PUBLIC SECTOR DEFICITS IN LATIN AMERICA:
An assessment of relative fiscal risks

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(Summary)

This document analyzes public sector deficits in Latin America, with particular attention to the case of Colombia. These deficits usually arise from political rigidities in the tax structure, which impedes taxing personal income & wealth at adequate levels or to adopt "universal and homogenous" VAT structures. During the 1990s, these tax rigidities were aggravated by structural reforms that increased expenditures on permanent basis, mainly, as a result of disorganized fiscal decentralization processes dealing with education and social security expenditures.

The years 2003-2007 witnessed a boom of commodity prices that lead to improved economic performances in Latin America (5.5% per-annum on average) and recorded high tax-collections that temporarily hid underlying structural deficits. Latin America showed "partial decoupling" from developed economies during 2007-2008, but fiscal strain has re-emerged during 2009-2010.
We here propose a Fiscal Stance Indicator (FSI) which is composed of four variables: the debt ratio (weighted at 40%), fiscal deficit ratio (25%), fiscal primary position (15%), and years to maturity (20%). Such FSI reveals marked deterioration in the pos-crisis period in the large Latin American countries, with the notable exception of Chile. We also offer some comparisons between Latin America and (core) Euro-zone countries through such FSI.

Classification JEL: Public Debt (H63); Latin America (N26).

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I. Introduction

It was expected that the "Great Recession" (2007-2008) of the developed world had low impact on the emerging markets. After the Asian Crisis (1998-2001), macroeconomic indicators of the developing world had been improving, resulting in higher solvency indicators in the financial sector, lower fiscal deficits, and better possibilities for applying "counter-cyclical" policies. This hypothesis claims that developing countries could "decoupled" their macroeconomic performance from the developed world.

Macroeconomic indicators of Latin American during the pos-crisis period (2009-2010) provide some support for claiming that a "partial decoupling" has taken place. Large Latin American countries showed a real-GDP growth averaged of -1.5% in 2009 against a contraction of -2.4% in the US-economy and -4% in the (core) Euro-Zone; furthermore, it is expected that Latin American growth rebounds up to 5.5% in 2010 in spite of a mild recovery of the US-economy (3%) and the Euro-Zone (1.5%). As for financial performance, banking credit grew 3% in real terms in Latin America during 2008-2009, while in the US-economy the 'credit-crunch" implied a contraction of outstanding loans at the rate of 7% during the same period and at 2.6% in the Euro-Zone. Finally, for the first time in decades, most Latin American countries were able to apply counter-cyclical policies (both fiscal and monetary) which helped in avoiding significant contagion from a recessed developed word.

How has Latin American public sector evolved during the last decade in order to reach a position that allowed for the application of counter-cyclical policies? What is the fiscal stance of the Latin American region in the aftermath of the global crises? In this document, we will attempt to respond to these questions by focusing on the main five economies of the region (Argentina, Brazil, Chile, Colombia and Mexico, all of which represent about 80% of the regional GDP). Section II provides an overview of the fiscal performance of Latin America over the last 25 years, as a background.

Section III is devoted to present an anatomy of structural fiscal imbalances of these countries, decomposing strengths and weakness from the revenue and the expenditure sides. We will show that the "partial decoupling hypothesis" shows a paradox: countries with ample countercyclical fiscal capacity, like Chile and Mexico, ended-up with growth contractions (-1.5% and -6.5% in 2009, respectively), while those with limited fiscal "buffers", like Colombia and Brazil, obtained better growth outcomes (+0.8% and -0.2%, respectively), although recovery is spreading rapidly over the region during 2010-2011. We here propose a Fiscal Stance Indicator (FSI) which is composed of four variables: the debt ratio (weighted at 40%), fiscal deficit ratio (25%), fiscal primary position (15%), and years to maturity (20%). Such FSI reveals marked deterioration in the pos-crisis period in the large Latin American countries, with the notable exception of Chile. We also offer some comparison between Latin America and (core) Euro-zone countries through such FSI.

In Section IV, we compare the fiscal performance of Chile and Colombia and analyze their tax structure fiscal. In the particular case of Colombia, we will argue that fiscal and labor rigidities represent a lackluster that impedes sustainable growth above 6% per-year. Finally, section V provides some concluding remarks. We conclude that, in the context of world financial post-crises and fiscal strains, Latin American exhibits resilience. However, Colombia would still benefit from adopting fiscal and labor reforms that would enable better compliance with Fiscal Responsibility Rules.

II. Fiscal Historical Context: Latin America in the last 25 years

Fiscal deficits in Latin America during the 1990s were driven mainly by tax rigidities, accelerated fiscal decentralization processes, and cash-problems arising from pension transitions from PAYG-systems to fully-funded systems (privately-run). These were clearly the cases of Argentina, Brazil, and Colombia. Up-to a point, such tax rigidities are still present in Mexico and they represent a big

fiscal challenge for the immediate future. Chile, by contrast, has harbored well the transitional "cash-problem" by adopting structural changes that have assured wide VAT and income-tax bases, while reducing non-productive public expenditures.

In the case of Argentina, it has been extensively documented how political and fiscal struggles between the provinces (local governments) and the central government led to mounting fiscal inflexibilities (Torre and De Riz, 2002 p.223-316). The decentralization process generated two related problems. On the one hand, tax sharing with the provinces came to involve close to 35% of central government revenues by 2000-2001. The link between tax revenues and transfers to the provinces have impaired increasing public savings for the long-run, although tax revenues picked-up temporarily during the international boom of grain-prices (1995-1999) and more recently due to improvements in tax-administration (see IMF, 2003a p.18; IMF, 2005).

On the other hand, such transfers generated the so-called "fly-paper-effect" by which education & health expenditures increased on permanent basis. Although hard to prove at the aggregate level, most analysts conclude that the system of tax "earmarking" has induced also laziness regarding local-taxation efforts. The complementary alternative of designing a system that levies a VAT at both the local and the national level still represent a challenge (Bird, 1999 p.17).

When exchange rate and fiscal difficulties erupted (2000-2001), the Government of Argentina forced additional funding through the private-pension funds in order to raise cash to pay-for the pension transition. Furthermore, the Central Bank was forced by the government to reduce "reserve requirements", in order to ease monetary policy at a time when international reserves were being depleted. All these made evident the unsustainability of the "currency-board" arrangement which had artificially fixed the exchange at-par with the dollar since 1991 (IMF, 2003a; IMF, 2005).

In short, the revenue sharing system inflexibility and the difficulties in rising additional tax revenues to honor pension payments (while having a "currency-board") finally lead to floating the Argentinean Peso in late 2001 and triggered one of the largest open public-debt defaults in modern

history. One of the main lessons from this painful episode is that tax-sharing rigidities and overly rigid exchange-rate regimes are a recipe for macroeconomic disasters (Rogoff, 2004 p.65).

Regarding Brazil, the decentralization process was also very complex, especially over the mid-1980s through the mid-1990s. In this case state-banks played a very disruptive role by way of printing their own money in order to complement central government transfers and to fund their local-pension payments. The result was several episodes of hyperinflation and changing systems of foreign exchange arrangements. Finally, a system of flotation was adopted for the Real beginning in January 1999 and successful political arrangements lead the Cardoso Administration to forbid state-banks printing money. All these help in returning to a *de-facto* independent Central Bank arrangement (Fraga, et.al. 2003).

During 2002-2005, Brazil managed to increase tax revenues to levels of 26% of GDP, although generating a complex and anti-technical tax structure, which impairs financial deepening (Giambiagi and Ronci, 2004 p.27; IMF, 2006b). All in all, Brazil avoided public-debt collapse over this period and, by delivering primary surpluses above 4.5% of GDP, the public gross debt/GDP ratio declined to nearly 70%. Furthermore, Brazil announced in late-2004 that recurring programs with the IMF will not be renovated, adopting in tandem a tighter fiscal policy, which lead them to deliver primary surpluses close to 5% of GDP in 2005.

