

# Uruguay: Selected Issues Paper



# URUGUAY

March 2015

## SELECTED ISSUES

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# URUGUAY

## SELECTED ISSUES

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Approved By  
**Western Hemisphere  
Department**

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# INCLUSIVE GROWTH: THE TALE OF URUGUAY<sup>1</sup>

*Uruguay has a long history of high living standards comparable to many developed countries, and has made further progress in improving social conditions since 2005 on the back of strong economic growth and active social policies. Looking ahead, preserving macroeconomic stability is essential to sustain these gains. For the longer run, improving access to quality education will be key to enhance social mobility.*

## A. Introduction

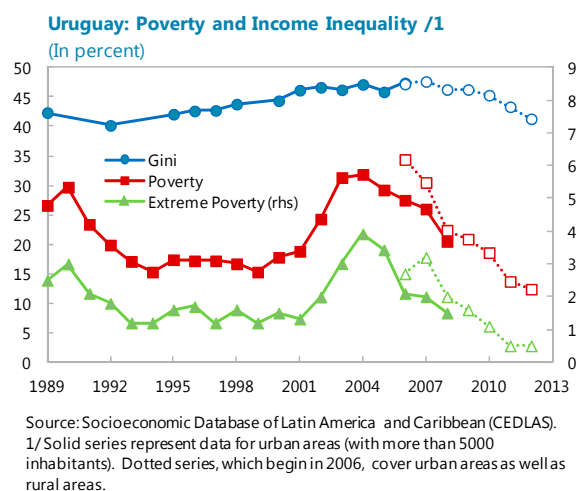
**1. Inclusive growth has long been a key policy objective in Uruguay**, which ranks high in human development, and low in inequality and poverty within the region and among emerging markets more broadly. Although the economic recession of 1999–2002 took a heavy toll on Uruguay’s social indicators, with a renewed focus on inclusive growth since 2005, the Uruguayan society has made steady progress in improving social conditions and social inclusion.

**2. This chapter reviews Uruguay’s experience with inclusive growth over the last two decades, and identifies challenges and policy options to promote greater equality going forward.** It focuses on Uruguay’s comparative position with respect to the region and advanced countries in poverty and income inequality, labor market equity, and equality of opportunity, including in access to quality education and health care services.<sup>2</sup> It reviews the implemented social policies and discusses the remaining challenges and social policy options.

## B. Poverty and Income Inequality

### Trends in Poverty

**3. Poverty indicators fluctuated significantly in Uruguay over the last two decades.** Three episodes of economic growth marked different trends in poverty: i) the high growth episode in the early 1990s, ii) the economic crisis of 1999–2002 and the recovery through 2004, iii) the economic expansion after 2005. High economic growth in the early 1990s accompanied a significant reduction in poverty.



<sup>1</sup> Prepared by Elif Türe (WHD).

<sup>2</sup> Throughout the paper, regional comparisons are made among the group of LA6 countries, which includes Brazil, Chile, Colombia, Mexico, Peru, and Uruguay. The sample of advanced economies includes the OECD members.

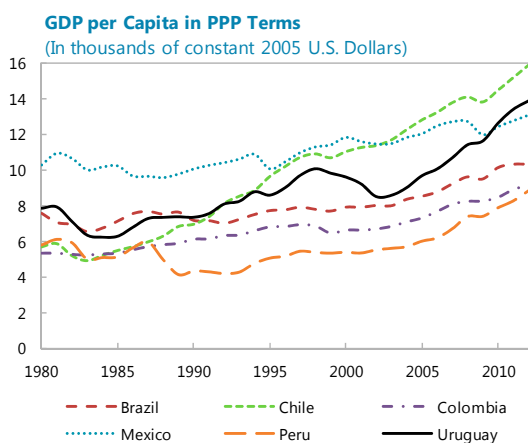
While per capita GDP in purchasing power terms increased by about 40 percent between 1989 and 1999, the share of urban population living below the national poverty line fell from 26 to 20 percent, and extreme poverty fell from 3.3 to 1.5 percent. However, a severe recession in 1999-2002 and the ensuing financial crisis led to a marked deterioration in poverty and extreme poverty rates—to 40 and 5 percent by 2004, respectively.<sup>3</sup> Starting in 2005, a period of strong economic growth and important social policy reforms (discussed in Section C) helped gradually reduce poverty to historical lows (Table 1).

**Table 1. Uruguay: Poverty Headcount Ratios 1989-2012**  
(Percentage of Population Below Poverty Lines /1)

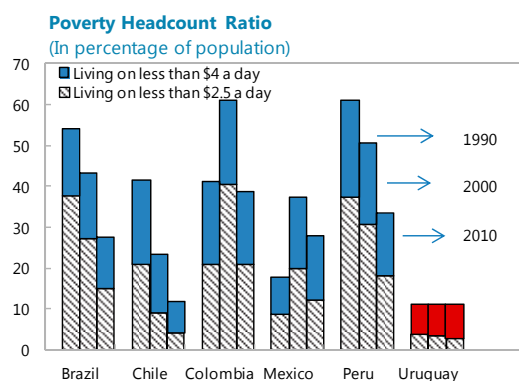
	National Poverty Lines /2		Regional Poverty Lines		Relative Poverty Line
	Extreme Poverty	Moderate Poverty	\$2.5 a day	\$4 a day	(50% of median income )
1989	3.3	25.5	3.3	9.8	18.5
1995	1.7	20.3	3.4	9.3	19.0
2000	1.6	23.0	3.6	11.2	20.5
2005	3.9	36.5	8.9	21.6	21.6
2010	1.1	18.5	2.8	11.0	19.2
2012	0.5	12.4	2.5	8.1	19.0

Source: Socio-Economic Database for Latin America and the Caribbean (CEDLAS), and National Statistics Institute (INE).  
1/ Note a change in methodology after 2006. Until 2005 includes only urban areas (more than 5000 inhabitants).  
2/ In January 2012, extreme and moderate poverty lines were around \$100 and \$400 per month per person in Uruguay, respectively.

**4. Despite the fluctuations, poverty rates remained among the lowest in the region, and income levels among the highest.** Uruguay’s per capita GDP almost doubled between 1989 and



Sources: World Bank, World Development Indicators.



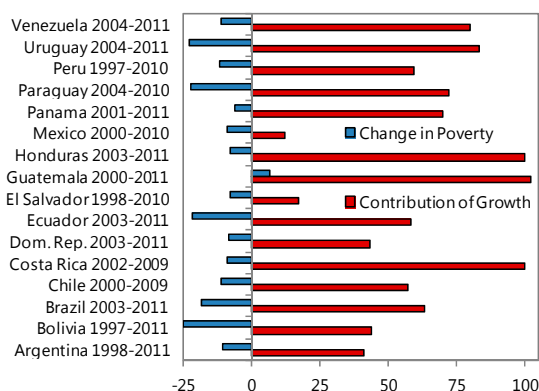
Sources: World Bank, PovcalNet database, and Fund staff calculations.

<sup>3</sup> Due to methodological changes introduced in 2006 to the household survey (ECH), comparisons before and after the financial crisis should be made with caution. Until 2005 the ECH did not include rural areas and urban areas with less than 5000 inhabitants, but since 2006 it has become nationally representative. National Statistics Institute (INE) extrapolated this methodological change only back to 2002, making comparisons before and after 2002 unfit.

2012 in purchasing power terms, and currently stands among the highest within Latin America (LA). Poverty at national lines declined from 26 percent to 12 percent, and extreme poverty has almost been eradicated with a drop from 3.3 percent to 0.5 percent over the same period (Table 1).<sup>3</sup> Nonetheless, the poverty rate in Uruguay remains above the OECD average. Relative poverty, measured as the share of population living below 50 percent of the median income, was around 19 percent in Uruguay in 2010, as compared to 11 percent on average among the 20 advanced country members of the OECD.

**5. Most of the reduction in poverty since the 2002 crisis has been due to the increase in mean income, though the improved income distribution has also played a significant role in recent years.** Calculations based on the Datt-Ravallion (1992) methodology suggest that over the 2003–2011 period, growth in the mean household income explains about 85 percent of the 25 percentage points decline in the poverty rate, with the rest being explained by the change in the income distribution.<sup>4</sup> This finding is qualitatively similar to those for most other countries in the region during the same period. However, in the 2006–2011 period, the share of the decline in poverty in Uruguay attributable to an improved income distribution rose to 37 percent (see paragraph 7).<sup>5</sup>

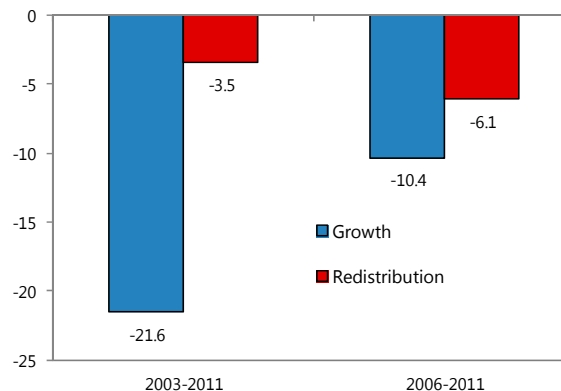
**LA: Contribution of Growth to Poverty Reduction /1**  
(Poverty in percentage points, contribution in percent)



Source: Lustig et al. 2013.

1/ Datt-Ravallion decomposition using the \$4 PPP poverty line.

**Uruguay: Decomposition of the Reduction in Poverty /1**  
(In percentage points)



Source: Castelan et al. 2013.

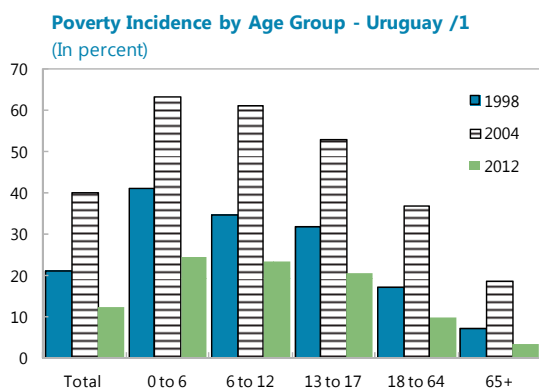
1/ Datt-Ravallion decomposition using official moderate poverty lines. Urban areas only. Before 2006, urban areas with more than 5000 inhabitants only.

