

Do the rich save more in Latin America?

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Abstract

In this paper we follow two strategies to address whether the rich save more. First, we implement a two stage procedure where we instrument the household's lifetime income with the education level of the household head and the education level of its partner. Second, using information on home assets we construct a wealth index. We find evidence that the richest save more in Argentina, Bolivia, Brazil, Costa Rica, Ecuador, Honduras, Mexico, Panama, Paraguay and Peru. On the other hand, we do not find differences in saving rates by lifetime income or wealth in Bahamas, Chile, Colombia and Uruguay.

Keywords: saving rates, two stage procedures, median regressions, Latin America

JEL codes: C81, D12, D14, E21

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1. Introduction

The relation between saving rates and life-time income is more controversial than what might seem at first sight. Savings and consumption are two sides of a same coin, therefore, whether richer people save more than poorer has welfare and policy implications. Assuming that they do, then, what is the impact of a progressive tax reform on national savings? Or on the other hand, a government facing a recession and considering a fiscal stimulus has anything to gain from concentrating on the rich or on the poor? What is the impact of a tax cut on aggregate demand?

Probably, non-economists easily agree that the rich save more than the poor. Economists are more skeptical. First of all, economists are more interested in lifetime income than in current income that is affected by temporary shocks and phases of the life cycle. A permanent policy change (e.g. a tax change) will have effects over the different phases of life cycle of individuals. Therefore, to address the whole effect of this change is better to consider lifetime income and not current income.

Second, there are theoretical reasons to think that the poorer might actually save a larger share of their income. For instance, if financial restrictions are suffered more by individuals of lower socioeconomic background, it is rational for the poor to have larger precautionary savings.

Third, from an empirical point of view, the relation between savings and current income is biased towards finding a positive link. If, as predicted by theory, people smooth consumption over their life, a temporary negative income shock will reduce the saving rates and at the same time will affect the classification of households within the country. This

will produce a positive correlation between saving rates and income levels. In a regression of savings on current income, the income shock will appear both in the right and left hand side producing a spurious positive correlation. Measurement error in income operates in the same way as temporary shocks since any error in income directly translates into a mismeasure of savings.

Several papers have reported descriptive statistics of the association between saving rates and current income (see for instance Butelmann and Gallego 2001 for Chile, Melo et al 2006 for Colombia, Bebczuk and Gasparini 2014 for several Latin American countries and Gandelman 2014 also for several Latin American countries, US and Korea) but as previously argued the proper relation between these two concepts cannot be accounted in purely descriptive exercises.

In this paper, to address the question whether the rich save more we follow two strategies. First, we implement a two-stage procedure proposed by Dynnan et al (2004) and applied to US data.² The first stage is based on a regression of current income on variables associated with permanent income. The predicted values of this estimation are used as a proxy for lifetime income. Second, we construct a wealth index based on home appliances and other assets owned by households. These analyses are performed for fourteen Latin American and Caribbean (LAC) countries. We present various robustness exercises. We find that for ten out of fourteen countries the rich do save more than the poor. We fail to find this association in Bahamas, Chile, Colombia and Uruguay.

² This procedure has also been used by Alan et al (2006) to Canadian data and Chakrabarty et al (2008) to Australian data.

The paper follows with the methodology in section 2, the data sources and variable definition in section 3 and results in section 4. Conclusions are in section 5.

2. Methodology

The basic model to be estimated takes the form:

$$\frac{y_i - c_i}{y_i} = f(\overline{y_i}) + x_i\beta + u_i \quad (1)$$

where y_i and c_i represent current income and consumption, $\overline{y_i}$ stands for lifetime income or wealth, x_i is a vector of other observable controls, β is a vector of coefficients and u_i is an error term assumed to be well behaved. The index i refers to households.

A problem to be addressed is that lifetime income is not observed and as explained current income (y_i) is a poor proxy for it. We follow two strategies.

First, following Dynnan et al (2004) we propose to use a two stage procedure. In the first stage, we regress the log of current income on adequate instruments (Z_i) and age group dummies (x_i) and use the predicted values from this equation as the proxy for lifetime income.

$$\ln y_i = Z_i\alpha + x_i\gamma + v_i \quad (2)$$

Then we divide the predicted values of lifetime income into quintiles to take the place of $f(\overline{y_i})$ in equation (1). The use of dummies for quintiles allows for nonlinearities in the saving-lifetime income relationship. Since lifetime income is estimated in the first stage, to avoid the generated regressor problem (Pagan, 1984), a bootstrap procedure is implemented based on 500 replications to obtain the standard errors.

Finding adequate instruments is itself a difficult task. The right instrument should be correlated with lifetime income but not with the transitory shocks on current income and should be uncorrelated with unobservable determinants of the saving equations. Dynan et al (2004) use education, consumption on nondurables, lagged and future earnings as their instruments. We do not have data on the latter two. Household head's education is likely to pass the first requirement for an ideal instrument but less likely to pass the second (for instance more patient individuals probably will invest more in education and will also save more). Nondurable consumption as an instrument has the problem that any measurement error will enter both the left and right hand side of equation (1) through the predicted value of equation (2). Allan et al (2006) construct set of dummies for different combinations of education among family members and restrict the nondurable consumption to those items that are less likely to have measurement problems (e.g. food or things that are regularly billed like phone bills or electricity). In this paper, we use education of the household head partner and its square in the main regressions and present the results using the household head education as a robustness exercise. We prefer the use of household head partners' education over household head since it is less likely to be correlated with unobservable

determinants of savings that might be more influenced by the household head time preferences.

For the second strategy, we construct a wealth index using information on households owned durable assets. This index is a weighted average of a series of dummies indicating the availability of assets as refrigerator, dishwasher, laundry machine, regular TV, flat screen TV, DVD player, internet connection, computer, car, homeownership. For each asset, we include an indicator for availability of the item in the household. Each dummy is weighted by the scarcity of such item relative to that of other items in the full sample of households participating in the study: assets that are scarcer receive higher weights.

Formally, let D_{ji} be a dummy variable taking the value 1 if the household i owns the asset j . Let μ_j be the proportion of households that own the asset j (μ_j is the sample average of D_{ji}). The wealth asset index is defined as:

$$WealthIndex_i = \sum_j \omega_j D_{ji} \quad (3)$$

where the weight is defined as $\omega_j = \frac{1 - \mu_j}{\sum_z 1 - \mu_z}$. Note that $\sum_j \omega_j = 1$ and that the index ranges from 0 for an individual that does not own any asset (or owns assets that everybody else owns) to 1 for an individual that owns every single available asset. Similar to the first strategy, we divide the estimated wealth index into quintiles to take the place of $f(\overline{y_i})$ in equation (1).

We work with household heads of age 20 and up. In the appendix we present a robustness exercise where we restrict our sample to individuals in the age 30 to 59 for comparability with Dynan et al (2004) and Alan et al (2006). These authors do not consider households with income level below 1000 dollars (US or Canadian respectively). Given the higher poverty rates of LAC countries such elimination of observations will be problematic.³ Finally, as in the previous mentioned papers we report our estimations using median regressions since they are more robust to outliers than OLS⁴.

3. Data

The data for this paper comes from income and expenditure surveys conducted in fourteen LAC countries. The countries considered are: Argentina, Bahamas, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Honduras, Mexico, Panama, Paraguay, Peru and Uruguay. Most countries perform these surveys every decade or so as an input in the construction of the Consumer Price Index. Table A1 in the appendix presents the data sources.

Saving rates can be computed at the individual or household level. Household surveys provide most income information disaggregated by income earner but consumption in general is aggregated at the household level. To obtain individual saving rates it is necessary to make specific assumptions on how consumption is allocated within the household. Gandelman (2014) presents saving rates both at the individual and household level. In this paper, we work only with saving rates defined at the household level.

