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Abstract^{*}

The literature on taxes and public finance generally focuses on revenues, an easily observable and generally available variable, as the observable measure of tax policy. Still, revenues depend on many determinants other than the political will and policy objectives of the government. It is therefore important, when studying the politics of taxation, to evaluate specific changes to the tax code such as rates, bases and exemptions. With the underlying goal of exploring the political process and the determinants of tax policy, this paper compiles a novel and highly comprehensive database of tax reforms for Latin America between 1990 and 2004. The paper presents a description of the database as well as the stylized facts of tax reforms in Latin America. Examples of the database's uses are discussed, as is motivation for future research.

Keywords: Tax reform, Fiscal policy, IMF, Ideology, Policymaking

JEL classifications: D72, H2, K34

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1. Introduction

The empirical literature on taxes focuses generally on revenues, an easily observable and generally available variable, as the observable measure of tax policy or, in some cases, on tax rates. Nonetheless, tax revenues depend on a plethora of determinants: tax rates, tax bases, implementation and enforcement of laws, and the evolution of economic activity.¹ Consequently, while some of these measures are determined by policy, others are not. One way to understand the political mechanisms behind tax reforms is to examine policy changes rather than outcomes.

Studies that look at the micro evidence of tax reforms are rather scarce (exceptions include Mahon, 2004 and Lora, 2007). This is not necessarily a consequence of a lack of interest in the topic but a result of the difficulty of quantifying tax reforms, i.e., collecting data and transforming the information regarding changes in tax laws into variables that can be the subject of quantitative analysis. In this paper, we present a novel database of tax reforms for Latin America between 1990 and 2004 using the Worldwide Tax Summaries of PriceWaterhouseCoopers (PwC).² This database can be used for studying the political economy of tax reforms in Latin America. With these data at hand, researchers can explore why tax reforms happen (or not) as well as under what conditions certain types of reforms are more likely than others. This work should be relevant for policy recommendations about under what conditions it is possible to raise or lower taxes and to foster increasing welfare through reforms that increase the efficiency of the tax system.

In this paper we provide a full description of the database, including the data collection process. We discuss its advantages and pitfalls, and we provide summary statistics. We also review the previous literature on the topic of tax reforms and describe stylized facts. Some stylized facts that arise from a first look at the data are the following: the number and scope of reforms differ significantly by country; the main goal of the reforms has indeed evolved over the years, but for the most part, broadening and efficiency of the system has not been a priority; efforts to increase revenue from major taxes have focused on VAT rather than income taxes; and there are many reforms to minor taxes, not necessarily with the goal of eliminating them or increasing efficiency.

¹ This is also the case even if measured as a percentage of GDP because of changes in labor composition and informality, among other considerations.

² The constraint we face is the interruption of the publication of our main source of information, the PriceWaterhouseCoopers International Tax Summaries, in 2005.

We also include a replication of Mahon (2004), which is the major empirical study of Latin American taxation reform to date. Our results indicate that some of the reform dynamics have switched as countries have become fully democratic; some of the variables that were significant in that paper have become less significant over the years. When compared to Mahon (2004), we also find a reduced—and sometimes even a negative—role of IMF conditionalities as a stimulus for reform. Some of the reasons behind these differences are obvious. First, because of the period of time we consider, we include countries that had already transitioned to democracy. Second, we have coded a higher number of reforms even for the years that overlap in the two studies. While this additional detail in the coding may obscure some of the aggregate results, it provides more versatility for understanding the mechanisms behind the reform processes. For example, once we disaggregate the data according to the type of tax, new channels of influence are uncovered. As such, it is possible to explain better some of the correlations that were more puzzling when looking at the aggregated data. Consequently, a rich analysis could be done with this database, and the last section motivates a research agenda that would make good use of the versatility of the database. Appendix A4 includes a full description of the reforms included in the database.³

2. Tax Reforms in Latin American Countries

The stylized facts regarding levels and changes of tax revenues in Latin America are as follows. First, Latin American countries collect less revenue than would be expected given their level of development and socioeconomic structure. According to Corbacho, Fretes Cibils and Lora (2013), the so-called “tax pressure gap” for Latin America is 2.3 percent of GDP. This means that, for its level of development tax revenues should on average be more than 2 percentage of GDP higher than they are.⁴ Second, the divergence with its level of development and in comparison with other regions is not the same across all taxes. VAT revenue levels are similar to those in OECD countries. In contrast, the collection of income taxes—particularly personal income taxes—is very low (Corbacho, Fretes Cibils and Lora, 2013, Figure 1.3). Very few countries in the region collect more than 4 percent of GDP using income taxes. The same ratio is

³ Database is available online at:

http://www.iadb.org/en/research-and-data/publication-details,3169.html?pub_id=IDB-DB-111

⁴ See Corbacho, Fretes Cibils, and Lora (2013: Figure 1.2) for a detailed explanation. The tax gap is computed by taking into account tax revenues controlling for economic development, the population’s age distribution, openness of the economy, levels of self-employment, and the share of revenues coming from natural resources.

around 15 percent in the OECD countries (ibid: 5). Third, while still lagging behind, countries in Latin America have registered significant progress in terms of increases in tax revenues in the last two decades (almost 3 percentage points of GDP higher), increasing more than in any other region (ibid: Figure 1.4). When subnational revenues are included in the analysis, the mentioned increase has been almost 5 percentage points of GDP (ibid: 11). Finally, only part of the revenue gap can be explained by economic determinants alone; much variation across countries remains unexplained (Corbacho, Fretes Cibils and Lora, 2013).

Is the higher level of tax revenues a consequence of tax reforms? Can differences across taxes and countries be explained by differences in the way countries have reformed their tax codes? Are some countries better able to adapt their tax code to changing economic circumstances (such as crisis) than others? Indeed, governments in Latin America have been active reformers during the last couple of decades. As Lora (2007) suggests, there has been a “silent revolution” (ibid: 5) of institutional reform that has swept the region. Taxation has not been the exception, as “reforming activity has been continuous and more frequent than in previous decades” (ibid: 205). Still, the evidence shows that “the results of the tax reforms depend much more on the political processes that affect their passage into law than on their technical design. Consequently, a major future challenge is to understand and improve these political processes, rather than to propose technically perfect reforms with little possibility of being passed and that, in fact, may introduce more distortions and administrative difficulties” (ibid: 206).

Work that focuses on political processes across countries in the region is rather scarce. The most comprehensive effort is Mahon (2004), who considers reforms in the region concentrating on the period of structural reforms up to 1995. Mahon uses two sources of data. First, he coded tax reforms to the VAT, income taxes, and some other duties, alongside with administrative reforms. Second, he also uses the index of tax reform from Morley, Machado and Petinatto, henceforth MMP (1999). These authors constructed several indices of structural reforms in Latin American Countries for the period 1970-1995, including one on Tax Reform. The index of tax reform is the average of four components: the top marginal rates of personal and corporate income taxes, the value added tax rate and the efficiency of the VAT, measured as the ratio of the standard rate and revenues as a percentage of GDP. Therefore, this is an index solely based on rates and revenues of the major taxes, rather than more specific changes to tax

laws. Using these two sources of data, Mahon finds that past inflation, IMF conditionalities, changes in government administration, more authoritarian regimes, and some proxies for electoral systems affect the likelihood of reform. On the other hand, he finds little or no link between tax reforms and changes in GDP, constitutional powers of the president, party institutionalization and partisan balance. Mahon's analysis starts in 1977, which means that he also captures the transition to democracy in several countries. Because his analysis stops in 1995, the governments in his dataset are mostly autocracies, and he is not able to study in depth the political mechanisms in Latin American democracies that affect bargaining and negotiation over such a complex policy issue. Consequently, any new tax collection effort should expand the data to include more of the democratic period in order to study the working of reforms during fully-fledged democratic times. Another lesson coming from Mahon's paper is the fact that because not all tax reforms have the same political costs and benefits, it is important to have a more fine-grained identification of reforms.

Another important work that looked at tax reform in the broader context of structural reform is Lora (2012). Lora argues that, among the economic determinants, the drive for introducing reforms to increase revenues arose from the need to preserve fiscal balance in a context of high inflation and lower revenues from international trade rather than from the pursuit of an increase in expenditures for social or economic policy or of higher progressivity of the system. Lora also highlights a widespread failure to increase the neutrality of the tax system. As countries aimed to increasing tax revenues, they turned to easy-to-collect taxes such as those on financial transactions. Finally, this work mentions an increase in tax reform activity in the first few years of the 2000s, which makes the collection of more recent data of great interest. He also mentions the increasing relevance of tax expenditures (which has been one of the motivations for paying attention to tax incentives and changes in the bases of the taxes and not just their rates). From Lora (2012), we draw lessons on the importance of the neutrality and efficiency of the tax system and hence focus a significant amount of effort in making our tax reforms data as informative as possible on those features of the system. Lora (2012), as part of a broader effort to quantify structural reforms in Latin America and the Caribbean, has updated an index of tax reforms. The index, which was originally designed at the time of the Washington Consensus, is geared towards measuring the efficiency of the tax system by concentrating its attention on the income and VAT tax rates, and on VAT productivity. While this indicator should be exploited in

the profession for understanding where the region is heading in terms of certain features of policies, it does not provide a comprehensive—and value free—picture of tax reforms in the region.⁵

Sánchez (2006) also explores tax reforms in Latin America, emphasizing the role of external pressures, IMF programs and debt crises in the process. He argues that lower administrative capacity and pragmatic needs for resources are domestic factors that must not be overlooked and that can trump external pressures. Other work on tax reforms in Latin America has been rather descriptive and/or based on case studies of one or a small group of countries rather than an overview of the whole region. Examples of this are Bird (1992), who looks at Bolivia, Argentina, Mexico and Colombia in the 1980s, with particular focus on the former, and Rodríguez (1993), who compares Mexico, Colombia, Ecuador, Bolivia, the Dominican Republic and Paraguay through a longer period of time. Both studies purposely choose a sample of countries that have been active reformers during their period of study and try to extract lessons from their experiences. Both also highlight the heterogeneity in the reforms carried out by the countries under study. A more recent study is Bird (2003), who looks at the issue of the sustainability of the system. He concludes that this feature will not be achieved directly through fiscal reform but that requires the precedence of more encompassing and legitimate democratic political institutions. Once again, the relevance of the underlying political economy institutions is stressed.

Other recent and more detailed case studies are Olivera, Pachón and Perry (2010), which looks at Colombia after the constitutional reform of 1991; Bonvecchi (2010), which explores the experience of Argentina between 1988 and 2008; Melo, Pereira and Sousa (2010), which explores the tax expansion in Brazil of the last two decades; and Magar, Romero and Timmons (2010), which explores the ability—and inability—of presidents to reform taxes in Mexico after the democratic transition. Case studies can be a good complement to our line of work by offering a more detailed perspective that does not suffer from the problems derived from aggregating the information from different countries. For example, Bonvecchi (2010) suggests that, while reforming activity can be explained by political and economic shocks, the types of reforms that actually take place depend on changes in political leadership, intergovernmental coalitions and

⁵ Baunsgaard and Keen (2010) is a very well regarded paper looking at the evolution of tax revenues in the world after the reforms of the 1990s, with a particular concentration on the effect of trade reforms.

shifts in the power of local bosses. Olivera, Pachón and Perry (2010) find support for the hypothesis that increased political fragmentation and limited unilateral executive power after the 1991 constitutional reforms restricted the extent of tax reforms in Colombia, and it only allowed for piecemeal reforms during crisis conditions. Melo, Pereira and Sousa (2010) show that reforms in Brazil have been geared towards generating high levels of revenue but tax overhauls have greatly discouraged policymakers from introducing major changes in the tax system. The data we present in this paper show this pattern starkly. For example, since 1999 all the reforms we have coded have attempted to increase revenues. Most of these reforms included the addition or increases in the rates and coverage of relatively minor taxes, such as excise taxes.

There is also a relevant literature that considers countries outside Latin America, which emphasizes political economy determinants of tax policy. Di John (2006) compares the experiences of developed and low-income countries and highlights how, while developed countries have consolidated their systems with the VAT and a progressive income tax, developing countries have suffered more from external restrictions and capital flight and had to resort to more immediate and easy-to-collect sources of revenue. The work concludes with the idea that special attention should be paid to fostering reforms that exploit sources of revenue that are sustainable over time. In this approach, historical context plays an important role because countries that turn to more immediate and easy-to-collect (but less efficient) sources of revenue, such as financial transactions, may end up being more active reformers in the future as well, because of changes in the allocation of economic resources that affect those less broad sources of revenue.⁶ Castanheira, Nicodème and Profeta (2011) discuss reforms to income taxes in the European Union and provide a perspective from the optimal taxation theory, where they try to explain how and why the actual tax system differs from an “ideal” one. These authors use a database of reforms to labor taxes in the EU to analyze their determinants. Following Mahon (2004), they affirm that political economy variables—such as the ideology of the government, the structure of representation, the fractionalization of the parliament and the existence of a coalition government—carry more weight in triggering reforms than economic variables and that they are the main reason why the actual income tax system differs from the theoretically targeted one. More generally, there is a broad literature looking at developed countries that focuses on

⁶ A future expansion of our work to OECD countries may provide a new perspective on this topic, which would include a comparison of the events in Latin America with the transition countries of Eastern Europe as well as wealthier countries.

political explanations for tax policy, such as type of electoral system, partisanship, or tax competition among governments.⁷ This supports our interest in both analyzing political economy variables with as much depth as possible and extending our analysis to developed countries.

Given the findings of previous literature that have been summarized thus far, we encountered the need to collect new data for our work for several reasons. First, we wanted to increase the coverage to more recent years, a period when all the countries in the region are under democratic regimes. Unfortunately, our dataset runs from 1990 only through 2004; the constraint we face is the interruption of the publication of our main source of information, the PriceWaterhouseCoopers International Tax Summaries, in 2005. Still, these annual publications over 15 years allowed us to improve coverage relative to previous literature. Second, in order to understand the nuances of the reform process and the incentives politicians face when reforming taxes, we created a more detailed classification, especially for minor taxes (i.e., taxes other than VAT and income tax). This is relevant when we consider that Latin American countries are much less dependent on income tax than their more developed counterparts and that the implementation of the VAT was completed in the early 1990s. Relative to previous work, our data allow us to explore the introduction and development of other features of the tax system, such as taxes on financial transactions, changes in the use of tax incentives, taxes on capital gains and minor taxes that provide smaller revenues but that are relevant for the neutrality and efficiency of the system, such as stamp duties or taxes on real estate and other assets. This more detailed classification, along with the inclusion of reforms to tax incentives and social security contributions, means that for years where our dataset overlaps with Mahon (2004) we measure 50 percent more individual changes to tax laws, or 313 as compared to 206.⁸ Third, we add an entirely new dimension to the analysis of tax reforms by classifying whether each reform was “general” or “particular,” meaning whether each reform affected every sector in the economy (e.g., an increase in the general rate of VAT) or targeted a specific sector or sectors (e.g., a tax incentive for the oil industry). This feature will allow us and other researchers to examine the effect of the reforms that have taken place on the neutrality and efficiency of the system and to gauge the effort of each country in enhancing those characteristics in their respective tax systems.