**6. Like in the rest of the region, the highest poverty incidence is among young children and the lowest one is among the elderly.** Despite recent improvements, children remain at the highest risk of poverty in Uruguay, and were the most vulnerable to fall into poverty following the

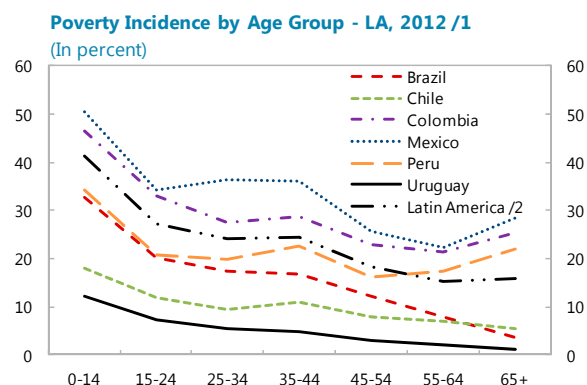
<sup>4</sup> The Datt-Ravallion (1992) methodology decomposes poverty reduction into mean income growth and inequality components. The growth component reflects a shift in the income distribution maintaining its shape, while the inequality component reflects a change in the shape of the income distribution maintaining its mean.

<sup>5</sup> Amarante et al. 2011 find that 94 percent of poverty reduction was due to mean income growth in 1990–2005, compared with 88 percent in 2005–2010. They find that the increase in poverty in 2000–2005 was completely due to lower growth in mean income.

2002 crisis. Although child poverty is the lowest within the region, it remains high compared with the levels in the OECD countries.<sup>6</sup> As for the elderly, the low incidence of poverty is in part due to the high coverage of contributory and noncontributory pensions in Uruguay, with the tradition dating back to 1919. With the indexation of contributory pensions to wages following a constitutional change in 1989, and strong real wage growth in the last decade, the elderly have moved to higher income deciles and their poverty rates have declined (Amarante et al. 2011).



Source: Ministry of Social Development, Social Observatory.  
1/ 1998 and 2004 include only urban areas (more than 5000 inhabitants).



Source: Economic Commission for Latin America and the Caribbean (CEPAL).  
1/ Poverty rates are based on CEPAL's own estimates of poverty lines in each country. Therefore, they differ from the official figures.  
2/ Includes population weighted average of 18 Latin American countries including the LA6, for 2012 or latest data available.

## Trends in income inequality

**Table 2. Uruguay: Income Inequality 1989-2012 /1**

	Income Shares				Income Ratios				Gini Index
	Quintiles		Deciles		Quintiles	Deciles	Centiles		Household Income Per Capita
	1	5	1	10			90/10	95/5	
1989	5.3	48.1	1.9	32.2	9.1	16.7	6.9	12.7	0.42
1995	5.1	47.7	1.8	31.2	9.4	17.0	7.5	14.0	0.42
2000	4.7	49.7	1.7	33.0	10.6	19.2	8.4	15.3	0.44
2005	4.5	51.0	1.7	34.3	11.4	20.6	8.9	16.5	0.46
2010	4.9	50.9	1.9	34.4	10.3	18.0	7.9	13.9	0.45
2012	5.2	46.9	1.9	30.2	8.9	15.6	7.4	13.0	0.41

Source: Socio-Economic Database for Latin America and the Caribbean (CEDLAS).

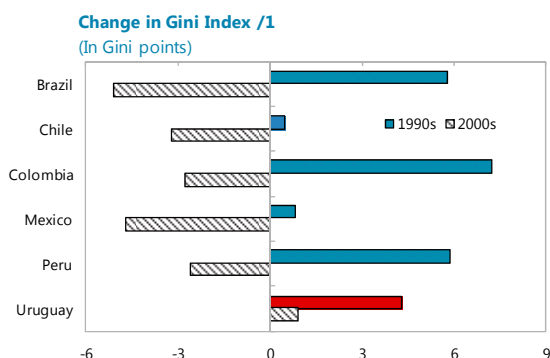
1/ Until 2005 includes only urban areas (more than 5000 inhabitants).

**7. Income inequality has been low by regional standards but was on an upward trend from the early 1990s until 2007.** According to CEDLAS data, after being relatively flat in the early 1990s, Uruguay's Gini index increased steadily from 42 percent in 1995 to 48 percent in 2007.<sup>7</sup>

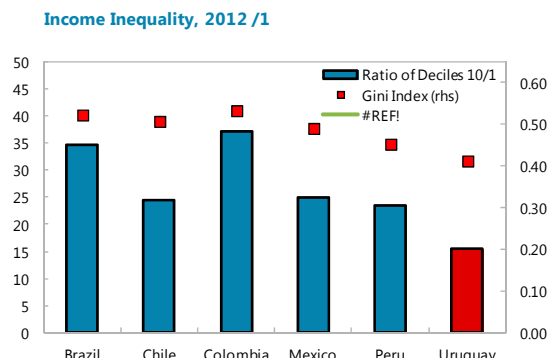
<sup>6</sup> The average child poverty rate (poverty among those under the age of 18) in the OECD was 13.3 percent in 2010, compared with around 24 percent in Uruguay (OECD Family Database).

<sup>7</sup> See footnote 3 above for issues of comparability before and after 2002.

Inequality started to decrease from 2008 onwards in the context of active social policies (Section C) and declined to 41 percent in 2012, a level close to Uruguay’s historical low (Table 2).<sup>8</sup> Other metrics of inequality (quintile, decile and percentile ratios) also followed a similar path, gradually increasing until the late 2000s and declining quite rapidly afterwards. Though Uruguay has one the lowest income inequality rates within the region, its Gini index remains 10 percentage points above the OECD average.

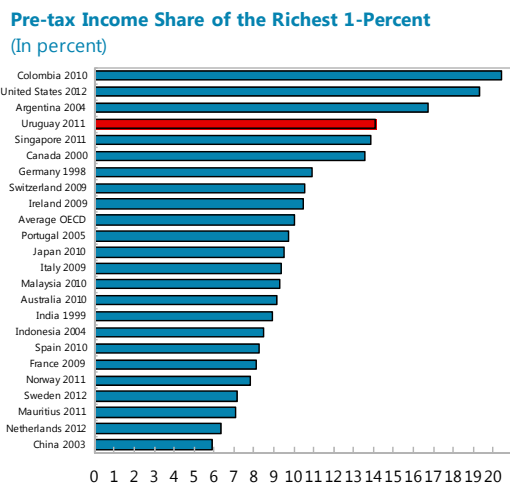


Source: World Bank, World Development Indicators.  
1/ Changes are between 1992-2000 and 2000-2010, respectively.

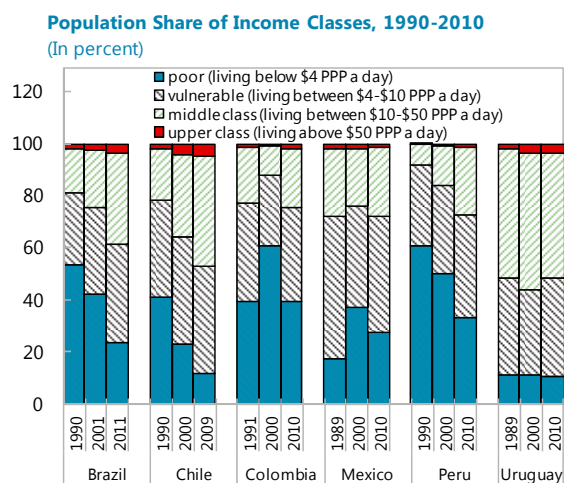


Source: Socioeconomic Database of Latin America and Caribbean (CEDLAS).  
1/ 2011 for Chile.

**8. Top income shares are high by international standards and the relative size of the middle class has decreased over the last decade, though it remains high compared with the region.** While the Gini index decreased gradually between 2008–2012, and income shares of the top quintile and decile declined (Table 2), the income share of the top 1 percent of the population



Source: World Top Income Database.



Sources: World Bank PovCal Database and Fund staff calculations.

<sup>8</sup> Note that the official Gini index from INE differs slightly from CEDLAS data: it was 46 percent in 2007, decreased gradually to 38 percent in 2012, and inched up to 38.5 percent in 2013.

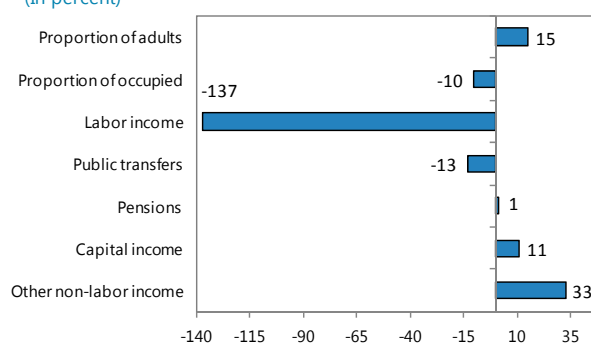


remained high around 14 percent between 2009–2011 (Burdin et al. 2014), compared with an average of 10 percent within the advanced OECD.<sup>9</sup> Moreover, unlike in most other countries in the region, the size of the middle class, defined as the share of the population living on \$10–\$50 a day in purchasing power terms (Ferreira et al. 2013), declined in the last decade, from 52 percent in 2000 to 48 percent in 2010. By contrast, the size of the vulnerable class, living on \$4–\$10 a day in purchasing power terms and at risk of falling into poverty, has increased in the same period. Looking ahead, reducing the size of the vulnerable population remains an important goal.

### 9. Increases in labor income and employment were the main drivers of the recent fall in income inequality, coupled by a rise in public transfers.

A decomposition of the change in inequality between 2003 and 2011 into contributions by the components of income suggests that rising labor income was the single most important driver of the decline in inequality, accounting for 137 percent of the observed decline in the household income Gini. This was followed by a rise in public transfers, which accounted for 13 percent of the decline in the household income Gini, and a rise in the proportion of employed household members, which accounted for 10 percent. By contrast, increases in the number of adults in the household, i.e., demographic change, and increases in pension, capital, and other non-labor income such as private transfers, contributed to a rise in household income inequality.<sup>10</sup>

Uruguay: Factors Contributing to Lower Income Inequality /1  
(In percent)



Source: Castetan et al. 2013.

1/ Based on the methodology introduced by Azevedo et al. 2013.

### 10. As the majority of labor income comes from wages, unsurprisingly, wage inequality has been an important determinant of income inequality.