As for Mexico, the post-1995 period has been of economic recovery and the recent oil-price boom has helped in reducing gross public debt just below 45% of GDP by end-2005. The decentralization process has been less traumatic than in other Latin American countries, although the coffee crisis prompted rural guerrilla insurgence in some poor areas. As a result of the NAFTA agreement, the financial sector avoided systemic risks by providing the "maquilla-industry" funding from abroad (IMF, 2003b). However, social-expenditure needs represent great fiscal challenges ahead. In particular, analysts pinpoint the fact that central government tax revenues are rather low, hovering around 11-12% of GDP. The Fox Administration (2000-2006) failed in pushing through Congress the approval of an extension of the VAT-tax-base, while relying temporarily on the win-fall gains

provided by the oil-boom (representing almost 2.5% of GDP annually).

Summarizing, there have been at least three common factors leading to structural fiscal deficits in many Latin American countries, including Argentina, Brazil, Mexico, and Colombia:

- On the revenue side, there exists a political problem in convincing Congress to raise revenues by increasing the VAT-rates or expanding the tax-base. Many of the large Latin American countries have succeeded in increasing income tax, although they continue to only represent about 6% of GDP less than half of the figure observed in Europe (14% of GDP), see Tanzi and Zee (2000 p.13). Personal income rates are perceived as relatively high, so Congress-people are prone to approving tax-brakes for specific pressure-groups, leading to loop-holes that increase tax-evasion. Certainly, tax-bases are subject to great improvement if exemptions are reduced.

- On the expenditure side, one salient feature of the 1990s was fiscal decentralization deepening, which had been introduced in the early 1980s. However, this was done by means of increasing the central government revenue sharing with the local governments, which generated mounting inflexibilities for the expenditure side of the public balance. This problem has been especially acute in Argentina and Colombia, where revenue sharing have been fluctuating between 30-40% of central government tax-revenues.

- Finally, these fiscal difficulties have been aggravated by "cash-requirements" from the central government as a result of the pension-transition from the PAYG into a fully-funded private system. The overall result has been structural budget deficits close to 5% of GDP at the level of central governments and close to 3% for the Consolidated Public Sector, in the cases of Argentina, Brazil, and Colombia.

III. An Overview of the Fiscal Structure in Large Latin American Countries

A. The Revenue Structure

Table 1 presents a summary of the Non-Financial Public Sector (NFPS) income and expenditure structure in large Latin American countries (selected years). Year 2003 depicts the initiation of the recovery cycle in most of the region; year 2008 reflects tax collections at the peak of the cycle (after the boom of 2003-2007), and year 2009 captures part of the downside caused by the international crisis of 2007-2008.

Total revenues have been fluctuating significantly in Argentina, showing and upward trend from 25.9% of GDP in 2003 to 33.9% of GDP in 2009. About half of these revenues increases stem from tax collections (passing from 20% to 24-25% of GDP) and the other half shows at the level of social security contributions (increasing from 3.1% of GDP to 6.7% of GDP), where a significant amount of private-fund resources were forced into the public sector (PAYGO). In spite of the political turbulence, improved tax administration and higher tax rates on the agricultural sector have produced these significant increase in the total fiscal revenues of Argentina over the last decade.

Colombia and Mexico show total fiscal revenues relatively stable during 2003-2009. In the case of Colombia, total revenues have been hovering around 27% of GDP, but this apparent stability masks an increase of tax collections from 15% to 19% of GDP, which is compensated by a decline of non-tax resources from 10% to 5% of GDP. This declined in non-tax resources is explained, in turn, by the removal of important public enterprises from the public accounts, including the case of Ecopetrol (the state oil company, beginning in 2008, after a 10% private sector capitalization). Mexico, by contrast, shows a decline in tax collections from 11.8% down to only 9.4% of GDP, which is compensated by a non-tax revenue increase from 11.6% to 14.2% of GDP, mainly attributed to Pemex (the state oil company, which benefited from the oil boom of 2007-2008).

Total fiscal revenues of Chile show stability when comparing the 34.5% of GDP obtained in 2003

with the 36.7% of GDP registered in 2009. However, it is worth noting the historical peak of total revenues obtained in 2008, at 44.8% of GDP, as a result of the commodities' boom (which tripled copper prices). Such a boom increased tax and non-tax revenues. The Copper Stabilization Fund of Chile allowed for savings of nearly US$12 billion (7% of GDP of 2009), which represents about half of the estimated damages caused by the terrible earthquake of early 2010.

Finally, fiscal revenues in Brazil show a decline from 44.7% of GDP in 2003 to 36.2% of GDP in 2009. In this case tax collections describe relative stability (fluctuating between 25% of GDP in the booming years and 23% in the recession), but non-tax revenues halved from 13.8% to 7.1% of GDP as important public enterprises (such as PetroBras, beginning in year 2004), were also removed from the fiscal accounts.

Total tax collections in Latin America averaged around 20% of GDP during the 2000-2009 period, where central government administrations collected 16%-17% of GDP and local taxes about 3%-4% of GDP. Large Latin American countries, shown in Table 1, report tax collections fluctuating between 15% and 26% of GDP over the 2003-2009 cycle, with the exception of Mexico's hovering at the low levels of 9.4%-11.8% of GDP. During 2009, the government of Mexico proposed to Congress a fiscal package aimed at collecting additional 1.4% of GDP. However, Congress approved tax reforms that should increase tax revenues in about 0.9% of GDP as a result of: 1) a new 2% sale tax, motivated in Congress as resources needed to help combating poverty; 2) a temporary increase in the maximum income tax rate (from 28% to 30%); 3) fewer tax-brakes for corporate income taxes; 4) an increase in the banking deposit tax (from 2% to 3%); and 5) increases in several excise taxes (including alcohol and telecommunications). Very likely, Mexico will continue to rely on non-tax resources (mainly from oil) and has lost a historical opportunity to shape up its tax structure.

The level of social security contributions (to public entities) also varies among the large countries of Latin America. Argentina has increased them from 3.1% of GDP in 2003 to 6.7% of GDP in 2009, as a result of the intervention of the private-pension-funds system (as already explained). In the

case of Brazil, such contributions have remained at relatively high levels (5.3%-5.8% of GDP) since the PAYGO-system has not been reformed in a significant manner. Chile closed its PAYGO-system to new entrants in the early 1980s, so social security contributions have remained constant at the level of 1.5% of GDP. Colombia and Mexico also open the privately run system of individual accounts during the mid-1990s, but left open the PAYGO-system to new entrants. In the case of Colombia, there has been a reversal movement towards the PAYGO-system as benefits still surpassed those of the private-accounts (Clavijo, 2009). This is reflected in an increase of social security contributions to public entities from 2% of GDP to 2.8% of GDP during 2003-2009 (the ratio of Contributors/Economically Active Population has remained constant at 27%). Data for Mexico in this regard cannot be tracked properly but implicit calculations show also a slight increase from 2% of GDP to 2.5% of GDP over the same period.