³ Our results are not altered after trimming the bottom and top 1% of the income distribution in each country. Estimations (not reported) are available upon request.

⁴ The results using OLS are qualitatively similar. Estimations (not reported) are available upon request.

There are some differences in the way data is gathered and reported in the surveys. To the best of our ability we tried to homogenize the definition of the savings rates. Income is after tax in all cases but in Mexico where it is reported before tax and there is no detailed information of paid taxes. In Bahamas, Bolivia, Brazil, Honduras and Paraguay the documentations does not inform whether income is before or after tax. All forms of monetary and non-monetary income are computed. Capital gains are not computed as current income but earned interests and dividends are.

The surveys request expenditures over various time frames (yearly, quarterly, monthly, weakly and daily). The National Institutes of Statistics of all countries but Mexico transform these totals into monthly figures. Mexico transforms it into quarterly data. Consumption of durable goods is also reported but only it is imputed the portion corresponding to the current period. There are other forms of consumption and income that are imputed. The most important is the rent value of houses for homeowners that appear as consumption and income in all cases but in Argentina that this information is not available. Home production for consumption is treated in the same way.

Survey coverage includes both urban and rural setting in most countries. In Bahamas, Chile, Panama and Uruguay coverage is restricted to urban settings.

The instrument (education) refers to years of formal education. In Chile and Paraguay this variable is already provided in the microdata. For the others it was constructed using questions on the last approved schooling year. For most countries primary education takes values 1 to 6, secondary takes 7 to 12, university 13 to 17 and 18 and more refer to postgraduate studies. In Argentina primary education is 7 years and

secondary education is 5 years so that completed secondary accounts for 12 years like in other countries. In contrast in Peru primary education is 5 years and secondary education is 6 years so completed secondary education implies 11 years of formal schooling. In our calculations for Peru we added one extra year for everybody that started secondary tertiary so that complete secondary accounts for 12 years.

Information on assets is not available in Bolivia, Brazil, Chile, Honduras and Panama. For the rest of the countries we present in the appendix in Table A2 the detailed list of assets used in each country. Trying to be conservative we included all assets gathered in the surveys and performed only three type of corrections.

- i. We did not include assets whose ownership suggests poverty rather than wealth (e.g. black and white TV and vehicles pulled by animals in Mexico or no-automatic washing machine in Argentina).
- ii. We did not include assets related to work (e.g. car for work in Ecuador and Peru or truck in Paraguay).
- iii. When many varieties of the same asset were provided we aggregated them. For TVs some countries disaggregate regular and various forms of flat screen TV (plasma, lcd, led). We define one basic asset “TV” if the house owns any type of TV and a more sophisticated asset “flat TV” if it owns one. Some countries disaggregate between refrigerator without freezer, refrigerator with freezer and freezers. In these cases we define two assets: a basic asset “refrigerator” if the house owned any form of refrigerator and a more sophisticated asset “freezer” if the house owned any form of freezer (even incorporated in a refrigerator). Some surveys also disaggregated heaters, water heaters,

and ovens by the type of energy used (electric or gas mainly). They were aggregated into a generic asset reflecting their main use.

4. Results

In Table 1 we present summary statistics of the key variables that enter our estimation (households whose household head is 20 years or older).

In all cases the median saving rates is above the mean. This is due to the weight of some very negative household saving rates that are present in all countries. Just looking at the means there are only three countries with an average positive saving rate (Ecuador, Panama and Uruguay) ⁵ while in medians there are only three countries with negative saving rates. The countries with the lowest median saving rates are Honduras (-16%), Paraguay (-7%) and Mexico (-2%). The highest median saving rates for an LAC country is Colombia (15%) followed by Bolivia (14%), Argentina (13%) and Uruguay (13%).

Table 1 also presents the average age of household heads and Table 2 five dummies for 10 years age brackets and a dummy for those 70 years old and more. The population distribution presents an inverse U shape. There are fewer household heads at the extremes due to the time it takes for young individuals to start their own family and due to mortality at the other extreme. The average individual is in its mid to late forties or early fifties. Chile and Uruguay have the older household heads with mean age of 51.5 and 53.1 years old. Bolivia and Honduras are the youngest with average 44.5 and 44.9 respectively. Finally, we present data on education of the household head and its partner and the wealth index for the

⁵ Dropping the household at the bottom 1% of the income distribution eliminates some of the extreme negative saving rates and increases the country averages.

countries where it could be constructed. The median of the wealth index is lower than the mean consistent with expected wealth distribution. Figure A1 in the appendix presents the distribution of the wealth index country by county.

Tables 3 to 5 report the econometric estimations. In the estimations we include a dummy for age brackets omitting the 40-49 category. The estimations are carried out without the constant term so that the estimated coefficient can be interpreted as the saving rates of individuals 40-49 years old of this income quintile. As traditional, we use stars (*) for statistical significance. We are interested in knowing whether the saving rate (coefficients) of richer households is larger than that of poorer households. Traditional significance shows if the coefficients are different from 0 but do not compares between them. Therefore, we also report Wald tests of equality between the coefficients of each quintile and that of the quintile before. We use numerals (#) to show cases where the coefficient is statistically different than that of the previous quintile. At the bottom of the tables we also present Wald test of equality of coefficients of the third and the first quintile and of equality of the fifth and third quintile.

As a starting point, Table 3 shows that saving rates increase with current income. The estimated coefficients for quintiles 1 through 5 are monotonically increasing. Households in higher income quartiles have larger saving rates and the differences are

statistically significant (see the #s) in almost all cases. In interpreting this finding it should be kept in mind that this result might be an artifact of measurement errors and temporary shocks in income. The lowest quintile in all cases, but Uruguay, has negative saving rates. The top quintile saving rates range from 13.1% for Chile and 15.7% for Panama to 39.4% for Costa Rica and 40.0% for Colombia. The age dummies are in general statistically significant meaning that the saving rates of these groups are different from those 40-49 years old (the omitted category). Note however, that they cannot be interpreted as in the life cycle model. The life cycle model predicts that the youngest and oldest should have lower saving rates than those at midlife. There are two problems in the interpretation of our coefficients. First, the theory is developed for individual decision makers and our saving rates are computed at the household level. There is age heterogeneity within households that is likely to affect the household saving rates, e.g. it is not the same the saving rate of a couple in their forties with no children than a family in their fifties and sixties with children already in the labor market but still living with them. Second, mortality rates are correlated with income and past savings. Those individuals that were able to save more in their younger years have more means for a healthy life in their old age.

Table 4 presents the main estimations of this paper for all countries using the partners' household head education as instrument for lifetime income. The results are less clear than with current income but nevertheless there are some relevant patterns. For this table and the rest we would like to classify the countries in three groups:

- i. countries where we reject the null that the rich save more (no #s)

- ii. countries where the very top of the income distribution save more but the rest of the population has about the same savings rate. (only one # in the fifth or fourth quintile).
- iii. countries where the rich save more along the income distribution, i.e. those where we find differences in more than one quintile with respect to the previous one (more than one #)

In Bahamas, Chile and Uruguay we find no differences in saving rates by income quintiles. In Colombia there are differences but they present a non-monotonical pattern with about the same saving rates in the top poor and the top rich. These four countries are in the first group of rich-do-not-save-more.

In Argentina, Bolivia, Panama, Paraguay and Peru we find that the top 5th quintile save more than the rest of the population but we fail to find statistically significant differences among the other 80% of the population.

Finally, the evidence of rich-save-more is stronger in Brazil, Costa Rica, Ecuador, Honduras and Mexico. For instance, in Brazil and Mexico the fifth quintile savings rate is above the fourth's quintile savings rate that is above the third's quintile savings rate that is not statistically significantly different than the savings rate of the second quintile which is higher than the first quintile.

