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Volatility and Inequality as Constraints to Shared Prosperity: **Paraguay Equity Assessment**



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1818 H Street NW
Washington DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org

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Summary

Isolated by nature and recovering from a period of historically slow growth during the 1980s and 1990s, Paraguay has faced many economic and social challenges in the early 21st century. The high rates of poverty and inequality were an inherent characteristic of the country. By 2003, a little less than half of Paraguayans were in moderate poverty and one in five in extreme poverty.

However, between 2003 and 2013, Paraguay performed well and achieved a reduction in the monetary and non-monetary poverty. GDP grew by 33 percent, moderate poverty reached 24 percent, while extreme poverty affects only 10 percent of the total population. This was the result of a period of substantive average growth, though favoring more the poorest, particularly since 2011.

This report explores the factors associated with the improvements observed in the welfare and inequality and investigates the challenges to sustainability, taking into account Paraguay's historical structural problems in sustaining growth and improving social indicators.

The conceptual framework of the report is based on a tripartite definition of equity: mobility out of poverty, fairness, and agency. According to this framework, the report explores the following specific sets of questions:

1. How can be explained the limited effect of the reduction of the extreme poverty until 2011 and the recent reversal of this relationship? What has been the role of labor markets and public and private transfers in this process?
2. How the conditions at birth determined the access of the Paraguayans to basic services and opportunities throughout your life? What is the state's role to reverse this situation through the provision of social services?
3. What are the challenges of autonomy and voice, especially among women, which prevent people to not have the elements to make effective decisions about their own development?

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Executive Summary

Yet, between 2003 and 2013, Paraguay performed well and experienced a reduction in moderate and extreme (monetary) poverty. This has been the result of a period of substantial average growth, combined with a reduction in inequality. The underlying question is whether the growth model behind these improvements and the consequent reduction in inequality are consistent with positive social dynamics according to a comprehensive definition of equity, which includes the elimination of absolute poverty, enhancement in the equality of opportunity, and strengthening agency among all groups.

Given that a significant proportion of the improvements in welfare occurred only after 2011, the analysis considers two periods: 2003 to 2011, when extreme poverty was stable despite an increase in per capita GDP by 22 percent, and 2011 to 2013, when the extreme poverty rate fell by almost half. At the core of the explanation of the difference in these periods is the role of inequality, access to markets, and food prices.

Per capita GDP reached an historical peak in 2013, although it was still only slightly above half the regional average. The growth was pro-poor: the bottom 40 percent of the income distribution (the bottom 40) experienced a slightly higher growth rate than the top 60 percent of the distribution (the top 60). However, inequality

was stubbornly high until 2012. The economy depends increasingly and considerably on agriculture. Yet, two-thirds of the extreme poor live in rural areas and rely heavily on this volatile sector.

The size of the middle class was expanding and came to represent the largest socioeconomic group in the country. Nonetheless, as at the beginning of the decade, one in four Paraguayans was still at risk of falling back into poverty.

There are signs of lasting structural changes in the profile of poverty. The extent of deprivation in the nonmonetary dimension (such as access to key goods and services) narrowed throughout the decade even during periods when the monetary poverty rate did not decline as much, such as in 2003–11. Still, though access to services has risen, service quality is a challenge.

First pillar: The mobility out of poverty

In 2003–11, while economic growth and enhancements in distribution were contributing to a large rise in the incomes of the poor, food prices were rising at a higher rate than general prices, which dampened to a great extent the reduction in extreme poverty. In contrast, since 2011, the three forces—positive economic growth, reductions in inequality, and declining food prices

es—have been trending in the same direction. Income growth among the less well off, especially in rural areas, has been disproportionately high. In both periods (2003–11 and 2011–13), rising labor incomes have been the driving force because of greater earnings and because of the greater number of earners. Meanwhile, non-labor incomes, such as public transfers, only started to play a noteworthy role in 2011–13, perhaps because of important expansion in the coverage of major social programs.

The role of labor income. Economic growth in the past decade has been driven principally by the two largest sectors in the economy: agriculture and manufacturing. However, the gains in output have not translated into appreciable employment growth in these activities, particularly among the less well skilled, which led to increases labor productivity. Other sectors, such as construction and services, have become more relevant for the low-skilled and, with higher wages than agriculture, present improved labor opportunities for this group.

The importance of the rural sector. Agriculture is the main source of income of the extreme poor in rural areas, but most of these people in agriculture are self-employed or unpaid (especially women) and cultivate few crops for both home consumption and the market. With inadequate irrigation systems and agricultural practices and limited access to markets, smallholders are exposed to exogenous shocks, such as drought, floods, price fluctuations, and infestation and diseases. In the absence of good access to financial markets and because of the limited role of government, agricultural families are at risk of falling (further) into poverty. In this context, income diversification becomes essential in types of crops cultivated, in cattle raising and labor and non-labor income sources. In recent years, there has been a movement toward wage employment in agriculture and in nonagricultural sectors. This has generated alternative sources of income that may be more profitable and stable. In addition, non-labor incomes have played an important role in alleviating extreme poverty as a diversification strategy (largely through family transfers and informal lending and, to a lesser extent, through public transfers such as *Tekopora* and *Adultos Mayores*), as well as a strategy to cope with adverse shocks.

The role of urban labor markets. The drop by half in the urban poverty rate has been associated with changes in the urban labor market between 2003 and 2013, including a reduction in the unemployment rate, surge in em-

ployment in the higher-paying large firm sector (such as construction and public and private services), and rising incomes among the self-employed and workers in small firms. Nonetheless, like the rural poor, the urban poor are still exposed to household income volatility through high unemployment rates and high shares of self-employment. Low-skilled and unskilled labor—the workers most likely to be living in poverty—are largely unprotected by minimum wage legislation.

Despite the trend observed throughout the decade of augmented employment in higher-paying large firms, year-to-year transitions show that mobility into this sector has been limited among the self-employed and workers in microenterprises. The self-employed, rather than becoming small-business owners, typically transition into employment in a micro firm or leave the labor force. The share of low-skilled workers who are employers is almost negligible. Finally, while the unemployment rate has steadily declined, the persistence of unemployment among those who are unemployed is particularly alarming: one in five of the unemployed between 2010 and 2012 was still unemployed one year later, suggesting that part of the population experiences either chronic or frequent spells of unemployment.

Second Pillar: The pursuit of opportunities for all

One of the greatest structural barriers towards an equitable society today is the high and persistent level of inequality in opportunity among various groups defined according to circumstances of birth, including family background. While access to services for children expanded throughout the decade, considerable differences remain across groups so defined. Thus, coverage rates in the access to flush toilets or tap water are quite different among poor and nonpoor people, and the discrepancies are also higher according to urban or rural residence. Similarly, educational attainment is highly correlated with residence and socioeconomic status, which, in turn, limits the mobility across generations. Inequality of opportunity in the labor market has been widening in recent years, and place of birth, the language spoken at home, and gender play an important role. The inadequate access to opportunities in childhood can have important impacts on inequality in the labor market and thus influence intergenerational outcomes.

Social policies are not sufficiently effective in offset-

ting inherited inequalities. The fiscal system is among the weakest in the region. It incorporates a regressive tax system and limited redistribution through spending. Institutional and operational inefficiencies such as the weak civil service system and the lack of effective monitoring and evaluation are enfeebling the already compromised delivery of social services.

Third pillar: Strengthening agency

The third dimension in which Paraguay still has room to make progress toward an equitable society relates to the strengthening of agency, the capacity of people to be actors in their own development. Paraguay has made progress over the last decade in promoting women's empowerment and gender equality. The improvements have been particularly good in women's endowment in terms of sexual and health indicators, as well as educational attainment and achievement. There have also been important advances in the legal framework to provide for gender equality. However, challenges remain in youth unemployment and job quality and segmentation, domestic violence, and teenage pregnancy.

Conclusions

Paraguay has made substantial progress in the last decade in improving welfare and reducing inequality. There is reason for optimism especially because of the enhanced labor productivity in agriculture and improved employment opportunities, which hints at the potential for long-lasting transformations.

Still, the country faces challenges that threaten the sustainability of these improvements. A key obstacle is the fact that a large share of the population faces a volatile economic environment. Another area of concern relates to the persistent lack of opportunity across all groups. Even though income inequality has narrowed, problems in the structural determinants of inequity remain. Finally, the relevance of strengthening agency and autonomy, particularly in the participation of women in markets, communities, and relationships, is at the core of an equitable society.

To reduce structural inequities in monetary and non-monetary outcomes, the relevant structural determinants must be addressed. This will require the promotion of well-functioning and accessible markets that are able to provide all segments of the population with

well-paying, high-productivity jobs; enhancements in risk management at the macro and micro levels to protect households from falling back into poverty in the presence of shocks; ensuring equitable, efficient, and sustainable fiscal policy to guarantee a solid fiscal position that allows for equitable redistributive policies; improving fairness and transparency among institutions in the provision of high-quality public goods without excluding any segments of the population; and designing policies to expand women's opportunities in the labor market and enhance their agency, self-esteem, and aspirations.



Introduction

Isolated by nature and recovering from a period of historically slow growth during the 1980s and 1990s, Paraguay is faced with many economic and social challenges at the beginning of the 21st century.

By the year 2000, GDP per capita was only 50 percent of the Latin American average and 34 percent of the average among Paraguay's MERCOSUR partners. High poverty and inequality rates were an inherent characteristic of the country.

Yet, between 2003 and 2013, Paraguay performed well and achieved a reduction in moderate and extreme (monetary) poverty. This was the result of a period of sizeable average growth, combined with a reduction in inequality. Given that a large share of the improvements in welfare have occurred only since 2011, the analysis considers two periods: 2003–11, when extreme poverty remained stable despite the growth in per capita GDP by 22 percent, and 2011–13, when extreme poverty was cut by almost half. At the core of the explanation of the differences across these two periods was the role of inequality, access to markets, and food prices.

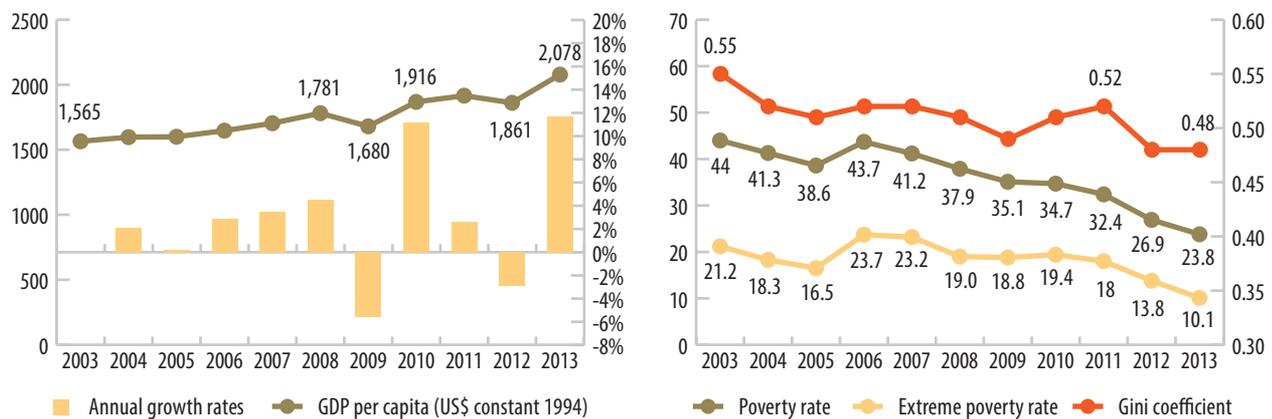
In 2003–11, economic growth was both substantial and volatile, and, while moderate poverty declined, extreme poverty was more persistent, and income

inequality improved modestly. Per capita GDP grew by 33 percent, but experienced a major dip during the 2009 drought and global financial crisis when it fell by 5.2 percent relative to the previous year (figure 1). While the moderate poverty rate declined by 12 percentage points between 2003 and 2011, the extreme poverty rate only fell by 3 percentage points. Based on comparable numbers, Paraguay reduced moderate poverty and extreme poverty by less than the region as a whole. As of 2011, 32.4 percent of Paraguayans were still living in poverty, and 18 percent were living in extreme poverty. Income inequality has fallen merely 0.03 points since 2003 and, in 2011, remained high at 0.53.

However, there have been significant signs of improvement in recent years. In 2011–13, the economy grew 12 percent despite the dip in 2012; per capita income was 8.5 percent higher; and extreme poverty as well as inequality finally started responding to growth. By 2013, 10 percent of the population were living below the extreme poverty line, 24 percent were living below the moderate poverty line, and the Gini coefficient had declined 0.04 points, placing it at a historical low.¹

¹ 2012 estimates for poverty and inequality are considered preliminary and subject to change. Hence, these are excluded from the report.

Figure 1: GDP per capita, poverty rates and inequality



Source: BCP and DGEEC.

This report explores the factors associated with the improvements observed in welfare and inequality and investigates the challenges to sustainability, given the historical structural problems of Paraguay in maintaining growth and improving social indicators. The underlying question is whether the growth model and reduction in inequality are consistent with positive social dynamics according to a comprehensive definition of equity, which includes the sustainable elimination of absolute poverty, enhancement in the equality of opportunity, and strengthening agency across all groups.

The conceptual framework of the report is based on a tripartite definition of equity: the equity triangle. The first dimension of the equity triangle—the elimination of absolute poverty—entails the guarantee of a well-defined minimum standard of living to all members of a society so that they can survive with dignity. All individuals must have sufficient access to goods and services such that they are able to achieve appropriate outcomes. The second dimension—fairness—lies in the notion that initial background characteristics that are outside the control of individuals, such as gender or area of childhood residence, should not limit opportunities or dictate achievement. Finally, equity also involves agency, which refers to the strengthening of the individual's capacity to make choices and transform these choices into desired outcomes. Thus, an equitable society empowers citizens by providing them with voice and autonomy. The report provides a diagnosis of these three elements and proposes key policy changes to improve equity and enhance shared prosperity.

Based on the framework, this report explores the following specific sets of questions:

1. **Why did growth have only a limited effect on the reduction of extreme poverty until 2011? What explains the recent reversal of this relationship? What is the role of labor markets and public and private transfers in driving poverty reduction? To what extent did the nonmonetary dimensions of well-being improved throughout the decade?** (section 2)
2. **To what extent do conditions at birth determine the access of Paraguayans to basic services and opportunities throughout their lifetimes?** (section 3)
3. **What are the challenges in autonomy and voice, particularly among women?** (section 4)
4. **What are the key policy lessons that can be drawn from the analysis to improve equity while fostering growth?** (section 5)

The next section provides a brief description of the main features of growth, poverty, and inequality in Paraguay since 2003.

CHAPTER 1

Growth, poverty, and inequality: Stylized facts

This section describes the main stylized facts of the Paraguay economy in the past decade in terms of growth, poverty, and inequality. It concludes with a description of the demographics of poverty. The analysis begins in 2003 to ensure comparability of the estimates that are drawn from the permanent household survey (Encuesta Permanente the Hogares, EPH) and includes the 2013 data set, but not the 2012 data set, which was released only on a preliminary basis.

Paraguay's per capita GDP reached its highest value in history in 2013, although it was only slightly over half the regional average. In 2011, according to the World Development Indicators database, per capita GDP reached its highest value in history:² \$5,448 in constant 2005 purchasing power parity (PPP) international prices), decreasing to \$5,290 in 2012. This placed the country well below the average in Latin American and the Caribbean, though higher than countries such as Bolivia, Guatemala, Guyana, Honduras, and Nicaragua (figure 2). Over the decade, economic growth in Paraguay was high but volatile. In 2003-13, per capita GDP (in constant 1994 U.S. dollars) grew by 33 percent, but experienced a major dip during the 2009 drought and global financial

2 2013 GDP estimates are not yet available in the WDI database.