Labor income accounts for about

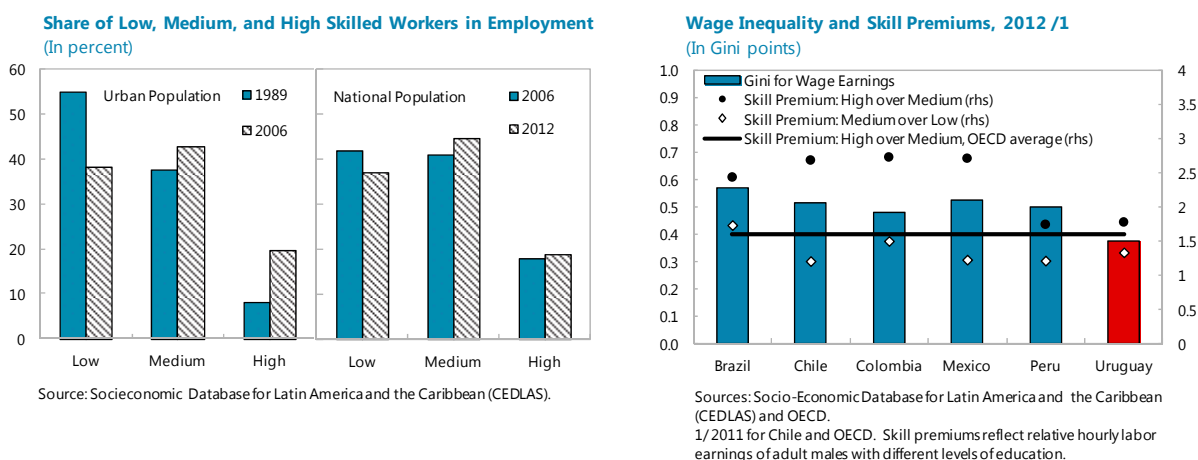
	Gini Index for Hourly Wages by Skill Level (Males Aged 25-55)				Skill Premium on Hourly Wages /1 (Males Aged 25-55)	
	Total	High	Medium	Low	High over Medium	Medium over Low
1989	0.38	0.41	0.36	0.32	1.8	1.5
1995	0.43	0.43	0.39	0.34	1.9	1.6
2000	0.43	0.42	0.38	0.35	2.0	1.5
2005	0.47	0.46	0.40	0.37	2.3	1.6
2010	0.44	0.43	0.39	0.36	2.1	1.5
2012	0.37	0.34	0.33	0.32	1.8	1.3

Sources: Socio-Economic Database for Latin America and the Caribbean (CEDLAS).  
1/ Ratio of wages for those with a tertiary education (high skilled), secondary education (medium skilled) and primary education (low skilled).

<sup>9</sup> Burdin et al. 2014 estimate that the income share of the top 1 percent of the population was 13.8 percent in 2009, increased to 14.3 percent in 2010, and slightly decreased to 14.1 percent in 2011.

<sup>10</sup> Alves et al. 2010 also find that the fall in the Gini index after the mid-2000s was mostly due to falling labor income inequality coupled with a rise in contributory and non-contributory social transfers.

60 percent of household income in Uruguay, of which 70 percent comes from wage income, and 30 percent from non-wage entrepreneurial and self-employed income. The wage distribution became more skewed between the 1990s through the mid-2000s, and has been improving since then amidst an upward trend in real and minimum wages in a context of reforms in labor market institutions, including the reinstatement of collective wage bargaining in 2005 (Table 3).



**11. Wage inequality has been closely linked to the skill premium.** From the 1990s through the mid-2000s, for males aged 25–55, wages for those with tertiary education relative to those with secondary education have increased steadily, partly reflecting the increased demand for high-skilled workers during a period of skill-biased technological progress, and the compression of the manufacturing sector following trade liberalization (Casacuberta and Vaillant, 2002). Since 2005, however, an increase in the supply of high skilled workers, due mostly to better access to higher education, and an increase in the demand for lower skilled workers during strong growth in the agricultural and construction sectors, have helped reduce the skill premiums, wage gaps, and income inequality (OECD, 2014). While the share of high-skilled workers in employment increased significantly between the 1990s and the mid-2000s, the share of medium-skilled workers (those with a secondary education) has risen more than that of high-skilled workers since the mid-2000s. The skill premium in Uruguay is among the lowest within the region and is close to the OECD average.

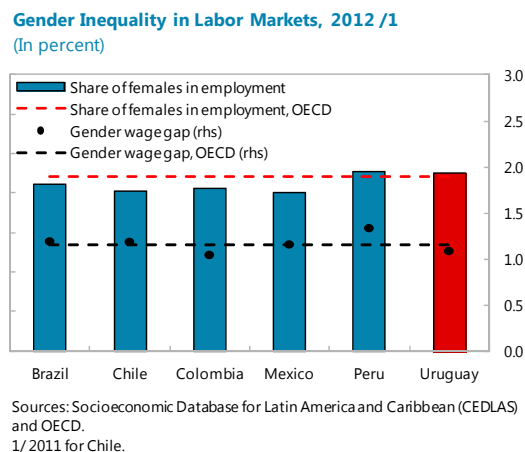
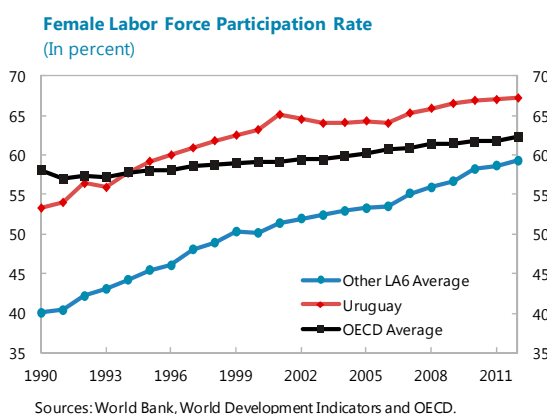
**Table 4. Uruguay: Female Labor Force Participation, Employment, and Gender Wage Gap 1989-2012**

	Labor Force Participation					Percentage of Females in		Gender Wage Gap /1
	Ages 15-64	Ages 15-24		Ages 25-64		Labor Force	Employment	
	Female	Female	Male	Female	Male			
1989	53.3	50.7	71.6	54.9	91.3	39.0	40.3	1.35
1995	59.2	52.5	72.6	60.5	91.5	41.1	41.4	1.19
2000	63.2	51.2	67.3	65.7	91.2	43.1	42.7	1.11
2005	64.3	45.8	60.3	68.9	90.9	44.1	44.4	1.13
2010	66.9	44.5	61.3	72.8	92.5	44.3	44.6	1.15
2012	67.2	45.2	60.4	74.5	92.4	44.4	45.2	1.09

Sources: Socio-Economic Database for Latin America and the Caribbean (CEDLAS), and World Bank, World Development Indicators.  
1/ Ratio of wages for males to those for females.

**12. Though scope for improvement remains, Uruguay is a frontrunner in several aspects of labor market equity across genders, both within the region and compared with the OECD.**

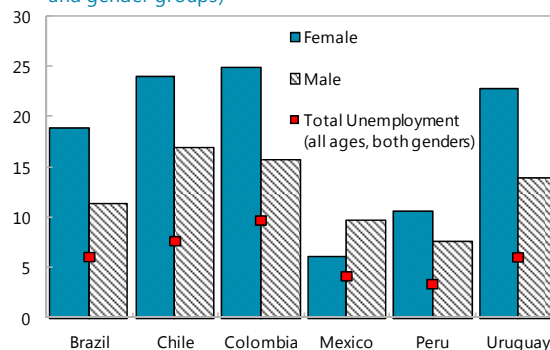
Female labor force participation rose from 53 percent in 1989 to 67 percent in 2012, around 5 percentage points above the OECD and Latin American averages. This increase was mainly driven by higher participation among females above the age of 25, while participation among younger females fell over the same period (Table 4). Coupled with a fall in the participation of young males, this increase resulted in a rise in the share of women in the labor force from 39 percent in 1989 to 44 percent in 2012 and in the share of women in employment from 40 to 45 percent. The gender wage gap, defined as the ratio of the male-wages to female-wages, declined from 1.4 to 1.2 in the early 1990s, and stood around 1.1 since then, one of the lowest levels within the region and lower than the OECD average. Nevertheless, there is room for further improvement in gender equality in labor markets, as large differences still prevail in labor market participation rates, and female employment and wages still lag those of males.



**13. Despite having halved over the last decade, youth unemployment remains high compared with the region, especially among women.** As in most other countries in the region,

the unemployment rate declined steadily since the mid-2000s in Uruguay, and currently stands close to historical lows. However, youth unemployment remains elevated at around 23 percent for females aged 15–24 and 14 percent for males in the same age group. These figures compare with averages of 17 and 12 percent for the rest of the LA6, respectively. The unfavorable performance in youth employment reflects a divergence of skills acquired in schools from those required in the job market, creating a barrier to move from study to work (OECD, 2014).

**Youth Unemployment for Ages 15-24, 2012 /1**  
(In percent of the labor force for the corresponding age and gender groups)

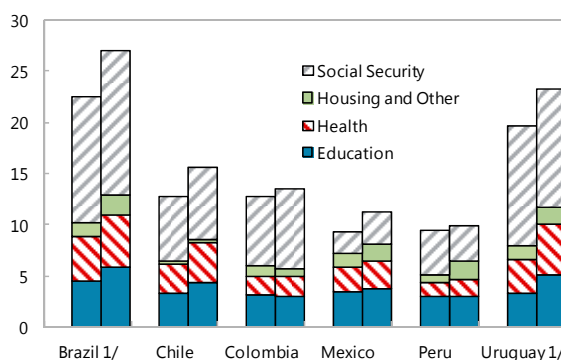


Sources: Socio-Economic Database for Latin America and the Caribbean (CEDLAS).  
1/2011 for Chile.

## C. Social Policy

**14. Uruguay has seen a significant increase in public social spending in the last two decades**, especially since the mid-2000s on the back of strong economic growth and a deliberate social policy effort. Public social spending as a share of GDP increased from 15 percent in 1989 to 25 percent in 2012, albeit falling temporarily during the financial crisis of 2002 (Table 5). Once the recovery was firmly established, the government carried out a package of comprehensive social reforms to improve socioeconomic conditions, including the expansion in the coverage and amount of social assistance transfers, and the implementation of tax, health care, and labor market reforms, as well as reforms to promote financial inclusion and social housing. Currently, public social spending is among the highest in the region, including on health and education. Nonetheless, public spending on education remains lower than in the OECD. It was 4.6 percent of GDP in Uruguay in 2012, as compared to around 5.4 percent in 2010 in OECD on average.

**LA6: Social Public Expenditure, 2005 and 2010**  
(In percent of GDP)



Source: Economic Commission for Latin America and the Caribbean (CECLAS).  
1/ For Brazil and Uruguay, the latest social expenditure data are for 2009.

**Table 5. Uruguay: Public Social Spending as a Percentage of GDP, 1989-2012**

	Education	Health Care	Social Security /1		Social Protection	Housing	Total
			All	Pensions			
1989	2.4	2.8	9.7	-	0.0	0.0	15.2
1995	1.9	3.1	12.7	-	0.0	0.7	18.6
2000	2.6	3.4	13.2	9.0	0.3	1.2	20.7
2005	3.1	3.2	11.3	7.9	0.4	1.3	19.3
2010	4.4	5.5	12.4	9.5	0.3	1.6	24.2
2012	4.6	6.1	12.5	8.7	0.4	1.6	25.2

Sources: Ministry of Social Development Social Observatory, and Banco de Prevision Social (BPS).

