on export investment finance. The results indicate that this incentive's actual impact on the overall rate of return on industrial activity was marginal.

This analysis points to the government's favorable trade policies and the rapid cutting of production costs by entrepreneurs that enabled exporting industries to expand while labor was enjoying a rapid increase in real wages. In terms of macroeconomic policies, the government ran a fiscal surplus each year during this period. This enabled the banks to have ready funding for worthwhile private-sector investments. Such funding enabled firms to aggressively cut production costs. These factors were much more important than the income tax incentives or financial subsidy policies for Taiwan's achievement of a rapid pace of industrialization during the four decades covered by this study.

competitive pricing in international markets. For instance, Taiwan's fiscal policy has successfully employed carefully monitored duty exemptions on inputs, significantly reducing production costs and boosting export performance. By adopting similar measures, countries can encourage higher production volumes and enhance the competitiveness of their export sector.

Providing value-added taxes (VAT) refunds on inputs used for export production can substantially reduce the overall tax burden. This policy creates a more favorable economic environment for exporters, enabling them to thrive in global markets.

Infrastructure development incentives are also vital for supporting export-oriented firms. Establishing export processing zones (EPZs) that are largely free of taxation of inputs as well as income taxes can create an environment conducive to industrial growth by freeing firms both from the burden of taxation and from bureaucratic customs and tax administration systems.

However, it is important to acknowledge that EPZs are costly to build and maintain. Initially, the EPZs in Taiwan were regarded as successful and important vehicles for promoting exports, but over time the country's export success became largely driven by firms operating outside these zones. In fact, over a span of 40 years, the share of Taiwan's total exports originating from EPZs peaked at just 9 percent of the country's overall export value.

The government emphasis shifted toward other institutional arrangements to provide duty relief, such as accounts-based duty exemption, which exempted duties on inputs used for exports across the country rather than just within EPZs. These broader mechanisms played a much greater role in supporting Taiwan's export performance and international competitiveness.

Therefore, a sustainable approach involves eventually developing an information and systems control mechanism to allow inputs to flow

to firms tax-free without the need for extensive physical infrastructure. This approach not only reduces costs but also ensures efficient and streamlined operations for export-oriented firms. Encouraging the establishment of EPZs, alongside implementing advanced control mechanisms, will attract foreign direct investment (FDI), foster the development of a local industrial base, create employment opportunities, and promote skills development.

It might appear that the export sector that is not subject to taxation is not contributing any tax revenue to the country; however, because such firms contribute foreign exchange to the economy, there is an indirect source of taxation that can be substantial. When additional foreign exchange becomes available to the banking system, it can be exchanged with local currency to import goods. These imports are subject to both tariffs and value-added taxes (VAT) that enhance the government's revenue collections. This premium is known as the foreign exchange premium (FEP) and has been quantified for many countries.

By combining tax policies that reduce production costs with infrastructure development incentives, countries can create a dynamic and competitive export sector. This comprehensive approach will enable countries to integrate more effectively into the global economy, drive sustained economic growth, and create an important source of indirect tax revenues.

4.3 Reducing Trade Administration Costs: Evidence from the Andean Community and Mercosur

Beyond tariffs and tax exemptions, another powerful area of reform is reducing trade-related administrative costs. While these are not fiscal incentives in the traditional sense, they have a direct and substantial impact on the costs faced by exporters and investors.

Trade administration costs stem largely from inefficiencies in public sector procedures, including documentation requirements, customs clearance delays, and a lack of digital integration across agencies. These inefficiencies translate into welfare losses for the economy by inflating the transaction costs of international trade, diverting resources away from productive use, and reducing the competitiveness of domestic producers in global markets.

Recent studies quantify the potential gains from addressing these inefficiencies. Nazif and Jenkins (2023) estimate that if Andean Community countries improved their trade administration systems to match those of Chile or Singapore, they could realize economic resource savings of US\$1.25–1.5 billion annually, equivalent to 0.19–0.23 percent of GDP. These savings reflect both

direct cost reductions and the positive impact of increased trade flows stimulated by lower administrative barriers.

Similarly, Nazif and Jenkins (2025) show that the Mercosur region could achieve over US\$15 billion in annual net welfare gains by reducing both import and export administrative costs to the levels found in Chile (sea shipments) and Canada (land border crossing and sea border crossing). These savings are in addition to the indirect benefits of market expansion, trade diversification, and better integration into global value chains.

These large-scale benefits are often overlooked in incentive design. The figures suggest that in many countries, reforming the trade environment could have a much larger economic impact than introducing or expanding tax incentives.

Conclusions and Policy Recommendations

5.1 Conclusions

In Latin America and the Caribbean (LAC) the corporate income tax (CIT) systems and, to a lesser degree, the indirect tax systems contain a wide variety of tax incentives (see Annex A). Many countries have designed tax incentives to create employment opportunities by attracting foreign direct investment (FDI) or by expanding the quantity of investment in particular activities or sectors. Research and development (R&D) has been one of the primary activities targeted for promotion by LAC countries.

The tourism sector has often benefited from special tax treatment. Furthermore, less-developed regions of a country are often given preferential tax treatment, as are free trade or export processing zones designed to both create employment and boost the foreign exchange earnings of a country. A large body of literature attempts to evaluate on an ex post basis the impact of many of these tax incentives, but very few studies have been published that report on

ex ante analysis of tax incentives. The findings of the ex post empirical studies are quite mixed. Usually, for every study that finds that the income tax incentive causes an expansion of investment or economic activity in the target activity in one country, there are studies that find little or no response elsewhere from the tax incentive. Most of these studies are econometric in nature.

What seems clear from the analysis is that any array of tax incentives is usually not sufficient to attract foreign investors. The investment decision is usually based on a variety of factors such as the fundamental financial attractiveness of the activity, the availability of the needed labor skills, the risk associated with the country, and the quality of the infrastructure.

Tax incentives in the form of income tax holidays or low rates combined with indirect tax exemptions are generally necessary to attract investments into export processing zones (EPZs). Often, these tax provisions are treated as tax expenditures while in fact this is usually not the case. The exporting activities generate foreign

exchange earnings through the purchase of local labor and other inputs. This incremental foreign exchange allows for incremental imports to be purchased by consumers and businesses. These additional imports will usually be subject to a higher-than-average tax burden at the point of entry than other non-traded goods that are sold in the country. Hence, additional export-oriented activities, even if they do not pay taxes directly, may indirectly be a major supplier of tax revenue to the government.

While some empirical studies of the region find some positive correlation between tax incentives and increased investment in targeted sectors, this evidence alone is insufficient to justify their use from a policy perspective. The key question is not whether incentives induce some investment, but whether the induced activity generates net economic benefits that exceed the economic costs. In several cases, the investment may have occurred even without the incentive, may simply displace other domestic or regional investments, or may fail to address a clearly defined market failure. As such, even when positive effects are detected, they are often limited in magnitude and fail to translate into meaningful improvements in productivity, competitiveness, or long-term growth. A more complete economic appraisal requires consideration of these broader effects that are rarely captured in the current literature.

