

The Strugglers: New Poor in Latin America?

Nancy Birdsall, Nora Lustig, and Christian J. Meyer

Abstract

In this paper we identify a group of people in Latin America and other developing countries that are not poor but not middle class either. We define them as the vulnerable “strugglers”, people living in households with daily income per capita between \$4 and \$10 (at constant 2005 PPP dollar). They are well above the international poverty line, but still vulnerable to falling back into poverty and hence not part of the secure middle class. In a first step, we use long-term growth projections to show that in Latin America about 200 million people will likely be in the struggler group in 2030, accounting for about a third of the total population.

We argue that in many upper-middle income countries of the region, the strugglers will likely risk marginalization and become the new poor. In a second step, we use harmonized household survey data and fiscal incidence analysis to show that the cash transfers that the strugglers receive are largely offset by the indirect taxes they pay. We argue that the true benefit of in-kind transfers in education and health is questionable after adjusting for quality. We discuss implications for the social contract in Latin America call for greater attention to the needs and interests of the strugglers in the design and implementation of social and economic policies.

JEL Codes: D31, H22, I32, O15

Keywords: income distribution, poverty, inequality, distribution, fiscal incidence, safety net.

The Strugglers: New Poor in Latin America?

Nancy Birdsall

Nora Lustig

Christian J. Meyer

Nancy Birdsall: Center for Global Development; Nora Lustig: Tulane University, Inter-American Dialogue, Center for Global Development; Christian J. Meyer: Center for Global Development. The authors would like to thank Alejandro Foxley, Santiago Levy, Luís Felipe López-Calva, Raymond Robertson, and Liliana Rojas-Suarez for useful comments and suggestions. Luís Felipe López-Calva provided significant input to our vulnerability analysis; the World Bank's Global Economic Prospects Group kindly shared their long-term growth forecast with us. This work benefitted from discussions at the Corporación de Estudios para Latinoamérica (CIEPLAN), the Latin American Studies Association Annual Conference 2013, the German Development Institute (DIE), and the Inter-American Development Bank. All remaining errors are our own.

This paper was prepared for the CGD/CIEPLAN project: "Emerging Issues for Latin America and the Caribbean 2015-2020" sponsored by the Inter-American Development Bank (IADB). The authors alone are responsible for its content.

Nancy Birdsall, Nora Lustig, and Christian J. Meyer. 2013. "The Strugglers: New Poor in Latin America?" CGD Working Paper 337. Washington, DC: Center for Global Development.

<http://www.cgdev.org/content/publications/the-strugglers>

Center for Global Development
1800 Massachusetts Ave., NW
Washington, DC 20036

202.416.4000
(f) 202.416.4050

www.cgdev.org

The Center for Global Development is an independent, nonprofit policy research organization dedicated to reducing global poverty and inequality and to making globalization work for the poor. Use and dissemination of this Working Paper is encouraged; however, reproduced copies may not be used for commercial purposes. Further usage is permitted under the terms of the Creative Commons License.

The views expressed in CGD Working Papers are those of the authors and should not be attributed to the board of directors or funders of the Center for Global Development.

Contents

1. Introduction.....	2
2. Identifying Latin America’s vulnerable strugglers	4
2.1. Why \$4 to \$10?.....	4
2.2. Who are the strugglers?	7
3. The strugglers in Latin America and the developing world, today and over the next decades	11
3.1 Growth projections.....	11
3.2 Discussion of key results.....	14
4. How do governments treat them? Taxes and benefits in Bolivia, Brazil, Guatemala, Mexico, Peru and Uruguay.....	15
4.1. Fiscal incidence analysis	16
4.2. The quality of public services: The case of schooling.....	19
5. Towards a new social contract? The political challenges over the next decades.....	21
6. Concluding reflections	24
Tables	26
Figures.....	38
Appendix	46
Bibliography	53

1. Introduction

"In Sidi Bouzid, those with no connections and no money for bribes are humiliated and insulted and not allowed to live."¹

That is what Mohamed Bouazizi's sister is said to have told journalists after her brother immolated himself in his small home town in Tunisia in late 2010, sparking what has come to be known as the Arab Spring. When Bouazizi refused to pay the local police their accustomed bribe, they destroyed his small (unlicensed) business. They seized his working capital: the produce for the week he had bought that morning on credit, his cart, his scales, and probably most important, his access to "the market", in this case the common public space in a small town where his supply and his customers' demands could be matched.

We think it is safe to assume Bouazizi was not poor by international standards.² He reportedly gave fruit away to "very poor families", suggesting he and his family were not among the poorest in rural Tunisia. He lived with his uncle, mother and younger siblings in a "modest adobe house", and was helping pay for one of his sisters to attend university. But neither was he a member of the middle class – though he apparently had middle-class ambitions. He wished he had finished high-school and had hoped to save enough money to buy a pick-up truck.

But with his assets limited to the vendor cart and the family home, he and his household lacked the most basic level of income security. He lived in a middle-income country with annual per capita income of about \$9,000 at purchasing power parity (PPP), where real GDP growth of 4.4 percent between 2000 and 2010 had been positive if not exciting³. It was reasonable for him to aspire to a better life – for himself (the pickup truck would have opened the door to a doubling of his income), for his sister at the university, and for his younger siblings whom he hoped would finish high school. Tunisia is a country where expectations were surely rising in the last 10 years. Average income was significantly higher than in Egypt⁴ and comparable to but far more equally distributed than in Bolivia, Colombia, and Ecuador⁵.

¹ Cited in Noueihed (2012).

² De Soto (2011) reports that Bouazizi earned about US\$73 per week and that he was the primary breadwinner for his family of seven. This would have amounted to a daily household income of \$3.30 per capita in 2005 PPP dollar – well above the international poverty line of \$1.25 per capita per day and Tunisia's national poverty of \$1.4 per capita per day (Abu-Ismaïl et al. 2011). According to the most recent official household survey in 2005, about 1.35 percent of Tunisia's population was below the international poverty line (World Bank PovcalNet, 2013).

³ World Bank World Development Indicators (2013).

⁴ In 2005, Tunisia's mean daily household consumption expenditure stood at \$7 per capita, the median at about \$5.2 per capita. At the mean, this was comparable to Colombia (income of \$6.73 per capita per day) and

In this paper we identify a group of people in Latin America, and for comparison in selected other emerging market economies in the developing world, whose material well-being is probably comparable to that of Bouazizi and his family – not poor but not middle class either. We define them as “strugglers”, people living in households in which income per person falls between \$4 and \$10 per capita per day (at constant 2005 PPP dollar) – well above the international poverty line, but below what we would call the secure middle class. We also refer to them using the word vulnerable, because of evidence that they are at substantial risk of falling into poverty, for example if any household member falls ill or suffers a drop in income because of an economic downturn.

We project that in Latin America the struggler group of about 200 million people today will peak at about 250 million in 2030, accounting for the next two to three decades for a steady one-third or so of the total population. In the upper-middle income countries including Argentina, Brazil, and Chile, the income-secure middle class (with income per day above \$10) will become larger than the struggler group earlier; in these countries the absolute difference in income between the strugglers combined with the under \$4 poor will increase (assuming no change in the current income distributions and equally shared rates of growth across the distribution), creating the potential for the increasingly marginalized group in these better-off middle countries that we refer to in the title as the “new poor”.

In assessing the relationship of the struggler group to the poor, we find that the modest cash transfers that the strugglers receive are offset by the indirect taxes they pay. Their net benefit from the fiscal system largely derives from in-kind transfers for schooling and health services. Evidence that up to 50 percent of middle class households in some countries, and even some struggler households, are opting out of public schools and paying for private schools suggests that the that the fiscal incidence analysis overstates the true value of in-kind benefits.⁶ Given these findings, we call for greater attention to the needs and interests of the strugglers in the design and implementation of growth and distribution-friendly social and economic policies.

The rest of this paper is structured as follows. In section 2, we explain the logic behind setting absolute income thresholds to identify “classes” rather than using the more common approach of defining classes by the relative income using particular fractiles of populations.

Ecuador (income of \$7.87 per capita per day). In the same year, the average Egyptian household was significantly poorer (mean expenditure of \$3.65 per capita per day, median expenditure \$2.92 per capita per day).

⁵ Although income inequality had been increasing since the mid-2000s, it was still lower than anywhere in Latin America. Achy (2011) reports that Tunisia’s income inequality, measured by the Gini index, approached 41 percent in 2009 – attributing the recent rise to a high level of youth unemployment, the absence of redistributive tax policies, and regressive effects of social spending. World Bank PovcalNet (2013) reports a Gini index of 41.42 percent in 2005, compared to Egypt’s Gini index of 32.14 percent in the same year. According to Lustig et al. (2011), this is significantly lower than in all countries in Latin America for which we have data. Around 2009, Bolivia had the region’s highest income inequality with a Gini index of 57.2 percent.

⁶ We are finalizing the text in late June, at the time of the widespread protests in Brazil, attributed in part to the public’s frustration with terrible public services.

We also discuss the empirical basis that justifies the income thresholds of \$4 to \$10 and present basic socio-economic characteristics of these households. In section 3 we present projections of the size of the \$4-\$10 group through 2050 in selected countries of Latin America and for comparison elsewhere in the developing world, and explore the implications of the projected increase in their absolute and relative size compared to the secure middle class. In section 4 we use harmonized household survey data from several Latin American countries to assess the relationship of the strugglers to the state as taxpayers and beneficiaries of government spending and social insurance programs. We estimate the taxes they pay and the benefits they receive, including cash transfers, access to social insurance, and health, schooling, and other public services. We compare the strugglers on these dimensions to the poor below them and the secure middle class and rich above them, as information potentially relevant to their economic and political interests. In Section 5, we speculate on the implications of our analysis for the likely evolution of the social contract in Latin America and discuss potential policy implications. Section 6 concludes.

2. Identifying Latin America's vulnerable strugglers

2.1. Why \$4 to \$10?

The \$4 to \$10 per capita per day thresholds are meant to identify people that are unlikely to be poor in absolute terms using the conventional international poverty lines of \$1.25 for extreme poverty and \$2 for poverty, but are not yet in the middle class. We set our thresholds in absolute terms (rather than in relative terms for each person or household within his country) for two reasons. First and foremost, absolute thresholds make it possible to study changes within countries over time in what might be called the income composition of a society or nation, looking at both population and income shares of specific groups identified in real income terms. Second, as Birdsall (2010) argues, an absolute threshold (in that case for identifying the minimum income to be middle class) allows comparisons across countries, and makes sense to the extent that in the relatively open economies of most developing countries today, consumption potential is determined in part by global prices, including of food and fuel. In addition it is possible that consumption standards and preferences or the consumption basket itself is set at the global level, at least for households that have escaped absolute poverty.

The \$4 threshold at the bottom is meant to exclude households that are in some absolute sense poor in most developing countries. It is below the national poverty line in countries of Latin America, but above the national extreme poverty lines in the region (Table 1). It is also above the poverty lines in most countries of other developing country regions. Ravallion et al. (2009) make the point that national poverty lines rise markedly across developing countries with average income; that reflects the reality that security with respect to basic needs is difficult to define in absolute terms (as Adam Smith famously noted, it is about the proper hat that makes a man feel presentable in his community). \$4 is also sufficiently above

the international absolute poverty lines of \$1.25 for extreme poverty and \$2 for poverty to avoid including many households that are only temporarily above those lines.

There is considerable evidence from developing countries that the number of people that live below the poverty line is substantially greater over several months or years than the number that are poor at any one moment. Pritchett, Suryahadi, and Sumarto (2000) use two panel datasets from Indonesia to estimate that 30 to 50 percent of households above a given poverty threshold face a risk of 50 percent or more of falling below it. Dercon and Shapiro (2007) summarize the empirical evidence on poverty mobility from longitudinal data. Similarly, Kanbur et al. (2000), Lustig (1995), and Lustig (2000) record substantial increases in “poverty” conventionally defined during crises, in part because a high proportion of the non-poor live so close to the poverty line – where they are vulnerable during a downturn, presumably because their permanent income is too low for them to have accumulated the precautionary savings or assets typical of middle class households to ride out a downturn.⁷

Our \$10 threshold at the top is meant to exclude households likely to be in the secure (or consolidated) middle class. Birdsall (2010) suggests \$10 a day (at 2005 PPP) as the absolute minimum income in the developing world for a person to have the economic security associated with middle class status in today’s global economy – and therefore the incentives and the potential to exercise political rights in his or her own interests. Others including Kharas (2010) and Milanovic and Yitzhaki (2002) have also used a threshold of \$10 or around \$10 as a starting point for membership in the middle class.

For Latin America in particular, the \$10 threshold as the lower bound for the middle class is well-grounded conceptually and empirically – which in turn justifies it as the upper bound for the strugglers. First, Lopez-Calva and Ortiz-Juarez (2011) show that at income per capita below \$10, households in Peru, Chile, and Mexico were much more vulnerable to falling into poverty over a five-year period in the 1990s than households at or above \$10. At or above \$10 per capita, households only had a 10 percent probability of falling below their national \$4 and \$5 poverty lines (Figure 1). That is consistent with the more general finding that households above the national poverty line in Latin America have been vulnerable to major declines in income during the region’s periodic banking crises, and more recently in the case of externally driven food, fuel, and external financial crises (as in 2008 and 2009).

Using the same data, Lopez-Calva and Ortiz-Juarez find that households with slightly lower income were as much as two times more likely to fall into poverty. In Mexico, households at \$6 per capita per day had a 22 to 24 percent probability of falling into poverty. In Chile, which has a much lower poverty incidence and is about 40 percent richer at the median,

⁷ The text in this paragraph is largely from Birdsall (2010).

⁸ The surveys (“Ecosocial”) in which respondents self-identified their class did not include data on household income. Income is estimated using data on household assets, matched to another set of survey data that includes both income and the same subset of assets (“SEDLAC”). For further discussion of the methodology that links the surveys’ information, see Ferreira et al. (2012).

households with the same level of per capita income had a 24 to 40 percent probability of falling into poverty; even in the richest country of the region, households commonly perceived as “not poor” were highly vulnerable to declines in their income.

One reason may be vulnerability to economy-wide shocks for all income groups in Latin America – among developing regions probably the most open. During Argentina’s 2001/2 financial crisis, the share of poor people below \$2.50 PPP per capita per day rose from 14 percent in 2000 to almost 30 percent in 2002. In Mexico, the share rose from 20 percent in 1994 to 34 percent in 1996 because of the 1995 financial crisis, and from 11.8 percent in to 13.5 percent with the rise in food prices⁸.

To help us assess more closely the probability of households already above \$4 a day falling back below \$4 a day, and the relevance of economy-wide and household-specific shocks, Lopez-Calva prepared the tables shown in the Appendix based on the same panel data from Mexico, Peru and Chile. In Mexico, 23.3 percent of the households that were in our struggler group in 2002 had transitioned into the poor group by 2005. In Peru, 18.7 percent of struggler households fell below \$4 per capita per day between 2002 and 2006 (Appendix Table A1).

Considerable vulnerability of households in the \$4-\$10 group in the face of major economy-wide shocks of the type that drove people below the poverty line in Mexico in 1995 and Argentina in 2001/02 is not surprising. The panel data suggest the relevance of household-specific shocks as well. In Mexico those without any form of social insurance to cover health and old age pensions (probably because none of their adult members is employed in the formal sector) are systematically more likely to have fallen into poverty in the five-year period studied. Not surprisingly another factor that seems to matter is income from work; in all three countries an increase in the number of workers in a household of a given size reduces vulnerability. Households that benefit in addition from a worker with a regular salary or wage are also less vulnerable. In Mexico having a worker in the army or police or in “skilled manual” work provides additional protection, as does relatively greater education than others in the group. In Peru having a worker in government or clerical activities provides additional protection⁹ (Appendix Tables A2 to A4).

A second basis for the \$10 threshold at the top comes from people’s own perceptions. In the analysis of surveys in which respondents in seven countries of the region were asked to report their class, it was at or around \$10 a day that respondents identified themselves as middle class rather than poorer (Figure 2). On the one hand, self-identification as middle class at about \$10 could be a coincidence. On the other hand, it suggests that respondents in the region, when asked to put themselves into one or another class, view middle class status

⁸ Lustig (2000), World Bank (2000), Socio-Economic Database for Latin America and the Caribbean (2012).

⁹ We are grateful to Luis-Felipe Lopez-Calva for undertaking the vulnerability analysis for the struggler group. Banerjee and Duflo (2008) emphasize for their \$2-\$4 and \$6-\$10 households their low likelihood of steady (formal sector) wage or salary work.

– whether explicitly or intuitively – in some part as having to do with reasonably good income security. It may also mean that reasonably good income security is closely associated with other characteristics that respondents perceived as middle class. Between \$4 and \$10 per capita per day, most respondents instead identified themselves as lower class. Figure 2 shows a sharp peak of self-identified lower-class people in the vulnerable income group below \$10 per capita per day.

Our use of the \$4 and \$10 thresholds is best viewed as a rough proxy for identifying not “defining” a struggler group. Several considerations dictate modesty in our use of these two thresholds. First, it is a well-known fact that sharp income-based thresholds are artifacts that in reality cannot identify the differences in living standards with the surgical precision that they pretend to have. If this is true for defining extreme and moderate poverty, it is even more so for other socio-economic groups such as the struggler group and the middle class. The same way the poor are defined by multiple dimensions¹⁰ the group we call the strugglers should be too. Second, absolute thresholds to define the struggler group are likely to differ across countries and within countries over time.¹¹

2.2. Who are the strugglers?

What are the characteristics of struggler households and how do they compare to poor and middle class households? Based on data from the Socio-Economic Database for Latin America and the Caribbean (SEDLAC) for eight countries, we consider four income-based groups of households: the poor with daily income below \$4 per capita, the strugglers with income between \$4 and \$10, the income-secure middle class with income between \$10 and \$50, and the rich with incomes of more than \$50 per capita per day¹².

In 2008/2009, the median daily income of the strugglers was \$6.50 per capita, and adults in struggler households had in most countries completed primary school but not more¹³. In comparison, for the group identified as the middle class, the median daily income was \$16.20 per capita and most adults had completed secondary school.

Table 2 provides an overview of the median income of the struggler group across the region, compared to the median income of the population. In six of the eight countries in our sample, the median household of the population falls into our \$4 to \$10 struggler group. In Honduras, the median household is slightly poorer, in Chile slightly richer. In the lower middle-income countries of the region the median income of the strugglers is closer to

¹⁰ See Alkire and Foster (2011) and UNDP (2010) for a comprehensive discussion and application of multidimensional poverty measures.

¹¹ How much any particular threshold matters as a proxy for well-being will also differ across countries and over time as a function of opportunities for upward (and downward) social mobility relative to other income groups. See Birdsall and Graham (2000b) and other essays in Birdsall and Graham (2000a).

¹² Ferreira et al. (2012) use the same income-based groups to analyze economic mobility in Latin America.

¹³ Birdsall, 2012.

median income of the population as a whole (Figure 3) – although within 20 years under reasonable assumptions about continued growth, the \$4-\$10 strugglers will be the new poor in relative terms.¹⁴

Table 3 compares household income and adults' completed years of schooling at the medians. The median income of the strugglers is much closer to that of the poor than to that of the middle class, though that is partly by construction since the middle class thresholds are \$40 apart. Consistent with the high concentration of income in Latin America at the top, the middle class median income is closer to the strugglers than to the rich elite.

More striking in some ways is the sharp distinction between the strugglers and the middle class (and between the middle class and the rich) in years of schooling. Except in Chile and Peru, a median adult in struggler households has typically not benefited from secondary schooling. In comparison, the median adult in the group that we identify as middle class had uniformly completed secondary education. Schooling access has increased substantially in the region in the last 20 years, and that has apparently been closely associated with the increase in the number of people who are now in the middle class.¹⁵ Those now in the struggler group include those who would have been poor if they had not managed to finish primary school, but also those who, unable to finish secondary school, were unable to make the transition to the middle class.

How might we characterize struggler households in terms of their relation to the market as consumers and workers? Unfortunately, consumption surveys in Latin America are scarce. Mexico is among the few countries that systematically collect data on both income and expenditures. Based on the results for 2012, the \$4-\$10 income household in Mexico is spending between 24 and 36 percent (between 42 and 33 percent) of its disposable income (total consumption) on food.¹⁶ Thus, although the strugglers in Mexico still spend a significant portion on food and other necessities, they have a bit of budget space to consume “middle-class” goods such as appliances, vehicles and vacations.

¹⁴ It is not necessarily the case, however, that the median income household or person has the degree of political influence on economic policies that the median voter theorem predicts. In this paper we are asking whether the size and economic command of different income groups affects economic and social policies that in the long run affect the welfare of different groups, while recognizing that we cannot adequately extract causality one way or the other in what is a complex and constantly evolving system. A reasonable hypothesis is that the poorer a country, the less likely it is that the median-income person is adequately represented in the political system. See Persson and Tabellini (2000) for an overview of the political economy literature and Besley and Case (2003) for a broad review of the effects of constitutional design. Grossman and Helpman (2001) provide a comprehensive theoretical framework for the mechanisms through which special-interest groups can influence government and redistribution. Piketty (1995) demonstrates the importance of belief systems for inequality dynamics and redistribution.

¹⁵ Birdsall, 2012, Table 7.

¹⁶ Encuesta Nacional de Ingresos y Gastos de los Hogares 2012. The food share reflects the likelihood that most \$4-\$10 households are probably “income-insecure”; in rich OECD countries, the typical food share of the poor is about 15 percent (Pritchett and Spivack, 2013).

Data from household surveys on respondents' occupation, the type of firm where he or she works (private, public, "small"), the sector (agriculture, mining, services, education, etc.) and the type of employment (employee, self-employed), suggest that the strugglers are more likely to work in the informal sector than their richer counterparts. As noted above, among those in the group relatively less likely to fall into poverty were those benefiting from a "paystub", as clerical workers or in the army or police. Indeed, it is probably when you have a "paystub" that you are more likely to be in the secure middle class. Workers in the struggler group (along with those in the poorest group) are more likely to be in primary activities (such as agriculture, mining, and fishing), while those in the middle class are more likely to be in health, education, and public services. The strugglers also differ from the middle class in terms of employment status: On average¹⁷, compared to the middle class, a worker in the struggler group is less likely to be an employer, slightly more likely to be working without salary or to be self-employed, and slightly more likely to be unemployed. Similarly, an average worker in the struggler group is less likely than a middle class worker to be employed in the public sector¹⁸.