1/ Includes contributory pensions, health care, family, and unemployment transfers.

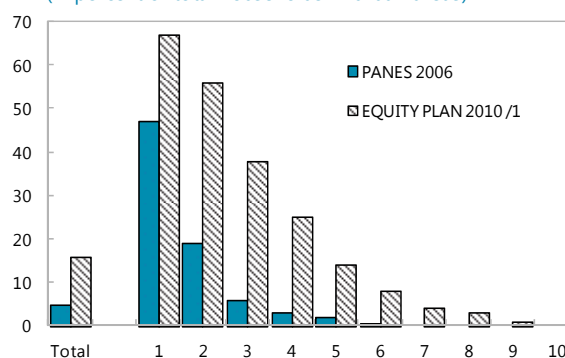
**15. The National Assistance Plan of Social Emergency (*Plan de Atencion Nacional a la Emergencia Social—PANES*), implemented between 2005 and 2007, was the first initiative aimed at reducing extreme poverty and exclusion after the financial crisis.** In 2005, the government created the Ministry of Social Development (*MIDES*) to serve as a coordinating body for all social policies and to implement the newly created social programs, starting with *PANES*. *PANES* was a temporary emergency plan targeted to the bottom 20 percent of all households living below the poverty line (accounting for 8 percent of the total population while the official poverty rate was

36.5 percent in 2005), and comprised a set of transfer programs and social support (Amarante and Vigorito, 2012). These included cash transfers such as Citizen's Income (*Ingreso Ciudadano*)<sup>11</sup> and Food Cards (*Tarjeta Alimentaria*), housing subsidies, and programs to promote social inclusion, such as Exit Doors (*Rutas de Salida*) on education, and Work for Uruguay (*Trabajo por Uruguay*) on employment, aimed at providing better skills to help beneficiaries enter the labor market. Households had also access to the existing contributory and non-contributory Family Allowances (*Asignaciones Familiares*) and old age pensions in this period.

**16. The Equity Plan adopted in 2007 (*Plan de Equidad*), aimed at reducing poverty and social inequality in a more comprehensive and permanent way.** The Equity Plan included far-reaching tax and health care reforms, and restructured and expanded the prevailing Family Allowances. In addition to maintaining the Food Cards from PANES, the coverage in early childhood services was expanded through new Infant and Family Care Centers (*Centros de Atencion a la Infancia y la Familia*). Furthermore, in 2009 unemployment benefits and non-contributory old age pensions were expanded, and the qualifying age for the latter was lowered. Later in 2012, the government introduced a 22 percent VAT refund on purchases made with Food and Family Allowance Cards benefitting up to 200,000 low income households. The Equity Plan also included several new social programs with limited coverage, aimed at improving the educational and labor market outcomes of eligible beneficiaries.

**17. Food and Family Allowances of the Equity Plan benefited a larger share of the population and had a greater impact on poverty and inequality than PANES.** Whereas the cost of PANES was 0.4 percent of GDP per year between 2005-2007, and it benefited 83,000 households (5 percent of total households) by the end of 2007, Equity Plan transfers amounted to 0.9 percent of GDP in 2010 and benefited over 400,000 households (16 percent of total households). A counterfactual exercise conducted by Amarante and Vigorito (2012) show that, all else equal, Family Allowances in the Equity Plan helped reduce extreme poverty by 40 percent in 2010, while the reduction was 30 percent for Citizen's Income under PANES in 2006. Family Allowances also had a larger impact on poverty and inequality than Citizen's Income, albeit not as large as their impact on extreme poverty. Amarante et al. (2011) estimate that removing Food and Family Allowances would add 1.1 percentage points to the Gini index in 2010, which was 44.3 percent at that time, while removing the personal income tax (and the tax on pensions) would add 1.3 percentage points.

**Coverage of Cash Transfers by Income Decile**  
(In percent of total households in urban areas)



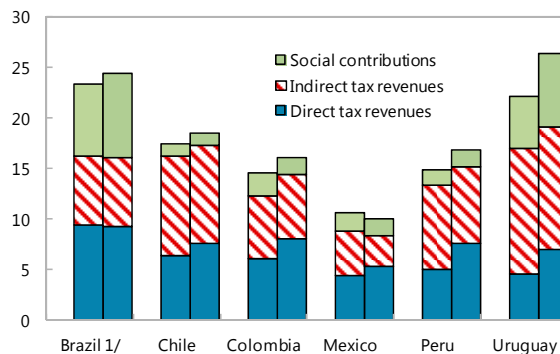
Sources: Amarante and Vigorito 2012.

1/Includes Food and Family Allowances component only.

<sup>11</sup> Payments of Citizen's Income were conditional on the school enrollment of children aged 6 to 14 and health check-ups. In practice, monitoring of conditionalities presented challenges (Amarante and Vigorito, 2012).

**18. The government implemented a major tax reform in 2007 to improve the progressivity and efficiency of the tax system.** Among other changes, the reform introduced a dual personal income tax (*Impuesto a la Renta de las Personas Físicas, IRPF*), which combines a progressive tax schedule for labor income (10 to 30 percent depending on the tax bracket) with a flat tax rate on capital income (3 to 12 percent depending on the income source). Later in 2008, pensions were excluded from the labor income tax base, and a Social Security Assistance Tax was introduced (*Impuesto de Asistencia a la Seguridad Social, IASS*) (10 to 20 percent depending on the tax bracket). The reform also reduced the VAT and corporate tax rates, streamlined and eliminated a number of low-yielding taxes, and broadened the VAT base. As a result, the reform reduced the reliance on indirect taxation and improved the progressivity of the tax system. Nevertheless, the share of indirect taxes in GDP is still significantly high compared with the region.

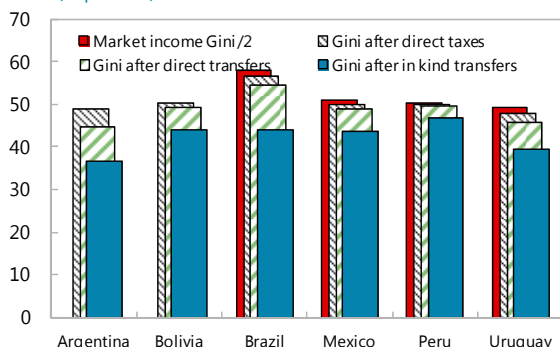
**LA6: Central Government Tax Revenue, 2005 and 2012**  
(In percent of GDP)



Source: Economic Commission for Latin America and the Caribbean (CELAS).  
1/ Latest tax revenue data for Brazil is 2011.

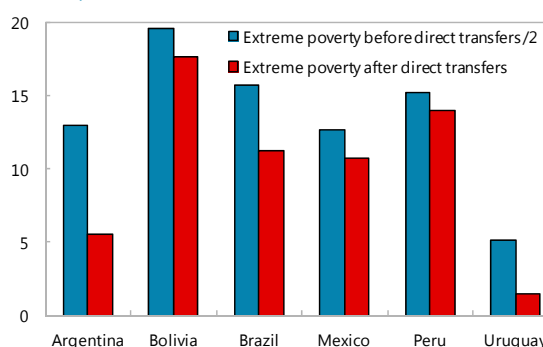
**19. The Uruguayan tax-transfer system is overall effective in improving the income distribution and reducing poverty.** Taxes and transfers decrease the Gini index by about 10 percentage points (by one fifth) in Uruguay. The majority of this decline comes from in-kind transfers, such as free or subsidized services related to health, education and housing (Lustig et al. 2014). Direct income taxes and transfers also help reduce income inequality, albeit to a smaller extent than in-kind transfers, due to their lower size as a share of GDP. Direct cash transfers, on the other hand, are among the most effective in reducing extreme poverty in the region. Overall, the Uruguayan tax-transfer system works quite progressively, with its redistributive power surpassing

**Gini Index after Taxes and Transfers, 2009 /1**  
(In percent)



Sources: Lustig, Pessino and Scott, 2014.  
1/ 2010 for Mexico.  
2/ Market income data is not available for Argentina and Bolivia.

**Extreme Poverty after Direct Cash Transfers, 2009 /1**  
(In percent)

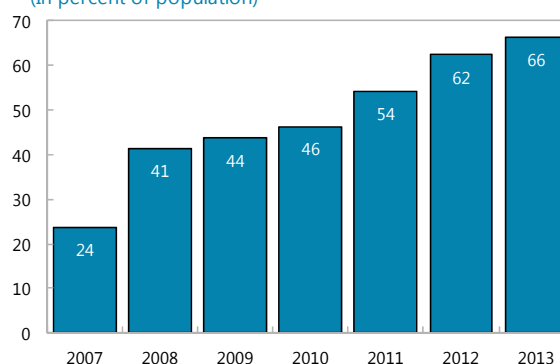


Sources: Lustig, Pessino and Scott, 2014.  
1/ 2010 for Mexico.  
2/ Extreme poverty measured at the \$2.5 PPP a day poverty line.

those of several other economies in the region.<sup>12</sup>

**20. Uruguay launched a comprehensive health sector reform in 2007 that aimed at increasing the efficiency and equity of healthcare provision.** As part of the health care reform, an integrated health care model was adopted to create a common set of rules for health insurance coverage, including the unification of previously-fragmented insurance rates across sub-systems. The government launched the National Health Insurance System (SNS) in 2007, which provides health care benefits to previously uncovered formal workers, their children under 18 years old, and economically inactive citizens, through public or subsidized private services. In 2010, SNS coverage was extended to workers' spouses, independent workers, and pensioners. Thus, the public health system coverage increased from 24 percent of the population in 2007 to 47 percent in 2010 and 66 percent in 2013, while total health insurance coverage reached 97 percent of the population. The share of public funding increased from 51 percent of total health care spending in 2005 to 68 percent in 2012, as public health care spending increased from 3.3 percent of GDP to 5.4 percent of GDP during the same period (MEF, 2013).

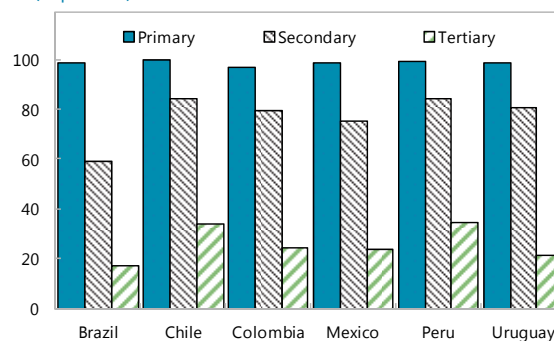
**Uruguay: Public Health Insurance Coverage, 2007-2013**  
(In percent of population)



Sources: Ministry of Public Health.