Table 5 presents the estimations of saving rates on the wealth index for the nine countries where we could construct the index. We find no evidence of rich saving more in Bahamas, Colombia and Uruguay. On Argentina the top fourth quintile saves more than

poorer quintiles. In the last group, with stronger evidence of rich saving more we have Costa Rica, Ecuador, Mexico, Paraguay and Peru.

In the appendix we report robustness exercises. In Table A3 and A4 we restrict the sample to those 30 to 59 as in Dynann et al (2004) and Allan (2006). The change in the sample is not trivial due to the restriction on household heads that are likely to be active in the labor market opposed to the main estimations where we include also retired household heads.

According to Table A3 where we implement the two stage procedure, in the first group of countries (rich-do-not-save-more) we have Uruguay, Chile and Colombia. In the latter two the top quintile saves more than the fourth quintile but at the same time we find that at least one poorer quintile saves more (and statistically significant) than a richer quintile. In the second group of countries we have Argentina, Bahamas, Bolivia, Costa Rica, Ecuador, Panamá and Peru. In these countries the top quintile saves more than the rest but there are no statistical significant differences among the first four income quintiles. Finally, in Brazil, Honduras, Mexico and Paraguay there is evidence that more than one income quintile saves above poorer quintiles. Similarly, the results in Table A4 of the regression on the wealth asset shows almost the same results (qualitatively) than in Table 4 without the age restriction.

As a second type of robustness exercise we present in Table A5 the results of the two stage procedure using as instruments besides the partner's household head education also the education of the household head and their squares. In the first group of countries we have Bahamas, Bolivia, Chile, Colombia and Uruguay. In the second group (only the

top rich save more) we find Argentina and Peru. In the rest of the countries (Brazil, Costa Rica, Ecuador, Honduras, Mexico, Panama and Paraguay) there is stronger evidence that the rich save more than the poor.

Summing up the evidence, we fail to find evidence that the rich save more in Bahamas, Chile, Colombia and Uruguay. For the other 10 countries we find that the rich save more. All the estimations show the same pattern in Argentina, Brazil, Honduras and Mexico. In Argentina we find that only the top rich save more. We find that richer households save more (and not only the top) in Brazil, Honduras and Mexico.

In Costa Rica, Ecuador, Panama and Paraguay we also find that the rich save more but there are some differences in the estimations at which income/wealth quintile saving rates start to differ. This refers to whether only the top rich save more or if this pattern is present along the income distribution. In Bolivia we find that the top quintile saves more in all estimations but in one (the robustness exercise using household head education and household head partners' education as instruments).

5. Conclusions

In this paper we followed two empirical strategies to address whether the rich save more in LAC. First, we implemented a two stage procedure to estimate the effects of lifetime income on saving rates. To proxy for lifetime income we use information on the education of the household head partner. Second we constructed a wealth index based on home assets (car, homeownership, TV, PC, etc). We worked with household heads above 20 years old. We present robustness exercises of restricting the sample to those aged 30 to 59 and to use the household head education as alternative instrument.

The main result is that the rich save more in ten out of fourteen LAC countries considered. Households in the fifth quintile of lifetime income have a statistically larger saving rate than poorer households in all cases but in Bahamas, Chile, Colombia and Uruguay. In Argentina there are no differences in the saving rates of the first four lifetime income quintiles and only the top rich save more. In Brazil, Honduras and Mexico we find that the top quintile saves more than the rest but there is at least one other income/wealth quintile that saves more than the previous ones. For the other countries the rich save more, but in some estimations we find that only the top rich save more while in other estimations we find that the rich save more along the income/wealth distribution.

Our results, therefore, are closer to Dynan et al (2004) and Chakrabarty (2008) that find that the rich save more in the US and Australia than to Alan et al (2006) that find that this does not happen in Canada.

In terms of theory, our results suggest that models that predict saving rates proportional to lifetime income (life-cycle models as in Aando and Modigliani 1963, Modigliani and Brumberg 1954 or Friedman 1957 permanent income hypothesis) are not adequate to capture behavior at the top of the income distribution for most LAC countries. They will perform reasonably well for about certain percentage of the population (e.g. in Argentina 80% corresponding to the first fourth quintiles) but will not capture some important differences for the top income earners. Higher saving rates for the rich might be explained with models with bequest motives as in Becker and Tomes (1986) or in models that include wealth in the utility function as in Carroll (2000).

6. References

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Appendix

Table 1. Summary statistics																		
	Median	Mean	s.d.	Min	Max	Observ.	Median	Mean	s.d.	Min	Max	Observ.	Median	Mean	s.d.	Min	Max	Observ.
Argentina						Bahamas						Bolivia						
Savings rate	13%	-6%	150%	-14583%	802%	28961	-7%	-110%	649%	-19562%	91%	1489	14%	-6%	172%	-7940%	95%	8914
Education household head	6,0	8,8	4,6	0,0	22,0	27846	12,0	11,4	3,7	0,0	22,0	1492	8,0	8,5	5,4	0,0	20,0	8942
Education partner	8,0	9,2	4,6	0,0	22,0	18102	12,0	12,1	3,3	0,0	22,0	689	6,0	7,1	5,4	0,0	20,0	5806
Age household head	48,0	49,8	16,1	20,0	98,0	29006	49,0	49,9	15,1	20,0	95,0	1530	42,0	44,5	15,1	20,0	98,0	8942
Wealth index	0,17	0,22	0,18	0,00	1,00	29006	0,33	0,34	0,21	0,00	1,00	1530						
Brazil						Chile						Colombia						
Savings rate	11%	-14%	135%	-10966%	99%	55702	4%	-14%	426%	-42742%	172%	10490	15%	-880%	55802%	-5884557%	52108%	25118
Education household head	5,0	6,7	7,9	0,0	88,0	55715	12,0	11,4	4,2	0,0	22,0	10478	5,0	6,3	4,9	0,0	22,0	25168
Education partner	7,0	7,4	8,0	0,0	88,0	38130	12,0	11,4	3,9	0,0	22,0	6502	5,0	6,5	4,6	0,0	22,0	15389
Age household head	46,0	47,4	15,7	20,0	99,0	55715	51,0	51,5	15,6	20,0	99,0	10490	47,0	48,4	15,7	20,0	99,0	25168
Wealth index													0,16	0,20	0,16	0,00	1,00	25131
Costa Rica						Ecuador						Honduras						
Savings rate	0%	-145%	9191%	-681944%	69306%	5669	4%	1%	64%	-3682%	8897%	39364	-16%	-77%	326%	-12949%	100%	7932
Education household head	6,0	7,6	4,4	0,0	21,0	5656	6,0	8,3	4,9	0,0	21,0	39364	6,0	5,7	4,8	0,0	21,0	7932
Education partner	6,0	7,9	4,1	0,0	21,0	3581	8,0	8,5	4,8	0,0	21,0	26466	6,0	5,8	4,4	0,0	20,0	5397
Age household head	46,0	47,2	15,3	20,0	99,0	5669	46,0	48,0	16,0	20,0	98,0	39364	43,0	44,9	15,5	20,0	96,0	7932
Wealth index	0,22	0,27	0,18	0,00	1,00	5669	0,15	0,17	0,12	0,00	0,95	39364						
Mexico						Panama						Paraguay						
Savings rate	-2%	-59%	5150%	-740657%	94%	20691	8%	3%	38%	-878%	90%	8840	-7%	-34%	126%	-3093%	98%	5353
Education household head	6,0	7,4	5,2	0,0	22,0	20699	11,0	10,3	4,6	0,0	22,0	8840	6,0	7,9	4,6	0,0	18,0	5211
Education partner	6,0	7,2	4,7	0,0	22,0	14388	12,0	10,8	4,5	0,0	21,0	5254	6,0	7,8	4,5	0,0	18,0	3363
Age household head	45,0	47,2	15,6	20,0	97,0	20699	48,0	49,1	15,6	20,0	98,0	8840	47,0	48,0	16,0	20,0	96,0	5357
Wealth index	0,17	0,21	0,14	0,00	0,90	20699							0,24	0,28	0,18	0,00	1,00	5330
Peru						Uruguay												
Savings rate	8%	-4%	845%	-152846%	95%	34865	13%	4%	152%	-10596%	198%	7023						
Education household head	11,0	10,3	5,1	0,0	22,0	34703	8,0	8,2	4,3	0,0	22,0	7029						
Education partner	11,0	9,6	5,2	0,0	22,0	23355	8,0	8,6	4,1	0,0	22,0	4314						
Age household head	46,0	47,8	15,0	20,0	98,0	34876	52,0	53,1	16,9	20,0	98,0	7029						
Wealth index	0,08	0,16	0,16	0,00	1,00	34198	0,25	0,29	0,19	0,00	1,00	7029						

Source: own elaboration based on income and consumption household surveys.