While there is considerable variation across countries, our household-survey evidence suggests that in 2008/2009 as much as 64 percent of workers in the \$4-\$10 group were "employees" in Brazil (40 percent in Colombia and 72 percent in Chile) – more than among the poor but less than among the middle class in each country. Adults in vulnerable, struggler households are more likely to work in "small" than in "large" or "public" firms, again a lower percentage than that of the poor but higher than that of the middle class. And a significant share are likely to be self-employed (14 percent in Chile, and over 40 percent in Colombia, the Dominican Republic and Peru), presumably working in the informal¹⁹ or "semi-formal"²⁰ sectors.²¹ As noted above, within the struggler group in the 1990s panels in Mexico, Chile and Peru, it was those with less regular paystubs – i.e., those more likely working in the informal sector – that were more vulnerable to falling below the \$4 line over five years.

What about strugglers' relation to the state as taxpayers and beneficiaries of publicly managed social insurance and safety net programs? We turn to this question using more detailed analysis in Section 4 below. It is clear that in most countries a worker in the

¹⁷ Taking an unweighted average of workers' employment status across all eight countries in our sample, using the latest year for which we have survey data.

¹⁸ Birdsall (2012), Tables 13 and 14.

¹⁹ We implicitly take a worker-centered perspective of informality: Perry et al. (2007) describe three "margins of informality": The intra-firm margin, where firms are partly formal and partly not, the inter-sectoral margin between informal and formal firms, and the intersectoral margin between formal workers and informal workers. While acknowledging that these are not mutually exclusive, we focus on the third margin.

²⁰ For the Middle East, Kamrava (2002) defines a class of economic actors that he describes as "semi-formal": members of the petite bourgeoisie and owners of small and medium-sized enterprises that are only partially or episodically regulated by the state.

²¹ Birdsall (2012), Tables 14 and 15.

struggler group is less likely to be enrolled in a country's social security system than a worker in the middle class. On average, across eight countries in our sample between 2006 and 2009, 53 percent of workers in the struggler group were covered by the social security system (Table 4). This is a significantly larger share than workers in the poor group (33 percent covered) but a significantly smaller share than workers in the middle class (72 percent covered). These numbers partly reflect impressive progress towards universal social safety nets over the last two decades. In Brazil, Chile, and other countries of the region, health and pension insurance were made universal over the last decade – and thus no longer tied to formal employment. Mexico introduced universal health coverage through its *Seguro Popular* program in mid-2012²²; our 2008 data indicate that in that year just 34 percent of \$4-\$10 households were covered by some form of social insurance, compared to 55 percent of middle class households in the same year. On the one hand, the recent data suggest that the work status of the struggler group distinguishes them from the poor – in particular a larger share that are employees (vs. self-employed) than is the case for workers in poorer households. On the other hand, even among “employees” in the struggler group, many are in fact vulnerable, that is unsheltered from adverse shocks and without formal mechanisms of insurance.

This is consistent with earlier results from Latin America and other regions²³. Using similar data for Latin America from SEDLAC, Gasparini and Tornarolli (2007) report that informality continues to be a widespread and persistent characteristic of Latin America's labor markets. Tokman (2011) reports that across 17 Latin American countries, the informal economy accounted for 64 percent of non-agricultural employment in 2008, an increase from about 59 percent in 1990²⁴.

The characteristics of strugglers as workers suggest, as we note in our concluding section, that a key challenge in the region is the extension and, in some cases, reform and redesign of financing and programs to benefit this group in a manner that does not introduce new and perverse incentives for informality and associated evasion of taxes.²⁵

Finally, it should be noted that informality may be “voluntary”²⁶: Among higher-income households the self-employed may be lawyers and other professionals or small but successful

²² Knaul et al. (2012) summarize the evolution of universal health coverage in Mexico.

²³ Among others, see Perry et al. (2007), Banerjee and Duflo (2007), Banerjee and Duflo (2008).

²⁴ Tokman defines “informal economy” as the sum of workers in the informal sector (self-employed, employers, and workers in micro-enterprises and domestic services) and all other wage earners without a labor contract or social protection, as measured by contribution to a pension system.

²⁵ Levy (2008) and Levy and Schady (2013) provide evidence that subsidies and social policies can encourage informality at lower levels of income because of their structure. See also Gregory (1986); Maloney (1999, 2004); Perry et al. (2007).

²⁶ Maloney (2004) summarizes that “workers with few skills that would be rewarded in the formal sector may prefer to be independent: “S/he may prefer being the master of a lowly repair shop to endlessly repeating assembly tasks in a formal maquila. Neither job will lead to an exit from poverty, but the informal option may actually offer a measure of dignity and autonomy that the formal job does not” (p. 15).

contractors avoiding the regulatory and tax burdens associated with formality. However in general it is still the case that climbing out of vulnerability into the middle class in most countries of the region and indeed the world is associated for the great majority of people with a regular wage or salaried job.

3. The strugglers in Latin America and the developing world, today and over the next decades

Over the next decades, the economic landscape in Latin America and across the developing world is likely to change profoundly²⁷. In this section, using a simple model to project GDP per capita growth over the next four decades, we provide projections of the size of the struggler group in Latin America and elsewhere in the developing world, in terms of numbers of people and the proportion of different regions' and countries' population. We discuss briefly some implications of the shifting composition of income groups in Latin America, comparing the region's upper middle-income countries to India and other low and lower middle-income countries. We comment on the political challenges that these changes imply in terms of the changing political demands for a robust social contract.

3.1 Growth projections

We use a simple model to project growth and to re-scale global income and consumption distribution data for 2005 from the World Bank's World Income Distribution (WYD) database²⁸. For our growth projections we rely on a three-factor production model from the Centre d'Études Prospectives et d'Informations Internationales (CEPII). Foure, Bénassy-Quéré, and Fontagne (2012) use this model to project country-level GDP growth until 2050²⁹. We match these growth forecasts with UN population forecasts and initial income and consumption distributions from the WYD dataset. After the distribution is divided into 20 equally-sized ventiles, the initial mean income/consumption in every group is converted into constant purchasing power parity dollar using the GDP conversion factor from the 2005 International Comparisons Project (ICP).

In each year after 2005, the mean income in every ventile is then assumed to increase by 70 percent of the real GDP per capita (at PPP) growth rate derived from Foure, Bénassy-

²⁷ Dadush and Shaw (2011) draw a comprehensive picture of how emerging markets will be at the forefront of globalization.

²⁸ This harmonized global dataset of household consumption and income surveys, compiled by Branko Milanovic (2010), is freely available at <http://econ.worldbank.org/projects/inequality> (last accessed November 23, 2012).

²⁹ The model is fitted with publicly available data and uses a transparent methodology, see <http://www.cepii.fr/anglaisgraph/bdd/baseline.htm> for a full description (last accessed November 23, 2012).

Quéré, and Fontagne (2012)³⁰. The shape of the underlying income distribution is assumed to be constant over time, i.e. we assume static inequality. We then identify the struggler group with incomes of \$4 to \$10 per capita per day under the assumption that incomes are distributed uniformly within every ventile³¹, following Ahluwalia, Carter, and Chenery (1979) and Dadush and Shaw (2011),

Lopez-Calva and Lustig (2010) report significant declines in inequality in 13 countries of the region between 2000 and 2009 as a result of both a fall in the premium to skilled labor as well as higher and more progressive government transfers. In our projections, the distributions of income are held constant at their levels of around 2005. In countries where inequality has been declining this may understate growth in the size of the struggler group, to the extent for example that inequality declines since then increased the number of households moving out of poverty more than the number moving into the middle class. In any event Birdsall, Lustig and McLeod (2011) argue that only in some of these countries, including Brazil, Chile and Mexico, is it clear that the recent declines could continue for some time because they are due to fundamental changes in the structure of the economies and increases in access to education and other social policies initiated two decades ago, as opposed to increases in global commodity prices and other benefits of a propitious external environment in the early 2000s. In other countries, at least some of the recorded declines amount to a return to the level of inequality prior to its increase in the 1990s – they are in effect a reversion to some earlier long-run level. (In any future work it would make sense to incorporate tests of the sensitivity of our projections of changes in the size of our various income-based groups to changes in inequality independent of growth.)

For Latin America and the Caribbean, our growth projections suggest that the region on average grows at about 3.5 percent per year between 2012 and 2020³². GDP per capita would increase from an average of about US\$ 8,000 (constant 2005 PPP) in 2010 to an average of

³⁰ As Deaton (2005) and others have pointed out, household consumption or income derived from survey data usually grows much slower than comparable data from national accounts. Based on 556 survey-based estimates of mean consumption or income per capita from 127 countries, Deaton shows that the growth rate of survey consumption is about half of the growth rates of national accounts consumption. Ravallion (2012) more recently demonstrated that survey means in 95 countries on average grew 1.2 percentage points slower than national accounts (with a large standard deviation of 4.0 percentage points). Following Dadush and Shaw (2011), we assume a 70 percent pass-through from GDP growth to household consumption or income growth (“baseline scenario”). As a robustness check, we include a higher-growth scenario that assumes a full pass-through from GDP real growth (Appendix Table A5). We additionally compare the growth forecasts from the CEPII model with long-term forecasts up to 2030 kindly provided to us by the World Bank’s Global Economic Prospects group. Since our baseline scenario is more conservative than the World Bank’s forecasts, we decide to rely on our own forecasts.

³¹ Anand and Kanbur (1991) provide a useful examination and sensitivity analysis of the original projection methodology by Ahluwalia, Carter, and Chenery.

³² This is significantly slower than East Asia and Pacific, which we project to grow at an annual average of about 7 percent. It is for the most part also slower than the Middle East and North Africa, which we forecast to grow an annual average of about 4.3 percent (Appendix Table A6). Note that our regional aggregation excludes high-income economies according to the current World Bank classification.

about \$10,900 in 2020. In the longer-term between 2020 and 2050, we forecast average growth of 3 percent per year, which would lead to a doubling of average GDP per capita between 2010 and 2035, and more than a tripling between 2010 and 2050.

Across the developing world, our projections indicate that the vulnerable or struggler group will be large and fast-growing – rising to a total of 2.7 billion by 2050 (Table 5). Combined with the projected number of poor in that year, more than 4.8 of about 9.7 billion people will still be living below \$10 a day. (Keep in mind that average post-tax per capita income of the poorest 5 percent of households in the United States is around \$25 a day³³). From the point of view of the aid community, their frustrations and interests will be of key interest.

In Latin America (as in East Asia and the Middle East) the group will decline as a proportion of the global population between \$4 and \$10 (Figure 4, left panel). It will grow in relative and absolute terms in South Asia and Sub-Saharan Africa, as more members exit the group into the growing middle class than enter the group from the smaller number of absolute poor below \$4 a day.

Using these projections, we find that over the next two decades in Latin America, about 250 million people will be in the struggler group of \$4 to \$10, accounting for about a third of the total population (Table 6). In the upper middle-income countries of the region including Argentina, Brazil, and Chile, the large struggler group shrinks as per capita incomes continue to rise – from more than a third of the population in 2010 to around or less than 15 percent of the population in 2040 and 2050. Figure 5 illustrates how millions of vulnerable people in these countries are likely with our assumptions to move into the secure middle class. As they do so, the strugglers are likely to become in effect the new poor in those countries – an issue to which we turn below.

In the poorer and mostly smaller countries of the region the struggler group declines little if at all as a proportion of the population in the next two decades, and then declines only modestly after that.

The overall picture for the region is therefore one of a large struggler group, constituting between 30 and 35 percent of the total population through 2030 – becoming smaller as a share of the population as the middle class grows. By 2030 the two groups are similar in size, with one growing and the other shrinking.

By this simple measure Latin America becomes an increasingly middle class region in the next three to four decades. Consider the contrast with India and South Asia in general: Based on India's 2009/2010 National Sample Survey and the growth forecasts described above, we estimate that in 2020 about 30 percent of India's population will be in the \$4 to \$10 group, with just about 10 percent in the \$10 to \$50 middle class constituting just about

³³ Based on Congressional Budget Office (2012).

10 percent of the population.³⁴ While Latin America becomes a middle class region, in which the \$4 to \$10 group are a relatively poor minority “left behind”, India becomes a nation of people most of whom are moving out of poverty. The question is whether the potential psychological difference will matter for the politics of economic and social policy.

3.2 Discussion of key results

First, the strugglers will constitute a substantial 30 to 40 percent of the population in most countries of the region for the next three or four decades. That is the natural outcome of equally shared growth moving many households above the poverty line into the vulnerable category, and at the same time many households out of the group into the middle class. In relative terms, however, it will become smaller. In the Latin America as a whole, the middle class will expand from less than 30 percent of the region’s population today to about 50 percent by 2050. Figure 7 (right panel) illustrates the case of Peru, where the share of the struggler group peaks at 40 percent between 2020 and 2030; in 2030 the middle class begins to dominate the strugglers as a share of the population.

Second, except in the poorest low-income countries of the region, vulnerable or struggler households will become in their own countries in relative terms the “poor”, that is a group living at increasingly lower income compared to the median for their countries as a whole. Figure 5 illustrates how the position of the median household in the \$4 to \$10 group is changing relative to each country’s income distributions. As the overall income distribution shifts upward, the struggler group moves from the middle of their national distributions to the bottom end. In Brazil the group currently is in the 35th to 65th percentile of the population; by 2050 they will have fallen to the 15th to 40th percentile. In Chile, they fall between the 15th and 50th percentile of the income distribution in 2010. Two decades later, most strugglers will fall between the 5th and the 30th percentile.

Combined with the truly poor, the vulnerable “new poor” will constitute 40 percent of Brazil’s population in 2050. By that year the ratio of the median daily income of that 40 percent to the median income of the entire population is projected to have fallen from two-thirds to a little more than one-third. For Bolivia we forecast the ratio of the median daily income of the combined poor and strugglers to fall from more than 1.0 to around 0.40, so that they are only half as well off as the median³⁵. (In Western Europe, “at-risk-of-poverty” lines are commonly defined at 0.60 of national median disposable income.) Figure 6a illustrates the increasing marginalization of the combined poor and vulnerable group over the next decades. Figure 6b similarly illustrates the dis-equalizing arithmetic of equally-shared growth, by plotting our forecasts for daily household income per capita at the median, the 10th percentile, and the 90th percentile of the income distribution.

³⁴ At more than 400 million people, India’s strugglers alone will be bigger than the combined population of North America in 2020. By 2040, 45 percent of the population will be in the struggler group in India. See Meyer and Birdsall (forthcoming) for an explanation of these estimates.

³⁵ Appendix Table A8 summarizes these ratios for selected Latin American countries.

Whether the poor and new poor constitute an underclass, similar to that of the poor in the United States (where median income of the bottom 40 percent of the population has been stagnating in real terms for the last four decades or longer³⁶), depends on tax, expenditure, social insurance, and other economic and social policies that ensure social mobility, or not.

To some extent the declining ratios of median income overall to median income of households below \$10 per capita per day is an artifact of the income ranges we have imposed; median income of the total population rises with growth but rises little at all within the confined \$4-\$10 group. On the other hand, the projected 40 percent of people below \$10 (the poor and vulnerable) in 2050 in Brazil would, in each successive year, include some households that are on the rise from being among the poor, and some that have failed to move on to the middle class. The question is whether the vulnerable group in 2030 and beyond has the opportunities and protection associated with upward social mobility, or is excluded from those opportunities and protection because they can only be purchased privately on the market. (Evidence in the United States reveals a growing risk that social mobility is low and even declining.³⁷) If yes, they are likely to support pro-growth business-friendly economic policies on the grounds they can benefit.³⁸ If not, they are more likely to support more immediate redistribution.

4. How do governments treat them? Taxes and benefits in Bolivia, Brazil, Guatemala, Mexico, Peru and Uruguay

In this section we analyze the relationship of the strugglers to the state. In a first subsection we use detailed data on fiscal incidence assembled and analyzed under the auspices of the Commitment to Equity Project³⁹ for six countries in Latin America to address the following

³⁶ US Census Bureau (2012), Current Population Survey.

³⁷ Jäntti et al. (2006), Isaacs et al. (2008).

³⁸ Lopez-Calva, Rigolini and Torche (2012) show that for the most part the values and beliefs of middle class people in Latin America (identified as those with \$10-\$50 per capita daily income) are not different from the values and beliefs of poorer people, once the income difference is taken into account. If struggler households believe they have opportunities to rise into the middle class, they are likely to share middle class views of, for example, the advantages of business-friendly economic policies. That is consistent with Piketty's view (1995) that in countries like the U.S. the expectation of the less rich that they could become rich reduces their interest in redistributive tax and other policies.

³⁹ Led by Nora Lustig and Peter Hakim, 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. For

three questions: First, are the strugglers net receivers from the fiscal system? Second, do they get their “fair share” of government benefits? Third, what proportion of the group experiences upward and downward fiscal mobility? Paralleling the approach from the previous section, we address these questions by comparisons across income-based groups of households: the poor, the strugglers, the middle class, and the rich.

In a second subsection, we use the limited information we have from our household survey data and other sources to explore the quality of public schooling that the strugglers receive. We then combine that information with the indications of vulnerability of this group reflected in their access to insurance against health and employment shocks noted above, to reach a preliminary conclusion about their overall relationship to the state.

4.1. Fiscal incidence analysis

Are the strugglers net receivers from their countries’ fiscal systems? We answer this question using three different concepts of income: disposable income (market income minus direct taxes and plus cash transfers), post-fiscal income (disposable income minus net indirect taxes⁴⁰) and final income (post-fiscal income plus monetary value of transfers in-kind in education and health).

Table 7 shows the incidence of taxes and benefits by socioeconomic group. We can see that the strugglers pay very little in the form of personal income taxes (less than 1.0 percent except for Brazil in which it pays 1.0 percent and Uruguay in which it pays 1.2 percent). But neither does anybody else. And in most countries, with the exceptions of Brazil and Uruguay, the strugglers in turn benefits little from cash transfers.⁴¹

Once net indirect taxes are taken into account, however, the picture changes. In most countries the struggler households becomes a net payer to the fiscal system. The exception is Uruguay, the region’s highest income country after Chile, where a substantial indirect tax burden is more than offset by direct cash transfers to the strugglers (who may already have emerged as the “new poor” referred to above in this high-income, low-inequality society).

Where the strugglers do benefit is in access to publicly provided schooling and health services. Taking into account the imputed values of these in-kind transfers, the strugglers are net beneficiaries of the system overall, with the largest gains occurring in Uruguay and Brazil,

more information see <http://cipr.tulane.edu/pages/detail/238/Commitment-to-Equity> (last accessed December 11, 2012).

⁴⁰ Net indirect taxes are taxes minus indirect subsidies. Appendix Figure A1 provides a stylized representation of the income concepts used.

⁴¹ In Guatemala and Peru, the strugglers receives less than 1.0 percent in the form of direct cash transfers and in the case of Mexico, 1.7 percent. In Bolivia, direct cash transfers increase market income by 3.1 percent, still a rather small amount. Only in Brazil and Uruguay do direct cash transfers increase market incomes by more than 10 percent. That is, in these two countries, the government cash transfers include the strugglers as a significant beneficiary.

where in-kind transfers increase market income by on average 47 and 30 percent, respectively. The lowest increase is for Peru.

Do the strugglers get their ‘fair share’ of the government benefits? The concept of ‘fair share’ depends on the type of benefit: For example, for transfers targeted to the poor one would expect the strugglers to get fewer resources by design. For certain subsidies (for fuel or public transport), “fair” might imply that higher income households receive a much smaller subsidy than lower income households or none at all. For health and education services, a “fair” share to one or another group might imply a share similar to their population shares. In the case of non-contributory pensions, a “fair share” might be larger than the population share since many workers in the struggler group are informal workers without access to the insurance and consumption smoothing mechanisms of a pay-as-you-go or contributory pension system.

Table 8 presents concentration shares for each category of fiscal interventions by socioeconomic group. In most countries, non-contributory pensions represent the most important direct cash transfer. Peru until recently did not have a non-contributory pension system⁴², so our data reflects the absence of an old-age safety net for workers in the informal sector. Most governments, however, spend more on non-contributory pensions than on conditional cash transfers (CCTs).⁴³ In Brazil, Guatemala and Uruguay, the share of benefits of non-contributory pensions is higher than the population share of the strugglers, so that group receives higher per capita benefits than the middle class. In the cases of Bolivia and Mexico, the concentration share for the struggler group is lower than their population share, so that the group, though beneficiary, receives less in per capita terms than the middle class. Lustig and Pessino (2012) show similar results for Argentina. Finally, the strugglers receive significant benefits from CCTs, with their benefit share lower than their population share (in contrast to the poor) in Brazil, Guatemala, Mexico, and Peru⁴⁴.

Table 9 shows that the concentration shares for in-kind transfers in education and health for the strugglers are equal or slightly higher than their population shares, a “good” result. The exceptions are Mexico and Peru in the case of health, and Guatemala in the case of education.

Of particular interest are the relative concentration shares of the strugglers compared to the middle class and the rich for tertiary education. For much of the 20th century, the only or the

⁴² In 2012, the Government of Peru established a new non-contributory pension scheme that specifically targets the rural poor (“Pensión-65”).

⁴³ Except for Guatemala and Mexico. Spending on non-contributory pensions was equal to 2.4 percent of GDP in Argentina (2009), 1.4 percent in Bolivia (2009), 0.5 percent in Brazil (2009), 0.5 percent in Uruguay (2009), 0.14 percent in Guatemala (2010) and 0.08 percent in Mexico (2008).

⁴⁴ Bolivia and Uruguay are notable exceptions, since their national programs are specifically targeted at the poor (mainly those with incomes below \$4 per capita per day). The strugglers receive “significant” benefits from conditional cash transfers compared to other groups (concentration shares) but far less.

best universities in many countries of the region were the public universities. Admission to them was rationed by admission tests and highly skewed to upper-income households who could provide their children with good (often private) primary and secondary schooling and other advantages sufficient enough to ensure they did well on these tests. That situation appears to be changing for the better in at least some countries. The benefit shares of tertiary education for the strugglers in Argentina, Bolivia and Peru are roughly at their population shares, implying that the strugglers are getting their fair share of this mostly free public service. In Brazil, Guatemala, Mexico and Uruguay, the concentration shares for the vulnerable are below their population shares so they are not getting their fair share. Recent time-series evidence for Mexico, however, suggests that over the last two decades access to tertiary education for households from the struggler and poor groups has improved significantly there.⁴⁵ In short, the situation may have improved in some countries, but it seems likely that free tertiary education disproportionately benefits the middle class and the rich in the region.