⁷ An abbreviated list from only the past decade includes Steinmo and Swank (2002), Basinger and Hallerberg (2004), Ganghof (2006), Hays (2009), Plümper, Tröger and Winner (2009), and Genschel and Jachtenfuchs (2011).

⁸ For this reason, it would be inconvenient to add up both datasets to perform an econometric analysis.

We hope this new dataset on tax reforms helps to expand the understanding of the economic and political economy determinants of the reforms. The tax reform variables that we constructed are described in Section 3, which provides a full description of our data, including our sources, the data collection process, summary statistics and an account of the main stylized facts of the data.

3. The Database of Reforms

We build the database by coding all reforms included in the Coopers & Lybrand International Tax Summaries (1989-1991) and the Corporate and Individual Worldwide Tax Summaries of PriceWaterhouseCoopers (1992-2004/05). PwC is the leading provider of tax services worldwide both in terms of the size and scope of the tax practice and its reputation.⁹ The information contained in each publication is provided by their country-based network of associates.

Because the publication was suspended after the 2004/05 edition we had to end our database with the reforms that took place in 2004. The coding of the reforms using a common source allows us to construct a homogeneous, and therefore comparable, source of data that covers all of the countries in the region (with the exception of El Salvador after 1997). To ensure the quality of our data we compared it with the data collected by Mahon (2004) and Lora (2007a), and we double-checked by looking into countries' legal tax codes when there was any discrepancy between the sources.¹⁰

The coding of the reforms was inspired by the work of Mahon (2004) and Lora (2007) but it includes some refinements. We classify each reform in one of 15 categories (followed in parenthesis by its abbreviated code): tax system overhauls (T), creation of VAT (VC), changes in VAT rates (VR), in VAT base (VE), personal income tax (PIT) rate (PIR), PIT base (PI), corporate income tax (CIT) rates (CIR), CIT base (CI), comprehensive administrative reforms (A), reforms to taxes on financial transactions (FT), reforms to excise taxes (E), reforms to other taxes (O), reforms to tax incentives (TI), to social security contributions (SS), and finally other minor or hard to classify reforms (M). The main difference with Mahon's database is a more

⁹ See <http://www.pwc.com/tax> for references regarding this statement.

¹⁰ We also try to estimate whether the data may be biased based on PwC interest on the country in question. After controlling for the level of economic development of each country, neither the number of PwC offices in a country nor the relative economic relevance of each country to the United States (measured as exports to the US in dollars and as percentage of the GDP and the existence of a trade agreement with the US) were statistically significant to explain the number of reforms identified by PwC (and even some of the coefficients were negative). Estimations available upon request.

detailed coding of minor reforms: in that database, changes to excises, taxes on financial transactions and other minor taxes are aggregated, which makes it more difficult to identify certain trends such as the introduction of taxes on financial transactions in the late 1990s and early 2000s. The inclusion of tax incentives is another novelty of our database that will allow us to explore in more detail the effect of reforms on tax neutrality and the broadening of tax bases. Following Mahon, we code each reform according to whether we expect that it would increase or decrease tax revenues. For example, we consider a tax rate increase as a reform geared towards increasing revenues while a narrowing of a base would produce the opposite effect.¹¹ Table 1 presents a summary of the reforms.

As an example of how to read the table, let us look at the first few columns for Uruguay. The information shows that in 1990 there was an increase in corporate income taxes, and in 1993 an increase in excises and duties. In particular, the rate on gross income of the Tax on Commissions increased from 7 to 9 percent. In 1994, a tax incentive to the Importation of Fishing Vessels was eliminated. In 1996, the rate of the Capital Tax was reduced from 2 percent to 1.5 percent at the same time that the VAT rate increased. The last reform coded for Uruguay took place in 2003. That year, the abovementioned rate on gross income of the Tax on Commissions increased once more, now to 10.5 percent. Details about each of the reforms coded are included in Appendix A4.

¹¹ In the former case, the reform carries a value of 0.1 and in the latter, a -0.1. The use of a 0.1 value for each reform instead of a simple 1 is arbitrary and it has the sole purpose of following Mahon's methodology for comparison purposes and in a way that should not affect our quantitative results.

Table 1. Summary of Tax Reforms

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Argentina	<i>T, vr, pir, cir</i> <i>FI, O, TI, SS</i>	<i>M, VR, ft</i>	<i>VR, CIR, ft</i>	<i>ti</i>	<i>SS</i>	<i>VR</i>	<i>PIR, CIR,</i> <i>o, SS</i>		<i>O</i>	<i>PIR, CIR,</i> <i>ti, SS</i>	<i>PI</i>	<i>FI, SS</i>	<i>ft, O</i>	<i>A</i>	
Bolivia	<i>CIR, ti</i>	<i>SS</i>	<i>VR</i>	<i>PIR, SS</i>		<i>M, CIR, E</i>	<i>TI</i>	<i>E, TI, SS</i>			<i>SS</i>	<i>E</i>	<i>E, SS</i>	<i>E</i>	<i>E</i>
Brazil	<i>cir</i>	<i>VR</i>	<i>M</i>	<i>M, cir</i>	<i>VR, PIR, O</i>	<i>M, e</i>	<i>M, pir,</i> <i>cir, o</i>			<i>O</i>	<i>PIR</i>	<i>M, FI, O, A</i>	<i>M, O</i>	<i>O</i>	<i>M, E, O</i>
Chile	<i>VR</i>	<i>M</i>			<i>pir</i>	<i>M, pir</i>	<i>M, E</i>						<i>pir, CIR, SS</i>	<i>VR, pir,</i> <i>CIR, ti</i>	<i>CIR</i>
Colombia	<i>M, VR</i>		<i>TI</i>	<i>M, VR,</i> <i>PIR, ti</i>		<i>PIR, CIR, o</i>	<i>M, VR,</i> <i>e, O, SS</i>	<i>E, ti</i>	<i>M</i>		<i>M, vr,</i> <i>FI, ti</i>	<i>VR, O</i>		<i>M, VE, PI,</i> <i>CIR, e, ti</i>	<i>A</i>
Costa Rica			<i>VR</i>	<i>vr</i>	<i>vr</i>	<i>VR</i>	<i>E</i>	<i>vr</i>	<i>M, e</i>		<i>pi</i>		<i>M, e</i>	<i>PIR, CIR, E</i>	<i>cir</i>
Dominican Rep.			<i>T, pir, cir, O, TI</i>	<i>pir, cir</i>	<i>pir, cir</i>	<i>pir, cir, VR</i>					<i>T</i>	<i>M</i>		<i>VR, E, SS</i>	<i>E, o</i>
Ecuador	<i>pir, cir</i>				<i>M</i>	<i>M, pir</i>		<i>M, pi, E</i>	<i>e</i>	<i>pi, ci, O</i>	<i>VR, PI, CI</i>	<i>T, ft, E, SS</i>		<i>E</i>	<i>ti</i>
El Salvador				<i>VC, e, SS</i>	<i>e</i>	<i>VR, e, o</i>									
Guatemala	<i>O</i>		<i>T, o</i>	<i>pir, ci, cir</i>		<i>PIR, CIR,</i> <i>O, SS</i>	<i>VR</i>		<i>pir, E</i>	<i>cir</i>	<i>cir</i>	<i>PIR, CIR,</i> <i>O, TI, SS</i>		<i>O</i>	<i>VR</i>
Honduras	<i>cir</i>	<i>VR</i>				<i>O</i>	<i>pir</i>				<i>VR</i>	<i>pir, cir</i>			<i>O, ti</i>
Mexico	<i>pir</i>	<i>cir</i>	<i>vr</i>	<i>cir</i>	<i>cir, TI, SS</i>	<i>VR, o</i>	<i>ti</i>	<i>M, PI</i>	<i>ti</i>	<i>PIR</i>		<i>M</i>	<i>T, M,</i> <i>CIR, E, O</i>	<i>M, pir, cir,</i> <i>e, O, ti</i>	<i>T, pir, cir</i> <i>E, o</i>
Nicaragua		<i>ti</i>	<i>pir</i>	<i>ve, cir, o</i>									<i>pir, cir</i>		
Panama		<i>cir</i>	<i>pir, cir</i>	<i>cir, ti</i>	<i>cir, O, ti</i>			<i>cir</i>	<i>ti</i>					<i>cir, E, O, ti</i>	<i>ti</i>
Paraguay	<i>ti</i>	<i>T, o</i>	<i>M, VC, CIR, O</i>	<i>O</i>	<i>e</i>				<i>ti</i>	<i>M</i>					
Peru	<i>VR</i>	<i>vr, o</i>	<i>VR, pir, cir</i> <i>o, TI</i>	<i>o, ti, SS</i>	<i>pir, e, o, SS</i>		<i>SS</i>	<i>O</i>	<i>O, SS</i>	<i>o</i>		<i>M, pir, cir</i>	<i>PIR, CIR, E</i>	<i>M, PIR</i>	<i>VR, CIR,</i> <i>FI, e</i>
Uruguay	<i>CIR</i>			<i>E</i>	<i>TI</i>		<i>VR, o</i>		<i>SS</i>	<i>TI, SS</i>		<i>SS</i>		<i>CIR, E</i>	
Venezuela		<i>ti, SS</i>	<i>pir, cir</i>	<i>VC, O</i>	<i>M, VE</i>	<i>VR, PIR,</i> <i>CIR</i>		<i>ve, VR</i>		<i>T, vr,</i> <i>PI, FI</i>	<i>vr, ci, ft</i>	<i>T, CI, ti</i>	<i>VR, FI</i>		<i>ft</i>
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004

Notes:

T: Tax System Overhaul, m: Minor or hard to classify reform, VC: VAT Creation, VE: VAT Expansion, VR: VAT Rate Increase, PI: Broadening of Personal Income Tax, PIR: Increase Personal Income Rate, CI: Broadening Corporate Income Tax, CIR: Increase Corporate Income Rate, A: Comprehensive Administrative Reform, FI: Financial Tax, E: Excises, O: Other Taxes, TI: Tax Incentives, SS: Social Security Contributions

Low caps italics represent a change in the opposite direction, such as a rates decrease or the elimination of a tax.

For tax incentives, capitals mean the reduction or elimination of an incentive and low caps italics the creation of one.

Source: Author's compilation using Price Waterhouse Coopers International Tax Summaries, based on Eduardo Lora's database, and Mahon (2004) coding criteria

The final step in the coding of the reforms is another contribution that consists of categorizing each reform as “general” or “particular.” A particular reform is one that explicitly targets a specific sector or sectors of the economy (e.g., a tax incentive for a specific sector such as manufacturing, or a reduction in the VAT rate for a set of specific products, such as milk or bread). A general reform is one that does not target any particular sector but the whole economy instead (e.g., an across-the-board increase in the VAT rate).

Table 2 provides a quick overview by showing the number and type of reforms by country (total number of reforms and average per year). The table suggests that countries in the Southern Cone (particularly Argentina and Brazil) have been more active reformers than countries in Central America. Still, variance is high within those groups. For example, Argentina introduced three times more reforms than Chile, and Guatemala introduced more reforms than Honduras. The table also splits reforms into two categories: reforms to major taxes and reforms to minor taxes. Here, variance has been high too, with some countries being more active reformers in one category or the other. For example, Bolivia and Brazil introduced more than three times as many minor reforms, while Honduras and Venezuela have concentrated more on major reforms (twice as many).

Table 2. Summary of Tax Reforms in Latin America by Country

	Tax Reforms 1990-2004			Major Reforms		Minor Reforms		Balance of reforms		Revenue Change	Tax Neutrality
	Number of reforms	Reforms per year	Years with no reforms*	number	#/year	number	#/year	% Increase Taxes	% Decrease Taxes	2003-04 vs. 1990-91	Change
Argentina	33	2.20	3	14	0.93	19	1.27	64%	36%	71%	-2%
Bolivia	17	1.13	5	4	0.27	13	0.87	82%	18%	90%	-2%
Brazil	30	2.00	2	7	0.47	23	1.53	80%	20%	35%	33%
Chile	11	0.73	7	7	0.47	4	0.27	55%	45%	7%	12%
Colombia	27	1.80	4	9	0.60	18	1.20	70%	30%	68%	2%
Costa Rica	13	0.87	4	8	0.53	5	0.33	62%	38%	24%	5%
Dominican Rep.	14	0.93	7	6	0.40	8	0.53	71%	29%	59%	
Ecuador	20	1.33	5	8	0.53	12	0.80	55%	45%	37%	27%
El Salvador	5	0.71	4	2	0.29	3	0.43	40%	60%	24%	56%
Guatemala	20	1.33	4	13	0.87	7	0.47	65%	35%	37%	12%
Honduras	9	0.60	8	6	0.40	3	0.20	56%	44%	14%	
Mexico	31	2.07	1	13	0.87	18	1.20	48%	52%	-2%	-4%
Nicaragua	8	0.53	11	5	0.33	3	0.20	25%	75%	63%	
Panama	12	0.80	7	4	0.27	8	0.53	25%	75%	-9%	
Paraguay	11	0.73	8	3	0.20	8	0.53	55%	45%	18%	43%
Peru	29	1.93	3	13	0.87	16	1.07	59%	41%	20%	72%
Uruguay	12	0.80	7	3	0.20	9	0.60	58%	42%	18%	
Venezuela	26	1.73	4	17	1.13	9	0.60	62%	38%	159%	11%
Average LA	18.2	1.2	5.2	7.9	0.5	10.3	0.7	61%	39%	41%	20%
Correlation with Revenues	0.30	0.29	-0.07	0.42	0.42	0.13	0.12				
Correlation with Tax Neutrality	-0.24	-0.18	0.13	-0.29	-0.24	-0.13	-0.07				

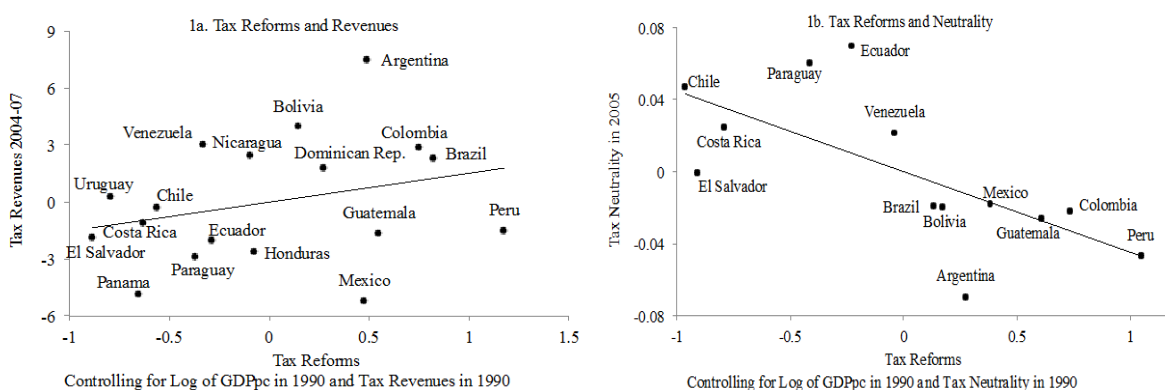
Notes: *Years with no reforms excludes reforms to social security contributions

Source: Authors' compilation using PriceWaterhouseCoopers International Tax Summaries. Tax Neutrality is from Lora (2007a). Revenue from IDB and CIAT (IDB 2012).