5.2 Recommendations

Performing a comprehensive cost-benefit analysis is critical for evaluating the efficiency and economic viability of tax incentives. The limited use of cost-benefit analysis indicates a significant gap in the adoption of a comprehensive evaluation framework that enables quantification of the net economic benefit (or cost) of introducing tax incentives. The impact of tax incentives can vary significantly across sectors and types of investment. Therefore, to determine

whether a tax incentive will be efficient, a case-by-case cost-benefit analysis should be done to assess whether tax incentives are necessary to attract the targeted sector. For the tax incentive to achieve the desired response, a significant increase in financial profitability must be created to encourage the activity to be undertaken. From an economic perspective, it is important to know not only how the tax incentive affects the profitability of the activity; it is also important to understand if the activity—if incentivized—is economically worthwhile to be undertaken. Moreover, the government needs to understand the costs and benefits of such an incentive. To enhance the cost-effectiveness of an incentive, it should be designed to reward the owners of the project based on their success in implementing the project, rather than a general sector-wide tax expenditure that ends up transferring scarce government revenue to the private sector to increase their rate of return on all new and existing investments.

Tax policies need to be evaluated on an ex ante basis. The lack of ex ante evaluations of tax incentives highlights a notable deficiency within the current literature. Unlike evaluations conducted post-implementation that evaluate results after a policy is put into effect, ex ante evaluations offer distinct value by examining the possible impacts of tax incentives on investments before they are put into action. Having the ability to model investment outcomes is crucial for making informed decisions because it enables policymakers to simulate scenarios effectively to reduce negative consequences and maximize the advantages of tax incentives. For instance, conducting an ex ante evaluation can indicate when the incentive may lead to tax revenue losses without generating the necessary incentives for decision-makers to increase their investment. This insight can help governments adjust or even revamp the policy altogether. This becomes particularly important

in industries where incentives could potentially focus on investments that would have happened anyway, making the tax benefits unnecessary and costly.

Bridging the skills gap is essential. The deficiency of ex ante evaluations can be ascribed to the deficit of skills in cost-benefit analysis and applied economic welfare analysis. Many governments face challenges in effectively applying an accurate and reliable cost-benefit analysis

despite the importance of such studies. The practical application of this methodology is not easy and requires systematic and serious effort to improve technical skills as well as a willingness to invest time and financial resources. Therefore, governments need to prioritize designing and delivering cost-benefit analysis training programs to improve employee capability and equip them with the knowledge and tools necessary to make informed decisions regarding the overall impact of tax incentives.

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Annex A. Main Corporate Tax Incentives for Investment by Country, 2024

TABLE A1

CORPORATE INCOME TAX INCENTIVES

Country	Tax holidays (Years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Sectoral incentives	Localization incentives	Other exemptions	Free/special zones	Exemption from indirect taxes/tariffs
Argentina	n.a.	Income tax reduction that corresponds to knowledge-related economic areas/50% reduction of income tax liability for activities in organic sustainable production	10% credit for productive investments by MSMEs/R&D credit, venture capital investors can deduct up to 75% of investment contributions from their income tax taxable base, or 85% in less-developed areas/ Tax credit bond for generation of distributive renewable energy	Yes (mining, renewable energy, forestry, biotechnology, nanotechnology, exploration and exploitation of hydrocarbons, automobiles, and auto-parts manufacturing)	Yes (mining, forestry, large investment, knowledge economy)	Mining, forestry, capital goods production, R&D, biotechnology, knowledge-related economic activities, biofuels, renewable energy, auto parts, SMEs	Tierra del Fuego, Antarctica, and South Atlantic Islands	Trusts and mutual funds developing or investing in real estate, farming, forestry, and infrastructure projects/ Software (60%)/Tierra del Fuego/Income derived from the management of commercial woodlands	Yes	FTZs, Tierra del Fuego, and certain sectors (renewable energy, mining, forestry, exploration and exploitation of hydrocarbons)/ Importation of parts for ships, auto parts/ Exemption from VAT on interest on home loans
Bolivia	10 years (Oruro, Potosí, and cities of El Alto and Yacuiba)	No	No	Manufacturing firms can opt for accelerated depreciation on fixed assets acquired during designated periods	No	Mining, hydrocarbons, generation of energy alternatives to diesel (in Beni and Pando)/Urban settlement projects/ Certain cultural activities	Manufacturing industries established in the cities of Oruro and Potosí, under certain conditions/ZOFRA Cobija	Capital gains and investment returns on securities issued by NAFIBO SAM/ Interest on public debt issued abroad	Yes, ZOFRA Cobija	Free zone is exempt from VAT, excise duties, tax on hydrocarbons and derivatives, and customs duties/Sales of tourism packages by Bolivian travel agencies as well as hotel and food services provided to foreign tourists are considered exportation of services so VAT is levied at 0% rate

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TABLE A1

CORPORATE INCOME TAX INCENTIVES *(continued)*

Country	Tax holidays (Years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Sectoral incentives	Localization incentives	Other exemptions	Free/special zones	Exemption from indirect taxes/tariffs
Brazil	10 years (north and northeast)	Infrastructure debentures, semiconductors/Northeast and Amazon regions (through SUDENE and SUDAM local authorities, respectively)	Northeast and Amazon regions/R&D incentive/Free zones and bonded warehouses	Yes, the northeast and Amazon regions/R&D incentive/Free zones and bonded warehouses	No	Infrastructure projects, digital TV, and semiconductors (PADIS program)/Infrastructure projects in transport, port, energy, basic sanitation, and irrigation (RE-IDI program)	Development of infrastructure related to the oil business in the north, northeast, and central regions of Brazil (REPENEC program)/SUDENE and SUDAM (northeast and Amazon)	Priority projects in SUDAM and SUDENE (75% reduction of IRPJ CIT for 10 years)	Yes	Exporters of manufactured products/FTZs, IT sector, automotive and aerospace industry, biodiesel, thermoelectricity, petroleum, natural gas, ships and aircraft/Import of machines and equipment for R&D, semiconductors, nuclear plants, port structure, infrastructure
Chile	Quique and Punta Arenas free zones/44 years in Tierra del Fuego (Porvenir and Primavera com-munes)/50 years in part of Region XII (until 2035)	Yes (10% of income from foreign investment funds)	4% credit for fixed asset purchases/Credit for investments in the far north (30%) and south (32%)/Credit for solar thermal systems (100%)/R&D credit (35%)	Standard accelerated depreciation (only one-third of the normal useful life of the asset)/Special transitory depreciation (50% immediate depreciation for new investment projects)	Tax invariability contracts for foreign investors	Industrial, mining, deep sea mining, transportation, and tourism activities in Region XII region and the Provenir and Primavera communes	For companies operating in the northernmost (Arica-Parinacota, Tarapaca) and southernmost (Palena Province, Aysén, Magallanes) regions	Income from companies in FTZs, Region XII, Tierra del Fuego and Easter Island	Yes	Foreign investors exempt from VAT on imported capital assets/Imports in FTZs/XII Region

