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SOCIAL SPENDING, TAXES, AND INCOME REDISTRIBUTION IN URUGUAY

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ABSTRACT

How much redistribution does Uruguay accomplish through social spending and taxes? How progressive are revenue collection and social spending? A standard fiscal incidence analysis shows that Uruguay achieves a nontrivial reduction in inequality and poverty when all taxes and transfers are combined. Direct taxes are progressive and indirect taxes are regressive. Social spending on direct transfers, contributory pensions, education and health is quite progressive in absolute terms except for tertiary education, which is almost neutral in relative terms.

Keywords: poverty, inequality, Uruguay, social spending, taxes

JEL codes: I3, H2, H5

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1. INTRODUCTION

With a GNI per capita of $12,412 (2005 PPP) dollars in 2009, Uruguay is an upper middle-income country with a population of 3.3 million people. Primary government spending (total minus debt servicing) to GDP equaled 27.9 percent in 2009; Uruguay has a medium-sized government when compared with other countries in Latin America. With a long tradition of providing public services and social benefits, social spending (including contributory pensions) was equivalent to 21.7 percent of GDP.

How much redistribution does Uruguay accomplish through social spending and taxes? How progressive are revenue collection and social spending? What could be done to further increase redistribution and improve re-distributional effectiveness? Using the *Encuesta Continua de Hogares* (2009) – hereafter ECH – and the *Encuesta de Gastos e Ingresos de los Hogares* (2006) – hereafter EGIH – collected by the *Instituto Nacional de Estadística* (INE) of Uruguay, we analyze the impact of social spending on inequality and poverty. We define a benchmark scenario in which contributory pensions are under market income and a sensitivity analysis in which they are considered a government transfer. We do not incorporate behavioral, life-cycle or general equilibrium effects and we do not look into the macroeconomic sustainability of taxation and social spending patterns. Nonetheless, this study is one of the most detailed incidence analyses for Uruguay to date.

The paper is organized as follows. Section 2 presents a summary of Uruguay's social spending and taxes, section 3 presents the data used and section 4 presents the main results. Section 5 analyses the capacity of improving the coverage of direct transfers. Finally we share the main conclusions in section 6.

2. SOCIAL SPENDING AND TAXES IN URUGUAY: A BIRD'S EYE VIEW [1]

2.1 Social Spending

In this paper we define social spending as direct transfers and in-kind transfers. Direct transfers include family allowances, non-contributory pensions, other (cash) transfers, and food transfers. In-kind transfers include education and health benefits. In the sensitivity analysis, social spending also includes contributory pensions.

[1] For more details, see Bucheli et al. 2012

Table 1. Social Spending by Component (as a Percentage of GDP), Number of Beneficiaries and Mean Transfer: 2009

	Government Spending (as a % of GDP)	Beneficiaries [a]	Mean transfer per beneficiary (PPP US$) [b]
Total Population	-.-	3,344,938	-.-
Gross Nat Inc/capita (PPP US$)	12,412	-.-	-.-
Total Government Spending	30.8%	-.-	-.-
Primary Government Spending [c]	27.9%	-.-	-.-
Debt Servicing	2.9%	-.-	-.-
Total Government revenues [d]	28.8%	-.-	-.-
Government deficit [e]	2.0%	-.-	-.-
Public sector deficit [f]	-1.7%	-.-	-.-
Social Spending by component			
Social Spending	13.0%	-.-	-.-
Social Spending (In Incidence Analysis Benchmark)	10.6%	-.-	-.-
All Direct Transfers	2.3%	-.-	-.-
Family Allowances	0.4%	336,882	37.6
Non-contributory Pensions	0.5%	50,669	230.0
Food baskets	0.2%	202,561	-.-
Food vouchers	0.1%	52,645	49.8
Other Direct Transfers	1.0%	164,126	1337.7
In Kind Transfers	8.4%	-.-	
Education	3.7%	663,988	168.4
Health	4.7%	2,437,641	65.4
Other Social Spending (Not in Incidence Analysis)	2.3%	-.-	-.-
Housing and community services	1.4%		
Operational expenses (Not in Incidence Analysis)	0.9%	-.-	-.-

Source: Authors' calculations using data from BPS, MEF, DGI, JUNASA, MIDES and OPP

Notes:

a. The numbers in tables 5 and 6 were calculated based on the coverage found in *Encuesta Continua de Hogares, INE* (2009) while the numbers in table 1 are based on official figures for coverage. The two are not necessarily the same.

b. Calculated by dividing the official spending number by the official number of beneficiaries, in dollars PPP.

c. Includes central government.

d. Includes central government and the balance of the public enterprises except financial sector.

e. Includes central government, the balance of the public enterprises except financial sector and the debt servicing.

f. Includes central government, the balance of public enterprises, financial sector and local government.