Overall, countries that reformed the most were also the ones that saw the biggest gains in revenues. The correlation between revenues and reforms seems to be higher for “major” taxes, but variance is high and some big reformers have not reaped their benefits. Interestingly, they do not seem to have taken the opportunity to improve the quality of their tax system either, given that the correlation between reforms and tax neutrality is negative. Taken from Lora (2007), the tax neutrality index combines the rates and productivity of different taxes. Lower rates and higher productivity are reflected as higher values in the neutrality index. In general, those that have reformed the most have shown lower performance in terms of tax neutrality. Finally, there is a strong negative correlation (-0.77) between the number of reforms and the number of years with no reforms, meaning that countries that reformed more did not necessarily have bunches of reforms in a small number of years but instead have been active reformers throughout the period under study.

Figure 1 presents similar information to the correlations in the table above but controlling for the level of development as well as for revenues and tax neutrality at the beginning of the period. As the left panels show, although there is some positive correlation between the number of reforms and revenues, it is not highly significant. Also, as mentioned above, tax neutrality does not seem to have been a driver of reforms. As the right panel shows, there is a negative correlation between the number of reforms and how neutral the tax code is in each country. This pattern had been identified by Lora (2007), which documents that reform efforts towards greater neutrality generally stalled in the mid-1990s.

Figure 1. Relationship between Tax Reforms, Tax Revenues and Tax Neutrality



Source: Authors’ formulation based on data compiled from Price Waterhouse Coopers Worldwide Tax Summaries, Lora (2007), and revenue data from IDB and CIAT (2012).

In spite of the existence of some correlations between reforms and outcomes, there remains ample variance to be explained. For example, the differences between Argentina and Mexico in terms of results—but not in terms of reforms—are staggering. The evidence coming from Mexico is a puzzling example of the gap between reforms’ intended objectives and their actual impact. While Mexico has been one of the region’s most active reformers, its tax share of GDP has been remarkably stable over the 15 years this study covers. This suggests an obvious point, namely that not all tax reforms do the same thing and countries may reform for a variety of reasons. Therefore, understanding what makes a country reform and what makes a country reform in the direction of increasing revenues may not be the same.

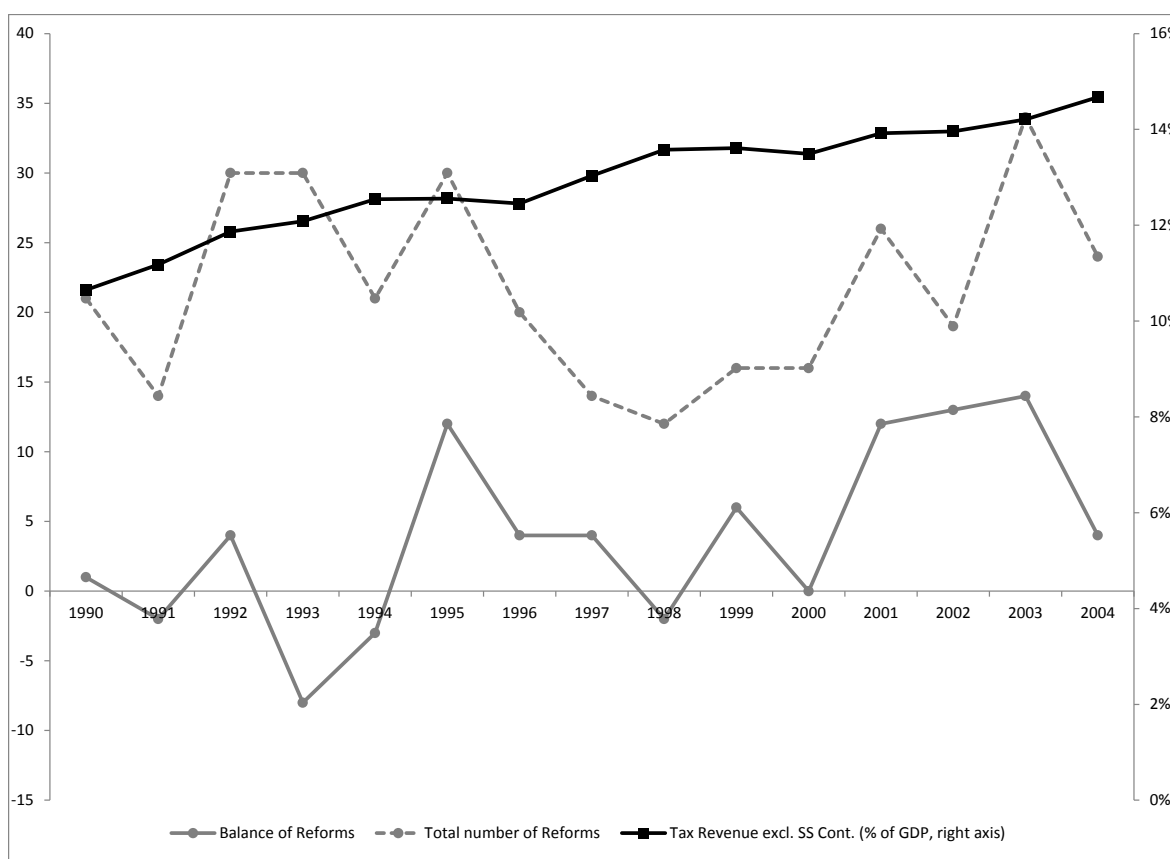
In Table 2 we can also observe which countries made the most and the least reforms: the three biggest economies in the region, namely Argentina, Mexico and Brazil, were the most active reformers, while Central American countries were the least active. We can also see that the proportion of reforms corresponding to major taxes is higher in some countries, such as Venezuela, Guatemala and Costa Rica, and lower in others such as Brazil, Colombia and Bolivia. By the same token, only Mexico, Panama, El Salvador and Nicaragua have more revenue-decreasing than revenue-increasing reforms.¹²

Figure 2 shows the evolution of the number of reforms and tax revenues over the period covered. While the dotted gray line shows the total number of reforms, the solid gray line shows the difference between reforms that were expected to increase revenue minus the number of reforms expected to decrease it. While the total number of reforms has remained relatively stable over time—with some exceptions such as a drop towards the end of the 1990s—the intention of the reforms has changed. While at the beginning of the decade reforms tended to be “revenue neutral” on average, that is, the number of reforms in which the intent was to increase taxes was approximately the same as those which intent was to decrease taxes, the balance has tilted in favor of reforms that increase taxes in the second period of reforms (all positive values on average starting in 2001). The solid black line suggests a potential impact of those reforms on tax revenues. Although this line follows a steady upward trend, that trend seems to be interrupted between 1994 and 1996, the years after we observe more revenue-reducing reforms; and it seems to speed up again between 1996 and 1998, which coincides with three years of more revenue-

¹² In the case of El Salvador, this may be biased by the country only being covered until 1997, since we know that there was a certain trend to lowering taxes in the first part of the period we analyze.

increasing reforms (1995-97). The same pattern is repeated between 1998 and 2004: the reforms are mixed and revenue does not increase until 2000, and starting in 2001 reforms tend to increase revenues, which grow steadily until the end of the period.

Figure 2. Total Number of Reforms, “Balance” of Reforms and Tax Revenues in Latin America



Source: Authors' formulation based on data compiled from Price Waterhouse Coopers International Tax Summaries.

Another dimension of analysis involves different types of reforms and the different taxes they affect. Table 3 provides a summary of reform by tax, distinguishing between major and minor taxes, and also between increasing and decreasing reforms. The table shows that slightly more than half (55 percent) of the reforms were on minor taxes. For both types of taxes, reforms have usually been in the direction of increasing revenues. Among major taxes, VAT, CIT and PIT seem to have been the subject of a similar number of reforms that have usually focused on rates rather than bases, which once again suggests that the broadening of the tax system has not

been a relevant goal in the region. Another feature of the data that reinforces this conclusion is the introduction of tax incentives across most countries.¹³

Three countries (Paraguay in 1992 and El Salvador and Venezuela in 1993) have introduced a VAT (all other countries in the region had one before 1990) and while there have been many more increasing than decreasing reforms in VAT, the opposite is true for both types of income tax. The relatively even number of increasing and decreasing number of reforms to financial transactions taxes reflects the introduction of such taxes as temporary sources of easy-to-collect revenue and while in some cases (such as Ecuador) it was later abolished, in others (such as Argentina) it is still in force today. Finally, it is worth noting that about a quarter of all recorded reforms are classified either as reforms to “other taxes” or as “minor or hard to classify” reforms, meaning that countries have also been making adjustments to a wider array of small taxes potentially with the goal of also increasing revenue and with the side effect of making the system more complicated and less neutral.

Table 3. Type of Tax Reforms in Latin America (1990-2004)

Tax Category	Number of Reforms		Direction of Reforms		Type of reforms	
	Total	Net Total	Increase	Reduction	General	Particular
Tax System Reform/Overhaul	10				10	0
Comprehensive Administrative Reform	3				3	0
Major Taxes	132	14	73	59	126	6
VAT	44	28	36	8	40	4
VAT Creation	3	3	3	0	3	0
VAT Base Change	4	2	3	1	0	4
VAT Rate Increase/Reduction	37	23	30	7	37	0
Personal Income Tax	45	-9	18	27	45	0
Personal Income Tax Base Change	7	1	4	3	7	0
Personal Income Tax Rate Increase/Reduction	38	-10	14	24	38	0
Corporate Income Tax	43	-5	19	24	41	2
Corporate Income Tax Base Change	4	-2	1	3	3	1
Corporate Income Tax Rate Increase/Reduction	39	-3	18	21	38	1
Minor Taxes	183	47	115	68	125	58
Financial Transactions Taxes	19	3	11	8	19	0
Excise Taxes and Duties	41	15	28	13	19	22
Other Taxes	52	18	35	17	44	8
Tax Incentives Creation/Elimination	37	-23	7	30	9	28
Minor or Hard to Classify Reforms	34	34	34	0	34	0
Total	328	61	188	127	264	64

Notes: "Increase" refers to those reforms that implied the creation of a tax, the broadening of the tax base or a rate increase. "Reduction" refers to reforms that implied the elimination of a tax, narrowing its tax base, rate reduction or incentive creation. Net Total refers to the difference between increases and reductions.

Source: Author's compilation using Price Waterhouse Coopers International Tax Summaries

¹³ The introduction of a tax incentive is generally taken as a tax-reducing reform and therefore recorded as such.

What happened to the evolution of reforms, rates and revenues for the three major taxes? The steady increase in VAT revenue in terms of GDP is accompanied by many tax-increasing reforms, at least until 1996 (see figures in Appendix A3). The average VAT rate suffers a small decline around 1993 simply because the three countries that introduced it between 1992 and 1993 did so at a below-average rate of 10 percent. After that, several countries had steep VAT rate increases in 1995 (Argentina, Costa Rica, El Salvador, Mexico, Nicaragua and Venezuela) that ranged between 2.5 and 5 percentage points. This change is observed in the data both in terms of the balance of the reforms and the changes in the rates (with large positive changes). The period between 2001 and 2004 also shows the introduction of reforms that increased the average tax rate.

The story for income taxes is different. Except for CIT in 1995 (when Bolivia, Colombia and Guatemala raised the top CIT marginal rate), the reforms tended to reduce the burden of these taxes (this can be shown graphically in the figures in Appendix A3). The picture changes a little bit at the end of the period, but it is clear that Latin American countries have not been successful in increasing revenues from income taxes, particularly those on individuals. Only the CIT experienced significant increases in the last three years under analysis, but its revenue still accounts for less than 4 percent of GDP, on average. Our data tracks well some of the most significant changes. For example, our data show a large change in personal income taxes in 1992, a year in which average marginal top rates dropped dramatically. Similarly, our reforms data tracks well the drop in rates for the corporate income tax during the 1990-1994 period and also the hikes in 1995 and since 2002.

Another feature of the database that we have mentioned earlier is the classification of each reform either as “general” or “particular” according to whether it affects every sector of the economy equally (at least on paper) or it targets a specific sector or sectors. Table 2 above provides a count of the reforms according to this classification. It shows that we have classified about 80 percent of the reforms as general, but this rate is much lower for minor taxes (68 percent) compared to major taxes (95 percent). This means that changes to VAT and income taxes are mostly to the general rates and that changes to the bases of income taxes mostly have to do with reaching different types of income rather than economic sectors. On the other hand, and as would be expected, changes to excise taxes, tax incentives and other small taxes tend to affect certain economic sectors differently than others.

Summarizing, several stylized facts that arise from a first look at the data are the following: the number and scope of reforms differs significantly by country; the main goal of the reforms has evolved over the years, but for the most part, broadening and efficiency of the system has not been a priority; efforts to increase revenue from major taxes have focused on VAT rather than income taxes; and there are many reforms to minor taxes, not necessarily with the goal of eliminating them or increasing efficiency. The next section provides some hints at possible exercises that show the usefulness of the database.

4. Using the Database

Thus far, we have described our new data on tax reforms and, along with its description and the literature review, we have hinted at the goals of our research agenda. In this section, we attempt to give a brief example of use of this database beyond the descriptive purposes of the previous section by replicating the main exercise in Mahon (2004), which explores the link between tax reforms and several institutional and economic variables.