**21. Enrollment in education increased at all levels but remains segregated among income groups.** Uruguay has public and private education systems at all levels of education, and the enrollment rates at the national level were almost universal (99 percent) for primary school, which is mandatory, 80 percent for secondary school, and 21 percent for tertiary education in 2011 (Table 6). Despite progress in increasing school enrollment rates, post secondary and tertiary education enrollment remains among the lowest in the region, due partly to high repetition rates in lower secondary and drop-out rates in upper secondary levels (OECD, 2014). Public school enrollment, on the other hand, has fallen over the last decade at all levels of education and for all income groups, especially for the top income

**Enrollment Rates by Level of Education, 2011 / 1**  
(In percent)



Sources: Socio-Economic Database for Latin America and the Caribbean. (CEDLAS)  
1/ 2010 for Mexico.

<sup>12</sup> Bucheli et al. 2013 show that while spending on upper secondary and especially tertiary education is less progressive, and indirect taxes are in fact regressive, the majority of the components of Uruguayan tax-transfer system show high progressivity.

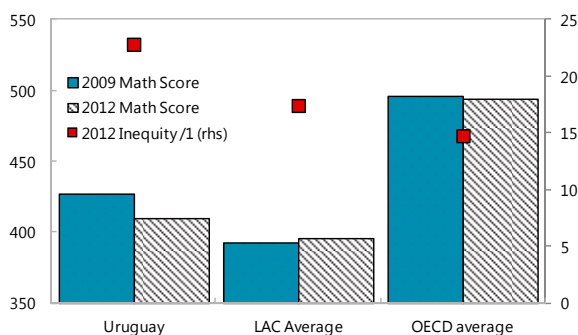
quintiles (Table 6). In 2011, while most (over 90 percent) of the students from the lowest income quintile still attended public schools at each level of education, public school enrollment rates for students from the highest income quintile were lower (20, 40, and 70 percent at the primary, secondary, and tertiary levels, respectively). The divergence in the quality of education between the public and private school systems, and the differences in financing thereof create inequity in access to quality education.

		Net Enrollment Rate per Income Quintile (%) /1						Share of Students in Public Schools per Income Quintile (%)					
		1	2	3	4	5	total	1	2	3	4	5	total
		1992	Primary	97	99	99	100	99	98	97	91	80	65
	Secondary	56	71	81	86	93	74	98	95	90	85	48	84
	Tertiary	3	9	13	19	36	15	100	100	98	97	91	96
2000	Primary	98	99	99	100	99	99	99	97	88	74	38	87
	Secondary	55	75	84	92	95	76	99	98	93	82	48	87
	Tertiary	3	7	12	22	44	15	99	98	99	95	85	92
2011	Primary	99	99	99	98	97	99	98	91	78	60	23	80
	Secondary	69	79	85	91	97	80	99	95	87	73	43	84
	Tertiary	4	9	18	30	56	21	93	90	92	88	73	83

Source: Socio-Economic Database for Latin America and the Caribbean (CEDLAS).  
1/ Share of children/youth in primary/secondary/tertiary school age attending primary/secondary/tertiary education.

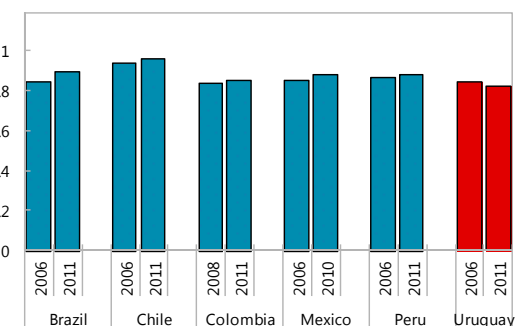
**22. The quality of education is a growing concern in Uruguay, as it is for the Latin America region as a whole.** According to the OECD's PISA survey, which assesses 15-year-olds in mathematics, reading, and science, Uruguayan students' absolute scores declined between 2003 and 2012 in all three subjects, and Uruguay lost its top ranking among Latin American countries (in 2012 it ranked third behind Chile and Mexico in both math and reading). As a whole, Latin America

**PISA Results, 2009 vs 2012**  
(In absolute value (lhs), in percentage (rhs))



Source: OECD.  
1/ Percentage of variation in student performance explained by socio-economic background.

**Educational Mobility Index for Teenagers of Ages 13 to 19 /1**



Sources: Socio-Economic Database for Latin America and the Caribbean (CEDLAS).  
1/ The Educational Mobility Index is defined as 1 minus the proportion of the variance of the schooling gap (defined as the difference between (i) years of education that a child would have completed had he entered school at normal age and advanced one grade each year, and (ii) the actual years of education) that is explained by family background. In an economy with very low mobility, family background would be important and thus the index would be near zero.



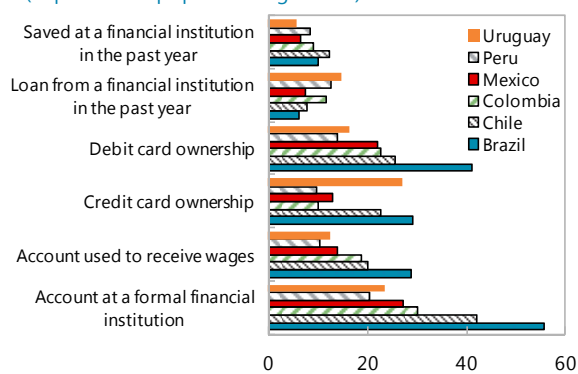
remains the lowest-ranking region in the survey, with all eight countries included in the assessment placed well below the PISA average. Moreover, in the latest PISA survey, together with Peru and Chile, Uruguay ranked among the countries with the lowest equity in education, with a large part of variation in performance explained by socio-economic factors, including parents' educational and occupational attainment, and living standards. Educational mobility is somewhat lower in Uruguay compared with the region, and has notched down recently, whereas it has increased slightly in other LA6 countries.

**23. There is scope to improve financial inclusion in Uruguay and the recently approved Financial Inclusion Law is welcome in this regard.** Access to financial services is crucial for households' ability to save in order to insure against economic vulnerabilities and build wealth, and borrow in order to smooth consumption. In Uruguay, only a quarter of adults have an account at a formal financial institution, as compared to one third of adults on average in other LA6 countries. Around half of these accounts are used to receive wages. While credit card ownership is among the highest within the LA6, debit card ownership is among the lowest. In parallel, obtaining loans from a financial institution is more common in Uruguay than in the rest of the region, whereas saving in financial institutions is less common. The Financial Inclusion Law approved in April 2014 requires all wages, pensions, and work benefits to be paid into formal bank accounts or debit cards, and mandates that workers be able to access affordable credit that is repaid directly from these accounts. In addition, the law provides temporary tax cuts on credit and debit card purchases to reduce the use of cash as a payment instrument. These measures are expected to bring about a substantial increase in the access to, and the use of, formal financial services, at an annual fiscal cost of 0.1 percent of GDP until end-2015.

## D. Taking Stock and Looking Ahead

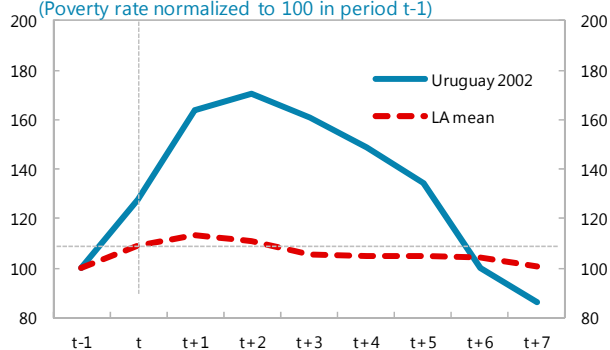
**24. Preserving strong and stable growth is essential for cementing and further enhancing the impressive social gains achieved by Uruguay in the last decade.** Evidence confirms that poverty increases significantly after economic crises and Uruguay's experience in the early 2000s was no exception to this pattern. In fact, Uruguay experienced a bigger post-crisis jump in poverty than most other countries in the

**Selected Indicators of Financial Inclusion, 2011**  
(In percent of population aged 15+)



Sources: World Bank, Global Financial Inclusion Database.

**Change in Poverty during Crises: LA vs Uruguay 2002 1/**  
(Poverty rate normalized to 100 in period t-1)



Sources: PovCalNet, Laeven and Valencia (IMF, 2013) and Fund staff estimates. 1/ The poverty rate is calculated using the US\$4 PPP poverty line, and normalized to 100 in period "t-1". Period "t" indicates the year in which a banking, currency or debt crisis (or a combination of those) occurred based on the dataset compiled by Laeven and Valencia (IMF, 2013). Periods "t-1" to "t+7" denote the years spanning 1 year before and 7 years after the crisis year. The chart covers 26 crisis episodes that occurred in Latin America between 1980 and 2009 for which data on poverty rate for the next 7 years exists.

region. Nevertheless, the expansion of opportunities, and the remarkable reduction in poverty and inequality achieved by Uruguay since the mid-2000s present a success story of an economic and social recovery. The poverty reduction since the 2002 crisis in large part owes to strong economic growth, which raised employment and incomes while also enabling higher spending on social policies. Thus, maintaining strong and stable economic growth going forward and ensuring that social spending policies remain fiscally sustainable over time will be crucial for safeguarding and deepening the social gains achieved over the last decade.

**25. Strong skill formation is paramount to securing further gains in poverty reduction.**

Uruguayan cash transfer policies were successful in reducing poverty rates over the last decade, but a sizable share of the population remains at risk of falling back into poverty. Strengthening job training opportunities and job search assistance, especially for women and youth, would help transfer the poor and vulnerable population into the labor market and thus provide a more durable strategy for eliminating poverty and vulnerability. Recent government initiatives to capacitate young people through career guidance workshops and technical training programs are welcome steps.

**26. Enhancing the quality of education is a key challenge for improving equity as well as raising Uruguay's long term growth potential.** Declining PISA scores and the high dependence of student performance on socioeconomic conditions raise concerns on the quality and equity of education. Uruguay currently spends about 4.6 percent of GDP on education, below the 5.4 percent average among OECD countries. While additional resources could be allocated to improve the quality of education, there is room to improve the efficiency of education spending as well. Evidence suggests that Uruguay could save 15 percent in education spending and achieve the same enrollment rates (Grigoli, 2014). At the same time, recent research shows that improved labor skills and education would increase per capita income projected for 2050 by 40 percent in Uruguay (IADB, 2014), creating a virtuous cycle of growth and equity.