Direct Transfers

The non-contributory pensions program (Pensión a la vejez e invalidez), which has been in place since 1919, is available to low-income adults older than sixty-four years of age (over sixty-nine years of age prior to July 2009) and disabled individuals who are not eligible for benefits from the contributory system. The non-contributory pension program provides monetary transfers of lesser value than those in the contributory system. As shown in table 1, the average contributory pension is US$402 PPP and the average non-contributory pension is US$230. In 2009, 92 percent of individuals older than sixty-four years were covered by either a contributory (479,000 individuals) or non-contributory pension (51,000 individuals). Note that though around one-third of workers in the last ten years have not contributed to the formal social security system, the vast majority of the elderly receive contributory pensions. This is the result of the fact that until 1996 there were no formal records of contributions and the elderly were eligible to receive a contributory pension by just presenting a testimony that they had contributed enough to be entitled to the minimum. In this context, the non-contributory pensions were equivalent to 0.5 percent of GDP in 2009.

Family Allowances Program (Asignaciones Familiares).Within a context of increased poverty, in 1999 and 2004, the coverage of the family allowances program (which until that time had been available only to those who were social security system contributors) was expanded to include non-contributing families with an income below 100 dollars per month, and a female head of household or an unemployed member. In 2004, it was expanded to cover all families with incomes below 100 dollars per month. The program was a means-tested conditional cash transfer program whose transfer was conditional on school attendance and periodic health checkups for children. The beneficiaries were children under nineteen years of age who were attending school, as well as those who had not yet entered elementary school. In 2008, a new, targeted, non-contributory program was created. The target population remained the same but the new program has higher benefits and a wider coverage than the old program. The income threshold to be eligible is higher but also other characteristics (such the type of housing) were added to determine eligibility. The benefit increases with the number of children, but at a decreasing rate, and is greater for a child attending secondary school than for one studying in an elementary school. The size of the benefit is determined with the following formula: the basic transfer plus number of children in elementary school raised to the power of 0.6 plus number of children enrolled in secondary school raised to the power of 0.6. In 2009, there were 337,000 beneficiaries (41 percent of children in eligible age) with an average monthly transfer of US$38 PPP. The program's budget was equal to 0.4 percent of GDP in 2009.

Food Programs. There are food assistance benefits that are administered by different agencies. Without considering the food assistance provided in schools (which is paid for out of the education budget), these programs account for 0.3 percent of GDP. The most traditional food assistance programs offer free food baskets (Canastas alimentarias) and dining room service (Comedores) to those in greatest need. In 2009, the number of beneficiaries was 203,000. As of 2006, there is also a means-tested food voucher (Tarjeta Uruguay Social) targeted to households with children under eighteen, which allows households to obtain food and hygiene products, free of charge.[2] In 2009, the number of beneficiaries was 53 million and the monthly average transfer was US$50 PPP.

Other direct transfers. The social security system administers a set of programs directed to its contributors: unemployment insurance, maternity and family benefits, disability coverage and sickness allowances. These programs, hereafter called other direct transfers, have low requirements in terms of length of time of contribution and are designed to smooth the impact of idiosyncratic shocks or are means-tested. In 2009 they were equivalent to 1.0 percent of GDP.

In-kind Transfers

Health. Public expenditure on health care equals 4.7 percent of GDP. It is comprised of two programs: direct public health care for people living in poverty – a program that has existed since the end of the nineteenth century – and the National Health Insurance system, which was launched in 2007. This system subsidizes private health care of workers, their spouses and dependent children under eighteen. It currently covers some inactive workers, and the intention for the future is to attain universal coverage.

Education. Public education spending is 3.7 percent of GDP. At all levels of education there are two systems: a free, public education system, and a private system. The public education system has the larger enrollment, and accounts for 85 percent of elementary school enrollment, 82 percent of secondary school enrollment, and 83 percent of post-secondary enrollment. At present, preschool (five-year-olds), elementary school and the first three years of secondary school are mandatory. In the educational component of social spending we also include a day-care program (CAIF) whose target beneficiaries are poor children up to three years of age.

