

Globalisation and Tax Policies in Latin America: an Empirical Assessment

Globalización y política tributaria en América Latina: una evaluación empírica

■
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■ Resumen

Siguiendo los resultados teóricos y empíricos analizados en un artículo publicado en un número previo de *Estudios Internacionales* sobre el impacto de la globalización en las políticas fiscales de los países de la Organización para la Cooperación y el Desarrollo Económico (OCDE), este artículo presenta una investigación empírica sobre el impacto de la globalización y la democracia en las políticas fiscales de 17 países latinoamericanos en las décadas de 1980 y 1990. Usando diferentes indicadores para medir globalización (movilidad de capital y apertura comercial), democracia (Índice de Libertad) y la tasa de impuesto legal (Tasa de Impuesto a las Empresas, Tasa de Impuesto a los Ingresos Personales, y Tasa del Impuesto al Valor Agregado), este artículo analiza si la globalización presenta una negativa o positiva correlación con las tasas de impuesto al capital y ingresos altos, tasa de impuesto al trabajo, y tasa de impuesto a los consumidores en los países de Latinoamérica analizados. Adicionalmente, se evalúa si la globalización y la democracia ejercen un efecto «compensatorio» o, por el contrario, «eficiente» en las tasas de impuesto al capital, trabajo y de consumidores en Latinoamérica.

PALABRAS CLAVE: Globalización – Políticas Fiscales – Democracia - Latinoamérica.

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■ Abstract

Following the theoretical and empirical findings reviewed in an article published in a previous issue of *Estudios Internacionales* on the impact of globalisation on fiscal policies of Organisation for Economic Cooperation and Development (OECD), countries¹, this paper presents empirical research on the impact of globalisation and democracy on tax policies of 17 Latin American countries in the 1980s and 1990s. Using different indicators to capture globalisation (capital mobility and openness), democracy (Index of Freedom) and the statutory tax rate (Corporate Income Tax Rate, Personal Income Tax Rate and Value-Added Tax Rate), this article analyses whether globalisation presents a negative or positive correlation with capital and high income tax rates, labour and consumers tax rates in Latin American countries considered. Additionally, it assesses whether globalisation and democracy exert a «compensatory» or «efficient» effect on capital, labour and consumers tax rates in Latin America.

KEY WORDS: Globalisation – Tax Policies – Democracy - Latin America.

¹ Camargo Brito, Ricardo (2006), «The Globalisation Debate Revisited: An Assessment of the ‘Constraints’ of Fiscal Policies of the Nation-States», *Estudios Internacionales*, N° 153, pp. 37-67.

INTRODUCTION

While the impact of globalisation on tax policies is a controversial matter within OECD countries, as was documented in an article published in a previous issue of *Revista de Estudios Internacionales*², in Latin America this debate is still in a germinal stage. Indeed, to what extent globalisation is affecting the ability of the Latin American governments to conduct autonomous tax policies is an open question.

Recently, many scholars have agreed that in the last 25 years of the twentieth century, the economic structural model of Latin American countries experienced dramatic changes³. The old model of the state-directed import-substituting industrialization, which was predominant in Latin America during the 1960s, became obsolete during the 1970s and was replaced by the open regionalism model⁴. However, the implementation of this new model was not homogenous across time, area or country. Indeed, it was a consequence of the gradual introduction of a series of structural reforms in tariffs, the

national and international financial system, taxes, the role of the state enterprise and labour regulation⁵.

Although it is undisputable that Latin American governments have decisively implemented reforms to open their economies and societies to globalisation, it is not clear at all what impact it has had on the tax policies of the nation states, i.e. whether the Latin American governments have privileged an efficiency or compensation hypotheses.

In a purely theoretical reflection, the efficiency hypothesis points out that during a globalisation process, mobile capital should be exempted from taxation altogether and immobile domestic factors (labour) should be taxed instead. The corollary of this prediction indicates that capital tax rates fall and labour tax rates rise with the increase of capital mobility⁶.

In turn, the compensation hypothesis indicates that democratic and left-oriented governments would exercise a sort of balance on prediction derived from the efficiency hypothesis. In this sense, we should expect that in democratic and left-oriented governments the fall of corporate tax rates and the rise of labour tax rates were less intense than

² Camargo (2006).

³ See Morley, Machado and Pettinato (1999), Lora and Barrera (1997), and Edwards (1995).

⁴ The open regionalism model was characterised, on the one hand, by the increasing opening of the internal economy to foreign competition and, on the other hand, by the progressive reduction of the role played by governments in directing the allocation of resources and production of the economy. See Paunovic (2000).

⁵ For a revision of Structural Reforms in Latin America, see Morley, Machado and Pettinato (1999).

⁶ Apart from some methodological problems this seems to be the case for the Organisation for Economic Cooperation and Development (OECD) countries, see Camargo Brito (2006), p. 48.

those results registered in authoritarian and centre-right governments⁷.

Like those within the countries of the Organisation for Economic Cooperation and Development (OECD), the impact of globalisation on tax policies in Latin America is a matter that cannot be resolved without empirical research. With this purpose in mind, this article presents the result of an investigation that intends to show a general and aggregate view of the trends that tax policies of Latin American countries have followed in the course of globalisation.

The paper analyses the correlations between globalisation, democracy and tax policies for 18 Latin American countries for which relevant data is available (Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela) for the years 1979 or 1980, 1986, 1992 and 1997. Additionally, it has included the data from 1995 in order to make a comparison with commercial, capital account liberalization and tax reform indices taken from Morley, Machado and Pettinato (1999)⁸.

Globalisation is defined on the basis of two economic variables: capital mobility and trade liberalization. *Capital mobility* is captured by measuring net inflows of Foreign Direct Investment as a percentage of Gross Domestic Product (GDP). This indicator allows a more acute comparison with the other measure utilised in this work to capture globalisation: openness. Additionally, it considers the capital account liberalization index taken from Morley, Machado and Pettinato (1999). This index reflects the level of distortion or government intervention in the international financial sector. It ranges between zero and one, one being the most reformed or free indicator. The index considers the average of four components: control of foreign investment, limits on profits and interest repatriation, controls on external credit by national borrowers and capital outflows⁹. *Trade Liberalization* is measured by the traditional indicator used in most of the studies regarding globalisation and tax competition: openness, which is the sum of exports and imports as a percentage of GDP. Additionally, I have included the Commercial Index taken from Morley, Machado and Pettinato (1999). This

⁷ Garrett (1995) found that for the case of OECD countries with centre-right governments, openness exerts a more significant influence in the reduction of capital tax revenues than in left-oriented governments.

⁸ It is important to be cautious with this comparison because Morley, Machado and Pettinato (1999) use data which includes Jamaica and excludes Panama and

Nicaragua, for which this results must be only taken as a general proxy of the average trends analysed.

⁹ The index for each component was derived from the descriptions contained in the International Monetary Fund's Balance of Payments Arrangements, in addition to independent information from the World Bank country memoranda. See Morley, Machado and Pettinato (1999), p. 11.

index reflects the level of distortion or government intervention in the trade sector. It ranges between zero and one, one being the most reformed or free indicator. The index is the average of two subcomponents: the average level and the dispersion of tariffs. Data for capital mobility and trade liberalization is taken from *World Development Indicators* (2000) (CD-ROM version), World Bank, Washington, DC registered in the Latin America and Caribbean window of the United States Agency for International Development Economic and Social Database».

To capture the degree of democratisation of Latin American countries, I have used the Index of Freedom elaborated by the *Comparative Survey of Freedom* (1999), Freedom House, Washington DC, registered in the Latin America and Caribbean window of the United States Agency for International Development Economic and Social Database. This index is a seven-point scale where 1 represents the most free and 7 the least free status.¹⁰ This index, however, presents two weaknesses. Firstly, as is the case with most types of indices, a subjective judgment is present. Indeed, it is not clearly explained in the methodology used by the *Comparative Survey of Freedom* (1999) how one score differs from another. Secondly, this index has been criticised

by Scott *et al.* (2000) because it grades leftist governments more critically than rightist governments. McClintock (2001) has removed some of these defects. However her index only considers data for the 1990s. Therefore, although there are some weaknesses, which are important to take into account, in this research I have used the Index of Freedom because it presents data for a long period of time, which allows me to compare the 1980s and 1990s, which are the years covered in this study.

The Comparative Survey of Freedom (1999) disaggregates three categories, all of which are used in this paper: the Index of Overall Freedom, the Index of Political Rights and the Index of Civil Liberties.

The Index of Overall Freedom: this is a more general index of freedom and integrates items included in the other two indices: political rights and civil liberties. In this sense, its scores tend to be lower than those of the other indices for which the aggregate effects registered by it could be in some sense misleading. In order to avoid this, I have included comparative analyses for each index, which allows me to have a clearer picture of the influence of democracy over the dependent variables.

The Index of Political Rights: this index uses an eight-item checklist that focuses on the freedom and fairness of elections, the capacity for competition by the political opposition, freedom from domination by the military, foreign powers, or other powerful groups, and minority rights and participation.

¹⁰ The scale is subdivided in the following categories: Free = 1-2.5, Partly Free = 3 - 3.5, Not Free = 5.5 - 7. See the Latin America and Caribbean window of the USAID Economic and Social Database.