In Table 4 we replicate Table 2 from Mahon (2004). As a dependent variable, we consider the total number of reforms by country and year, which is an index similar to the one used in that table. A higher value of the variables means a higher number of tax reforms. The set of independent variables include (sources and definitions in Appendix A1): Fiscal Balance, Inflation, GDP Growth, IMF Conditionalities, (Level of) Democracy, Years in Office (of the current administration), New Administration (in office that year), Tenure of (Democratic) System, (Political) Party Age, Number of Parties (in Congress), (Political) Party Fractionalization (in Congress), Party Balance (in Congress), Majority (held by the Government in Congress), Closed Lists (Electoral System). The last two columns of the Table summarize the information from the regressions using a method popularized in Persson and Tabellini (2003). The coding is as follows: “-” and “+” mean that the variable is negative and significant across specifications. “+/0” and “-/0” mean that the variable is statistically significant in most but not all of the specifications. “0/+” and “0/-” mean that the variable is only statistically significant in a few of the specifications. “0” means the variable is not significant in any specification.

Table 4. Pooled Cross-Country Time-Series Results

Dependent variable:	(1)		(2)		(3)		(4)		(5)		(6)		Summary	
	Mahon	Number of reforms	Mahon	Number of reforms	Mahon	Number of reforms	Mahon	Number of reforms	Mahon	Number of reforms	Mahon	Number of reforms	Mahon	Number of reforms
Fiscal Balance	0	-0.0049 (0.0037)	0	-0.0044 (0.0038)	0	-0.0055 (0.0038)	-*	-0.0080 (0.0053)	0	-0.0079 (0.0055)	0	-0.0089* (0.0053)	0/-	0
Inflation	****	0.0011*** (0.0003)	****	0.0000 (0.0000)	****	-0.0001*** (0.0000)	***	0.0001*** (0.0000)	***	-0.0001 (0.0017)	***	0.0001*** (0.0000)	+	+/-
GDP Growth	0	-0.0032 (0.0024)	0	-0.0042* (0.0024)	0	-0.0034 (0.0025)	0	-0.0021 (0.0027)	0	-0.0022 (0.0028)	0	-0.0020 (0.0027)	0	0/-
IMF Cond.	****	-0.0079 (0.0202)	****	-0.0108 (0.0206)	****	-0.0089 (0.0206)	****	-0.0160 (0.0247)	0	-0.0168 (0.0249)	****	-0.0155 (0.0243)	+	0
LIMF Cond.	****	-0.0381* (0.0199)	****	-0.0831** (0.0328)	****	-0.0408** (0.0202)	***	-0.0435* (0.0247)	+	-0.0408 (0.0288)	***	-0.0490** (0.0235)	+	-/0
Democracy	0	-0.0030 (0.0050)	0	-0.0090 (0.0056)	0	-0.0086 (0.0054)	0	-0.0089 (0.0083)	0	-0.0088 (0.0084)	0	-0.0089 (0.0085)	0	0
Inflation*Democracy	0	-0.0001*** (0.0000)											0	-
Years in Office	0	0.0036 (0.0046)	****	-0.0085 (0.0069)	0	0.0015 (0.0048)							0/-	-/0
YrsOff*IMF			0	0.0157* (0.0084)									0	+/-
YrsOff*Inflation					0	0.0001*** (0.0000)							0	+
New Administration							****	-0.0308 (0.0228)	+	-0.0250 (0.0368)	0	-0.0426 (0.0309)	+/-	0
NewAdm*IMF									0	-0.0110 (0.0493)			0	0
NewAdm*Inflation											0	0.0009 (0.0019)	0	0
Tenure of System							***	-0.0001 (0.0011)	***	-0.0002 (0.0011)	***	-0.0001 (0.0012)	+	0
Party Age							0	-0.0001 (0.0004)	0	-0.0001 (0.0004)	0	-0.0000 (0.0003)	0	0
Number of Parties							0	0.0048* (0.0026)	***	0.0048* (0.0026)	+	0.0047* (0.0026)	+/-	+
Party Fractionalization							0	0.0972 (0.1263)	-**	0.1008 (0.1313)	-*	0.1529 (0.1150)	-/0	0
Party Balance							-**	-0.0595 (0.0532)	-*	-0.0619 (0.0603)			-	0
Balance*Inflation									0	0.0002 (0.0018)			0	0
Maj											+	0.0419 (0.0722)	+	0
Closed Lists							***	0.0441 (0.0372)	+	0.0447 (0.0379)	***	0.0422 (0.0375)	+	0
Constant	0	0.1655*** (0.0540)	0	0.2535*** (0.0537)	0	0.2149*** (0.0520)	dropped	0.1336 (0.1285)	dropped	0.1317 (0.1308)	dropped	0.0286 (0.1146)		
Observations	264	221	264	221	264	221	125	186	125	186	125	186		
R-squared		0.1021		0.0692		0.0697		0.1196		0.1199		0.1160		

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

The coding in the table is as follows. "-" and "+" means that the variable is negative and significant across specifications. "0/+" and "0/-" mean that the variable is only statistically significant in a few of the specifications. "0" means the variable is not significant in any specification.

The only difference between the sets of independent variables is the measure of presidential power that Mahon includes because it comes from an older database that does not fit our coverage. Still, that variable is never significant in those regressions. In Table 4, we replicate the pooled time-series structure of the data from Mahon (2004), and we can see that there are some differences in our results. There are reasons to expect differences among these sets of exercises. First, the time period has changed. In particular, Mahon (2004) covered many autocratic-country-years which our database does not, as Latin American countries had become democratic by the 1990s. As such, the underlying political model may have switched over the

years. Second, we have coded more reforms than he had. Therefore, as we have gained the ability of understanding the underlying processes for each tax and group of taxes better, it is more difficult now to explain the behavior of such an aggregate variable.

From simple exploration of the results, it is easy to observe some regularities. First, the effect of inflation is more ambiguous in our sample. While in Mahon, inflation was a strong trigger for reforms, this effect is clearly not as strong for our database, which can be consistent with a period where inflation has been much lower all across the region. Second, we find that the effect of IMF conditionality has either disappeared or even reversed. One explanation for this result is that the role of the IMF as a trigger for reforms may have changed over the years. Another explanation is the difference in coding of this variable between Mahon and this paper. While we consider whether the country was under an IMF agreement, his coding is slightly narrower, considering only those cases in which agreements explicitly mentioned agreements on tax reform. Each of the options has trade-offs. While the Mahon definition is narrower, it may also be more prone to reverse causality issues: only those countries that are willing and able to pass tax reforms agree to include them as conditionalities in the agreements. A final option is that IMF conditionalities were usually narrower in focus and used to target reforms to some specific taxes and in some particular direction. This is a possibility we explore next.

Third, years in which there is a new administration do not appear to be much different than any other years for having reforms in our database. Again, the sample period here may matter. While new administrations may have been more salient in the early years of democracy, in which a new administration may have meant having had a switch from autocracy to democracy, the changes may not be as salient later on. On the one hand, new administrations may happen because of the natural passage of time and the existence of term limits. As such, the underlying currents for reform may be weaker. On the other hand, new administrations may arise because of underlying economic problems that force incumbents to resign. As such, new administrations may use the opportunity to reform, but underlying economic problems may also be a proxy for the polity's difficulties in tackling economic shocks and introducing reforms.

Finally, we do still find an effect for the number of parties (even though other political institution variables are not significant). This result can be interpreted in two non-exclusive ways. On the one hand, it shows the relevance of a common-pool effect as fragmentation increases, which usually translates into further tax reforms. On the other hand, higher

fragmentation may mean a larger number of entry points for lobbyists and interest groups for passing particularistic reforms. Our database, because of its highly detailed coding, should be a good tool for uncovering these different mechanisms.

Table 5 uncovers many of the interesting relationships that having a more detailed definition of the dependent variables entails. We look not only at the number of reforms introduced by year but also at the direction (or balance) of those reforms. We also divide the reforms according to the type of tax. On the one hand, “major taxes” includes reforms to VAT-type taxes, personal and corporate income taxes. “Minor taxes” considers reforms to duties, excise taxes, financial transactions taxes, tax incentive mechanisms, and other minor taxes. The table summarizes the results across the different specifications using the abovementioned summary strategy; the original regression tables are in Appendix A2.

With a different aggregation of the data, the fiscal balance becomes a relevant variable to explain what countries tend to do in terms of tax reform. Basically, there are more reforms aimed at raising taxes when fiscal balances are negative. Inflation, however, while relevant for explaining numbers of reforms, does not seem to explain direction. Most probably, two effects tend to take place. On the one hand, high inflation reflects fiscal problems that increasing taxes may help to solve. On the other, it may also reflect that the government has trouble increasing taxes and uses the inflationary tax as a substitute. This channel becomes more apparent when evaluated in combination with the interaction between inflation and democracy, which presents a negative sign. Therefore, inflation may generate incentives for tax reforms, but these reforms may be more difficult in democracies. As such, democratic governments may find it easier to finance themselves with an inflation tax rather than enduring long negotiation process in Congress. The fact that more democratic regimes seem to increase minor taxes more regularly provides another glimpse to this. When faced with the need to increase taxes, introducing excise taxes or the like is easier than reforming personal income tax laws.

Not all governments behave the same way, however. New administrations that are under an IMF program seem to reduce the burden of excise taxes and other minor taxes. Again, this has been a policy direction usually advocated by the IMF in a quest to increase efficiency, and new administrations may be more likely to follow that advice.

Table 5. Summary of Regression Results across Dependent Variables

Dependent variable:	Mahon	Number of Reforms	Balance of Reforms	Balance of Major Taxes Reform	Balance of Minor Taxes Reforms
Fiscal Balance	0/-	0	-/0	0/-	-/0
Inflation	+	+/0	0/-	0	0
GDP Growth	0	0/-	0	0	0
IMF Cond.	+	0	0	0	0
L.IMF Cond.	+	-/0	0	-/0	0
Democracy	0	0	0	0	+
Inflation*Democracy	0	-	0	0	0
Years in Office	0/-	-/0	0	-/0	0
YrsOff*IMF	0	+/0	0	0	0
YrsOff*Inflation	0	+	0	0	0
New Administration	+/0	0	0	0	0
NewAdm*IMF	0	0	0	0	-/0
NewAdm*Inflation	0	0	0	0	0
Tenure of System	+	0	-	0	-/0
Party Age	0	0	0	0	0
Number of Parties	+/0	+	+	+	0
Party Fractionalization	-/0	0	0	0	0
Party Balance	-	0	-/0	0	0
Balance*Inflation	0	0	0	0	0
Maj	+	0	0	0	0
Closed Lists	+	0	0	0/+	0

Note: The coding in the table is as follows. "-" and "+" means that the variable is negative and significant across specifications. "0/+" and "0/-" mean that the variable is only statistically significant in a few of the specifications. "0" means the variable is not significant in any specification.

The more disaggregated data also help to explain some of the puzzling results from Table 4, particularly the differences in results for the IMF variable. As shown in the table, most of the action for this variable seems to come from the reforms (and direction of reforms) of Major Taxes, which includes VAT, personal and corporate income taxes. While the IMF has pushed for improving fiscal balances, it has also been in favor, along with most Washington Consensus proponents, to reduce income top marginal rates, especially those of corporations, in order to increase tax neutrality (Lora 2007).

The idea of this section was to show how our database can be used not just to describe tax reforms in Latin America but, furthermore, to provide an explanation of both their determinants. We do not propose that the previous exercises have provided a final and definitive answer. On the contrary, we believe they should increase interest in further research along these lines. We hope that the richness and versatility of the data will help improve on the results of previous literature and also explore new dimensions of the conditions surrounding the occurrence of reforms. The next and final section concludes by providing a preview of both current and future work that is part of our research agenda in this matter.

5. Conclusions and Motivation for Further Work

As mentioned in the introduction, while tax revenues remain low in Latin America, they have been growing steadily in the last decade. This growth has not been uniform across either countries or taxes. This variance can be explained by the behavior of governments in terms of tax reforms. To understand tax reforms and what drives countries to reform their tax systems, this paper has introduced a new database, which is superior in various dimensions to previous attempts for understanding the effect of politics in taxation. In particular, it includes only democratic country-years. Second, it considers a larger set of taxes and it disaggregates the information at a more detailed level. Finally, the database codes not only reforms and their direction, but also whether they are particular or general in their impact.

Preliminary results indicate that the drivers of reform have not been the same during a purely democratic era when compared to the previous decade. First, inflation did not provide the same stimulus to reforms in the 1990s as it had in previous years. Similarly, the role of the IMF seems to have changed. On the one hand, its role has diminished overall. On the other hand, it has helped to lead countries away from increasing some inefficient sources of taxation. Politics, moreover, still plays a role. While government changes are not that important once democracy has become the rule, the workings of politics seem to matter. In particular, countries with more party representation in Congress seem to be more active reformers.

These results, along with a broader and more detailed database, should increase interest in further research along these lines. We hope that the richness and versatility of the data will help improve on the results of previous literature and also explore new dimensions of the conditions surrounding the occurrence of reforms. Researchers can now address the question of what are the

factors that favor tax reforms that aim to increase taxes and what are the factors that favor reforms that aim to increase efficiency in the tax system. This analysis can be done at the aggregate level or by looking at each tax individually. By the same token, we can ask ourselves: given that Latin American countries seem to have been pursuing an overall increase in tax pressure, what taxes have been increased and why? Factors like lobbying by interest groups, availability of natural resources, administrative capacity or external constraints (i.e., the possibility that capital will fly away from a small open economy) look like some of the possible determinants to consider regarding this point.

In the same line of thought, another relevant issue is whether reforms tend to be broader or more particularistic, meaning whether reforms tend to affect the whole economy more or less equally (e.g., as in an across-the-board increase in income taxes or VAT) or if they seem to target particular sectors or populations (e.g., industry-specific tax incentives, taxes on cigarettes or natural resources). This is a particularly relevant subject as it can allow us to further inquire about what circumstances favor reforms that affect the efficiency and neutrality of the tax system in different ways.

Finally, we plan on extending the database to cover OECD countries in order to compare the reforms that have been made in Latin America with those that have been made in developed countries. The goal here is to compare the type of reforms that took place and the political economy determinants at play, such as whether the tax systems of developed countries are as sensitive to the electoral cycle, changes in ideology and economic crises as the tax systems of Latin American countries. It would also be of interest to evaluate whether the degree of harmonization between countries is similar, whether developed countries also seem to be aiming to raise taxes and whether reforms in developed countries tend to be broader than those in Latin American or just as particularistic.

All in all, we hope this database and the overall project it belongs to helps to shed some light on the political economy determinants of tax reforms. More importantly, we also hope it helps other researchers to build a stronger literature on politics and tax policy, taking into account politicians' incentives and windows of opportunity for passing reforms that would help increase welfare in the region.