Contributory Pensions

The largest component of social spending is the contributory pensions program (8.7 percent of GDP in 2009), which includes the retirement and the survivors' pension. The program was created towards the end of the nineteenth century for workers in specific sectors. During the twentieth century, coverage was extended to all workers, including the self-employed. Currently, the system is organized on a pay-as-you-go pillar administered by the public sector and an individual capitalization fund pillar administered by a private company selected by the contributor. Though contributions are

[2] In 2006 the government launched a transitory program to combat poverty known by its acronym in Spanish as PANES. The program was terminated in 2007. In 2008, the government launched the Plan for Equity that includes two programs – the Uruguayan Card (Tarjeta Uruguay) and Family Allowances (Asignaciones Familiares) – which automatically incorporated the beneficiaries of PANES and added new beneficiaries.

compulsory for all workers, in 2009 32 percent of workers did not contribute to social security (ECH, INE). The minimum age for retirement is sixty years old (sixty-four years old prior to July 2009) with a minimum of thirty years of contributions. In the benchmark scenario, contributory pensions are included under market income. In the sensitivity analysis, they are included under government transfers.

Other Social Spending

In the present paper, we do not include the operational expenses of social security system (0.9 percent of GDP) or the housing and community services (1.4 percent of GDP) because we cannot identify the specific benefits allocated to each household.

2.2 Taxes

Of the taxes levied by the government, 56 percent are indirect taxes, with the Value Added Tax accounting for a predominant share.

Direct taxes on personal income account for 22 percent of the government's tax revenues. They include a tax on personal income, created in 2007, that treats income derived from work, pensions, and income derived from capital separately. Income derived from capital is taxed at a flat rate but wages and pensions are taxed at progressive rates. Deductions are allowed for all levels and are basically associated with family-related responsibilities.

Direct taxes also include a tax/contribution that finances the National Health Insurance system. It depends on the beneficiary's level of labor earnings and on whether the worker is the sole beneficiary, or if members of his or her family are also covered.

Finally, there is a small tax on private labor earnings that support a Labor Retraining Fund.

Indirect taxes. The VAT's base rate is 22 percent. Goods and services considered basic necessities are exempt (for example, education and milk), or are taxed at a rate of 10 percent (for example, several types of food, such as meat and bread, and health care items). In addition, there are taxes on specific products such as fuel, alcoholic beverages, tobacco, automobiles, and various other articles.

Other taxes. The remaining 22 percent of total tax revenues come from taxes on business revenues and on taxes on the property of individuals and legal entities. These taxes are not included in our analysis.

3. DATA

The ECH collected by INE in 2009 has a national coverage. It reports individual characteristics, labor activities and income net of taxes and contributions of all household members by source including by monetary public transfers.

The survey does not include the amount of taxes and contributions paid. Thus, we use the schedule of contributions to the social security system and the schedule of direct personal income taxes in order to impute them. As the survey reports whether the worker contributes to the social security system, we use this information to perform the calculations. We assume that the workers who do not pay the contributions do not pay direct taxes either (for details see Bucheli et al. 2012). Note that these calculations mean that direct taxes and contributions are entirely paid for by workers. In order to complete the distributional analysis, we used a scaling-up factor of 1.2 for all labor and capital income and the taxes and contributions related to this income. We also used a scaling-up factor of 1.2 for the other direct transfers because they are benefits related to forgone wages (unemployment insurance, etc.). The ECH also reports pensions after taxes so we calculate the taxes on pensions. The scaling-up factor was 1.09 and 1.49 for contributory and non-contributory pensions, respectively.

In addition, the ECH inquires about public program coverage: family allowances, school attendance by education level, type of health care and access to food benefits. In the case of family allowances, we assigned the benefit according to the formula. For the in-kind benefits we assigned a benefit equivalent to the ratio spending/beneficiaries, calculated with the administrative registers. The average benefit for each program is reported in table 1, though in education and health we assigned the average benefit by sub-program (for details see Bucheli et al. 2012). These benefits were not scaled up.

In order to estimate the indirect taxes paid by each household we used the EGIH collected by INE between November 2005 and October 2006. We identified fifty-two consumption baskets using two criteria: a high substitutability and the same tax rate. For each basket we run a multiple regression with household spending on each basket of goods as the dependent variable and a set of independent variables that are available both in EGIH and ECH, such as the household income, the size of the household, the average years of schooling of the adults of the household, a deprivation index, the total hours worked in the labor market by all the members of the household, the participation of age-groups by sex in the household (we considered teenage groups), a set of regional dummies. The first five variables were introduced as a polynomial of degree three in order to have a more parsimonious functional form. Using the coefficients from these regressions we estimated the consumption on each of the fifty-two baskets for the ECH. [3]

[3] The residuals were reallocated using the "uvis" command in STATA 12. Next we estimated indirect taxes paid by applying the corresponding rate to the consumption for each one of the baskets assuming that everyone paid (no evasion). So, this is an upper bound estimate of how much people paid in indirect taxes. The scaling-up factor we calculated for indirect taxes was 1.2.