In this study, I have assumed the definition of Political Rights formulated by the *Comparative Survey of Freedom* (1999): «Political Rights enable people to participate freely in the political process. In this case, political process refers to the system by which the polity chooses the authoritative policy makers and attempts to make binding decisions affecting the national, regional or local community. A system is genuinely free or democratic to the extent that the people have a choice in determining the nature of the system and its leaders» (*Comparative Survey of Freedom*, 1999).

The Index of Civil Liberties: this index uses a fourteen-item checklist that focuses on freedom of expression and belief, freedom of association and organization, the rule of law and human rights, and personal social and economic rights. In this paper, I also assume the definition of Civil Liberties formulated by the *Comparative Survey of Freedom* (1999): «Civil Liberties are the freedoms to develop views, institutions and personal autonomy apart from the state» (*Comparative Survey of Freedom*, 1999).

Tax policy, instead, is assumed as a dependent variable captured by the statutory tax rate¹¹. The statutory tax rate presents the problem that it does not adequately capture the effective tax burden¹² because this is not only de-

termined by the statutory tax rates but also by the size of the tax base, which is influenced by different national complex tax credits, tax-exemptions and tax deductions.

I have considered additional variables to deal with this problem, although none are fully satisfactory. However, the statutory tax rate is, at least, a general proxy to assess the behaviour of governments relating to the impact of globalisation on tax policies, if a clear and constant tendency along the years between both variables is found. The use of the effective tax rates, considered the best way to measure the change in the tax rates within the OECD countries, is currently inapplicable to Latin American countries because of the lack of adequate data.

I consider three types of statutory taxes: corporate, personal and value-added taxes.

Corporate Income Tax Rate (CIT) captures the tax rate on capital and for this reason is a strategic variable to analyse the way in which governments have responded to capital competition.

which the means of the government have been affected by the globalisation process. However, most researches that have used these variables have presented additional problems. For instance, the use of corporate tax revenues as a percentage of GDP by Garrett (1995) and Quinn (1997) presents a problem in that CIT revenue as a percentage of GDP is not a strategic variable. Therefore, governments can determine the tax burden by the corporate tax rates and the tax base but not the GDP. See the discussion in Camargo Brito (2006), pp. 48-49.

¹¹ The statutory tax rate is the rate established in the tributary law of each country analysed.

¹² The effective tax burden is the range in

Additionally, in order to deal with the problem of the effective tax burden, I have incorporated the analysis of three related measurements: the treatment of capital gains; the withholding tax rates on foreign remittances and the net worth or assets tax rate. The data is taken from two related studies: Shome (1999) and Pita (2000)¹³.

Personal Income Tax Rate (PIT) is the tax on individual income. I incorporate this variable into this investigation for two main reasons. Firstly, through the measure of its top rates, it is possible to assess the impact of globalisation on taxes that directly affect highly qualified workers, which are the category of workers who are more sensible to international capital competition. For this reason, if the efficiency hypothesis operates in Latin America, we must expect a reduction of the top PIT rates. Secondly, low PIT rates provide an indirect way to capture the impact of globalisation on the labour tax rate.¹⁴ In this sense, in an efficiency hypothesis scenario, we must expect an increase of the low PIT rates in Latin American countries. The

data for these variables is taken from Shome (1999) and Pita (2000).

Value-Added Tax Rate (VAT) is the tax on the consumption of goods and services. As VAT is a tax that is not directly affected by international tax competition for mobile capital factors between countries, an increase in VAT rates with the course of globalisation within Latin American countries is expected. Data is taken from Shome (1999) and Pita (2000).

Additionally, I consider the Tax Reform Index taken from Morley, Machado and Pettinato (1999). This index reflects the level of distortion or government intervention in the tax sector. It ranges between zero and one, one being the most reformed or free indicator. This index is the average of four sub-components: the maximum marginal tax rate on corporate incomes, the maximum marginal tax rate on personal incomes, the value added tax rates and the efficiency of the value-added tax¹⁵.

Taking into account the aforementioned indicators of globalisation, democracy and tax policies, three hypotheses have been formulated in the context of this paper:

a) Globalisation presents a negative correlation with capital and high income tax rates in Latin American

¹³ These studies, in turn, take data from secondary published sources such as the publication of tax summaries by Price Waterhouse Cooper and Lybrand, International Bureau of the Fiscal Documentation, International Financial Statistics (IFS) of the IMF; and from the Inter-American Centre of Tax Administrations (CIAT), web site: <<http://www.ciat.org>> See Shome (1999) p. 8 and Pita (2000), p. 144.

¹⁴ This paper does not consider a direct measure of labour tax rates due to the lack of suitable data.

¹⁵ This last indicator is defined as the ratio of the VAT rate to the receipts from this tax as a ratio of GDP and expresses the coverage or the neutrality of the VAT as well as the efficiency of the government in collecting the tax. See Morley, Machado and Pettinato (1999), p. 11.

countries. This means that capital and high income tax rates tend to decrease with the increase of globalisation.

b) Globalisation presents a positive correlation with labour and consumer tax rates in Latin American countries. This means that labour and consumer tax rates tend to rise with the increase of globalisation.

c) The interaction between globalisation and democracy exerts a compensation effect on capital, labour and consumer tax rates in Latin American countries. This means that with the increase of globalisation and improving levels of democracy, capital tax rates tend to stabilise or increase, while labour and consumer tax rates tend to decrease.

THE IMPACT OF GLOBALISATION AND DEMOCRACY ON TOP CORPORATE INCOME TAX RATES

Table 1 shows the evolution of the independent variables and Top Corporate Personal Income Tax (TCIT) rates for the years 1980, 1986, 1992 and 1997. Additionally, it includes the year 1995 to compare indices of capital account liberalization, commercial and tax reforms taken from Morley, Machado and Pettinato (1999). A basic analysis of Table 1 shows that between 1980 and 1986, Top Corporate Income Tax rates were positively correlated with both variables of globalisation but followed a decreasing tendency. This means that while FDI and Openness fell, TCIT rates also experienced a decline.

TABLE I
TOP CORPORATE INCOME TAX RATES AND INDEPENDENT VARIABLES IN
LATIN AMERICAN COUNTRIES

Indicators	1980	1986	1992	1995	1997
Top Corporate Income Tax Rates	69.0	43.3	36.5	--	27.6
FDI (% GDP)	0.71	0.51	1.33	2.39	4.34
Openness (Trade % GDP)	48.88	42.96	50.09	56.22	58.43
Tax Reform Index	0.307	0.375	0.525	0.573	--
Capital Account Liberalization	0.567	0.545	0.771	0.848	--
Commercial Index	0.662	0.695	0.897	0.946	--
Overall Freedom	1.7	1.3	1.5	1.6	1.5
Political Rights	3.8	2.8	2.7	2.9	2.5
Civil Liberties	3.7	3.1	3.0	3.2	3.1

Source: Elaborated by the author.

This coincides with the decline of capital account liberalisation and with the small growth shown by the commercial index¹⁶. Only the tax reform index

showed an improvement, which was, in part, reflecting the reduction of TCIT rates¹⁷. The political variables, in turn, were the unique indicators that showed a constant tendency towards better levels of democratisation in the region during these years. Since 1986 a negative correlation has existed between both globalisation and democracy variables and TCIT rates. Figure 1 illustrates the tendencies followed by independent variables and TCIT rates for the years 1980, 1986, 1992 and 1997.

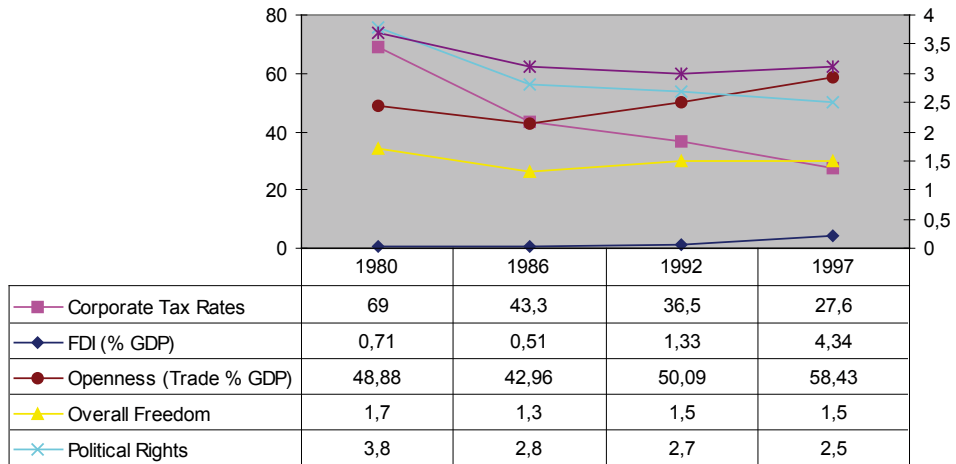
Figure 1 confirms that only since 1986 and especially in the 1990s has there been a negative correlation between globalisation and TCIT rates. The 1990s, the decade in which FDI and openness reached the highest scores as it shown by Figures 1.1 and 1.2 (below), was the period in which the negative correlation found between these both indicators and TCIT rates was most intense.