References

- Basinger, S.J., and M. Hallerberg. 2004. "Remodeling the Competition for Capital: How Domestic Politics Erases the Race to the Bottom." *American Political Science Review* 98(2): 261–76.
- Baunsgaard, T., and M. Keen. 2010. "Tax Revenue and (or?) Trade Liberalization." *Journal of Public Economics* 94(9–10): 563–77.
- Bird, R.M. 1992. "Tax Reform in Latin America: A Review of Some Recent Experiences." *Latin American Research Review* 27(1): 7–36.
- . 2003. "Taxation in Latin America: Reflections on Sustainability and the Balance between Equity and Efficiency." International Tax Program Working Paper 0306. Toronto, Ontario, Canada: Joseph L. Rotman School of Management, University of Toronto.
- Bonvecchi, A. 2010. "The Political Economy of Fiscal Reform in Latin America: The Case of Argentina." Working Paper IDB-WP-175. Washington, DC, United States: Inter-American Development Bank.
- Castanheira, M., G. Nicodème, and P. Profeta. 2011. "On the Political Economics of Tax Reforms." CESifo Working Paper 3538. Munich, Germany: CESifo Group Munich.
- Coopers & Lybrand. Various years. *International Tax Summaries*. Hoboken, United States: John Wiley & Sons, Inc.
- Corbacho, A., V. Fretes Cibils and E. Lora. 2013. *More than Revenue: Taxation as a Development Tool*. Development in the Americas Series. Washington, DC, United States: Inter-American Development Bank, and New York, United States: Palgrave Macmillan.
- Di John, J. 2006. "The Political Economy of Taxation and Tax Reform in Developing Countries." UNU-WIDER Research Paper 2006/74. Helsinki, Finland: United Nations University, World Institute for Development Economics Research.
- Ganghof, S. 2006. *The Politics of Income Taxation: A Comparative Analysis of Advanced Industrial Countries*. Colchester, United Kingdom: ECPR Press.
- Genschel, P., and M. Jachtenfuchs. 2011. "How the European Union Constrains the State: Multilevel Governance of Taxation." *European Journal of Political Research* 50(3): 293–314.

- Hallerberg, M., and C. Scartascini. 2011. "Economic Crisis and Fiscal Reforms in Latin America." Working Paper IDB-WP-235. Washington, DC, United States: Inter-American Development Bank.
- . 2012. "Explaining Tax Increases in Latin America." Washington, DC, United States: Inter-American Development Bank. Manuscript.
- Hays, J.C. 2009. *Globalization and the New Politics of Embedded Liberalism*. Oxford, United: Oxford University Press.
- Inter-American Development Bank (IDB) and Inter-American Center of Tax Administrations (CIAT). 2012. "Latin America and the Caribbean Fiscal Burden Database, 1990-2010." Database IDB-DB-101. Washington, DC, United States: IDB and CIAT. Available at: http://www.iadb.org/en/research-and-data/publication-details,3169.html?pub_id=IDB-DB-101.
- Lora, E. 2007. "Trends and Outcomes of Tax Reform." In: E. Lora, editor. *The State of State Reform in Latin America*. Stanford, United States: Stanford University Press.
- . 2012. "Structural Reforms in Latin America: What Has Been Reformed and How to Measure It." (Updated version.) IDB WP-346. Washington, DC, United States: Inter-American Development Bank.
- Magar, E., V. Romero and J. Timmons. 2010. "The Political Economy of Fiscal Reforms in Latin America: Mexico." Washington, DC, United States: Inter-American Development Bank. Unpublished manuscript.
- Mahon, J.E., Jr. 2004. "Causes of Tax Reform in Latin America, 1977-95." *Latin American Research Review* 39(1): 3-30.
- Melo, M., C. Pereira and S. Sousa. 2010. "The Political Economy of Fiscal Reform in Brazil. The Rationale for the Suboptimal Equilibrium." Working Paper IDB-WP-117. Washington, DC, United States: Inter-American Development Bank
- Morley, S., R. Machado and S. Petinatto. 1999. "Indexes of Structural Reform in Latin America." Serie Reformas Económicas 12. Santiago, Chile: Economic Commission for Latin America and the Caribbean.
- Olivera, M., M. Pachón and G. Perry. 2010. "The Political Economy of Fiscal Reform: The Case of Colombia, 1986-2006." Working Paper IDB-WP-181. Washington, DC, United States: Inter-American Development Bank.

- Persson, T., and G. Tabellini. 2003. *The Economic Effects of Constitutions*. Cambridge, United States: MIT Press.
- Plümper, T., V. Tröger and H. Winner. 2009. “Why Is There No Race to the Bottom in Capital Taxation?” *International Studies Quarterly* 53(3): 761-786.
- PriceWaterhouseCoopers. Various years. “Worldwide Tax Summaries – Corporate Taxes.” Hoboken, United States: John Wiley & Sons, Inc.
- PriceWaterhouseCoopers. Various years. “Worldwide Tax Summaries – Individual Taxes.” Hoboken, United States: John Wiley & Sons, Inc.
- Rodríguez, F. 1993. “Tax Reforms in Latin America 1978-1992: A Comparative Analysis.” *Social and Economic Studies* 42(4): 1-23.
- Sánchez, O. 2006. “Tax System Reform in Latin America: Domestic and International Causes.” *Review of International Political Economy* 13(5): 772-801.
- Swank, D. 2006. “Tax Policy in an Era of Internationalization: Explaining the Spread of Neoliberalism.” *International Organization* 60: 847–882.
- Swank, D., and S. Steinmo. 2002. “The New Political Economy of Taxation in Advanced Capitalist Democracies.” *American Journal of Political Science* 46(3): 642-655.

Appendix

A1. Sources and Definitions

Variable	Obs	Mean	Std. Dev.	Min	Max	Definition	Source
Number of Reforms	262	0.13	0.15	0.00	0.80	Number of Reforms	Own compilation based on PwC
Balance of Reforms	262	0.03	0.13	-0.30	0.60	It is the balance between the changes in the tax laws that attempted to increase and decrease tax revenues.	Own compilation based on PwC
Balance of Major Taxes Reforms	262	0.01	0.10	-0.30	0.30	It is the balance between the changes in the tax laws that attempted to increase and decrease tax revenues for major taxes.	Own compilation based on PwC
Balance of Minor Taxes Reforms	262	0.01	0.08	-0.20	0.30	It is the balance between the changes in the tax laws that attempted to increase and decrease tax revenues for minor taxes	Own compilation based on PwC
Fiscal Balance	330	-1.47	2.35	-11.54	8.21	Fiscal Balance	Cepal
Inflation	346	91.61	537.56	-1.17	7481.66	Inflation rate	World Development Indicators
GDP Growth	342	3.94	3.61	-10.89	18.29	GDP growth	World Development Indicators
IMF Conditionalities	359	0.52	0.50	0.00	1.00	Whether a country is under an IMF agreement or not.	Data from Dreher (2006)'s coding, updated and available on-line in 2010
Democracy	359	7.60	1.78	1.00	10.00	Democratic system	Polity IV
Tenure of Democratic System	343	16.42	11.27	1.00	60.00	Tenure of Democratic System	Database of Political Institutions
Party Age	338	43.02	39.76	4.33	191.00	Party Age	Database of Political Institutions
New Administration	360	0.21	0.40	0.00	1.00	Year in which a new administration took office	Database of Political Institutions
Years in Office	360	3.39	2.82	1.00	35.00	Years in Office of the current administration	Database of Political Institutions
Number of Parties	342	7.99	6.48	0.00	39.00	Number of parties in the lower house	Database of Political Institutions
Fractionalization	353	0.68	0.11	0.35	0.90	Index of Legislative Fractionalization	Database of Political Institutions
Closed Lists	353	0.89	0.32	0.00	1.00	Closed lists electoral system	Database of Political Institutions
Majority	356	0.52	0.16	0.09	1.00	Share of legislative seats held by the government party	Database of Political Institutions
Balance	356	0.77	0.23	0.00	1.00	Balance of power among parties in the lower house of Congress	Own calculations

A2. Regression Tables for Dependent Variables

The following tables show the results of the regressions using Mahon (2004) specification on the different dependent variables defined in the paper. The results in these tables have been summarized in Table 5 of the main text of the document

Table 1. Regression Results on the Balance of Reforms

VARIABLES	(1)		(2)		(3)		(4)		(5)		(6)		Summary	
	Mahon	Balance of Reforms	Mahon	Balance of Reforms	Mahon	Balance of Reforms	Mahon	Balance of Reforms	Mahon	Balance of Reforms	Mahon	Balance of Reforms	Mahon	Balance of Reforms
Fiscal Balance	0	-0.0063 (0.0043)	0	-0.0063 (0.0043)	0	-0.0072 (0.0044)	-*	-0.0137** (0.0053)	0	-0.0152** (0.0056)	0	-0.0149** (0.0054)	0/-	-/0
Inflation	***	0.0002 (0.0003)	***	-0.0000** (0.0000)	***	-0.0001* (0.0001)	***	0.0001 (0.0001)	***	0.0012 (0.0015)	***	0.0000 (0.0001)	+	0/-
GDP Growth	0	-0.0025 (0.0025)	0	-0.0029 (0.0025)	0	-0.0024 (0.0025)	0	-0.0018 (0.0027)	0	-0.0016 (0.0028)	0	-0.0016 (0.0027)	0	0
IMF Cond.	***	-0.0114 (0.0235)	***	-0.0131 (0.0236)	***	-0.0127 (0.0234)	***	-0.0083 (0.0245)	0	-0.0107 (0.0249)	***	-0.0069 (0.0250)	+	0
L IMF Cond.	***	-0.0119 (0.0233)	***	-0.0333 (0.0347)	***	-0.0141 (0.0233)	***	-0.0227 (0.0250)	+	-0.0165 (0.0279)	***	-0.0313 (0.0249)	+	0
Democracy	0	0.0067 (0.0053)	0	0.0059 (0.0050)	0	0.0064 (0.0050)	0	0.0091 (0.0074)	0	0.0092 (0.0074)	0	0.0099 (0.0076)	0	0
Inflation*Democracy	0	-0.0000 (0.0000)											0	0
Years in Office	0	-0.0040 (0.0044)	-**	-0.0092 (0.0073)	0	-0.0046 (0.0044)							0/-	0
YrsOff*IMF			0	0.0074 (0.0089)									0	0
YrsOff*Inflation					0	0.0001 (0.0001)							0	0
New Administration							***	0.0047 (0.0227)	+	0.0164 (0.0340)	0	-0.0133 (0.0320)	+/0	0
NewAdm*IMF									0	-0.0211 (0.0472)			0	0
NewAdm*Inflation											0	0.0013 (0.0017)	0	0
Tenure of System							***	-0.0020** (0.0010)	***	-0.0021** (0.0010)	***	-0.0021** (0.0010)	+	-
Party Age							0	-0.0002 (0.0003)	0	-0.0002 (0.0003)	0	-0.0000 (0.0003)	0	0
Number of Parties							0	0.0036** (0.0017)	***	0.0040** (0.0017)	+	0.0036** (0.0017)	+/0	+
Party Fractionalization							0	-0.0075 (0.1065)	-**	-0.0260 (0.1097)	-*	0.0677 (0.1055)	-/0	0
Party Balance							-**	-0.0941** (0.0469)	-*	-0.0664 (0.0575)			-	-/0
Balance*Inflation									0	-0.0011 (0.0015)			0	0
Maj											+	0.0312 (0.0641)	+	0
Closed Lists							***	0.0313 (0.0359)	+	0.0271 (0.0364)	***	0.0278 (0.0363)	+	0
Constant	0	0.0057 (0.0507)	0	0.0291 (0.0495)	0	0.0074 (0.0478)	dropped	0.0225 (0.1152)	dropped	0.0082 (0.1171)	dropped	-0.1228 (0.1035)		
Observations	264	221	264	221	264	221	125	186	125	186	125	186		
R-squared		0.0558		0.0572		0.0619		0.1062		0.1101		0.0899		

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

The coding in the table is as follows: "-" and "+" means that the variable is negative and significant across specifications. "0/+" and "0/-" mean that the variable is only statistically significant in a few of the specifications. "0" means the variable is not significant in any specification.

Table 2. Regression Results on the Balance of Major Taxes Reforms

VARIABLES	(1)		(2)		(3)		(4)		(5)		(6)		Summary	
	Mahon	Balance of Major Taxes Reforms	Mahon	Balance of Major Taxes Reforms	Mahon	Balance of Major Taxes Reforms	Mahon	Balance of Major Taxes Reforms	Mahon	Balance of Major Taxes Reforms	Mahon	Balance of Major Taxes Reforms	Mahon	Balance of Major Taxes Reforms
Fiscal Balance	0	-0.0027 (0.0033)	0	-0.0026 (0.0033)	0	-0.0036 (0.0033)	-*	-0.0060 (0.0041)	0	-0.0071* (0.0043)	0	-0.0067 (0.0042)	0/-	0/-
Inflation	***	0.0001 (0.0002)	***	-0.0000 (0.0000)	***	-0.0001* (0.0000)	***	0.0001 (0.0000)	***	0.0015 (0.0011)	***	0.0001 (0.0000)	+	0
GDP Growth	0	-0.0020 (0.0019)	0	-0.0021 (0.0019)	0	-0.0018 (0.0019)	0	-0.0003 (0.0021)	0	0.0003 (0.0021)	0	-0.0001 (0.0021)	0	0
IMF Cond.	***	0.0106 (0.0180)	***	0.0104 (0.0181)	***	0.0094 (0.0179)	***	0.0078 (0.0189)	0	0.0092 (0.0191)	***	0.0081 (0.0192)	+	0
L.IMF Cond.	***	-0.0244 (0.0178)	***	-0.0286 (0.0265)	***	-0.0264 (0.0178)	***	-0.0334* (0.0193)	***	-0.0394* (0.0214)	***	-0.0392** (0.0191)	+	-/0
Democracy	0	-0.0015 (0.0041)	0	-0.0024 (0.0038)	0	-0.0017 (0.0038)	0	-0.0003 (0.0057)	0	-0.0008 (0.0057)	0	-0.0002 (0.0058)	0	0
Inflation*Democracy	0	-0.0000 (0.0000)											0	0
Years in Office	0	-0.0066* (0.0034)	***	-0.0079 (0.0056)	0	-0.0072** (0.0033)							0/-	-/0
YrsOff*IMF			0	0.0015 (0.0068)									0	0
YrsOff*Inflation					0	0.0001 (0.0000)							0	0
New Administration							***	0.0148 (0.0175)	***	0.0010 (0.0260)	0	0.0070 (0.0246)	+/0	0
NewAdm*IMF									0	0.0270 (0.0361)			0	0
NewAdm*Inflation											0	0.0006 (0.0013)	0	0
Tenure of System							***	-0.0011 (0.0007)	***	-0.0010 (0.0007)	***	-0.0011 (0.0008)	+	0
Party Age							0	0.0001 (0.0002)	0	-0.0000 (0.0002)	0	0.0002 (0.0002)	0	0
Number of Parties							0	0.0033** (0.0013)	***	0.0035*** (0.0013)	***	0.0032** (0.0013)	+/0	+
Party Fractionalization							0	-0.0379 (0.0820)	***	-0.0625 (0.0840)	***	0.0170 (0.0809)	-/0	0
Party Balance							***	-0.0590 (0.0361)	***	-0.0329 (0.0440)			-	0
Balance*Inflation									0	-0.0015 (0.0011)			0	0
Maj											***	0.0304 (0.0492)	+	0
Closed Lists							***	0.0462* (0.0276)	***	0.0412 (0.0279)	***	0.0442 (0.0279)	+	0/+
Constant	0	0.0603 (0.0387)	0	0.0717* (0.0379)	0	0.0606* (0.0364)	dropped	0.0434 (0.0887)	dropped	0.0416 (0.0897)	dropped	-0.0553 (0.0794)		
Observations	264	221	264	221	264	221	125	186	125	186	125	186		
R-squared		0.0553		0.0536		0.0643		0.1090		0.1211		0.0983		

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

The coding in the table is as follows: "-" and "+" means that the variable is negative and significant across specifications. "0/+" and "0/-" mean that the variable is only statistically significant in a few of the specifications. "0" means the variable is not significant in any specification.