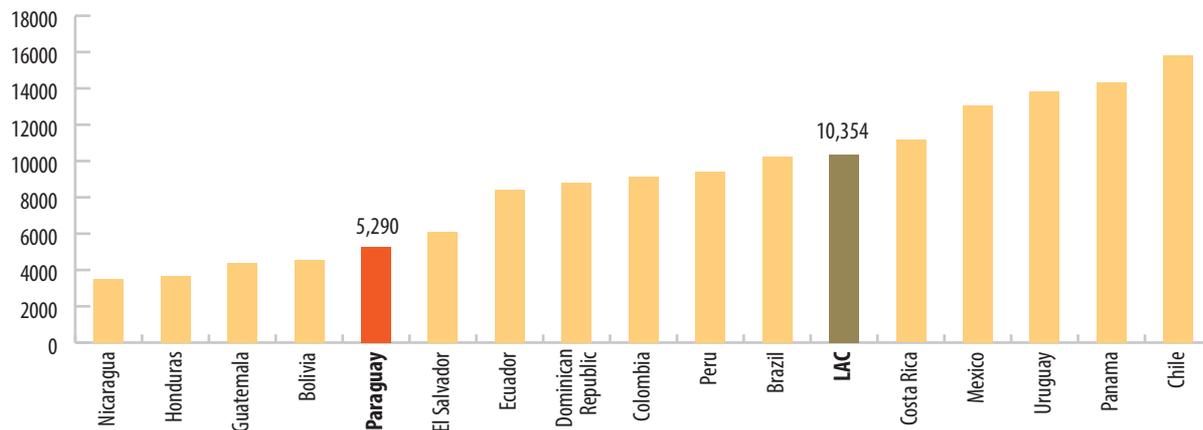
crisis, when it fell by 5.2 percent with respect to the previous year. Yet, the record growth of 11.2 percent in 2010 more than compensated for the loss (see figure 1).

The bottom 40 benefited from economic growth,³ this group experienced higher growth than the top 60.

In 2003-13, incomes of the lower two quintiles grew at an annual rate of 5.9 percent (compared to 3.7 percent of the average person) (figure 3). However, this performance is the result of two distinct evolutions. In 2003-11, above-average income growth raised the incomes of the poorest 40 percent of Paraguayans (at 4 percent per annum) vis-à-vis the mean income growth of the population (at 3.3 percent per annum). Paraguay's performance among the bottom 40 percent is close to that of the region as a whole, but still lags behind it and neighboring countries such as Argentina, Brazil, and Uruguay (World Bank 2014). But, in the two subsequent years, the rate of growth of the bottom 40 was two and a half times higher than that of the mean: 14 percent compared with 5.6 percent annually.

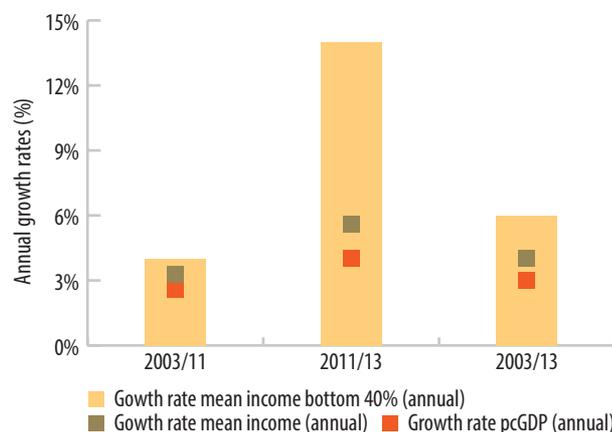
3 Within the World Bank's twin goals of ending extreme poverty and boosting shared prosperity, the latter has been defined as "expanding the size of the pie continuously and sharing it in such a way that the welfare of those at the lower end of the income distribution rises as quickly as possible" (World Bank 2013e). Promoting shared prosperity has thus been enunciated as fostering the income growth of the bottom 40.

Figure 2: GDP per capita in Latin American countries, 2012



Source: World Development Indicators.

Figure 3: Growth of income of the bottom 40 compared with all and per capita GDP



Source: EPH data (for mean income and mean income bottom 40). Per capita GDP growth is based on Paraguay Central Bank data on per capita GDP (in constant 1994 U.S. dollars).

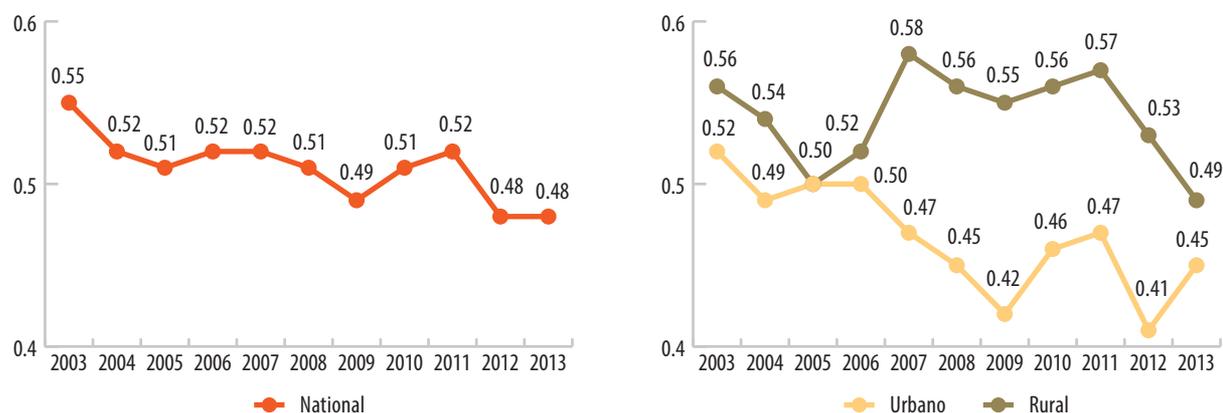
While this growth was pro-poor, inequality remained stubbornly high, particularly in the rural parts of the country, until 2012. During most of the past decade, the Gini coefficient fluctuated around 0.51 and 0.52 (figure 4), placing Paraguay's inequality among the highest in the region, which is the most unequal region in the world. Until 2011, jointly with Brazil, Paraguay was the most unequal country in southern Latin America. In a period in which the region showed vast improvements in inequality, Paraguay's performance paled in comparison with that of other countries such as Argentina, Brazil, Chile, and Peru (World Bank 2013c). Nonetheless, since 2011, Paraguay appears to have caught up with these countries by achieving a large decrease in the Gini coefficient from 0.52 in 2011 to 0.48 in 2013. Inequality is also consider-

ably higher in rural areas than in urban ones, and the gap was growing, by 0.06 percentage points in 2003–11. In 2011, inequality in urban areas was 0.10 lower than in rural areas (0.47 versus 0.57). By 2013, however, the rural Gini coefficient had fallen 0.08 points, narrowing the gap between rural and urban areas by half. Inequality continues to be higher in rural areas than in urban areas, and the coefficient in Paraguay is one of the highest in the region, though it is still below 0.50. Section 2.1 explores the factors behind this noteworthy improvement.

The Paraguayan economy depends increasingly and considerably on agriculture and, as a consequence, has become more volatile. By the end of the decade, more than 20 percent of total GDP was derived from this sector (figure 5). In comparison, the importance of agriculture in the region is below 5 percent. The high levels of volatility of this sector because of weather shocks and fluctuations in commodity prices and external demand, combined with a great reliance on few export products and export destination, had a dramatic impact on the total economy (World Bank 2013b). Macroeconomic volatility, in turn, has adverse effects in terms of welfare and equity in most developing countries (Loayza et al. 2007). Section 2.3 explores the extent to which the volatility in agriculture is reflected in variability in household incomes and in household strategies to cope.

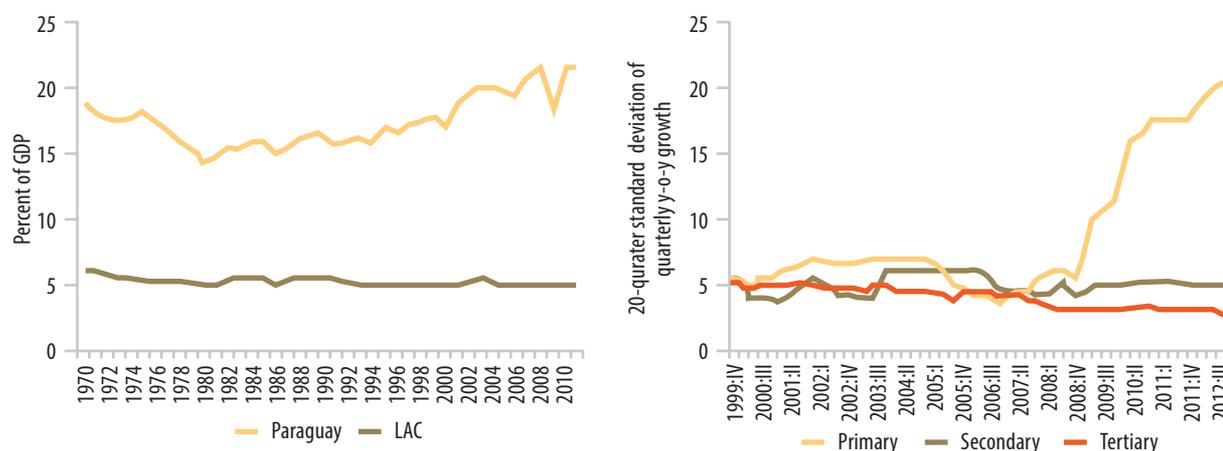
Despite the increasing reliance on agriculture and the substantive decline in poverty, two-thirds of the extreme poor live in rural areas and rely heavily on the volatile agricultural sector. By 2013, approximately 138,000 families were unable to meet the cost of a basic food basket, and 68 percent of these families were living

Figure 4: Evolution of the gini coefficient, 2003-13



Source: Calculations based on EPH (2003 to 2013).

Figure 5: Share of agriculture in GDP (left) and growth volatility by economic sector, Paraguay



Source: World Bank (2013b), based on data from the WDI and the Central Bank of Paraguay.

Table 1. Distribution of extreme poor, 2013

	Households	%	Population	%
National	138,226	100%	677,089	100%
Urban	43,651	32%	202,264	30%
Rural	94,575	68%	474,825	70%

Source: Calculations using EPH 2013.

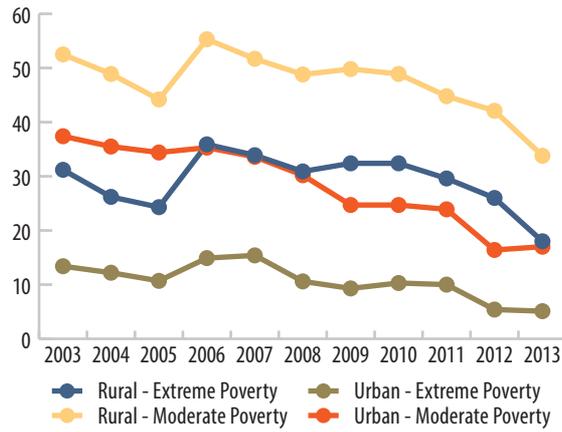
in rural areas (table 1). The incidence of poverty is three times as high in rural areas as in urban areas (figure 6).

Both urban and rural areas benefited from the decade's reduction in moderate and extreme poverty, although the decline was more recent in rural areas than in urban ones. Of the 14 percentage point reduction in rural extreme poverty in 2003-13, 12 percentage

points were accounted for in 2011-13. In urban areas, 40 percent of the reduction was observed in the first eight years of analysis.⁴

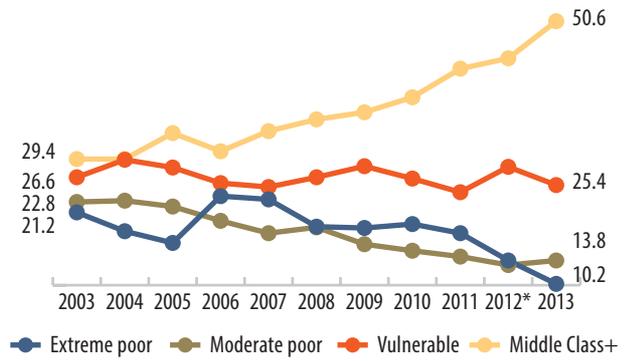
⁴ 2006 poverty estimates are not strictly comparable with the rest of the series because important budget constraints forced the DG-EEC to postpone data collection until March 2007, while, in all other years, data collection was performed from August to December of each year (World Bank 2010).

Figure 6: Evolution of poverty in rural and urban areas



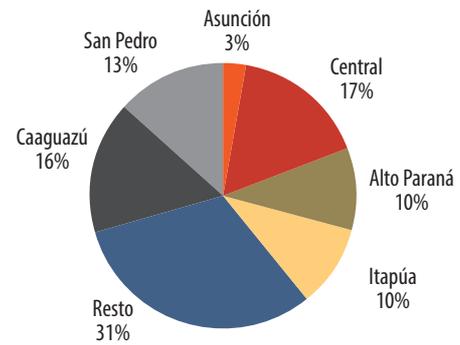
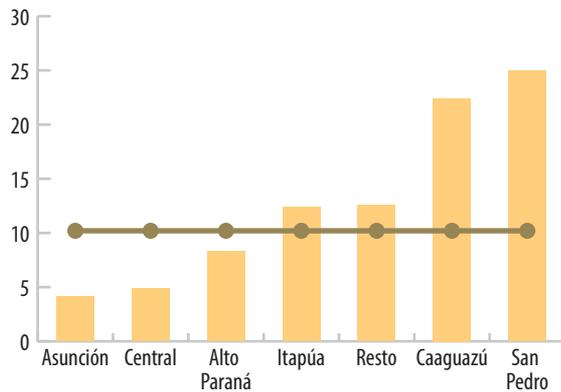
Source: Calculations using EPH.

Figure 8: Socioeconomic composition, 2003–13



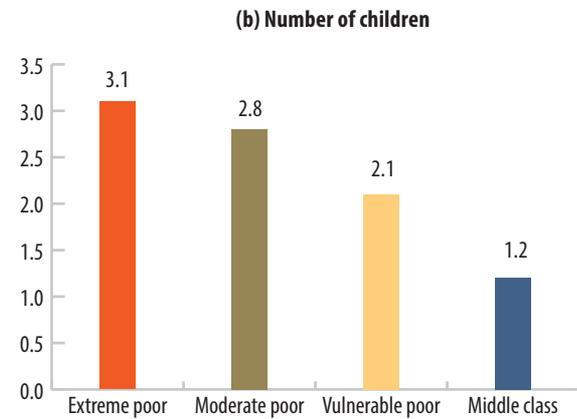
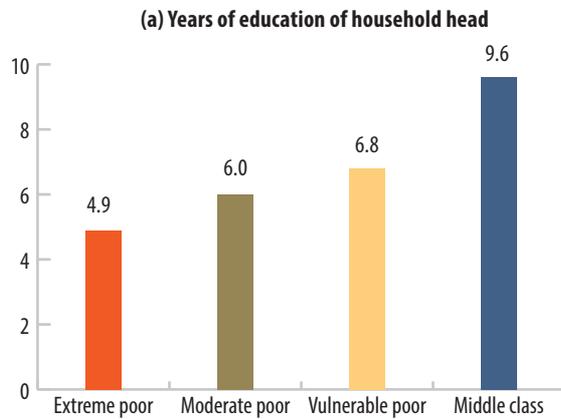
Source: Calculations using EPH (2003–13). Official poverty lines were used for extreme and total poverty. Note: The vulnerability line (separating the vulnerable group from the middle class and above) is set at \$10 PPP a day. All values are expressed in Asunción prices.