¹⁶ Morley, Machado and Pettinato (1999) identify three periods in the implementation of structural reforms in Latin America: the 1970s, the Debt Crisis of the 1980s, and the 1990s. The structural reforms started in the 1970s, but only for a few areas and countries. In fact, Chile, Uruguay, Argentina and Colombia were unique in that trade and financial reforms were introduced in these countries during this decade. However, it was only the process of implementation of trade reforms that reached a significant relevancy during this decade. Average tariffs were cut in half over the 1970s. Chile, for instance, which had the second highest level of tariff protection in the region in 1970, reached the lowest in 1982. In 1970, almost all Latin American Countries had a high degree of control over external capital transactions both for their citizens and for foreigners. Moreover, this situation remained relatively unchanged throughout the decade. In 1970 Argentina, Costa Rica, Honduras, Peru and Venezuela had a relatively liberalised international financial system, but Argentina, Costa Rica and Venezuela suffered a reversion of their system between the years 1971 and 1985. In 1982, Latin American Countries experienced a profound economic crisis, which severely affected the implementation of the new model of open regionalism in the region. In fact, the trade and international financial liberalization processes experienced a temporary reversion, especially in Chile and Argentina. The process of international financial liberalization started again in the late 1980s but only in a few countries such as Argentina, Costa Rica and Guatemala. The trade reform process was reinitiated in 1985. However, it was only in the 1990s that this process accelerated. The 1990s was the decade in which no country, except for Brazil and its auto-

mobile industry, was using its tariff system to protect domestic industry. The average in the region was reduced from 46% in 1985 to 12% in 1995 and the highest average tariff was 18% in the Dominican Republic. By contrast, the capital liberalization process assumed a more erratic pattern. In fact, it increased in the 1990s but only for smaller economies such as El Salvador, Jamaica and the Dominican Republic. However, the bigger economies (Brazil, Mexico, Colombia and Chile) still maintained significant control over foreign capital transactions. See Morley, Machado and Pettinato (1999), pp 13-23.

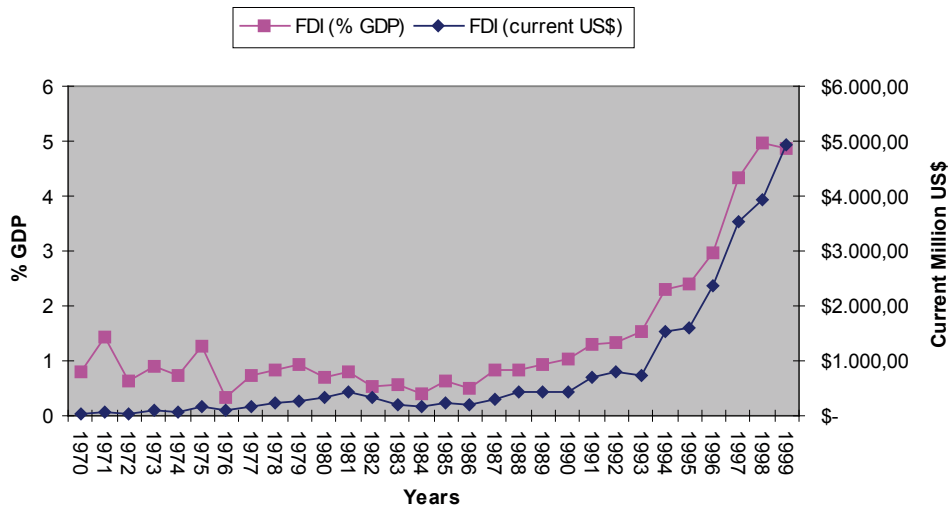
¹⁷ The other factors than affected the improving of tax reform scores were the reduction of Top Personal Income Tax Rates and the increase of Value-Added Tax Rates for the same period.

FIGURE I
TOP CORPORATE IN COMO TAX RATES AND INDEPENDENT VARIABLES



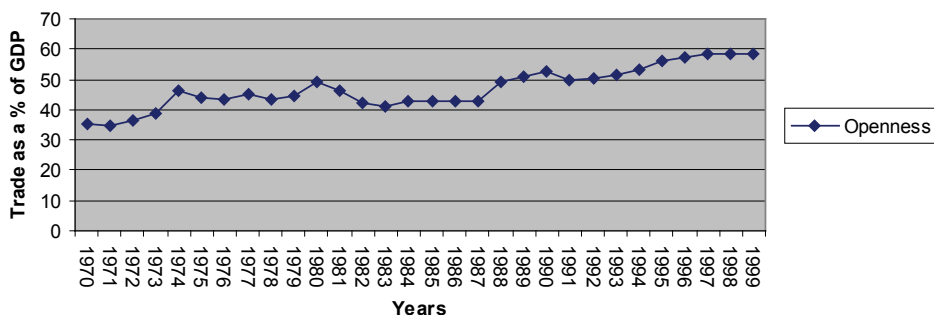
Source: Elaborated by the author.

FIGURE I.I
FDI AS A PERCENTAGE OF GDP AND CURRENT US\$ AVERAGES IN
LATIN AMERICAN COUNTRIES, 1970/1999



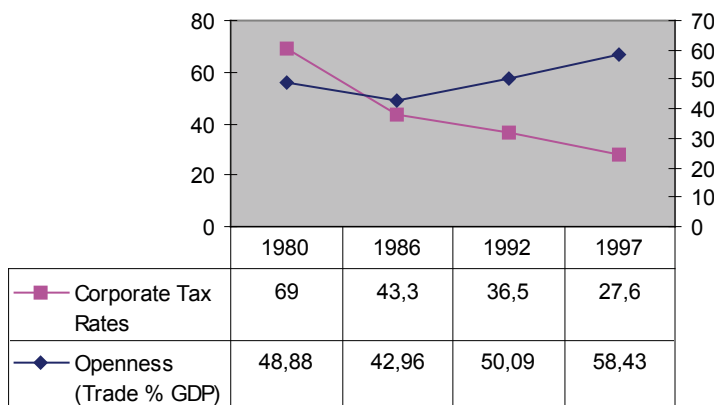
Source: Elaborated by the author.

FIGURE 1.2
OPENNESS (TRADE AS A PERCENTAGE OF GDP)
AVERAGES IN LATIN AMERICAN COUNTRIES, 1970/1999



Source: Elaborated by the author.

FIGURE 1.4
OPENNESS AND TOP CORPORATE INCOME TAX RATE



Source: Elaborated by the author.

Figure 1.3 also confirms that the negative correlation between FDI and TCIT rates started in 1986 and since then has experienced a high level of concordance. However, the decline in TCIT rates began before 1986 with the spectacular growth experienced by FDI in the region. In fact, in 1980 TCIT

rates ranged at an average of 69 percent and in 1986 had been reduced to 43.3 percent. This could indicate that in the first stage of the process of reduction of TCIT rates in the region (1980-1986), governments sought to attract FDI, which had experienced a fall between these years. As a consequence of these

policies, a process of capital competition and trade growth was generated, which tended to accentuate in the following years. Figure 1.3 also confirms that the 1990s was the decade in which the negative correlation between both variables peaked¹⁸.

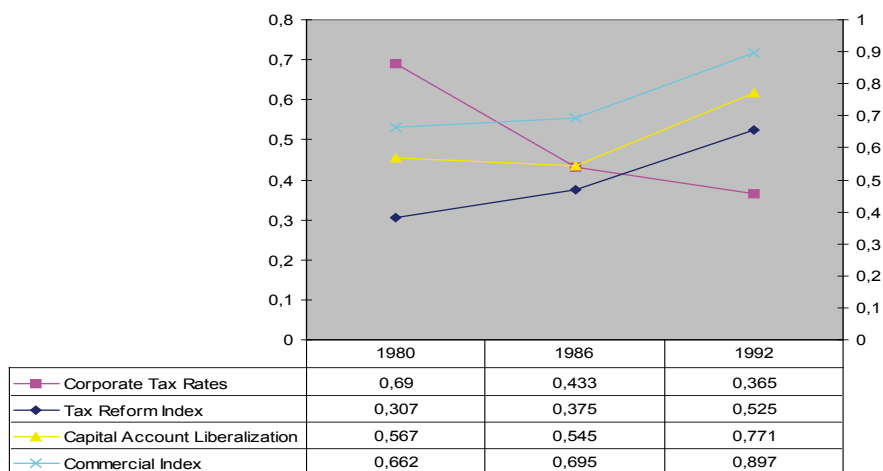
Figure 1.4 shows the correlation between openness and TCIT rates.

As in Figure 1.3, the negative correlation between these indicators only started in 1986. Indeed, before this year, these indicators presented a positive correlation. However, since 1986 and until 1997, the negative correlation between openness and TCIT rates reached a high intensity and was similar to that shown by Figure 1.3 for FDI and TCIT rates.

Figure 1.5 shows that the same conclusion is arrived at if we compare the evolution of the indices of capital account liberalization, commercial and tax reforms elaborated by Morley, Machado and Pettinato (1999) and TCIT rates.