An area of controversy regarding the use of public resources is old-age pensions in contributory pay-as-you-go systems, especially when the pensions need to be (partly) financed from general fiscal revenues. In our incidence analysis we treat contributory pensions as part of market income (that is, as deferred income). We also conducted a sensitivity analysis in which contributory pensions are treated as a government transfer and households are initially ranked by per capita market income excluding contributory pensions. Table 9 shows the resulting distribution of social security contributory pensions. In Uruguay the share received in contributory pension income by vulnerable households is higher than its population share. That is, these households receive their ‘fair share.’ However, in the other countries of our analysis the bulk of the benefits go to the middle class and the rich.

Finally, as we can see in Table 10, the struggler group does not experience any significant upward or downward fiscal mobility either from market income to disposable income or from market income to post-fiscal income (after net indirect taxes are subtracted from disposable income). A notable exception is Brazil, where around 10 percent of individuals with market income between \$4 and \$10 are pushed into the group of the poor as a result of the high levels of indirect taxes.

Overall, our analysis suggests that with respect to taxes and transfers, the strugglers are net payers into the fiscal system, largely because of indirect taxes. In absolute terms, the group benefits from in-kind health and education services, though no more or less than other income groups given its share of the overall population, and in many if not all countries probably less than proportionately once university education is taken into account.

⁴⁵ Scott (forthcoming) reports that spending on university education in Mexico has become more progressive, on the basis of marginal incidence analysis.

4.2. The quality of public services: The case of schooling

In this subsection we set out information on the use of public schooling by different income groups, and its implications for the larger question of the relationship to the state of the strugglers. There is ample direct evidence that public schooling in Latin America is neither high-quality⁴⁶ nor good at providing broad socio-economic upward mobility⁴⁷.

There is also ample indirect evidence. Birdsall (2012) finds that middle class households across the region, like richer households, rely heavily on private schooling for their children. This is presumably a consequence of the perception if not the reality in all cases that the public schools are of poor quality. In the medium term it is also potentially a cause of low quality in the public schooling system – to the extent that the absent middle class might have been a force for better quality if it had not fled the public system. Recourse to private schooling is also the case even of some households in some countries. In 2009, 20 percent of primary school children from struggler households attended private schools in Peru. In Peru and Colombia, nearly 15 percent of secondary school children from struggler households attended private institutions. In poorer Honduras, the share was even higher at about 20 percent (Table 11).

The same table also illustrates that there is a strong positive correlation between higher household income and private school attendance for children in primary and secondary schooling age across the region. A simple probit model that pools households across countries in 2008/2009 and controls for country fixed effects finds income to be the single most important household characteristic, followed by parents' education⁴⁸ (Figure 9). On average across countries, a secondary school child that has a father with completed secondary schooling and lives in a household with per capita income of \$5 has an 8 percent probability of attending a private school. At a household income per capita of \$10, the probability increases to 12 percent; at \$40 per capita per day, the probability is greater than 50 percent (Figure 5, center and bottom panel).

This raises the question whether the cost to the public system of schooling and possibly other public services that the strugglers receive exceeds in value the real benefits to them. If taxes finance services that are not seen as of sufficient quality to be effective, then in a sense they constitute tribute to the state (coerced because the state is powerful). In the case of many middle class and rich households, the taxes that finance public schools are presumably viewed as tribute; and for at least the minority of households in the vulnerable category already using private schools, that is also evidently the case. Though the data “count” the

⁴⁶ PREAL (2005).

⁴⁷ Behrman et al. (2001); OECD (2010, Chapter 3), Ferreira et al. (2012).

⁴⁸ We use data from Birdsall (2012) for eight countries across Latin America and the latest year available. We pool households across countries and use a probit to predict the probability of sending a child to a private primary or secondary school, based on the gender of the child, the schooling of father and mother, the number of siblings, and household per capita income. Country dummies are included to account for cross-country differences.

benefits of schooling only to the extent public schooling is actually used by households in the different income categories, it is possible that relatively poor and vulnerable households using public schools do not value them at the amounts they cost, either because quality is low or because the perception that quality is low means middle-class children have opted out which has in itself reduced quality (if children learn from peers not only teachers).

In addition, there is the obvious problem that to the extent higher-income households consistently opt out of public schooling⁴⁹, political support for the public system will be harder to sustain. This can be the case even if public schools improve, if parents do not benefit from perfect information about the quality of schools their children attend.⁵⁰

The reliance on private schooling of some households in the struggler group and of many more households in the middle class is not atypical in the developing world. There is growing evidence from South Asia of even greater recourse to private schooling – great enough to indicate that a high proportion of households in the \$4-10 group (which are in India concentrated in the seventh and eighth deciles of the overall population) are paying to send their children to private schools. Nor does the recourse to private schooling among some households in the struggler group and a large share in the middle class alter the results of the fiscal incidence analysis above. (That analysis takes into account information on the actual use of public schools by households in the different groups.)

We do not have adequate analysis of attendance at public vs. private universities by income group, let alone detailed incidence data as noted above, except for Mexico⁵¹. But in most countries of the region, a high proportion of public spending on education is (still) allocated to public universities, and it is primarily the children of high-income parents that presumably benefit, having attended private secondary schools and being better prepared for the admission tests that screen out most applicants.⁵² And in Mexico, where spending on tertiary education has become more progressive over time, at least some well-off households are

⁴⁹ This also suggests persistent socio-economic stratification between public and private schools (even in countries with a good reputation for high quality public schooling such as Costa Rica). It may be difficult to reverse the process if parental demand for for better schools relies heavily on pressure from the middle class. McEwan et al. (2008) provides useful lessons about socio-economic stratification and school choice from Chile.

⁵⁰ This is not to say that private primary and secondary schools across Latin America inherently provide better educational outcomes. While the region has a long history of private education, often supported and financed by the government, some evidence suggests that although there are substantial and consistent positive differences in student achievement between public and private schools, a substantial portion of these differences is accounted for by peer group characteristics (Somers et al., 2004). Also see MacLeod and Urquiola (2012) for a formal model of an *anti-lemons* effect in which competition for good school reputation does not necessarily lead to gains in educational performance.

⁵¹ See *supra* note 45.

⁵² See Birdsall and James (1993) for a discussion of this phenomenon in the context of public choice theory.

now opting out of the public sector universities and sending their children to elite private universities.⁵³⁾

The picture that emerges for struggler households is of a relationship to the state that is better but not much better than neutral. In strict fiscal terms the strugglers in most countries of the region are not losers – taxes and transfers offset each other broadly. It is in-kind services that ensure they are net beneficiaries.

It should be noted that our estimates likely understate the benefit derived from the insurance component that is built into many social programs, including when they are tied to health problems, unemployment and old age. This constitutes a benefit particularly for households that are in a group defined as vulnerable to falling into poverty in the event of shocks.

But offsetting these mildly positive benefits is the possibility that the value to households of in-kind schooling is exaggerated, either because they are or are perceived as of poor quality. The same might be said of public health services, though we do not have data organized in a manner to know. For police and court services, anecdotal information suggests a situation similar to that of schooling – in which taxpayers value the services at amounts below their cost (and thus view taxes paid for those services as tribute). In response to recent surveys asking people in developing countries to set priorities on future global goals, those in Latin America put security as their highest priority.⁵⁴ That is not surprising given high crime and homicide rates in some countries and the poor reputation of the police (most notoriously recently in the case of Sao Paulo, Brazil). In response the middle class and the rich in many cities of the region have already opted out of public security services to the extent they can, relying heavily on private security, including in gated communities. So as with schooling the middle class and the rich suffer as do the strugglers and the poor the shortcomings of public services in some absolute sense, but they avoid the higher welfare costs by opting out in one form or another.

5. Towards a new social contract? The political challenges over the next decades

The situation in Latin America raises a challenge in terms of social and economic policies distinct from that elsewhere. The other largely upper-middle income region of the world is East Asia; there, as in Latin America, the struggler group constitutes a substantial 40 percent or so of the population and will decline to about 25 percent in 2050. However, projected

⁵³ The elite will still choose public universities for areas of study where public universities are still the best – for example in medicine.

⁵⁴ Based on regional barometer surveys, Leo and Tram (2012) find that Latin American households are particularly concerned about security-related matters. In 8 out of 18 countries of the region, security and crime concerns are the most cited response of households when asked about most pressing priorities. In 2010, about a third of Latin American households cited security as most pressing concern, up from about 5 percent in 2000.

growth in that region is higher and income has historically been far less concentrated at the top. As a result, the struggler or vulnerable group is likely to live in settings where the sense of upward mobility is greater and where the economic distance between their income and that of the rising middle class is smaller. Even in the Middle East, which in some respects is similar to Latin America in the current distribution of its populations across our income groups, income distributions are far less unequal than in Latin America. There the key problem may not be income inequality itself but, as our opening reference to Mohamed Bouazizi implies, the sense of injustice and exclusion associated with less open and democratic political systems compared to Latin America.

We have already contrasted the distribution of people across our income groups and the changes in distributions over time in Latin America with the distribution and changes in India, the world's other large and democratic land mass. The contrast illustrates the differences in the political challenge the leadership in Latin America faces, especially in its relatively richer countries (Figure 5, second row) compared to its relatively poorer countries (Figure 5, first row) as well as compared to India (Figure 5, first panel).

India is one of the world's currently lower-middle income countries where the proportion of strugglers will grow dramatically in the next 40 years, as our projected economic growth (projected to be at an average of 5.5 percent a year between 2012 and 2050) brings the current 80 percent of India's population living below \$4 a day to 35 percent in 2030 and just 5 percent in 2050. In contrast to Latin America, the current proportion of the population below \$4 is so great that the struggler group will inevitably grow under the assumption of equally distributed growth. In addition, in contrast to the upper middle-income countries of Latin America, but similar to the low and lower-middle income countries in Latin America, the struggler group today is relatively rich in its own country (in India concentrated in the eighth and ninth deciles of the income distribution; in Honduras in the sixth, seventh and eighth). As a result, in India and in those poorer countries of Latin America, median income of the population as a whole will be between \$4 and \$10 for the next three or four decades (see the dashed lines in the figures).

What is the implication for the nature of the political challenge different countries face? In India and in Latin America's poorer countries, the challenge will be to ensure their democracies work – delivering the social and economic policies that further the interests of the strugglers and the poor who are and will be the *majority* of potential voters, so that growth is at least as equally shared as the projections assume. In the upper-middle income countries of Latin America, the political challenge will be different in nature. It will be to deliver the social and economic policies that further the interests of their struggler and poor *minorities*, and to do so in societies in which the middle class is likely to be a powerful political force and in which the economic distance between the middle class and the poorer groups is much greater in absolute terms than in the poorer countries.

That raises the fundamental question whether the emerging middle class in the upper-middle income countries of Latin America will see its own interests as aligned with those of the poor and the strugglers, or as fundamentally different.

Particularly in the larger and relatively better-off upper-middle income countries of Argentina, Brazil, and Mexico, where a secure and growing middle class will move away from the poor and the still-vulnerable strugglers, the social contract could go either way – toward greater robustness or less. If the middle class trusts the effectiveness of their own governments to minimize instability, grow the economic pie, and manage public services well, it is more likely to support a robust set of social policies and a redistributive social contract⁵⁵. If public services are reasonably good and struggler as well as middle-class households perceive a good likelihood of absolute social mobility for their children, the two income groups are likely to ally themselves in support of adequate spending on growth-oriented public investments overall as well as on business-friendly labor market and growth policies.

There are also worrying signs that could take societies in the opposite direction politically: If middle class households lack confidence in the effectiveness of their own governments and are abandoning public schooling and public health services, they will likely also resist the increases in tax revenue⁵⁶ and spending that in the currently advanced economies accompanied increases in income (and exposure to the global economy) starting 50 years ago. As a result, overall public revenue would be too limited to “purchase” sufficient equity-and-growth-enhancing public investments.

In that case it may be that even the growth rates built into the projections will be at risk, if persistent high inequality and lack of social mobility leads to growing frustration and restiveness on the part of the struggler households and in a vicious circle returns the region to the late 20th century cycle of volatile populist spending followed by austerity.

Latin America must be its own guide for the future. Because it is growing more slowly than East Asia, it cannot as easily manage politically an increase in growth-and-equity-enhancing investments. Because its income is much more highly concentrated than in Western Europe, it may not be able politically to sustain the kind of redistributive tax and expenditure policies that are typical there. Figure 8 illustrates the important role of the states in Europe in reducing market-generated inequality compared to Latin America. Fiscal systems in Latin America have a much smaller redistributive impact: While inequality before taxes is similar, transfer systems in advanced European economies are relatively more effective. A structural explanation for this lies in the relatively lower tax revenue and thus lower redistributive capacity of Latin American governments. Figure 10 shows that at the macro level tax revenue as percent of GDP tends to be lower in Latin America than in European OECD

⁵⁵ Birdsall, Lustig and McLeod (2011).

⁵⁶ See Birdsall and de la Torre, 2007, Chapter 4.

economies. On average, Latin America generates just 21 percent of GDP in tax income each year compared to an average of 37 percent in OECD countries outside of Latin America. At this level of taxation, many countries in the region are not able to generate the resources that advanced economies can spend on growth-and-equity-enhancing investments.

This can partly be explained by a relatively stronger reliance on indirect, regressive taxes in Latin America including the value-added tax, compared to corporate, property and progressive personal income taxes⁵⁷. At the same time, the politically feasible level of taxation is determined by, among other factors, the provision of public services by the government (versus the reliance on the private sector). The risk is that the growing middle class, if public services are poor, will increasingly opt out, and figuratively if not literally join the rich in gated communities and private schools, leaving behind the strugglers in a new underclass.

6. Concluding reflections

Assuming that our growth projections with no change in the distribution of income are reasonably reliable, the analysis above suggests the region has come to a fork in the road in the ongoing construction of the social contract in each country.

The income-based group that we have labeled as the strugglers is going to continue to be a large group in most countries of the region, constituting between 30 and 40 percent of the population for several decades at least. They are also at risk of being marginalized, as the middle class grows and median income in each country rises. Many of their workers will be employed in the informal, undercapitalized sectors for another couple of decades, and their families will be largely reliant on public schooling and health services if their children are to have mobility upward, as well as adequate police and other protections.

This is true elsewhere in the developing world as well – but in Latin America, particularly in the upper-middle income countries, the challenge is one of politics not just economics. That is because of the risk that the growing middle class, as it gains political as well as economic salience, will opt out politically of the support for higher taxes and increased public investments in infrastructure and education most likely to benefit the poor and the strugglers (and in the long run will be both equity and growth enhancing for societies as a whole).⁵⁸

How will policy and politics deal with the challenges we described? The evolution of policy and politics is extremely path-dependent and country specific. Some countries are likely to

⁵⁷ OECD (2008), Goñi et al. (2011), Birdsall and de la Torre (2007).

⁵⁸ While it has been relatively inexpensive to reduce poverty through cash transfers, to socially include the strugglers would take a significant increase in the share of fiscal resources that benefit this group; in any event the strugglers are likely to benefit most from reform of labor markets, social insurance programs, and smart, productivity-enhancing public investment in roads and schools, not from cash transfers.

rely on *ad-hoc*, populist-style responses that we have seen so often in the region throughout its history: that is, some governments will try to “appease” both the vulnerable group and the middle class in ways that are not sustainable in macroeconomic terms and are deterrent to long-term growth. Others might be able to manage the politics of the social contract better, particularly if they are benefitting from a growth-friendly external environment.

In either case, policy steps that minimize the risk of marginalization of the strugglers ought to be a high priority. Those policy steps would focus on a combination of gradually increasing revenue to GDP ratios (or, in countries like, for example, Brazil--where revenue is already high,--in reform of revenue and pension policies), and using increased revenue to ensure that public investments provide new and greater relative benefits for households in the \$4-\$10 group as well as the poor. For the \$4 to \$10 group, in addition, a high priority would be reform and strengthening of labor market and social insurance policies, with a view to extending and broadening health, unemployment and other forms of risk protection, while averting increases in the costs of formality and removing these and other distortions to productivity growth⁵⁹.

The political process is obviously a dynamic one, in which our struggler group could be passive politically (as in “marginalized”) and hence risk being left behind, exploited, or neglected as the middle class grows and thrives. Or, given adequate opportunities, the vulnerable strugglers could become powerful supporters of progressive policies: fairness, anti-corruption, sustainable growth and an effective state. Will they in themselves form a political constituency more powerful than the poor have been? Will the income-secure middle class see its own needs and interests as aligned with shared growth and thus the needs and interests of the strugglers? It is in light of these questions that the widespread protests in Brazil, Chile and the story of Mohamed Bouazizi may have something in common.

⁵⁹ Levy and Schady (2013).

Tables

Table 1: Extreme Poverty (“Indigence”) and Poverty Lines, By Country

Country	Year	Indigence Line (2005 PPP dollar)	Poverty Line (2005 PPP dollar)
Argentina ^(a)	2009	2.78	5.77
Bolivia	2007	2.74	5.12
Brazil	2009	2.04	4.81
Chile	2009	2.7	4.8
Colombia	2009	3.24	7.55
Costa Rica	2009	3.19	5.64
Dominican Rep.	2009	3.37	6.21
Ecuador	2009	3.18	5.77
Guatemala	2006	3.31	6.25
Honduras	2007	3.04	5.7
Mexico	2008	4.14	7.87
Nicaragua	2005	-	4.29
Panama	2009	3.25	5.85
Paraguay	2009	3.59	6.43
Peru	2001	2.55	4.75
Uruguay	2009	3.34	6.21

Note: All values are in 2005 PPP dollar (private consumption), per capita per day. Argentina is for urban areas only.

Source: Authors’ calculations, based on World Bank ICP, United Nations Economic Commission for Latin America and the Caribbean (ECLAC).

Table 2: Income, Population Share, and Income Share of Struggler Group, by Country

Country	Year	GDP per capita ^(a)	Total Population		Strugglers (\$4 to \$10)			
			Mean Income ^(b)	Median Income ^(b)	Mean Income ^(b)	Median Income ^(b)	Population share (%)	Income share (%)
Honduras	2009	1,896	7.03	3.95	6.46	6.19	28.20	29.28
Colombia	2006	3,724	13.66	6.67	6.57	6.31	34.95	21.10
Peru	2009	4,412	9.87	6.44	6.58	6.41	41.03	35.54
Dominican Rep.	2008	4,739	9.49	5.87	6.46	6.22	39.82	36.84
Costa Rica	2009	6,404	15.67	9.07	6.80	6.65	39.74	24.07
Brazil	2009	8,392	14.07	8.48	6.82	6.74	37.77	21.27
Mexico	2008	9,893	12.62	7.40	6.67	6.50	41.18	26.67
Chile	2009	10,179	19.07	10.46	6.93	6.90	41.08	25.88

Note: (a) current USD in survey year; (b) constant 2005 PPP dollars per capita per day, based on the 2005 International Comparisons Program.

Source: Authors’ calculations, based on World Bank World Development Indicators database and Socio-Economic Database for Latin America and the Caribbean (CEDLAS and The World Bank).

Table 3: Median Years of Education of Adults (Aged 25–65) and Income, by Income Group and Country

Country	Year	Total Population		Poor (< \$4)		Strugglers (\$4-10)		Middle Class (\$10-50)		Rich (> \$50)	
		Education	Income	Education	Income	Education	Income	Education	Income	Education	Income
Brazil	2009	8	8.48	4	2.31	7	6.74	11	16.23	15	72.92
Chile	2009	12	10.46	9	2.89	10	6.90	12	16.59	17	78.57
Colombia	2006	7	6.67	5	2.06	6	6.31	11	16.77	16	75.25
Costa Rica	2009	8	9.07	6	2.75	6	6.65	11	17.34	16	68.51
Dominican Rep.	2008	8	5.87	6	2.57	8	6.22	12	15.50	16	67.79
Honduras	2009	6	3.95	3	1.58	6	6.19	11	15.28	16	64.54
Mexico	2008	9	7.40	6	2.53	8	6.50	11	16.03	16	71.59
Peru	2009	11	6.44	5	2.40	11	6.41	12	15.33	16	66.18

Note: Education denotes median years of schooling, income denotes daily household income per capita in 2005 PPP.

Source: Authors' calculations, based on Socio-Economic Database for Latin America and the Caribbean (CEDLAS and The World Bank).

Table 4: Percentage of Labor Force Covered By Social Security System, by Income Group and Country

Country	Year	Poor (<\$4)	Strugglers (\$4-\$10)	Middle Class (\$10-\$50)	Rich (>\$50)
Brazil	2009	41.2	67.7	83.1	89.8
Chile	2009	55.2	72.9	83.3	88.0
Colombia	2006	11.2	39.5	71.0	90.0
Costa Rica	2009	40.4	64.4	80.6	89.6
Dominican Rep.	2008	49.2	50.9	66.7	76.9
Mexico	2008	13.9	33.6	54.6	68.7
Peru	2009	16.2	39.8	64.9	83.4

Source: Authors' calculations, based on Socio-Economic Database for Latin America and the Caribbean (CEDLAS and The World Bank).

Table 5: Total Population and Population Shares of the Struggler Group (\$4 to \$10 per capita per day), By Geographical Region and Country Income Groups (Baseline Scenario)

Level of aggregation	2005		2010 ^(e)		2020 ^(f)		2030 ^(f)		2040 ^(f)		2050 ^(f)	
	Total (m) ^(b)	Share (%) ^(c)	Total (m)	Share (%)	Total (m)	Share (%)	Total (m)	Share (%)	Total (m)	Share (%)	Total (m)	Share (%)
<i>by region^(a)</i>												
East Asia & Pacific	514	0.27	697	0.35	800	0.38	758	0.35	574	0.28	443	0.20
Europe & Central Asia	190	0.49	189	0.48	144	0.35	105	0.26	65	0.17	38	0.09
Latin America & Caribbean	198	0.36	210	0.36	237	0.36	248	0.35	236	0.32	206	0.26
Middle East & North Africa	126	0.42	139	0.42	186	0.48	208	0.48	152	0.36	96	0.18
South Asia	77	0.05	83	0.05	181	0.10	405	0.19	845	0.34	1,206	0.51
Sub-Saharan Africa	71	0.09	96	0.11	179	0.16	303	0.22	528	0.31	711	0.36
<i>by income group</i>												
High income	77	0.07	74	0.06	72	0.06	60	0.05	53	0.04	41	0.03
Low income	40	0.05	60	0.08	124	0.13	250	0.21	423	0.30	543	0.34
Lower middle income	250	0.11	301	0.12	511	0.18	837	0.26	1,356	0.38	1,807	0.47
Upper middle income	826	0.34	989	0.40	1,019	0.38	888	0.32	622	0.22	413	0.15

Notes: (a) Regions and income groups follow the current World Bank classification (December 2012). Geographic regions exclude high-income countries.