Figure 7: Extreme poverty incidence and composition by department, 2013



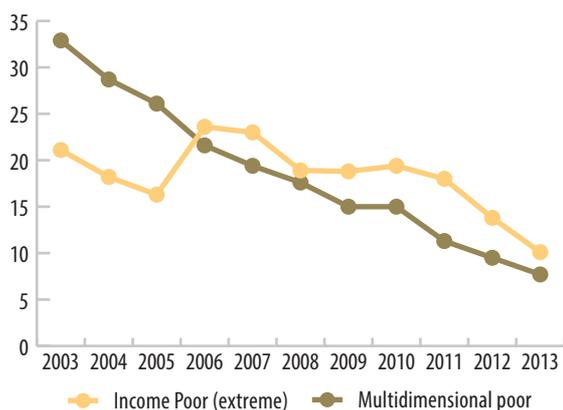
Source: Calculations using EPH 2013 and the official extreme poverty line. Note: The red line corresponds to the extreme poverty rate at the national level.

Figure 9: Socioeconomic characteristics, by economic group, 2013



Source: Calculations using EPH 2013.

Figure 10: Multidimensional poverty and income poverty incidences, 2003–13



Source: Calculations using EPH.

Gaps in poverty incidence arise not only between urban and rural areas, but also across geographic areas.

More than a fifth of the population is unable to satisfy their basic food requirements in San Pedro and Caaguazú, whereas, in Asunción and Central, less than 5 percent of the population is in this situation (figure 7). These latter two departments account for 20 percent of the extreme poor in the country. The largest concentration of extreme poor is in “other”, that is, other departments, excluding Alto Paraguay and Boquerón.

The size of the middle class (and above) was growing and now represents the largest socioeconomic group in the country (figure 8). In 2003–13, the proportion of the population earning more than \$10 a day per person grew by over 20 percentage points, representing, in 2013, half the total population of the country.⁵ The rate of growth of the middle class in Paraguay is similar to the rate in the region, which also grew by 50 percent (Ferreira et al. 2012).

Yet, as at the beginning of the period, one in four Paraguayans was still economically insecure (the vulnerable), with a sizable probability of falling back into poverty. In a highly volatile environment such as Paraguay and with the recent large improvements, it is more important than ever to seek mechanisms to ensure that the gains of the periods of growth are not reversed as soon as the winds change.

Households living in poverty are headed by individuals who are considerably less well educated than indi-

5 The threshold that separates the vulnerable and the middle class is set at \$10 a day per person (2005 PPP terms), following the definitions in Ferreira et al. (2012).

viduals currently in the middle class or higher (figure 9). On average, household heads in the middle class have four more years of education than the poor and at least two more than the vulnerable. Similarly, middle-class families tend to have fewer than half the number of children in poor families (on average, 1.2 as opposed to more than 3) and largely reside in urban areas. In relation to the opportunities available to different groups, only a small minority of the extreme poor speak only Spanish at home, in contrast to a third among middle-class families.

There are signs of lasting structural changes in the profile of poverty because the extent of deprivation in nonmonetary dimensions narrowed throughout the decade even during periods when monetary poverty did not decline so much as in 2003–11 (figure 10).

Unlike monetary measures, which rely on cutoffs based on income or consumption, nonmonetary indicators of poverty measure the share of the population deprived of a key good or service using defined standards.⁶ The share of Paraguayans who are deprived in at least four of seven key nonmonetary dimensions of well-being, including education, housing quality, access to water, access to sanitation, access to electricity, and assets, has gone down from a 3rd of the population to less than a 10th.

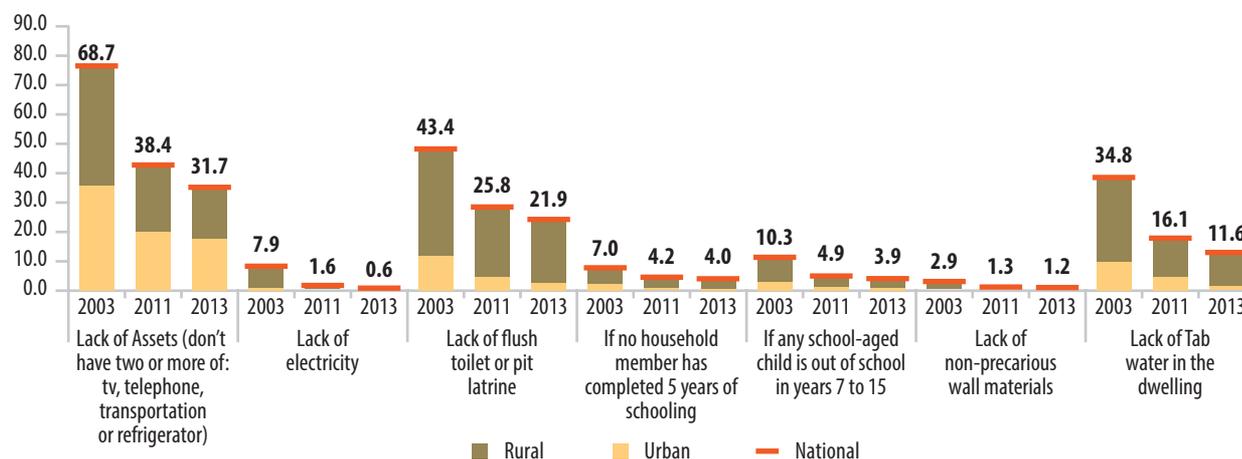
While important progress in nonmonetary dimensions were observed in both urban and rural areas, the country still faced challenges, especially in rural areas.

Between 2003 and 2013, Paraguay successfully brought down the degree of deprivation to less than 5 percent in terms of access to electricity, educational attainment, and secondary-school enrollments. At the national level, the number of people who did not own at least two key assets (for example, a television, telephone, transportation device, or refrigerator) decreased from 69 percent of the population to 32 percent (figure 11). Similarly, the proportion of people who lived in dwellings without piped water or a toilet facility decreased by 23 percentage points and 22 percentage points, respectively.

Improvements in the nonmonetary dimensions of well-being during this period also suggest that there was a lower level of chronic poverty. While chronicity refers to the persistence of poverty over time, in the absence of nationwide data that reflect individual-level income over time, the chronic poor are identified as those people who are both income poor and deprived in at

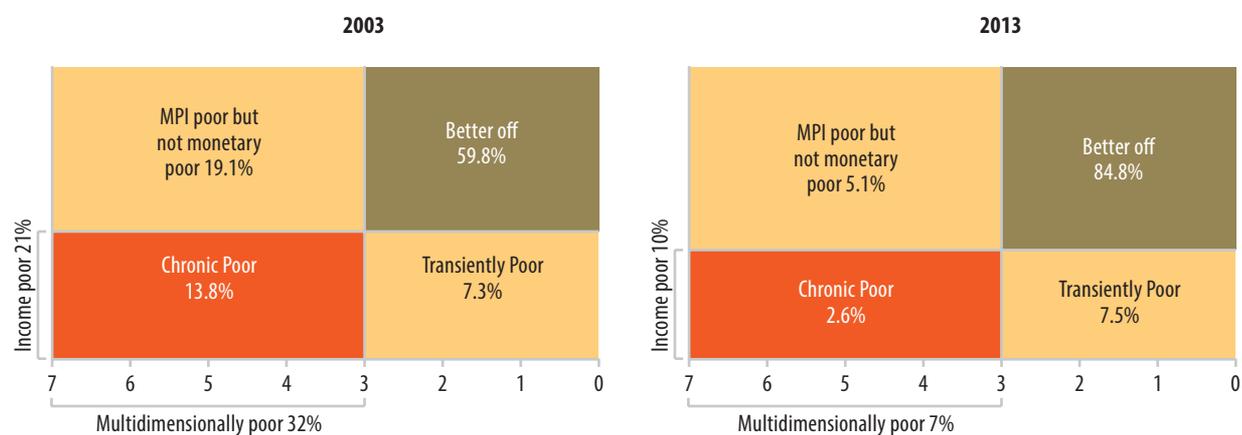
6 Countries are increasingly adopting multidimensional poverty approaches to assess their progress. One of the pioneers in Latin America is Mexico, see http://www.coneval.gob.mx/rw/resource/Metodologia_Medicion_Multidimensional.pdf.

Figure 11: Deprivations by dimension and area, 2003, 2011, and 2013



Source: Calculations based on EPH 2003 and 2011.

Figure 12: Matrix of multidimensional and income poverty, 2003 and 2011



Source: Calculations based on EPH 2003 and 2011. Note: The horizontal line shows the monetary extreme poverty line. The x-axis measures the number of household deprivations; the y-axis is the household per capita income. Seven dimensions were considered for the multidimensional axis: lack of assets (does not own two or more of the following items: television, telephone, transportation device, or refrigerator), lack of electricity, lack of flush toilet or pit latrine, if no household member has completed five years of schooling, if any school-aged child is out of school in the age-group 7 to 15, lack of non-precarious wall materials, and lack of running water in the dwelling.

least three nonmonetary indicators.⁷ This relies on the idea that multidimensionally poor individuals are more likely to have been monetary poor during more than one period (López-Calva et al. 2014). Because of the improvement in monetary and nonmonetary poverty in the last decade, there was a sizable decrease in the share of the population considered chronically poor, falling from 14 percent in 2003 to less than 3 percent in 2013 (figure 12). Meanwhile, the share of people who were not poor across either dimension (the more well off [the blue area]) rose by 25 percentage points, reaching 85 percent in 2013.

In sum, in the last decade, Paraguay has experienced

⁷ These are the multidimensional poor in the sense of Alkire-Foster (2011).

substantial increases in individual well-being. Today, the majority of the country has reached a level of income that is regionally considered as the middle-class threshold. The improvements in nonmonetary dimensions also suggest that the advances might be long-lasting. However, a sizable proportion of the population, while not poor, is vulnerable to falling back into poverty, and the large bulk of the monetary and nonmonetary deprivations are concentrated in rural areas, which are intrinsically dependent on the highly volatile agriculture sector.

The following section will dig into the drivers behind the trends in poverty and inequality described above. Because of the essentially rural nature of poverty in the country, the analysis will be carried out separately for the urban and rural extreme poor.

CHAPTER 2

First Pillar: Mobility out of poverty

This section analyzes the factors behind the observed changes in poverty and inequality in the last decade. Growth, redistribution, and food prices all play an important role in explaining the stickiness of extreme poverty until 2011 and the sizable improvement since then. Because labor incomes represent a driving force behind the improvements in well-being, the section examines the link between output and employment at the national level and describes specific issues in labor markets in rural and urban areas.

2.1 Factors behind poverty reduction

Three factors explain the changes in poverty rates across the two periods: (1) changes in the position of the poverty line, (2) changes in distribution in terms of growth, and (3) changes in the shape of distribution, that is, the effects of redistribution. These three factors explain the stickiness of the extreme poverty headcount in 2003-11 and the impressive decline in poverty in 2011-13.

Extreme poverty fell considerably in 2011-13 after stubbornly fluctuating around 18 percent in 1997-2011 despite periods of impressive economic growth.

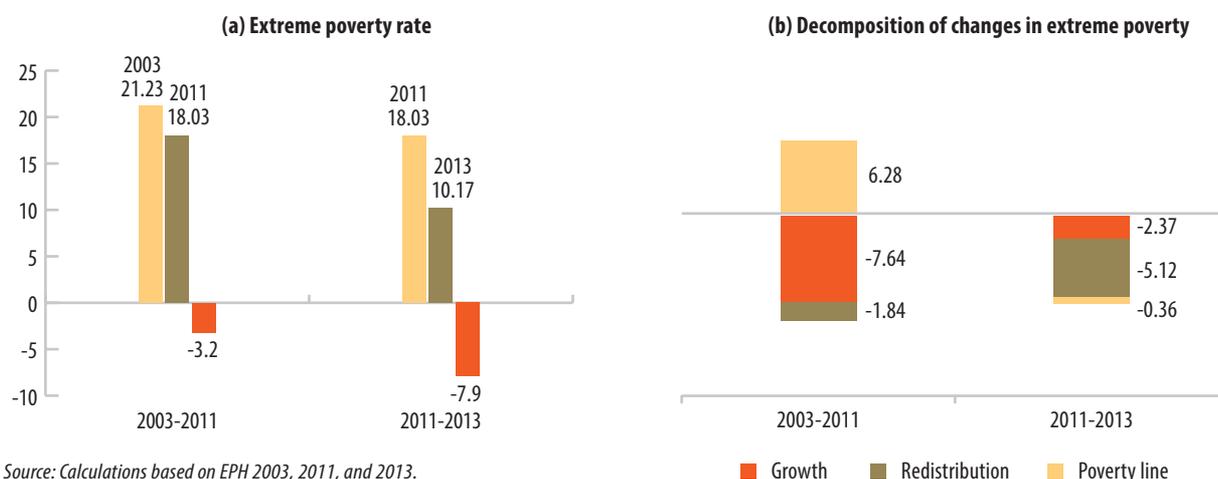
While the extreme poverty rate fell only slightly between 2003 and 2011, by 3.20 percentage points, it fell by 7.85 percentage points between 2011 and 2013 (figure 13).

This impressive drop was driven by two factors: (1) the continuing effects of growth and redistribution and (2) a decrease in food price inflation. Because the extreme poverty line is determined solely based on the price of a selected basket of food, increases in food prices generated sizable increases in the extreme poverty line.

Between 2003 and 2011, while both growth and distribution contributed to the large reduction in poverty, food prices were rising at a higher rate than general prices in the economy and thus mitigated the reduction in the extreme poverty rate. This can be seen by comparing, in figure 14, the shift to the right and the widening in the income distribution between 2003 (dotted green line) and 2011 (dashed red line) as, at the same time, the extreme poverty line moves to the right. Quantification of the effects of these three forces shows that growth and improved income distribution contributed to a decline, by 9.48 percentage points, in poverty in 2003-11, while rapid increases in the price of the food basket (relative to general prices) increased the poverty rate by 6.28 percentage points (see figure 13). The net effect was minor poverty reduction despite the sizable economic growth and the gains in redistribution.

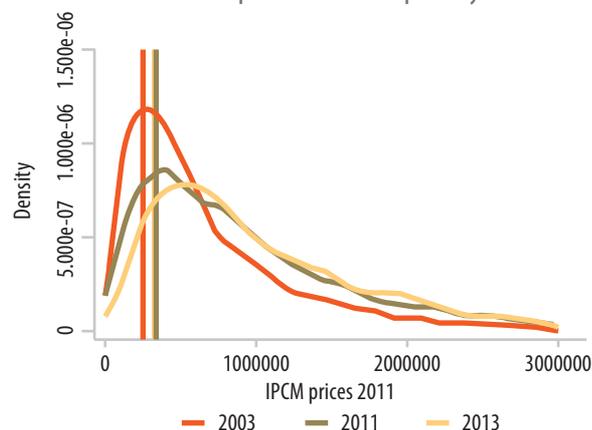
In contrast, since 2011, all three forces have been trending in the same direction. The deceleration of the

Figure 13: Extreme poverty change (left) and decomposition of extreme poverty changes (right), 2003–11 and 2011–13



Source: Calculations based on EPH 2003, 2011, and 2013.

Figure 14: Per capita household income distributions in 2003, 2011 and 2013 with respective extreme poverty lines



Source: Calculations based on EPH 2003, 2011, and 2013. Note: Per capita household incomes are expressed in 2011 prices, using the general consumer price index (CPI) as a deflator.

increase in food prices between 2011 and 2013 means that, in real terms, the extreme poverty line (updated using food price data of the Central Bank of Paraguay) was marginally lower in 2013 than in 2011. As a consequence, prices played a limited (but positive) role in the decrease in the extreme poverty rate, whereas the better income distribution reflected in the widening of the distribution (the solid blue line in figure 14) was behind 65 percent of the total change in the headcount (5 percentage points out of close to 8), and average income growth (the shift to the right in the distribution) explains the remaining 35 percent of the fall (see figure 13).