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# HOW WILL THE NORMALIZATION OF U.S. MONETARY POLICY AFFECT URUGUAY?<sup>1</sup>

*This Selected Issues Paper discusses the channels through which the normalization of U.S. monetary policy could affect Uruguay and investigates the strength of transmission of U.S. yield shocks to the Uruguayan economy. It shows that despite the relatively high current account deficit and inflation in Uruguay, the impact of the Fed's tapering announcement in May 2013 on Uruguayan bond yields was moderate and in line with regional peers. While Uruguay's solid public sector liquidity buffers mitigate near-term threats from U.S. monetary policy normalization, maintaining strong fundamentals will be critical to ensure resilience against global financial shocks.*

## A. Introduction

**1. Like other emerging market economies (EMs), Uruguay faces the challenge of adjusting to the coming normalization of monetary policy in the United States.** Since the Fed's tapering announcement in May 2013, local currency yields in Uruguay have increased significantly and the Uruguayan peso has depreciated strongly against the U.S. dollar, although a portion of these market movements may have been due to domestic policy changes that coincided with the Fed's announcement. This note assesses the likely impact of U.S. monetary policy normalization on Uruguay going forward, by identifying the relevant channels and strength of transmission of U.S. yield shocks on the Uruguayan economy, and makes comparisons with other EMs. We examine the sensitivity of Uruguayan yields to U.S. yield shocks in the period from May–September 2013 and decompose the movements attributable to U.S. shocks versus other factors.<sup>2</sup> We also examine the impact of yield shocks on the Uruguayan economy using a calibrated model.

## B. Stylized Facts

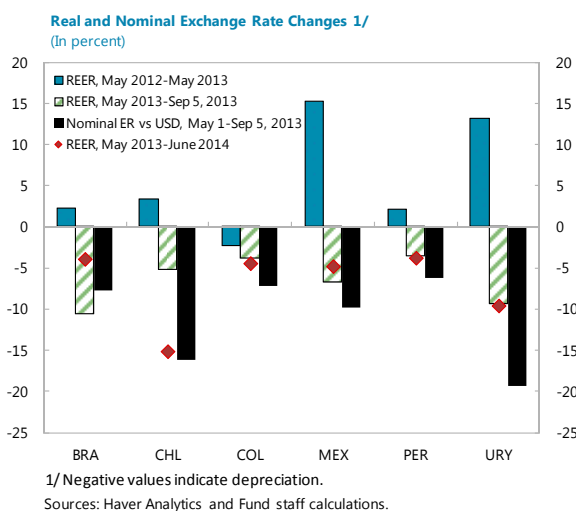
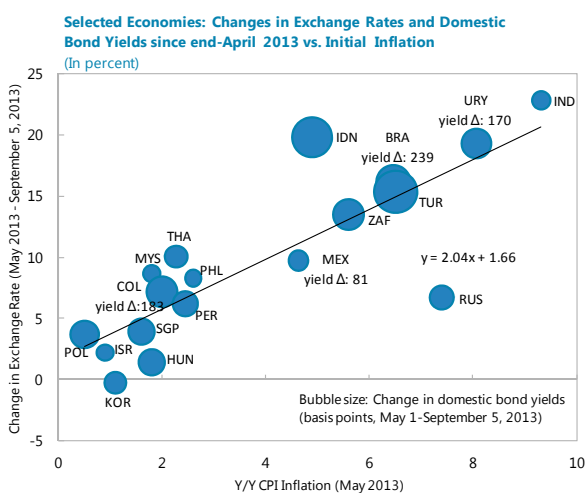
**2. The Fed's tapering announcement in May 2013 coincided with two key domestic policy developments in Uruguay that also affected exchange rate and yield movements.** In June 2013, shortly after the Fed's announcement, the central bank of Uruguay (i) changed its operational target for monetary policy from interest rates to the money aggregate effective July 2013, and (ii) broadened (and tightened) capital flow management measures (CFMs) that had been in place

<sup>1</sup> Prepared by Diva Singh and Yulia Ustyugova. The authors thank Keiko Honjo and Benjamin Hunt for providing the results from the IMF's Flexible Suite of Global Models.

<sup>2</sup> Much of the analysis in this paper focuses on the period from May 20 to September 5, 2013 for comparability with similar analysis done in the April 2014 Regional Economic Outlook, which focused on this period of maximum EM volatility following the Fed's tapering announcement.

since October 2012 to disincentivize foreign purchases of locally-issued public sector securities. As a result, exchange rate and local yield movements in Uruguay since May 2013 have been affected by both external and domestic factors.

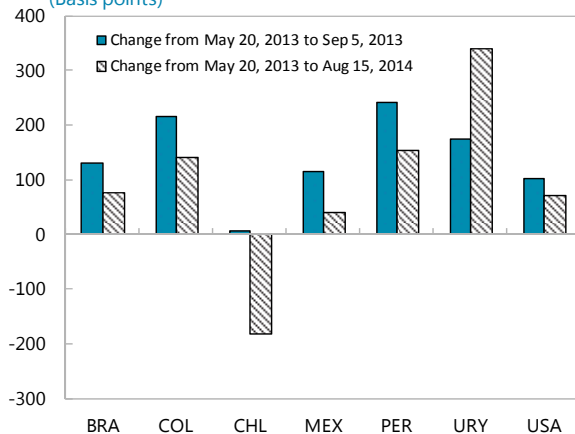
**3. In line with trends in other EMs following the Fed's announcement, the Uruguayan peso depreciated strongly after May 2013.** The nominal depreciation of Uruguay's national currency against the U.S. dollar in May to September 2013 (19 percent) exceeded those of its peers, likely in part due to the tightening of Uruguay's CFMs. It is important to note, however, that Uruguay's nominal depreciation has occurred against a backdrop of higher inflation than in most other EMs and relatively high nominal depreciations in Uruguay's regional trading partners. To the extent that the Fed's tapering signal triggered a REER correction in EMs, particularly those with strong preceding REER appreciations, the ensuing nominal depreciations against the U.S. dollar were more pronounced in countries with relatively high initial inflation rates and in countries whose trading partners faced relatively strong depreciation pressures. From May 2013 to December 2014, the currency recorded a nominal depreciation of about 30 percent, broadly in line with the trends in the region.



**4. Also in line with other EMs, bond yields in Uruguay increased after the Fed's announcement.** However, as with the exchange rate, the increase in Uruguayan bond yields in the second half of 2013 exceeded those of its peers. The peso yield curve shifted upwards by over 450 basis points from May to December 2013, more than any other LA6country.<sup>3</sup> It is likely that the domestic policy measures taken in Uruguay in June 2013 and thereafter, including the monetary policy tightening in the fourth quarter of 2013, contributed significantly to developments in the local

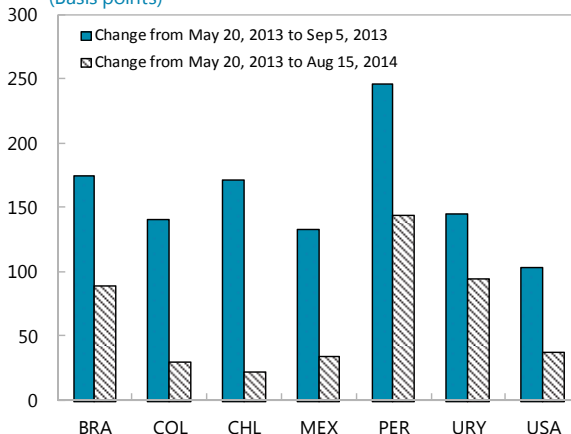
<sup>3</sup> LA6 includes Brazil (BRA), Chile (CHL), Colombia (COL), Mexico (MEX), Peru (PER), and Uruguay (URY).

**Change in 5-Year Local Currency Bond Yields**  
(Basis points)



Sources: Bloomberg LP; and Fund staff calculations.

**Change in 10-Year U.S. Dollar Bond Yields**  
(Basis points)



Sources: Bloomberg LP; and Fund staff calculations.

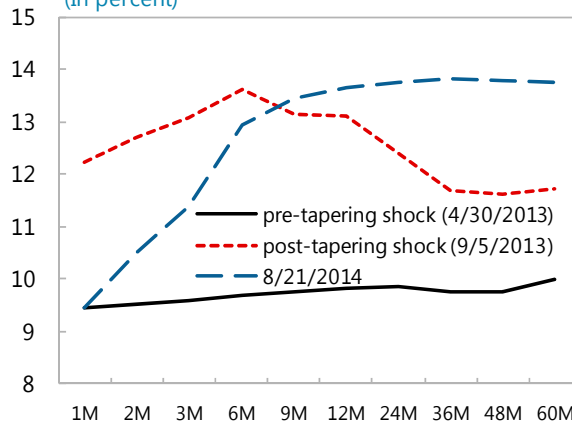
currency bond market in the latter half of the year. If we focus more narrowly on May-September 2013, the most intense period of post-tapering EM turbulence, local currency yields in Uruguay increased by 170 basis points, while Uruguay’s long-term foreign currency bond yields, presumably less affected by domestic policy changes and more by the Fed, increased by 145 basis points, both in line with other LA6 countries.

**5. Capital inflows to Uruguay slowed down in the second half of 2013, but remained positive.**

A by-product of record-low interest rates in the U.S. in recent years was a rise in capital inflows to emerging markets. In Uruguay, gross portfolio inflows had more than doubled in 2012 (to 4 percent of GDP) compared to 2011, and were 70 percent higher in the first two quarters of 2013 compared to the same period in 2012. Following the Fed’s announcement in May 2013, gross non-FDI capital inflows to Uruguay in the second half of the year remained positive and in line with the same period of 2012, but net inflows were somewhat smaller. The decrease in net inflows compared to the second half of 2012 was consistent with the pattern in other LA6

**Yield Curves in Pesos**

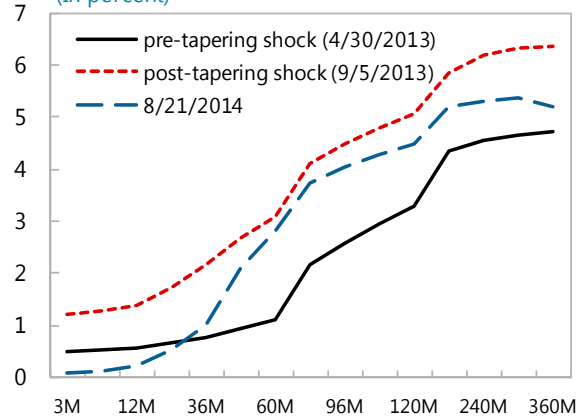
(In percent)



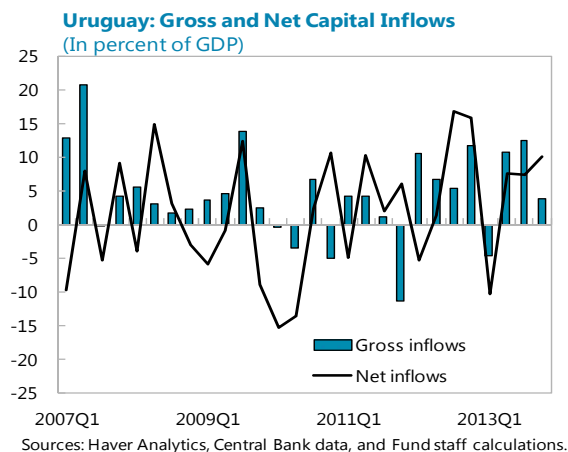
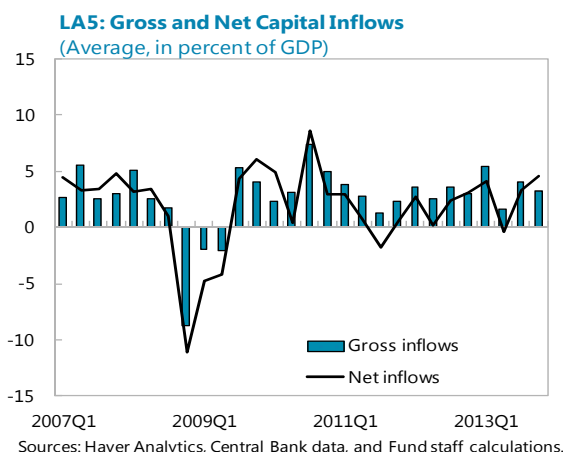
Source: BEVSA.