(b) "Total" refers to the total size of the struggling group (in millions) at the level of aggregation, based on the relevant population-weighted share and UN population forecasts (medium variant) for this level of aggregation.

(c) "Share" refers to the population-weighted average share of the struggling group at the level of aggregation (either region or income group).

(e) estimate

(f) forecast

Source: Authors' calculations, based on Foure, Bénassy-Quéré, and Fontagne (2012), Milanovic (2010), and UN Population Division (2011).

Table 6: Projected Size of \$4 to \$10 group, Selected Countries (Baseline Scenario)

Region/Country	2010		2020		2030		2040		2050	
	Total (m)	Share (%)	Total (m)	Share (%)	Total (m)	Share (%)	Total (m)	Share (%)	Total (m)	Share (%)
<i>Latin America & Caribbean</i>										
Argentina	14	0.35	16	0.35	12	0.25	13	0.25	11	0.20
Bolivia	3	0.30	4	0.35	4	0.30	5	0.30	4	0.25
Brazil	69	0.35	75	0.35	79	0.35	71	0.30	59	0.25
Chile	6	0.35	6	0.30	5	0.25	4	0.20	2	0.10
Colombia	14	0.30	16	0.30	17	0.30	19	0.30	19	0.30
Costa Rica	2	0.40	2	0.35	2	0.30	2	0.25	1	0.20
Dominican Republic	4	0.40	5	0.40	4	0.35	3	0.25	2	0.15
Guatemala	4	0.30	6	0.35	8	0.35	11	0.40	11	0.35
Honduras	2	0.25	3	0.30	3	0.30	4	0.35	4	0.30
Mexico	46	0.40	51	0.40	55	0.40	51	0.35	38	0.25
Nicaragua	2	0.30	2	0.35	3	0.40	3	0.40	3	0.40
Panama	1	0.35	1	0.30	1	0.25	1	0.20	1	0.20
Paraguay	2	0.35	3	0.40	3	0.35	3	0.35	3	0.30
Peru	10	0.35	13	0.40	14	0.40	14	0.35	12	0.30
Uruguay	1	0.35	1	0.30	1	0.30	1	0.20	1	0.20
Venezuela, RB	12	0.40	14	0.40	15	0.40	16	0.40	17	0.40
<i>Europe & Central Asia</i>										
Russian Federation	66	0.45	44	0.30	28	0.20	14	0.10	7	0.05
<i>East Asia & Pacific</i>										
Indonesia	24	0.10	53	0.20	85	0.30	104	0.35	138	0.45
Thailand	32	0.45	33	0.45	34	0.45	35	0.45	27	0.35
<i>Middle East & North Africa</i>										
Egypt, Arab Rep.	41	0.50	57	0.60	70	0.65	53	0.45	25	0.20
<i>South Asia</i>										
India	62	0.05	140	0.10	308	0.20	663	0.40	955	0.55
<i>Sub-Saharan Africa</i>										
Nigeria	8	0.05	20	0.10	26	0.10	64	0.20	118	0.30
South Africa	10	0.20	13	0.25	14	0.25	17	0.30	17	0.30

Note: See text for description of methodology. Constant 2005 income distribution re-scaled by ventile using GDP growth projections.

Source: Authors' calculations, based on Fouré, Bénassy-Quéré, and Fontagne (2012), Milanovic (2010), and United Nations Population Division (2012).

Table 7: Fiscal Incidence of Income, Taxes, and Transfers, Percentage by Income Group (Benchmark Case)

	Market Income Population Shares	Direct Taxes and Contributions a)	Net Market Income	Non- contributory Pensions	Flagshi p CCT	Other Direct Transfers (Targeted or Not)	All Direct Transfers	Disposable Income	Indirect Subsidie s	Indirect Taxes	Net Indirect Taxes	Post- Fiscal Income	In-kind Education	In-kind Health	Other In- Kind Transfers	In-kind Transfers plus Housing and Urban	All Transfers (excluding all Taxes)	All Transfers (excluding all Taxes) plus Indirect Subsidies	All Taxes (Direct and Indirect)	Final Income
BOLIVIA (2009)				b)	c)	b), c)			d)	e)			d)	d)						
Poor (<\$4)	29.1		0.0	7.8	2.3	2.7	12.7	12.7	1.2	-9.9	-8.8	4.0	37.6	28.4		66.0	78.8	79.9	-9.9	70.0
Strugglers (\$4-\$10)	38.8		0.0	1.8	0.5	0.6	2.8	2.8	0.8	-5.2	-4.4	-1.5	12.1	7.9		19.9	22.8	23.6	-5.2	18.4
Middle Class (\$10-\$50)	30.8		0.0	0.9	0.1	0.1	1.1	1.1	0.6	-3.5	-3.0	-1.9	4.0	2.5		6.5	7.5	8.1	-3.5	4.6
Rich (>\$50)	1.3		0.0	0.2	0.0	0.0	0.3	0.3	0.3	-1.8	-1.5	-1.2	0.7	0.4		1.1	1.4	1.7	-1.8	-0.1
Total population	100.0		0.0	1.4	0.3	0.4	2.1	2.1	0.7	-4.1	-3.5	-1.4	7.7	5.2		12.9	15.0	15.6	-4.1	11.5
BRAZIL (2009)		b)		b)	b)	b)				e)			d)	f)						
Poor (<\$4)	26.7	-0.5	-0.5	4.5	12.4	16.7	33.6	33.0		-18.0	-18.0	15.1	75.8	34.9		110.8	144.3	144.3	-18.5	125.8
Strugglers (\$4-\$10)	33.5	-1.0	-1.0	0.7	1.2	7.5	9.4	8.4		-15.4	-15.4	-7.1	17.8	12.5		30.3	39.7	39.7	-16.5	23.2
Middle Class (\$10-\$50)	35.3	-2.6	-2.6	0.1	0.1	3.6	3.7	1.1		-15.1	-15.1	-14.0	4.4	3.0		7.4	11.1	11.1	-17.7	-6.6
Rich (>\$50)	4.5	-8.1	-8.1	0.0	0.0	1.9	1.9	-6.2		-14.5	-14.5	-20.7	0.9	0.1		1.0	2.9	2.9	-22.6	-19.7
Total population	100.0	-3.9	-3.9	0.3	0.7	4.2	5.3	1.4		-15.1	-15.1	-13.7	8.4	5.0		13.4	18.7	18.7	-19.0	-0.4
GUATEMALA (2010)		d)		b)	b)	b)			d)	d)			d)	d)	d)					
Poor (<\$4)	39.0	-0.2	-0.2	0.4	3.9	0.0	4.3	4.0	1.1	-4.0	-2.9	1.1	16.0	7.2	3.9	27.1	31.4	32.5	-4.2	28.3
Strugglers (\$4-\$10)	37.5	-0.3	-0.3	0.3	0.6	0.0	0.9	0.6	1.0	-3.8	-2.9	-2.3	5.7	4.5	1.9	12.1	13.0	13.9	-4.1	9.8
Middle Class (\$10-\$50)	22.4	-0.5	-0.5	0.1	0.0	0.0	0.1	-0.4	0.6	-4.1	-3.6	-3.9	2.1	2.3	0.5	4.9	5.0	5.5	-4.6	0.9
Rich (>\$50)	1.1	-2.0	-2.0	0.0	0.0	0.0	0.0	-2.0	0.1	-2.4	-2.3	-4.3	0.3	0.5	0.0	0.8	0.8	0.9	-4.4	-3.5
Total population	100.0	-0.6	-0.6	0.1	0.6	0.0	0.8	0.2	0.7	-3.8	-3.1	-2.9	4.5	3.3	1.2	9.0	9.8	10.5	-4.4	6.1
MEXICO (2008)		e)		b)	b), f)	d), f)			d)	e)			d)	d)						
Poor (<\$4)	23.8	-1.5	-1.5	1.2	7.0	2.3	10.5	9.0	9.8	-6.4	3.4	12.3	41.3	20.6		61.9	72.3	82.1	-7.9	74.2
Strugglers (\$4-\$10)	38.0	-1.8	-1.8	0.3	0.8	0.7	1.7	0.0	6.3	-6.4	-0.1	-0.1	13.3	7.0		20.3	22.1	28.4	-8.2	20.2
Middle Class (\$10-\$50)	35.3	-5.8	-5.8	0.1	0.0	0.2	0.3	-5.4	3.7	-6.6	-2.9	-8.3	3.9	2.5		6.4	6.8	10.5	-12.4	-1.8
Rich (>\$50)	2.9	-6.4	-6.4	0.0	0.0	0.3	0.3	-6.2	1.4	-5.0	-3.6	-9.8	0.4	0.5		0.8	1.1	2.5	-11.5	-9.0
Total population	100.0	-4.9	-4.9	0.2	0.5	0.4	1.1	-3.9	4.0	-6.2	-2.2	-6.1	6.7	3.8		10.5	11.5	15.5	-11.1	4.4
PERU (2009)		b)		b)	b)	b)			d)	d)			d)	d)						
Poor (<\$4)	28.6	0.0	0.0		2.1	2.6	4.6	4.6	1.0	-2.2	-1.2	3.4	16.0	4.2		20.2	24.8	25.8	-2.2	23.6
Strugglers (\$4-\$10)	37.5	0.0	0.0		0.1	0.5	0.6	0.5	1.9	-4.9	-3.0	-2.5	4.6	3.0		7.6	8.2	10.0	-4.9	5.1
Middle Class (\$10-\$50)	32.0	-1.1	-1.1		0.0	0.1	0.1	-1.0	3.1	-11.9	-8.9	-9.9	1.1	3.2		4.3	4.3	7.4	-13.0	-5.6
Rich (>\$50)	2.0	-5.2	-5.2		0.0	0.0	0.0	-5.2	3.8	-16.4	-12.6	-17.8	0.1	1.3		1.4	1.4	5.1	-21.6	-16.5
Total population	100.0	-1.4	-1.4		0.2	0.3	0.5	-0.9	2.8	-10.4	-7.6	-8.5	2.7	2.9		5.6	6.1	8.8	-11.8	-2.9
URUGUAY (2009)		d)		b)	b)	b)			d)	d)			d)	d)						
Poor (<\$4)	9.0	-0.4	-0.4	23.5	15.6	28.3	67.4	67.1		-17.5	-17.5	49.5	72.1	74.6		146.7	214.1	214.1	-17.9	196.2
Strugglers (\$4-\$10)	24.4	-1.2	-1.2	4.2	2.8	6.0	13.0	11.8		-9.9	-9.9	1.9	21.1	25.5		46.6	59.6	59.6	-11.0	48.5
Middle Class (\$10-\$50)	57.4	-3.7	-3.7	0.3	0.1	0.8	1.3	-2.5		-8.1	-8.1	-10.6	5.2	6.4		11.6	12.9	12.9	-11.9	1.0
Rich (>\$50)	9.2	-9.1	-9.1	0.0	0.0	0.1	0.1	-9.0		-7.5	-7.5	-16.5	1.0	1.2		2.2	2.3	2.3	-16.6	-14.3
Total population	100.0	-5.4	-5.4	0.8	0.5	1.2	2.4	-3.0		-8.1	-8.1	-11.1	5.6	6.7		12.4	14.8	14.8	-13.5	1.3

Note: Benchmark Case = social security pensions are market income. Contributions to social security pensions are never subtracted out of income (or must be added into income if reported income on the survey is net of contributions) -- note that this applies to contributions directed to pensions only; a) does not include pension contributions; b) direct identification method; c) simulation method; d) imputation method; e) secondary sources; f) alternate survey.

Source: Lustig et al. (2012).

Table 8: Concentration Shares of Income, Taxes, and Transfers, Percentage by Income Group (Benchmark Case)

	Market Income Population Shares	Market Income	Direct Taxes and Contributions	Non-contributory Pensions	Flagship CCT	Other Direct Transfers	All Direct Transfers	Indirect Subsidies	Indirect Taxes	Net Indirect Taxes	In-kind Education	In-kind Health	Other In-kind Transfers	In-kind Transfers plus Housing and Urban	All Transfers plus Indirect Subsidies	All Taxes (Direct and Indirect)	
BOLIVIA (2009)				a)	b)	a), b)		c)	d)		c)	c)					
Poor (<\$4)	29.1	5.9		32.0	42.9	43.2	35.5	10.6	14.1	14.8	28.9	32.4		30.3	31.0	30.2	14.1
Strugglers (\$4-\$10)	38.8	26.1		31.9	42.6	40.6	35.0	32.4	32.6	32.6	40.9	39.7		40.4	39.6	39.3	32.6
Middle Class (\$10-\$50)	30.8	56.1		34.0	14.3	15.9	28.0	51.1	48.0	47.4	29.1	27.0		28.3	28.2	29.2	48.0
Rich (>\$50)	1.3	11.9		2.1	0.3	0.3	1.5	6.0	5.3	5.1	1.1	0.9		1.0	1.1	1.3	5.3
Total Population	100.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0
BRAZIL (2009)			a)	a)	a)	a)			d)		c)	e)					
Poor (<\$4)	26.7	4.2	0.6	56.9	70.5	16.4	26.5		5.0	5.0	37.5	29.4		34.5	32.2	32.2	4.1
Strugglers (\$4-\$10)	33.5	15.8	4.1	34.9	25.8	28.0	28.1		16.1	16.1	33.4	39.9		35.8	33.6	33.6	13.7
Middle Class (\$10-\$50)	35.3	49.7	32.7	7.8	3.7	42.0	34.5		49.8	49.8	25.9	30.1		27.4	29.4	29.4	46.2
Rich (>\$50)	4.5	30.4	62.7	0.5	0.1	13.6	10.9		29.1	29.1	3.2	0.7		2.3	4.7	4.7	36.0
Total Population	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0
GUATEMALA (2010)			c)	a)	a)	a)		c)	c)		c)	c), e)	c)				
Poor (<\$4)	39.0	11.5	4.6	27.3	71.2	13.1	62.3	18.7	12.0	10.6	40.8	25.4	37.2	34.7	36.9	35.8	11.1
Strugglers (\$4-\$10)	37.5	28.4	14.8	53.1	25.8	37.5	31.1	40.3	28.4	25.9	35.8	39.2	43.9	38.1	37.6	37.7	26.6
Middle Class (\$10-\$50)	22.4	48.2	39.0	19.3	3.0	49.4	6.6	39.4	52.1	54.8	22.5	33.7	18.6	26.0	24.5	25.4	50.4
Rich (>\$50)	1.1	11.9	41.6	0.3	0.0	0.0	0.1	1.7	7.4	8.7	0.9	1.7	0.3	1.1	1.0	1.1	12.0
Total Population	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
MEXICO (2008)			d)	a)	a), e)	c), e)		c), e)	d)		c)	c)					
Poor (<\$4)	23.8	4.4	1.3	32.3	63.6	24.7	43.6	10.8	4.6	-6.7	27.3	23.9		26.1	27.7	23.3	3.1
Strugglers (\$4-\$10)	38.0	20.0	7.2	33.5	31.3	34.4	32.9	31.6	20.7	0.7	40.0	37.1		38.9	38.4	36.6	14.7
Middle Class (\$10-\$50)	35.3	54.0	63.2	31.0	5.1	26.9	17.5	50.1	57.3	70.3	31.6	36.4		33.3	31.9	36.6	59.9
Rich (>\$50)	2.9	21.5	28.2	3.3	0.1	14.0	6.0	7.5	17.5	35.6	1.2	2.6		1.7	2.1	3.5	22.2
Total Population	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0
PERU (2009)			a)	a)	a)	a)		c)	c)		c)	c)					
Poor (<\$4)	28.6	6.3	0.0	81.3	54.1	63.6	2.3	1.4	1.0	37.8	9.0			22.8	25.9	18.5	1.2
Strugglers (\$4-\$10)	37.5	23.4	0.6	17.1	35.1	28.8	15.7	11.0	9.3	40.1	23.9			31.6	31.4	26.5	9.8
Middle Class (\$10-\$50)	32.0	54.8	41.6	1.7	10.7	7.6	60.8	63.1	64.0	21.5	60.5			41.9	39.3	46.0	60.6
Rich (>\$50)	2.0	15.5	57.8	0.0	0.0	0.0	21.2	24.5	25.6	0.5	6.7			3.7	3.5	9.0	28.4
Total Population	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0
URUGUAY (2009)			c)	a)	a)	a)		c)	c)		c)	c)					
Poor (<\$4)	9.0	1.0	0.1	31.5	34.8	23.5	28.1		2.2	2.2	13.0	11.2		12.0	14.7	14.7	1.3
Strugglers (\$4-\$10)	24.4	7.6	1.7	41.9	47.5	37.3	40.6		9.2	9.2	28.6	28.7		28.7	30.6	30.6	6.2
Middle Class (\$10-\$50)	57.4	56.4	39.0	25.8	17.5	36.1	29.4		56.3	56.3	52.3	53.7		53.1	49.2	49.2	49.4
Rich (>\$50)	9.2	35.0	59.3	0.7	0.2	3.1	1.9		32.3	32.3	6.1	6.3		6.2	5.5	5.5	43.0
Total Population	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0		100.0	100.0	100.0	100.0

Table 9: Coverage and Distribution of Government Benefits and Beneficiaries, Percentage by Income Group

	Distribution								Coverage				
	% share of benefits going to income group				% share of beneficiaries in income group				% share of individuals in group who are beneficiaries				
	Poor <\$4	Strugglers \$4 to \$10	Middle \$10 to \$50	Rich > \$50	Poor <\$4	Strugglers \$4 to \$10	Middle \$10 to \$50	Rich > \$50	Poor <\$4	Strugglers \$4 to \$10	Middle \$10 to \$50	Rich > \$50	Total
ARGENTINA (2009)													
Jefas y Jefes de Hogar	53.3	45.8	0.9	0.0	53.9	45.4	0.7	0.0	4.5	2.0	0.0	0.0	1.8
Familias	57.5	37.8	4.4	0.3	59.4	38.0	2.5	0.1	33.9	11.2	0.9	0.8	12.5
Unemployment Insurance	39.7	34.2	24.4	1.7	40.4	38.6	20.1	0.9	1.8	0.9	0.6	0.8	1.0
Becas	29.4	52.6	18.1	0.0	30.9	57.2	11.8	0.0	1.6	1.6	0.4	0.0	1.2
Non Contributory Pensions (inferred)	42.6	37.3	19.7	0.3	36.0	44.5	19.3	0.2	27.5	17.5	9.4	3.4	16.7
Food	55.7	38.6	5.6	0.0	61.3	35.2	3.5	0.0	18.8	5.6	0.7	0.0	6.7
Asignación Universal Por Hijo (simulated)	57.6	37.0	5.2	0.2	52.1	41.4	6.4	0.2	50.4	20.6	3.9	3.7	21.2
Above (all above for benefits, at least one for beneficiaries) (a)	46.8	38.2	14.7	0.3	42.6	45.5	11.7	0.2	86.6	47.6	15.2	7.9	44.6
" , excluding food	46.7	38.2	14.8	0.3	42.9	45.1	11.8	0.2	84.5	45.7	14.8	7.9	43.2
Education: All Except Tertiary	38.4	47.7	13.8	0.1	39.7	47.0	13.2	0.1	31.1	19.0	6.6	1.1	17.2
Education: Tertiary	9.8	41.2	48.3	0.6	9.8	41.2	48.3	0.6	2.1	4.6	6.7	2.8	4.8
Health Spending (b)	44.1	44.2	11.5	0.2	44.1	44.2	11.5	0.2	66.4	34.3	11.1	6.1	33.0
Contributory Pensions	0.7	23.7	66.4	9.2	3.2	42.4	53.0	1.5	1.9	12.9	19.9	17.4	12.9
Income shares	3.5	25.7	62.2	8.6	3.5	25.7	62.2	8.6	3.5	25.7	62.2	8.6	100.0
Population shares	21.9	42.6	34.4	1.1	21.9	42.6	34.4	1.1	21.9	42.6	34.4	1.1	100.0
BOLIVIA (2009)													
Bono Juancito Pinto	47.5	40.9	11.3	0.2	46.0	40.7	13.1	0.2	67.0	48.9	22.8	11.2	47.3
Bono Juana Azurduy	44.5	45.0	9.1	1.3	49.5	39.5	10.1	0.9	5.7	3.8	1.4	3.5	3.8
School Breakfast	39.5	44.3	15.8	0.3	40.1	42.9	16.6	0.4	71.6	63.1	35.6	21.0	58.0
Non-contributory Pension (Renta Dignidad)	34.6	32.4	31.5	1.4	30.4	36.0	32.5	1.1	17.2	16.8	22.2	20.6	18.4
Renta de Benemerito	74.1	15.5	10.4	0.0	73.4	21.5	5.1	0.0	0.3	0.1	0.0	0.0	0.1
Above (all above for benefits, at least one for beneficiaries)	38.0	34.5	26.4	1.1	37.9	40.9	20.6	0.6	85.9	76.4	56.2	41.7	73.6
Education: Yo si puedo/Yes I can	74.2	18.1	7.8	0.0	74.2	18.1	7.8	0.0	0.7	0.1	0.1	0.0	0.3
Education: preschool	44.6	43.7	11.7	0.0	44.6	43.7	11.7	0.0	2.1	1.7	0.7	0.0	1.5
Education: primary	47.6	40.9	11.3	0.2	47.6	40.9	11.3	0.2	23.5	16.6	6.7	3.1	16.0
Education: secondary	37.8	41.8	20.2	0.2	37.8	41.8	20.2	0.2	6.4	5.8	4.1	1.1	5.5
Education: all except tertiary	46.0	40.7	13.1	0.2	45.4	41.0	13.4	0.2	32.6	24.2	11.6	4.2	23.3
Education: tertiary	12.5	42.5	43.2	1.8	12.5	42.5	43.2	1.8	1.5	4.1	6.0	6.9	3.8
Education: PAN	49.3	36.5	13.2	0.9	49.3	36.5	13.2	0.9	1.2	0.7	0.4	0.7	0.8
Health Spending	40.6	42.2	16.9	0.3	39.2	42.4	17.8	0.5	15.7	14.0	8.6	6.5	13.0
Contributory Pensions	0.5	16.0	60.6	23.0	1.2	24.7	67.7	6.4	0.0	0.5	2.0	5.2	0.8
Income shares	7.3	28.9	53.5	10.3	7.3	28.9	53.5	10.3	7.3	28.9	53.5	10.3	100.0
Population shares	32.5	39.5	27.0	1.0	32.5	39.5	27.0	1.0	32.5	39.5	27.0	1.0	100.0

Note: For the four columns labeled “share of benefits going to each income group”, the row “above” refers to the sum of all transfers listed above that row. For the other columns, the row “above” shows the percentages of beneficiaries or individuals who received at least one of the programs listed above that row; a) For Argentina, the “above” row is not equal to the sum of the above because individuals are not eligible to receive benefits from the Asignacion Universal por Hijo (AUH) program if they already receive benefits from another program; b) Health is calculated on the affiliation of individuals in a health insurance system either private, or public. When not affiliated to any system the individual is assumed to use public hospitals. Household data from Argentina does not contain information on the use of public facilities.