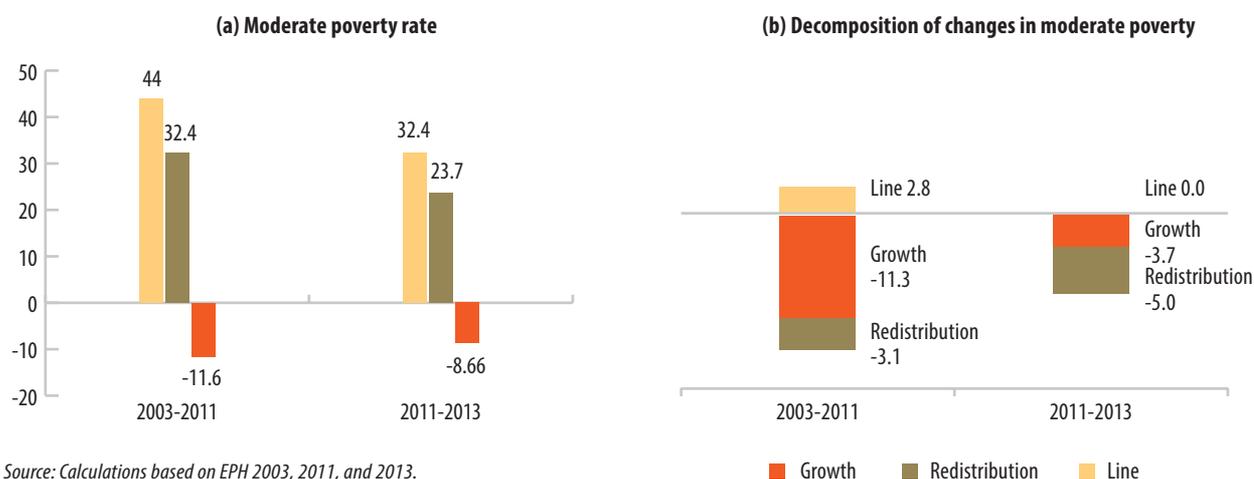
An additional contributing factor behind the sensitivity to food prices and the extreme poverty line is the fact that a large proportion of the population lives in

households with incomes near the extreme poverty line (see figure 14). Because of this clustering near the extreme poverty line, even slight shifts in the poverty line can have noticeable impacts on observed poverty rates.

In the case of moderate poverty, food prices played a less crucial role in explaining the observed fall in poverty throughout the decade. Increases in the moderate poverty line associated with rising food prices limited the reduction in moderate poverty between 2003 and 2011, but to a lower extent, because the basket used to define the line also contains nonfood items (figure 15; box 1). Growth was the driving force in this first period, while changes in the distribution contributed substantially to the equally impressive fall in moderate poverty between 2011 and 2013.

Disproportionate income growth among the less well-off was a strong factor in the observed improvements in poverty. Average per capita household income grew more strongly 2011-13 than in the previous eight years, but the growth in recent years was disproportionately stronger among those at the bottom of the distribution. Growth incidence curves depict the annual per capita household income growth rates by percentile of the distribution (figure 16). Three features emerge. First, the annual growth rates are considerably lower between 2003 and 2011 than in 2011-13 (see the change in the values along the vertical axes). Second, the latter rates are considerably more progressive than the former. Finally, in contrast to the first part of the period, income growth was everywhere higher in rural areas than in urban areas during the more recent years.

Figure 15: Moderate poverty change (left) and decomposition of moderate poverty changes (right), 2003–11 and 2011–13



Source: Calculations based on EPH 2003, 2011, and 2013.

Rising labor income was the driving force behind the reduction in extreme and moderate poverty. Income from labor is not only the main source of income among poor families (representing two-thirds of the incomes of the bottom quintile); it is the factor that has led many to move out of poverty (figure 17). This is, in similar proportions, because of increased earnings and an increased number of earners. The prominent role of labor income in reducing poverty is consistent with the trends observed across the region as a whole: labor income accounts for 70 percent of the reduction of poverty in the region in recent years (World Bank 2014).

In the case of extreme poverty reduction in 2003-11, the changes over time of the non-labor components of income, including pensions and transfers, were regressive. Among rural households, the negative effect largely arose through pensions, or, rather, their lack of access to pensions, whereas, among urban households, it was equally divided between intra-family transfers and pensions. According to household data, government transfer programs such as Tekopora, which are included in the “other non-labor income” category, had little impact on poverty, which may be explained by the low program coverage during the period. The role of family transfers (contributing to poverty reduction in rural areas, while opposing poverty reduction in urban areas) suggests that low-income rural households were net recipients of the private transfers (from abroad and nationally), while less well-off urban households saw a fall in private transfers. The role of transfers in helping households cope with income fluctuations among the rural poor is explored in section 2.3.

In 2011-13, however, all the components of labor and non-labor income contributed to the reduction in extreme poverty. While labor income continued to be the main force behind the improvement, public transfers as well as “other incomes” (which include, notably, property in the form of imputed rents) played a large role (see figure 17). While public transfers represented a larger share of total household income at the end of the period, they still accounted for less than 5 percent of the total at the national level and less than 10 percent in urban areas. Private (family) transfers continued to benefit the rural poor, while the opposite was true among the urban poor.

As in the case of poverty reduction, almost 80 percent of the improvement in equality in the last decade—a 7 Gini point fall—was driven by rising labor incomes. This is because of the increased incomes among earners and a rise in the share of people working. Public transfers contributed to a lesser extent: 7 percent of the decline in inequality observed in both periods, though, in recent years, these transfers became more effective (figure 18). Private transfers (remittances and within-country transfers) had an equalizing effect between 2003 and 2011, but this effect ceased over the following two years. Finally, an important contributor to the decline in inequality in the last few years was the “other, non-labor income” component, which includes property, capital income, and rents.

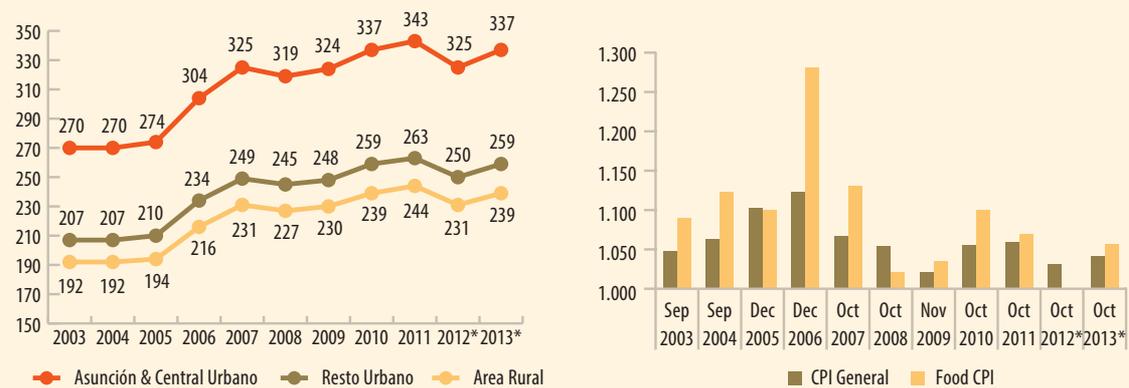
In Focus. Fiscal Policy: Results from the Commitment to Equity Project

The limited role of public transfers in reducing poverty and inequality highlights the broader importance

Box 1. Food prices and the extreme poverty rate

In 2006-11, food price inflation outpaced overall inflation resulting in higher extreme poverty (figure B1.1). Fixed through the traditional approach to the measurement of income poverty, the extreme poverty line is set according to a basket of basic food items as determined using the 1997/98 household income and expenditure survey. The value of the basket is adjusted annually according to the increase in the food consumer price index (CPI, in Asunción; constructed by the Central Bank of Paraguay). Therefore, increases in food prices in the past decade, which were larger than the rise in the price of the overall basket, led to a sizable appreciation in the extreme poverty line, which climbed almost 30 percent, from ₡270,000 in 2003 to ₡343,000 in 2011 (both expressed in 2011 prices).

Figure B1.1: Food CPI and the general CPI increases and the extreme poverty line in real terms, October 2011

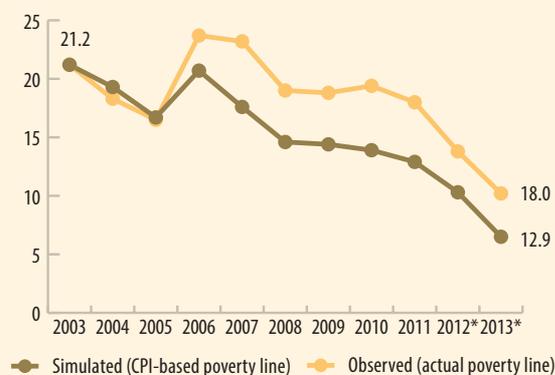


Source: Calculations based on data of the Central Bank of Paraguay and DGECC.

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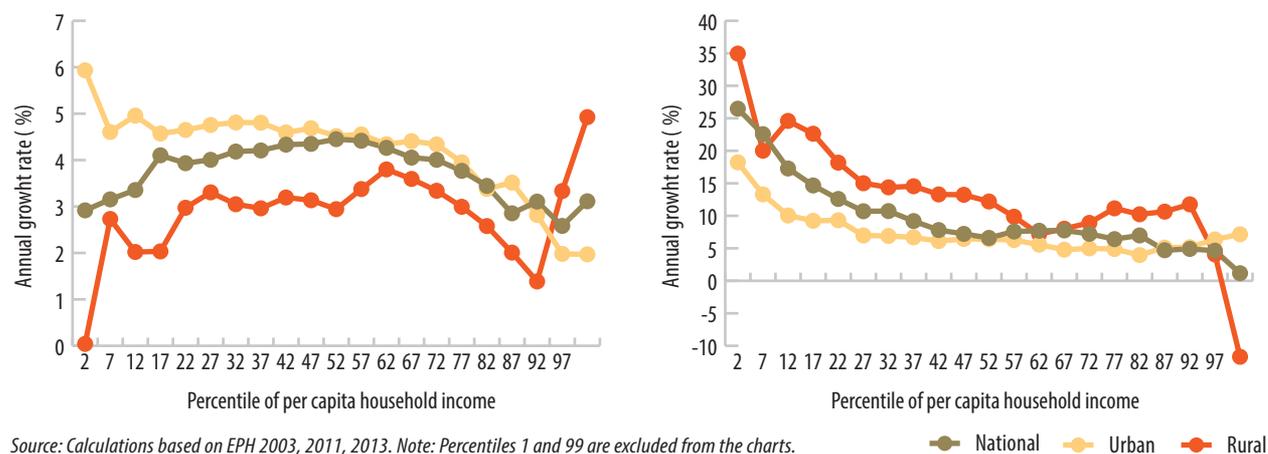
If food prices had increased at the same rate as overall inflation, poverty would have fallen substantially between 2006 and 2007, from 20.7 to 17.6 percent; it actually fell by less than one percentage point (figure B1.2), that is, gains in the income of the poorest were largely absorbed by the rise in the price of the basic food basket. Because the poorest spend most of their budgets on food, this captures not merely a mathematical relationship, but an actual stagnation in the food purchasing ability of the poorest. Because food prices remained relatively high, poverty hovered around 18 percent between 2008 and 2011, roughly 5 percentage points higher than it would otherwise have been. In 2012 and 2013, however, food price inflation fell and closely tracked the overall CPI (figure B1.2). As a result, 2012 and 2013 saw important drops in extreme poverty because the income gains among the poorest overtook the increase in food prices.

Figure B1.2: Observed and simulated extreme poverty headcount, 2003–13



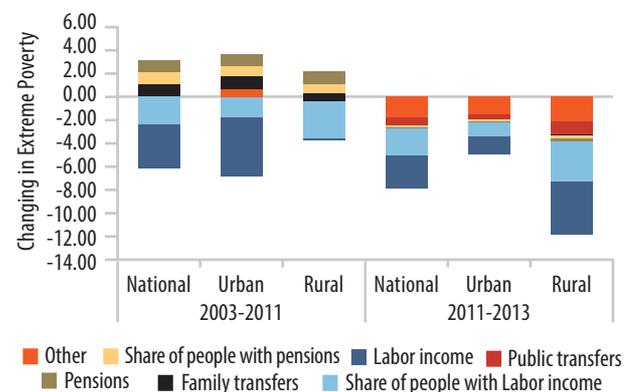
Source: Calculations based on EPH 2003-2011 and 2013.

Figure 16: Growth incidence curve, 2003-2011 and 2011-2013



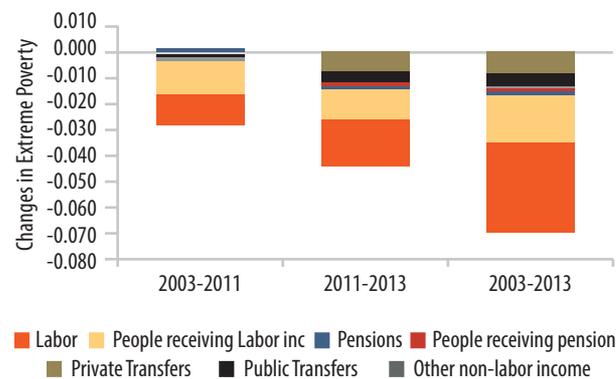
Source: Calculations based on EPH 2003, 2011, 2013. Note: Percentiles 1 and 99 are excluded from the charts.

Figure 17: Shapley decomposition by components of welfare measures; changes in extreme poverty, 2003/11 and 2011/13



Sources: Calculations based on EPH 2003, 2011, 2013; Azevedo et al. 2012.

Figure 18: Shapley decomposition, by components of the welfare measure; changes in inequality, 2003-11 and 2011-13



Sources: Calculations based on EPH 2003, 2011, 2013; Azevedo et al. 2012.

of fiscal policy, including taxes and government expenditures in transfers and public services. The Commitment to Equity Project, a joint initiative of Tulane University and the Inter-American Dialogue, has produced a comparative analysis of the degree of progressivity of fiscal systems in a few countries in the region, including Paraguay.⁸

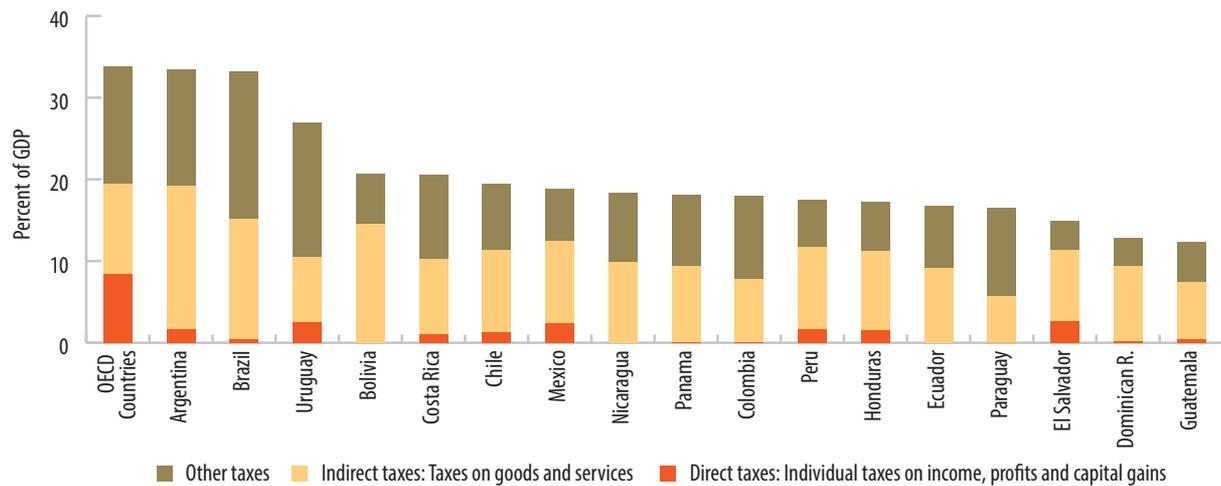
In line with other countries in the region, Paraguay's tax collection is low relative to the average in the Organisation for Economic Co-operation and Development (OECD) and relies more heavily on consumer taxes. In 2010, tax revenue was only 16.5 percent of GDP,

compared with an average of 34.0 percent in the OECD (OECD 2014) (figure 19).⁹ Lower tax revenues imply less fiscal space for social investments, such as improved education and infrastructure. Furthermore, while a quarter of the OECD's tax revenue was derived from personal income tax, a typically progressive tax, Paraguay did not enact personal income taxation until 2012 (Higgins et al. 2014). Instead, Paraguay relies on the value added tax (VAT), which accounted for 48 percent of tax revenues in 2010 (Higgins et al. 2014). This type of consumption tax is disproportionately paid by low-income consumers, who spend a higher proportion of their incomes on necessities.