Table 1: Fiscal Structure in Latin America: Selected Countries
(NFPS, % of GDP)

	Argentina *			Brazil **			Chile *			Colombia **			Mexico ***		
	2003	2008	2009	2003	2008	2009	2003	2008	2009	2003	2008	2009	2003	2008	2009
I. Total Revenue	**25,9**	**33,4**	**33,9**	**44,7**	**36,6**	**36,2**	**34,5**	**44,8**	**36,7**	**27,0**	**26,6**	**27,0**	**25,4**	**23,6**	**23,6**
Tax	20,0	25,4	24,3	25,6	25,2	23,3	20,6	26,1	19,7	15,1	19,3	18,9	11,8	10,0	9,4
S.Security Contrib.	3,1	5,2	6,7	5,3	5,7	5,8	1,5	1,4	1,5	2,0	2,7	2,8	2,0	na.	na.
Non-Tax	2,8	2,7	2,8	13,8	5,7	7,1	12,4	17,3	15,5	10,0	4,6	5,3	11,6	13,6	14,2
II. Total Expenditure	**31,9**	**33,6**	**37,8**	**49,9**	**38,6**	**39,6**	**34,4**	**31,6**	**36,4**	**29,8**	**26,5**	**29,7**	**28,7**	**23,7**	**25,9**
Operational	10,3	14,9	16,5	26,6	22,9	24,5	22,0	14,6	17,4	9,3	10,4	10,9	14,5	12,6	13,1
Transfers	9,2	12,0	13,1	10,9	6,9	7,2	7,1	10,7	12,0	8,9	7,5	9,3	6,0	4,8	5,5
Social Security	5,2	6,3	7,3	7,1	6,9	7,2	5,4	4,6	4,9	6,1	6,7	7,6	na.	2,1	2,4
Other	4,0	5,7	5,8	3,8	na.	na.	1,7	6,1	7,1	2,9	0,8	1,7	na.	2,7	3,1
Interest	10,9	3,0	4,1	9,6	6,1	5,4	1,2	0,5	0,5	4,2	3,5	3,3	2,7	1,9	2,2
Investment	1,5	3,8	4,1	2,8	2,7	2,5	4,1	5,8	6,5	7,4	5,1	6,2	5,5	4,4	5,1
Deficit (-), I - II	**-6,0**	**-0,3**	**-3,9**	**-5,2**	**-2,0**	**-3,3**	**0,1**	**13,2**	**0,3**	**-2,8**	**0,1**	**-2,7**	**-3,3**	**-0,1**	**-2,3**
Primary Balance	**4,9**	**2,7**	**0,2**	**4,4**	**4,1**	**2,1**	**1,3**	**13,7**	**0,8**	**1,5**	**3,6**	**0,6**	**-0,6**	**1,8**	**-0,1**
Memo:															
Territorial Transf.	6,1	8,1	8,9	2,6	4,5	3,0	0,2	0,7	0,7	4,6	4,0	4,0	3,3	7,3	7,7
Gross Public Debt/GDP	138,8	48,8	48,8	53,5	55,0	63,5	33,4	19,2	22,0	58,6	42,8	45,8	24,9	27,0	32,9

* Consolidated Public Sector

** Consolidated Public Sector excluding Petrobras in Brazil and EcoPetrol in Colombia

*** Data refer to non-financial public sector, including PEMEX and other public enterprises but excluding state and local governments.

Source: Our computations based on IMF staff estimates and Central Banks Statistics.

In summary, we observe that large Latin American economies exhibit intermediate levels of fiscal revenues, showing an average of 32% of GDP over the last decade. These revenues were smaller than the average of the (core) Euro-zone (45%), but yet larger than the US-economy (30%). As of 2009, the total revenues of Chile (37% of GDP), Brazil (36%) and Argentina (34%) were relatively "high" within the region, while those of Colombia (27%) and Mexico (24%) were "moderated". As discussed, these variations stem mainly from non-tax resources, as the tax revenues/GDP ratio hovers between 19%-24% in 2009, with the exception of Mexico (9%). In Latin America, the so called "tax-war" between sub national levels and the national level (Bird, 1999) has inclined in favor of the national level where income tax and VAT respond for about two thirds of central government collections and local taxes concentrate on property, automobile, gambling, liquor, and tobacco taxes. In the US-economy the tax/GDP ratio is not only higher that in Latin America (28% vs. 20%), but local taxes play a more important role (10% vs. 4%); in the (core) Euro-zone that is also the case with total taxations (39% vs. 20%) and local taxation (12%-15% vs. 4%).

B. The Expenditure Structure

The size of the public sector measured by the ratio of total expenditures of the NFPS/GDP was relatively high in the cases of Brazil (40%), Argentina (38%), and Chile (36%) by end-2009. Colombia (30%) and Mexico (26%) were in the moderate range, as shown in table 1. The operational expenditures were driven by the large public companies, standing at high levels in Brazil, Argentina and Chile (in the range 17-25% of GDP). Again, in the cases of Mexico and Colombia were lower (10-13% of GDP).

Total transfers were determined by social security expenditures, which are relatively high in the cases of Brazil, Argentina, and Colombia (7%-8% of GDP) due to the effect of the PAYGO-system. Although the system of private pension funds was introduced in the mid-1990s in Argentina and Colombia, there is now a "reversal movement" towards the public sector that entails additional public funding (Clavijo, 2004; 2009). By contrast, Chile began a successful "transitional"

period in the early 1980s (Diamond and Valdez-Prieto, 1994), after closing the PAYGO-system to new entrants, and has now stabilize social security transfers at the level of 5% of GDP per-year.

Interestingly, at the level of this consolidated structure of the NFPS-accounting, the revenue-sharing pressure does not appear explicitly: territorial expenditures are disseminated in different items (wages, social expenditure, investment). In order to pinpoint this revenue-sharing problem, we have added transfers made by the central government to territorial entities (memo-line of Table 1). Note that such transfers are high in the cases of Argentina and Mexico, representing 8%-9% of GDP or 35-40% of central government taxes. In the cases of Brazil and Colombia such territorial transfers are lower at 3%-4% of GDP or 20-30% of central government taxes. But in these countries such territorial transfers represent a highly inflexible budgetary-item, since such territorial transfers are "protected" at the level of Constitutional mandates or Laws requiring qualified majorities.

As a result of the Asian crises (1997-1999), Argentina, Brazil, and Colombia faced difficulties in honoring such territorial transfers during the early 2000s and several Constitutional reforms were adopted to smooth overtime such obligations. In some cases they were delinked from central government tax collections, but they were indexed to real growth parameters, yet entailing extra-efforts in times of economic recession. Chile has been the exemption in avoiding the difficulties of fiscal decentralization, having in favor a large concentration of population in the capital (Santiago) and vicinities (Clavijo, 1995).

In short, fiscal decentralization has been demanding for most large Latin American countries due to their high-revenue sharing and its budgetary inflexibility. Instead of linking territorial transfers to central government tax revenues, it seems a superior approach to make available resources to territorial entities on *pari passu* basis with regards to education and health requirements. In parallel, territorial governments should increase their local taxation (avoiding "tax laziness"), particularly to cope with local infrastructure requirements, and assure better allocation of resources (IMF, 2009).

By end-2009, the ratio of total outstanding public debt/GDP was 63% in Brazil, 49% in Argentina,

and 46% in Colombia. Argentina defaulted in most of its public debt after the 2001-2003 crises, when reaching a ratio of indebtedness close to 140% of its GDP; Brazil has been struggling to maintain primary surplus above the 3% of GDP in order to contain debt increases, and Colombia has managed to stabilized its debt ratio by running consolidated primary surpluses close to 1% of GDP in recent years. In 2009, interest payments on public debt amounted to 5.4% in Brazil, 4.1% of GDP in Argentina, and 3.3% in Colombia. By contrast, Chile and Mexico exhibited low public indebtedness, at 22% and 33% of GDP (respectively) and low interest payment obligations, of 0.5% and 2.2% of GDP (respectively).

Territorial transfers and social security expenditures have been associated with consumption activities (i.e. increases in wage obligations for teachers, health-workers and pension payments). Hence, structural increases of public expenditures are usually associated with compression of public investment. This seems to be the case of Brazil where total public investment has declined from 2.8% of GDP in 2003 to 2.5% of GDP in 2009; a similar trend appears in the case of Colombia (from 7.4% down to 6.2%). Public investment, however, has increased in Argentina and Chile, while in Mexico has remained rather stable. Very likely re-construction works will soon boost public investment in Chile above the current level of 6.5% of GDP.