(continued on next page)

<i>(continued from previous page)</i>	Distribution								Coverage				
	% share of benefits going to income group				% share of beneficiaries in income group				% share of individuals in group who are beneficiaries				
	Poor <\$4	Strugglers \$4 to \$10	Middle \$10 to \$50	Rich > \$50	Poor <\$4	Strugglers \$4 to \$10	Middle \$10 to \$50	Rich > \$50	Poor <\$4	Strugglers \$4 to \$10	Middle \$10 to \$50	Rich > \$50	Total
BRAZIL (2009)													
Bolsa Familia	70.5	25.8	3.7	0.1	68.6	27.6	3.7	0.1	75.8	24.3	3.1	0.4	29.5
Scholarships	20.1	15.2	39.2	25.5	32.4	29.6	31.1	6.9	1.6	1.2	1.2	2.0	1.3
Noncontributory Pension (BPC) (c)	56.9	34.9	7.8	0.5	57.7	33.8	8.0	0.5	4.7	2.2	0.5	0.3	2.2
Unemployment	13.6	37.1	45.6	3.7	19.7	43.2	35.6	1.5	3.4	5.9	4.6	1.5	4.6
Special Pensions	16.4	27.9	41.8	13.8	29.0	35.5	33.0	2.5	11.5	11.2	9.9	5.8	10.6
Other Transfers	17.7	32.0	44.4	5.9	22.7	37.5	36.8	3.0	2.2	2.9	2.7	1.7	2.6
Above (all above for benefits, at least one for beneficiaries)	26.5	28.1	34.5	10.9	51.3	31.3	16.2	1.1	84.7	41.2	20.3	10.9	44.0
Education: early childhood	48.4	33.8	17.5	0.2	48.4	33.8	17.5	0.2	6.4	3.6	1.8	0.2	3.5
Education: primary	45.9	36.3	17.6	0.2	45.9	36.3	17.6	0.2	21.6	13.6	6.2	0.6	12.5
Education: secondary	37.3	39.6	22.7	0.5	37.3	39.6	22.7	0.5	6.5	5.5	3.0	0.5	4.7
Education: all except tertiary	44.7	36.6	18.5	0.3	44.4	36.6	18.7	0.3	34.5	22.6	11.0	1.3	20.7
Education: tertiary	7.8	20.0	56.6	15.6	7.8	20.0	56.6	15.6	0.3	0.6	1.5	3.2	0.9
Health: Primary Care	27.0	44.7	27.8	0.4	35.1	44.4	20.2	0.3	24.5	24.6	10.7	1.2	18.6
Health: In-Patient Care	25.8	44.6	29.0	0.5	30.6	44.2	24.7	0.5	12.8	14.6	7.8	1.2	11.1
Health: Preventative Care	28.8	44.9	25.8	0.4	24.6	44.0	30.8	0.6	10.5	15.0	10.0	1.5	11.4
Total Health	26.3	44.7	28.5	0.5	31.7	43.9	23.9	0.4	30.6	33.7	17.4	2.5	25.7
Contributory Pensions	2.8	14.7	48.6	33.9	16.0	33.3	44.1	6.6	16.2	26.8	33.6	38.9	26.9
Income shares	4.2	15.8	49.7	30.4	4.2	15.8	49.7	30.4	4.2	15.8	49.7	30.4	100.0
Population shares	26.7	33.5	35.3	4.5	26.7	33.5	35.3	4.5	26.7	33.5	35.3	4.5	100.0
GUATEMALA (2010)													
Conditional Cash Transfer	86.7	12.4	0.8	0.0	88.2	11.1	0.7	0.0	33.2	6.3	0.9	0.0	19.4
Non-contributory pension program	38.2	48.5	13.2	0.1	50.7	38.5	10.7	0.0	1.7	1.9	1.3	0.1	1.7
Above (all above for benefits, at least one for beneficiaries)	77.5	19.3	3.2	0.0	85.3	13.2	1.5	0.0	34.5	8.1	2.2	0.1	20.8
Education: preschool	58.9	34.2	6.8	0.1	58.9	34.2	6.8	0.1	2.2	1.9	0.9	0.3	1.9
Education: primary	68.0	27.6	4.3	0.0	68.0	27.6	4.3	0.0	21.8	13.4	5.0	1.9	16.5
Education: secondary (Básica)	53.6	38.8	7.5	0.1	53.6	38.8	7.5	0.1	3.7	4.0	1.9	0.8	3.5
Education: secondary (Diversificado)	38.7	42.9	18.3	0.1	38.7	42.9	18.3	0.1	0.8	1.3	1.4	0.2	1.0
Education: all except tertiary	60.3	32.9	6.8	0.1	63.7	30.6	5.6	0.1	28.4	20.7	9.2	3.2	23.0
Education: tertiary	7.2	26.0	66.4	0.3	7.2	26.0	66.4	0.3	0.1	0.8	4.8	0.8	1.0
Electricity subsidy	32.8	42.1	24.3	0.8	47.5	38.6	13.6	0.3	58.2	71.7	61.1	39.1	63.1
Urban public transportation subsidy	7.8	52.9	39.2	0.1	12.1	56.5	31.3	0.1	3.0	21.0	28.1	2.6	12.6
VAT spending deductions	38.4	38.1	22.7	0.8	45.1	37.6	16.9	0.4	62.4	78.9	85.6	67.2	71.3
Health Spending	34.9	39.6	24.7	0.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contributory Pensions	2.0	20.8	71.2	6.1	6.2	38.0	54.7	1.1	0.0	0.3	1.2	0.8	0.3
Income shares	19.3	34.7	39.9	6.0	19.3	34.7	39.9	6.0	19.3	34.7	39.9	6.0	100.0
Population shares	51.5	34.0	14.1	0.4	51.5	34.0	14.1	0.4	51.5	34.0	14.1	0.4	100.0

Note: (c) Recipients of BPC often misreport this income source as a pension from the contributory system.

(continued on next page)

(continued from previous page)

	Distribution								Coverage				
	% share of benefits going to income group				% share of beneficiaries in income group				% share of individuals in group who are beneficiaries				
	Poor <\$4	Strugglers \$4 to \$10	Middle \$10 to \$50	Rich > \$50	Poor <\$4	Strugglers \$4 to \$10	Middle \$10 to \$50	Rich > \$50	Poor <\$4	Strugglers \$4 to \$10	Middle \$10 to \$50	Rich > \$50	Total
MEXICO (2008)													
Conditional Cash Transfer	63.4	31.5	5.0	0.1	64.5	30.5	4.9	0.0	53.2	15.6	2.7	0.3	19.6
Scholarships	12.1	44.0	32.9	11.1	21.7	42.2	35.1	1.0	4.3	5.2	4.7	1.8	4.7
Non-contributory pension	32.5	33.7	31.2	2.6	38.6	34.6	25.4	1.5	7.4	4.1	3.3	2.6	4.6
Other Direct Transfers	15.2	34.0	44.0	6.7	13.6	41.5	43.8	1.1	19.8	37.6	43.1	14.8	34.7
Above (all above for benefits, at least one for beneficiaries)	32.5	34.4	28.4	4.6	28.9	37.8	32.4	0.9	64.8	52.6	49.0	18.1	53.3
Education: preschool	35.4	43.0	21.4	0.2	35.4	43.0	21.4	0.2	5.0	3.8	2.0	0.2	3.4
Education: primary	37.2	43.2	19.3	0.4	37.2	43.2	19.3	0.4	19.1	13.7	6.7	1.7	12.2
Education: secondary	26.9	42.6	30.0	0.6	27.5	42.3	29.6	0.5	10.7	10.2	7.8	1.9	9.2
Education: all except tertiary	32.3	42.9	24.4	0.4	33.3	42.8	23.4	0.4	34.8	27.7	16.5	3.8	24.8
Education: tertiary	6.7	29.9	59.7	3.7	6.7	29.9	59.7	3.7	0.6	1.6	3.6	3.0	2.1
Health Spending	23.9	37.4	36.4	2.3	25.9	37.7	34.3	2.1	86.4	77.9	77.0	64.1	79.3
Contributory Pensions	2.1	23.8	67.2	6.9	2.6	27.5	64.2	5.7	1.2	7.7	19.5	23.7	10.7
Income shares	4.4	20.3	54.9	20.3	4.4	20.3	54.9	20.3	4.4	20.3	54.9	20.3	100.0
Population shares	23.8	38.3	35.3	2.6	23.8	38.3	35.3	2.6	23.8	38.3	35.3	2.6	100.0
PERU (2009)													
Conditional Cash Transfer	81.3	17.1	1.7	0.0	83.5	15.0	1.5	0.0	26.9	3.7	0.4	0.0	9.2
Food Transfers	54.1	35.1	10.7	0.0	50.6	37.9	11.5	0.0	36.2	20.7	7.3	0.2	20.5
Above (all above for benefits, at least one for beneficiaries)	70.9	24.0	5.1	0.0	56.5	33.9	9.6	0.0	50.3	23.0	7.6	0.2	25.4
Education: preschool	41.8	41.8	16.2	0.2	41.8	41.8	16.2	0.2	3.4	2.6	1.2	0.2	2.3
Education: primary	50.7	37.4	11.8	0.1	50.7	37.4	11.8	0.1	15.2	8.5	3.1	0.3	8.5
Education: secondary	37.7	44.6	17.6	0.2	37.7	44.6	17.6	0.2	9.0	8.1	3.8	0.6	6.8
Education: all except tertiary	44.4	40.9	14.7	0.1	44.5	40.7	14.6	0.1	27.6	19.2	8.1	1.1	17.7
Education: tertiary	11.6	37.2	49.1	2.1	12.5	37.9	47.6	2.0	0.7	1.6	2.3	1.6	1.6
Health Spending	17.8	35.4	44.0	2.8	30.5	36.8	31.1	1.7	91.0	83.8	82.9	72.5	85.3
Contributory Pensions	0.7	13.5	71.2	14.5	3.7	26.7	64.3	5.4	0.9	4.9	13.8	19.0	6.9
Income shares	6.3	23.4	54.8	15.5	6.3	23.4	54.8	15.5	6.3	23.4	54.8	15.5	100.0
Population shares	28.6	37.5	32.0	2.0	28.6	37.5	32.0	2.0	28.6	37.5	32.0	2.0	100.0

(continued on next page)

(continued from previous page)

	Distribution								Coverage				
	% share of benefits going to income group				% share of beneficiaries in income group				% share of individuals in group who are beneficiaries				
	Poor <\$4	Strugglers \$4 to \$10	Middle \$10 to \$50	Rich > \$50	Poor <\$4	Strugglers \$4 to \$10	Middle \$10 to \$50	Rich > \$50	Poor <\$4	Strugglers \$4 to \$10	Middle \$10 to \$50	Rich > \$50	Total
URUGUAY (2009)													
Conditional Cash Transfer	43.1	44.1	12.7	0.1	42.1	44.6	13.2	0.1	73.9	32.5	5.0	0.3	20.3
Non-contributory pension	35.6	42.0	21.9	0.4	36.8	41.0	21.7	0.5	15.7	7.3	2.0	0.3	4.9
Food baskets	47.2	39.3	13.3	0.1	39.7	44.2	16.0	0.1	63.3	29.2	5.5	0.3	18.4
Food vouchers	61.4	34.9	3.7	0.0	60.8	35.4	3.7	0.0	46.8	11.3	0.6	0.0	8.9
Other contributory benefits	11.7	38.4	47.7	2.2	9.3	46.0	44.1	0.6	13.5	27.7	13.7	1.4	16.7
Above (all above for benefits, at least one for beneficiaries)	33.8	40.5	24.9	0.8	25.8	45.3	28.6	0.4	94.7	69.1	22.5	2.2	42.4
Education: preschool	30.3	44.1	25.3	0.2	30.3	44.1	25.3	0.2	2.0	1.2	0.4	0.0	0.8
Education: primary	29.7	42.4	27.6	0.3	29.7	42.4	27.6	0.3	29.9	17.7	6.0	0.5	11.6
Education: secondary (ciclo básico)	16.2	42.7	40.3	0.8	16.2	42.7	40.3	0.8	5.2	5.7	2.8	0.4	3.7
Education: secondary (bachillerato)	5.1	24.0	67.6	3.3	5.1	24.0	67.6	3.3	1.0	2.0	2.9	1.1	2.3
Education: secondary technical	8.1	30.3	59.4	2.2	8.1	30.3	59.4	2.2	0.9	1.5	1.5	0.4	1.3
Education: all except tertiary	21.0	38.5	39.5	1.1	22.8	39.5	36.7	0.9	39.1	28.1	13.5	2.6	19.8
Education: tertiary	0.6	7.1	77.9	14.5	0.6	7.1	77.9	14.4	0.1	0.6	3.5	5.2	2.4
Health Spending	14.3	32.2	49.0	4.5	13.4	31.4	50.3	4.9	95.5	92.7	76.8	59.7	82.2
Contributory Pensions	20.4	33.3	41.6	4.6	24.9	36.0	37.9	2.8	34.7	40.5	22.0	13.1	31.3
Income shares	1.5	10.0	59.3	29.2	1.5	10.0	59.3	29.2	1.5	10.0	59.3	29.2	100.0
Population shares	11.6	27.8	53.8	6.8	11.6	27.8	53.8	6.8	11.6	27.8	53.8	6.8	100.0

Note: The difference in the values for the same category (e.g., noncontributory pensions) seen between the concentration shares in Table 8 and the distribution of benefits in this table is due to the following: All inequality or distribution-related calculations use scaled-up incomes, and all poverty-related calculations use non-scaled incomes (see Lustig and Higgins, 2012). Incidence and concentration shares are considered to be inequality/distribution related, and coverage shares to be poverty-related. The difference in values is hence due to the fact that the people in each group are different in the two tables: in the concentration tables, scaled income is used to determine one's group, whereas in the coverage tables, non-scaled income is used to determine one's group.

Source: Lustig et al. (2012).

Table 10: Mobility Matrices for Disposable and Post-Fiscal Income, Percentage by Income Group (Benchmark Case)

ARGENTINA (2009)							Post-Fiscal Income						
Disposable Income							Post-Fiscal Income						
Market Income	< \$4	\$4 - \$10	\$10 - \$50	> \$50	Total	Pop. share	Market Income	< \$4	\$4 - \$10	\$10 - \$50	> \$50	Total	Pop. share
< \$4	65.7	34.2	0.1	0.0	100.0	21.9	< \$4	NOT AVAILABLE					
\$4 - \$10	0.0	95.1	4.8	0.0	100.0	42.6	\$4 - \$10	NOT AVAILABLE					
\$10 - \$50	0.0	0.0	99.9	0.1	100.0	34.4	\$10 - \$50	NOT AVAILABLE					
> \$50	0.0	0.0	0.0	100.0	100.0	1.1	> \$50	NOT AVAILABLE					
Pop. share	14.4	48.0	36.4	1.1	100.0	100.0	Pop. share	NOT AVAILABLE					

BOLIVIA (2009)							Post-Fiscal Income						
Disposable Income							Post-Fiscal Income						
Market Income	< \$4	\$4 - \$10	\$10 - \$50	> \$50	Total	Pop. share	Market Income	< \$4	\$4 - \$10	\$10 - \$50	> \$50	Total	Pop. share
< \$4	94.4	5.6	0.1	0.0	100.0	32.5	< \$4	96.8	3.2	0.1	0.0	100.0	32.5
\$4 - \$10	0.0	98.3	1.7	0.0	100.0	39.5	\$4 - \$10	3.8	95.5	0.8	0.0	100.0	39.5
\$10 - \$50	0.0	0.0	100.0	0.0	100.0	27.0	\$10 - \$50	0.0	4.7	95.3	0.0	100.0	27.0
> \$50	0.0	0.0	0.0	100.0	100.0	1.0	> \$50	0.0	0.0	6.7	93.3	100.0	1.0
Pop. share	30.7	40.6	27.7	1.0	100.0	100.0	Pop. share	32.9	40.0	26.1	1.0	100.0	100.0

BRAZIL (2009)							Post-Fiscal Income						
Disposable Income							Post-Fiscal Income						
Market Income	< \$4	\$4 - \$10	\$10 - \$50	> \$50	Total	Pop. share	Market Income	< \$4	\$4 - \$10	\$10 - \$50	> \$50	Total	Pop. share
< \$4	85.6	13.0	0.9	0.4	100.0	26.7	< \$4	92.5	6.5	0.6	0.4	100.0	26.7
\$4 - \$10	0.4	93.2	6.4	0.0	100.0	33.5	\$4 - \$10	10.2	86.7	3.1	0.0	100.0	33.5
\$10 - \$50	0.0	1.2	98.3	0.5	100.0	35.3	\$10 - \$50	0.0	15.1	84.6	0.3	100.0	35.3
> \$50	0.0	0.0	7.4	92.6	100.0	4.5	> \$50	0.0	0.0	31.5	68.5	100.0	4.5
Pop. share	23.0	35.1	37.4	4.5	100.0	100.0	Pop. share	28.1	36.1	32.5	3.3	100.0	100.0

GUATEMALA (2010)							Post-Fiscal Income						
Disposable Income							Post-Fiscal Income						
Market Income	< \$4	\$4 - \$10	\$10 - \$50	> \$50	Total	Pop. share	Market Income	< \$4	\$4 - \$10	\$10 - \$50	> \$50	Total	Pop. share
< \$4	97.4	2.6	0.0	0.0	100.0	39.0	< \$4	98.0	2.0	0.0	0.0	100.0	39.0
\$4 - \$10	0.4	99.5	0.1	0.0	100.0	37.5	\$4 - \$10	3.2	96.6	0.2	0.0	100.0	37.5
\$10 - \$50	0.0	0.5	99.5	0.0	100.0	22.4	\$10 - \$50	0.0	5.9	94.0	0.0	100.0	22.4
> \$50	0.0	0.0	3.3	96.7	100.0	1.1	> \$50	0.0	0.0	12.9	87.1	100.0	1.1
Pop. share	38.1	38.5	22.3	1.1	100.0	100.0	Pop. share	39.4	38.3	21.3	1.0	100.0	100.0

MEXICO (2008)							Post-Fiscal Income						
Disposable Income							Post-Fiscal Income						
Market Income	< \$4	\$4 - \$10	\$10 - \$50	> \$50	Total	Pop. share	Market Income	< \$4	\$4 - \$10	\$10 - \$50	> \$50	Total	Pop. share
< \$4	91.6	8.4	0.0	0.0	100.0	23.8	< \$4	88.9	11.0	0.1	0.0	100.0	23.8
\$4 - \$10	0.1	98.5	1.4	0.0	100.0	38.0	\$4 - \$10	0.9	97.2	1.9	0.0	100.0	38.0
\$10 - \$50	0.0	0.8	99.2	0.0	100.0	35.3	\$10 - \$50	0.0	3.1	96.9	0.0	100.0	35.3
> \$50	0.0	0.0	9.2	90.8	100.0	2.9	> \$50	0.0	0.0	15.8	84.2	100.0	2.9
Pop. share	21.8	39.8	35.8	2.6	100.0	100.0	Pop. share	21.5	40.7	35.4	2.4	100.0	100.0

PERU (2009)							Post-Fiscal Income						
Disposable Income							Post-Fiscal Income						
Market Income	< \$4	\$4 - \$10	\$10 - \$50	> \$50	Total	Pop. share	Market Income	< \$4	\$4 - \$10	\$10 - \$50	> \$50	Total	Pop. share
< \$4	97.3	2.7	0.0	0.0	100.0	28.6	< \$4	97.5	2.5	0.0	0.0	100.0	28.6
\$4 - \$10	0.0	99.8	0.2	0.0	100.0	37.5	\$4 - \$10	1.4	98.5	0.2	0.0	100.0	37.5
\$10 - \$50	0.0	0.1	99.9	0.0	100.0	32.0	\$10 - \$50	0.0	3.5	96.5	0.0	100.0	32.0
> \$50	0.0	0.0	2.0	98.0	100.0	2.0	> \$50	0.0	0.0	5.3	94.7	100.0	2.0
Pop. share	27.8	38.2	32.1	1.9	100.0	100.0	Pop. share	28.4	38.7	31.1	1.9	100.0	100.0

URUGUAY (2009)							Post-Fiscal Income						
Disposable Income							Post-Fiscal Income						
Market Income	< \$4	\$4 - \$10	\$10 - \$50	> \$50	Total	Pop. share	Market Income	< \$4	\$4 - \$10	\$10 - \$50	> \$50	Total	Pop. share
< \$4	57.8	41.6	0.6	0.0	100.0	11.6	< \$4	72.1	27.6	0.3	0.0	100.0	11.6
\$4 - \$10	0.1	94.1	5.8	0.0	100.0	27.8	\$4 - \$10	1.9	95.5	2.6	0.0	100.0	27.8
\$10 - \$50	0.0	0.8	99.1	0.0	100.0	53.8	\$10 - \$50	0.0	6.3	93.6	0.0	100.0	53.8
> \$50	0.0	0.0	15.6	84.4	100.0	6.8	> \$50	0.0	0.0	30.9	69.1	100.0	6.8
Pop. share	6.7	31.4	56.1	5.8	100.0	100.0	Pop. share	8.9	33.1	53.3	4.7	100.0	100.0

Note: Tables read from left (rows) to right (columns); income groups are defined by non-scaled income; benchmark case = social security pensions are market income. Contributions to social security pensions are never subtracted out of income (or must be added into income if reported income on the survey is net of contributions) – note that this applies to contributions directed to pensions only.