8 For more information, see the Commitment to Equity Project website—<http://www.commitmenttoequity.org/>—and Lustig, Pessino, and Scott (2014).

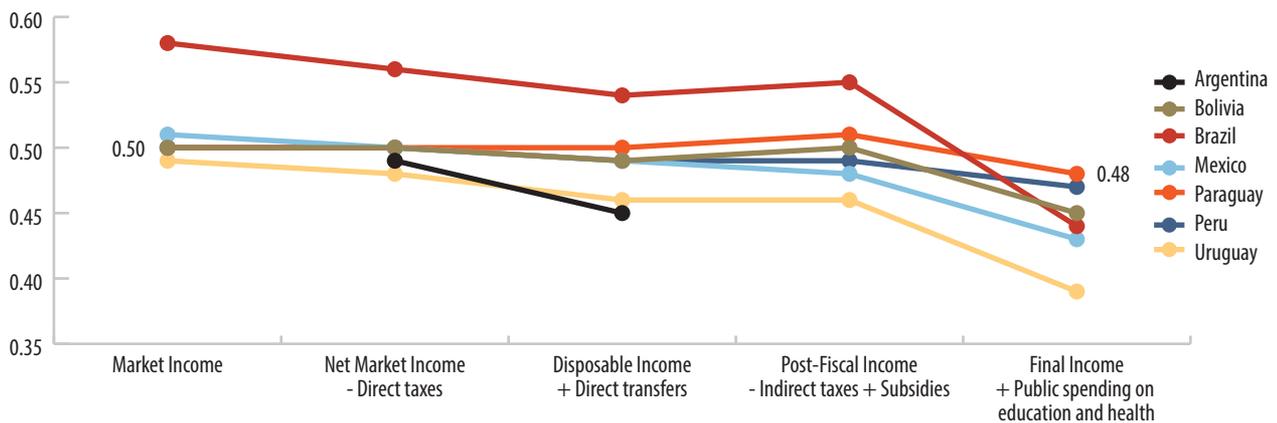
9 Tax revenue reported in Paraguay in the latest available year was an estimated 17.6 percent of GDP in 2012.

Figure 19: Tax collection as a share of GDP, the OECD and Latin American and the Caribbean



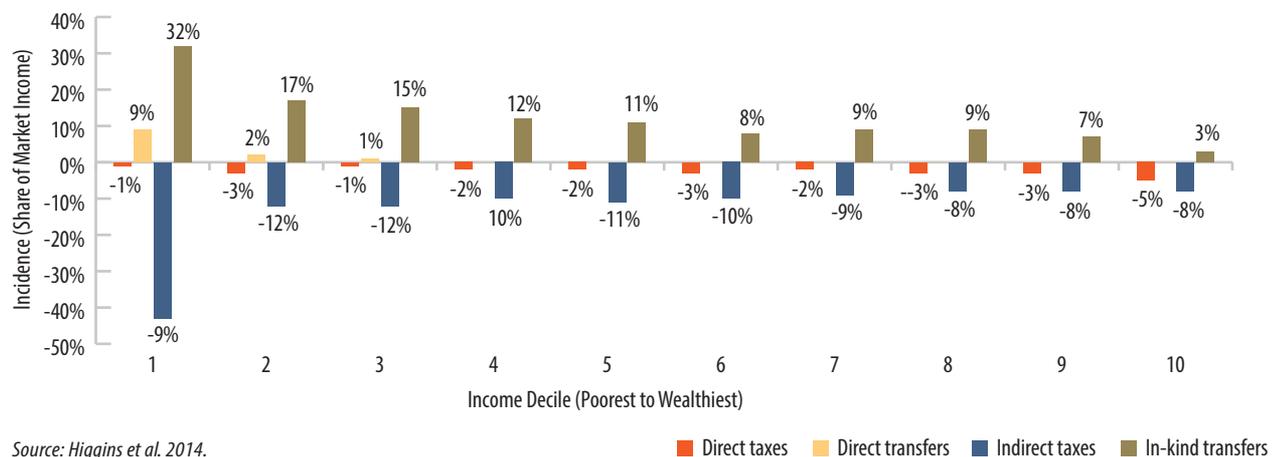
Source: World Bank 2014; OECD statistics: 2010 Tax Data Base. Note: Other includes corporate taxes, social security contributions, payroll taxes, property taxes, and other sources.

Figure 20: Comparative redistribution effectiveness of fiscal systems, Latin America and the Caribbean



Sources: Bucheli et al. 2014; Higgins et al. 2014; Higgins and Pereira 2014; Jaramillo 2014; Lustig and Pessino 2014; Paz Arauco et al. 2014; Scott 2014. Note: The figure shows Gini coefficients calculated based on each of the five Commitment to Equity Project income definitions. The data are from 2009 except for Mexico and Paraguay, for which the data are from 2010.

Figure 21: The incidence of selected taxes and transfers, by income decile, 2010



Source: Higgins et al. 2014.

Paraguay’s fiscal system is among the weakest in the region. Based on comparable methodologies and harmonized data, Paraguay appears to be the least effective among seven countries—Argentina, Bolivia, Brazil, Guatemala, Mexico, Paraguay, Peru, and Uruguay—at mitigating inequality through fiscal policy (figure 20).¹⁰ The Gini coefficient for market incomes, earnings before taxes and transfers, in Paraguay was 0.50, similar to the coefficients for most of the other countries analyzed in the region. Direct taxes and transfers reduced the Gini coefficient by less than 1 percent, while indirect taxes reversed this progress: the post-fiscal income Gini coefficient was slightly higher than the market income Gini, indicating that income inequality was slightly greater after transfers and taxes are taken into account. Finally, the provision of public education and public health services decreased the effective income inequality somewhat, to 0.48. Though slightly lower than the initial Gini of 0.50, Paraguay’s decline of 0.02 Gini points through fiscal policy is the smallest reported.

The combination of taxes and transfers in Paraguay means that every income decile is a net payer to the fiscal system, the only country in the analysis in which this is the case (Higgins et al. 2014). Figure 21 reports the average share of market income paid in taxes or received in direct transfers or in-kind transfers (such as public education). The bottom deciles, though largely impoverished, report that they pay direct taxes. This differs from many countries, where the poor do not typically pay any direct taxes. In addition, the bottom decile pays a sizeable share of their market incomes, an average of 43 percent, in indirect taxes such as the VAT and the combustibles tax. These indirect taxes result in increases in extreme poverty from 14.4 percent based on disposable income (market income, less direct taxes, plus direct transfers) to 16.2 percent, as measured by the international \$2.50-a-day poverty line. While direct taxes are progressive (that is, those with more income pay a higher share), indirect taxes are regressive. Because indirect taxes are a larger share of all taxes collected, the net effect is a slightly regressive tax system (Higgins et al. 2014).¹¹

10 Higgins et al. (2014) and Lustig, Pessino, and Scott (2014) report the Gini coefficient before and after taxes and transfers for several countries in the region.

11 The Kakwani coefficient is a measure of progressivity in taxation. It is calculated as the tax concentration coefficient, minus the market income Gini coefficient. A regressive tax has a negative Kakwani coefficient. The Kakwani coefficient in Paraguay 2010 was -0.02 (Higgins et al 2014). For comparison, the Kakwani coefficients reported in the other countries included above are as follows: -0.13 in Bolivia, 0.04 in Brazil, 0.11 in Mexico, 0.08 in Peru, and 0.07 in Uruguay

Only 4 in 10 individuals living on less than \$4 a day (including a quarter of those living on less than \$2.50 a day) were recipients of any direct transfer programs in 2010 (Higgins et al. 2014). While the spending was well targeted, with 47 percent of expenditure reaching the extreme poor (measured at \$2.50 a day) and a total of 68 percent reaching those living on less than \$4.00 a day, the low coverage rate suggests that expansions of these programs could result in gains in poverty reduction. Furthermore, the transfers received are not sufficiently large to raise households out of poverty. For those living on less than \$2.50 a day who received any direct transfer, the amount received was, on average, \$0.38 a day.

Though the Commitment to Equity analysis paints a stark picture of fiscal policy in Paraguay in 2010, several recent policy changes have addressed these shortcomings. Direct personal income taxation was introduced in 2012 (see above). Additionally, a tax of 10 percent on income from agriculture was passed in 2013. These taxes should have the effect of reducing the regressivity of the tax system. On the other hand, these changes have been accompanied by a new VAT on agricultural and livestock products and an expansion of the VAT on most products, potentially decreasing the progressivity characteristic of higher direct taxation. On the spending side, the government’s *Sembrando Oportunidades* poverty reduction plan aims to fight poverty by targeting a quarter of a million families living in extreme poverty. The plan involves the expansion of cash transfer programs (such as the Tekopora, Tekoha, and Propais II) in terms of coverage and the amount of benefits. *Adultos Mayores* has also been expanded. Additionally, the FONACIDE law passed in 2012 by Congress regulates the spending of extra revenue from electricity sales (to Brazil) on infrastructure projects, including investments in educational infrastructure.

2.2 Economic growth and the labor market

As in other economies in Latin America and the Caribbean, improvement in labor market outcomes—both employment rates and wages—has fueled much of the poverty reduction in Paraguay since 2003. While agriculture remains the primary sector of employment among Paraguay’s poor, other occupations, particularly sectors traditionally dominated by men, such as construc-

(Bucheli et al. 2014; Higgins and Pereira 2014; Jaramillo 2014; Lustig and Pessino 2014; Paz Arauco et al. 2014; Scott 2014).

tion, have become more relevant and, with higher wages than agriculture, offer better labor opportunities for low-skilled labor.

Economic growth in the past decade was driven in large part by the two largest sectors in the economy: agriculture and manufacturing. Though the manufacturing sector consistently dominated the Paraguayan economy in terms of output during this period, accounting for 29 percent of national output in 2003 and 26 percent in 2012, a substantial proportion of this output is based on agricultural inputs (figure 22). The two largest manufacturing subsectors in 2012, for example, were meat products (₡2.38 trillion) and beverage and tobacco production (₡1.58 trillion).

However, these gains in output in manufacturing and agriculture did not translate into significantly higher employment growth in these activities, particularly among the less well skilled. Though agriculture accounted for 26 percent of the main occupations among individuals in 2013, the sector showed limited employment growth between 2003 and 2013 (figure 23). Given the employment growth in other sectors, total employment is much less reliant on agriculture now than it was at the beginning of the decade, when it accounted for a third of total employment. Similarly, manufacturing still represents the largest sectors in terms of output (around 25 percent of the total economy), and, yet, it continues to account for only 10 percent of total employment. The most rapid employment growth was occurring in construction, where employment more than doubled in 2003-13, from 98,000 to 214,000 jobs. Still, in 2013, only 7 percent of total employment was concentrated in construction.

Agriculture was still the main sector of employment for 43 percent of low-skilled employed men and 32 percent of low-skilled employed women (figure 24). The low skilled, here defined as adults with only a primary education or less, are disproportionately more likely to live in extreme poverty, accounting for two-thirds of all adults living in extreme poverty in 2011. In 2003-13, low-skilled men moved away from agriculture; employment in agriculture fell from 55 percent in 2003 to 43 percent in 2013 among this group. At the same time, employment in construction rose from 9 percent to 16 percent. Low-skilled women slightly increased their participation in agriculture throughout the period, though employment patterns in agriculture and services (including domes-

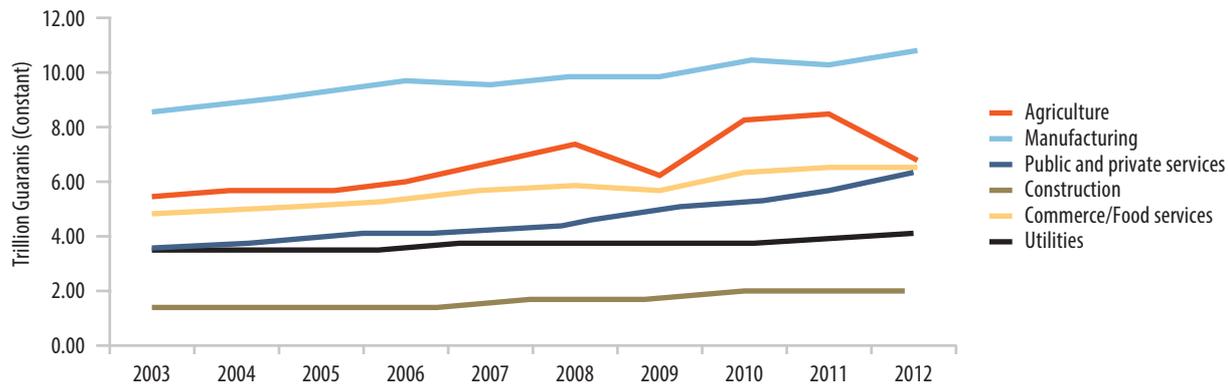
tic services) suggest a high degree of mobility between the two sectors among low-skilled women: there was no structural change in employment among women.

The share of employment in agriculture among the low-skilled lost ground during the decade, but hourly wages in agriculture continued to be lower and did not grow as much as in other occupations (figure 25). Because agriculture is dominated by self-employed workers, hourly wages may be more difficult to estimate and be prone to misreporting. However, the same pattern is observed in monthly incomes, suggesting that the hourly wages reported are accurate. While monthly incomes grew in other sectors to a median of about ₡1.25 million per month, monthly incomes in agriculture were flat at 600,000 per month (in 2005 guaraníes). Indeed, agricultural workers reported a large fraction of income from other employment (secondary jobs), accounting for 40 to 50 percent of reported monthly incomes among low-skilled agricultural workers.

Public administration and defense represent a niche by offering low-skilled men the highest hourly wages (averaging ₡9,300 in 2005 guaraníes) and the biggest gains in employment, though the gains were not shared with similarly educated women (figure 26). This is particularly the case among men who finished secondary school, but have no postsecondary training. Among this group, the median earnings rose from ₡1.5 million (constant 2005 prices) in 2003 to ₡2.5 million in 2013. Meanwhile, women who completed secondary schooling and were working in public administration or defense saw their median real earnings fall, from ₡1.6 million to ₡1.2 million, during this period.