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TABLE A1

CORPORATE INCOME TAX INCENTIVES *(continued)*

Country	Tax holidays (Years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Sectoral incentives	Localization incentives	Other exemptions	Free/special zones	Exemption from indirect taxes/tariffs
Colombia	15 years wind, biomass, or agricultural energy (since 2017)/20 years ecotourism and new hotels (for those qualified before 2018)/5 years ZESE (La Guajira, Norte de Santander, and Arauca until 2024, then 50% for 5 more years)	20% for FTZs/15% for hotel services and services provided by ecotourism and agritourism parks/3–10% for foreign companies that sell digital goods or services to customers in Colombia/0% income tax rate: for the first 5 years for companies that demonstrate a 15% increase in new direct jobs in ZESE	R&D companies (100% deduction on R&D investments and a 25% tax credit)/ Environmentally friendly projects (25% tax credit)	Clean energy can benefit from accelerated depreciation rates of up to 33.33% annually	Yes	Renewable energy/R&D/ New forest plantations/ River transport/ Hotels/SMEs/ Film projects	Investments in regions affected by the armed conflict (ZOMAC)	Capital and interest on public external debt operations/ Sale of shares and securities (under certain conditions)	Yes	Temporary importation of raw materials, inputs, intermediate or capital goods for the production of export goods (Vallejo Plan)/ Machinery, equipment, materials, and inputs for investment in renewable energy/ Discount or refund of VAT paid on the acquisition and importation of goods and services in hydrocarbon exploration activities in offshore projects/Border areas and the Archipelago of San Andrés, Providencia, and Santa Catalina (exemption from sales tax on fuels)

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TABLE A1

CORPORATE INCOME TAX INCENTIVES *(continued)*

Country	Tax holidays (Years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Sectoral incentives	Localization incentives	Other exemptions	Free/special zones	Exemption from indirect taxes/tariffs
Costa Rica	6, 8, 12 (FTZ depending on location)	Reduced rates up to 20% for small enterprises/industries in FTZs, whether they export or not: 0%, 5%, 6%, or 15% for a given period (depending on location and investment)	Income tax exemption for companies reinvesting in Costa Rica after 4 years from the start of operations	n.a.	n.a.	Tourism development, forestry, and organic agricultural activities	Designated FTZs	Tax exemptions for persons who are involved in organic agricultural activities/FTZs exemption from taxes on immovable property	Yes	FTZs (sales and consumption taxes levied on the purchase of goods, taxes on the importation of raw materials, products, parts, packing material, containers, machinery, equipment, spare parts, vehicle lubricants, and other necessary goods for their operation, taxes on the exportation or re-exportation of products, machinery, and equipment)/Tourism promotion (taxes and surcharges on imports or local purchases necessary for the functioning or installation of enterprises)/Organic agriculture (custom duties on equipment for organic agricultural products)

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TABLE A1
CORPORATE INCOME TAX INCENTIVES *(continued)*

Country	Tax holidays (Years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Sectoral incentives	Localization incentives	Other exemptions	Free/special zones	Exemption from indirect taxes/tariffs
Dominican Republic	25 years: FTZs near the Dominican-Haitian border/15 years FTZs in other parts of the country/15 years tourism/renewable energy/10 years film industry/15 years movie theater construction and film production studios/5 years solid waste management	n.a.	20% of the investments made in a CONFOTUR-approved project/40% of the investment costs in equipment companies transitioning from traditional energy supply methods to alternative energy generation/100% deduction for cash investments in copyright protection	Double depreciation allowance for companies to develop, modernize, and innovate within their industries	Yes (during the tax exemption period, no new taxes, tariffs, or fees can be imposed on tourism companies)	Tourism/Renewable energy/Film industry/Manufacturing/Cultural projects	Special border development zones (provinces of Pedernales, Independencia, Elias Piña, Dajabón, Monte Cristi, Santiago Rodríguez, and Bahoruco)	100% refund available for specific taxes incurred on the consumption of fossil fuels and petroleum derivatives for renewable energy projects	Yes	FTZs/Tourism activities/Innovation incentives and manufacturing value chain/Reimbursement of ITBIS, selective telecommunication tax, and insurance, fuel, and check tax/Exemption from 18% ITBIS on machinery and equipment required for waste management activities/Publishing industry/Film production/Movie theaters

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TABLE A1

CORPORATE INCOME TAX INCENTIVES (continued)

Country	Tax holidays (Years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Sectoral incentives	Localization incentives	Other exemptions	Free/special zones	Exemption from indirect taxes/tariffs
Ecuador	8, 12, or 15 years priority sectors and 15 or 20 years basic industries (depending on the area)/20 years tourism SMEs/3 years new micro-enterprises/5 years merged entities in popular and solidarity financial sector/5 years FTZs or operators (since 2024)/10-year income tax exemption on dividends or profits derived from PPPs/10 years SEZs	15% CIT if profits are re-invested under certain conditions (companies engaged in knowledge creation activities)/2% CIT (applicable to micro-enterprises on gross annual turnover)/3% income tax reduction for new investments (as of 2024)/5% reduction for investment contracts/Reduction of 10%, 8%, or 6% on reinvested profits for companies engaged in responsible scientific investigation or technological development projects	Double deduction for depreciation of fixed assets for clean production/Double deduction (for medium-sized companies for 5 years) for expenses on training, R&D, and travel expenses for market access/Additional 10% deduction for purchases from microenterprises in popular and solidarity financial sector/Credit for the Foreign Exchange Tax (5%) for the importation of raw materials, capital goods, and inputs	Yes (with prior authorization from the regional director of the SRI for new fixed assets with a useful life of more than 5 years)	Tax stability is granted to FTZ investors during the covered period	Agriculture, agroforestry chain, metal-working, petrochemicals and oleochemicals, pharmaceuticals, tourism, film, renewable energies, foreign trade logistics, biotechnology, software and hardware, export of services, energy efficiency, sustainable construction, industrial and agro-industrial sector, exportation, hydrocarbons, basic industries, microenterprises, popular and solidarity financial sector	Economically depressed and border zones: double deduction of salaries and social benefits for 5 years	Companies and investment funds/Investment in real estate (under certain requirements)/Income from Ecuadorian public debt	Yes	Machinery, raw materials, and supplies for agricultural sector, aquaculture sector, and fishing sector/ Fishing boats/ Solar panels and wastewater treatment plants/ Imported raw materials, capital goods, and inputs for production/ Scientific research and technical support/ Tourism services/ Activities in FTZs/Exports of Ecuadorian goods to FTZs that are destined for production within those zones

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TABLE A1

CORPORATE INCOME TAX INCENTIVES *(continued)*

Country	Tax holidays (Years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Sectoral incentives	Localization incentives	Other exemptions	Free/special zones	Exemption from indirect taxes/tariffs
El Salvador	FTZs, international service parks, technology, manufacture, and innovation (income tax exemption 15 years, municipal tax exemption 10-15 years)/10 years new tourism projects/5 or 10 years renewable energy generation	25% for companies whose taxable income does not exceed US\$150,000	Tax deduction for geothermal resource recycling expenses (20-25% of taxable income)	No	No	International service, electric energy generation, technology and innovation activities, tourism, renewable energy, printing	FTZs	Exemption from municipal taxes for service providers/ Transfer of real estate for developers of international service parks/ Technology, manufacture, and innovation (15-year exemption from capital gains tax)	Yes	FTZs and international service parks: electric energy generation, technology, and innovation activities (machinery, equipment, tools, spare parts, and other necessary assets), FTZs: raw materials, components, semi-finished products, and packaging, lubricants, catalysts, reagents, fuels, merchandise for users engaged in international trading activities/ New tourism projects (goods, equipment, accessories, machinery, vehicles, airships, boats, and construction equipment)