Table 2. Summary statistics: age distribution														
	Argentina	Bahamas	Bolivia	Brazil	Chile	Colombia	Costa Rica	Ecuador	Honduras	Mexico	Panama	Paraguay	Peru	Uruguay
Dummy 20-29 years old	11%	9%	18%	13%	8%	12%	13%	13%	18%	12%	10%	14%	10%	8%
Dummy 30-29 years old	20%	18%	25%	22%	17%	21%	22%	22%	24%	24%	20%	21%	22%	16%
Dummy 40-49 years old	22%	25%	23%	23%	22%	23%	25%	22%	23%	24%	23%	22%	25%	20%
Dummy 50-59 years old	19%	22%	17%	18%	22%	20%	19%	19%	17%	18%	21%	20%	20%	19%
Dummy 60-69 years old	14%	15%	10%	13%	16%	13%	12%	12%	11%	12%	14%	13%	13%	16%
Dummy 70 years old and up	14%	11%	7%	10%	14%	12%	9%	11%	8%	10%	11%	11%	10%	20%

Source: own elaboration based on income and consumption household surveys.

Table 3. Median regressions of saving rates on age and current income quintile dummies

	Argentina		Bahamas		Bolivia		Brazil		Chile		Colombia		Costa Rica		Ecuador		Honduras		Mexico		Panama		Paraguay		Peru		Uruguay	
Quintile 1	-0,173	**	-1,506	**	-0,080	**	-0,341	**	-0,294	**	-0,451	**	-0,899	**	-0,025	**	-1,213	**	-0,452	***	-0,077	**	-0,963	**	-0,056	**	0,022	
	(0,010)		(0,068)		(0,012)		(0,007)		(0,016)		(0,011)		(0,035)		(0,003)		(0,032)		(0,010)		(0,009)		(0,026)		(0,004)		(0,012)	
Quintile 2	0,025	* ##	-0,252	** ##	0,099	** ##	0,002	##	-0,095	** ##	0,042	** ##	-0,238	** ##	0,013	** ##	-0,386	** ##	-0,079	*** ##	0,005	##	-0,302	** ##	0,020	** ##	0,076	** ##
	(0,010)		(0,065)		(0,012)		(0,007)		(0,016)		(0,011)		(0,035)		(0,003)		(0,032)		(0,010)		(0,009)		(0,026)		(0,004)		(0,012)	
Quintile 3	0,103	##	0,003	##	0,191	** ##	0,113	** ##	-0,009	##	0,184	** ##	0,017	##	0,047	** ##	-0,136	** ##	0,029	*** ##	0,050	** ##	-0,084	** ##	0,074	** ##	0,131	** ##
	(0,010)		(0,065)		(0,012)		(0,007)		(0,016)		(0,011)		(0,035)		(0,003)		(0,032)		(0,010)		(0,009)		(0,026)		(0,004)		(0,012)	
Quintile 4	0,185	** ##	0,232	** ##	0,252	** ##	0,165	** ##	0,031	* #	0,284	** ##	0,196	** ##	0,080	** ##	0,033	##	0,115	*** ##	0,094	** ##	0,056	* ##	0,106	** ##	0,149	**
	(0,010)		(0,065)		(0,012)		(0,007)		(0,016)		(0,011)		(0,035)		(0,003)		(0,032)		(0,010)		(0,009)		(0,026)		(0,004)		(0,012)	
Quintile 5	0,296	** ##	0,368	**	0,366	** ##	0,287	** ##	0,131	** ##	0,400	** ##	0,394	** ##	0,183	** ##	0,263	** ##	0,209	*** ##	0,157	** ##	0,305	** ##	0,209	** ##	0,196	** ##
	(0,010)		(0,065)		(0,012)		(0,007)		(0,016)		(0,011)		(0,036)		(0,003)		(0,032)		(0,010)		(0,009)		(0,026)		(0,004)		(0,012)	
Ages 20-29	-0,115	**	-0,122		-0,078	**	-0,108	**	-0,074	**	-0,111	**	-0,174	**	-0,029	**	0,065		-0,051	***	-0,061	**	-0,015		-0,017	**	-0,041	*
	(0,013)		(0,092)		(0,013)		(0,009)		(0,023)		(0,014)		(0,043)		(0,004)		(0,034)		(0,013)		(0,012)		(0,030)		(0,005)		(0,016)	
Ages 30-39	-0,057	**	-0,008		-0,016		-0,034	**	0,005		-0,060	**	-0,037		-0,024	**	-0,077	*	-0,050	***	-0,016		-0,017		-0,007		-0,008	
	(0,011)		(0,072)		(0,012)		(0,008)		(0,017)		(0,012)		(0,037)		(0,004)		(0,032)		(0,010)		(0,010)		(0,027)		(0,004)		(0,013)	
Ages 50-59	0,056	**	0,062		-0,027	*	0,038	**	0,086	**	0,056	**	-0,009		0,013	**	0,074	*	0,018		0,066	**	0,073	**	0,037	**	0,025	*
	(0,011)		(0,068)		(0,014)		(0,008)		(0,016)		(0,012)		(0,038)		(0,004)		(0,035)		(0,011)		(0,010)		(0,027)		(0,004)		(0,013)	
Ages 60-69	0,091	**	-0,217	**	-0,023		0,107	**	0,165	**	0,038	**	-0,044		0,003		0,045		-0,030	**	0,097	**	0,050		0,033	**	0,012	
	(0,012)		(0,075)		(0,016)		(0,009)		(0,018)		(0,014)		(0,044)		(0,004)		(0,041)		(0,013)		(0,011)		(0,030)		(0,005)		(0,013)	
Ages 70-99	0,101	**	-0,426	**	-0,034		0,150	**	0,188	**	0,009		-0,146	**	-0,009	*	-0,065		-0,156	***	0,071	**	0,009		0,018	**	0,045	**
	(0,012)		(0,083)		(0,018)		(0,010)		(0,018)		(0,014)		(0,048)		(0,004)		(0,045)		(0,013)		(0,012)		(0,032)		(0,005)		(0,012)	
Observ.	28961		1489		8914		55702		10490		25118		5669		39364		7932		20691		8840		5353		34865		7023	
q3≠q1		##		##		##		##		##		##		##		##		##		##		##		##		##		##
q5≠q3		##		##		##		##		###		##		##		##		##		##		##		##		##		##

Source: own elaboration based on income and consumption household surveys.

Standardized errors in parenthesis

*significant at 5%, ** significant at 1%, #significantly different than previous quintile at 5%, ##significantly different than previous quintile at 1%.