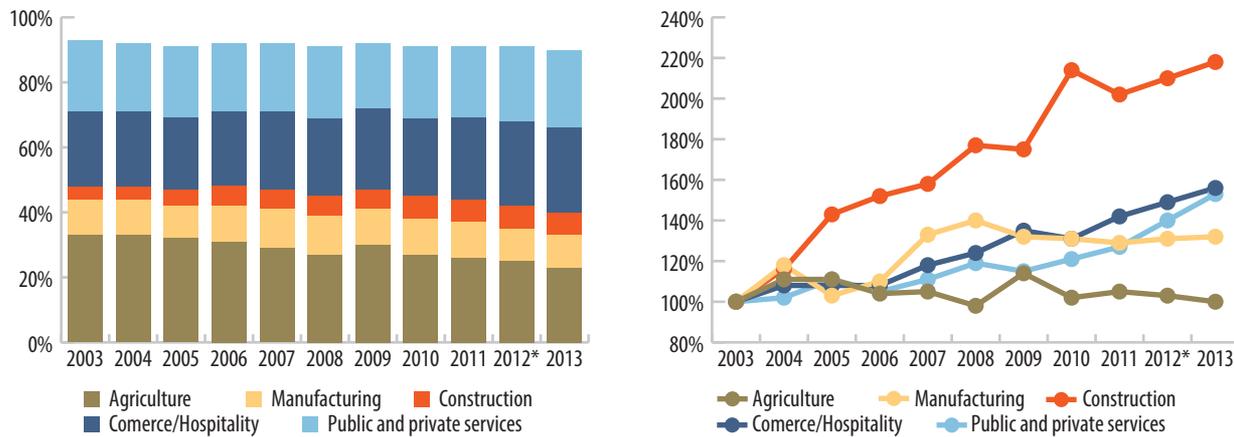
Employment levels, rather than wages, of low-skilled men were more responsive to changes in output. This may suggest that adjustments to low-skilled labor demand were being made along the extensive margin (the level of employment) rather than in the price of labor. While overall employment elasticity was positive in both periods in agriculture and manufacturing (box 2), employment elasticity among low-skilled men was small but negative in 2003-07 and 2007-11 in agriculture and large and negative in the latter period in manufacturing (figure 27). This suggests replacement of low-skilled labor in these two sectors, potentially by new technologies and by higher-skilled labor. On the other hand, employment elasticity among low-skilled men in construction, though falling across the two periods, was at 1.00 in the second

Figure 22: Output by sector, 2003-12



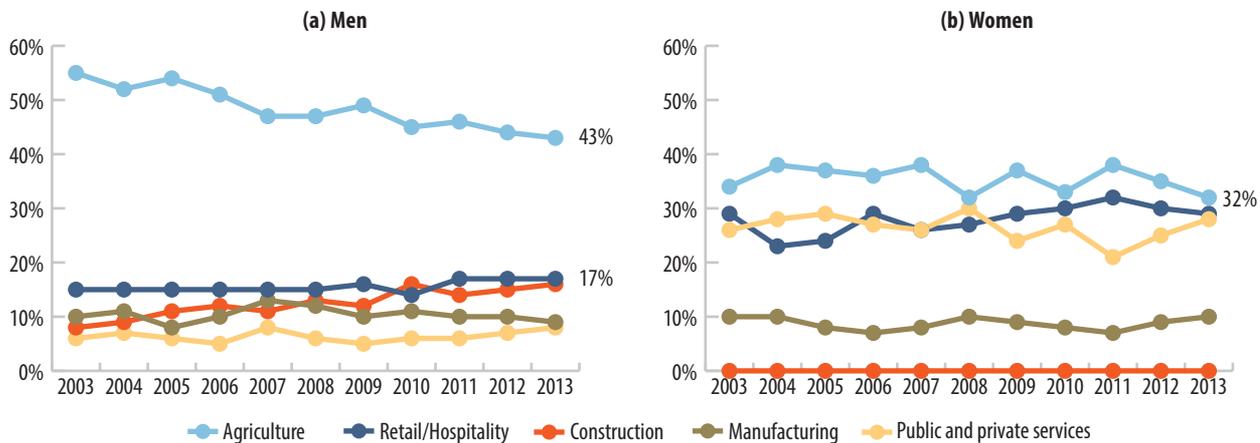
Source: GDP per sector from national accounts, Central Bank of Paraguay. Note: Commerce and food services include commerce and restaurant and hotel services. Agricultural output includes agriculture, animal husbandry, forestry, and fisheries. Commerce/food services also include workers in the hospitality sector. Public and private services include real estate and management services, public administration and defense, education, social and health services, private household services, external organizations, and other community, social, and personal services. Excluded sectors are finance and transportation/communications.

Figure 23: Sectoral employment participation and growth, the five largest sectors of employment, 2003-13



Source: Calculations using EPH data based on main sector of employment. Note: The values for 2012 are the average of 2011 and 2013 and do not include the EPH microdata as these are preliminary and subject to change.

Figure 24: Sectors of employment among low-skilled workers



Source: Calculations using EPH. Note: The charts report the proportion of adults with a primary education or less who work in selected sectors. The values for 2012 are the average of 2011 and 2013 and do not include the EPH microdata as these are preliminary and subject to change.

period, indicating that labor demand among low-skilled men grew at the same rate as output in the sector.

The climb in construction and public sector jobs among low-skilled men may have had an effect on the skills premium, which has fallen slightly since 2003 (figure 28). Compared with men who did not finish primary school, the wage premium among men with post-secondary schooling dropped from 1.19 in 2003 to 1.10 in 2013. Similarly, compared with men who completed primary school, but did not complete secondary school, the wage premium fell from 1.14 to 1.07 in 2013. The wage premiums among women in the corresponding schooling groups did not decline because wages among women were fairly constant in real terms. This highlights the important role of raising earnings opportunities among low-skilled men in sectors such as construction and defense and the lack of similar opportunities in sectors with greater employment among women.

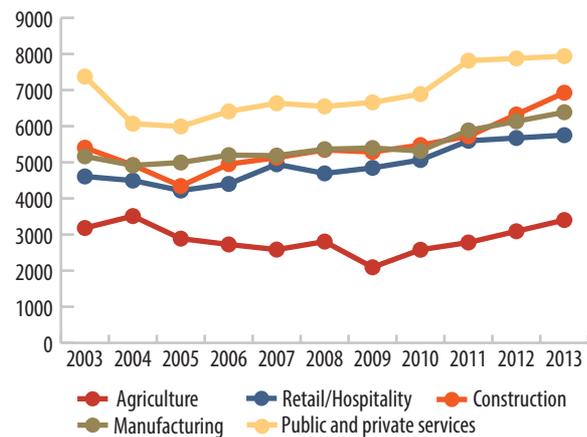
Overall, the growth in Paraguay in 2003–13 had two features in terms of employment: first, output rises in agriculture and manufacturing were accompanied by falls in low-skilled employment, suggesting an increase in labor productivity, which, however, was not reflected in higher hourly earnings; second, there was a shift to other, more well paid sectors, which therefore represented increased employment opportunities for the low-skilled, such as construction and public administration. Even in sectors that were not dominated by men, such as employment in private households, restaurants, and hotels, low-skilled men saw a sharper climb in their earnings than similarly educated women. These improvements in employment opportunities among people with moderate education can potentially help families move out of poverty in rural and urban areas.

2.3 Drivers of rural poverty

Rural poverty in Paraguay is defined by dependence on highly volatile income sources, particularly self-employment in agriculture. Because of limited access to financial markets and infrastructure, households face limited opportunities to diversify or insure against income volatility. Reliance on informal lending and family transfers are important strategies used by the rural poor to cope with these limitations.

Agriculture is the main source of income among the extreme poor living in rural areas, but most of these

Figure 25: Median hourly wages among employed men with primary schooling or less, 2003–13

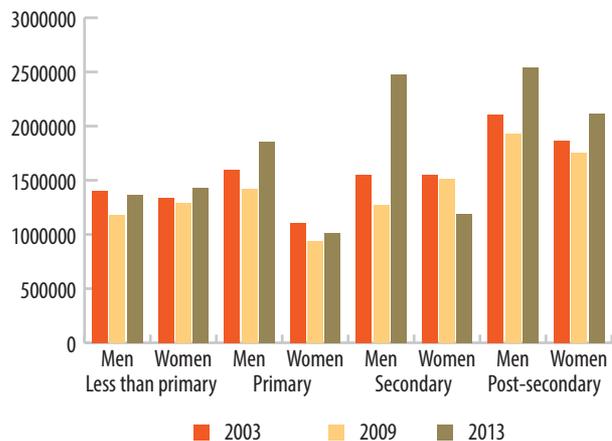


Source: Calculations of hourly wages in main sectors of occupation using the EPH. Note: The values for 2012 are the average of 2011 and 2013 and do not include the EPH microdata as these are preliminary and subject to change. The figure reports median hourly wage for main job in constant 2005 guaraníes.

people are self-employed or unpaid workers (especially women) who cultivate few crops for both home consumption and markets. On average, 77 and 57 percent of labor income in rural areas among households living below the extreme poverty line and the moderate poverty line, respectively, is derived from activities in agriculture, cattle raising, or fishing (figure 29). In contrast, the share of agricultural income among non-poor rural households is around 40 percent. Household agriculture tends to rely on the cultivation of few crops for both home consumption and the market (World Bank 2013d). Among many of these households, agriculture is fairly basic, with insufficient irrigation systems, inadequate agricultural practices, and low use of technology. These households also typically have limited access to markets, especially in a context of low connectivity (World Bank 2013d).

The rural extreme poor are more likely to be self-employed or unpaid workers than the rural moderate poor. In 2013, 82 percent of the rural extreme poor who were in the labor force were either self-employed or unpaid workers (typical of family farms and microenterprises), including production for both home consumption and the market. While those living in moderate poverty were also frequently involved in self-employment and unpaid labor, nearly one in three was a wage earner working in equal proportions in small or large firms, the latter associated with higher wages and less employment volatility.

Figure 26: Median monthly earnings of public administration and defense workers, by gender and educational attainment, 2003, 2009 and 2013



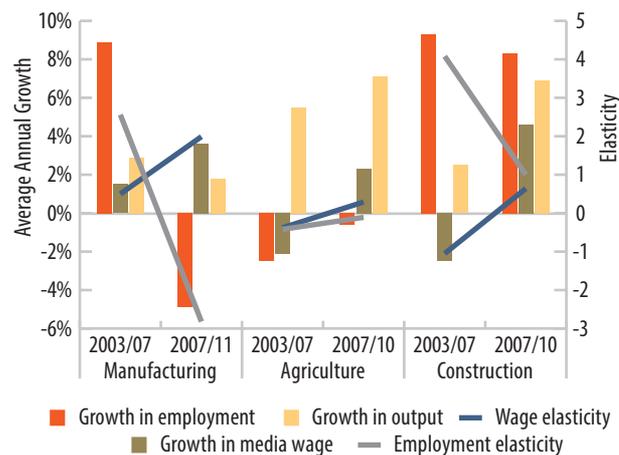
Source: Calculations using the EPH (2003, 2009, 2013). Note: The figure reports median hourly wages for main occupations in constant 2005 guaranies.

Reliance on a single source of income leaves many rural households exposed to poverty shocks. This is particularly true if the income source is itself volatile, such as rural self-employment. Yet, over a third of rural households living in poverty receive more than 75 percent of their total household incomes from self-employment (figure 30). These households face volatile earnings year to year, largely dependent on factors outside their control, such as weather conditions and market price fluctuations. A more diverse household employment portfolio would result in greater shelter from these exogenous shocks.

Agricultural activities are highly volatile at both the macro and micro levels relative to other sectors (figure 31). Moreover, the production risks that the sector faces lead to, on average, a loss equivalent to 5.4 percent of agricultural GDP and affect large producers, but also can put household food security at risk (World Bank 2013d). This is related to the sector's exposure to international commodity price fluctuations and climate shocks (World Bank 2013b). In family agriculture, pests and diseases can also have a large impact on production. On the other hand, the risks could be manageable with the aid of appropriate programs for the mitigation, transfer, and reduction of risks (World Bank 2013d). Despite the volatility, fewer than 2 percent of agricultural workers purchased agricultural insurance in 2011 (Demirgüç-Kunt and Klapper 2012).

The 2009 drought exemplifies the disproportionate impact on the poor. Households in rural areas were

Figure 27: Employment and wage elasticity among men with primary schooling or less, 2003-11



Source: Calculations based on EPH and national accounts data. Note: Wages are measured as median hourly wages in the main occupations among men with only primary schooling or less and who are employed.

severely affected, but the impact was not equally distributed (World Bank 2010). In 2008–09, families in the bottom quintile (which coincides with the pool of the extreme poor) saw large decreases in incomes and negative growth rates of 10 percent in some cases (figure 32). Households in the top 10 percent of the distribution in rural areas experienced income growth, close to 10 percent in some cases, possibly because of their more intensive use of irrigation methods and the higher level of diversification in their sources of income.

In the context of this highly volatile agricultural sector, income diversification becomes essential among the rural poor in terms of the cattle raising, the types of crops, and the labor or non-labor income sources. Indeed, in recent years, there has been a movement toward wage employment in agriculture (larger farms) and nonagriculture (mostly construction, transport, and public and private services¹²), generating alternative sources of income that are more profitable or stable.

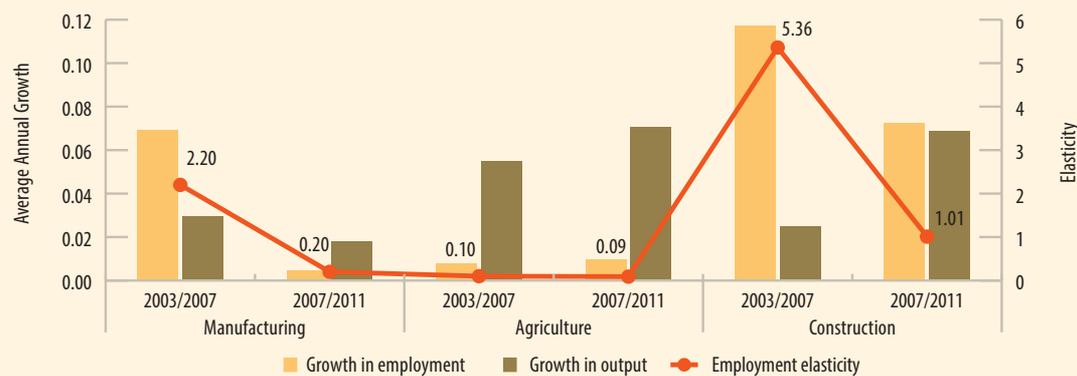
While working their own farms is important among the rural poor, this group has also seen a rise in wages in agriculture and nonagriculture (figure 33). In 2010 and 2013, households in the bottom decile saw increases in agricultural wages of the same magnitude as the in-

12 Public and private services include real estate and management services, public administration and defense, education, social and health services, private household services, external organizations, and other community, social, and personal services.

Box 2. Productivity gains over the past decade

In three of the most important sectors of employment (agriculture, manufacturing, and construction), employment elasticity was lower in 2007–11 than it had been in 2003–07, suggesting that there was a rise in productivity (figure B2.1). Positive employment elasticity indicates that, on average, increased output is associated with increased employment. However, an elasticity of less than 1 indicates that output is growing more quickly than employment, which is attributable to a rise in productivity or rises in product prices. Employment elasticity of less than 1 was characteristic of agriculture in both periods, suggesting that recent gains in agricultural output were being driven by productivity (or price) gains rather than higher employment. While manufacturing and construction gains in the first period were associated with important increases in employment, the elasticities in the second period suggest that there were productivity gains and, as a result, a relative decline in the demand for labor.