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TABLE A1

CORPORATE INCOME TAX INCENTIVES *(continued)*

Country	Tax holidays (Years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Sectoral incentives	Localization incentives	Other exemptions	Free/ special zones	Exemption from indirect taxes/tariffs
Guatemala	10 years FTZs and export manufacturing activities on income generated from export-oriented activities/ ZDEEPs/10 years renewable energy	No	No	No	No	Renewable energy, textile industry, and international ICT services (maquiladora)	FTZs/ZDEEPs	n.a.	Yes	Importing goods or machinery necessary for economic activities undertaken within FTZs/ Export manufacturing activities/ ZDEEPs (machinery, equipment, components, and accessories necessary for production)

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TABLE A1
CORPORATE INCOME TAX INCENTIVES *(continued)*

Country	Tax holidays (Years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Sectoral incentives	Localization incentives	Other exemptions	Free/ special zones	Exemption from indirect taxes/tariffs
Honduras	10 years industries exporting non-traditional goods/EPZs (income tax 20 years, municipal taxes 10 years)/10 years renewable energy projects with a capacity exceeding 50 MW/SMEs (income tax 5 years, net asset tax 5 years, wealth tax 5 years)	SMEs: reduction of income tax for the first 5 years after incorporation	Employment tax credit (10% of annual minimum salary for each new employment position created)	SMEs: Decree 48 of 2022 includes special depreciation rules that could provide further tax relief for assets	n.a.	Tourism, renewable energy, biofuels, business services, non-traditional agricultural production for export, Cañaveral energy project	FTZs/EPZs/ Industrial parks/ TFZs	Exemption from withholding tax for foreign persons or companies providing services related to renewable energy projects/ Amortization of pre-operative expenses	Yes	Export promotion (duty-free treatment for imported raw materials and components necessary for production of goods or services for export)/FTZs, EPZs, and TFZs (importation of production machinery, raw materials, and supplies)/ Renewable electricity generation (equipment, spare materials, spare parts)

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TABLE A1

CORPORATE INCOME TAX INCENTIVES *(continued)*

Country	Tax holidays (Years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Sectoral incentives	Localization incentives	Other exemptions	Free/ special zones	Exemption from indirect taxes/tariffs
Mexico	n.a.	No	R&D tax credits (30% of incremental R&D expenses and investments)/ Film industry (10%)/High-performance sports/30% tax credit (with carry-forward option) on electric vehicle power feeders/Northern and southern borderline regions (one-third of income tax accrued)/100% tax credit and immediate deductions of original investment in new fixed assets in the Isthmus of Tehuantepec/ Immediate deductions to promote nearshoring (for the production and export of specific goods; maximum deductions 56–88%)	Accelerated depreciation of 100% for investments in the Isthmus of Tehuantepec	n.a.	Film industry, sports infrastructure, agro-industry, renewable energy, industry (electrical and electronics, semiconductors, automotive and auto parts, medical devices and pharmaceuticals, machinery and equipment, metals and petrochemicals), international services (ICT)	Northern and southern borderline regions/Isthmus of Tehuantepec (Oaxaca and Veracruz)/SEZs including Yucatán Special Economic Zone, Tijuana Industrial Park, Guadaluajara Industrial Park, Monterrey Industrial Park	An additional 25% deduction on the increase in expenses incurred for employee training	Yes	Export sector: processing export companies (maquiladoras, IMMEX companies)/ Isthmus of Tehuantepec

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TABLE A1

CORPORATE INCOME TAX INCENTIVES *(continued)*

Country	Tax holidays (Years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Sectoral incentives	Localization incentives	Other exemptions	Free/special zones	Exemption from indirect taxes/tariffs
Nicaragua	15 years FTZ operators/ 10–20 years enterprises within FTZs (usuarias) / 10 years tourism investment (80–100%) / 7 years renewable energy	Fishing activities along the Caribbean coastline (CIT rate 2–3%) / Companies with lower income (CIT rate 1–2%)	n.a.	Exporters	n.a.	Agriculture, fishing, and industry/ Tourism/ Health/	FTZs/Caribbean coastline	Exporters entitled to 25% credit of the specific oil tax (IECC) paid/ FTZ operators (full exemption from municipal taxes)	Yes	Raw materials and semi-processed goods, capital assets and related items, equipment for production facilities/Specific goods and assets used in agricultural activities and by fishing and industrial enterprises/Goods imported for enterprise operation in FTZ/Hospital Investments/10-year exemption for acquisition of goods for construction, equipment, and activities related to the hotel industry/ Goods required for construction of renewable energy plants

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TABLE A1

CORPORATE INCOME TAX INCENTIVES (continued)

Country	Tax holidays (Years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Sectoral incentives	Localization incentives	Other exemptions	Free/ special zones	Exemption from indirect taxes/tariffs
Panama	13 years reforestation regime/CFZ exports/10 years biogasoline, biomass electricity/15 years wind power plants/25 years City of Knowledge/15 years tourist activity, new lodgings/5 years income tax exemption for existing tourist accommodations	5% EMMA and SEM	EMMA and SEM foreign tax credit/100% income tax credit for tourism companies/Tax deduction for travel agencies and operators/ Deductions for restoring and maintaining historical monuments	Wind power generation	Yes	Forestry, trade and exports, renewable energy, technology, tourism, manufacturing, infrastructure	FTZs	Tax on dividends with SEM or EMMA license/Income tax exemption for certain activities in PPSEA/5-year capital tax exemption for new tourist lodgings	Yes	Equipment, supplies, raw materials, machinery, tools for FTZ companies/10 years energy, biogasoline, biomass equipment/ Wind power plant equipment/ Customs duties exemption for City of Knowledge and PPSEA/ Construction materials, equipment, furniture for tourist lodgings, cruise ship ports/ Goods entering CFZ

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TABLE A1

CORPORATE INCOME TAX INCENTIVES (continued)

Country	Tax holidays (Years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Sectoral incentives	Localization incentives	Other exemptions	Free/ special zones	Exemption from indirect taxes/tariffs
Paraguay	Up to 10 years for approved investment projects of at least US\$13 million	0.5% on total export turnover in or sales of finished products and services within FTZs	No	No	Yes	Processing export companies/Manufacturing, agricultural, automobile industry, trade and commerce, service	FTZs	Exemption from fiscal and municipal taxes for automobile industry	Yes	Maquiladoras, FTZs, and small agricultural and industrial companies benefit from incentives, including exemptions on goods used in automobile production, reduced VAT of 10% on 20% of the sale price of new vehicles, and exemptions on the import of capital goods, raw materials, and supplies destined for the domestic industry
Peru	Until December 31, 2042, in SDZs/ ZOFRATACNA	Agriculture (15-25%)/ Jungle region (reduced CIT of 10% or 5%)	Agriculture Deduction for infrastructure investments in the mining sector/Textile and clothing (a tax credit of 20% of the reinvested amount of annual profits)	Construction/ Agriculture (hydraulic infrastructure works and irrigation works)/Textile and clothing (machinery and equipment)	10-Year Stabilization Regime: investing at least US\$10 million in the mining or oil sector/ Other sectors: investments of at least US\$5 million	Film/ Agriculture/ Mining/Textile and clothing/ Construction/ Oil	SDZs/ZOFRATACNA/Jungle region	Deduction of pre-operative expenses for mining projects/ Companies may deduct up to 10% of donations made to film projects from the company's taxable income	Yes	ZOFRATACNA/ Jungle region/ Mining or hydrocarbon exploration/ Agricultural inputs