**Yield Curves in U.S. Dollars**

(In percent)



Source: BEVSA.

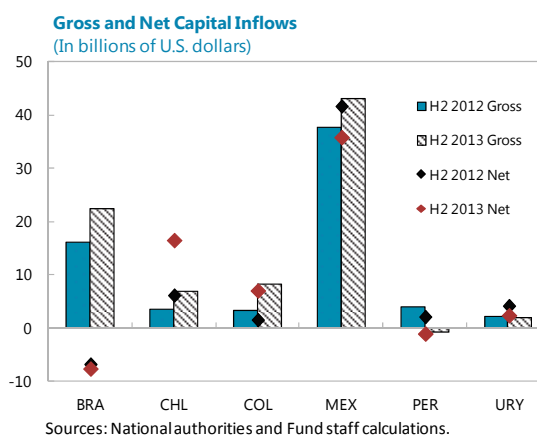


countries, with the exception of Colombia and Chile—where strong gross inflows together with asset repatriation by residents pushed net inflows above 2012 levels.

## 6. In sum, Uruguay's exchange rate, bond yields, and capital account flows reacted to the Fed's tapering announcement in line with the rest of the region.

In the most turbulent period of post-tapering emerging market turmoil from May to September 2013, Uruguay's local and foreign currency bond yields rose in line with the LA6 average. Similar to other currencies in the region, the Uruguayan peso depreciated against the U.S. dollar, albeit to a greater magnitude than others given the unwinding of

the strong REER appreciation in Uruguay in the year prior to the taper talk in a context of relatively high inflation. With respect to capital flows, while gross non-FDI capital flows to Uruguay remained in line with 2012 levels in the post-tapering period, net inflows were somewhat smaller, as seen in the majority of LA6 countries. As mentioned, it is important to note that Uruguay's financial markets in the second half of 2013 were also directly affected by the broadening and tightening of CFMs and the change in the domestic monetary policy framework.



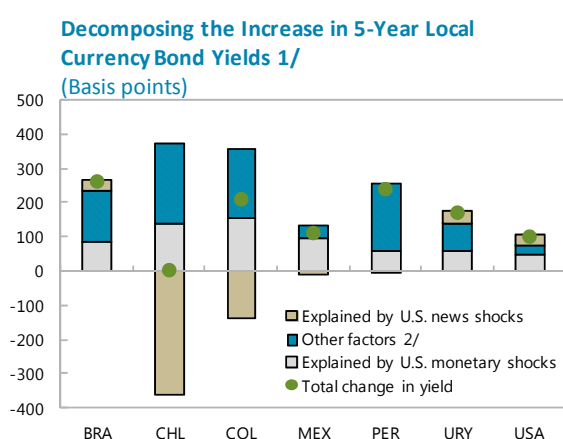
## C. Regression Analysis: How Sensitive are Uruguayan Yields to U.S. Yield Movements?

7. We use the regression model developed in Chapter 3 of the IMF's April 2014 Western Hemisphere Regional Economic Outlook to determine the sensitivity of Uruguayan bond yields to different types of U.S. yield shocks in the period following the tapering announcement. Specifically, we estimate the response of local currency yields to U.S. yield shocks by running a regression with time series for daily changes in 5-year local currency government bond yields on the contemporaneous and one-day-lagged values of U.S. monetary and news shocks



(defined below). We then decompose the portion of the increase in local currency yields from May 20, 2013 to September 5, 2013 (the most intense period of post-tapering EM turmoil) that can be attributed to U.S. monetary shocks and news shocks, with the remainder attributed to other factors, such as domestic conditions (captured by the regression constant and residual). We perform the regression analysis and decompositions for Uruguay and other Latin American economies with data availability to compare the sensitivity of Uruguayan yields to that of regional peers. We also conduct identical analysis for 10-year foreign currency bond yields.

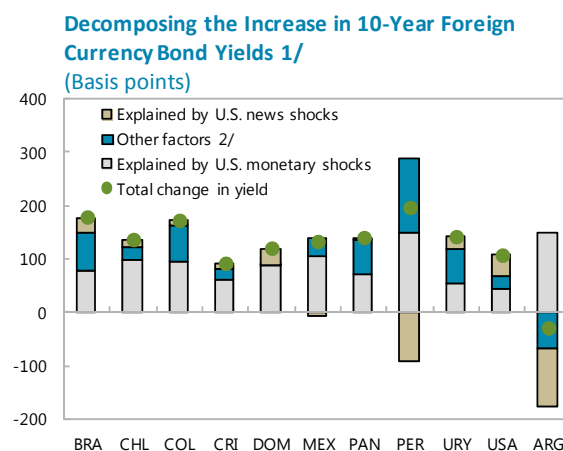
**8. The U.S. monetary and news shocks used in the regressions are identified in a separate U.S.-specific vector autoregression (VAR) model.**<sup>4</sup> Positive monetary shocks are identified as innovations that drive up 10-year U.S. Treasury bond yields, while depressing the price of U.S. equities. They capture unanticipated changes in the perceived outlook for monetary policy that are unrelated to changes in growth expectations or investor risk sentiment. Positive news shocks, on the other hand, are those that raise both bond yields and equity prices. They capture other sources of news that can affect bond yields, notably growth surprises or variations in risk sentiment.



Sources: Bloomberg L.P.; and Fund staff calculations.

<sup>1</sup> Refers to the period **May 21, 2013 to September 5, 2013**, based on a regression of daily changes in 5-year government bond yields on identified U.S. shocks.

<sup>2</sup> Includes impact of other external or domestic factors captured by the regression constant and residuals.



Sources: Bloomberg L.P.; and Fund staff calculations.

<sup>1</sup> Refers to the period **May 21, 2013 to September 5, 2013**, based on a regression of daily changes in 10-year government bond yields on identified U.S. shocks.

<sup>2</sup> Includes impact of other external or domestic factors captured by the regression constant and residuals.

**9. The response of Uruguayan local and foreign currency bond yields in May-September 2013 to the increase in U.S. bond yields was in line with other LA6 countries.** The beta or response of Uruguay's local currency bond yields to the change in U.S. yields was 1.7, in line with the LA5 average but lower than the betas of Colombian, Brazilian, and Peruvian local currency bonds (which were closer to 2.5). Similarly, the beta of Uruguay's long-term foreign currency bond yields to U.S. yields was 1.4, in line with Colombia and Mexico, but lower than the betas of Brazil, Chile and Peru. Thus, as in other EMs, Uruguayan yields moved more than one-for-one with U.S. bond yields in

<sup>4</sup> For more details on the empirical approach, see the 2014 IMF Spillover Report, Annex V.

the aftermath of the tapering announcement, although the increase in Uruguayan yields was at the moderate end of LA6 reactions.

**10. A decomposition based on the regression results shows that U.S. monetary shocks could explain about 33 percent and 40 percent of the observed increase in Uruguayan local currency and foreign currency bond yields in May-September 2013, respectively.** The contribution of U.S. news shocks to Uruguayan yield increases during this period was more moderate (explaining about 20 percent and 15 percent of the increase in local currency and foreign currency bond yields, respectively). These results are consistent with prior analysis in Chapter 3 of the IMF's April 2014 Western Hemisphere Regional Economic Outlook, which found that while monetary shocks consistently trigger higher yields in EMs, the average impact of news shocks on EMs hovers around zero as the increase in yields driven by positive U.S. growth surprises (higher U.S. growth spills over to economic activity in EMs, leading to tighter monetary conditions) is broadly offset by the impact of positive risk appetite shocks (higher risk appetite raises U.S. bond yields but lowers emerging market spreads).<sup>5</sup>

**11. The larger part of the increase in Uruguayan local and foreign currency bond yields—45 percent—could be attributed to other, most likely domestic, factors.** About 45 percent of the increase in both local currency and foreign currency Uruguayan yields in May-September 2013 could not be attributed to either U.S. monetary or U.S. news shocks, and was likely due to domestic policies, such as the expansion and tightening of CFMs, the change in the monetary framework to money targeting, and the tightening of domestic monetary policy from September 2013. The share of Uruguay's foreign currency yield increase that could not be attributed to U.S. monetary or news shocks was relatively large compared to regional peers, where the unexplained segment for foreign currency yields averaged closer to 30 percent. On the other hand, the share of Uruguay's local currency yield increase that could not be explained by U.S. shocks was slightly lower than the average unexplained segment for local currency yield increases in other LA6 countries.

**12. Overall, the regression results suggest that a gradual normalization of U.S. monetary conditions due to higher growth in the U.S. should have a moderate positive impact on Uruguayan bond yields.** The impact of U.S. news shocks on Uruguayan local and foreign currency yields in the most intense period of post-taper talk EM turmoil from May-September 2013 was about 30 basis points, broadly consistent with the results for most other Latin American peers.