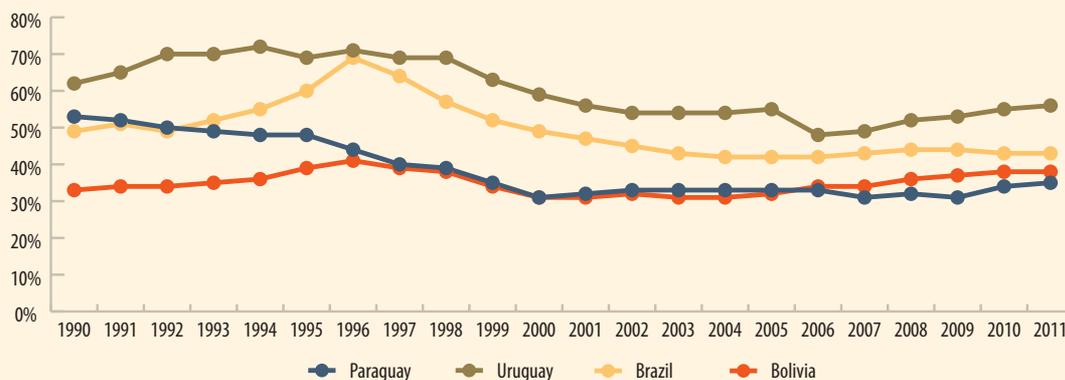
Figure B2.1: Employment elasticity based on average annual growth rate, 2003–11



Sources: Sectoral output data are from published national accounts (Central Bank of Paraguay); data on employment are from Calculations using the EPH.

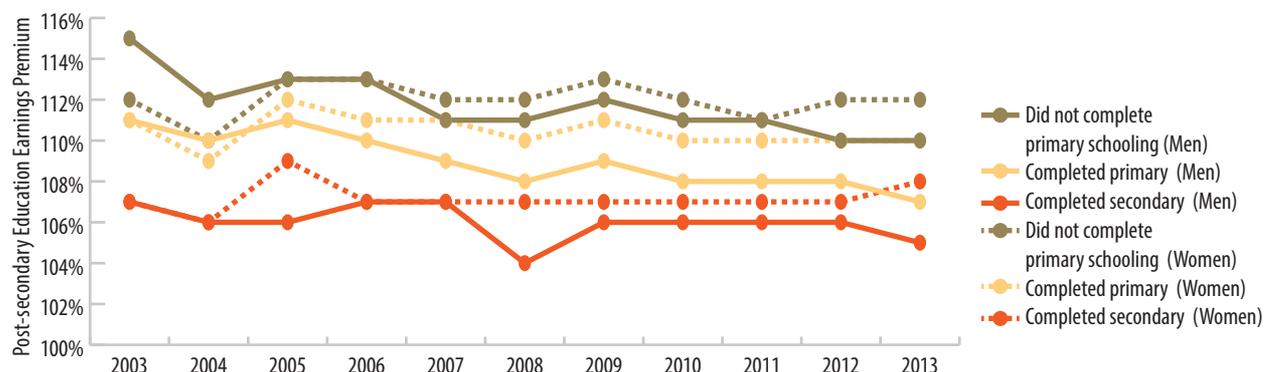
While recent employment and output trends suggest there was greater labor productivity, Paraguay's level of total factor productivity is relatively low (figure B2.2). In 2011, Paraguay's total factor productivity was 35 percent of that of the United States, showing a slight rise from the low of 31 percent in 2000; this is comparable with the total factor productivity of Bolivia (38 percent), but lower than Brazil's (43 percent) and Uruguay's (56 percent).

Figure B2.2: Total Factor Productivity at Current Purchasing Power Parity, as a Percentage of the level of the United States



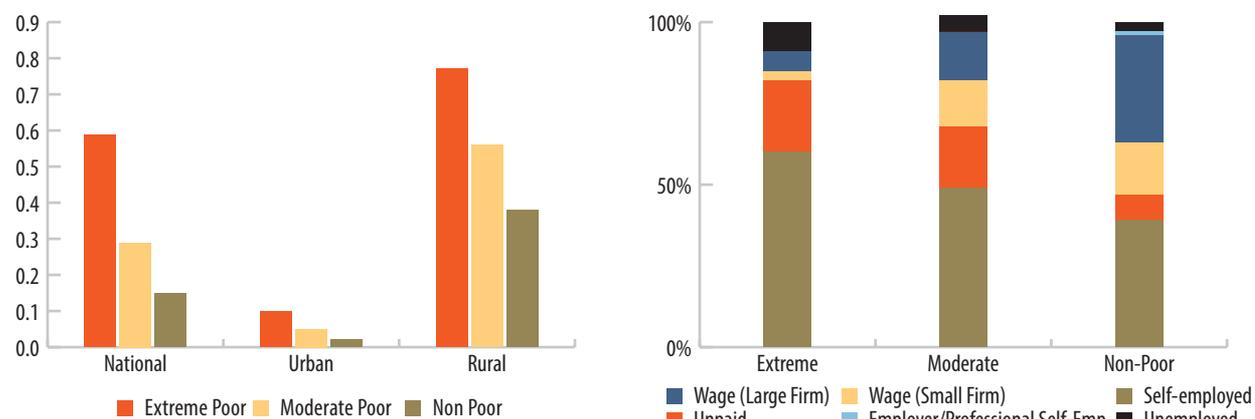
Source: Federal Reserve Bank of St. Louis.

Figure 28: Wage premiums associated with educational attainment, by gender, 2003–13



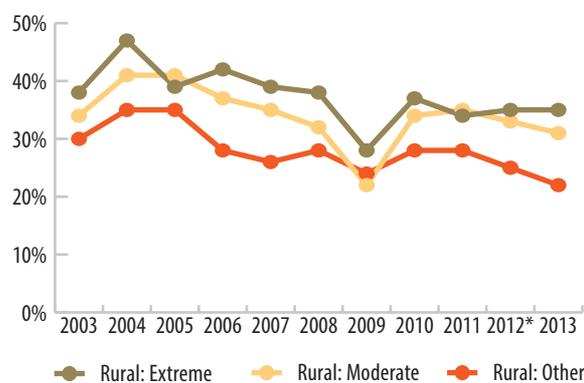
Source: Calculations based on EPH. Note: The figure plots the ratio of the mean log of hourly wages in the primary occupation among workers with some postsecondary training to the mean log of hourly earnings for three educational attainment groups (did not complete primary, completed primary, completed secondary). The analysis is limited to the employed population reporting positive earnings in their primary occupation. The values for 2012 are the average of 2011 and 2013 and do not include the EPH microdata as these are preliminary and subject to change.

Figure 29: Share of income from primary sector activities over total labor income (left) and sector of employment for rural adults by poverty status (right), 2013



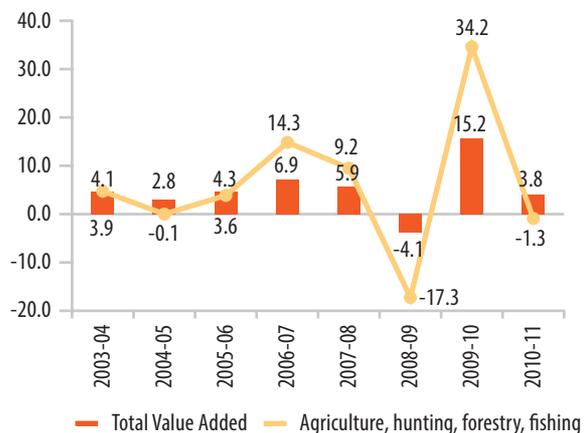
Source: Calculations using the EPH 2013. Note: The data universe refers to all adults aged 16–65 years in the labor force. Self-employed professionals (those who finished secondary schooling) are combined with employers.

Figure 30: Proportion of rural households that receive at least 75 percent of their total income through self-employment



Source: Calculations from EPH 2003–13. Note: The values for 2012 are the average of 2011 and 2013 and do not include the EPH microdata as these are preliminary and subject to change.

Figure 31: Macro-volatility of agricultural activities, 2003–11



Source: World Bank 2013b.

creases in self-employment income. But, for households most likely to have exited extreme poverty (the second through fourth decile), the main source of labor income growth was wage gains, particularly in agricultural. The rise in wage income reflected a declining reliance on agricultural production among the rural poor and the improved opportunities for income diversification as outside employment opportunities expanded. Many of these opportunities were occurring in other agricultural work, often in larger farms. This may indicate the gradual reallocation of rural labor from less productive small farms to more productive agribusiness.

Over the past decade, the self-employed have become increasingly more likely to live in extreme poverty relative to people participating in wage employment. In 2013, even among households living below the moderate poverty line, those in which the head was self-employed were almost three times more likely to be living in extreme poverty than those in which the head had wage employment. This represents a shift from the profile of rural poverty in 2003, when the self-employed were only slightly more likely to be living in extreme poverty than the wage employed.¹³

The last decade saw greater employment opportunities in other sectors besides agriculture. While, in 2003, agriculture accounted for two-thirds of all rural employment, the share had fallen to only 50 percent 10 years later (figure 34). Though the number of jobs in agriculture was roughly the same in 2003 and in 2013, the number of jobs available to rural families in construction and transportation or communications had more than doubled, while the number of jobs in public and private services (including defense services and services in private households) has gone up by 90 percent. As these latter sectors grew, they could provide rural households with the possibility to diversify their labor income portfolios.

In Focus. Addressing labor income volatility

Family transfers are playing an increasingly important role in reducing extreme poverty in rural areas, thereby representing a strategy used by rural households to manage risk. Figure 35 reports on the potential

13 This is based on a logistic regression controlling for gender of the household head, the dependency ratio, the agricultural worker indicator, and the household head's educational attainment. The likelihood of living in extreme poverty was 287 percent greater in households with a self-employed head than in a household with a head in wage employment in 2013, but only 89 percent in 2003.

incidence of extreme poverty without the benefit of family transfers.¹⁴ For instance, in 2003, without family transfers (domestic or from abroad), the incidence of rural extreme poverty would have been 4 percentage points greater (the equivalent of a 15 percent increase in the poverty rate). Through 2009, family transfers rose in importance in reducing rural poverty. Without this type of income, rural poverty would have been as much as 6.6 percentage points greater (or 20 percent greater than the observed poverty rate). Instead, extreme rural poverty expanded only 2 percentage points during 2009, a drought year. Family transfers continued to reduce extreme rural poverty by 15–20 percent in 2010 and beyond even as poverty rates fell.

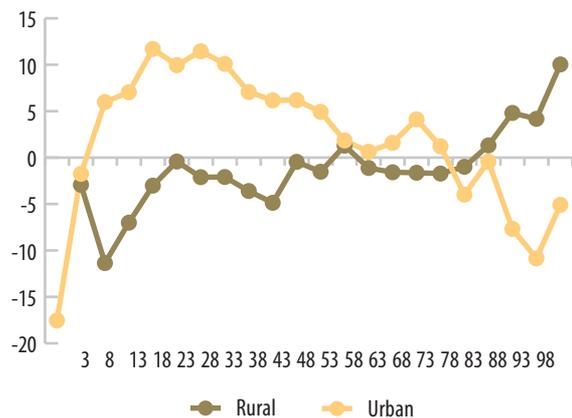
The elderly and woman-headed households were receiving substantially larger family transfers, suggesting that migration was a household income diversification and coping mechanism.¹⁵ In 2011, for example, households with older members received an average of ₡235,000 per month per capita (compared with ₡212,000 among other households). Woman-headed households with children received an average of ₡218,000 per capita per month versus ₡84,000 among man-headed households with children. These results highlight the importance of intergenerational transfers in mitigating poverty among children and the elderly in Paraguay. They may also suggest a household risk management strategy via family migration, whereby family members with greater earnings potential migrate to areas with higher wages and remit earnings back to the family.

The conditional cash transfer program Tekopora (originally designed for the rural poor only) provides a second mechanism to help reduce the household income volatility associated with agriculture, though it is limited. Among households that receive the transfer, it represents a sizeable share of household income, but few households are covered. On average, in 2013, Tekopora accounted for 20 percent of household income among the 6 percent of rural households living in extreme poverty that received it (figure 36). This amounts to an average of over ₡200,000 per month among these households.

14 This exercise should be taken as an upper bound as it assumes no behavioral adjustment by households. In fact, family transfers and remittances may be used as substitutes for labor income.

15 The comparison of family transfers received by households with members over the age of 65 and woman-headed households with children controls for the variation in annual trends across rural and urban areas. These results are based on a log-linear regression of the total family transfers received on household composition and year- and location-fixed effects.

Figure 32: Growth incidence curve, 2008–09



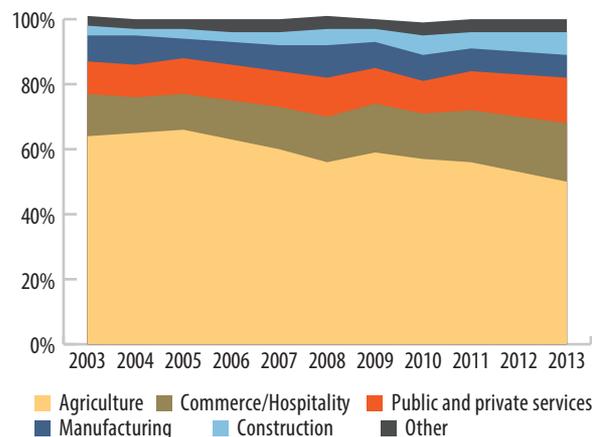
Source: Calculations based on EPH.

Figure 33: Annualized growth of labor income, by source, 2010 and 2013



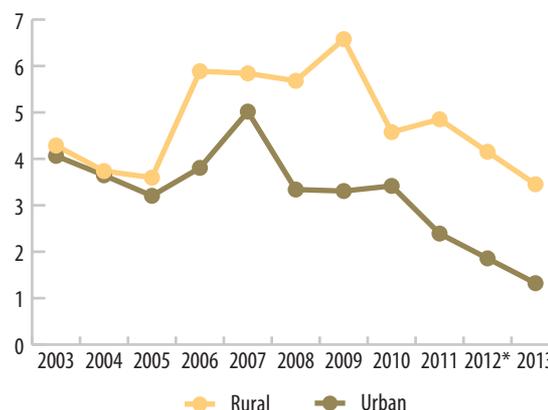
Source: Calculations from EPH 2010, 2013.

Figure 34: Sector of rural employment, 2003–13



Source: Calculations from EPH 2003–13. Note: The values for 2012 are the average of 2011 and 2013 and do not include the EPH microdata as these are preliminary and subject to change.

Figure 35: Family transfers, urban and rural areas, 2003–13



Source: Calculations from EPH 2003–13. Note: The values for 2012 are the average of 2011 and 2013 and do not include the EPH microdata as these are preliminary and subject to change. The figure reports the extent to which the estimated extreme poverty rate would be higher if households were not receiving family transfers.

Four percent of households living in moderate poverty also received Tekopora; among these, Tekopora accounted for an average of 12 percent of monthly household income.

Limited access to credit and banking is a constraint on the ability of households to smooth consumption in the face of income volatility. Only 20 percent of Paraguayans aged 15 or above reported that they had accounts in formal institutions in 2011, which is less than half the regional average of 44 percent (Demirgüç-Kunt and Klapper 2012). This lack of access to banking is especially felt among the rural population, among whom only 10 percent reported they had accounts. However, only 3

percent of the bottom 40 reported they had accounts. Though data on access to formal financial institutions are unavailable on the bottom 40 in rural areas, it is clear that formal banking is rare among the rural poor. Additionally, the savings rate (formal and otherwise) is exceptionally low among the rural population: only 7.4 percent reported they had any savings during 2010–11. This combination of low savings and poor access to formal financial institutions poses a challenge in the event of household shocks.

Informal lending thus represents an important third mechanism that rural households employed to cope with potential shocks. Despite a lack of access to formal financial markets, nearly a third of rural Paraguayans

reported in 2011 that they had loans (figure 37). Among rural families, the main reasons for requesting loans are the need to confront a health issue or other emergency or to pay school fees (figure 38).¹⁶ These loans were often obtained from friends and family (21.5 percent of the rural population). Given their insufficient savings and limited access to formal banking and credit, rural households rely on family and social networks to address negative household shocks.