In summary, most countries of Latin America opened fiscal room through the reduction of interest payment obligations during 2003-2009, but it was used in attending social security and territorial obligations, rather than in providing badly needed public infrastructure. For instance, in Colombia the reduction of 0.9% of GDP in interest payments was compensated by an increase of social security expenditures in as much as 1.5% of GDP. Public investment was curtailed by almost 1% of GDP. In Mexico, the interest rate room was occupied by increases in territorial transfers. Finally, in Argentina the debt default implied a significant fall in interest payments (-6.8% of GDP); such room was used by increases in social security expenditures (+2.1% of GDP), territorial transfers (+2.8% of GDP) and also in operational expenses (+6.2% of GDP).

C. Primary Balance, Fiscal Deficits and Counter-Cyclical policies

In order to judge the current fiscal effort in avoiding the increase of public debt, it is useful to compute the primary surplus (i.e. fiscal deficit before interest payments). Table 1 illustrates how Chile has been delivering significant primary surpluses, especially during periods of favorable terms of trade (as much as 13.7% of GDP in 2008). This was also the case of Brazil (4.1% of GDP in 2008) and Colombia (3.6% of GDP in 2008); and to a lesser extend the case of Mexico (1.8% of GDP in 2008).

In 2009, all those economies were affected by the world crisis, so primary surpluses reduced significantly and pressed upwards the ratio of outstanding public debt/GDP. But, as previously explained, those debt ratios are still in thresholds (22% through 63% of GDP) that make them dynamically stable under reasonable rates of economic growth (4%-6% per-year) and real interest rates (3%-5% annually).

In the post-crisis of 2009, Latin American economies have shown a partial decoupling from the developed world by growing at -1.5% (on average), as the US-economy contracted 2.4% and the (core) Euro-Zone by 4%. Furthermore, it is expected that Latin American growth rebounds up to 5.5% in 2010 in spite of a mild recovery of the US-economy (3%) and the Euro-Zone (1.5%). As for financial performance, banking credit grew 3% in real terms in Latin America during 2008-2009, while in the US-economy the ‘credit-crunch” implied a contraction of outstanding loans at the rate of 7% per-year during the same period and at 2.6% in the Euro-Zone. This situation allowed most Latin American countries, for the first time in decades, to apply counter-cyclical policies (both fiscal and monetary) which helped in avoiding significant contagion from a recessed developed word.

Chile and Mexico adopted significant counter-cyclical packages through fiscal stimulus and relaxation of the monetary policy stance (ECLAC, 2009). Table 2 illustrates the magnitude of those packages. In the case of Chile, it amounted to 2.8% of GDP of additional expending focused on: 1)

support for social housing programs (including rebuilding); 2) additional infrastructure programs; and 3) subsidies for poor households and tax-brakes to firms involved in additional investment programs. Damages caused by the earthquake of January-2010 in Chile have been assessed at US$30 billion. The Government of Chile has announced the use of their US$12 billion savings and additional indebtedness to rebuild the affected areas. Mexico's counter-cyclical package entailed additional spending for 1.5% of GDP. This package also focused on infrastructure projects, job creation, and support for the Small-Medium Enterprises.

However, as mentioned before, Chile was unable to fully counterbalance the terms of trade deterioration and experienced a real-GDP contraction of 1.5% during 2009. Mexico experienced a pronounced real-GDP contraction of 6.5% as several problems coincided over 2009: i) the pandemia of AH1-N1 that hurt local activities and the tourist sector; ii) the direct contagion stemming from weak NAFTA-trading; and c) the aggravation of the drug-trafficking war; all these problems threatened (at some point) the status of "investment grade".

Table 2. Quantification of the Counter-cyclical policies in Latin America

Country	Counter-cyclical package (% GDP)	Economic Growth Rate	
		2009 (Obs)	2010 (Pr)
Chile	2,8	-1,5	5,0
Mexico	1,5	-6,5	5,0
Brazil	0,8	-0,2	7,0
Colombia	0,1	0,8	4,3

Source: Ministry of Finance of each Country, ECLAC, IADB and IMF.

Brazil and Colombia had available much less fiscal room to adopt ambitious countercyclical policies. Brazil provided tax alleviations amounting to 0.8% of GDP, while Colombia focused on housing programs for the poor that entailed only 0.1% of GDP of additional spending (see Table 2). Hence, in these two countries monetary policy was the main driver in counterbalancing the impact of the world recession; the Central Bank of Brazil reduced its repo-rate (SELIC) by 500 basis points

over the cycle and the Banco de la Republica de Colombia by 700 basis points. In the case of Brazil, the monetary counter-cyclical policy was reinforced by significant credit expansions which involved public banks as well.

This "partial decoupling hypothesis" shows then a paradox: countries with ample countercyclical fiscal capacity, like Chile and Mexico, ended-up with growth contractions (-1.5% and -6.5% in 2009, respectively), while those with limited fiscal "buffers", like Colombia and Brazil, obtained better growth outcomes (+0.8% and -0.2%, respectively).

However, year 2010 flags a general recovery for Latin America with expected average growth close to 5.5%, after experiencing a contraction of 1.5% in 2009. Argentina, Chile, Colombia, and Mexico will growth at rates close to 5% (near their potential rates). Brazil and Peru will lead growth at rates near 7%-8%. However, in these latter cases growth seems to be above its long-term potential, so some actions (including a more restrictive monetary policy and capital controls) have been taken to avoid "overheating" and "financial bubbles".

Brazil shows a robust and diversified economy with financial and capital deepening. In fact, foreign capital controls have been used (2006-2007 and again in 2009-2010) to avoid excess asset valorizations (see table 3). Brazil is organizing the Football World cup of 2014 and the Olympic Games of 2016 which entail investments close to US$14 billion. Such events provide an international setting that spurs growth for Brazil and in Latin America, but also call for economic prudence to avoid economic excesses. Brazil still has pending a public agenda of reforms which should tackle subsidies in the PAYGO-system, size of an enlarging civil service, and, in general, a public debt ratio that has been increasing in recent years.

Table 3. Progress and Risks in Brazilian Economy

Progress	Risks
* Robust Economic and Financial Flexibility.	* Lack of Reform to Public Sector Pension System.
* Short-lived contraction of GDP.	* Bureaucracy.
* Minimal weakening in its International Reserves.	* No Efficiency Gains.
* International Visibility.	* Worsen of Debt Ratio.

Source: Our elaboration based on International Analysts.

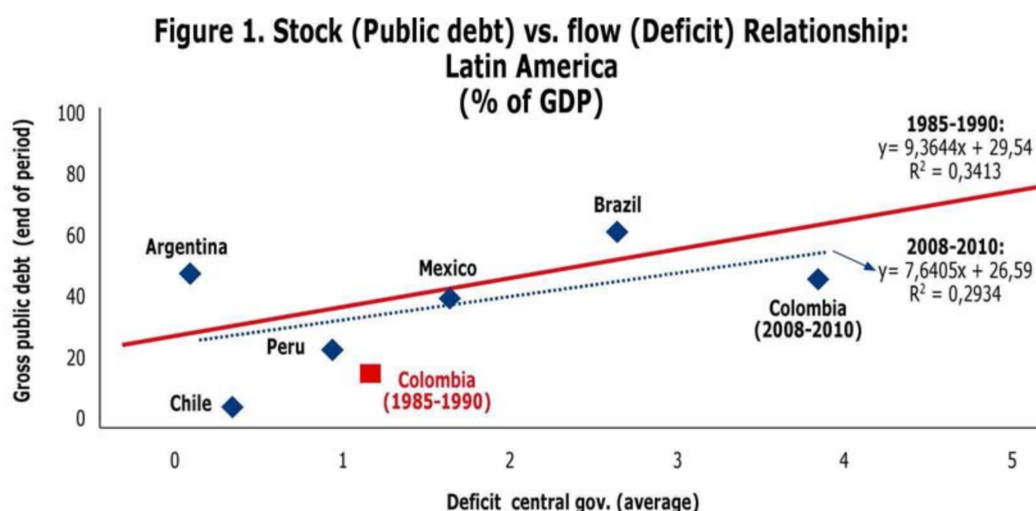
In spite of the positive manner in which Latin America managed to partially decouple from the developed world during 2008-2009, there are still risks ahead. Argentina faces fiscal deficits close to 1% of GDP at the NFPS level during 2010-2011 and its debt ratio will be rising to 50% of the GDP. Brazil and Colombia have been struggling with relatively larger fiscal deficits, hovering around 3%-4% of GDP. In fact, primary surpluses will not be enough to avoid increases in debt ratios, which are forecast to reach 46% of GDP in the case of Colombia and 65% of GDP for Brazil by end-2011. Mexico will be facing fiscal deficit of 2.5% of GDP and its public debt ratio will reach 40% of GDP (see figure 1).