Source: Lustig et al. (2012)

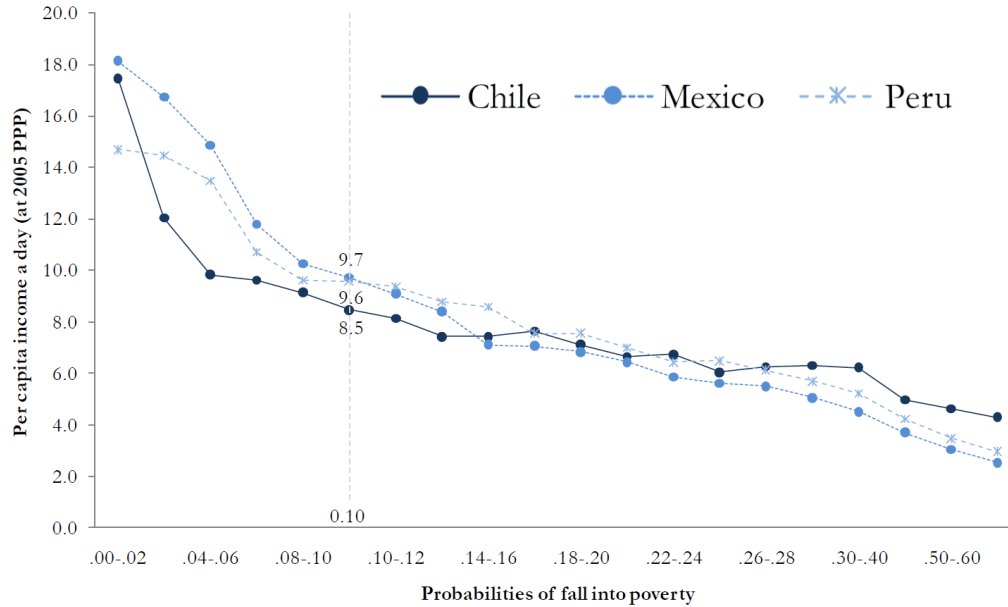
Table 11: Students Enrolled in Private Schooling, Percentage by Age Group (2008/2009)

Country	Between 6-12 years old				Between 13-18 years old			
	Poor	Strugglers	Middle	Rich	Poor	Strugglers	Middle	Rich
	< \$4	\$4 - \$10	\$10 - \$50	> \$50	< \$4	\$4 - \$10	\$10 - \$50	> \$50
Brazil	4.8	13.3	45.1	90.6	2.7	8	35.3	85.3
Chile	0.6	0.9	8.1	68.8	1.6	1.7	10.8	64.1
Colombia	6.7	13.8	41.9	83.3	8.4	14.6	40.5	84.7
Costa Rica	1.2	2.1	25.2	67.2	2.9	4	26.8	62.1
Dominican Rep.	14	29.8	63.4	89.9	15.3	27	62.9	83.2
Honduras	2.2	10.3	34.8	62.9	7.5	19.3	42.5	70
Mexico	0.7	4.1	26.9	79.3	4.5	6.9	24.7	70.9
Peru	2.6	20	56.5	91.8	3.4	14.9	50.4	91.7

Source: Authors' calculations, based on Socio-Economic Database for Latin America and the Caribbean (CEDLAS and The World Bank).

Figures

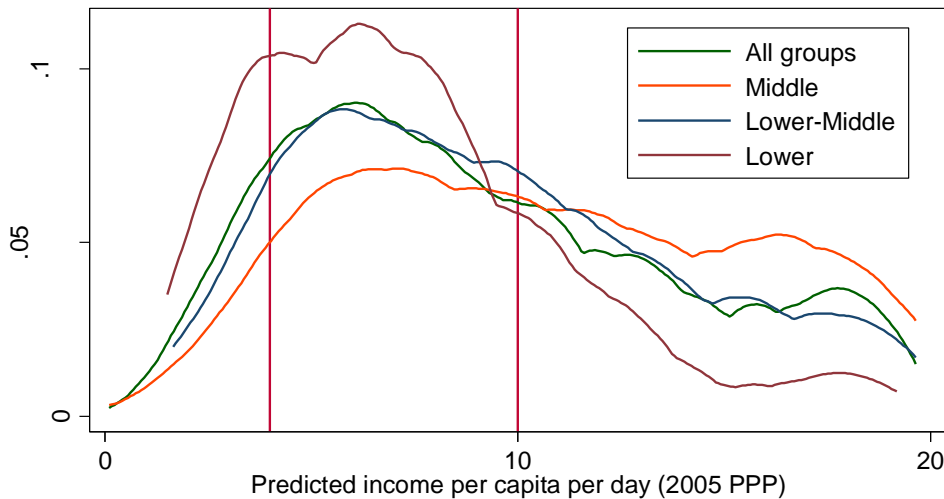
Figure 1: Daily Income by Probability of Falling into Poverty; Chile, Mexico and Peru



Note: Household per capita income at 2005 PPP dollar.

Source: Lopez-Calva and Ortiz-Juarez (2011), based Chile MIDEPLAN Socioeconomic Characterization Survey (CASEN Panel), Mexico Family Life Survey (MxFLS), and Peru Institute of Statistics (INEI), National Household Survey (ENAHO Panel).

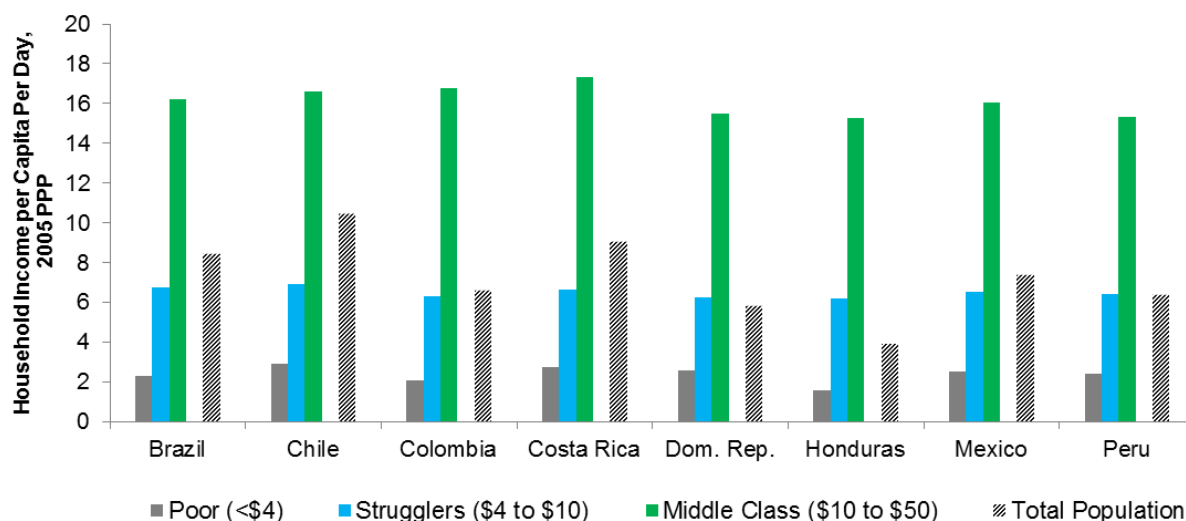
Figure 2: Predicted Income Distributions by Self-Reported Class in ECOSOCIAL



Note: Income in ECOSOCIAL survey estimated using data on household assets matched to SEDLAC data. For further discussion of the methodology that links the surveys' information, see Ferreira et al. (2012).

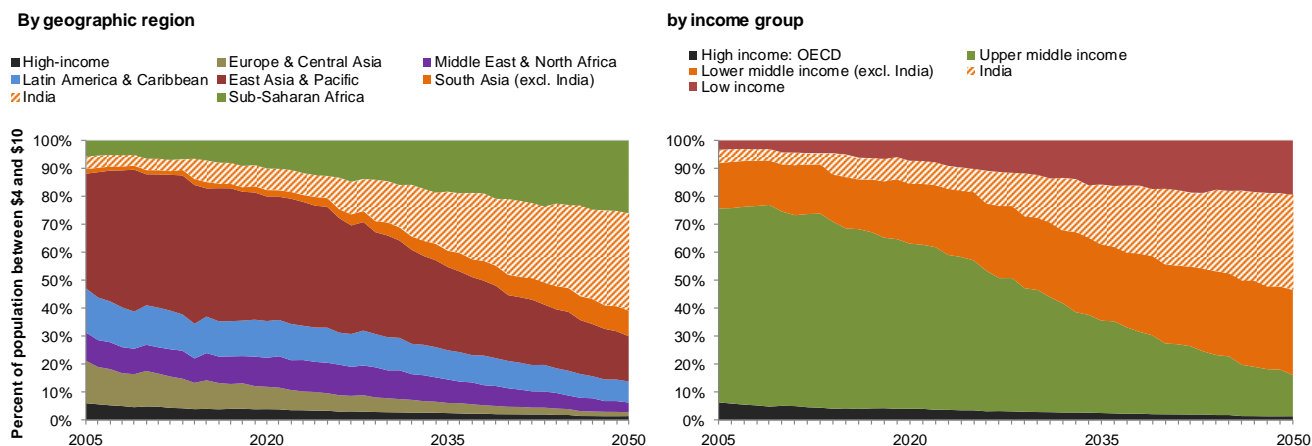
Source: Ferreira et al. (2012), based on Encuestas de Cohesión Social in América Latina, Corporación de Estudios para Latinoamérica (CIEPLAN).

Figure 3: Median Household Income per Capita per Day, By Country and Income Group (2008/2009)



Source: Authors' calculations, based on Socio-Economic Database for Latin America and the Caribbean (CEDLAS and The World Bank).

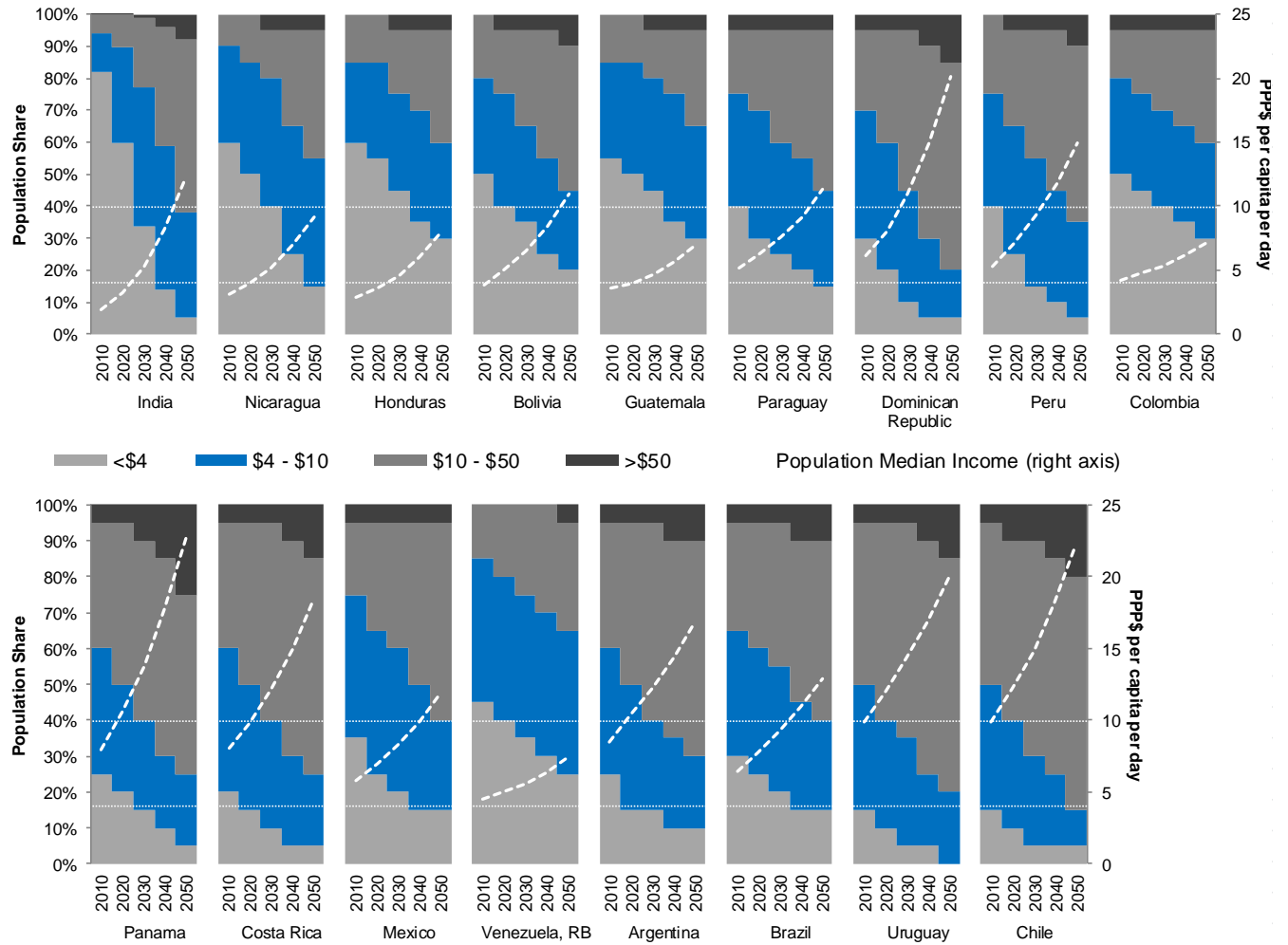
Figure 4: Relative Size of the \$4 to \$10 Group, by Geographic Region and Income Groups (Baseline Scenario)



Note: Regions and income groups follow the current World Bank classification (December 2012). Geographic regions exclude high-income countries.

Source: Authors' calculations, based on Foure, Bénassy-Quéré, and Fontagne (2012), Milanovic (2010), UN Population Division (2011), World Bank World Development Indicators (2013), India NSSO Socio-Economic Survey 66/1.0 (2009-2010).

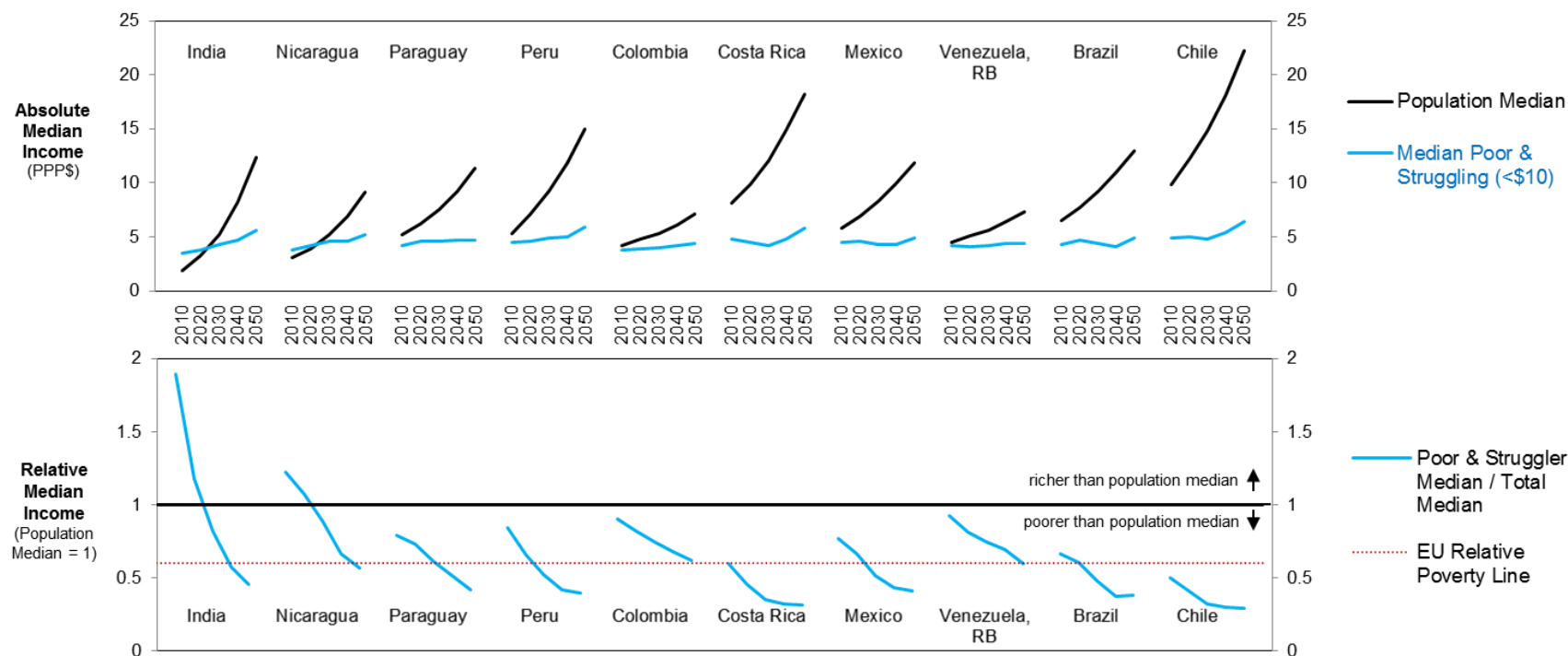
Figure 5: Distribution of Various Income Groups In Terms of Population Shares, Selected Latin American Countries, Projections 2010 to 2050 (Baseline Scenario)



Note: Countries listed by 2011 GDP per capita (current USD). Dashed line mark \$4 to \$10 per capita per day boundaries (right vertical axis). See text for description of forecasting methodology. Constant 2005 income distribution re-scaled by ventile using GDP growth projections.

Source: Authors' calculations, based on Foure, Bénassy-Quéré, and Fontagne (2012), Milanovic (2010), UN Population Division (2011), World Bank World Development Indicators (2013), India NSSO Socio-Economic Survey 66/1.0 (2009-2010).

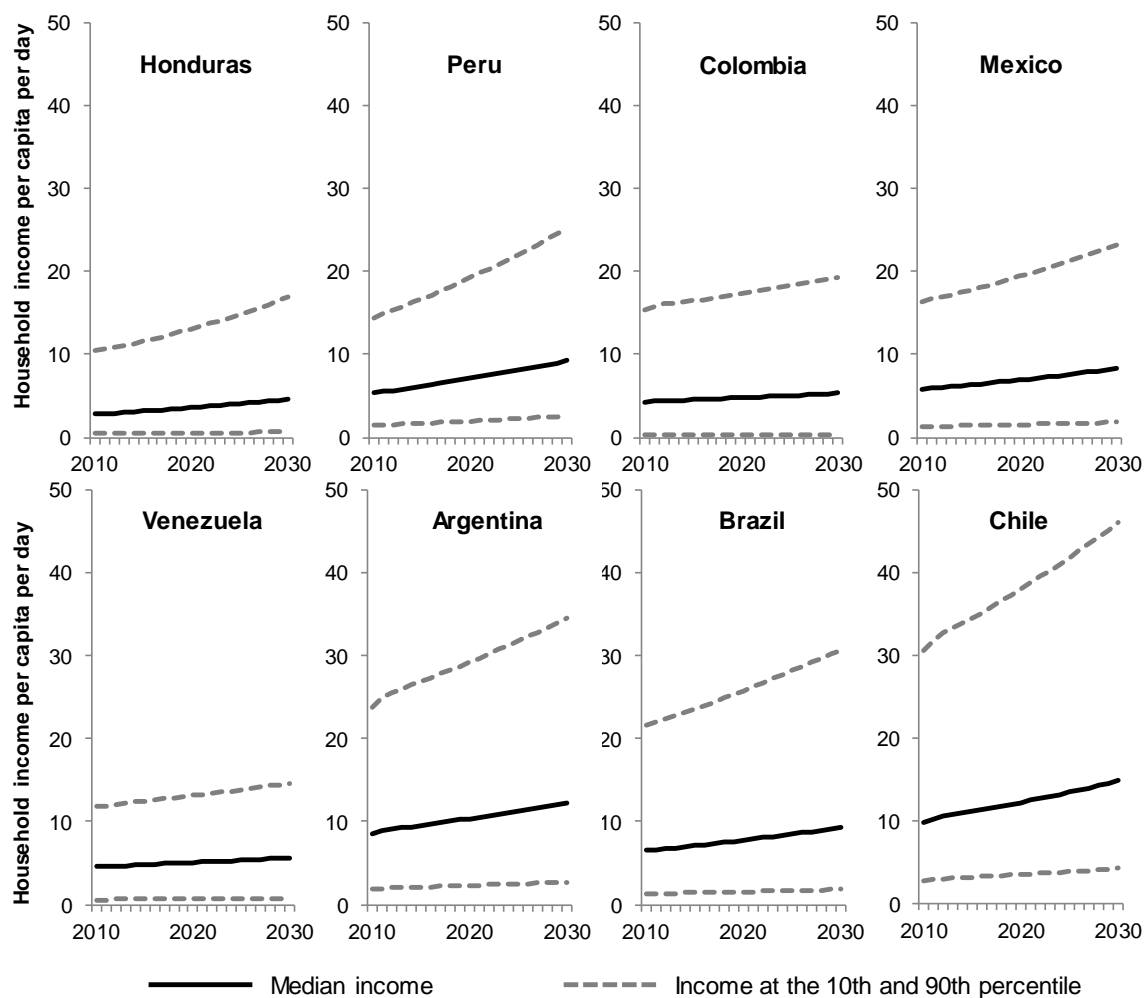
Figure 6: Median Income of the Population and Median Income of Combined Poor and Struggler Group (<\$10 per capita per day), India and Selected Latin American Economies (2010 to 2050)



Note: Countries listed by 2011 GDP per capita (current USD). EU Poverty Line refers to the European Union’s annual national at-risk-of poverty threshold, which is set at 60% of the national median income per equivalent adult.