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TABLE A1

CORPORATE INCOME TAX INCENTIVES (continued)

Country	Tax holidays (Years)	Reduced rates or income tax reduction	Deductions or credits for investment	Accelerated depreciation	Tax stability contracts	Sectoral incentives	Localization incentives	Other exemptions	Free/ special zones	Exemption from indirect taxes/tariffs
Uruguay	5 years shared services centers (70–90% exemption, extendable to 10 depending on qualified jobs created)/ planting and commercial exploitation of forests (since 2007)/FTZs (5, 10, or 15 years depending on the activity and type)/ Construction activities (up to 90% of CIT can be exempt for 10 years based on the amount invested)	No	Deduction of up to 100% of investments in machinery and fixed assets/ Export-oriented businesses (deduction of CIT for 20–100% of investment)	Tourism industry: special depreciation treatment for CIT (15 years for real estate and 5 years for equipment)	n.a.	Manufacturing, extractive, or farming ranching activities/ Tourism/ Forestry/ Industrial promotion, fishing, agricultural companies, dairy producers, and mining companies/ R&D in biotechnology and bio-information fields/Software-related R&D activities	FTZs in various areas	For promoted investment, export-oriented businesses, shared services centers, construction activities, and tourism industry: wealth tax exemption on movable assets and real estate (8–10 years)	Yes	VAT, customs duties exemptions for promoted investment/ Tourism industry/ Export-oriented businesses/ FTZs/ Construction activities

Notes: CFZ: Colón Free Zone (Panama); CIT: corporate income tax; CONFOTUR: Law 158-01 establishes certain benefits and tax incentives for real estate projects, shops, and commercial activities in order to encourage investment in tourist areas of the Dominican Republic; EMMA: special regime for multinational companies providing manufacturing-related services (Panama); EPZ: export processing zone (Honduras); FTZ: free trade zone; ICT: information and communication technology; IMMEX: Industria Manufacturera, Maquiladora y de Servicios de Exportación (Manufacturing Industry, Maquiladora, and Export Service); ITBIS: Impuesto sobre Transferencias de Bienes Industrializados y Servicios, which is a value-added tax (VAT) applied to the transfer and importation of industrialized goods and the provision of services (Dominican Republic); maquiladora: Spanish term for a factory located near the United States–Mexico border that operates under a favorable duty- or tariff-free basis; MSMEs: micro, small, and medium-sized enterprises; PPP: public-private partnership; PPSEA: Panama Pacific Special Economic Area; R&D: research and development; SDZ: special development zone (Peru); SEM: special regime for headquarters of multinational companies (Panama); SEZ: special economic zone; SRI: Internal Revenue Service (Ecuador); SMEs: small and medium-sized enterprises; TFZ: tourism free zone (Honduras); ZDEEP: special public economic development zone (Guatemala); ZESE: special economic and social zone (Colombia); ZOFRATACNA: Tacna Free Zone (Peru); ZOMAC: regions affected by armed conflict (Colombia).

Annex B. Detailed Methodology of the Systematic Literature Review

This annex provides a detailed account of the methodology used to conduct the systematic review of empirical literature on the impact of tax incentives in stimulating investment, employment, and economic growth in Latin America and the Caribbean (LAC).

The review follows the structured approach proposed by Tranfield et al. (2003) for evidence-based management research. This includes the definition of research questions, specification of inclusion and exclusion criteria, development of search strategies, screening and selection of relevant studies, and systematic data extraction and synthesis. Each of these steps is briefly described in the sections that follow to ensure transparency and replicability of the review process.

Research Questions, Databases, and Criteria for Inclusion or Exclusion

Starting from the research questions, this study investigates the following:

- What types of tax incentives are investigated in the LAC region?

- What methods are employed to perform the ex ante and ex post evaluations of tax incentives?
- To what degree do tax incentives effectively stimulate investment, employment, and economic growth in the LAC region?
- Do the benefits attributable to the tax incentive outweigh the costs?

Following the formulation of the research questions, search strategies were developed to identify studies for inclusion in this report. The search strategies used a combination of subject headings and keywords for the concepts related to the impact of tax incentives and applied them across the most prominent databases to ensure comprehensive coverage of the topic.

The Web of Science (WoS), Scopus, and Business Source Complete (BSC) were initially utilized to search for peer-reviewed articles. These databases contain some of the world's largest electronic collections of academic sources with searchable cited references. Furthermore, to ensure comprehensive coverage of high-impact literature, Google Scholar was combined with the Publish or Perish tool to explore the most

frequently cited papers in the field of tax incentives.

Then, clear inclusion and exclusion criteria were developed to screen research results and to identify relevant studies:

- Aligned with the research questions defined a priori; in this context, the screening phase aims at identifying the literature that helps to define, explicitly or implicitly, the research perspectives and methodologies employed regarding investment tax incentives within the LAC region and in other countries.
- Published over a sufficiently long period to encompass the various types and methodologies applied in the analysis of tax-related incentives. The selected period of 2000–2024 is defined based on the evolution of tax incentives in public policy and international economic agendas.
- Referential framework limited to the empirical evidence on the impact of tax incentives on economic outcomes, such as GDP growth, investment levels, employment, and productivity.
- Written in English, due to its general recognition as an international academic language, as well as in Spanish and Portuguese.
- Scholarly, peer-reviewed literature and credible documentation from international organizations that is accessible online and available without restrictions.

Sample Collection and Selection Method

The research and selection of materials used a system of filters that, by considering the most relevant variables for the analysis, allowed for defining the final sample to be evaluated and discussed. Rayyan review management software was used to assemble the materials and carry out the initial screening; thereafter, a more detailed

analysis was conducted. For the data collection procedures, the selected electronic databases were queried using the following keywords, selected based on the potential contribution that the words could make to the literature analysis:

- Effectiveness of tax incentives
- Effectiveness of fiscal incentives
- Tax expenditures
- Promoting foreign direct investment
- Business tax incentives
- Export promotion incentives
- Employment incentives
- Sector-specific incentives
- Methodologies for evaluating tax incentives

Truncation was used to capture different variants of the relevant keywords and the Boolean operators “AND” and “OR” were applied to combine the terms. In particular, the research within the Scopus database was carried out using the “Article title, Abstract, Keywords” criterion; in WoS and BSC, the research was linked to the “Topic,” while all available materials were selected within Google Scholar. Furthermore, automatic screening was directly implemented during the research phase in various databases and consistently conducted in line with the defined exclusion criteria.

The first search results yielded 3,918 documents identified from Scopus, 2,061 from WoS, 684 from BSC, and 500 most-cited papers from Google Scholar. To make the database complete and inclusive, additional materials related to the topics covered by this work were gathered from ProQuest Dissertations & Theses Global and the repositories of several international organizations. From these search strings, a combined total of 9,399 documents were identified across all databases, as detailed in Table B1.