In fact, during the years 1980 and 1986, while the index of capital account liberalisation fell, the commercial index experienced a small increase and only the tax reform experienced a more significant increase, which coincided with the increase experienced by TCIT rates in the same years. Only since 1986 and until 1992 have commercial and capital account indices shown a clearly negative correlation with TCIT rates.

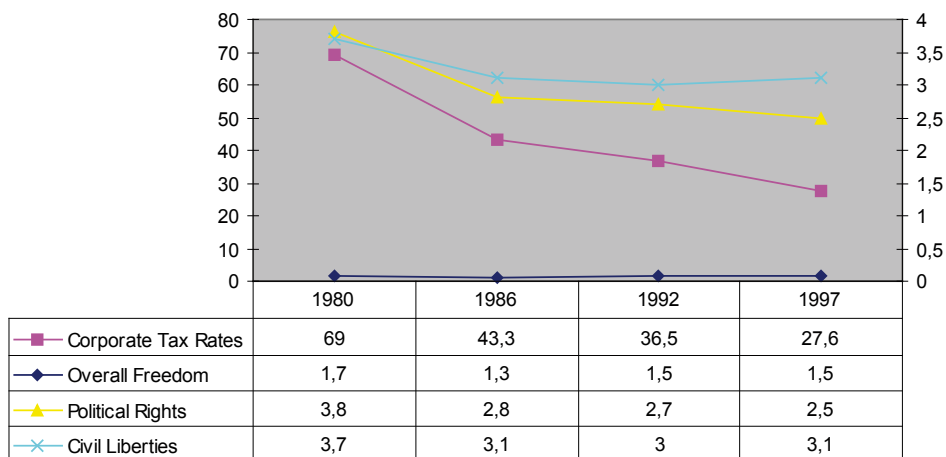
FIGURE 1.5
INDICES OF MORLEY, MACHADO AND PETTINATO (1999) AND
TOP CORPORATE INCOME TAX RATES



Source: Elaborated by the author.

¹⁸ This is shown in Figure 1.1 by the inclination of the TCIT rates and FDI curves.

FIGURE 1.6
POLITICAL VARIABLES AND TOP CORPORATE INCOME TAX RATE



Source: Elaborated by the author.

The different correlation found between FDI and openness with TCIT rates for the years 1980 and 1986 and for the rest of the period analysed could be due to patterns followed by the political variables in identical years. In fact, Figure 1.6 shows that during the years 1980 and 1986 political variables registered an increase in the levels of democratisation in the region.

The patterns followed by political variables seem to indicate that the preliminary cause of the reduction in TCIT rates is in fact the new wave of democratic governments that were installed in the region during these years, rather than globalisation understood as an increasing process of capital and trade internationalisation. In this sense, democracy within Latin American countries would have exerted an efficient rather than a compensatory

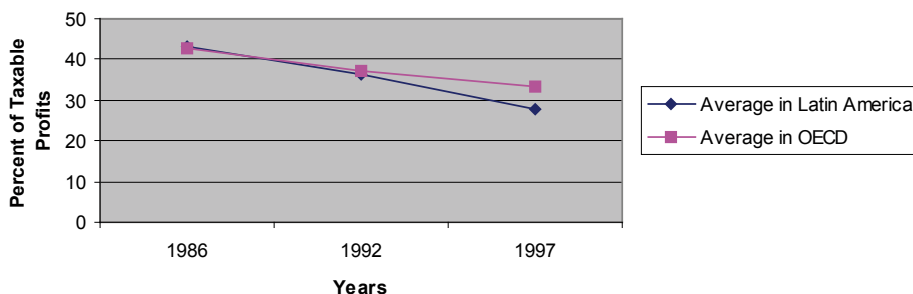
effect. This conclusion is ratified by the analysis of the following years, in which the initially intense and positive correlation between the improvement of democratisation levels and the decrease of TCIT rates continued, but with a lower intensity than in the first half of the 1980s. Indeed, during the 1990s, although democracy continued to exert an efficient effect, it seems to be the high negative correlation found between FDI, openness and TCIT rates that would better explain the reduction of TCIT rates in accordance with a more classical explanation of a process of capital competition and trade growth.

Finally, it is worthwhile noting that the decrease in TCIT rates in Latin American countries has followed a more accelerated pattern than in the countries of the Organisation for Eco-

conomic Cooperation and Development (OECD), where the same tendency occurred but with a lower intensity,

at least between 1992 and 1997, as is shown in Figure 1.7

FIGURE 1.7
TOP CORPORATE INCOME TAX RATES: LATIN AMERICAN AND OECD COUNTRIES
(1986, 1992 AND 1997)



Data: Elaborated by the author with data taken from Shome (1999); and Pita (2000).

THE IMPACT OF GLOBALISATION AND DEMOCRACY ON PERSONAL INCOME TAX RATES

Table 2 compares the evolution of the Top Personal Income Tax (TPIT) rates and independent variables in Latin American Countries, for the years 1979, 1986, 1992 and 1997. Additionally, the table includes the year 1995 to compare indices of capital account liberalization, commercial and tax reforms taken from Morley, Machado and Pettinato (1999).

The general view of Table 2 is similar to that registered for Table 1. Indeed, again the negative correlation between FDI, openness and TPIT rates was only true since 1986. Before this year, the correlation was positive, that is, FDI and openness decreased at

the same time as TPIT rates, which is shown graphically in Figure 2.

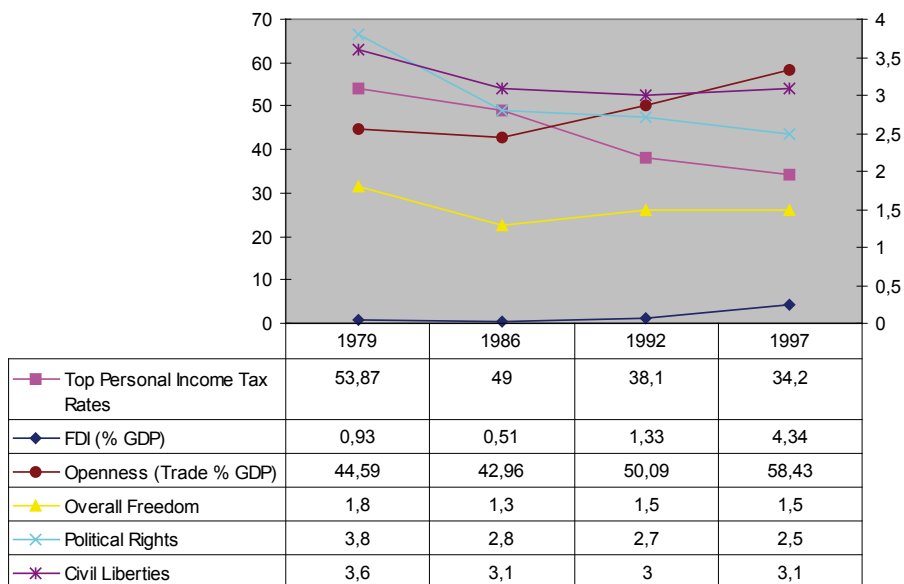
This tendency is ratified by Figure 2.1, which compares the evolution of FDI and TPIT rates and also by Figure 2.2, which compares openness and TPIT rates. Both charts confirm that the reduction of TPIT rates that started before globalisation had an important impact on the region. These indicators again show that it was the political action of Latin American governments, relatively unaffected by the constraints imposed by the process of capital competition at this time, that caused the reduction of TPIT rates in Latin American countries. Moreover, a process of capital competition was only recognisable since 1986 and particularly in the 1990s. In fact, the cut in taxes in Latin America was probably

TABLE 2
TOP PERSONAL INCOME TAX RATES AND INDEPENDENT VARIABLES
IN LATIN AMERICAN COUNTRIES

Indicators	1979	1986	1992	1995	1997
Top Personal Income Tax Rates	53.87	49.0	38.1	--	34.2
FDI (% GDP)	0.93	0.51	1.33	2.39	4.34
Openness (Trade % GDP)	44.59	42.96	50.09	56.22	58.43
Capital Account Liberalization	0.559	0.545	0.771	0.848	--
Commercial Index	0.654	0.695	0.897	0.946	--
Tax Reform Index	0.304	0.375	0.525	0.573	--
Overall Freedom	1.8	1.3	1.5	1.6	1.5
Political Rights	3.8	2.8	2.7	2.9	2.5
Civil Liberties	3.6	3.1	3.0	3.2	3.1

Source: Elaborated by the author.