Argentina, Brazil, and Colombia would do well in implementing fiscal reforms to boost revenue and control expenditures, especially confronting fiscal decentralization challenges and pension transitions. Chile has shown the road to fiscal stability by instituting a de-facto fiscal rule that (adjusted by the cycle) resulted in a fiscal surplus of 1% of GDP (Marcel, et.al. 2001 p.8-10). Such fiscal rule was adjusted to aim at a surplus of 0.5% of GDP during the economic downturn of 2008-2010. Yet, the fiscal performance of Chile is likely to deteriorate to 3% of GDP during 2010-2011 in light of rebuilding requirements spurred by the earthquake damages (previously commented).

D. Latin America Fiscal Performance in Perspective

Figure 1 illustrates the relationship between the public debt ratio and the fiscal deficits in large Latin American countries. During the 1985-1990, panel data reveals a correlation of nearly 0.34

between stocks and fiscal flows. Such figure could be interpreted as meaning that an additional percentage point of debt stock could press upwards the fiscal deficit of a given year by 0.34 (mainly through interest payment obligations). Interestingly, such correlation has diminished to 0.29 over the recent period of 2008-2010 as fiscal performance of the region has improved. However, note that in the case of Colombia the average debt ratio has increased from 18% in 1985-1990 up to 40% of GDP during 2008-2010 and the average fiscal deficits has also increased from 1.2% up to 3.8% of GDP.



Source: Our computations based on EIU, ECLAC, IMF and Central Banks of each country.

Assessing debt sustainability entails the analysis of several indicators. We here attempt to summarize into one single indicator the current fiscal stance of large Latin American countries. Our Fiscal Stance Indicator (FSI) is composed of four variables: the debt ratio (weighted at 40%), fiscal deficit ratio (25%), fiscal primary position (15%), and years to maturity (20%), where weights were the result of trial/error exercise for better capturing historical fluctuations (back-testing exercises). The stance of each variable was translated into a scale of 0 minimum default risks and 5 maximum risks. We create several categories of those risks according to table 4.

Table 4. Fiscal Stance Indicator (FSI) Components

1. Public Debt/GDP (Weight: 40%)

	Range (% of GDP)		Index Value
High (higher than)	80	---	5
Medium High (between)	60	80	4
Medium (between)	40	60	3
Medium Low (between)	25	40	2
Low (between)	10	25	1
Very Low (between)	0	10	0

2. Fiscal Balance /GDP (Weight: 25%)

	Range (% of GDP)		Index Value
Very High (higher than)	-7	---	5
High (between)	-7	-5	4
Medium High (between)	-5	-3	3
Medium Low (between)	-3	-2	2
Low Deficit (between)	-2	0	1
Low Surplus (between)	0	2	0,5
High (higher than)	2	---	0

3. Primary Balance Position (Weight: 15%

	Range (% of GDP)		Index Value
Very High (higher than)	-6	---	5
High (between)	-6	-4	4
Medium High (between)	-4	-2	3
Medium Low (between)	-2	-1	2
Low Deficit (between)	-1	0	1
Low Surplus (between)	0	1	0,5
Medium (between)	1	2	0,2
High (higher than)	2	---	0

4. Maturity Average of Debt (Weight: 20%)

	Years to maturity		Index Value
Very Inadequate (between)	0	2	5
Inadequate (between)	2	3	4
Slightly Moderate (between)	3	5	3
Moderate (between)	5	6	2
Adequate (between)	6	8	1
Very Adequate (higher than)	8	---	0

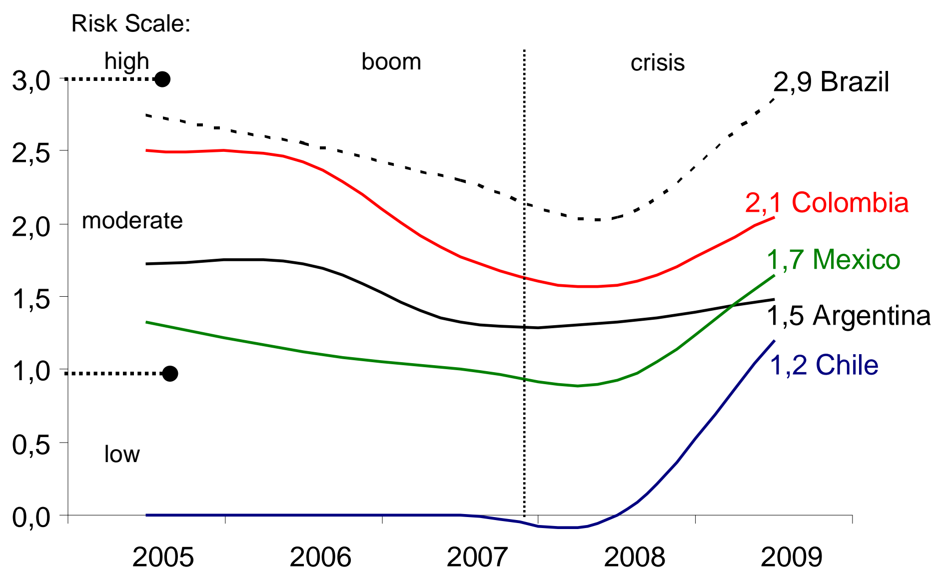
Source: Own elaboration

Figure 2 illustrates the trajectory of the FSI during 2005-2009, where the thresholds of debt risk have been established at the categories of: low risk in the range 0-1, moderate risk 1-3, high risk 3-4, and very high risk 4-5. During the booming years (2005-2007), the FSI of Brazil decline from 2.8 to 2.4 moving towards the mid-range within the category of moderate risk. However, as a result of the world crisis contagion, the FSI of Brazil has increased back to the level of 2.9 risking moving from the moderate range to the high category.

A similar trajectory is described by Colombia, Mexico, and Argentina (after this latter country defaulted in 2001), but these countries ended-up close to the mid-point of the moderate risk category by end-2009. By contrast, Chile's FSI remained close to zero through-out 2005-2008. Due to the changes in the terms of trade and the impact of the international crisis, by end-2009 the FSI of Chile had moved to the ceiling of the low risk scale, due mainly to changes in debt flow parameters rather than in the stock of debt.

It is worth noting that this FSI not necessarily coincides with the rating agencies categories (i.e., investment grade vs. speculative grade) since the FSI does not take into account the history of debt defaults and other important institutional factors. It simply summarizes in one "scalar" key public debt variables (stocks and flows) and eventually helps analyzing debt dynamics. For instance, Brazil is currently close to the high risk level according to our FSI and yet has full-investment grade (all rating agencies show Brazil in that category). Colombia scores lower in the FSI, but does not have investment grade; Argentina recently pulled-out of the default category in the rating agencies scales, but yet scores lower than Colombia due to the fact that its debt ratio was cut from about 130% of GDP down to 45% by way of defaulting in 2001.