Table 3. Regression Results on the Balance of Major Taxes Reforms

VARIABLES	(1)		(2)		(3)		(4)		(5)		(6)		Summary	
	Mahon	Balance of Minor Taxes Reforms	Mahon	Balance of Minor Taxes Reforms	Mahon	Balance of Minor Taxes Reforms	Mahon	Balance of Minor Taxes Reforms	Mahon	Balance of Minor Taxes Reforms	Mahon	Balance of Minor Taxes Reforms	Mahon	Balance of Minor Taxes Reforms
Fiscal Balance	0	-0.0036 (0.0026)	0	-0.0037 (0.0026)	0	-0.0036 (0.0027)	-*	-0.0077** (0.0033)	0	-0.0081** (0.0034)	0	-0.0082** (0.0033)	0/-	-/0
Inflation	***	0.0000 (0.0002)	***	-0.0000* (0.0000)	***	-0.0000 (0.0000)	***	-0.0000 (0.0000)	***	-0.0003 (0.0009)	***	-0.0000 (0.0000)	+	0
GDP Growth	0	-0.0006 (0.0015)	0	-0.0008 (0.0015)	0	-0.0006 (0.0015)	0	-0.0015 (0.0017)	0	-0.0019 (0.0017)	0	-0.0014 (0.0017)	0	0
IMF Cond.	***	-0.0220 (0.0144)	***	-0.0235 (0.0144)	***	-0.0221 (0.0144)	***	-0.0161 (0.0151)	0	-0.0198 (0.0153)	***	-0.0150 (0.0153)	+	0
LIMF Cond.	***	0.0125 (0.0143)	***	-0.0048 (0.0212)	***	0.0122 (0.0143)	***	0.0107 (0.0155)	+	0.0228 (0.0171)	***	0.0080 (0.0153)	+	0
Democracy	0	0.0082** (0.0033)	0	0.0083*** (0.0031)	0	0.0081*** (0.0031)	0	0.0094** (0.0045)	0	0.0100** (0.0045)	0	0.0100** (0.0047)	0	+
Inflation*Democracy	0	-0.0000 (0.0000)											0	0
Years in Office	0	0.0027 (0.0027)	-***	-0.0013 (0.0045)	0	0.0026 (0.0027)							0/-	0
YrsOff*IMF			0	0.0060 (0.0054)									0	0
YrsOff*Inflation					0	0.0000 (0.0000)							0	0
New Administration							***	-0.0101 (0.0140)	+	0.0155 (0.0208)	0	-0.0203 (0.0196)	+/0	0
NewAdm*IMF									0	-0.0481* (0.0289)			0	-/0
NewAdm*Inflation											0	0.0008 (0.0010)	0	0
Tenure of System							***	-0.0009 (0.0006)	***	-0.0011* (0.0006)	***	-0.0010* (0.0006)	+	-/0
Party Age							0	-0.0002 (0.0002)	0	-0.0002 (0.0002)	0	-0.0002 (0.0002)	0	0
Number of Parties							0	0.0003 (0.0010)	***	0.0004 (0.0010)	+	0.0004 (0.0011)	+/0	0
Party Fractionalization							0	0.0304 (0.0657)	-**	0.0365 (0.0673)	-*	0.0507 (0.0647)	-/0	0
Party Balance							-**	-0.0351 (0.0290)	-*	-0.0336 (0.0352)			-	0
Balance*Inflation									0	0.0003 (0.0009)			0	0
Maj											+	0.0008 (0.0393)	+	0
Closed Lists							***	-0.0149 (0.0222)	+	-0.0141 (0.0223)	***	-0.0164 (0.0223)	+	0
Constant	0	-0.0546* (0.0311)	0	-0.0426 (0.0303)	0	-0.0532* (0.0294)	dropped	-0.0209 (0.0711)	dropped	-0.0334 (0.0718)	dropped	-0.0675 (0.0635)		
Observations	264	221	264	221	264	221	125	186	125	186	125	186		
R-squared		0.0583		0.0635		0.0583		0.1002		0.1157		0.0954		

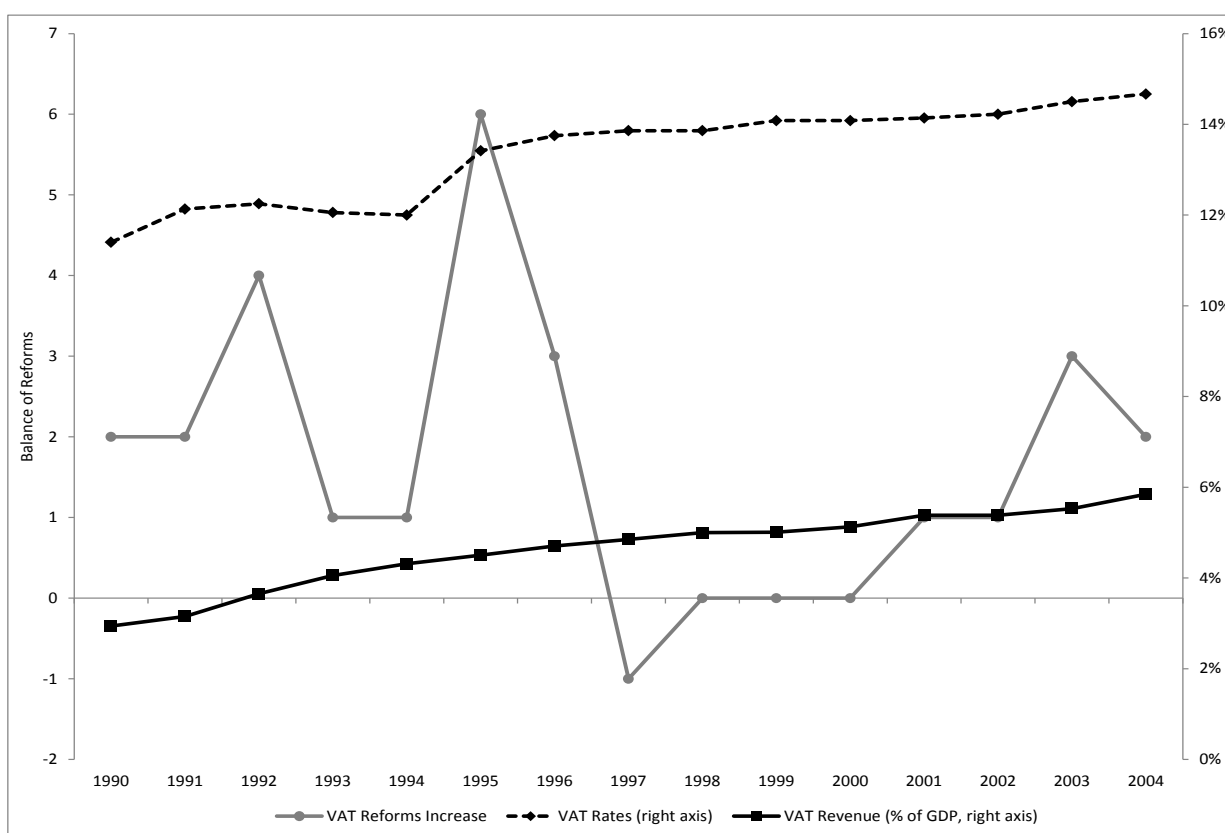
Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

The coding in the table is as follows: "-*" and "+" means that the variable is negative and significant across specifications. "0/+" and "0/-" mean that the variable is only statistically significant in a few of the specifications. "0" means the variable is not significant in any specification.

A3. Evolution of Tax Revenues, Rates and Reforms

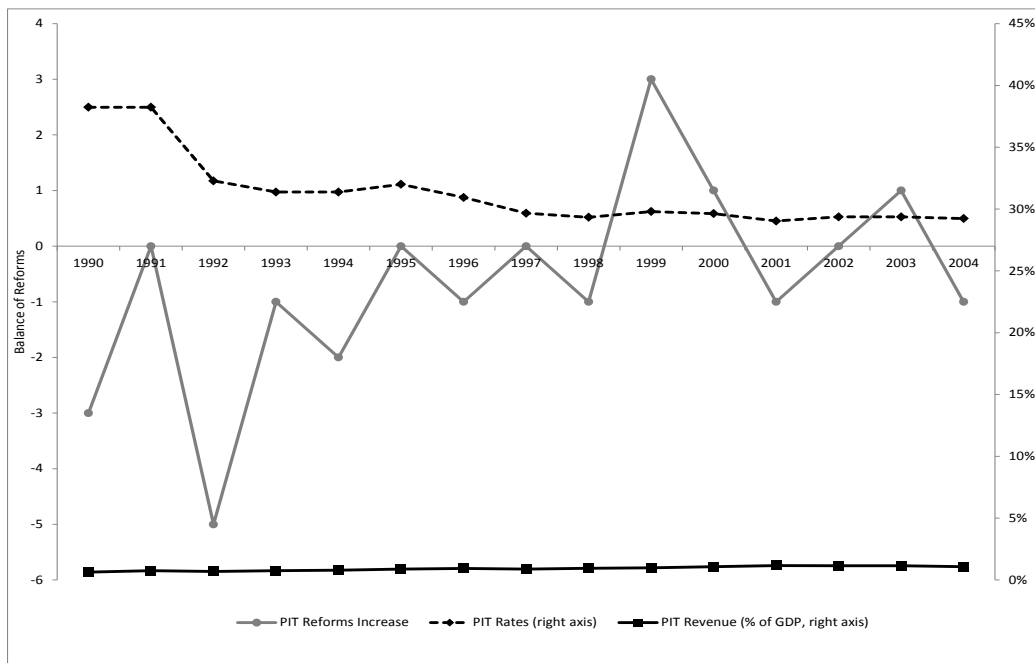
The following figures summarize the evolution of tax revenues, rates and reforms in Latin America in the period 1990-2004. As shown in the figures, revenues tend to follow changes in rates, but the correlation is not perfect, which shows that revenues depend of many determinants. However, rates tend to correlate with the balance of reforms quite well (of course, taking into account that reforms coded as increases go beyond changes in rates, and include other changes such as the broadening of the tax base and the elimination of exceptions).

Figure 1. VAT Reforms, Rates and Revenues



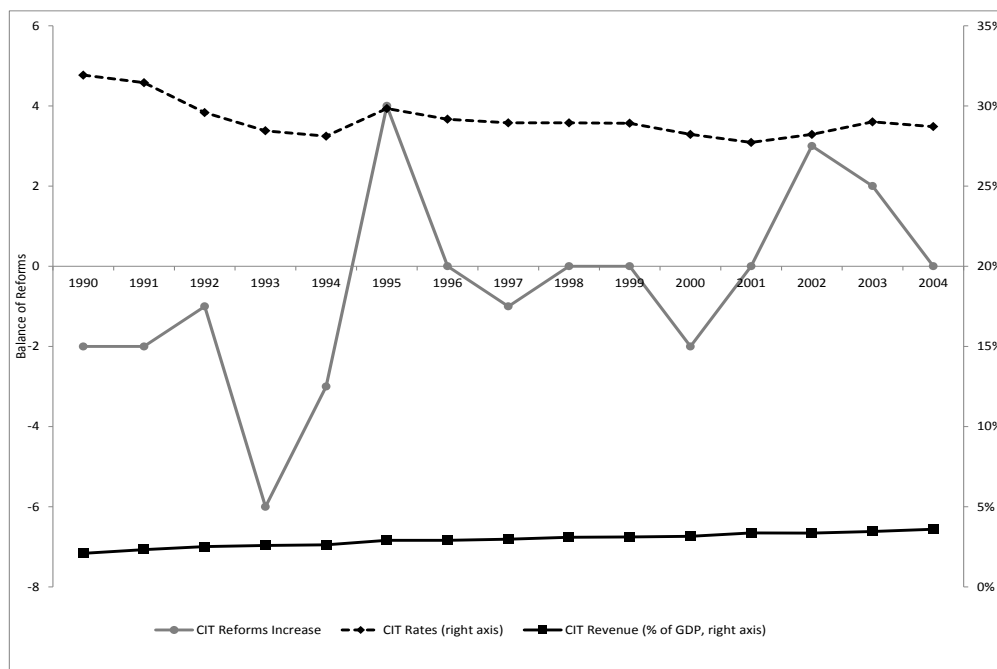
Source: Authors' formulation based on data compiled from PriceWaterhouseCoopers International Tax Summaries.

Figure 2. PIT Reforms, Rates and Revenues



Source: Authors' formulation based on data compiled from Price Waterhouse Coopers International Tax Summaries.

Figure 3. CIT Reforms, Rates and Revenues



Source: Authors' formulation based on data compiled from Price Waterhouse Coopers International Tax Summaries.