FIGURE 2
INDEPENDENT VARIABLES AND TOP PERSONAL INCOME TAX RATES



Source: Elaborated by the author.

due to the necessity to attract more capital and commerce to the region, which had been affected by an economic recession during these years. In this sense, it is possible to conclude that, at the least, globalisation exerted an

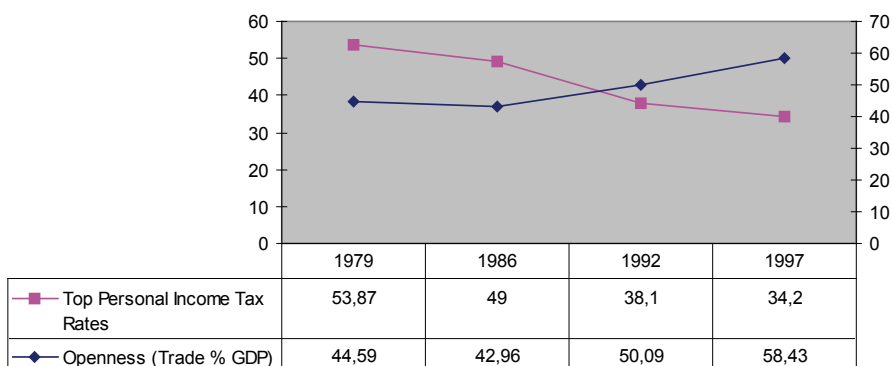
indirect effect upon the early stages of the process of reduction of TPIT rates in Latin American countries, and since 1986 its impact has acquired a direct and intense effect in the line of the efficiency hypothesis.

FIGURE 2.1
FDI (AS A PERCENTAGE OF GDP) AND TOP PERSONAL INCOME TAX RATES



Source: Elaborated by the author.

FIGURE 2.2
OPENNESS AND TOP PERSONAL INCOME TAX RATES



Source: Elaborated by the author.

The correlation shown by FDI, openness and TPIT rates is confirmed by Figure 2.3, which describes patterns followed by TPIT rates and indices of capital account liberalization, commercial and tax reform taken from Morley, Machado and Pettinato (1999).

Between the years 1979 and 1986, the index of capital account liberalization experienced a fall, the commercial index had a small increase, and only the tax reform significantly improved, which was in part a reflection of the

reduction of TPIT rates. Coincidentally with our results, capital account liberalization and commercial indices have only consistently negatively correlated with TPIT rates since 1986.

Again, the explanation of the dissimilar patterns of correlation found between globalisation variables and TPIT rates for the series of years 1979-1986 and 1986-1992 and 1997 is probably found in the tax policies implemented by the new democracies that emerged in the region during the earlier 1980s.

FIGURE 2.3
INDICES OF MORLEY, MACHADO AND PETTINATO (1999) AND
TOP PERSONAL INCOME TAX RATES

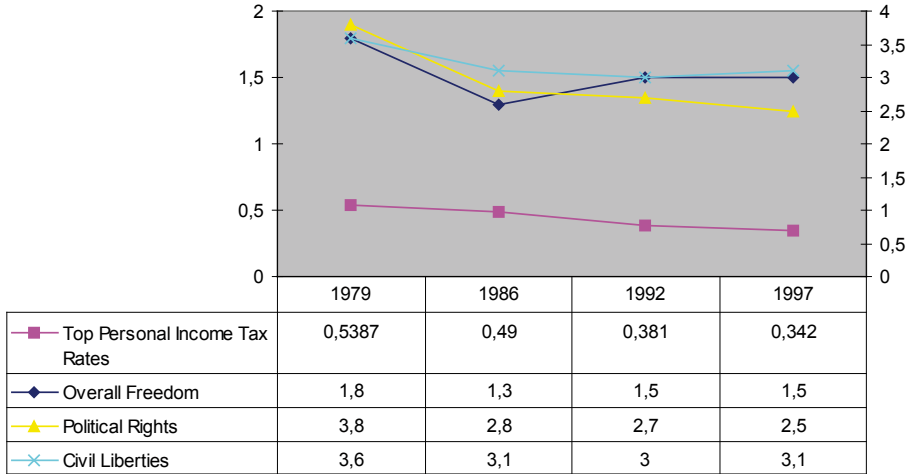


Source: Elaborated by the author.

Indeed, Figure 2.4 confirms that the improvement of the three indices of democratisation maintained a highly positive correlation with the reduction of TPIT rates between the years 1979 and 1986, which means that TPIT rates

were reduced along with the improvement of levels of democracy in the region. Since 1986 and especially in the 1990s the correlation was still positive but less intense.

FIGURE 2.4
POLITICAL VARIABLES AND TOP PERSONAL INCOME TAX RATES

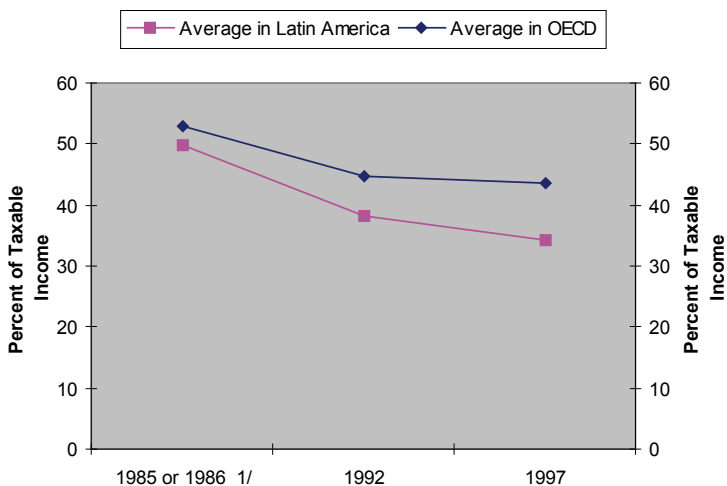


Source: Elaborated by the author.

Furthermore, it is worthwhile noticing that the rate of decline experienced by TPIT rates in Latin American countries has been considerably more rapid

than in the OECD countries, where the same tendency has happened, as Figure 2.5 shows.

FIGURE 2.5
TOP PERSONAL INCOME TAX RATES LATIN AMERICAN AND OECD COUNTRIES
(1985/1986, 1991 AND 1997)



Data: Elaborate by the author with data taken from Shome (1999); and Pita (2000).

This tendency is particularly relevant because it shows a reduction in tax rates that is of direct concern to highly qualified workers, revealing that a possible process of tax competition has been affecting these workers in Latin America.

THE IMPACT OF GLOBALISATION AND DEMOCRACY ON LOW PERSONAL INCOME TAX RATES

Table 3 shows the evolution of the Low Personal Income Tax (LPIT) rates and independent variables in Latin American countries in the years 1985,

1991 and 1997. It also includes the year 1995 to compare indices of Morley, Machado and Pettinato (1999).

The general view of Table 3 indicates that during the years 1985 and 1991, there was a negative correlation between globalisation variables and LPIT rates. That is, while FDI and openness grew from 0.51 percent to 1.28 percent and from 42.96 percent to 49.91 percent, respectively, LPIT rates decreased from 7.0 percent to 5.1 percent. In turn, for the same years, the political variables presented erratic behaviour. Indeed, the Overall Freedom Index experienced a moderate decline, the Political Rights Index improved and

TABLE 3
LOW PERSONAL INCOME TAX RATES AND INDEPENDENT VARIABLES
IN LATIN AMERICAN COUNTRIES

Indicators	1985	1991	1995	1997
Low Personal Income Tax Rates	7.0 1/	5.9	--	8.7
FDI (% GDP)	0.51	1.28	2.39	4.34
Openness (Trade % GDP)	42.96	49.91	56.22	58.43
Tax Reform Index	0.375	0.460	0.573	--
Capital Account Liberalization	0.545	0.745	0.848	--
Commercial Index	0.695	0.850	0.946	--
Overall Freedom	1.3	1.4	1.6	1.5
Political Rights	2.8	2.2	2.9	2.5
Civil Liberties	3.1	3.1	3.2	3.1

Source: Elaborated by the author

1/ This considers the averages between the years 1985 and 1986.

the Civil Liberties Index maintained a constant score. However, since the three political indicators experienced an improvement in their average scores during the 1980s (see Table 3.1, below) democracy seemed to exert a positive influence on the decrease of LPIT during this time. Finally, the indices of Morley, Machado and Pettinato (1999) show a constant and significant improvement during these years.

By contrast, as is seen in Table 3, in 1991 and 1997 the correlation between globalisation variables and LPIT rates

became positive and significant, which is coincident with the patterns followed by the indices of Morley, Machado and Pettinato (1999). Although the political variables presented the best average scores in the 1990s (see Table 3.1, below), Table 3 shows that for the years 1991, 1995 and 1997 their patterns followed a relatively stable tendency, which is reflected in the improving rates of the overall freedom and political rights indices.

Figure 3 shows graphically these tendencies.

FIGURE 3
INDEPENDENT VARIABLES AND LOW PERSONAL INCOME TAX RATES



Source: Elaborated by the author.