To enhance the efficiency of the systematic review process, all identified records were exported to Rayyan in research information system

TABLE B1

TAX INCENTIVES: DATA COLLECTION PER DATABASE

Database/source	Search string	Results
Web of Science	Topic (TS)	2061
Scopus	TITLE-ABS-KEY	3918
Business Source Complete	TI TITLE + TX ALL TEXT	684
ProQuest Dissertations & Theses Global	Document Title – TITLE	96
National Bureau of Economic Research	All fields	395
International Monetary Fund	All fields	251
World Bank	All fields	242
Organisation for Economic Co-operation and Development	All fields	182
International Finance Corporation	All fields	5
Inter-American Development Bank	All fields	42
Latin America and the Caribbean (via Lens.org)	All fields	1023
Google Scholar	All fields (via Publish or Perish software)	500
Total references imported		9,399

(RIS) format. A total of 2,642 duplicates were identified across all databases and resolved automatically. After the exclusion of those duplicates, 6,757 articles remained; the titles and abstracts of the remaining articles were screened to ensure alignment with the defined theme. After this level of screening, 727 documents met the selection standards in LAC and other countries around the world. Figure 4 summarizes the data collection and selection process led through standardized PRISMA techniques (Page et al., 2021; Moher et al., 2009).

Due to the large database obtained at the initial screening level, a further screening step was carried out to narrow the geographical scope of the database, concentrating specifically on research related to experiences in LAC countries. Furthermore, the primary focus of this study is to survey the literature specifically addressing tax incentives designed for stimulating investment and economic growth as well as creating

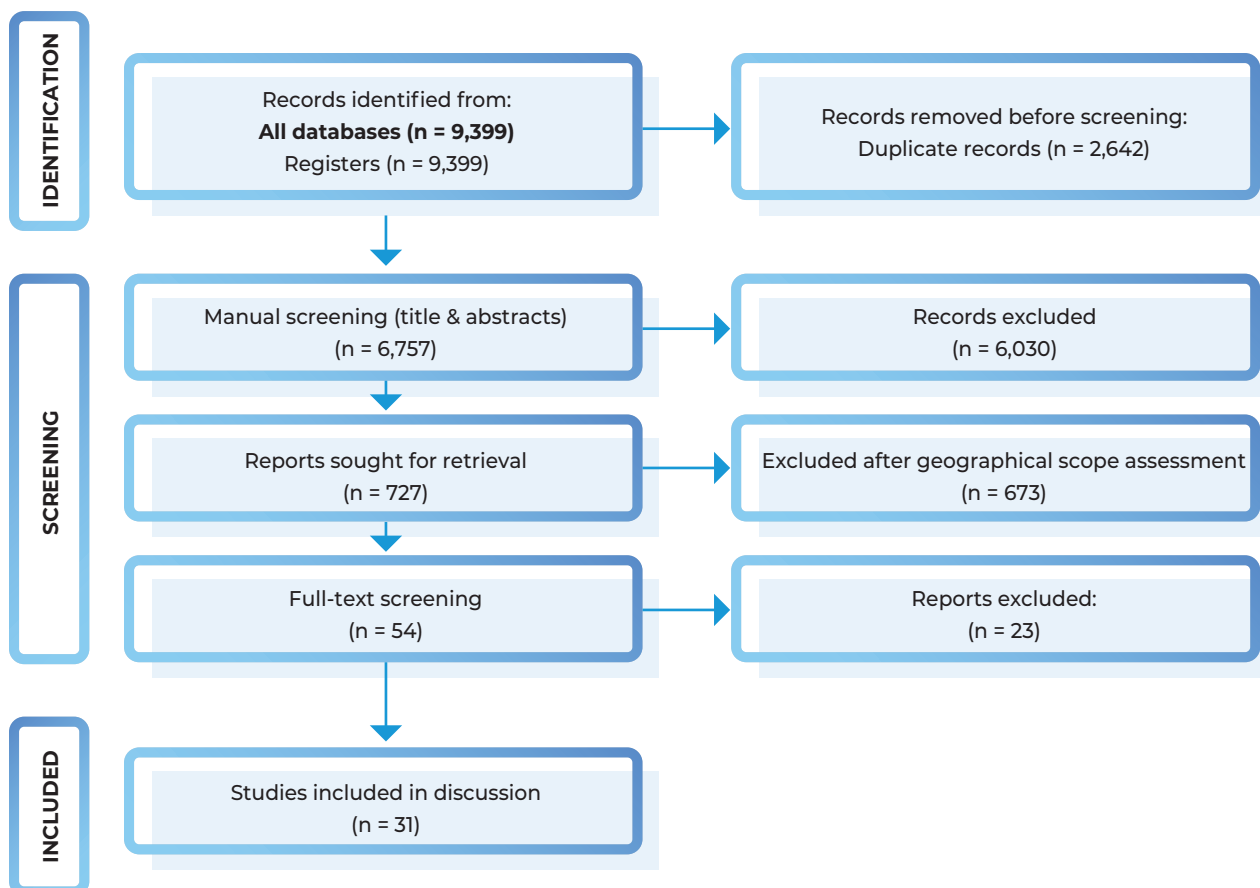
jobs. Consequently, literature covering tax incentives aimed at other objectives, such as fostering innovation and research and development (R&D) activities, promoting charitable giving, encouraging environmental practices, advancing social welfare, or improving housing availability, was excluded.¹⁵

At the conclusion of this process, the database consisted of 54 papers focused on the analysis of tax incentives for investment in LAC countries. The full-text screening was performed on the remaining papers to determine their relevance. The body of the text of each study was analyzed to ensure that the information provided

¹⁵ While the literature on R&D tax incentives falls outside the scope of this study, we find it helpful to touch on this literature briefly because policies associated with this body of work have been prominent in the debate on tax incentives in recent years. Section 3.4 presents a brief review of three selected papers discussing the impact of R&D tax incentives in some LAC countries.

FIGURE B1

PRISMA FLOW DIAGRAM



Source: Authors' elaboration.

by the authors would assist with the discussion and interpretation stages. This required a review of the context of all papers following the inclusion criteria.

Of these 54 studies, 31 studies that are empirical, apply quantitative models, focus on LAC

countries, and have significant contributions to the topic were selected for the discussion and interpretation stages. The list of included articles is presented in Annex C, which summarizes the results and methodologies used in the empirical studies presented in each article.

Annex C. Summary of Results of Sample Studies on Impact of Tax Incentives

TABLE C1

SUMMARY OF RESULTS

Author(s)	Country	Type of tax incentive	Type of analysis	Models/ indicators	Effectiveness results	Efficiency results
Abbas and Klemm (2013)	50 emerging and developing economies (11 from LAC)	Special regimes, such as tax holidays and reduced rates	Econometric analysis	GMM	<ul style="list-style-type: none"> EATRs have a significant negative correlation with FDI and private fixed investment. EMTR does not significantly affect overall private investment. The actual effectiveness of these incentives often depends on the overall investment climate and the specific characteristics of the tax system in each country. 	n.a.
Agostini and Jalile (2009)	LAC countries	Change in income tax rates	Econometric analysis	Multiple linear regression	<ul style="list-style-type: none"> Corporate tax rates significantly influence FDI in Latin America. Factors such as market size, infrastructure, investment profile, and rule of law significantly influence FDI, with positive elasticities associated with these variables. 	n.a.
Agostini and Jorratt (2013)	Chile	Exemption from import tariffs on capital goods; credit against income tax on purchases of fixed assets	Cost-benefit analysis	Cost-benefit analysis	<ol style="list-style-type: none"> Exemption from Import Tariffs on Capital Goods: Net economic efficiency, but the actual economic impact of the imported goods is unclear. <ul style="list-style-type: none"> The benefit (value of the 21% additional capital goods imported) is greater than the cost (tax loss) by US\$184 million. Although the difference is positive, this does not necessarily imply a positive impact of the law because not all imported capital goods have a positive impact on economic growth and not all potential costs have been estimated. Credit against Income Tax on Purchases of Fixed Assets: Not cost efficient <ul style="list-style-type: none"> The benefit (additional investment resulting from this incentive) is about four times lower than the estimated cost (revenue loss). 	