Figure 2. FSI: Fiscal Stance Indicator
Latin America (minimum 0 , maximum 5)



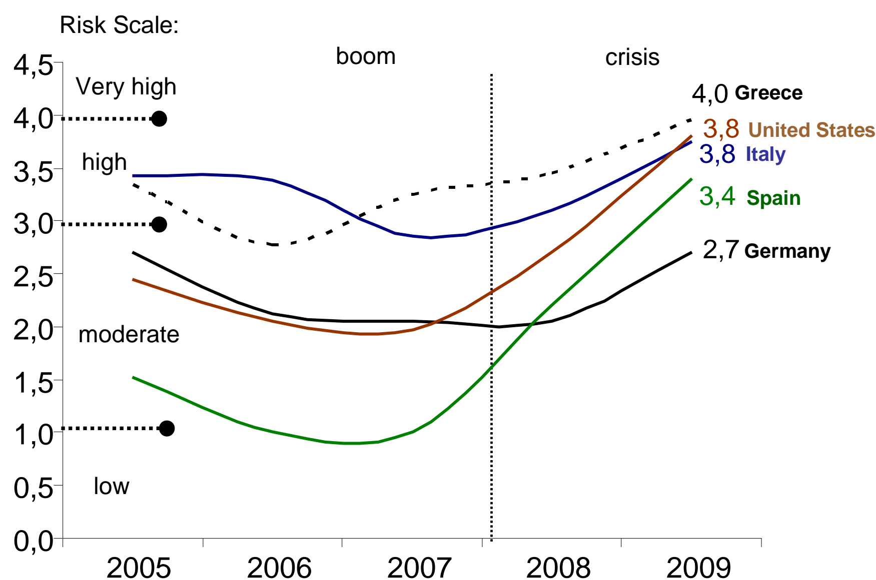
Source: Our Computations based on IMF, EIU and Central Banks of each country

How does this FSI fares when comparing public debt behavior of Latin America with that of the (core) Euro-zone? Figure 3 illustrates that Greece shows a FSI decreasing slightly from the mid-point of the high scale (at 3.5) in 2005 down to the ceiling of the moderate risk scale (at 2.8) in 2006, using IMF´s fiscal information. However, during 2007-2009, Greece's FSI shows continuous deterioration until reaching the floor of the "very high" category (at 4.0). Then, this FSI properly captures the fiscal crises generated in Greece in late 2009 and early 2010 (IMF, 2010b).

United States, Italy, and Spain show a similar trend, reducing the FSI during 2005-2007, but exhibiting deterioration over 2008-2009. Spain shows the worst deterioration, passing from low risk (at 1.0 in 2007) to almost the mid-point of the high risk category (at 3.4 by 2009). The US-economy also reveals a significant deterioration (from mid-point of moderate risk in 2006 almost to the ceiling of the high risk category). Italy remained all this time in the high risk category, passing from mid-point to floor and then reaching almost the ceiling by end-2009. Finally, Germany's FSI

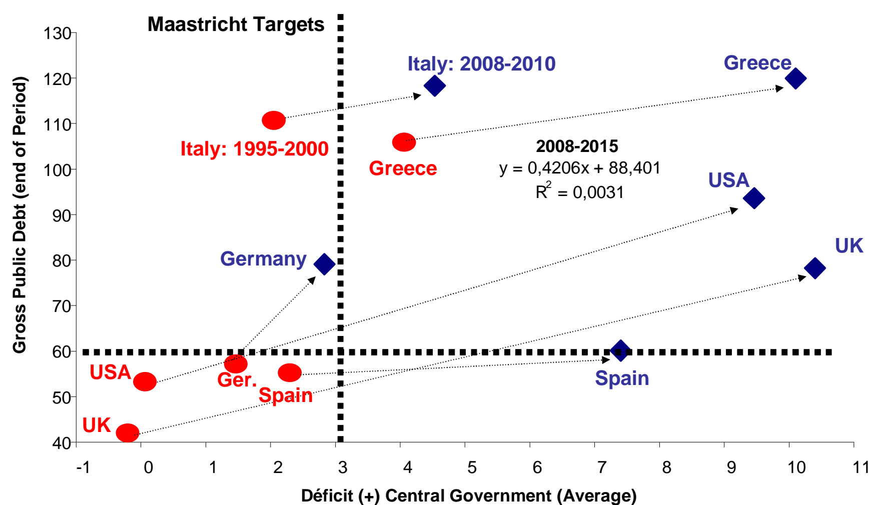
describes a moderate "U-shape" within the moderate risk category, closing at 2.7 in 2009 (a few "notches" below the high risk category).

The question arises about how to interpret the absolute values of the FSI when comparing emerging market with developed economies? For instance, a relatively solid and "investment grade" economy like Germany shows a value of 2.7 by end-2009. But a relatively weak and "non-investment grade" economy like Colombia shows a lower value of 2.1 by end-2009. Face-value, the FSI pinpoints higher fiscal strengths for Colombia than Germany. The key difference stems from the confidence that generates a large economy with investment grade like Germany, all of which facilitates the roll-over of its public debt at the global level. Both countries currently show about 6 years to debt maturity on average, but very likely Colombia will face more difficulties in rolling her debt under global turbulence than Germany. In any event, both Germany and Colombia will need to adopt fiscal adjustments to avoid moving from the moderate risk category into the high risk category in the near future.



Finally, Figure 4 illustrates the historical correlations between the stocks of public debt and the fiscal deficits in some developed economies. The US-economy and (core) Euro-zone economies have passed from low public debt ratios and low fiscal deficits during the 1990s to relatively large debt ratios (in some cases three digit figures) and large deficits (greater than 4% of GDP). In the 1990s, most European countries achieved Maastricht fiscal targets (debt ratios below 60% of GDP and deficits lower than of 3% of GDP) with the exception of Greece and Italy (figure 4). But after the "Great Recession" of 2008-2010 such targets stop being fulfilled. Economic deceleration and the need to apply counter-cyclical packages caused fiscal deterioration in those economies, where there is no apparent correlation between the level of debt ratios and fiscal deficits.

Figure 4. Stock (Public Debt) vs. Flow (Deficit) Relationship: Europe and United States
(% of GDP)



Source: Our Computations based on OECD, Eurostat and IMF.

IV. The Fiscal Structure of Colombia and Required Reforms

The fiscal evolution of Colombia over the 1990s-2000s can be summarized as follows:

1. *A rapid and disorganized fiscal decentralization*, leading to revenue sharing that compromised close to 40-50% of the central government's resources. There is some evidence that this revenue sharing arrangement induced "tax laziness" at the territorial level and a "fly-paper" effect on educational and health expenditures. Only in recent year, lead by Bogotá (the Capital city) and Medellin, gasoline, property, and automobile taxes have increased significantly, allowing main cities to modernize massive transportation and provide better education & health services. After the 1996-1999 territorial fiscal crises, Law 617 was instituted in 2000 to control operational expenditures and restrict territorial indebtedness (nation-wide). Different mechanisms were deployed to allow for voluntary internal debt work-outs between local authorities and the financial sector (US Chapter-11 type of arrangement). Education and health care expenditures gained efficiency after Law 715 of 2001, in which territorial transfers emphasized allocation according to a "capitation" scheme, a clear improvement with respect to Law 60 of 1993. More details in Wiesner (2003 p.41-53).

2. *A system of national "bail-outs"* regarding energy crisis (especially during 1992-1997) and a pension transitions (1993 onwards), as commented before. The pension transition has implied an additional cash-effort of nearly 2% of GDP, after the depletion of PAYGO reserves during 2000-2004; yet the potential pensioners only comprise about 25% of the working population (Clavijo, 2009). The outcome has been a regressive social expenditure structure with high pay-roll taxes on behalf of the firms, all of which induces high labor informality (at 50%) and high structural open unemployment (at 12%). See World Bank (2010).

3. *Increasing military expenditure*, to combat insurgency and narcotrafficking. Total military

and police expenditure currently comprises about 3.5% of GDP. About 0.7% of GDP of additional funding has been provided through the "wealth-tax" (2002-2010 and recently extended to 2011-2014) and about 0.5% of GDP through the so-called Plan Colombia (2001-2009, now phasing-out).