4. SOCIAL SPENDING, TAXES AND INCOME REDISTRIBUTION IN URUGUAY: MAIN RESULTS

4.1 Impact on Inequality and Poverty

Table 2 presents the Gini coefficient and headcount ratio (using the international poverty lines of US$2.50 PPP and US$4 PPP per day and the national moderate poverty lines which is US$7.8 PPP in 2009) for the benchmark scenario and sensitivity analysis.

Table 2. Gini and Headcount Index for Different Income Concepts

	Market Income	Net Market Income	Disposable Income	Post-fiscal Income	Final Income
Benchmark scenario					
Gini	0.492	0.478	0.457	0.459	0.393
Headcount index					
Poverty line: $2.5 PPP/day	5.1%	5.1%	1.5%	2.3%	-.-
Poverty line: $4 PPP/day	11.6%	11.7%	6.7%	8.9%	-.-
Poverty line: National moderate	25.8%	26.3%	22.7%	26.3%	-.-
Sensitivity analysis					
Gini	0.527	0.510	0.454	0.456	0.385
Headcount index					
Poverty line: $2.5 PPP/day	8.5%	9.0%	1.5%	2.6%	-.-
Poverty line: $4 PPP/day	17.6%	19.0%	7.4%	9.8%	-.-
Poverty line: National moderate	36.2%	39.7%	24.9%	29.3%	-.-

Source: Authors' calculations based on *Encuesta Continua de Hogares, INE* (2009), *Encuesta de Gastos e Ingresos de los Hogares, INE* (2006). The scaling-up factors used in the calculation of the Gini came from the National Accounts (http://www.bcu.gub.uy/Estadisticas-e-indicadores/Cuentas%20Nacionales/2trim2012/presentacion05.htm)

The market income Gini is higher than the net market income Gini indicating that direct taxes have an equalizing effect. A comparison of the indexes calculated with the market income and the disposable income shows that the combination of direct taxes and direct transfers lowers inequality and poverty: the disposable income Gini (with respect to the market income Gini) declines by 7 percent and the disposable income extreme poverty headcount ratio by 72 percent. When we look at the measures for post-fiscal income we observe that indirect taxes increase inequality and poverty: the post-fiscal income Gini (with respect to the market income Gini) declines by 7 percent and the post-fiscal income extreme poverty headcount ratio by 54 percent. In-kind transfers in education and health have the largest effect in terms of lowering inequality, as shown when calculating the Gini index with final income: the final income Gini (with respect to the market income Gini) declines by 20 percent. The trends are the same in the sensitivity analysis. It is worth noting, however, that the Gini coefficient and headcount ratio of market income when contributory pensions are considered part of market income (benchmark scenario) are lower than when they are under government transfers (sensitivity analysis). This means that contributory pensions have an important equalizing

and poverty-reducing effect under the sensitivity analysis. Previous studies about the redistributive effect of social spending (Llambí et al. 2009) and taxes (Amarante et al. 2011) obtain similar qualitative results.

4.2 Redistributive Effectiveness

In table 3 we present the reductions in inequality and poverty due to social spending (by program) and the effectiveness indicators for the benchmark scenario. The effectiveness indicator is defined as the effect on inequality (or on poverty) of the transfers being analyzed divided by their relative size (as a percent to GDP).

Table 3. Gini and Headcount Index Variations and Redistributive Effectiveness. Benchmark Analysis

	From net market income to disposable income [a]					From net market income to final income* [b]
	Family allowances	Non-contributory pensions	Food programs	Other direct transfers	All direct transfers	
Gini variation (percent)	-1.4	-1.2	-1.5	-1.0	-4.4	-17.3
Effectiveness in inequality	3.7	2.4	4.5	1.0	1.9	1.6
Headcount index						
Poverty line: $2.5 PPP/day	3.9	4.4	3.4	4.8	1.5	
Poverty line: $4 PPP/day	10.2	10.7	10.0	11.2	6.7	
Poverty line: National moderate	25.5	25.3	25.5	25.4	22.7	
Headcount index variation (percent)						
Poverty line: $2.5 PPP/day	-24.8	-14.5	-33.2	-5.7	-71.7	
Poverty line: $4 PPP/day	-13.2	-8.4	-14.4	-4.2	-42.8	
Poverty line: National moderate	-3.1	-3.6	-3.0	-3.4	-13.4	
Effectiveness in poverty						
Poverty line: $2.5 PPP/day	64.6	27.6	98.4	5.6	31.7	
Poverty line: $4 PPP/day	34.4	16.0	42.7	4.1	18.9	
Poverty line: National moderate	8.0	6.9	8.8	3.4	5.9	

Source: Authors' calculations based on *Encuesta Continua de Hogares, INE* (2009), *Encuesta de Gastos e Ingresos de los Hogares, INE* (2006) and National Accounts (http://www.bcu.gub.uy/Estadisticas-e-Indicadores/Cuentas%20Nacionales/2trim2012/presentacion05.htm)
a. In each column the calculation takes into account only the program of that column.
b. Final income* is equal to market income plus direct taxes, direct transfers, and in-kind transfers.