Table 4. Median regressions of saving rates on age and lifetime income quintile dummies

	Argentina	Bahamas	Bolivia	Brazil	Chile	Colombia	Costa Rica	Ecuador	Honduras	Mexico	Panama	Paraguay	Peru	Uruguay
Quintile 1	0,108 ** (0,010)	-0,001 (0,079)	0,190 ** (0,016)	0,014 (0,010)	-0,013 (0,018)	0,260 ** (0,012)	-0,036 (0,028)	0,044 ** (0,004)	-0,270 ** (0,041)	-0,027 * (0,011)	0,014 (0,011)	-0,240 ** (0,038)	0,078 ** (0,005)	0,136 ** (0,015)
Quintile 2	0,081 ** (0,018)	0,056 (0,138)	0,211 ** (0,013)	0,044 ** ## (0,010)	-0,026 (0,017)	0,198 ** ## (0,014)	-0,059 (0,050)	0,038 ** (0,006)	-0,221 ** (0,035)	0,010 # (0,014)	0,023 * (0,010)	-0,169 ** (0,029)	0,081 ** (0,004)	0,106 ** (0,020)
Quintile 3	0,096 ** (0,010)	-0,350 (0,582)	0,187 ** (0,014)	0,057 ** (0,011)	-0,064 ** # (0,023)	0,149 ** ## (0,014)	-0,022 (0,036)	0,048 ** (0,005)	-0,193 ** (0,038)	0,012 (0,010)	0,038 * (0,015)	-0,080 (0,044)	0,074 ** (0,006)	0,128 ** (0,020)
Quintile 4	0,089 ** (0,015)	0,199 * (0,079)	0,164 ** (0,014)	0,132 ** ## (0,009)	-0,028 (0,024)	0,121 ** (0,012)	0,078 * # (0,038)	0,063 ** # (0,008)	-0,034 ## (0,046)	0,050 ** ## (0,012)	0,050 ** (0,015)	0,004 (0,030)	0,084 ** (0,006)	0,078 ** # (0,017)
Quintile 5	0,154 ** ## (0,012)	0,223 ** (0,076)	0,209 ** # (0,017)	0,190 ** ## (0,009)	-0,002 (0,021)	0,233 ** ## (0,015)	0,192 ** ## (0,033)	0,106 ** ## (0,006)	0,083 * # (0,034)	0,112 ** ## (0,012)	0,098 ** ## (0,011)	0,096 ** ## (0,031)	0,119 ** ## (0,005)	0,098 ** (0,017)
Ages 20-29	-0,088 ** (0,015)	-0,122 (0,163)	-0,053 ** (0,014)	-0,093 ** (0,017)	-0,024 (0,032)	-0,097 ** (0,017)	-0,097 ** (0,037)	-0,020 ** (0,006)	0,102 * (0,042)	0,007 (0,014)	-0,047 ** (0,016)	-0,024 (0,037)	-0,012 (0,008)	-0,031 (0,021)
Ages 30-39	-0,055 ** (0,014)	0,005 (0,081)	-0,025 (0,014)	-0,020 * (0,009)	0,033 (0,021)	-0,060 ** (0,015)	0,013 (0,035)	-0,017 ** (0,005)	-0,093 * (0,042)	-0,033 ** (0,011)	-0,008 (0,012)	-0,022 (0,037)	-0,012 * (0,005)	-0,005 (0,019)
Ages 50-59	0,073 ** (0,012)	-0,044 (0,080)	-0,010 (0,014)	0,047 ** (0,010)	0,091 ** (0,020)	0,056 ** (0,014)	0,039 (0,035)	0,015 * (0,006)	0,083 * (0,038)	0,013 (0,011)	0,079 ** (0,013)	0,118 ** (0,035)	0,035 ** (0,005)	0,031 * (0,015)
Ages 60-69	0,095 ** (0,016)	-0,188 (0,115)	-0,007 (0,022)	0,093 ** (0,010)	0,172 ** (0,021)	0,033 * (0,016)	0,019 (0,050)	0,007 (0,006)	-0,008 (0,047)	-0,015 (0,015)	0,102 ** (0,015)	0,060 (0,047)	0,035 ** (0,007)	0,024 (0,022)
Ages 70-99	0,084 ** (0,021)	-0,332 * (0,148)	-0,048 (0,040)	0,170 ** (0,012)	0,188 ** (0,025)	-0,004 (0,018)	-0,101 * (0,060)	-0,013 (0,007)	-0,055 (0,073)	-0,105 ** (0,021)	0,084 ** (0,014)	0,049 (0,050)	0,019 ** (0,006)	0,059 ** (0,018)
Observ.	18096	670	5787	38124	6502	15369	3581	26466	5397	14383	5254	3361	23348	4314
q3≠q1				##	#	##				##		##		
q5≠q3	##		##	##	#	##	##	##	##	##	##	##	##	##

Source: own elaboration based on income and consumption household surveys.

Standardized errors in parenthesis based on 500 bootstrap repetitions.

*significant at 5%, ** significant at 1%, #significantly different than previous quintile at 5%, ##significantly different than previous quintile at 1%.

The instruments for lifetime income are education of the partners' household head and its square

Table 5. Median regressions of saving rates on age and wealth index quintile dummies																		
	Argentina		Bahamas	Colombia		Costa Rica		Ecuador		Mexico		Paraguay		Peru	Uruguay			
Quintile 1	0,126	**	0,020	0,222	**	-0,138	**	0,029	**	-0,123	**	-0,288	**	0,065	**	0,132	***	
	(0,010)		(0,063)	(0,011)		(0,026)		(0,004)		(0,011)		(0,027)		(0,003)		(0,012)		
Quintile 2	0,097	* ##	-0,004	0,145	** ##	-0,061	* ##	0,034	**	-0,021	##	-0,216	** #	0,056	**	0,124	***	
	(0,010)		(0,063)	(0,011)		(0,027)		(0,004)		(0,011)		(0,027)		(0,008)		(0,012)		
Quintile 3	0,086	**	-0,032	0,137	**	-0,014		0,048	** ##	0,008	#	-0,089	** ##	0,078	** ##	0,121	***	
	(0,010)		(0,063)	(0,011)		(0,028)		(0,004)		(0,011)		(0,027)		(0,005)		(0,012)		
Quintile 4	0,115	** ##	0,081	0,133	**	0,074	** ##	0,054	**	0,040	** ##	-0,034		0,079	**	0,105	***	
	(0,010)		(0,062)	(0,011)		(0,027)		(0,004)		(0,011)		(0,027)		(0,004)		(0,012)		
Quintile 5	0,114	**	-0,085	#	0,149	**	0,188	** ##	0,086	** ##	0,083	** ##	0,088	** ##	0,097	** ##	0,107	***
	(0,010)		(0,063)		(0,011)		(0,027)		(0,004)		(0,011)		(0,027)		(0,004)		(0,012)	
Ages 20-29	-0,114	**	-0,132		-0,104	**	-0,129	**	-0,025	**	-0,040	**	-0,031		-0,018	**	-0,041	**
	(0,013)		(0,088)		(0,014)		(0,033)		(0,004)		(0,013)		(0,032)		(0,005)		(0,017)	
Ages 30-39	-0,062	**	0,033		-0,064	**	-0,017		-0,022	**	-0,042	**	0,005		-0,006		-0,015	
	(0,011)		(0,069)		(0,012)		(0,028)		(0,004)		(0,011)		(0,028)		(0,005)		(0,014)	
Ages 50-59	0,068	**	0,049		0,056	**	0,010		0,014	**	0,019		0,094	**	0,033	**	0,023	*
	(0,011)		(0,065)		(0,012)		(0,029)		(0,004)		(0,012)		(0,028)		(0,004)		(0,013)	
Ages 60-69	0,096	**	-0,162	*	0,050	**	0,028		0,000		-0,022		0,037		0,031	**	0,007	
	(0,012)		(0,072)		(0,014)		(0,034)		(0,004)		(0,013)		(0,032)		(0,005)		(0,014)	
Ages 70-99	0,111	**	-0,560	**	0,027		-0,056		-0,010	*	-0,134	**	-0,014		0,016	**	0,033	**
	(0,012)		(0,079)		(0,014)		(0,037)		(0,004)		(0,014)		(0,034)		(0,006)		(0,013)	
Observ.	28961		1489		25081		5669		39364		20691		5326		34189		7023	
q3≠q1		##			##		##		##		##		##		##			
q5≠q3		#					##		##		##		##		##			

Source: own elaboration based on income and consumption household surveys.