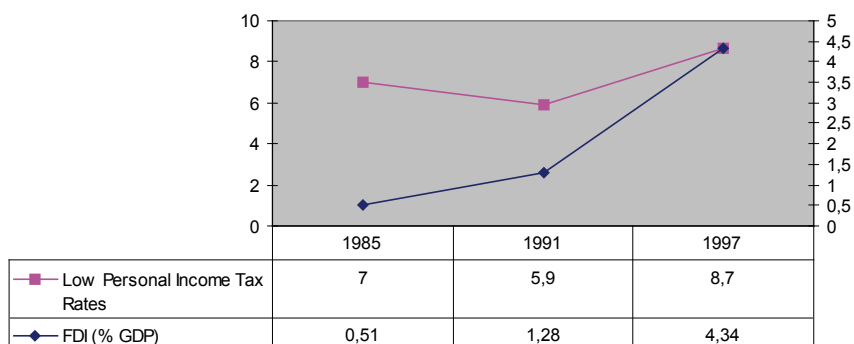
As we can see in Figure 3, patterns followed by LPIT rates in the 1990s clearly show a relevant influence of

globalisation. In fact, since 1991, the previous decline experienced by LPIT rates between the years 1985 and 1991,

had a reversion and actually began to show constant growth, which coincided with the accelerated growth of FDI and openness during this time. This means that the efficiency hypothesis was clearly manifest in the increase of LPIT rates during the 1990s. As we know, LPIT is an indirect indicator of labour taxation in Latin America, for which, it is pos-

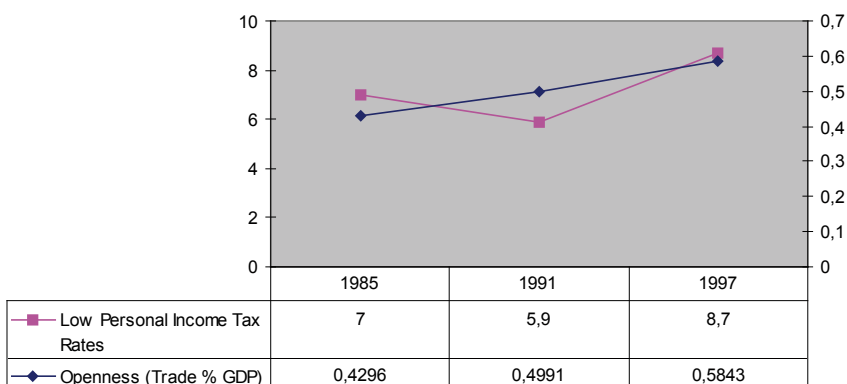
sible to argue that at least in the 1990s, the decline found by Rodrik (1997, p. 20) in the effective labour tax rates for OECD countries also occurred in Latin American countries¹⁹. This judgment is ratified by Figures 3.1 and 3.2, which show the correlations existed between FDI and LPIT rates and openness and LPIT rates, respectively.

FIGURE 3.1
FDI (AS A PERCENTAGE OF GDP) AND LOW PERSONAL INCOME TAX RATES



Source: Elaborated by the author.

FIGURE 3.2
OPENNESS AND LOW PERSONAL INCOME TAX RATES



Source: Elaborated by the author.

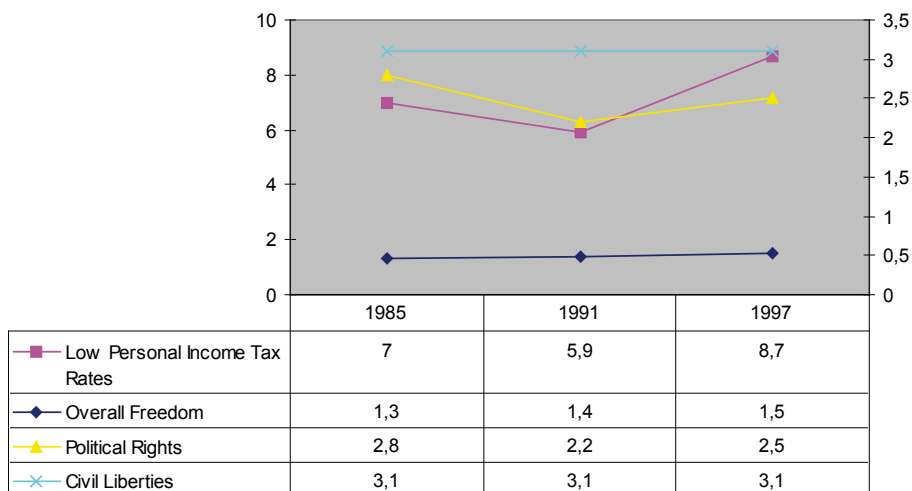
¹⁹ For an analysis of the empirical findings of Rodrik (1997), see Camargo Brito (2006), pp. 47-48.

Both charts illustrate that it was at the beginning of the 1990s that globalisation started having significant levels of intensity in the region, when the positive correlation between FDI, openness and LPIT reached a peak.

The analysis of the political variables showed in Figure 3.3 indicates that during the years in which LPIT

rates experienced a reduction (between 1985 and 1991), the political variables steadily improved as averages. This could mean that the reduction of LPIT rates was the «change money» used for democracies to compensate for the decrease in TCIT rates and TPIT rates during the same years.

FIGURE 3.3
POLITICAL VARIABLES AND LOW PERSONAL INCOME TAX RATES



Source: Elaborated by the author.

The analysis of the years 1991 and 1997 confirm that it was only during the 1980s, the decade in which the impact of globalisation was less intense, that democracy had the biggest influence on the determination of tax policies of Latin American countries. Indeed, during the 1990s, although the indices of democratisation reached the highest average scores in the series analysed, as shown by Table 3.1 (below) and Figure 3.4, the intensity of

improvement was lower than in the 1980s. The intensity of improvement is showed by the inclination degree of the curve in each indices, as it is shown by Figure 3.5.

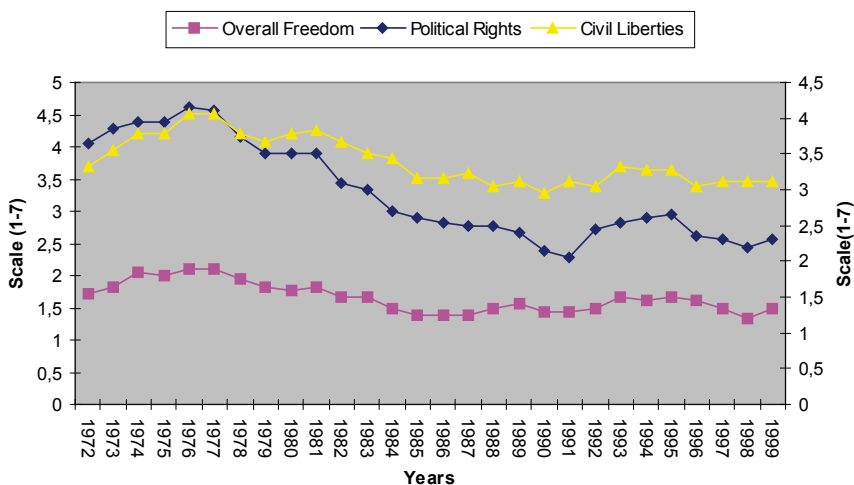
By contrast, the levels of globalisation were higher and more intense in the 1990s than in the 1980s (see Figures 1.1. and 1.2, above). For this reason, the increase in LPIT rates seems to find a more plausible explanation in the response given by democratic regimes

TABLE 3.1
AVERAGES OF INDICES OF FREEDOM IN THE 1970S, 1980S AND 1990S

	1970s	1980s	1990s
Average of Overall Freedom	1.95	1.56	1.52
Average of Political Rights	4.29	3.15	2.62
Average of Civil Liberties	3.75	3.39	3.13

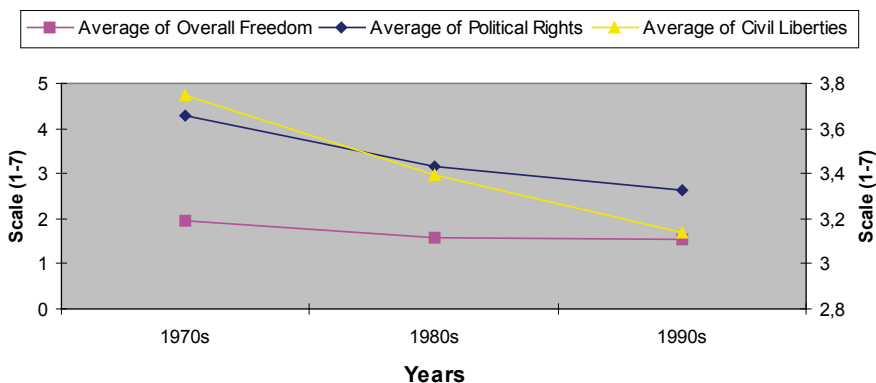
Source: Elaborated by the author.

TABLE 3.4
INDICES OF FREEDOM AVERAGES IN LATIN AMERICA COUNTRIES, 1972-1999



Source: Elaborated by the author.

TABLE 3.5
INDICES OF FREEDOM AVERAGES IN THE 1970S, 1980S AND 1990S



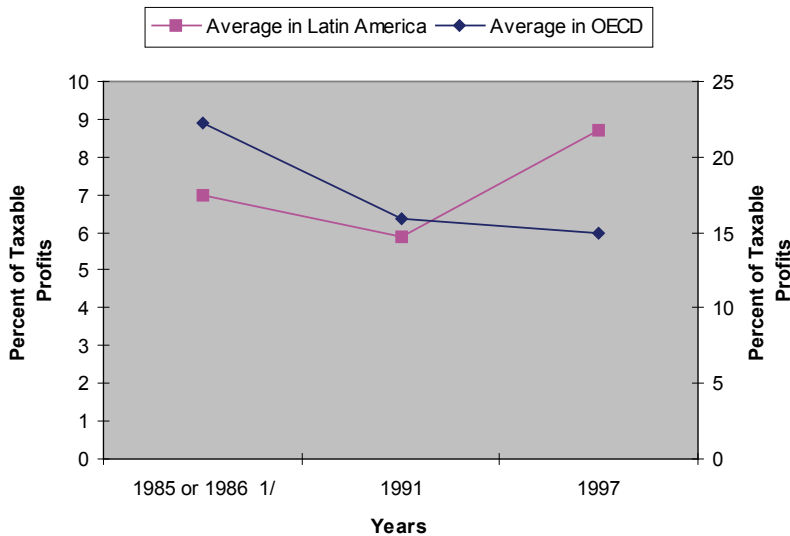
Source: Elaborated by the author.

to the process of capital competition and trade growth experienced by the region in these.