Table 1. VAT General Rate, and PIT and CIT Top Marginal Rates

	VAT General Rate															
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Argentina	15%	13%	16%	18%	18%	18%	21%	21%	21%	21%	21%	21%	21%	21%	21%	21%
Bolivia	10%	10%	10%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
Brazil	17%	17%	18%	18%	18%	18%	18%	18%	18%	18%	18%	18%	18%	18%	18%	18%
Chile	16%	18%	18%	18%	18%	18%	18%	18%	18%	18%	18%	18%	18%	18%	19%	19%
Colombia	10%	12%	12%	12%	14%	14%	14%	16%	16%	16%	16%	15%	16%	16%	16%	16%
Costa Rica	10%	10%	10%	12%	11%	10%	15%	15%	13%	13%	13%	13%	13%	13%	13%	13%
Dominican Rep.	6%	6%	6%	6%	6%	6%	8%	8%	8%	8%	8%	8%	8%	8%	12%	12%
Ecuador	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	12%	12%	12%	12%	12%
El Salvador					10%	10%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
Guatemala	7%	7%	7%	7%	7%	7%	7%	10%	10%	10%	10%	10%	10%	10%	10%	12%
Honduras	5%	5%	7%	7%	7%	7%	7%	7%	7%	7%	12%	12%	12%	12%	12%	12%
Mexico	15%	15%	15%	10%	10%	10%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Nicaragua	10%	10%	10%	10%	10%	10%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Panama	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Paraguay				10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Peru	9%	11%	16%	18%	18%	18%	18%	18%	18%	18%	18%	18%	18%	18%	18%	19%
Uruguay	22%	22%	22%	22%	22%	22%	22%	23%	23%	23%	23%	23%	23%	23%	23%	23%
Venezuela					10%	10%	12.5%	12.5%	16.5%	16.5%	15.5%	14.5%	14.5%	16%	16%	16%
	PIT Top Marginal Rate															
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Argentina	45%	30%	30%	30%	30%	30%	30%	33%	33%	33%	35%	35%	35%	35%	35%	35%
Bolivia	10%	10%	10%	10%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
Brazil	25%	25%	25%	25%	25%	35%	35%	25%	25%	25%	25%	27.5%	27.5%	27.5%	27.5%	27.5%
Chile	50%	50%	50%	50%	50%	48%	45%	45%	45%	45%	45%	45%	45%	43%	40%	40%
Colombia	30%	30%	30%	30%	30%	30%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
Costa Rica	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	30%	30%
Dominican Rep.	70%	70%	70%	30%	27%	26%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Ecuador	40%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
El Salvador	50%	50%	50%	50%	50%	50%	50%	50%								
Guatemala	34%	34%	34%	34%	25%	25%	30%	30%	30%	25%	25%	25%	31%	31%	31%	31%
Honduras	40%	40%	40%	40%	40%	40%	40%	30%	30%	30%	30%	25%	25%	25%	25%	25%
Mexico	50%	35%	35%	35%	35%	35%	35%	35%	35%	35%	40%	40%	40%	40%	35%	33%
Nicaragua	50%	50%	50%	35.5%	30%	30%	30%	30%	30%	30%	30%	30%	25%	25%	25%	25%
Panama	56%	56%	56%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Paraguay	30%	30%	30%													
Peru	45%	45%	45%	37%	37%	30%	30%	30%	30%	30%	30%	30%	20%	27%	30%	30%
Uruguay	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Venezuela	45%	45%	45%	30%	30%	30%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%
	CIT Top Marginal Rate															
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Argentina	33%	20%	20%	30%	30%	30%	30%	33%	33%	33%	35%	35%	35%	35%	35%	35%
Bolivia	0%	3%	3%	3%	3%	3%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Brazil	45%	40%	40%	40%	40%	40%	40%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Chile	10%	10%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	16%	16.5%	17%
Colombia	30%	30%	30%	30%	30%	30%	35%	35%	35%	35%	35%	35%	35%	35%	38.5%	36.7%
Costa Rica	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	36%	30%
Dominican Rep.	46%	46%	46%	30%	27%	26%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Ecuador	40%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
El Salvador	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Guatemala	34%	34%	34%	34%	25%	25%	30%	30%	30%	30%	27.5%	25%	31%	31%	31%	31%
Honduras	46%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	25%	25%	25%	25%	25%
Mexico	36%	36%	35%	35%	35%	34%	34%	34%	34%	34%	34%	34%	34%	35%	34%	33%
Nicaragua	35.5%	35.5%	35.5%	35.5%	30.0%	30%	30%	30%	30%	30%	30%	30%	25%	25%	25%	25%
Panama	50%	50%	47.5%	45%	42%	34%	34%	34%	30%	30%	30%	30%	30%	30%	30%	30%
Paraguay	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Peru	35%	35%	35%	30%	30%	30%	30%	30%	30%	30%	30%	30%	20%	27%	27%	30%
Uruguay	30%	40%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	35%	35%
Venezuela	50%	50%	50%	30%	30%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%	34%

Source: Author's compilation using Price Waterhouse Coopers International Tax Summaries and Eduardo Lora's database.

A4. Tax Reforms in Latin America

The following table provides the disaggregated information on the reforms that have been coded in the database. It excludes the changes in rates of the common taxes.

Year	Tax	Description of the Reform	+/-	G/P
Brazil				
1992	Minor/hard to classify	The structure of a surcharge to the CIT has been modified. A progressive 5%-10% scheme was replaced by a flat 10% rate.	+	G
1993	Minor/hard to classify	Starting Jan 1 1993, stock dividend distribution is no longer subject to an 8% withholding tax.	+	G
1993	Minor/hard to classify	Starting Jan 1 1993, the maximum provision for bad debts has been reduced from 3% to 1.5% (1% for financial institutions)	+	G
1993	Minor/hard to classify	Starting Jan 1 1993, taxes, contributions and related costs such as inflation restatement and interest are deductible for tax purposes.	+	G
1994	Financial Transactions	As from Jan 1, 1994, all debit entries made to bank checking accounts are subject to the IPMF at the rate of 0.25%.	+	G
1994	Other taxes	The Social Contribution Tax went up for financial institutions (from 15% to 23%).	+	P
1995	Minor/hard to classify	The surcharge on CIT is now 12% (previously 10%)	+	G
1995	Financial Transactions	The IPMF (Provisional Tax on Financial Transactions) has been eliminated.	-	G
1996	Minor/hard to classify	The surcharge on the CIT is now 10% and above a higher threshold	-	G
1996	Other taxes	Social contribution went down to 8% (18% for financial institutions)	-	G
1999	Other taxes	The rate of the Social Contribution Tax went up to 12% for the period from May 1 to December 31, 1999.	+	G
2001	Administrative Reform	On January 11, 2001, Brazil granted the tax authorities the more powers to inspect records of financial institutions under audit.	+	G
2001	Minor/hard to classify	As from May 25, 2001, Brazilian corporate taxpayers can no longer apply a percentage of income tax liability on certain approved investments.	+	G
2001	Other taxes	The COFINS levied ay 3% and PIS levied at 0.65% are new deductible monthly federal social contributions calculated as a percentage of revenue.	+	G
2001	Financial Transactions	The new CPMF (Provisional Contribution on Financial Transactions) is levied on withdrawals from bank accounts at a rate of 0.38%.	+	G
2001	Financial Transactions	A new Financial Transactions Tax is levied on certain financial transactions at various rates.	+	G
2001	Other taxes	The rate of the Social Contribution is now 9% (previously 8%)	+	G
2002	Other taxes	Technical services are subject to the Contribution to the Economic Intervention Domain (CIDE) at the rate of 10% plus a withholding tax of 15%.	+	P
2002	Minor/hard to classify	The cumulative aspect of the PIS was revoked and the PIS rate was increased from 0.65% to 1.65%	+	G
2003	Financial Transactions	As per Constitutional Amendment 42, issued on Dec 21, 2003, the CPMF was extended until Dec 31, 2007 at the rate of 0.38%	+	G
2004	Other taxes	The cumulative aspect of COFINS was revoked and the rate increased to 7.6%. Importation of goods & services will be subject to PIS & CONFINS.	+	G
2004	Excises and duties	Import taxes have been increased.	+	G
2004	Minor/hard to classify	Services provided by nonresidents to Brazilian entities are now subject to the municipal service tax (ISS) at rates ranging from 2% to 5%.	+	G
Chile				
1991	Minor/hard to classify	The rate on accrued but indistributed income was temporarily raised from 10 to 15% between 1991 and 1993.	+	G
1995	Minor/hard to classify	Employee's contributions to social security are 20.2% (previously 20.5%)	+	G
1996	Excises and duties	Alcoholic and non alcoholic beverages and certain luxury items such as jewels, are subject to additional sales taxes, raning from 13% to 70%.	+	P
2002	Social security	Employee's contributions are now 20% (previously 20.2%)	-	G
2003	Tax incentives	An Investment Platform Law established new rules that exempt corporations with foreign capital from tax on income obtained outside of Chile.	-	G
Colombia				
1990	Minor/hard to classify	The imputed net taxable income is 7% of net assets (previously 8%). Only the greater between this and the income tax is payed.	-	G
1992	Tax incentives	A special contribution is levied on producers of crude oil, natural gas, coal and nickel for calendar years 1992 through 1997.	+	P
1993	Tax incentives	VAT paid on the importation of capital goods can be taken as a credit against the income tax liability in the year the VAT was paid.	-	G
1993	Minor/hard to classify	For fiscal years 1993 to 1997 there is a special surcharge of 25% on the 30% CIT rate which can be taken as a tax deduction.	+	G
1995	Minor/hard to classify	The imputed net taxable income is down to 4%.	-	G
1996	Excises and duties	Remittance tax goes down to 7% from 8%.	-	G
1996	Social security	The employee's contribution to social security will raise from 3.125% to 3.375% in 1996	+	G
1996	Minor/hard to classify	Rates of the Special Contribution Tax were changed in December 1995 and they can no longer be taken as an income tax deduction.	+	G
1997	Excises and duties	As from July 14, 1997, the Stamp Tax rate is 1% (previously 0.5%).	+	G
1998	Minor/hard to classify	As from taxable year 1998, in no case can the income tax liability, be less than 75% of that determined under the presumptive income system.	-	G
2000	Financial Transactions	Law 633/2000 treats de so-called Gravamen a los Movimientos Financieros as a new tax of a permanent character and instantaneous accrual.	+	G
2000	Tax incentives	The special contribution on crude oil and gas is reduced for the 2000 year and will be 0% in 2001.	-	P
2001	Minor/hard to classify	The rate on assets to compare with income tax is up to 6% (previously 5%)	+	G
2001	Other taxes	The Stamp Tax rate is now 1.5% (previously 1%)	+	G

Year	Tax	Description of the Reform	+/-	G/P
Colombia (cont.)				
2003	Minor/hard to classify	The carryforward period for losses in the CIT is extended from five to eight years.	-	G
2003	PIT base	Changes were introduced to the PIT. The percentage of labor income that is exempt has been reduced from 30% to 25%.	+	G
2003	Tax incentives	Effective 2003, new tax exemptions are created for a number of businesses. Investment of dividends or branch profits also have new benefits.	-	P
2003	Tax incentives	VAT paid on the import or purchase of industrial machinery can now be credited against VAT or income tax.	-	P
2003	Excises and duties	The highest rates on motor vehicles have been reduced. The maximum rate was 60% and is now 38%.	-	P
2003	VAT base	Effective 2005, export of services will trigger VAT at 2%	+	P
2004	Administrative Reform	Effective January 1, 2004, transfer pricing rules apply to all taxpayers on both domestic and cross border transactions with related parties.	+	G
Costa Rica				
1996	Excises and duties	Real estate are to be reformed. The tax to be applied is 0.6% and a reappraisal will take place.	+	G
1998	Excises and duties	Each local government is in charge of real estate appraisal. The rate will be 0.25% above CRC 3,789,000.	-	G
2000	PIT base	As of October 2000, the income threshold for individuals to be exempt from income taxes is lowered.	-	G
2002	Minor/hard to classify	The law establishes special regulations for small companies with a progressive scheme including three rates (10%, 20%, 30%)	+	P
2002	Excises and duties	The real estate tax rate has been lowered.	-	G
2003	Excises and duties	The rate of the Franchise Tax was increased from 25% to 27.5%	+	G
Dominican Republic				
1992	Tax Reform	There is a new Tax Code, effective June 1, 1992	+	G
1992	Other taxes	Capital gains are now taxed, at a rate of 30% in 1992, which will be reduced to 27% in 1993, 26% in 1994 and 25% in 1995.	+	G
1992	Tax incentives	The new Tax Code revokes all tax incentive laws (except those for offshore -free-zone- operations for export).	+	P
2000	Tax Reform	Laws 147-00 and 12-01 were enacted on December 27 and 29, 2000, respectively, amending the Dominican Tax Code.	+	G
2001	Minor/hard to classify	Personal allowances have been increased and there is a new bracket table with higher thresholds. This is also adjusted in following years.	-	G
2003	Excises and duties	The maximum excise rate is 80% (previously 60%)	+	P
2003	Other taxes	A minimum CIT is imposed, which is calculated as 1.5% of annual gross revenue.	+	G
2003	Social security	A new social security regime has been implemented, introducing a capitalization system. Employer contribution is now 10% (previously 7%)	+	G
2004	Excises and duties	Minimum excise rate is now 19.5% (previously 5%)	+	P
2004	Other taxes	Effective on January 1, 2004, the minimum tax ceased to be in force. The 1.5% on gross revenue continues to exist as an advance for income tax.	-	G
2004	Other taxes	Laws 01 and 02 of 2004 introduced a Contribución solidaria transitoria (CST) on exported goods and services equal to 5% on the gross earnings.	+	P
Ecuador				
1994	Minor/hard to classify	Distributed profits to stockholders residing abroad now pay the basic 25% instead of 36%. The same applies to branch profits.	+	P
1994	Excises and duties	Minimum excise rate is 20% (previously 5%)	+	P
1995	Excises and duties	Minimum excise rate is 20.3% and the maximum rate is 106% (previously 20-100%)	+	P
1997	Minor/hard to classify	The CIT regime for distributed and reinvested profits of local corporations and branches has changed.	+	G
1997	Excises and duties	There is now a 10% excise tax on vehicles, imported perfumes, crystals, porcelain, furnitures and jewelery.	+	P
1997	Minor/hard to classify	The income thresholds for the application of the progressive PIT rates have been raised, meaning effective tax paid is lower.	-	G
1997	PIT base	Capital gains and investment income have been declared not form a part of the individual's taxable income.	-	G
1998	Excises and duties	Excise rates range from 10% to 75% (previously 20.3-106%). Tax on automobiles is now 5% (previously 10%).	-	P
1999	PIT/CIT base	Income tax was suspended for 1999	-	G
1999	Other taxes	A Financial Transactions Tax was implemented at the rate of 1% on most financial transactions and remittances abroad.	+	G
2001	Excises and duties	There are minor increases in excise rates.	+	P
2001	Financial Transactions	The Financial Transactions Tax is no longer in effect, as it was abolished as of December 31, 2000	-	G
2001	Social security	A new Social Security Law states that individuals under professional fee-based relationships are now required to pay a 20.15% contribution.	+	G
2001	Tax Reform	On May 14, 2001, the tax law was once again amended, and new regulations to the Internal Tax Regime Law (ITRL) came into effect.	+	G
2003	Excises and duties	Telecommunication services are now taxed at 15%.	+	P
2004	Tax incentives	There is an incentive for reinvested profits, which now have a reduced CIT rate of 15%.	-	G