Source: Authors’ calculations, based on Foure, Bénassy-Quéré, and Fontagne (2012), Milanovic (2010), UN Population Division (2011), India NSSO Socio-Economic Survey 66/1.0 (2009-2010).

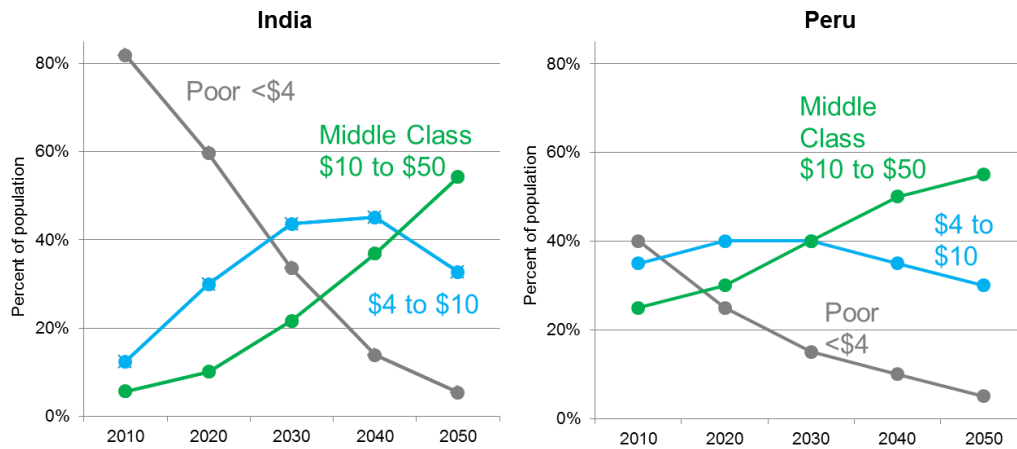
Figure 6b: Household Income per Capita per Day, at the 10th Percentile, 50th Percentile, and the 90th Percentile of the Income Distribution, Selected Latin American Economies (2010 to 2030)



Note: Countries listed by 2011 GDP per capita (current USD).

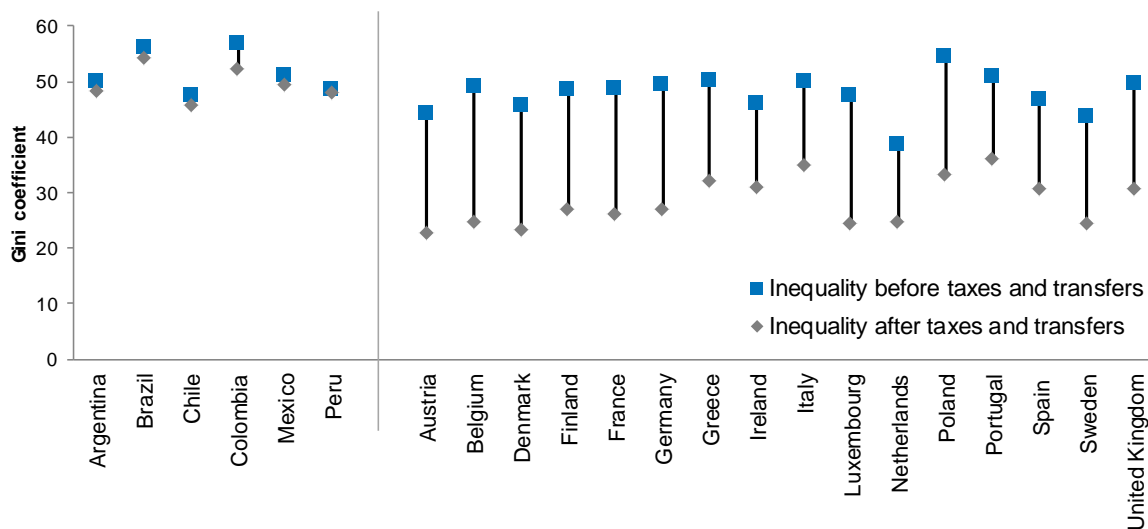
Source: Authors' calculations, based on Fouré, Bénassy-Quéré, and Fontagne (2012), Milanovic (2010), UN Population Division (2011), India NSSO Socio-Economic Survey 66/1.0 (2009-2010).

Figure 7: Population Size of Income-Based Groups Over Time, India and Peru (Baseline Scenario)



Source: Authors' calculations, based on Foure, Bénassy-Quéré, and Fontagne (2012), Milanovic (2010), UN Population Division (2011), India NSSO Socio-Economic Survey 66/1.0 (2009-2010).

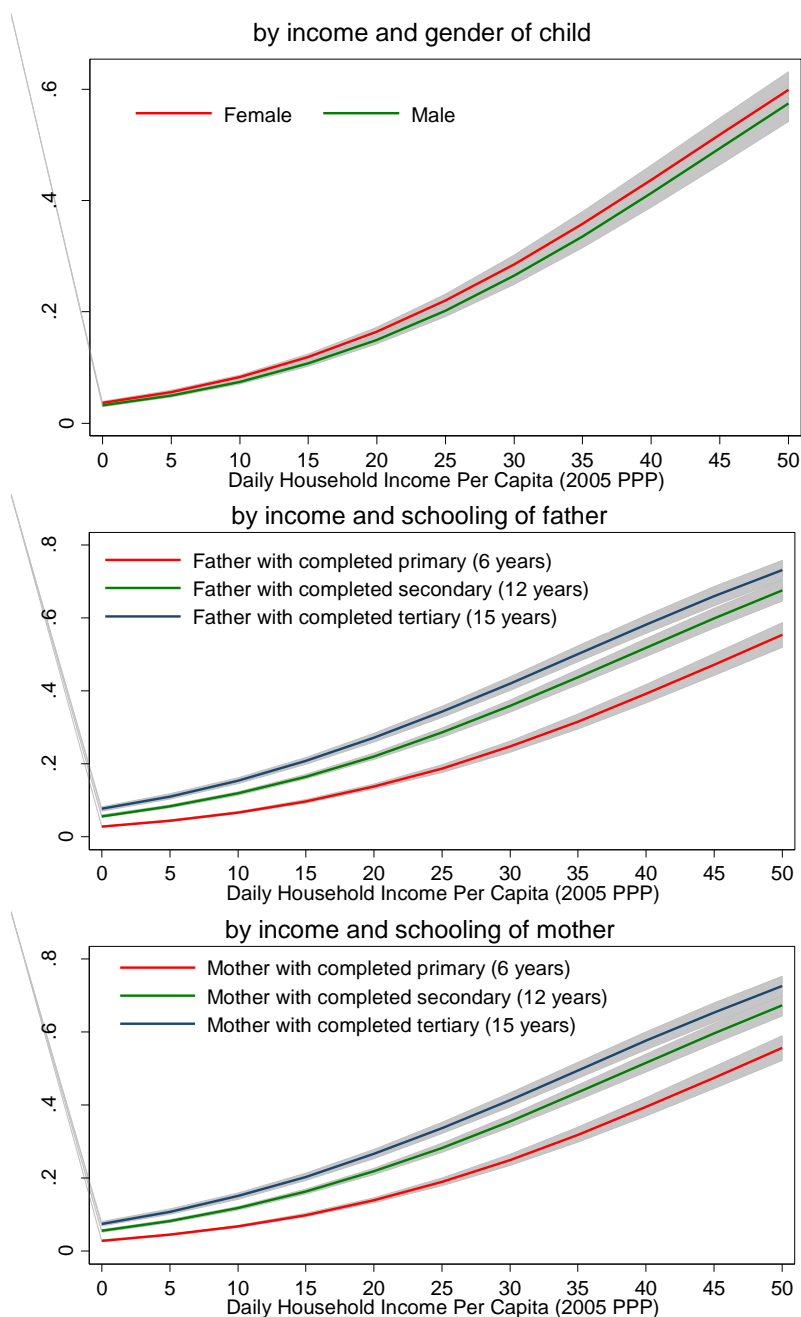
Figure 8: Income Inequality and Fiscal Redistribution, Latin America and OECD (2008)



Note: Gini coefficients of market and disposable income.

Source: Adapted from OECD (2008).

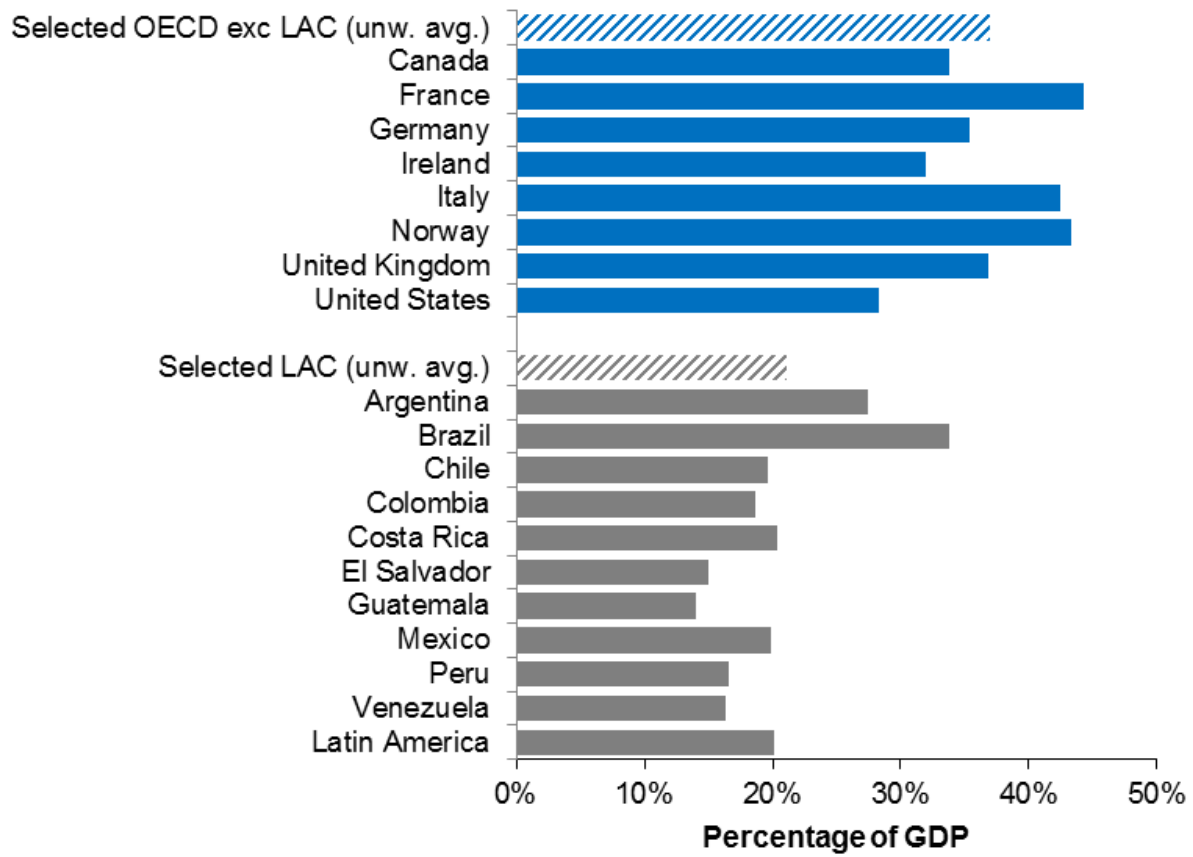
Figure 9: Predicted Probability of Child in Private Secondary Education, Pooled Across Countries



Note: Adjusted predictions for probit regression, holding all factor and continuous variables at their global means. Includes country dummies. Grey areas denote 95% confidence intervals.

Source: Authors' calculations, based on Socio-Economic Database for Latin America and the Caribbean (CEDLAS and The World Bank).

Figure 10: Total Tax Revenue, Selected Latin American and OECD Countries (2006)



Source: Adapted from OECD (2008).

Appendix

Table A1: Transition Matrices of Households between Income Groups Based on Panel Data, By Income Group

CHILE		2006			
2001	< \$4	\$4 - 10	\$10 - 50	> \$50	Total
< \$4	34.3	52.8	12.5	0.4	100.0
\$4 - 10	10.0	57.3	32.3	0.4	100.0
\$10 - 50	2.8	27.7	67.5	2.0	100.0
> \$50	1.3	2.5	66.3	30.0	100.0
Total	11.3	43.7	43.3	1.8	100.0

MEXICO		2005			
2002	< \$4	\$4 - 10	\$10 - 50	> \$50	Total
< \$4	52.6	36.8	10.0	0.6	100.0
\$4 - 10	23.3	49.8	25.6	1.3	100.0
\$10 - 50	11.9	29.6	54.1	4.4	100.0
> \$50	7.1	15.0	41.7	36.2	100.0
Total	29.0	39.0	29.3	2.7	100.0

PERU		2006			
2002	< \$4	\$4 - 10	\$10 - 50	> \$50	Total
< \$4	62.1	32.9	4.9	0.1	100.0
\$4 - 10	18.7	55.4	25.4	0.6	100.0
\$10 - 50	6.3	33.1	58.4	2.2	100.0
> \$50	0.0	13.3	50.0	36.7	100.0
Total	34.0	41.8	23.3	1.0	100.0

Source: Lopez-Calva, *personal communication*, based on Chile MIDEPLAN Socioeconomic Characterization Survey (CASEN Panel), Mexico Family Life Survey (MxFLS), and Peru Institute of Statistics (INEI), National Household Survey (ENAHO Panel).

Table A2: Vulnerability of Chilean Household, Estimated Probabilities of Falling into Poverty (<\$4) or Vulnerability (\$4 to \$10)

Chile	Middle (\$10-50) to Poverty (\$4)		Middle (\$10-50) to Vulnerability (\$4-10)		Vulnerability (\$4-10) to Poverty (\$4)	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
Education of the head	-0.002	0.002	-0.015	0.012	0.000	0.009
Age of the head	0.003*	0.002	-0.012	0.008	0.007	0.006
Age squared of head	0.000**	0.000	0.000	0.000	0.000	0.000
Sex of the head (1 = male)	-0.025*	0.021	0.054	0.053	-0.063	0.062
Head without social insurance	0.030***	0.014	0.025	0.041	-0.019	0.025
Unfinished floor	-0.001	0.009	0.032	0.086	0.069	0.054
Household without sanitation	0.011	0.026	-0.025	0.110	-0.016	0.042
Head cohabiting (omitted)	--	--	--	--	--	--
Head married	0.009	0.008	-0.001	0.054	-0.018	0.035
Head without partner	0.000	0.011	-0.115*	0.055	0.008	0.050
Head in agriculture (omitted)	--	--	--	--	--	--
Head as unskilled manual worker	0.000	0.008	0.030	0.066	-0.009	0.031
Head as skilled manual worker	0.011	0.017	-0.045	0.063	-0.014	0.034
Head as independent worker	-0.003	0.008	0.040	0.065	0.007	0.037
Head in clerical activities	--	--	0.097	0.084	-0.013	0.043
Head as professional manager	-0.007	0.008	-0.137*	0.058	--	--
Region VII (omitted)	--	--	--	--	--	--
Region III	0.006	0.012	-0.008	0.072	-0.043	0.036
Region VIII	-0.004	0.006	0.000	0.050	0.024	0.030
Metropolitan region	0.003	0.006	-0.010	0.047	-0.023	0.029
Rurality	0.017	0.016	0.067	0.063	0.042	0.032
Occurrence of health shocks 2001-2006	-0.011*	0.005	-0.001	0.037	0.043	0.029
Change in number of members working 2001-2006	-0.011***	0.005	-0.079***	0.020	-0.065***	0.012
Change in household size 2001-2006	-0.001	0.006	0.032	0.028	0.042***	0.014
Observations	604		698		821	
Pseudo R ²	0.242		0.081		0.083	

Source: Lopez-Calva, personal communication, based on Chile MIDEPLAN Socioeconomic Characterization Survey (CASEN Panel).

Table A3: Vulnerability of Mexican Households, Estimated Probabilities of Falling into Poverty (<\$4) or Vulnerability (\$4 to \$10)

Mexico	Middle (\$10-50) to Poverty (\$4)		Middle (\$10-50) to Vulnerability (\$4-10)		Vulnerability (\$4-10) to Poverty (\$4)	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
Education of the head	-0.014*	0.009	-0.072***	0.015	-0.023*	0.013
Age of the head	0.002	0.003	-0.008	0.006	-0.003	0.005
Age squared of head	0.000	0.000	0.000	0.000	0.000	0.000
Sex of the head (1 = male)	-0.006	0.032	-0.033	0.053	0.035	0.043
Head without social insurance	0.049**	0.021	0.028	0.032	0.062***	0.022
Unfinished floor	0.140***	0.059	-0.079	0.056	0.077**	0.037
Household without sanitation	0.084*	0.061	-0.125*	0.060	0.057	0.045
Head cohabiting (omitted)	--	--	--	--	--	--
Head married	-0.022	0.025	0.040	0.040	-0.026	0.030
Head without partner	-0.050*	0.022	-0.013	0.054	-0.030	0.046
Head in agriculture (omitted)	--	--	--	--	--	--
Head as unskilled manual worker	-0.012	0.028	0.034	0.061	0.042	0.039
Head as skilled manual worker	-0.035	0.022	0.023	0.049	-0.065**	0.029
Head as independent worker	-0.060	0.023	-0.008	0.075	-0.047	0.045
Head in clerical activities	-0.025	0.030	-0.098	0.054	-0.032	0.047
Head as professional manager	-0.040	0.025	-0.034	0.056	-0.063	0.046
Head in commerce and services	-0.028	0.024	0.088	0.062	0.002	0.037
Head in army, police, and other	-0.052	0.023	-0.030	0.069	-0.106**	0.037
South region (omitted)	--	--	--	--	--	--
Central region	-0.020	0.022	-0.001	0.042	-0.045	0.028
Western region	-0.012	0.023	-0.074*	0.039	-0.032	0.031
Northwest region	-0.018	0.022	0.005	0.040	-0.070**	0.028
Northeast region	-0.022	0.022	0.001	0.040	-0.033	0.030
Rurality	0.051***	0.019	-0.002	0.029	0.069***	0.022
Ocurrence of shocks 2002-2005	0.040**	0.020	0.016	0.030	0.029	0.023
Change in number of members working 2002-2005	-0.042***	0.007	-0.047***	0.012	-0.112***	0.011
Change in household size 2002-2005	0.026***	0.007	0.039***	0.014	0.057***	0.011
Observations	1,365		1,365		1,682	
Pseudo R ²	0.157		0.072		0.152	

Source: Lopez-Calva, *personal communication*, based on Mexico Family Life Survey (MxFLS).

Table A4: Vulnerability of Peruvian Households, Estimated Probabilities of Falling into Poverty (<\$4) or Vulnerability (\$4 to \$10)

Peru	Middle (\$10-50) to Poverty (\$4)		Middle (\$10-50) to Vulnerability (\$4-10)		Vulnerability (\$4-10) to Poverty (\$4)	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
Education of the head	-0.017***	0.006	-0.053**	0.023	-0.026**	0.013
Age of the head	-0.004**	0.002	0.001	0.009	-0.007	0.004
Age squared of head	0.000*	0.000	0.000	0.000	0.000	0.000
Sex of the head (1 = male)	0.018	0.011	0.041	0.070	0.035	0.035
Head without social insurance	-0.012	0.009	0.055	0.050	0.036	0.024
Unfinished floor	0.019	0.018	0.077	0.062	0.115***	0.026
Household without sanitation	-0.003	0.017	-0.056	0.081	0.062**	0.032
Head cohabiting (omitted)	--	--	--	--	--	--
Head married	-0.036**	0.017	-0.016	0.062	-0.029	0.026
Head without partner	-0.009	0.014	-0.094	0.069	-0.044	0.033
Head in agriculture (omitted)	--	--	--	--	--	--
Head in mining, electricity, gas and water	0.032	0.049	0.021	0.118	-0.054	0.054
Head in manufacturing	0.015	0.028	0.032	0.093	-0.006	0.043
Head in construction	0.046	0.066	0.192	0.130	-0.057	0.039
Head in commerce	0.024	0.023	0.037	0.075	-0.032	0.031
Head in transport and communications	0.048	0.054	0.193*	0.111	-0.033	0.037
Head in government and clerical activities	0.009	0.027	-0.024	0.086	-0.082**	0.031
Head in other services	-0.019	0.014	-0.026	0.092	-0.048	0.036
Selva region (omitted)	--	--	--	--	--	--
North Coast	-0.006	0.015	0.082	0.073	-0.073***	0.025
Central Coast	0.022	0.039	0.106	0.108	-0.116***	0.021
Southern Coast	0.041	0.044	0.058	0.106	-0.050	0.036
Northern Sierra	0.014	0.036	-0.008	0.119	-0.047	0.047
Central Sierra	0.019	0.031	0.101	0.088	-0.033	0.030
Southern Sierra	0.014	0.029	0.154*	0.092	-0.022	0.034
Metropolitan area of Lima	0.015	0.022	-0.096	0.066	-0.126***	0.024
Rurality	0.014	0.017	0.062	0.062	0.030	0.026
Ocurrence of health shocks 2002-2006	-0.017	0.010	-0.004	0.060	-0.038	0.028
Change in number of members working 2002-2006	-0.019***	0.007	-0.078***	0.023	-0.075***	0.010
Change in household size 2002-2006	0.019***	0.005	0.062***	0.016	0.046***	0.007
Observations		560		560		1,265
Pseudo R ²		0.267		0.105		0.183

Source: Lopez-Calva, *personal communication*, based on Peru Institute of Statistics (INEI), National Household Survey (ENAHO Panel).