Furthermore, as illustrated by Figure 3.6, the pattern followed by the lowest marginal PIT rates in Latin America (toward a decrease, from an average rate of 7 percent in 1985/1986 to 6

percent in 1991 and then up again to 9 percent in 1997) compared with the same lowest marginal PIT rates in OECD countries shows that while OECD countries experienced a reduction in these tax rates during the whole period described, in Latin America the tendency was the inverse since 1991.

TABLE 3.6
LOW PERSONAL INCOME TAX RATES LATIN AMERICAN AND OECD COUNTRIES
(1985/1986, 1991 AND 1997)



Source: Elaborated by the author.

This could indicate that Latin American workers and middle class people – the people who are affected by this tax in Latin America – have experienced an increase in their income tax rates in an epoch under the aegis of globalisation and democracy.

THE IMPACT OF GLOBALISATION AND DEMOCRACY ON VALUE-ADDED TAX RATES

Table 4 registers the comparative evolution of scores of Value-Added Tax (VAT) rates and independent variables for the years 1980, 1984 and 1997 in Latin American countries, as averages.

Additionally, it considers the year 1995 to compare indices of capital account liberalisation, commercial and tax re-

form taken from Morley, Machado and Pettinato (1999).

TABLE 4
VALUE-ADDED TAX RATES AND INDEPENDENT VARIABLES
IN LATIN AMERICAN COUNTRIES

Indicators	1980	1984	1995	1997
Value-Added Tax Rates	9.05	9.33	--	13.69
FDI (% GDP)	0.71	0.39	2.39	4.34
Openness (Trade % GDP)	48.88	43.03	56.22	58.43
Tax Reform Index	0.307	0.324	0.573	--
Capital Account Liberalization	0.567	0.539	0.848	--
Commercial Index	0.662	0.646	0.946	--
Overall Freedom	1.7	1.5	1.6	1.5
Political Rights	3.8	3	2.9	2.5
Civil Liberties	3.7	3.4	3.2	3.1

Source: Elaborated by the author.

Table 4 shows that, for the years 1980 and 1984, indicators of globalisation (FDI and openness) and VAT rates had a negative correlation. That is, while FDI and openness experienced a fall, VAT rates increased. As we know, the decline of FDI and openness was due to the economic recession that affected the region in these years²⁰. These results are confirmed by the decrease in capital account and commercial indices elaborated by Morley, Machado and Pettinato (1999) for the same years. Only the tax reform index experienced an improvement, which was in

part due to the increase in VAT rates. On the contrary, the three indices of democratisation experienced significant improvement between the years 1980 and 1984, which was more explicit in the political rights index. These results can be interpreted as the confirmation of the «efficiency» strategy followed by democratic governments in the region during the earlier 1980s. Indeed, to the reduction of TCIT and TPIT found in Tables 1 and 2, we have to add the incorporation of VAT systems in most of the Latin American countries and the constant increase of VAT rates since the beginning of the 1980s.

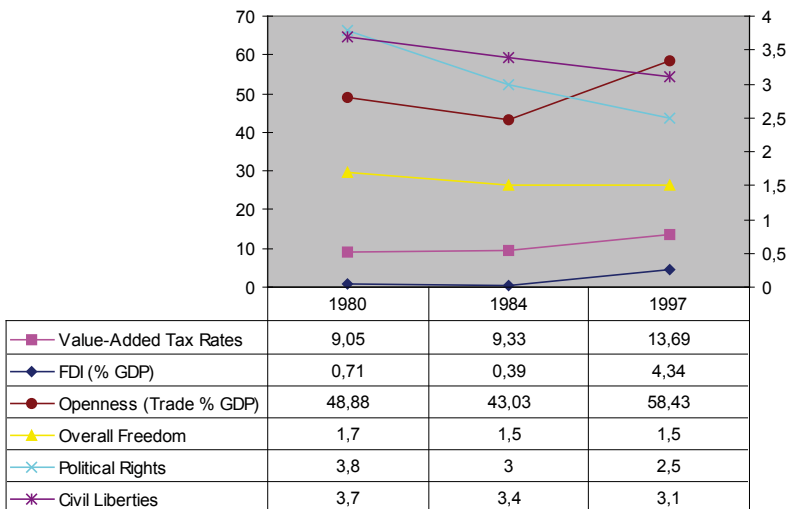
²⁰ See Note 16 of this article.

Figure 4 graphically illustrates patterns followed by independent variables and VAT rates.

The situation for the years 1984 and 1997 was the inverse. Indeed, after 1984, when FDI and openness started improving their scores, the correlation between both indicators of globalisa-

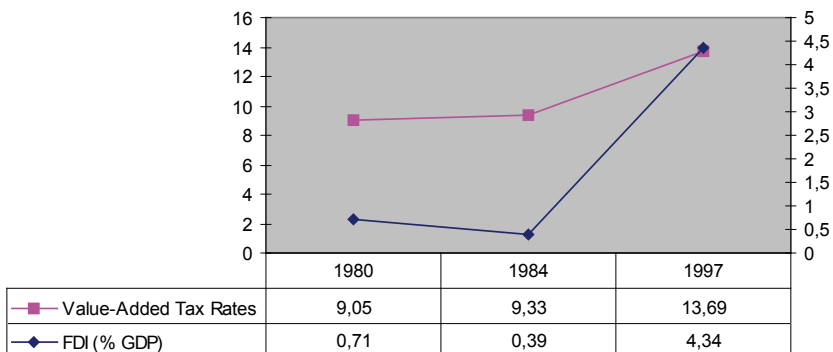
tion and VAT rates became positive and highly significant, especially during the 1990s, which is coincident with the prediction of the efficiency hypothesis. In turn, indices of democratisation still maintained a positive correlation with VAT rates, but it was less intense than in the earlier 1980s.

FIGURE 4
INDEPENDENT VARIABLES AND VALUE-ADDED TAX RATES



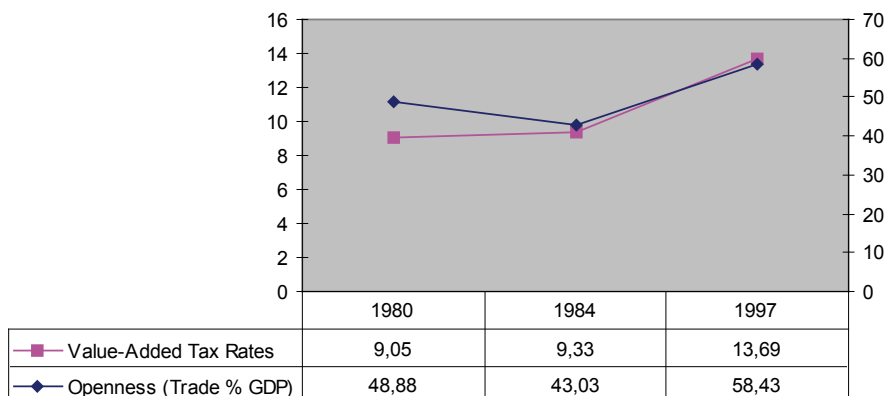
Source: Elaborated by the author.

FIGURE 4.1
FDI (AS A PERCENTAGE OF GDP, AND VALUE-ADDED TAX RATES



Source: Elaborated by the author.

FIGURE 4.2
OPENNESS AND VALUE-ADDED TAX RATES



Source: Elaborated by the author.

Figures 4.1 and 4.2 confirm that since 1984 the positive correlation between indicators of globalisation and VAT rates was highly consistent.

Indeed, between the years 1984 and 1997, FDI, openness and VAT rates not only experienced a positive correlation, but they also grew in similar magnitudes. This highly consistent and positive correlation allows us to conclude that since 1984, and particularly in the 1990s, the VAT rates were increased significantly due to the escalating impact of globalisation.

This judgement is confirmed if we separately analyse the correlation followed by political variables and VAT rates in the same years. As Figure 4.3 shows, levels of democracy in the region continued improving between the years 1984 and 1997.