Standardized errors in parenthesis

*significant at 5%, ** significant at 1%, #significantly different than previous quintile at 5%, ##significantly different than previous quintile at 1%.

Household wealth index is a weighted average of available home appliances and other durable assets (car, homeownership, etc.).

Table A1. Data				
	Years	Survey	Source	Households
Argentina	2004-2005	Encuesta Nacional de Gastos de los Hogares	Instituto Nacional de Estadística y Censos	29.138
Bahamas	2013	Bahamas Household Expenditure Survey	Department of Statistics, Ministry of Finance	1.544
Bolivia	2003-2004	Encuesta Continua de los Hogares	Instituto Nacional de Estadística	9.149
Brazil	2008-2009	Pesquisa de Orçamentos Familiares	Instituto Brasileiro de Geografia e Estatística	55.702
Chile	2011-2012	VII Encuesta de Presupuestos Familiares	Instituto Nacional de Estadísticas	10.518
Colombia	2011	Encuesta Nacional de Calidad de Vida	Departamento Administrativo Nacional de Estadística	25.364
Costa Rica	2013	Encuestacuesta Nacional de Ingresos y Gastos de los Hogares	Instituto Nacional de Estadística y Censos	5.705
Ecuador	2004	Encuesta Nacional de Ingresos y Gastos de los Hogares Urbanos	Instituto Nacional de Estadística y Censos	39.617
Honduras	2004	Encuesta Nacional de Condiciones de Vida	Instituto Nacional de Estadística	8.175
Mexico	2005	Encuesta Nacional de Ingresos y Gastos de los Hogares	Instituto Nacional de Estadística y Geografía	20.875
Panama	2007-2008	Encuesta de Ingresos y Gastos de los Hogares	Instituto Nacional de Estadística y Censo	8.895
Paraguay	2011-2012	Encuesta de Ingresos y Gastos y de Condiciones de Vida	Dirección General de Estadísticas, Encuestas y Censos	5.417
Peru	2008-2009	Encuesta Nacional de Presupuestos Familiares	Instituto Nacional de Estadística e Informática	35.161
Uruguay	2005-2006	Encuesta Nacional de Gastos e Ingresos de los Hogares	Instituto Nacional de Estadística	7.043

Note: The Bolivian survey is part of the continuous household surveys that introduced a module in 2003-2004 to capture detailed data on income and expenses.

Table A2. Assets used in the construction of the wealth index

Argentina

Cooking stove (hobs & ovens); Microwave; Refrigerator ; Home Freezer; Dishwasher; Multiprocessor; Digital camera; Internet; Personal Computer; DVD; Television; Digital movie camera; Video cassette player; Vacuum cleaner; Gas heater; Purified air extractor; Washing machines; Cellular phone; Wireless phone; Water Heater; Car; Van; Bicycle; Homeowner.

Bahamas

Refrigerator; Home Freezer; Gas/ Electric cooking stoves (Hobs & ovens); Microwave; Other kitchen appliances; Washing machine; Clothing Dryer; Other major laundry equipments; Air Conditioner; Water Heater; Vacuum cleaner; Lawn Mowers; Other motorized equipment e.g. Electric drills saw and hedges cutters; Television; Video /CD Player; Movie Cameras/ Camera; Personal Computer; Homeowner.

Colombia

Washing machine; Refrigerator; Blender; Iron; Gas/ Electric heater; Gas/ Electric cooking stoves; Microwave; Gas/ Electric water heater or electric shower; Television; Video player (DVD, blue-ray, others); Stereo; Personal Computer; Vacuum cleaner / polisher; Air conditioner; Fan; Digital music, video & pictures player (mp3, mp4, iPod); Game consoles: play station, X-box, Wii, Psp, Nintendo, game; Movie camera; Personal Car; Motorcycle or scooter; House, apartment or country house; Digital camera; Homeowner.

Costa Rica

Cellular phone; Phone; Refrigerator; Water heater; Water storage tank; Laptop computer; Desktop computer; Tablet; Radio o Stereo; Plasma, lcd or led television ; Television; Homeowner.

Ecuador

Air conditioner; Bicycle; Movie camera; Cooking Stoves with or without oven or kitchenette; Desktop computer; Laptop computer; DVD, VCD; Stereo; Exhaust fan; Game console, play station,; Washing machine; Washing & dryer machine; Dishwasher; Blender; Sewing machine; Fitness machine; Microwave; Motorcycle; Refrigerator; flat TV; Television; Vehicle for home use; Land not for agricultural use; Business premises; Homeowner.

Mexico

Car, van, or pickup; Motorcycle or scooter for home use; Bicycle; Boat or other maritime vehicle; Stereo micro components or console; CD player; Radio recorder with CD player; Radio recorder without CD player; Radio; Color Television; Video cassette player; DVD; Blender; Juicer; Electric juice extractor; Toaster; Coffee machine; Sandwich toaster; Electric juice squeezer; Electric can opener; Electric oven; Microwave; Refrigerator; Gas/ Electric Stove; Hand mill; Washing machine; Iron; Sewing machine; Fan; Air conditioner; Water Heater; Vacuum cleaner; Computer; Printer; Scanner, burner, modem & other devices; Video games: Nintendo, play station, Sega or others; Homeowner.

Paraguay

Air conditioner; Vacuum Cleaner; Car; Bicycle; Van; Gas cooking stoves with oven or Electric cooking stoves; Computer; DVD; Refrigerator; Electric oven; Washing machine; Blender; Microwave; Motorcycle; Notebook; DVD; Iron; Radio; Dryer; Color television; Homeowner.

Peru

Sewing machine; Knitting machine; Car or Van for private use; Motorcycle for private use; Computer; Homeowner.

Uruguay

Water heater; Refrigerator; Freezer or Refrigerator with freezer; Television; Video cassette player; DVD; Washing machine; Dishwasher; Microwave; Electric stove; Air Conditioner; Central home heating; Computer; Phone; Cellular phone; Car for private use; Motorcycle for private use; Homeowner.

Source: own elaboration based on income and consumption household surveys.