Direct transfers reduce the Gini index 4.4 percent. All the programs contribute to this reduction and have a similar effect. The effectiveness indicator is 1.9 and once again, all the programs contribute to this result. The combination of direct and in-kind transfers reduces the Gini index by 17.3 percent and the effectiveness indicator is 1.6. These results suggest that the redistributive effectiveness of direct transfers is slightly higher than the effectiveness of in-kind transfers.

Direct transfers also reduce poverty. The lower the poverty line, the higher the reduction of the headcount ratio. Besides, the lower the poverty line, the higher the effectiveness indicator. Thus, direct transfers are particularly important in reducing extreme poverty and they are more effective in reducing extreme poverty than in reducing moderate poverty. This reduction is due to the combination of the four programs included in direct transfers. However, family allowances and food have the highest impact on the reduction of extreme poverty.

4.3 Incidence Analysis

In order to perform the incidence analysis we calculated the ratio of benefits to market income by market income deciles. As one can observe in table 4, the incidence of direct taxes and social spending follows the desirable (income equalizing) pattern: it rises and declines with income, respectively. All of the social programs follow this pattern. Indirect taxes, in contrast, show the opposite: the two poorest deciles get hit the hardest.

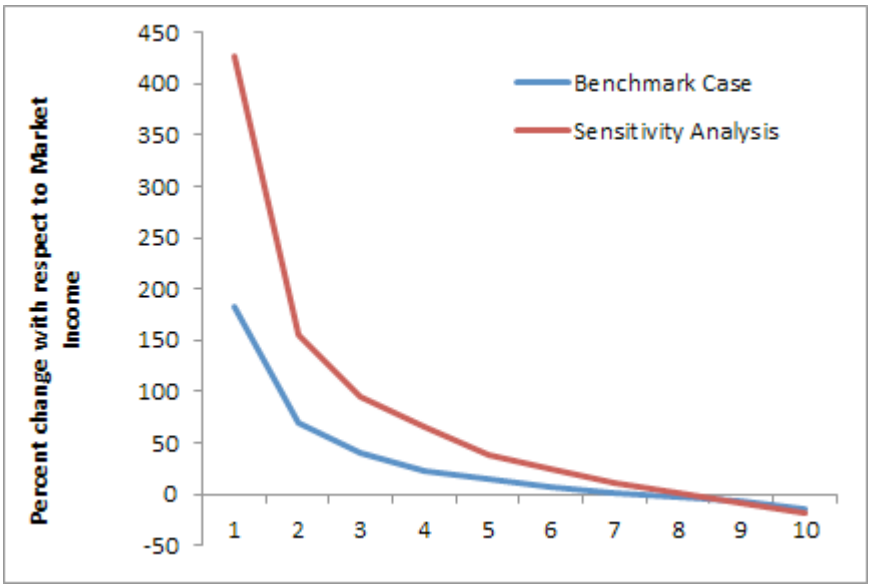
Table 4. Incidence of Taxes and Transfers. In Percentages. Benchmark Analysis.

Deciles	Direct Taxes	Non-contributory pensions	Family Allowances	Other Direct Transfers	All Direct Transfers	Indirect Taxes	In-kind Education	In-kind Health	In-kind Transfers
1	-0.4	21.6	14.3	26.0	61.9	-16.8	67.5	70.2	137.6
2	-0.9	6.2	4.9	8.3	19.3	-10.8	28.7	33.1	61.8
3	-1.3	3.4	1.9	5.2	10.4	-9.5	17.6	22.3	39.9
4	-1.7	1.6	0.9	2.6	5.0	-8.8	12.5	16.2	28.7
5	-2.0	1.0	0.4	1.8	3.2	-8.5	9.3	12.2	21.5
6	-2.4	0.6	0.2	1.3	2.0	-8.2	6.7	9.1	15.7
7	-3.0	0.3	0.1	0.7	1.1	-8.0	5.1	6.7	11.8
8	-3.9	0.1	0.1	0.4	0.6	-8.0	4.2	4.7	8.9
9	-5.3	0.1	0.0	0.3	0.3	-8.1	3.0	3.1	6.2
10	-9.0	0.0	0.0	0.1	0.1	-7.5	1.0	1.3	2.3
Total	-5.4	0.8	0.5	1.2	2.4	-8.1	5.6	6.7	12.4

Source: Authors' calculations based on *Encuesta Continua de Hogares, INE* (2009), *Encuesta de Gastos e Ingresos de los Hogares, INE* (2006) and National Accounts (http://www.bcu.gub.uy/Estadisticas-e-Indicadores/Cuentas%20Nacionales/2trim2012/presentacion05.htm).