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TABLE C1

SUMMARY OF RESULTS *(continued)*

Author(s)	Country	Type of tax incentive	Type of analysis	Models/ indicators	Effectiveness results	Efficiency results
Amendola et al. (2023)	Dominican Republic	CIT exemptions	Econometric analysis	PSM	<ol style="list-style-type: none"> 1. Positive impact on firm growth and performance. 2. Urban vs. Rural Disparities: Urban firms tend to benefit more from these tax incentives compared to their rural counterparts, reflecting varying levels of access to resources and market dynamics 	n.a.
Artana (2015)	Costa Rica, El Salvador, Dominican Republic	CIT exemptions (tax holidays); import duty exemptions	Econometric analysis	DID, PSM, fixed-effects panel regression	<ol style="list-style-type: none"> 1. Costa Rica: Not effective <ul style="list-style-type: none"> • Tax incentives did not lead to increased investment or employment growth. • The econometric analysis did not find significant positive effects of tax exemptions on firm-level investment and employment outcomes in export-free zones. • It suggests that the incentives may have disproportionately benefited high-profit firms that would have invested without them. 2. El Salvador: Not effective <ul style="list-style-type: none"> • No significant difference in sales growth between firms with and without incentives. • Firms benefiting from tax exemptions in FTZs did not exhibit superior sales growth relative to non-beneficiary firms. 3. Dominican Republic: Somewhat effective <ul style="list-style-type: none"> • More effective than in the other two countries, particularly in driving higher firm sales and labor intensity. • The overall effectiveness of fiscal incentives remains questionable because they may favor projects that would have occurred without such incentives. 	n.a.

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TABLE C1

SUMMARY OF RESULTS *(continued)*

Author(s)	Country	Type of tax incentive	Type of analysis	Models/indicators	Effectiveness results	Efficiency results
Chai and Goyal (2008)	6 ECCU member countries	Import-related tax incentives and tax holidays on CIT	Econometric analysis	Cross-country regression analysis	<ul style="list-style-type: none"> Tax incentives have a limited impact on FDI. Tax revenues forgone are large, ranging from 9.5 to 16% of GDP annually. 	n.a.
Chen et al. (2018)	Dominican Republic	TIPT (includes exemptions, tax holidays, credits, and preferential tax rates)	Cost-benefit analysis	Cost-benefit analysis	n.a.	The costs outweigh the benefits; the study concludes that incentives have not been an efficient tax instrument.
Córdova-León et al. (2022)	Ecuador	Income tax exemptions	Financial performance analysis and econometric analysis	Financial indicators and a multiple linear regression model	Tax incentives have a positive impact on financial performance across the manufacturing and trade sectors.	n.a.
Crespi et al. (2016)	Argentina	R&D tax credits	Econometric analysis	Dynamic panel data techniques (GMM)	<ul style="list-style-type: none"> Effective in promoting private sector investment in R&D+I, especially in capital goods. Differentiated Impact by Type of Investment: The incentives are more effective in attracting capital goods investment (elasticity greater than 1), while they are less effective for R&D-specific investments (elasticity less than 1), indicating a weaker attraction for R&D spending. Firm Size Influence: Larger firms benefit more from tax incentives and react more quickly. Effectiveness Varies by Sector: Firms in low-tech sectors and larger firms tend to gain more from the incentives, which suggests that tax incentives could be more effective if targeted differently across firm sizes and sectors. 	n.a.

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TABLE C1

SUMMARY OF RESULTS *(continued)*

Author(s)	Country	Type of tax incentive	Type of analysis	Models/indicators	Effectiveness results	Efficiency results
Cubeddu et al. (2008)	15 Caribbean countries	Change in corporate tax rates	Econometric analysis	OLS regression/statutory tax rates and EMTR approach	<ul style="list-style-type: none"> Tax incentives and tax policy have a positive, yet limited, impact on foreign investment flows to the Caribbean. Other factors such as the quality of institutions and infrastructure have a large positive and very significant effect on FDI. 	n.a.
Feltenstein and Shah (1995)	Mexico	General tax credits; industry-specific tax credits; employment tax credits; corporate tax reductions	Structural model	DCGE model	Effectiveness of corporate tax reductions in stimulating investment compared to investment tax credit: corporate tax reduction increases demand for all types of capital, not just new capital, leading to broader economic benefits.	n.a.
Galindo and Meléndez (2010)	Colombia	Investment tax deduction (investment allowances)	Econometric analysis	Fixed-effects panel data model	Incentive did not effectively promote investment; the investment boom is attributed to broader economic factors rather than the tax policy itself.	n.a.
García-García et al. (2023)	Colombia	Accelerated depreciation; customs duty exemption; income tax deduction; VAT exclusion	Financial Performance Analysis	Financial indicators such as ROA, NPV, and IRR	<ul style="list-style-type: none"> Tax incentives significantly enhance the financial viability of microgrid projects. Accelerated depreciation and VAT exemption are the most effective incentives. 	n.a.
Garsous et al. (2015)	Brazil	75% tax credit	Econometric analysis	DID approaches	Effectiveness of such policies in job creation: significantly increased tourism employment in less-developed regions.	The efficiency and cost-effectiveness of the tax incentives remain unestablished.
Jenkins and Kuo (2017)	Dominican Republic	CIT exemption	Economic simulation techniques	Economic simulation techniques	Removing the CIT exemption in the Dominican Republic's FTZs could impose a significant burden on low-wage workers (estimated to be about 10 times the additional tax revenue collected).	n.a.