Table A3. Median regressions of saving rates on age and lifetime income quintile dummies (sample restricted to working age 30-59)

	Argentina	Bahamas	Bolivia	Brazil	Chile	Colombia	Costa Rica	Ecuador	Honduras	Mexico	Panama	Paraguay	Peru	Uruguay
Quintile 1	0,111 ** (0,012)	0,007 (0,082)	0,185 ** (0,018)	-0,013 (0,010)	-0,030 (0,019)	0,270 ** (0,014)	-0,040 (0,027)	0,041 ** (0,005)	-0,321 ** (0,046)	-0,026 * (0,013)	0,015 (0,013)	-0,211 ** (0,039)	0,079 ** (0,005)	0,131 ** (0,017)
Quintile 2	0,051 (0,032)	0,055 (0,097)	0,215 ** (0,014)	0,038 ** ## (0,011)	-0,026 (0,019)	0,209 ** ## (0,015)	-0,061 (0,058)	0,033 ** (0,009)	-0,216 ** # (0,040)	0,014 # (0,015)	0,025 * (0,012)	-0,163 ** (0,036)	0,081 ** (0,005)	0,104 ** (0,032)
Quintile 3	0,096 ** (0,010)	0,007 (0,082)	0,192 ** (0,015)	0,074 ** ## (0,011)	-0,106 ** ## (0,031)	0,139 ** ## (0,016)	-0,001 (0,044)	0,047 ** (0,005)	-0,206 ** (0,042)	0,011 (0,011)	0,038 * (0,017)	-0,164 ** (0,051)	0,074 ** (0,007)	0,132 ** (0,022)
Quintile 4	0,073 ** (0,020)	0,182 * (0,088)	0,163 ** (0,015)	0,134 ** ## (0,009)	-0,019 ## (0,025)	0,105 ** (0,014)	0,076 * (0,038)	0,062 ** (0,010)	-0,029 ## (0,058)	0,044 ** # (0,012)	0,035 * (0,017)	-0,004 ## (0,034)	0,083 ** (0,007)	0,087 ** (0,020)
Quintile 5	0,152 ** ## (0,013)	0,235 ** (0,073)	0,204 ** # (0,018)	0,217 ** ## (0,011)	0,032 # (0,019)	0,244 ** ## (0,019)	0,204 ** ## (0,038)	0,113 ** ## (0,006)	0,131 ** ## (0,037)	0,106 ** ## (0,012)	0,103 ** ## (0,012)	0,109 ** ## (0,033)	0,120 ** ## (0,006)	0,091 ** (0,018)
Ages 30-39	-0,051 ** (0,014)	-0,002 (0,083)	-0,027 (0,015)	-0,019 * (0,009)	0,028 (0,020)	-0,055 ** (0,015)	0,009 (0,035)	-0,016 ** (0,005)	-0,110 * (0,043)	-0,032 ** (0,012)	-0,009 (0,013)	-0,010 (0,036)	-0,012 * (0,005)	-0,005 (0,019)
Ages 50-59	0,075 ** (0,013)	-0,047 (0,080)	-0,009 (0,014)	0,046 ** (0,010)	0,096 ** (0,021)	0,055 ** (0,014)	0,000 (0,040)	0,017 ** (0,006)	0,096 * (0,038)	0,015 (0,011)	0,078 ** (0,014)	0,109 ** (0,035)	0,035 ** (0,006)	0,031 (0,018)
Observ.	12318	437	3992	25586	4392	10347	2470	17774	3506	10077	3606	2269	16819	2728
q3≠q1				##	#	##				#	##			
q5≠q3		##	##	##	##	##	##	##	##	##	##	##	##	##

Source: own elaboration based on income and consumption household surveys.

Standardized errors in parenthesis based on 500 bootstrap repetitions.

*significant at 5%, ** significant at 1%, #significantly different than previous quintile at 5%, ##significantly different than previous quintile at 1%.

The instruments for lifetime income are education of the partners' household head and its square

Table A4. Median regressions of saving rates on age and wealth index quintile dummies (sample restricted to working age 30-59)																											
	Argentina			Bahamas			Colombia			Costa Rica			Ecuador			Mexico			Paraguay			Peru			Uruguay		
Quintile 1	0,124	**		0,010			0,246	**		-0,155	**		0,027	**		-0,084	**		-0,279	**		0,067	**		0,124	**	
	(0,012)			(0,064)			(0,013)			(0,028)			(0,004)			(0,011)			(0,031)			(0,003)			(0,015)		
Quintile 2	0,094	**	#	0,034			0,152	**	###	-0,053		###	0,031	**		-0,010		###	-0,213	**		0,056	**		0,121	**	
	(0,012)			(0,064)			(0,013)			(0,030)			(0,004)			(0,011)			(0,031)			(0,007)			(0,015)		
Quintile 3	0,073	**		-0,041			0,131	**		-0,004			0,052	**	###	0,008			-0,094	**	###	0,078	**	#	0,138	**	
	(0,012)			(0,063)			(0,013)			(0,029)			(0,004)			(0,011)			(0,031)			(0,007)			(0,015)		
Quintile 4	0,131	**	###	-0,010			0,131	**	#	0,076	**	#	0,060	**		0,028	*		-0,022			0,078	**		0,092	**	
	(0,012)			(0,063)			(0,013)			(0,029)			(0,004)			(0,011)			(0,031)			(0,005)			(0,015)		
Quintile 5	0,120	**		-0,071			0,137	**		0,183	**	###	0,087	**	###	0,076	**	###	0,085	**	###	0,095	**	###	0,101	**	
	(0,012)			(0,064)			(0,013)			(0,029)			(0,004)			(0,011)			(0,031)			(0,005)			(0,015)		
Ages 20-29	-0,062	**		0,042			-0,065	**		-0,018			-0,022	**		-0,049	**		0,008			-0,006			-0,011		
	(0,011)			(0,061)			(0,012)			(0,027)			(0,004)			(0,010)			(0,029)			(0,005)			(0,014)		
Ages 30-39	0,065	**		0,079			0,052	**		0,015			0,013	**		0,017			0,090	**		0,033	**		0,023		
	(0,011)			(0,058)			(0,012)			(0,028)			(0,004)			(0,011)			(0,029)			(0,004)			(0,014)		
Ages 50-59	17744			964			15909			3739			25009			13585			3308			23134			3871		
Ages 60-69			##						##			##			##			##			##			#		#	
	0,124	**		0,010			0,246	**		-0,155	**		0,027	**		-0,084	**		-0,279	**		0,067	**		0,124	**	
Ages 70-99	(0,012)			(0,064)			(0,013)			(0,028)			(0,004)			(0,011)			(0,031)			(0,003)			(0,015)		
	0,094	**	#	0,034			0,152	**	###	-0,053		###	0,031	**		-0,010		###	-0,213	**		0,056	**		0,121	**	
	(0,012)			(0,064)			(0,013)			(0,030)			(0,004)			(0,011)			(0,031)			(0,007)			(0,015)		
q3≠q1	0,073	**		-0,041			0,131	**		-0,004			0,052	**	###	0,008			-0,094	**	###	0,078	**	#	0,138	**	
q5≠q3	(0,012)			(0,063)			(0,013)			(0,029)			(0,004)			(0,011)			(0,031)			(0,007)			(0,015)		

Source: own elaboration based on income and consumption household surveys.

Standardized errors in parenthesis

*significant at 5%, ** significant at 1%, #significantly different than previous quintile at 5%, ##significantly different than previous quintile at 1%.

Household wealth index is a weighted average of available home appliances and other durable assets (car, homeownership, etc.).

Table A5. Median regressions of saving rates on age and lifetime income quintile dummies (alternative instruments)