The combination of benefits and taxes increases the income of the bottom deciles but pushes down the income of the highest deciles, as shown in figure 1. When contributory pensions are considered a government transfer (the sensitivity analysis), the effect of social spending is much higher for the bottom deciles. This is because contributory pensions go to households whose market income in the sensitivity analysis case (which does not include income from contributory pensions) is low or negligible.

Figure 1 - Changes Between Market Income and Final Income by Decile. Benchmark and Sensitivity Analysis

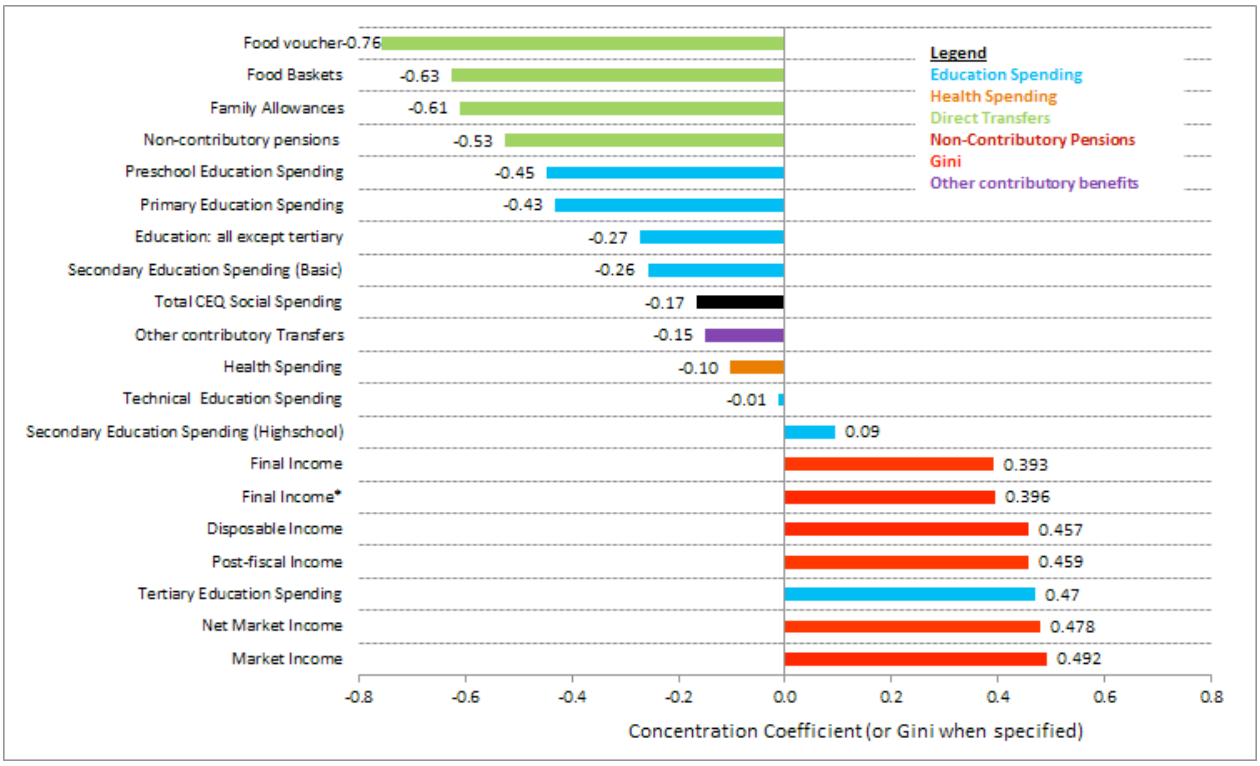


Source: Authors' calculations based on *Encuesta Continua de Hogares, INE* (2009), *Encuesta de Gastos e Ingresos de los Hogares, INE* (2006) and National Accounts.
Note: In benchmark case, contributory pensions are included in market income; in sensitivity analysis, contributory pensions are treated as government transfers.

4.4 Progressivity

The concentration coefficient for social spending indicates that social spending is progressive in absolute terms. In figure 2 we present the concentration coefficient for all the programs sorted by progressiveness. The only components of social spending that are not progressive in absolute terms are spending on high school education and tertiary education. No components are outright regressive (unequalizing), which can be seen by the fact that no program has a concentration coefficient greater than the market income Gini. However, it is worth noting that tertiary education in Uruguay is almost neutral in relative terms: its concentration coefficient, at 0.47, is quite close to the market income Gini of 0.49.