However, if we compare the averages of improvement in levels of democratisation shown by Table 3.1 and Figure 3.5 (above) for the 1970s,

1980s and 1990s, we notice that the intensity of improvement was higher between the 1970s and 1980s than between the 1980s and 1990s. This means that in most of the Latin American countries the recovery of democracy started in the 1980s²¹ and since then it has experienced a constant but only moderate improvement. This seems to demonstrate that it was only in the first stage of democratisation in the region that democracy exerted a direct and significant efficient effect on VAT rates²². After that, when globalisation

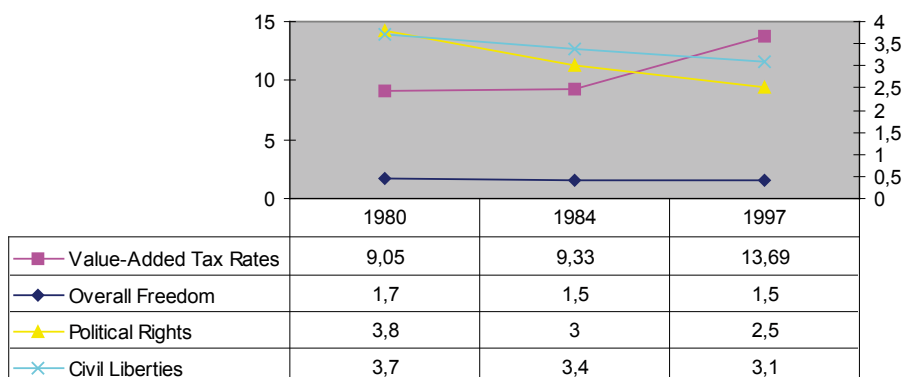
²¹ In other words, because authoritarian governments ruled most of Latin American countries during the 1970s, the recuperation of democracy in the 1980s had in fact a more significant impact in the score of the indices utilised.

²² The direct and significant effect of democracy refers to its influence as a primary cause of the increase of VAT rates, rather than to the magnitude that this increase eventually reached, which actually was lower in the 1980s than in the 1990s.

reached an important level, the influence of democracy had less relevance, even if it continued exerting an efficient effect. On the contrary, in the 1990s it is the highly positive correlation found between indicators of globalisation and VAT rates that seems to better explain

patterns followed by VAT rates. However, it appears to be clearly established that democracy, as well as globalisation, exerted an efficient rather than a compensatory effect on VAT rates in all of the periods analysed.

FIGURE 4.3
POLITICAL VARIABLE AND VALUE-ADDED TAX RATES



Source: Elaborated by the author.

CONCLUSION

My original question referred to what extent the efficiency or compensation hypotheses are valid for Latin American countries. In other words, what changes to the structure of tax rates in Latin America have occurred in the course of globalisation, and what influence democracy and globalisation have exerted on them. In order to answer these questions, three hypotheses were formulated.

HYPOTHESIS 1: *Globalisation presents a negative correlation with capital*

and high income tax rates in Latin American countries. This means that capital and high income tax rates tend to decrease with the increase of globalisation.

Capital tax rates have been captured by variations of Top Corporate Income Tax rates. In turn, high-income rates has been analysed by changes in Top Personal Income Tax rates. I have found that globalisation presented a negative correlation with TCIT and TPIT rates since 1986 and especially in the 1990s. This correlation was highly consistent

and relevant in the 1990s when the indices of globalisation reached their highest scores. However, I have also found that the decrease of TCIT and TPIT rates started before 1986. In fact, in the first half of the 1980s TCIT and TPIT rates experienced a significant decrease, which in turn coincided with a temporary decline in levels of globalisation in the region. On the contrary, democracy presented a positive correlation with the decrease in TCIT and TPIT rates for the whole period analysed, however it was more significant in the earlier years of the 1980s. I have explained these results in the following way. In the first half of the decade, when globalisation did not have a big impact in the region, democracy exerted its biggest influence on TCIT and TPIT rates, which was in line with the efficiency hypothesis. In the second half of the 1980s and in the 1990s, it was the impact of globalisation that better explains the diminution of TCIT and TPIT rates. In other words, the initial stage of reduction of TCIT and TPIT rates was due to the policies implemented by Latin American democratic governments to attract more capital to the region. In the second stage (after 1986), it seems to be the constraints imposed by globalisation, through a process of capital competition, that had more influence on TCIT and TPIT rate reduction.

HYPOTHESIS 2: Globalisation presents a positive correlation with labour and consumer tax rates in Latin American countries. This means that labour

and consumer tax rates tend to rise with the increase of globalisation.

Low Personal Income Tax and Value-Added Tax rates are the indicators used to capture variations on labour and consumer tax rates respectively. With regard to LPIT rates, I have found two different periods of correlation: the second half of the 1980s and the 1990s. In the first period, globalisation presented a negative correlation with LPIT rates. This finding can be explained by the positive correlation presented by democracy and the decrease in LPIT rates at the same time, which is consistent with the compensation hypothesis. However, in the 1990s when globalisation had its biggest impact on the region, the initial negative correlation found between globalisation and LPIT was reverted and became positive and highly consistent. Therefore, as the LPIT rate is an indicator of the labour tax rate in Latin American countries, we can conclude that despite the initial compensatory effect exerted by democracy on LPIT rates in the 1980s, globalisation had a positive influence on the increase of labour tax rates in the 1990s, which is a result coincident with predictions of the efficiency hypothesis.

In the case of VAT rates, it is also possible to identify two phases in the correlation of globalisation with VAT rates. However, in this case, the first stage comprised the years 1980 and 1984 when globalisation presented a negative correlation with VAT rates,

which again is explained by the positive correlation found between democracy and the increase in VAT rates during the same years. As the correlation between globalisation and VAT rates was not very significant because of the low impact that globalisation had in these years in the region, we must explain the reduction in VAT rates by the influence of democracy. This seems to support the «efficiency policies» implemented by Latin American democratic governments in the first half of the 1980s, which included the decrease in TCIT rates and the implantation and progressive increase in VAT rates. The second stage covered the second half of the 1980s and the 1990s. In this period, globalisation presented a positive and highly consistent correlation with VAT rates. These results again show that it was the impact of globalisation that acted as the primary cause to explain the increase of VAT rates in the 1990s.

HYPOTHESIS 3: The interaction between globalisation and democracy exerts a compensatory effect on the capital, labour and consumer tax rates in Latin American countries. This means that with the increase of globalisation and the improvement of democracy levels capital tax rates tend to stabilise or increase, while labour and consumer tax rates tend to decrease.

The 1990s was the only decade in which it is possible to watch a highly significant interaction between globalisation and democracy because it was

then that, for the first time, globalisation and indices of democracy simultaneously reached their highest scores. Contrary to the initial hypothesis, I have found that democracy exerted an efficient rather than a compensatory effect with the course of globalisation on capital tax, labour and consumer tax rates in Latin America. In fact, in the 1990s, when an accelerated process of globalisation was taking place in Latin America, democracy had a positive correlation with the decrease in TCIT and with the increase of LPIT and VAT rates. This means that Latin American democratic governments have implemented in an uncontested and uncritical way, a strategy of «efficient» tax policies in favour of globalisation. This «Latin American way» is more evident when it is compared with the tax policies followed by OECD countries. Indeed, within OECD countries, TCIT and TPIT rates have experienced a softer decrease and LPIT rates have actually decreased rather than increased –as happened in Latin America– which leaves both results in line with the compensation hypothesis.

It is also interesting to note that the «efficiency policies» that Latin American democratic governments started to implement in the 1980s, which comprised the reduction of TCIT rates and the introduction of VAT, did not include the reduction of LPIT rates, which was postponed until the 1990s, when they were implemented. This can be explained by the different political impacts, which produced a cut in TCIT rates or

an increase in VAT rates in comparison to those generated by an augmentation of LPIT rates. Indeed, while in the first case it does not seem to be any clearly identifiable sector of population concerned²³, in the latter, workers and middle class people are directly affected, which is always difficult for a democratic government. However, when globalisation reached higher levels in the region, Latin American democratic governments did not seem to have any hesitation in completing the implementation of their original «efficient policies», through the increase of LPIT rates in the 1990s.

Therefore, it is clear that Latin American democratic governments were involved in a process of international competition for capital and highly qualified workers in order to offer better tax conditions to attract them to their national jurisdictions. However, such a policy presents two main problems. On the one hand, it is not clear at all that it is the best strategy to follow. In fact, paradoxically, the use of an «efficient» tax policy to attract mobile factors of production produces a process of international competition, which, in turn, tends to generate inefficiencies²⁴. On the other hand, even

when it would be a successful policy, it seems unfair that, as a consequence of the increase of labour and consumer taxes, workers and middle class people have to bear the brunt of the costs.

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²³ However, this is only apparent because the increase of VAT rates has a more important effect on low-income earners. In turn, the reduction of CIT rates directly benefits owners of capital.

²⁴ In fact, if it is assumed that governments behave rationally, the marginal social benefit of taxation (MSBT) is equal to its marginal social cost (MSCT). Whether in a scenario of immobile capital or perfect capital mobility, MSBT remains the same,

that is, the benefit generated by the provision of additional public goods is constant. However, MSCT varies in a situation of mobile or immobile capital. Indeed, in the latter case, MSCT equals the reduction in private (after-tax) income, however, in the former case, MSCT additionally includes the loss of capital, which leaves the country with a higher tax rate on capital. In other words, MSCT in one country produces a positive externality for other countries because it increases their tax base and incomes. These inefficiency conditions might be eliminated by an international coordination of capital tax rates, see Camargo Brito (2006), p. 46.

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