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TABLE C1

SUMMARY OF RESULTS *(continued)*

Author(s)	Country	Type of tax incentive	Type of analysis	Models/indicators	Effectiveness results	Efficiency results
Jorratt de Luis (2010)	Ecuador	Tax deduction for net job increase; reduced tax rate for reinvestment of profits; deferral for accelerated depreciation	Cost-benefit analysis	Cost-benefit analysis	<p>1. Deduction for Net Job Increase:</p> <ul style="list-style-type: none"> Modest impact; most job creation would occur without the deduction. <p>2. Reduced Tax Rate for Reinvestment of Profits:</p> <ul style="list-style-type: none"> It is proposed to repeal the reduced rate for reinvestment of profits. Low uptake; primarily benefits large companies. <p>3. Accelerated Depreciation:</p> <ul style="list-style-type: none"> No clear evidence that accelerated depreciation increased overall investment. Effectiveness is limited by the treatment of losses from prior periods. 	<p>1. Deduction for Net Job Increase:</p> <ul style="list-style-type: none"> Low cost-effectiveness (benefit [US\$31 million] is nearly equal to the fiscal cost); benefits mainly go to large firms. <p>2. Reduced Tax Rate for Reinvestment of Profits:</p> <ul style="list-style-type: none"> It is proposed to repeal the reduced rate for reinvestment of profits. Not cost effective; negative net benefit. <p>3. Accelerated Depreciation:</p> <ul style="list-style-type: none"> Not cost effective.
Klemm and Van Parys (2012)	40 Latin American, Caribbean, and African countries	Tax holidays; reduced CIT rates; tax credits; investment allowances	Econometric analysis	Spatial econometric panel analysis	<p>1. Tax holidays and lower CIT rates are effective in attracting FDI in LAC but not in Africa.</p> <p>2. Investment allowances and tax credits show no robust evidence of boosting FDI.</p> <p>3. None of the four types of tax incentives shows evidence of an increase in the total private investment.</p>	n.a.
Llambí et al. (2018)	Uruguay	Investment tax credits	Econometric analysis and efficiency metrics	MDID and ratio of tax expenditure to Additional Investment	<p>1. The investment promotion regime had a statistically significant effect on firms' investment rates.</p> <p>2. The effects on employment growth are less clear. (The manufacturing sector experienced the highest increase in employment growth rate, estimated at around 7.2%, while the services sector recorded no significant impact.)</p>	<p>1. The ratio of tax expenditure to additional investment is 33% (for every dollar spent on tax incentives, about three dollars of additional investment was generated).</p> <p>2. Efficiency of credit against CIT is 35%.</p>

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TABLE C1

SUMMARY OF RESULTS *(continued)*

Author(s)	Country	Type of tax incentive	Type of analysis	Models/indicators	Effectiveness results	Efficiency results
Mardones and Madrid Becerra (2020)	Chile	R&D tax incentive (credit)	Econometric analysis	MDID	The policy lacks effectiveness (positive but very low effects on some components of innovation expenditure).	n.a.
Mardones and Sepúlveda (2017)	Chile	Tax credit known as “franquicia SENCE” for labor training	Econometric analysis	Fixed-effects model	<p>1. Effects of the Program on Employees:</p> <ul style="list-style-type: none"> Statistically significant increase in the hiring of skilled production workers. Positive impact on productivity (sales per employee). <p>2. Effects of the Program on Companies: Not effective</p> <ul style="list-style-type: none"> No statistically significant differences in sales or sales growth for companies that utilized the training program. 	n.a.
Mele (2017)	Dominican Republic	15-year tax holiday on CIT for firms established in SEZs	Cost-benefit analysis and econometric analysis	Cost-benefit analysis and DID	The tax holiday on CIT tax incentives not an efficient means of promoting employment growth, especially in free trade zones.	With the tax incentives, SEZ companies create significantly more jobs than companies outside the SEZs, but at a very high fiscal cost.

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TABLE C1

SUMMARY OF RESULTS *(continued)*

Author(s)	Country	Type of tax incentive	Type of analysis	Models/ indicators	Effectiveness results	Efficiency results
Mercer-Blackman (2008)	Colombia	R&D tax deduction	Econometric analysis	Seemingly unrelated regressions method	Although the elasticity of demand for R&D investment is high in Colombia's manufacturing sector (particularly among SMEs), the current tax incentive framework does not effectively stimulate R&D at the desired scale.	n.a.
Mogro (2023)	Ecuador	Temporary exemptions (tax holidays); reductions in CIT rate	Econometric analysis	DID approaches	The two types of tax incentives do not effectively attract new investments or create employment in the prioritized sector.	n.a.
Moller et al. (2012)	Colombia	VAT exemptions and exclusions; FTZ regime; special tax regime for non-profit organizations	Structural model	DCOE model	Moderate effectiveness: The FTZ regime (RZF) has moderate levels of investment and employment generated, but much of it might occur even without tax incentives.	The fiscal cost is 0.1% of GDP, potentially rising to 0.33% by 2020.
Monge-González and Rivera (2022)	Costa Rica	FTZ system	Cost-benefit analysis	Cost-benefit analysis	n.a.	The aggregate intangible benefits (productivity gains of domestic suppliers that engage with MNCs and higher wage premium received by workers employed by MNCs operating in the FTZ) are 1.5 and 2.3 times greater, respectively, than the costs associated with the tax incentives offered.
Porsse et al. (2006)	Brazil	Several tax incentive packages/ automobile sector	Structural model	Interregional CGE model: B-MARIA-RS (Brazilian Multisectoral and Regional/ Interregional Analysis—Rio Grande do Sul)	<ul style="list-style-type: none"> The effects on employment and the household welfare of consumers are positive for the region implementing the incentive policy. The effects on real GDP are negative and relatively small. 	n.a.

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TABLE C1

SUMMARY OF RESULTS *(continued)*

Author(s)	Country	Type of tax incentive	Type of analysis	Models/ indicators	Effectiveness results	Efficiency results
Porsse and Carvalho (2019)	Brazil	Payroll tax exemption	Structural model	ORANIGBR model (based on the Australian ORANI-G framework)	The payroll tax exemption policy would imply a cumulative growth impact of 0.34% in GDP, while the new policy of removing part of the payroll exemption leads to a cumulative negative growth impact of 0.37%.	n.a.
Regazzini et al. (2021)	Brazil	Lowering rates of taxes	Structural model	CCE model	Tax exemptions for agricultural products are more effective than those for vehicles in stimulating Brazil's economy, leading to greater improvements in employment, GDP, and household consumption, particularly in poorer states.	n.a.
Sosa (2006)	Eastern Caribbean	Tax holidays; exemptions from import duties	Comparative analysis	EMTR approach	Tax holidays are highly effective in reducing the tax burden on investment but may also create imbalances, as not all firms benefit equally. When tax holidays are in effect, the EMTR drops significantly.	n.a.
Strausholm (2017)	51 developing countries (18 LAC countries and 11 Caribbean countries)	Tax holidays	Econometric analysis	Dynamic panel model with fixed effects	The use of tax holidays or changing the tax rates does not translate into either real capital accumulation or economic growth. Tax holidays have a negative correlation with tax revenues.	n.a.
Van Parys and James (2010a)	ECCU	Income tax exemptions for tourism companies extended from 5 to 25 years	Econometric analysis	DID approaches	Tourism-specific tax incentives (tax holidays) can effectively attract FDI in developing countries.	Only looks at the benefits of tax incentives and not at the costs.

Notes: CGE: computable general equilibrium; CIT: corporate income tax; DCGE: dynamic computable general equilibrium; DID: difference-in-differences; EATR: effective average tax rate; ECCU: Eastern Caribbean Currency Union; EMTR: effective marginal tax rate; FDI: foreign direct investment; FTZ: free trade zone; GMM: generalized method of moments; IRR: internal rate of return; MDID: matched difference-in-differences; MNC: multinational corporation; NPV: net present value; OLS: ordinary least squares; PSM: propensity score matching; R&D: research and development; R&D+i: research and development and innovation; ROA: return on assets; SEZ: special economic zone; SMEs: small and medium-sized enterprises; TIPT: tax incentive program for tourism (Dominican Republic); VAT: value-added tax.