Figure 2 - Concentration Coefficient by Spending Category and for Total Social Spending



Source: Authors' calculations based on *Encuesta Continua de Hogares*, INE (2009).
Note: The concentration coefficients of Contributory Pensions after taxes and Total CEQ Social Spending plus Contributory Pensions after taxes are not included because they are calculated with respect to sensitivity analysis market income while the concentration coefficients for the other components are calculated with respect to benchmark case market income.

The results obtained for tertiary education may be explained by the persistence of the high dropout rate in high school. Indeed, several studies show that the dropout rate has remained high for the last two decades affecting mainly people at the bottom of the distribution (Bucheli and Casacuberta 2000; Filgueira, Filgueira, and Fuentes 2001; Furtado 2004; Casacuberta and Bucheli 2010). Consequently, the access to tertiary education is lower than in other Latin American countries with similar human development such as Chile, Argentina and Costa Rica (ECLAC 2010). The following statistics give an idea of the new generation's educational capital. In 2009, an estimated 31 percent of the population between twenty-one and twenty-five years of age had not completed the mandatory nine years of schooling; 45 percent had completed between nine and twelve years of schooling, and 24 percent had at least initiated a program of post-secondary education. In this context, people of low socioeconomic background have a low probability of accessing tertiary education (Boado and Fernández 2010; De Armas and Retamoso 2010). Combined with the high participation of public institutions in enrollment, it is not surprising to obtain almost neutral spending on tertiary education.

5. ENHANCING THE REDISTRIBUTIVE CAPACITY: WHERE TO LOOK?

We saw above that, thanks to direct transfers, extreme poverty is reduced quite a bit, the use of resources is effective in this respect, and most of the government's social spending is progressive in absolute terms. Can this be improved? In order to answer this question we will consider three indicators presented in tables 5 and 6: the per capita benefit for the extreme and moderate poor, the coverage of direct transfers among the poor and the percentage of benefits from direct transfers going to the nonpoor. To define extreme and moderate poverty we use the international lines of US$2.50 PPP and US$4 PPP per day.

In table 5 we can observe the per capita income market and the average transfer (among beneficiary households) for different market income groups. As one can see, for the group in extreme poverty the sum of per capita income and average transfer is US$3.2 PPP. When we consider the group in moderate poverty, the sum is US$4.0 PPP. Thus, the average direct transfer received by the extreme and moderate poor appears to be enough to move them out of extreme and moderate poverty, respectively.

Table 5. Per Capita Income and Per Capita Direct Transfers and Coverage by Market Income Group. Benchmark Analysis

	y< 2.5	y< 4	y> 4	Total
Market income	1.6	2.5	21.7	19.5
Family allowances	0.5	0.5	0.5	0.5
Non-contributory pensions	2.3	2.3	2.4	2.3
Food baskets	0.6	0.5	0.4	0.4
Food vouchers	0.3	0.3	0.3	0.3
Other direct transfers	1.3	1.0	0.8	0.8
All benefits (at least one for beneficiary[a])	1.6	1.4	1.0	1.1
Per capita market income + per capita benefits	3.2	4.0	22.7	20.6
Benefits except non-contributory pensions (at least one for beneficiary)	1.2	1.1	0.8	0.8
Per capita market income+per capita benefits except non-contributory pensions	2.8	3.6	22.5	20.4

Source: Authors' calculations based on *Encuesta Continua de Hogares*, INE (2009).
a. For these calculations a 'beneficiary' is an individual living in a beneficiary household.

Table 6. Program Coverage by Market Income Group and Distribution of Benefits. Benchmark Analysis

	y< 2.5	y< 4	y> 4	Total
Coverage [a]				
Family allowances	80.0	73.9	13.3	20.3
Non-contributory pensions	19.7	15.7	3.5	4.9
Food baskets	72.9	63.3	12.5	18.4
Food vouchers	59.9	46.8	3.9	8.9
Other direct transfers	11.1	13.5	17.2	16.7
All above (at least one for beneficiary)	97.1	94.7	35.6	42.4
Distribution of benefits by market income group				
Family allowances	20.8	43.1	56.9	100
Non-contributory pensions	20.1	35.6	64.4	100
Food baskets	25.7	47.2	52.8	100
Food vouchers	34.5	61.4	38.6	100
Other direct transfers	5.4	11.7	88.3	100
All above (at least one for beneficiary)	17.8	33.8	66.2	100

Source: Authors' calculations based on *Encuesta Continua de Hogares*, INE (2009)
a. For these calculations a 'beneficiary' is an individual living in a beneficiary household.