As a result of these pressures, central government gross public debt increased in Colombia from 30% to 53% of GDP during the 1990s. As mentioned before, the total public debt/GDP ratio of Colombia stood at 46% of GDP in 2009, after reaching a peak of 56% of GDP in 2002.

A. The Revenue Structure

Table 5 illustrates the evolution of Colombia's NFPS revenue and expenditure during 1990-2009, selected years (see IMF, 2003c, 2004, 2006, 2010a; Confis, 2006 and 2010). Tax revenues have increased significantly by 6.9 percentage points of GDP between 1990 and 2009, standing now at 18.9% of GDP. Central government's tax pressure is 13.1% of GDP, State's 2.2% of GDP, and municipalities' 3.6% of GDP. When including social security contributions, total "fiscal pressure" now stands at 21.7% of GDP, an increase of 7.9% of GDP with respect to 1990 (see memo-line of Table 5).

In spite of those revenue gains, Central Government tax collections at 13.1% of GDP still compare relatively weak with respect to the 16%-17% of GDP observed in Latin America. At the territorial level, figures show some tax-laziness, since States' tax-revenues have only increased by 1.1% of GDP and municipality's by 2.1% of GDP, while the central government tax-revenues has risen by 4% of GDP between 1990-2009 (Misión de Ingresos, 2002). However, the 'health-sector' crises of 2009-2010 prompted increases in alcohol beverages and tobacco's VAT-rates. Those revenues will be earmarked to help central government and territorial entities pay for such health services (the estimated effect of Law 280 of 2010 is 0.2% of GDP).

Table 5. Colombia: NFPS Structure
(% of GDP)

	1990	2003	2006	2008	2009	Difference 2006 / 1990	Difference 2009 / 1990
Revenues	**23,7**	**27,0**	**27,3**	**26,6**	**27,0**	3,6	3,3
Tax Revenues	12,0	15,1	19,2	19,3	18,9	7,2	6,9
Central Government	9,4	11,9	13,4	13,5	13,1	4,0	3,7
Departments (States)	1,1	1,3	2,5	2,2	2,2	1,4	1,1
Municipalities	1,5	1,9	3,3	3,6	3,6	1,8	2,1
Non-Tax *	9,9	10,0	6,2	4,6	5,3	-3,7	-4,6
Social Security **	1,8	2,0	1,9	2,7	2,8	0,1	1,0
Expenditures	**24,3**	**29,8**	**28,2**	**26,5**	**29,7**	3,9	5,4
Operational	9,2	9,3	11,6	10,4	10,9	2,4	1,7
Transfers	4,8	8,9	7,3	7,5	9,3	2,5	4,5
Social Security	1,5	6,1	6,4	6,7	7,6	4,9	6,1
Other ***	3,3	2,9	0,9	0,8	1,7	-2,4	-1,6
Interest	3,9	4,2	3,9	3,5	3,3	0,0	-0,6
Investment	6,4	7,4	5,4	5,1	6,2	-1,0	-0,2
NFPS Deficit (-)	**-0,6**	**-2,8**	**-0,9**	**0,1**	**-2,7**	-0,3	-2,1
Primary Surplus	3,3	1,5	3,0	3,6	0,6	-0,3	-2,7
Memo:							
Territorial Transfers	3,3	4,6	4,4	4,0	4,0	1,1	0,7
Tax Revenues+S.Sec. Contr.	13,8	17,1	21,1	22,0	21,7	7,3	7,9

* Includes profits from public enterprises.
** Contributions to public entities (ISS, Cajanal, etc.)
*** Includes statistical discrepancies.
Source: Our computations based on IMF and Central Bank.

Personal income tax rates increased significantly in Colombia, passing from 30% in 1990 to 38.5% in mid 2000s (including 3.5 percentage points of a temporary surcharge). Law 1111 of 2006 reduced them to 34% in 2007 and to 33% from 2008 onwards. Table 6 illustrates that personal income tax now starts at low income-levels (five-times the official minimum wage) and runs at a progressive rate from 0% to 33%. This scheme is similar to Chile's, where rates run from 5% through 40%, covering a wide range of income levels. Interestingly, personal incomes tax collections are similar in Colombia and Chile (around 2% of GDP, as shown in Table 7). Tax administration has improved significantly in Colombia (using the so-called MUISCA program), reducing the income tax evasion rate from 36% in mid 2000s to 28% in early 2010. Nonetheless, those rates have declined even faster in Chile from 35% down to 22%. Colombia's tax-code still shows many distortions and loop-holes that impede further gains (for instance, the 30% tax based

deduction for 5-year savings at private pension funds or contributions/pensions not taxed at all).

Table 6: Income Tax and VAT: Colombia and Chile

Tax Rates (%)

	Colombia		**Chile**	
	Mid 2000s	**2010**	**Mid 2000s**	**2010**
Income Tax				
Personal	From 0 to 38,5	From 0 to 33	From 0 to 45%	From 0 to 40 *
Corporate	38,5	33	15	17 **
Evasion Rate	36%	28%	35%	22%
Wealth Tax	0,3-1,2 Net Wealth	0,6-1,2 Net Wealth	----	----
VAT	2-5-7-11-**16**-20-35-38	1.6-5-10-11-**16**-20-25-35	18	19 ***
Evasion Rate	29%	21%	16%	10%

* Máx. rate reduced from 45% down to 40% during 2002-2004.

** Increased from 15% to 17% during 2002-2004; Shares held by individuals pay the personal tax rate.

*** Increased from 18% to 19% during 2004-2007 to substitute for trade taxes declining from 8% to 6%, then made it permanent.

Source: Our computations based on IMF and Central Banks.

Colombia applies a 33% tax rate on corporate profits (Law 1111 of 2006) and avoids the "double taxation" of stock dividends since the late 1980s. Chile applies a 15%-17% corporate tax rate, but taxes stocks-dividends received by individuals at their marginal income tax rate. Interestingly, corporate tax collections in both countries have been fluctuating around 3.3%-3.6% of GDP (except during the crisis of 2009), in spite of Chile applying lower tax rates.

Table 7: Tax Collection: Colombia and Chile
(NFPS*, % of GDP)

	Colombia			Chile			Difference
	2005	**2008**	**2009 (1)**	**2005**	**2008**	**2009 (2)**	**(3) = (2) - (1)**
Income Tax	**5,2**	**5,1**	**5,7**	**5,2**	**5,4**	**4,2**	**-1,5**
Personal	1,9	1,8	2,0	1,7	1,8	1,4	-0,7
Corporate	3,3	3,3	3,6	3,4	3,6	2,8	-0,8
VAT	**5,2**	**5,7**	**5,2**	**8,1**	**8,9**	**7,6**	**2,4**
(% Efficiency)	33%	35%	33%	43%	47%	40%	7%
Income & VAT	**10,4**	**10,8**	**10,9**	**13,3**	**14,3**	**11,8**	**0,9**
(% Share on total)	60%	49%	50%	62%	52%	56%	6%
Other Taxes	**7,0**	**11,2**	**10,8**	**8,1**	**13,2**	**9,4**	**-1,4**
Transaction Tax	0,7	0,7	0,6	0,0	0,0	0,0	-0,6
Local Taxes	3,2	5,8	5,8	2,1	2,2	2,3	-3,5
Social Security	1,9	2,7	2,8	1,4	1,4	1,5	-1,3
Other	1,2	2,0	1,6	4,6	9,6	5,6	4,0
Total Tax Revenues **	**17,4**	**22,0**	**21,7**	**21,4**	**27,5**	**21,2**	**-0,5**

* Non-Financial Public Sector (NFPS)
** Including Social Security Contributions
Source: Our computations based on IMF and Central Banks.

VAT rates have also increased in Colombia from 10% in the early 1990s to 16% in 1999 (Shome, 1992; Shome, et.al. 1999). However, Colombia administers 8 different VAT rates and that certainly hurts tax efficiency (see Table 6). By contrast, Chile uses a unique VAT rate, which was increased from 18% to 19% in 2003 in order to counterbalance tariff reductions resulting from several free trade agreements.