	Argentina	Bahamas	Bolivia	Brazil	Chile	Colombia	Costa Rica	Ecuador	Honduras	Mexico	Panama	Paraguay	Peru	Uruguay
Quintile 1	0,119 ** (0,012)	0,021 (0,089)	0,187 ** (0,017)	0,001 (0,009)	0,007 (0,018)	0,264 ** (0,013)	-0,044 (0,031)	0,043 ** (0,004)	-0,347 ** (0,040)	-0,051 ** (0,014)	0,010 (0,012)	-0,236 ** (0,043)	0,076 ** (0,004)	0,140 ** (0,017)
Quintile 2	0,095 ** (0,013)	0,082 (0,063)	0,200 ** (0,015)	0,037 ** ## (0,009)	-0,021 (0,018)	0,209 ** ## (0,014)	-0,053 (0,039)	0,035 ** (0,005)	-0,222 ** ## (0,038)	0,001 ## (0,012)	0,018 (0,012)	-0,224 ** (0,041)	0,080 ** (0,005)	0,119 ** (0,021)
Quintile 3	0,090 ** (0,011)	-0,155 (0,257)	0,199 ** (0,014)	0,066 ** ## (0,009)	-0,058 ** (0,020)	0,149 ** ## (0,014)	-0,018 (0,032)	0,041 ** (0,005)	-0,177 ** (0,035)	0,007 (0,012)	0,026 * (0,013)	-0,137 ** (0,040)	0,078 ** (0,005)	0,099 ** (0,018)
Quintile 4	0,107 ** (0,013)	0,172 * (0,076)	0,174 ** (0,014)	0,105 ** ## (0,008)	-0,028 (0,021)	0,100 ** ## (0,014)	0,093 * ## (0,037)	0,054 ** # (0,005)	-0,070 * ## (0,033)	0,034 ** # (0,012)	0,062 ** # (0,013)	0,002 ## (0,033)	0,076 ** (0,005)	0,092 ** (0,019)
Quintile 5	0,146 ** # (0,013)	0,223 ** (0,068)	0,193 ** (0,015)	0,197 ** ## (0,009)	0,009 (0,020)	0,202 ** ## (0,018)	0,228 ** ## (0,033)	0,107 ** ## (0,005)	0,115 ** ## (0,031)	0,110 ** ## (0,010)	0,094 ** # (0,012)	0,085 * ## (0,034)	0,123 ** ## (0,005)	0,097 ** (0,016)
Ages 20-29	-0,089 ** (0,016)	-0,161 (0,168)	-0,050 ** (0,016)	-0,083 ** (0,012)	-0,027 (0,030)	-0,088 ** (0,018)	-0,106 ** (0,039)	-0,020 ** (0,005)	0,080 * (0,037)	0,002 (0,014)	-0,042 ** (0,016)	-0,003 (0,041)	-0,014 (0,007)	-0,021 (0,022)
Ages 30-39	-0,058 ** (0,014)	-0,016 (0,082)	-0,024 (0,014)	-0,019 ** (0,009)	0,017 (0,020)	-0,054 ** (0,015)	0,001 (0,034)	-0,015 ** (0,005)	-0,108 ** (0,038)	-0,036 ** (0,011)	-0,006 (0,012)	-0,005 (0,034)	-0,011 * (0,005)	-0,002 (0,019)
Ages 50-59	0,076 ** (0,012)	-0,068 (0,068)	-0,006 (0,016)	0,044 ** (0,009)	0,082 ** (0,019)	0,057 ** (0,015)	0,021 (0,035)	0,017 ** (0,005)	0,069 (0,039)	0,021 (0,013)	0,079 ** (0,013)	0,112 ** (0,037)	0,033 ** (0,005)	0,034 * (0,017)
Ages 60-69	0,081 ** (0,014)	-0,201 * (0,100)	0,001 (0,020)	0,101 ** (0,009)	0,156 ** (0,019)	0,046 ** (0,015)	0,002 (0,041)	0,009 (0,007)	-0,002 (0,044)	-0,016 (0,016)	0,100 ** (0,014)	0,062 (0,047)	0,038 ** (0,006)	0,018 (0,021)
Ages 70-99	0,059 ** (0,019)	-0,326 * (0,157)	-0,033 (0,039)	0,158 ** (0,013)	0,166 ** (0,023)	0,002 (0,019)	-0,133 * (0,056)	-0,010 (0,006)	-0,068 (0,061)	-0,102 ** (0,022)	0,082 ** (0,017)	0,046 (0,045)	0,016 * (0,007)	0,054 ** (0,017)
Observ.	17647	655	5787	38124	6497	15369	3573	26466	5397	14383	5254	3317	23276	4314
q3≠q1	#			##	##	##				##	##		#	#
q5≠q3	##			##	##	##	##	##	##	##	##	##	##	##

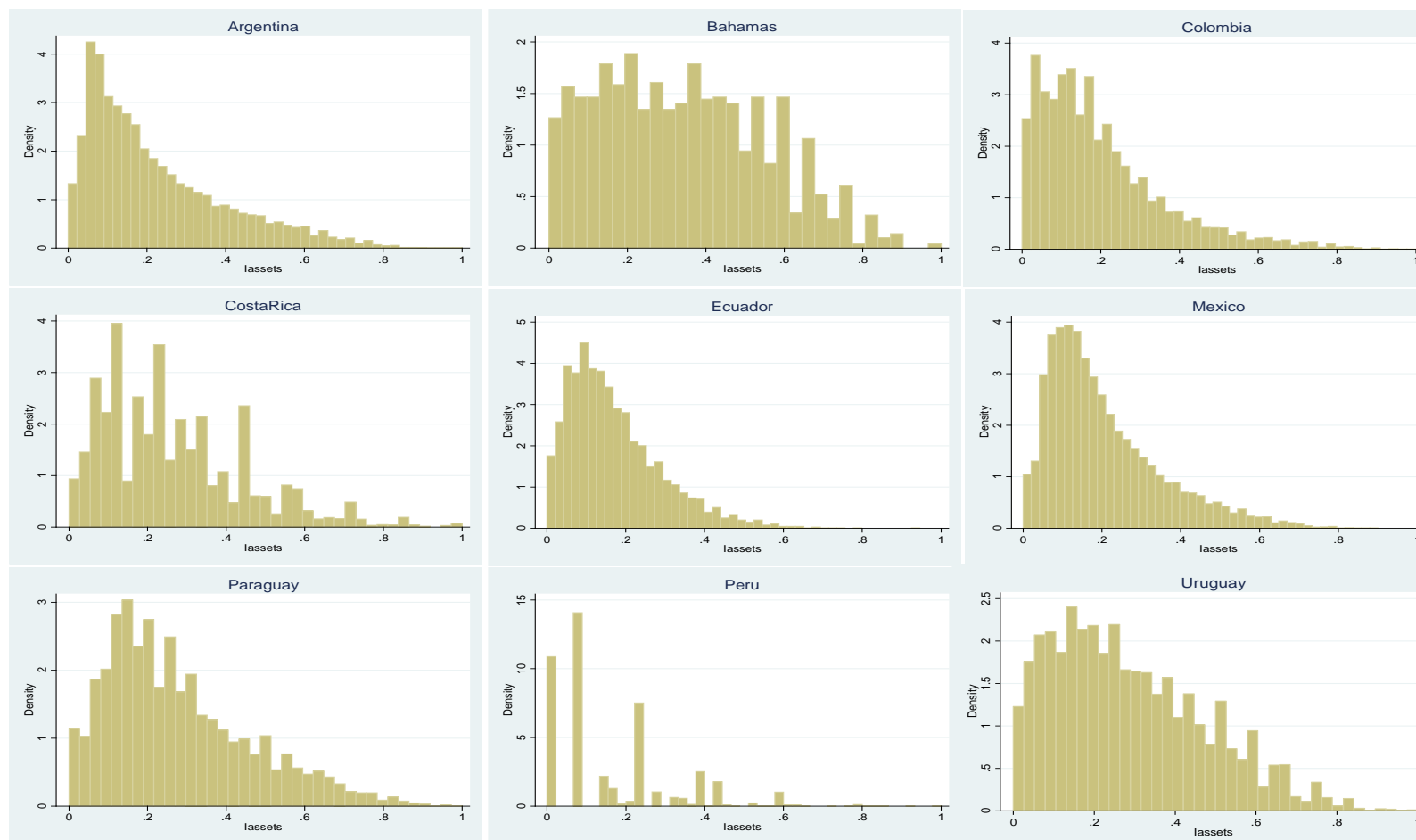
Source: own elaboration based on income and consumption household surveys.

Standardized errors in parenthesis based on 500 bootstrap repetitions.

*significant at 5%, ** significant at 1%, #significantly different than previous quintile at 5%, ##significantly different than previous quintile at 1%.

The instruments for lifetime income are education of the household head, the household head partners' education and their square

Figure A1 Density function of Wealth index



Source: own elaboration based on income and consumption household surveys