The high level of the average transfer is driven by the non-contributory pensions. However, only 16 percent of the persons in moderate poverty are in households that are reached by this program (table 6) (remember that by definition non-contributory pensions are directed at individuals who are sixty-five years old or older). Thus, we recalculate the average transfer excluding non-contributory pensions. As shown in table 5, in this case the average per capita transfer is US$1.2 andUS$1.1 PPP per day for beneficiaries in extreme and moderate poverty, respectively. Thus, we still find that the sum of transfers plus market income is higher than the threshold of extreme poverty (US$2.8). However, this is not true for moderate poverty: the sum is US$3.6 PPP.

Around 5 percent of the Uruguayan poor do not receive any direct transfers (table 6). We are aware that it is difficult to analyze this population because of its size. However, we did perform some calculations. The majority of the non-covered poor belong to households with children. If the government were able to reach these excluded families with the family allowances and the food voucher programs (both oriented to households with children), the coverage of direct transfers would increase to 99 percent of the poor.

Hence, neither the average per capita transfer nor the lack of coverage among the poor seems to be behind the "persistence" of moderate disposable income poverty. But moderate poverty could be sensitive to programs oriented to households with children. Are there leakages? As shown in table 6, 66 percent of the direct transfers are captured by non-poor. Note that the National poverty line is higher than US$4 PPP. Among existing programs, the food basket program and the food voucher

program have potential to improve coverage and targeting: the former covers 47 percent of the poor and 53 percent of spending on this program goes to the nonpoor; the numbers for the food voucher program are 61 percent and 39 percent, respectively. In contrast, the family allowance program and the noncontributory pension program have a very high coverage among the beneficiary group (poor family with children and the elderly poor, respectively). Other direct transfers is a category that includes an array of contributory programs not linked to the poverty status of families.

The government should determine whether or not the solution is to increase the size of transfers (other than non-contributory pensions). In addition to fiscal considerations, several other factors should be assessed. Would poverty be eradicated by simply giving more money to the poor? Or, do the post-transfers to the poor require more nuanced interventions that address issues of dysfunctional behavior (such as alcoholism and drug abuse)? It would also be very important to assess whether increasing the size of a transfer would be self-defeating if, for example, it decreases the adult labor force participation or hours worked.

5. CONCLUSIONS AND POLICY IMPLICATIONS

Here we present results of the effect of taxes and social spending on inequality and poverty in Uruguay using the ECH (2009) and the EGIH (2006) collected by INE.

Uruguay achieves a nontrivial reduction in inequality and poverty when all taxes and transfers are combined. Direct taxes are progressive and indirect taxes are regressive. Social spending is quite progressive in absolute terms.

Social spending on education and health is quite progressive except for tertiary education, which is almost neutral in relative terms. However, the latter result is based on a snapshot. It would be useful to do marginal incidence analysis for tertiary education to see how it has evolved over time. Has it become less or more progressive? Nevertheless, the fact that tertiary education is almost neutral in relative terms indicates that the causes for this should be understood. Uruguay stands out because it has a relatively high dropout rate for secondary education. Understanding the dynamics behind this phenomenon and introducing corrective measures can also result in a change in the incidence of tertiary education down the road. When contributory retirement pensions are treated as a transfer, they are progressive in absolute terms.

Although poverty by international standards is low and direct net transfers contribute to this outcome significantly, poverty is not eradicated. In addition, direct transfers help the households that receive non-contributory pensions to move out of moderate poverty, but they are not enough (on average) to do the same with the beneficiary households of other programs. An assessment of other factors may shed light on how cash transfer programs need to change so that poverty can be eradicated.

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Led by Nora Lustig (Tulane University) and Peter Hakim (Inter-American Dialogue), the Commitment to Equity (CEQ) project is designed to analyze the impact of taxes and social spending on inequality and poverty, and to provide a roadmap for governments, multilateral institutions, and nongovernmental organizations in their efforts to build more equitable societies. CEQ/Latin America is a joint project of the Inter-American Dialogue (IAD) and Tulane University's Center for Inter-American Policy and Research (CIPR) and Department of Economics. The project has received financial support from the Canadian International Development Agency (CIDA), the Development Bank of Latin America (CAF), the General Electric Foundation, the Inter-American Development Bank (IADB), the International Fund for Agricultural Development (IFAD), the Norwegian Ministry of Foreign Affairs, the United Nations Development Programme's Regional Bureau for Latin America and the Caribbean (UNDP/RBLAC), and the World Bank. http://commitmenttoequity.org