Hence, a lower general VAT rate and a heterogeneous tax structure explain lower VAT-collections in Colombia (5.2% of GDP in 2009) than in Chile (7.6% of GDP). This gap in VAT-collections is reflected in the efficiency tax ratio (33% in Colombia Vs. 40% in Chile, see Table 7). These figures have not changed significantly from the mid-1990s (Shome, 1999 p.9). Colombia has continued to reduce the VAT tax evasion rate from 29% to 21%, but Chile has done so at a more successful pace from 16% to 10%.

The problem of having low collections at income and VAT is that the tax structure tends to lean on

more distorted taxes. This has been the case of the "financial transaction tax" (FTT), used extensively in Colombian and Brazil (at rates of 0.2-0.4% for long periods of time) and in Ecuador and Venezuela (at higher rates of 1%), see Coelho, et.al. (2001 p.12).

The FTT has been collecting 0.5-0.7% of GDP in Colombia, but hampering financial and capital deepening. Brazil and Colombia have attempted (unsuccessfully) to phase-out the FTT, but Congress-people perceive that this is a "progressive tax" being paid by wealthy financial system owners. The truth of the matter is that in Colombia, for example, the FTT-revenues come only in about one-third from the financial institutions own-business, while the other two-thirds are effectively levied on households and firms who use financial services. One convenient way to start dismounting such a distort tax is to apply FTT-collections as a with-holding tax to be applied to income tax on households and firms. A pioneer system is currently being applied in Argentina (although at a very low-level, IMF 2005 p.23). In Colombia, after the Law 1111 of 2006, 0.1% out of the total 0.4% of the FTT rate is with-held to be applied to income tax. Similar conclusions can be drawn when analyzing distort taxes paid through payrolls, which in the case of Colombia have aggravated labor markets informality and diminished social security coverage (Clavijo, 2004 and 2009).

In short, Colombia has made a significant effort in increasing tax collection, but VAT performance is still below the benchmark of Chile (or Europe). Tax administration gains have helped in reducing tax evasion, but there is certainly ample room for improvement. The result has been a net increase of almost 7% of GDP in total tax collections in the last decade, but the current pace of expenditures requires increasing tax-revenues in about 2% of GDP. The current tax-pressure at 13.1% of GDP at the level of the Central Government indicates that such room is there.

Finally, it is worth noting a significant reduction in the non-tax revenues, dropping from 10% of GDP in 1990-2000 to 6.2% in 2006 and 5.3% of GDP in 2008 (see table 5). This is a "loss" of 4.6% of GDP in two decades explained by the privatization of public entities. Such process started with Telecommunications and energy (including lately the private sector capitalization of 10% of

the Colombian Oil Company, Ecopetrol). The privatization process should be able to more than compensate the loss of profit-sharing with tax revenues increases. So far, this has been the case of Colombia, where the tax revenues increase (6.9% of GDP) surpassed the profit-sharing loss (4.6% of GDP).

B. The Expenditure Structure

In spite of the increases in total revenues of Colombian NFPS, there is still a structural fiscal deficit. Total expenditures have increased by 5.4% of GDP during 1990-2009, reaching 30% of GDP (as previously discussed in Table 5). At the consolidated level, operational expenditures have increased in 1.7% of GDP, while transfers have done so in 4.5% of GDP. The level of transfer related to social security is currently 7% of GDP. All this is compressing the space for public investment.

In short, we have seen that large deficits in Colombian Central Government are of a structural nature. They hinge on hard-to-increase tax bases and inflexible expenditures allocations. In order to overcome this situation, a set of structural reforms need to be approved by Congress. On the revenue side, it is required to expand both income and VAT-tax-bases, aiming at increasing tax revenues in about 2% of GDP. Law 1111 of 2006 failed short in expanding income and VAT taxes and ended-up expanding anti-technical instruments (like the financial transaction tax). On the expenditure side, the scope seems rather limited, as social security expansions (highly endorsed by Judicial Courts) will continue to exert upward pressure. Territorial transfers devoted to education have been showing some efficiency gains, but health services continue to demand more resources. The New Santos Administration (2010-2014) has set an agenda that calls for re-directing mining & oil royalties from the territorial entities budget into central government's. The main idea is to capture part of the wind-fall resources (initially estimated at nearly 3% of GDP) to help paying central government needs.

V. Conclusions and Policy Recommendations

In this document we have analyzed the anatomy of public sector deficits in Latin America, with particular attention to the case of Colombia. As seen, these deficits arise from rigidities in the tax structure, which impede to properly tax personal income & wealth or to impose a universal VAT structure. During the 1990s, these tax rigidities were aggravated by structural reforms that increased expenditures on permanent basis, mainly, as a result of disorganized fiscal decentralization processes dealing with education & health expenditures and pensions transitions from PAYGO into private funds.

Current fiscal deficits in large Latin American countries seem to be of a structural nature, rooted in imbalances between a hard-to-increase tax-base and inflexible expenditures associated with transfers resulting from fiscal decentralization processes and pension transitions. The exception in the region is Chile, where a wide social-agreement has led to target a cyclically adjusted fiscal surplus of 0.5%-1% of GDP.

The years 2003-2007 witnessed a boom of commodity prices leading to improved economic performance in Latin America (5.5% per-annum on average) and recorded high tax-collections that somehow hid (temporarily) the underlying structural deficits, with the significant exception of Chile. A partial "decoupling" occurred in 2007-2008 in Latin America, but years 2009-2011 are showing fiscal strain in most of the region. Chile and Mexico implemented counter-cyclical fiscal policies, while Colombia and Brazil leaned mainly on laxed monetary policies. Paradoxically, the latter performed better in growth terms during 2009, although the potential rebound will be limited in the case of Colombia due to fiscal and labor rigidities.

Most countries in Latin America recurred to Fiscal Responsibility Laws and made efforts to deliver primary surplus on sustainable basis (Filc and Scartascini, 2007). The result has been lower debt ratios and the possibility to implement, for the first time in modern history, counter-cyclical policies during the recent crisis (2007-2010), see Cotarelli and Viñals (2009). In the case

of Colombia, efforts are being made to consolidate a fiscal rule that would allow for saving the expected windfall gains resulting from mining & oil royalties over the next years.

Some international experiences in dealing with structural deficits are summarized in Table 8, based on the Alesina and Perotti (1997) study for OECD-economies. These experiences indicate that fiscal programs focusing on reducing expenditures are more likely to succeed in controlling structural deficits than programs that emphasize revenue increases. For example, in 71% of the successful programs the adjustments focused on expenditure controls, especially on the operative and bureaucratic components. Only in 29% of the successful experiences the adjustment concentrated in increasing tax-revenues.

Table 8: Quality of Fiscal Adjustments in OECD-countries: 1960-1994
(Percentage of the Cases Studied)

	Public Expenditure Reduction			Tax-Revenue Increases		
	Operational	Investment	Total	Corporate	Households	Total
Successful	51	20	71	18	11	29
Failures	16	28	44	29	27	56

Source: Our Computations based on Alesina and Perotti (1997).

Regarding programs that failed, about 56% of the cases attempted to increase tax-revenues and, in fact, their starting-point implied already high-revenue burdens. This situation was particularly hard to overcome for highly-taxed firms, most of which reacted by reducing their investment component and, finally, all these hurt growth and tax-collection prospects.

However, Latin America will face serious limits in containing expenditure pressures as territorial transfers and social security obligations keep mounting and they are somehow protected by Constitutional mandates. It is highly probable that Latin America will be soon replicating the current trend of increasing fiscal expenditures observed now in euro-zone countries. Then, closing the fiscal gap will require to lean more on increasing fiscal revenues by way of limiting

income tax exemptions and increasing VAT collections in Latin America.

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