Table A5: Projected Size of \$4 to \$10 group, Various Countries (High-Growth Scenario)

Region/Country	2010		2020		2030		2040		2050	
	\$4 to \$10		\$4 to \$10		\$4 to \$10		\$4 to \$10		\$4 to \$10	
	Total (m)	Share (%)	Total (m)	Share (%)	Total (m)	Share (%)	Total (m)	Share (%)	Total (m)	Share (%)
Latin America & Caribbean	193	0.36	198	0.33	204	0.31	184	0.26	150	0.21
Argentina	14	0.35	11	0.25	12	0.25	10	0.20	8	0.15
Bolivia	3	0.30	4	0.35	4	0.30	4	0.25	3	0.15
Brazil	69	0.35	64	0.30	68	0.30	59	0.25	48	0.20
Chile	6	0.35	5	0.25	4	0.20	2	0.10	1	0.05
Colombia	14	0.30	16	0.30	17	0.30	19	0.30	19	0.30
Costa Rica	2	0.40	2	0.35	1	0.25	1	0.15	1	0.10
Dominican Republic	4	0.35	4	0.35	3	0.25	1	0.10	1	0.10
Guatemala	4	0.30	6	0.30	8	0.35	10	0.35	11	0.35
Honduras	2	0.25	3	0.30	3	0.30	4	0.30	3	0.25
Mexico	46	0.40	51	0.40	49	0.35	44	0.30	30	0.20
Nicaragua	2	0.30	3	0.40	3	0.40	3	0.35	2	0.25
Panama	1	0.30	1	0.25	1	0.15	1	0.15	0	0.05
Paraguay	3	0.40	3	0.35	3	0.35	2	0.25	2	0.20
Peru	12	0.40	12	0.35	11	0.30	8	0.20	4	0.10
Uruguay	1	0.35	1	0.30	1	0.20	1	0.15	0	0.10
Venezuela, RB	10	0.35	14	0.40	15	0.40	16	0.40	15	0.35
Europe & Central Asia										
Russian Federation	59	0.40	29	0.20	14	0.10	7	0.05	0	0.00
East Asia & Pacific										
Indonesia	36	0.15	80	0.30	114	0.40	149	0.50	169	0.55
Thailand	35	0.50	37	0.50	34	0.45	27	0.35	15	0.20
Latin America & Caribbean										
Egypt, Arab Rep.	41	0.50	62	0.65	49	0.45	12	0.10	0	0.00
South Asia										
India	62	0.05	210	0.15	617	0.40	1,077	0.65	955	0.55
Sub-Saharan Africa										
Nigeria	8	0.05	20	0.10	52	0.20	113	0.35	176	0.45
South Africa	13	0.25	16	0.30	17	0.30	20	0.35	20	0.35

Note: See text for description of methodology. Constant 2005 income distribution re-scaled by ventile using GDP growth projections with 100% pass-through.

Source: Authors' calculations, based on Fouré, Bénassy-Quéré, and Fontagne (2012), Milanovic (2010), and UN Population Division (2011).

Table A6: Projected Growth Rates 2010 to 2050, Percentage Change By Region and Selected Latin American Economies

Year-on-Year percent change of real GDP

	2012	2013	2012-2020	2020-2030	2030-2050
Latin America and the Caribbean	4.0	3.4	3.5	3.3	2.9
Brazil	3.6	3.2	3.3	3.0	2.5
Chile	4.7	3.5	3.7	3.3	3.1
Colombia	4.5	2.6	2.7	2.5	2.5
Mexico	3.6	3.6	3.5	3.3	2.9
Peru	5.6	5.1	5.2	4.9	4.0
East Asia and Pacific	8.4	7.3	7.0	5.6	4.1
Europe and Central Asia	3.5	5.0	4.6	4.3	3.8
Middle East and North Africa	3.2	5.2	4.5	4.2	3.8
South Asia	7.1	6.4	6.3	5.8	4.9
Sub-Saharan Africa	5.7	5.0	5.2	5.2	5.2

Note: Regional aggregation excludes high-income countries.

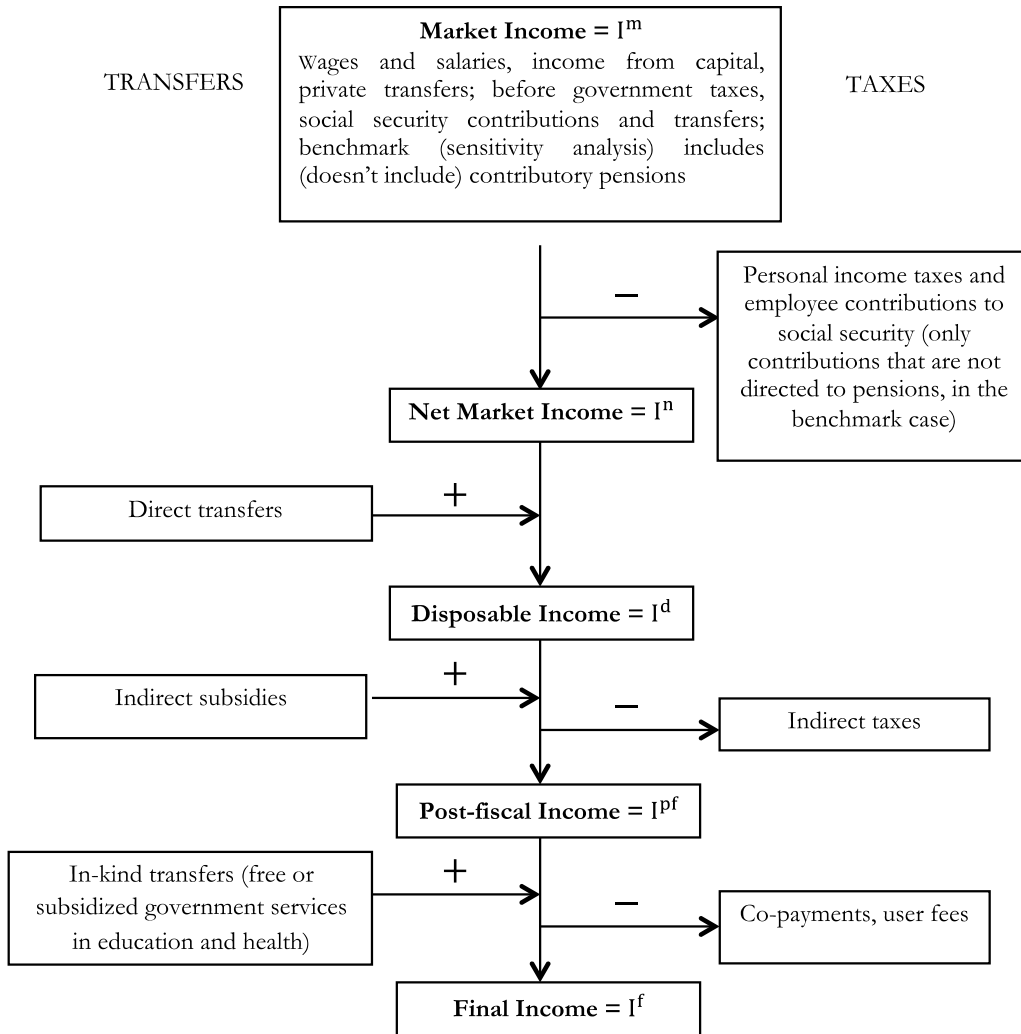
Source: Authors' calculations, based on Foure, Bénassy-Quéré, and Fontagne (2012).

Table A8: Ratio of the Median Income of the Combined Poor and Struggler Group (<\$10 per capita per day) to the National Median Income, India and Selected Latin American Economies (2010 to 2050)

	2010	2020	2030	2040	2050
Brazil	0.67	0.60	0.48	0.38	0.38
Chile	0.50	0.41	0.32	0.30	0.29
Colombia	0.90	0.82	0.75	0.68	0.62
Costa Rica	0.59	0.46	0.35	0.32	0.32
Mexico	0.77	0.66	0.52	0.43	0.41
Nicaragua	1.22	1.07	0.88	0.66	0.57
Paraguay	0.79	0.73	0.61	0.51	0.42
Peru	0.84	0.66	0.53	0.42	0.40
Venezuela, RB	0.93	0.81	0.75	0.69	0.60
India	1.89	1.18	0.82	0.57	0.45

Source: Authors' calculations, based on Foure, Bénassy-Quéré, and Fontagne (2012), Milanovic (2010), and UN Population Division (2011).

Figure A1: Definition of Income Concepts: Stylized Presentation



Source: Authors' illustration.

Bibliography

- Abu-Ismaïl, Khalid, Gihan Abou Taleb, and Racha Ramadan. 2011. "Towards More Sensible Poverty Measurement". Second Arab Development Challenges Report Background Paper 2011. Cairo: United Nations Development Programme.
- Achy, Lahcen. 2011. "Tunisia's Economic Challenges". The Carnegie Papers December 2011. Washington DC: Carnegie Endowment for International Peace.
- Ahluwalia, Montek S., Nicholas G. Carter, and Hollis B. Chenery. 1979. "Growth and Poverty in Developing Countries." *Journal of Development Economics* 6 (3): 299–341.
- Alkire, Sabina, and James Foster. 2011. "Understandings and Misunderstandings of Multidimensional Poverty Measurement." *Journal of Economic Inequality* 9 (2): 289–314.
- Anand, Sudhir, and S. M. Ravi Kanbur. 1991. "International Poverty Projections". Policy Research Working Paper Series 617. Washington DC: The World Bank.
- Banerjee, Abhijit V, and Esther Duflo. 2007. "The Economic Lives of the Poor." *Journal of Economic Perspectives* 21 (1): 141–167. doi:10.1257/jep.21.1.141.
- Banerjee, Abhijit V., and Esther Duflo. 2008. "What Is Middle Class About the Middle Classes Around the World?" *Journal of Economic Perspectives* 22 (2): 3–28.
- Behrman, Jere R., Alejandro Gaviria, and Miguel Székely. 2001. "Intergenerational Mobility in Latin America". Research Department Publications 4267. Washington DC: Inter-American Development Bank, Research Department.
- Besley, Timothy, and Anne Case. 2003. "Political Institutions and Policy Choices: Evidence from the United States." *Journal of Economic Literature* 41 (1): 7–73.
- Birdsall, Nancy. 2010. "The (Indispensable) Middle Class: Or, Why It's the Rich and the Rest, Not the Poor and the Rest". Working Paper 207. Washington DC: Center for Global Development.
- . 2012. "A Note on the Middle Class in Latin America". Working Paper 303. Washington DC: Center for Global Development.
- Birdsall, Nancy, and Carol Graham, ed. 2000a. *New Markets, New Opportunities? Economic and Social Mobility in a Changing World*. Washington DC: Brookings Institution Press.
- . 2000b. "Mobility and Markets: Conceptual Issues and Policy Questions." In *New Markets, New Opportunities? Economic and Social Mobility in a Changing World*, edited by Nancy Birdsall and Carol Graham, 3–21. Washington DC: Brookings Institution Press.
- Birdsall, Nancy, and Estelle James. 1993. "Efficiency and Equity in Social Spending: How and Why Governments Misbehave." In *Including the Poor: Proceedings of a Symposium Organized by the World Bank and the International Food Policy Research Institute*, edited by Michael Lipton and Jacques van der Gaag, 335–358. World Bank Regional and Sectoral Studies. Washington DC: The World Bank.
- Birdsall, Nancy, Nora Lustig, and Darryl McLeod. 2011. "Declining Inequality in Latin America: Some Economics, Some Politics". Working Paper 251. Washington DC: Center for Global Development.
- Birdsall, Nancy, Augusto De La Torre, and Rachel Menezes. 2007. *Fair Growth: Economic Policies for Latin America's Poor and Middle-Income Majority*. Washington DC: Center for Global Development.
- CEDLAS and The World Bank. 2013. "Socio-Economic Database for Latin America and the Caribbean." <http://sedlac.econo.unlp.edu.ar/eng/index.php>.
- Congressional Budget Office. 2012. *The Distribution of Household Income and Average Federal Tax Rates, 2008 and 2009*. Washington DC: Congressional Budget Office.

- Dadush, Uri, and William Shaw. 2011. *Juggernaut: How Emerging Powers Are Reshaping Globalization*. Washington DC: Carnegie Endowment for International Peace.
- De Soto, Hernando. 2012. "The Real Mohamed Bouazizi." *Foreign Policy Online*. December 6. http://www.foreignpolicy.com/articles/2011/12/16/the_real_mohamed_bouazizi?page=full.
- Deaton, Angus. 2005. "Measuring Poverty in a Growing World (or Measuring Growth in a Poor World)." *The Review of Economics and Statistics* 87 (1): 1–19.
- Dercon, Stefan, and Joseph S. Shapiro. 2007. "Moving On, Staying Behind, Getting Lost: Lessons on Poverty Mobility from Longitudinal Data". Global Poverty Research Group Working Paper GPRG-WPS-075. Oxford: CSAE, Economics Department, Oxford University.
- Ferreira, Francisco H. G., Julian Messina, Jamele Rigolini, Luis-Felipe López-Calva, Maria Ana Lugo, and Renos Vakis. 2012. *Economic Mobility and the Rise of the Latin American Middle Class*. Washington DC: The World Bank.
- Fouré, Jean, Agnès Bénassy-Quéré, and Lionel Fontagne. 2012. "The Great Shift: Macroeconomic Projections for the World Economy at the 2050 Horizon". CEPII Working Paper 2012-3. Paris: Centre d'Etudes Prospectives et d'Informations Internationales.
- Gasparini, Leonardo, and Leopoldo Tornarolli. 2007. "Labor Informality in Latin America and the Caribbean: Patterns and Trends from Household Survey Microdata". CEDLAS, Working Paper 0046. La Plata: CEDLAS, Universidad Nacional de La Plata.
- Goñi, Edwin, J. Humberto López, and Luis Servén. 2011. "Fiscal Redistribution and Income Inequality in Latin America." *World Development* 39 (9): 1558–1569.
- Government of India. 2011. "Key Indicators of Household Consumer Expenditure in India, 2009-2010, NSS 66th Round". National Statistical Organization / National Sample Survey Office, Ministry of Statistics and Programme Implementation. New Delhi: The Government of India.
- Gregory, Peter. 1986. *The Myth of Market Failure: Employment and the Labor Market in Mexico*. Baltimore: Johns Hopkins University Press.
- Grossman, Gene M., and Elhanan Helpman. 2001. *Special Interest Politics*. Cambridge, Mass.: MIT Press.
- Isaacs, Julia B., Isabel V. Sawhill, and Ron Haskins. 2008. *Getting Ahead or Losing Ground: Economic Mobility in America*. Washington DC: Brookings Institution Press.
- Jäntti, Markus, Bernt Bratsberg, Knut Røed, Oddbjørn Raaum, Robin Naylor, Eva Österbacka, Anders Björklund, and Tor Eriksson. 2006. "American Exceptionalism in a New Light: A Comparison of Intergenerational Earnings Mobility in the Nordic Countries, the United Kingdom and the United States". IZA Discussion Paper 1938. Bonn: Institute for the Study of Labor (IZA).
- Kamrava, Mehran. 2002. "The Politics of Weak Control: State Capacity and Economic Semi-Formality in the Middle East." *Comparative Studies of South Asia, Africa and the Middle East* 22 (1): 43–52.
- Kanbur, Ravi, Nora Lustig, and Darryl McLeod. 2000. "Why Is Inequality Back on the Agenda?" In Washington DC: The World Bank.
- Kharas, Homi. 2010. "The Emerging Middle Class in Developing Countries". OECD Development Centre Working Paper 285. Paris: OECD.
- Knaul, Felicia Marie, Eduardo González-Pier, Octavio Gómez-Dantés, David García-Junco, Héctor Arreola-Ornelas, Mariana Barraza-Lloréns, Rosa Sandoval, et al. 2012. "The Quest for Universal Health Coverage: Achieving Social Protection For All in Mexico." *The Lancet* 380 (9849): 1259–1279.

- Leo, Ben, and Khai Hoan Tram. 2012. "What Does the World Want from the Next Global Development Goals? Ensuring That the World's Poor Define the Post-2015 Framework". ONE Campaign Global Policy Report. Washington DC: ONE.
- Levy, Santiago. 2008. *Good Intentions, Bad Outcomes: Social Policy, Informality, and Economic Growth in Mexico*. Washington DC: Brookings Institution Press.
- Levy, Santiago, and Norbert Schady. 2013. "Latin America's Social Policy Challenge: Education, Social Insurance, Redistribution." *Journal of Economic Perspectives* 27 (2): 193–218.
- Lopez-Calva, Luis F., and Eduardo Ortiz-Juarez. 2011. "A Vulnerability Approach to the Definition of the Middle Class". Policy Research Working Paper Series 5902. The World Bank.
- Lopez-Calva, Luis F., Jamele Rigolini, and Florencia Torche. 2012. "Is There Such a Thing As Middle Class Values?" Working Paper 286. Washington DC: Center.
- Lustig, Nora. 1995. *Coping With Austerity: Poverty and Inequality in Latin America*. Washington DC: Brookings Institution Press.
- . 2000. "Crises and the Poor: Socially Responsible Macroeconomics." *Economía: Journal of the Latin American and Caribbean Economic Association* 1 (1): 1–30.
- Lustig, Nora, Luis F. Lopez-Calva, and Eduardo Ortiz-Juarez. 2011. "The Decline in Inequality in Latin America: How Much, Since When and Why". Working Paper 1118. Tulane University, Department of Economics.
- . 2012. "Declining Inequality in Latin America in the 2000s: The Cases of Argentina, Brazil, and Mexico". Working Paper 307. Washington DC: Center for Global Development.
- Lustig, Nora, George Gray Molina, Sean Higgins, Miguel Jaramillo, Wilson Jimenez, Veronica Paz, Claudiney Pereira, Carola Pessino, John Scott, and Ernesto Yanez. 2012. "The Impact of Taxes and Social Spending on Inequality and Poverty in Argentina, Bolivia, Brazil, Mexico and Peru: A Synthesis of Results". Working Paper 1216. Tulane University, Department of Economics.
- Lustig, Nora, and Carola Pessino. 2012. "Social Spending and Income Redistribution in Argentina During the 2000s: The Rising Role of Noncontributory Pensions". Working Paper 1221. Tulane University, Department of Economics.
- MacLeod, W. Bentley, and Miguel Urquiola. 2012. "Anti-Lemons: School Reputation, Relative Diversity, and Educational Quality". IZA Discussion Paper 6805. Bonn: Institute for the Study of Labor (IZA).
- Maloney, William F. 1999. "Does Informality Imply Segmentation in Urban Labor Markets? Evidence from Sectoral Transitions in Mexico." *World Bank Economic Review* 13 (2): 275–302.
- . 2004. "Informality Revisited." *World Development* 32 (7): 1159–1178.
- McEwan, Patrick J., Miguel Urquiola, and Emiliana Vegas. 2008. "School Choice, Stratification, and Information on School Performance: Lessons from Chile." *Economía: Journal of the Latin American and Caribbean Economic Association* 8 (2): 1.
- Meyer, Christian, and Nancy Birdsall. 2012. "New Estimates of India's Middle Class". CGD Note. Washington DC: Center for Global Development.
- Milanovic, Branko. 2010. *The Haves and the Have-Nots: A Brief and Idiosyncratic History of Global Inequality*. New York: Basic Books.
- Milanovic, Branko, and Shlomo Yitzhaki. 2002. "Decomposing World Income Distribution: Does the World Have a Middle Class?" *Review of Income and Wealth* 48 (2): 155–78.
- Noueihed, Lin. 2012. "Peddler's Martyrdom Launched Tunisia's Revolution." *Reuters News Feature*. November 23. <http://af.reuters.com/article/libyaNews/idAFLDE70G18J20110119>.

- Organisation for Economic Co-operation and Development (OECD). 2008. *Latin American Economic Outlook 2009*. Paris: OECD Development Centre.
- . 2010. *Latin American Economic Outlook 2011: How Middle-Class Is Latin America?* Paris: OECD Development Centre.
- Perry, Guillermo, William F. Maloney, Omar S. Arias, Pablo Fajnzylber, Andrew D. Mason, and Jaime Saavedra-Chanduvi. 2007. *Informality: Exit and Exclusion*. Washington DC: The World Bank.
- Persson, Torsten, and Guido Enrico Tabellini. 2000. *Political Economics: Explaining Economic Policy*. Cambridge, Mass.: MIT Press.
- Piketty, Thomas. 1995. “Social Mobility and Redistributive Politics.” *The Quarterly Journal of Economics* 110 (3): 551–84.
- Pritchett, Lant, and Marla Spivack. 2013. “Estimating Income/Expenditure Differences Across Populations: New Fun with Old Engel’s Law”. Working Paper (forthcoming). Washington DC: Center for Global Development.
- Pritchett, Lant, Asep Suryahadi, and Sudarno Sumarto. 2000. “Quantifying Vulnerability to Poverty: A Proposed Measure, Applied to Indonesia”. Policy Research Working Paper 2437. Washington DC: The World Bank.
- Programa de Promoción de la Reforma Educativa en América Latina y el Caribe (PREAL). 2005. *Cantidad Sin Calidad. Informe de Progreso Educativo En América Latina 2006*. Washington DC: Inter-American Dialogue.
- Ravallion, Martin. 2012. “Benchmarking Global Poverty Reduction”. Policy Research Working Paper 6205. Washington DC: The World Bank.
- Ravallion, Martin, Shaohua Chen, and Prem Sangraula. 2009. “Dollar a Day Revisited.” *World Bank Economic Review* 23 (2): 163–184.
- Scott, John. “The Political Economy of Inequality in Mexico (preliminary title)”. Unpublished manuscript.
- Somers, Marie-Andree, Patrick J. McEwan, and J. Douglas Willms. 2004. “How Effective Are Private Schools in Latin America?” *Comparative Education Review* 48 (1) (February): 48–69.
- Sumner, Andy. 2012. “Where Do The Poor Live?” *World Development* 40 (5): 865–877.
- Tokman, Victor E. 2011. “Employment: The Dominance of the Informal Economy.” In *The Oxford Handbook of Latin American Economics*, edited by José Antonio Ocampo and Jaime Ros, 767–789. New York: Oxford University Press.
- United Nations Development Programme. 2010. *Human Development Report 2010. The Real Wealth of Nations: Pathways to Human Development*. 20th Anniversary Edition. Human Development Report. New York: Palgrave Macmillan.
- United Nations, Department of Economic and Social Affairs, Population Division. 2011. *World Population Prospects: The 2010 Revision, Volume I: Comprehensive Tables*. ST/ESA/SER.A/313. New York: The United Nations.
- United States Census Bureau. “Current Population Survey 2012: Annual Social and Economic Supplement (ASEC)”. Washington DC: United States Census Bureau.
- World Bank. 2000. *World Development Report 2000/2001: Attacking Poverty*. New York: Oxford University Press.
- . 2013a. “World Development Indicators.” <http://data.worldbank.org/data-catalog/world-development-indicators>.
- . 2013b. “PovcalNet: An Online Poverty Analysis Tool.” <http://iresearch.worldbank.org/PovcalNet/index.htm>.