Year	Tax	Description of the Reform	+/-	G/P
El Salvador				
1993	Social security	Employee's contributions have been raised (rates were 4, 2.5, 1% and now are 4.5, 4, 1%)	+	G
1993	Excises and duties	A 5% stamp tax was eliminated.	-	G
1993	VAT Creation	A 10% VAT has been created.	+	G
1994	Excises and duties	The Real Estate Transfer Tax has been lowered.	-	G
1995	Other taxes	The capital tax (on assets) has been removed.	-	G
Guatemala				
1990	Excises and duties	Beginning August 22, 1990, a 2% income tax is withheld from the quetzal amount of goods exported.	+	P
1992	Tax Reform	New tax legislation is effective as of July 1992.	+	G
1992	Excises and duties	The withholding tax on exports is down to 1.5% beginning July 1, 1992.	-	P
1993	CIT base	Capital gains were previously taxed as ordinary income and now are taxed at a flat rate of 15%	-	G
1995	Other taxes	The rate of Annual Business Tax is up to 1.5% on net assets and the maximum limit on the amount to be paid has been removed.	+	G
1995	Social security	The employer social security contributions rate is now 12% (previously 11.3%)	+	G
1998	Financial Transactions	Interest income earned by domiciled persons other than banks is subject to a flat 10% withholding tax.	+	G
2001	Other taxes	The Annual Business Tax is now 2.5% on net assets or 1.25% on gross income, whichever is greater (previously only 1.5% on net assets).	+	G
2001	Social security	Social Security Contributions have changed. Corporations contribute 12.67% (previously 12%). Employees contribute 4.83%.	+	G
2001	Tax incentives	The percentage of total profits that can be deducted from CIT if reinvested is down to 5% (previously 15%).	+	G
2003	Other taxes	The rates of the Annual Business Tax were increased to 3.5% of net assets or 2.25 on gross income	+	G
Honduras				
1995	Other taxes	A net assets tax at a rate of 1% applies to all of a company's assets. The income tax paid the year before constitutes a credit for this tax.	+	G
2004	Other taxes	There is a 5% solidarity tax levied on all companies whose taxable income is in excess of HNL 1 million.	+	G
2004	Tax incentives	There is a new set of tax incentives for the tourism industry.	-	P
Mexico				
1994	Social security	Employee's SS contributions are up from 4.85% to 5.15% and are 5.2% in 1995, 5.25% in 1996.	+	G
1994	Tax incentives	A tax incentive for Mexican owned small industries in sectors of the country outside major metropolitan areas was eliminated.	+	P
1995	Other taxes	There is a minimum tax called tax on assets that is payable only in excess of federal income tax. The rate was lowered from 2% to 1.8%.	-	G
1996	Tax incentives	There are new incentives for the transportation sector; sales with electronic equipment; creation of employment and small taxpayers.	-	P
1997	Minor/hard to classify	The income tax rate applicable to independent personal services performed by a nonresident in Mexico is a flat 21%.	+	G
1997	PIT base	Taxable investment income now includes earnings from investments located in countries considered to be tax havens.	+	G
1998	Tax incentives	A tax credit against income tax is available, equivalent to 20% of the additional investment in relevant R&D.	-	P
2001	Minor/hard to classify	In an effort to increase individual tax compliance, a transitory resolution was passed that limits audits of certain taxpayers.	+	G
2002	Minor/hard to classify	Some items of investment income that were exempt are now included in the tax return, among other changes to returns.	+	G
2002	Excises and duties	The new excise tax law (IESPYS) levies certain items such as gasoline, alcoholic beverages, cigarettes and motor vehicles.	+	P
2002	Other taxes	The new Gross Payroll Tax law establishes a 3% tax payable by employers on total compensation.	+	G
2002	Excises and duties	A 5% tax is imposed on operations with the general public related to the sale, lease and importation of luxury goods and services.	+	P
2002	Other taxes	States are now allowed to impose income tax on individuals and a maximum 3% tax on services, rents and goods sold to the general public.	+	G
2002	Tax Reform	The Congress passed a tax reform including an increase on IESPYS, a new payroll tax and a new tax on luxury goods and changes to income tax.	+	G
2003	Minor/hard to classify	Compulsory profit sharing will become a deductible expense. In 2004, 2005, and from 2006 on, it is deductible at 40%, 80% and 100%, respectively.	+	G
2003	Other taxes	A credit on ISCAS (Impuesto sustitutivo del crédito al salario) is allowed which reduces the individual tax liability.	-	G
2003	Excises and duties	The tax on luxury goods and on certain transactions with the general public was eliminated	-	P
2003	Minor/hard to classify	Some items of investment income that were exempt are now included in the tax return. Other requirements have changed.	+	G
2003	Tax incentives	A tax incentive might be available to taxpayers involved in certain technological R&D. It is a 30% credit on CIT with a maximum amount.	-	P
2004	Tax Reform	A reform contains amendments to the federal tax code, mainly related to residency rules, mergers, derivatives, joint ventures and ruling requests.	+	G
2004	Excises and duties	Excise tax on the sale of mineralized water and on telecommunication services was eliminated. Other changes to IESP were enacted.	-	P
2004	Other taxes	The ISCAS was eliminated in the 2004 tax reform.	-	G

Year	Tax	Description of the Reform	+/-	G/P
Nicaragua				
1991	Tax incentives	New companies may request partial or total exemption of CIT and customs duties for 3-5 years if they are classified as basic, necessary or useful.	-	P
1993	Other taxes	A progressive tax on capital was eliminated.	-	G
1993	Other taxes	A real estate municipal tax of 1% on fiscal value was enacted.	+	G
1993	VAT base	Medicines were exempt of VAT and are now taxed at 5%.	+	P
Panama				
1993	Tax incentives	New incentives for forestation activities and small enterprises are listed.	-	P
1994	Other taxes	Local corporations must pay a 4% complementary tax each year on behalf of their shareholders if no dividends are declared.	+	G
1994	Tax incentives	An incentive for construction of new houses by exempting their cost from real estate taxes for a 5 to 25 year period ended in June 30, 1994	-	P
1998	Tax incentives	A law granting legal stability for investments was enacted Law Nº 54 of July 22, 1998.	-	G
2003	Excises and duties	Special consumer goods such as vehicles, jewelry, firearms, cable and satellite TV and mobile phones are subject to an additional 5% tax.	+	P
2003	Other taxes	The annual company tax and the annual license tax were increased.	+	G
2003	Tax incentives	An exemption from CIT for manufacturing, assembling and specialized services companies established in processing zones was reduced.	-	P
2004	Tax incentives	50% of VAT paid during the fiscal year on the acquisition of goods and services can be applied as credit against CIT, up to 10% of tax payable.	-	G
Paraguay				
1990	Tax incentives	Law 60/90 encourages foreign investments with different incentives.	-	G
1991	Other taxes	The taxation on capital established by Law 68/70 was annulled by Law No 125/91.	-	G
1991	Tax Reform	A new tax law (125/91) has been approved.	+	G
1992	Minor/hard to classify	Income from personal work are exempt from tax in Paraguay except for executives, who are taxed at a top marginal rate of 30%.	-	P
1992	VAT Creation	A VAT substitutes the old sales tax and services tax.	+	G
1993	Other taxes	The 1% real estate tax now has a reduced 0.5% rate for rural property and an additional tax of 0.5% or 1% for large properties.	+	G
1994	Excises and duties	According to Law 125/91, the tax on acts and documents has been partially abolished since July 1, 1994.	-	G
1998	Tax incentives	A Capital Market Law (Nº 1284/98) established incentives for companies listed on the Asunción Stock Exchange.	-	P
1999	Minor/hard to classify	The reduced CIT rate for low income taxpayers has raised from 3% to 4%	+	G
Peru				
1991	Other taxes	The top marginal rate of the Tax on Personal Net Worth is down to 3% from 4%.	-	G
1992	Other taxes	A minimum tax on income has been established, which will be calculated as 2% of net assets adjusted for inflation.	+	G
1992	Tax incentives	An exemption from sales taxes for industrial entities in the jungle, frontier zones, free zones and special treatment zones was suspended.	+	P
1992	Other taxes	The Tax on Personal Net Worth now has a flat rate of 1.5% on the excess over a certain threshold	-	G
1993	Social security	The employee's contribution to the Housing Fund is 9% on a maximum monthly remuneration of S/. 10.800. (1% on a maximum of S/. 8320 in 1992)	+	G
1993	Other taxes	As from 1993, there is no tax on personal equity	-	G
1994	Other taxes	A 2% flat tax on corporations' net equity was eliminated.	-	G
1994	Excises and duties	Excises on luxury goods was lowered from the 10-75% range to the 10-30% range.	-	P
1994	Social security	The contribution to the Housing Fund is down to 3% on total remuneration and is now not deductible in determining taxable income.	-	G
1996	Social security	The contribution to the Housing Fund is now on the employer and is 9% on total remuneration.	+	G
1996	Social security	Employees' contribution to Social Security is up from 6% to either 8% to the private pension fund or 11% to the national pension fund.	+	G
1997	Other taxes	An extraordinary net assets tax was created in March 1997. It was intended to be a one-time levy but it has been extended to December 31, 1998.	+	G
1998	Excises and duties	Excises on luxury goods are now in the 10-45% range, increasing the maximum rate.	+	P
1998	Social security	Contributions to Social Security are now 12% and 15% respectively.	+	G
1999	Other taxes	The rate of the extraordinary net assets tax rate has been reduced to 0.2% and was extended to December 31, 1999.	-	G
2001	Minor/hard to classify	There have been significant changes in the Income Tax legislation, which were effective Jan 1, 2001.	+	G
2002	Excises and duties	Rates on excises to luxury items have increased (from 10-40% to 10-125%)	+	P
2003	Minor/hard to classify	An additional payment in advance of income tax is in place, calculated on the basis of assets and payable in nine monthly installments.	+	G
2003	Minor/hard to classify	Nondomiciled entities are assessed by CIT by applying a rate of 30% on taxable income.	+	G
2004	Excises and duties	Excise rates are now in the 10-100% range.	-	P
2004	Financial Transactions	As of March 2004, a Impuesto a Transacciones Financieras (ITF) at a rate of 0.15% is in force.	+	G

Year	Tax	Description of the Reform	+/-	G/P
Uruguay				
1993	Excises and duties	The rate on gross income of the Tax on Commisions is now 9% (previously 7%)	+	G
1994	Tax incentives	A tax incentive to the Importation of fishing vessels was eliminated.	+	P
1996	Other taxes	The rate of the Capital Tax was reduced from 2% to 1.5%	-	G
1998	Tax incentives	Forestry and citriculture companies are exempt from CIT, and forests and land so employed are exempt from capital and real estate taxes.	-	P
1999	Other taxes	A capital tax now applies to the noncommercial assets of individual taxpayers. It is applied at progressive rates between 0.7 and 3%.	+	G
1999	Tax incentives	There is a new accelerated depreciation regime for industrial machinery and installations, trucks, agricultural machinery and computers..	-	P
2001	Tax incentives	Investment law provides an incentive for manufacturing undertakings. If an investment project is declared promoted, tax benefits are granted.	-	P
2001	Tax incentives	Income derived from the production of software is exempt from income tax for fiscal years ending from January 1, 2001 to December 31, 2004.	-	P
2003	Excises and duties	The rate on gross income of the Tax on Commisions is now 10.5% (previously 9%)	+	G
Venezuela				
1991	Social security	Employer's Social Security contributions are up 2 percentage points.	+	G
1991	Tax incentives	Different tax credits for new investments were granted for a five year period starting September 1, 1991	-	G
1993	Other taxes	A 1% tax on assets is payable only when it exceeds the CIT for that year. New businesses are exempt for the first three years of operation.	+	G
1993	VAT Creation	Effective October 1, 1993, a 10% VAT is imposed.	+	G
1994	Minor/hard to classify	A reform on Income Tax law establishes the concept of taxable unit in order to reduce the effect of inflation on the determination of tax rates.	+	G
1994	VAT base	Beginning Jan 1, 1994, a 15% VAT is levied on luxury goods and services.	+	P
1997	VAT base	The government issued a VAT exoneration for taxpayers developing hydrocarbon projects during the pre-operating stage.	-	P
1999	Financial Transactions	A new tax of 0.5% is levied on each debit/withdrawal from a financial institution.	+	G
1999	Tax Reform	A tax reform amended the income tax law and several other tax laws. Transfer pricing rules apply as of Jan 1, 2000	+	G
1999	PIT base	The 1999 tax reform broadened the territoriality of the PIT and created a dividend tax at a flat rate of 34%, among other changes.	+	G
2000	CIT base	Earnings from agricultural, livestock, poultry, fishing, forestry, companies in certain states and SMEs in industrial parks were exempted from CIT.	-	P
2000	Financial Transactions	Effective April 30, 2000, the Financial Transactions Tax was eliminated.	-	G
2001	CIT base	In 2000, dividends were exempt from tax, regardless of receipient. A 34% dividend tax applies beginning January 1, 2001.	+	G
2001	Tax incentives	Tax rate on income derived from oil and related activities was reduced from 67.7% to 50%.	-	P
2001	Tax Reform	The Organic Tax Code was amended in 2001. The amendment included changes to joint liability, statues of limitations, penalties and procedures.	+	G
2002	Financial Transactions	A Bank Debit Tax will be effective as of March 16, 2002 and until March 15, 2003. The rate is equivalent to 0.75% of each debit or withdrawal made.	+	G
2002	Financial Transactions	The Bank Debit Tax was increased from 0.75% to 1%.	+	G
2004	Financial Transactions	The application of the Bank Debit Tax was extended until December 21, 2004 but the rate was lowered to 0.5%.	-	G

Note: +/- indicates whether the reform is expected to increase (+) or decrease (-) tax revenues. G/P denotes (G)eneral or (P)articular reform.

Source: Authors' formulation based on data compiled from Price Waterhouse Coopers International Tax Summaries.