## D. How Important are Borrowing Cost Shocks for Uruguay's Economy?

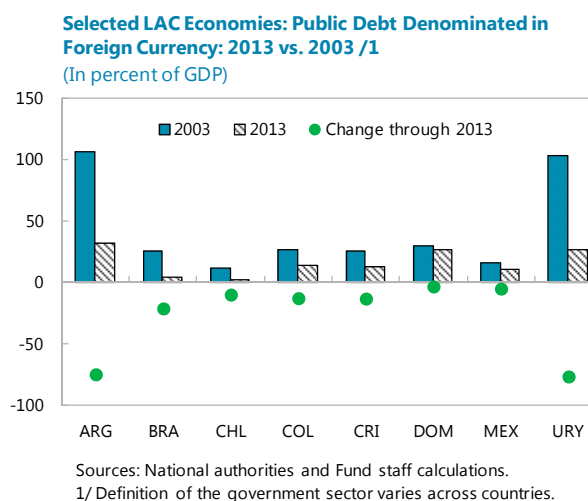
### Impacts on balance sheets and financing needs

**13. The direct effect of higher long-term U.S. interest rates on Uruguay's public finance would be limited thanks to the prudent debt management strategy of recent years.** Higher

<sup>5</sup> See Chapter 3 of the IMF's April 2014 Western Hemisphere Regional Economic Outlook.

global interest rates due to normalization of U.S. monetary policy would raise the marginal funding costs of EM governments, as was already observed in May-September 2013. However, the debt management strategy implemented by Uruguayan authorities over the past decade would imply that the impact of higher global interest rates on Uruguay's public finances should be gradual:

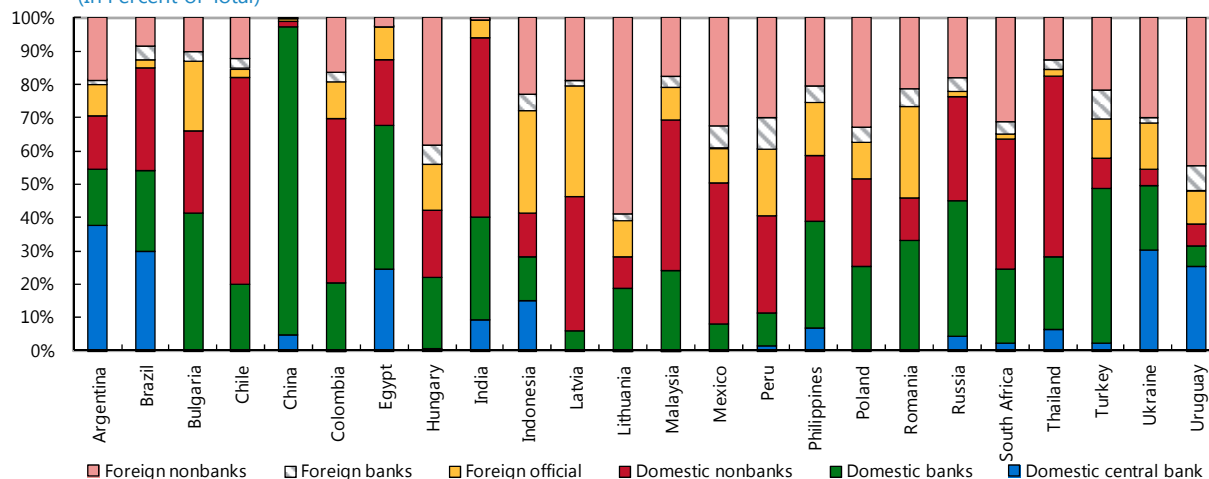
- First, as of 2014Q3, only about 15 percent of total public debt (and 20 percent of total external debt) is exposed to variable interest rates.
- Second, the long average maturity of Uruguayan public debt (exceeding 10 years for central government debt) will serve to delay the direct effect of tighter U.S. financial conditions on refinancing costs and roll-over risk.
- Third, the share of foreign currency denominated public debt in Uruguay has significantly decreased over the past decade, standing at slightly above 40 percent of total public debt in 2014Q3, which means that exchange rate fluctuations imply smaller fluctuations in the public debt burden than in the past.



**14. The composition of the investor base of Uruguay's public debt suggests close monitoring of capital flows is warranted during periods of high market volatility.** More than 50 percent of Uruguay's general government debt is held by foreign private investors—mostly comprising nonbank institutional investors. The existing literature analyzing capital flows during crisis episodes suggests that foreign private investors are more sensitive to interest rate changes than foreign official or domestic investors (Arslanalp and Tsuda, 2012), and can play a destabilizing role by reducing their holdings at times of volatility. The IMF's April 2014 Global Financial Stability Report, however, indicates that important differences exist within nonbank institutional investors: large institutional investors such as pension funds and insurance companies tend to have longer-term investment strategies and more resilience during normal and moderately volatile times than mutual funds, which tend to engage in momentum trading and could be more prone to herd behavior. In the case of Uruguay, while a relatively large share of foreign private investment in government debt stems from larger institutional investors, anecdotal evidence suggests a significant presence of mutual funds in that group.

## EM Economies: Holders of Government Debt, end-2013

(In Percent of Total)



Source: Sovereign investor base estimates by Arslanalp and Tsuda (2014).

Note: Government debt indicates general government gross debt. Domestic banks are depository corporations residing in the country (IFS definition). Foreign banks are BIS reporting banks residing outside the country. Foreign official loans indicate loans from bilateral and multilateral creditors. Foreign nonbanks and domestic nonbanks are imputed from external and total debt.

**15. Overall, the risks associated with Uruguay's relatively large external financing needs appear to be contained given the presence of large buffers.** The external financing needs of Uruguay defined as the sum of the current account deficit and amortization of external debt stood at 16 percent of GDP at end-2013, slightly exceeding the risk assessment benchmarks used within the DSA framework. However, the current account deficit in recent years has been primarily financed by FDI which proved to be stable over the crisis years. The risks associated with external financing of public sector needs are also contained by the presence of high liquidity buffers and contingent credit lines: the public sector has access to contingent credit lines of 3½ percent of GDP and the liquid financial assets of the public sector stood at 26 percent of GDP at end-2013.

### Impact on real activity

**16. To assess the quantitative impact of U.S. monetary policy shocks on overall economic activity in Uruguay, we use the IMF's Flexible Suite of Global Models (FSGM).** This model allows a general equilibrium analysis of the global economy comprising a system of multi-region, general equilibrium models that combine micro-founded and reduced-form relationships for various economic sectors. International linkages are modeled in aggregate for each country/region. The exchange rate in the short run is determined via uncovered interest parity, while in the long run it adjusts to ensure external stability given households' desired holdings of net foreign assets.

**17. We simulate two types of shocks to capture the impact of positive real-sector impulses as well as tighter financial conditions.** The first shock is a stronger-than-expected U.S. recovery that entails a faster normalization of U.S. monetary policy. The second shock mirrors the first shock but adds a simultaneous rise in EM risk premiums, which could result from an increase in the U.S. term premium.

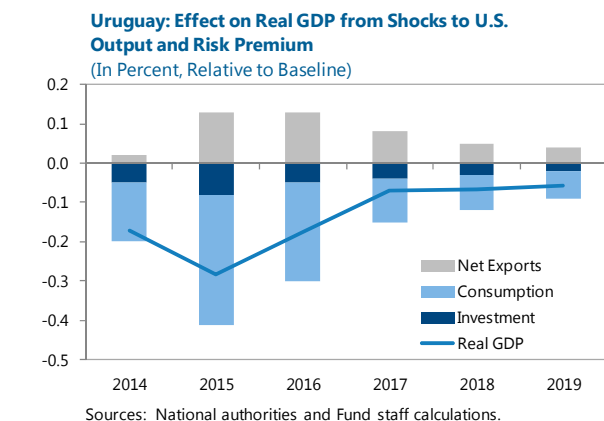
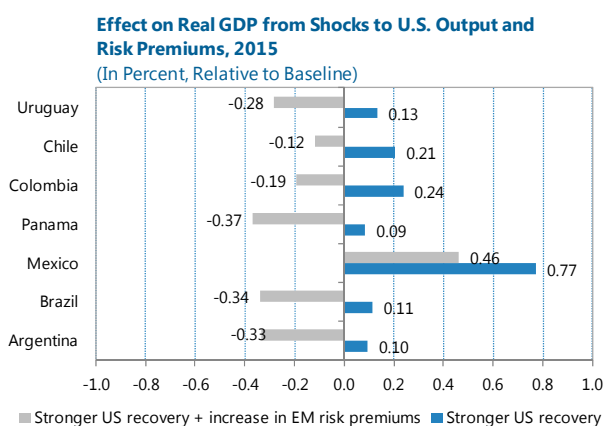
**18. The results indicate that while the scenario of a stronger U.S. recovery would provide positive growth impulses to Mexico and other Central American economies, these are less important for Uruguay and South America overall.** According to the model, a positive U.S.

growth surprise of 1 percentage point relative to the baseline through 2015 would only increase GDP growth in Uruguay by 0.1 percentage point compared to the baseline. This result is not surprising given the modest trade linkages between Uruguay and the United States (only 4 percent of Uruguay’s exports are destined for the United States). Indirect trade linkages are also limited: almost 30 percent of total Uruguayan exports go to Brazil and Argentina—which also have limited trade linkages with the United States. Therefore, while higher U.S. demand provides a significant positive growth impetus to Mexico and other Central American economies with important trade linkages to North America, as shown in the model, the direct real economic benefits of higher U.S. growth to Uruguay and most of South America are likely to be marginal.



**19. On the other hand, a stronger U.S. recovery accompanied by an increase in EM risk premiums would moderately dampen growth in Uruguay through financial channels.**

If the acceleration of U.S. growth were to be accompanied by an increase in risk premiums, with market interest rates rising by about 1 standard deviation (calculated from the annualized country-specific distribution of EMBIG bond spread changes since end-2011) in each Latin American country (102 basis points in the case of Uruguay), GDP growth in Uruguay would be roughly 0.3 percentage point lower than in the baseline, according to the model. In this scenario, weaker domestic investment and consumption in Uruguay due to tighter financial conditions would more than offset the positive impetus for net exports from stronger U.S. growth. The impact of this scenario on Uruguay’s GDP growth is similar to the impact on Brazil and Argentina, with



Colombia and Chile being slightly less adversely affected.

## E. Policy Takeaways

**20. The reaction of Uruguay's bond yields and exchange rate to the Fed's May 2013 tapering announcement was broadly in line with those observed in other countries in the region.** The empirical literature finds that the response of EM asset prices to monetary policy announcements in the United States has been differentiated by countries' vulnerability levels.<sup>6</sup> In particular, elevated current account deficits, high inflation, weak growth prospects, and low reserves have been dominant factors affecting the market reaction to changes in U.S. financial variables. The analysis in this paper shows that in Uruguay, despite the relatively high current account deficit and inflation, the impact of the Fed's tapering announcement on local and foreign currency bond yields in May-September 2013 was moderate and broadly in line with the rest of the LA6. This observation suggests that potentially negative market perceptions stemming from Uruguay's current account deficit and above-target inflation were likely offset by the country's strong reserves position and the high share of FDI in financing the current account deficit.

**21. Going forward, maintaining strong fundamentals will be important to ensure continued resilience against global financial shocks.** For Uruguay, consolidating macroeconomic stability—by anchoring inflation at the mid-point of the official target range, maintaining public debt on a downward trend through prudent fiscal policy, and safeguarding the financial system through continued strong regulation and supervision—is a priority in this regard.

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<sup>6</sup> See, for example, International Monetary Fund (2014e) and Bowman, Londono, and Sapriza (2014).

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