In sum, agriculture is still the main source of income among the extreme poor in rural areas, but, in recent years, there has been a movement toward wage employment in agriculture (larger farms) and in nonagriculture (mostly construction, transport, and public and private services), thereby generating alternative sources of income that may be more profitable and stable. In addition, non-labor incomes have played an important role in alleviating extreme poverty as a diversification strategy (largely, family transfers and informal lending and, to a lesser extent, public transfers such as *Tekopora* and *Adultos Mayores*), as well as a strategy to cope with adverse shocks.

2.3 Drivers of urban poverty

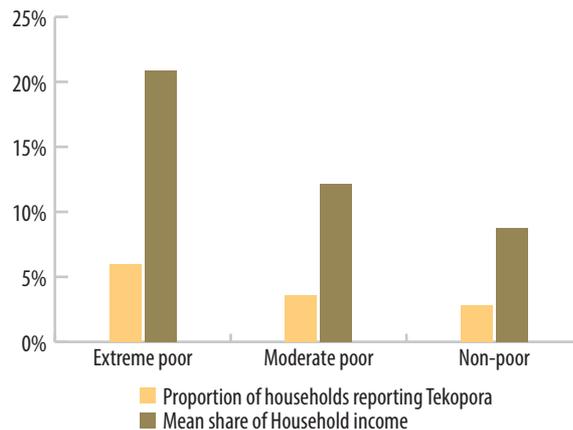
The drop in urban poverty by half corresponds to considerable improvements in the urban labor market between 2003 and 2013: falling unemployment, employment gains in more high paying large firms (particularly in construction and in public and private services¹⁷), and greater labor incomes among the self-employed and workers in microenterprises. These changes had positive effects on those most likely to be poor, the least skilled, among whom self-employment earnings grew by 46 percent and wage earnings from microenterprises grew by 23 percent between 2003 and 2013 (figure 39). The growth in employment opportunities among the low-skilled in sectors such as construction played a big role in raising earnings and decreasing unemployment.

Nonetheless, like the rural poor, the urban poor continued to be exposed to household income volatility

¹⁶ Similarly, 17 percent of the bottom 40 (including both rural and urban) reported they had taken out a loan for a health or other emergency. Though crosstabulations are unavailable for the rural bottom 40, this population group probably had higher rates of borrowing to deal with emergencies.

¹⁷ Public and private services include real estate and management services, public administration and defense, education, social and health services, private household services, external organizations, and other community, social, and personal services.

Figure 36: Proportion of households receiving *Tekopora* and the mean share of household income

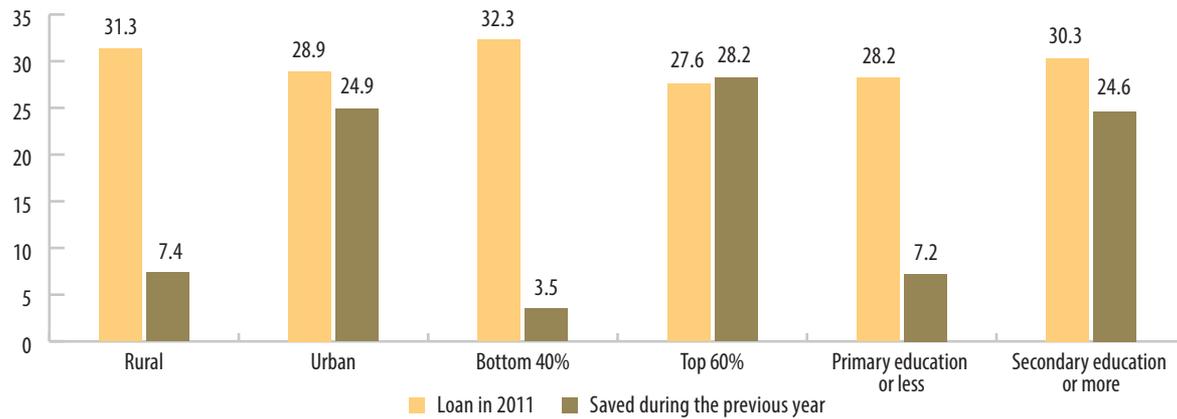


Source: Calculations from EPH 2013.

through high unemployment rates and high shares in self-employment. Though unemployment fell steadily throughout the past decade, it was exceptionally high among those living in poverty: the extreme poor are four times more likely than the nonpoor to be unemployed, and the moderately poor are more than twice as likely as the nonpoor to be found in this situation (figure 40). In part, the rise in the unemployment rate among the extreme poor reflected the lower propensity to be poor among those who are employed. As earnings and employment opportunities expanded, many exited extreme poverty so that the unemployed came to represent a larger proportion of the extreme poor. Thus, as the proportion of the urban poor fell by half in recent years, from 10 percent to 5 percent, extreme poverty became more closely associated with the lack of jobs.

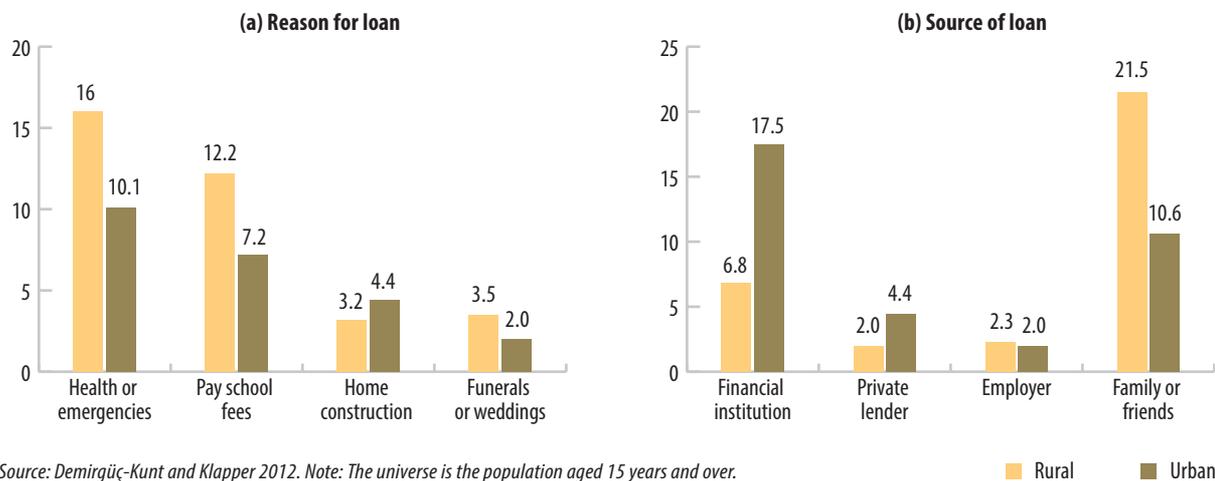
Self-employment (mostly in commerce and agriculture) and small-firm employment—relatively informal types of labor participation—are the dominant employment sector among the urban poor (figure 41). A third of the extreme poor are self-employed, and a quarter is employed in microfirms, whereas a quarter of the moderately poor are self-employed, and 15 percent of the moderately poor are small-firm employees. Yet, wage employment in large (more well paid) firms are far more common among the urban poor than among the rural poor, particularly among the urban moderately poor. Jobs in larger firms are not only more well paid; they are also less volatile and provide more job security and benefits. Specifically, 70 percent of urban workers in large firms have formal contracts, and 54 percent have access to a pension or retirement system. Small firms rarely offer pensions or

Figure 37: Proportion of the population that had a loan or were able to save during the previous year, 2011



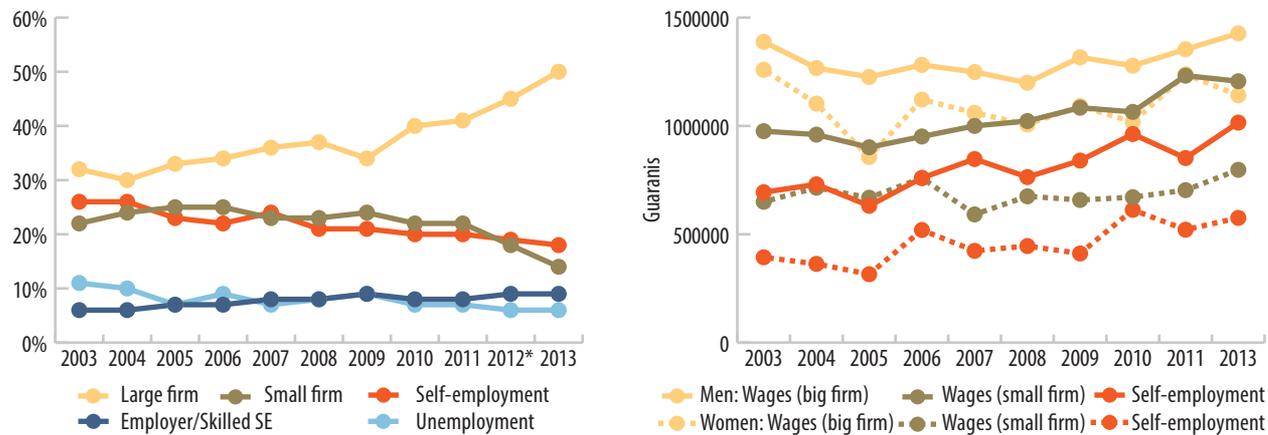
Source: Demirgüç-Kunt and Klapper 2012. Note: The universe is the population aged 15 years and over.

Figure 38: Proportion of population with an outstanding loan, by the reason for the loan, 2011



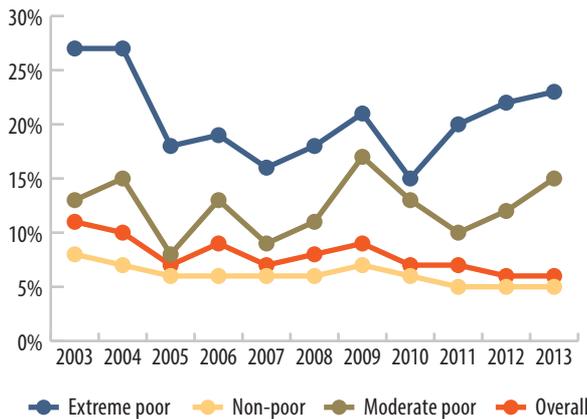
Source: Demirgüç-Kunt and Klapper 2012. Note: The universe is the population aged 15 years and over.

Figure 39: Employment among adults (left) and median monthly earnings among workers who did not complete primary school, by employer type, 2003–13



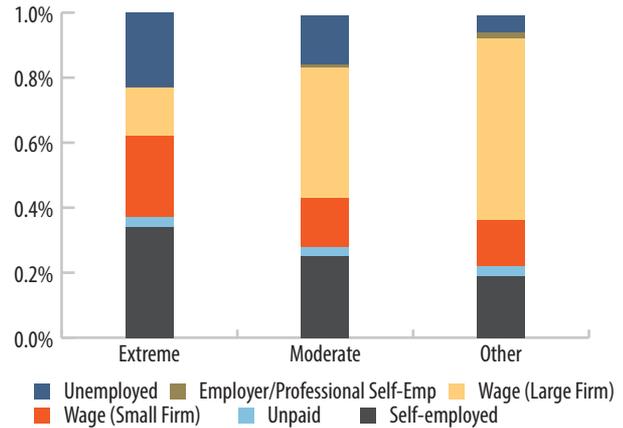
Source: Calculations using EPH.

Figure 40: Urban unemployment trends, 2003–13



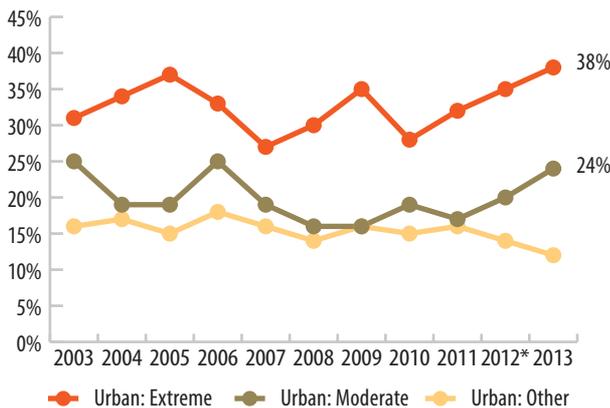
Source: Calculations from the EPH 2003 through 2013.

Figure 41: Type of employment among urban adults in the labor force, by poverty status, 2013



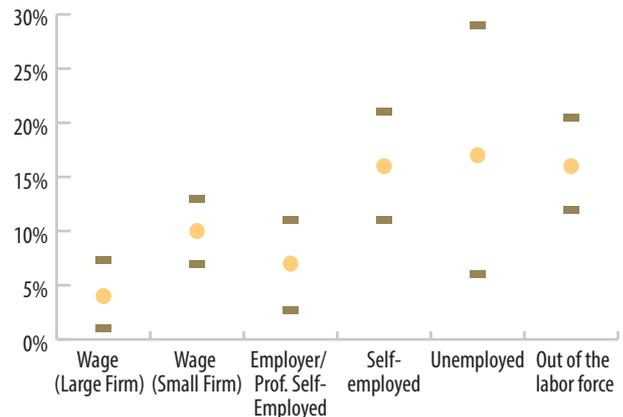
Source: Calculations from the EPH 2013. Note: The data universe refers to all adults aged 16–65 years in the labor force. Self-employed professionals (those who finished secondary schooling) are combined with employers.

Figure 42: Households deriving over 75 percent of their incomes from self-employment, 2003–13



Source: Calculations from EPH 2003–13. Note: The values for 2012 are the average of 2011 and 2013 and do not include the EPH microdata as these are preliminary and subject to change.

Figure 43: Propensity to be in extreme poverty, by employment status in the previous year



Source: Calculations using linked ECE panel data (2010–11, quarter 1; 2011–12, quarter 2; 2012–13, quarter 3). Note: The figure reports marginal probabilities of living in extreme poverty in year 2 by employment status of the household head in year 1. This was calculated using a logit model, including control variables for year and for poverty status in the initial year. The lines around the points estimate represent the 95 percent confidence interval.

contracts (at 8 percent and 15 percent, respectively). The self-employed have limited access to pensions; pensions are nonexistent among the low-skilled self-employed, and only 6 percent of the skilled self-employed and employers have pensions.

Despite more wage employment opportunities in cities, over a third of urban households in extreme poverty rely largely on incomes from self-employment (figure 42). This is similar to the share among the rural poor. The urban moderately poor are less reliant on self-employment than the rural poor: only a quarter draw

more than 75 percent of their income from this source. As in the case of unemployment, the recent rise in the share of households deriving more than 75 percent of their income from self-employment is, in part, a reflection of the fact that greater employment opportunities in urban areas were associated with the fall by half in the extreme poverty rate during the period.

The households most insulated from extreme poverty were those in which the heads were wage earner in firms with more than five employees. Among these households, only 4 percent were still living in poverty in

the following year was (figure 43). Households in which the heads were self-employed, unemployed, or out of the labor force showed a 16 percent likelihood of falling into extreme poverty, that is, these households were four times more likely to fall into poverty than households in which the heads were employed in large firms. In terms of poverty outcomes, households in which the heads were self-employed were more similar to households in which the heads were not employed than to households in which the heads were wage employed.

To a large extent, low-skilled and unskilled labor—the workers most likely to be living in poverty—were unprotected by minimum wage legislation (box 3). Nearly two in every five full-time wage workers in the private sector earned less than the monthly minimum wage, including 70 percent of unskilled laborers (figure 44). Indeed, among unskilled laborers, one in five earned less than half the minimum wage. Over three-quarters of the workers in the most highly skilled occupations—

management, skilled professionals, and midlevel professionals and technicians—earned more than the minimum wage.

The bulk of private sector employment associated with earnings below the minimum wage is found in microenterprises: 63 percent of wage workers who earn less than half the minimum wage work in firms with 5 or fewer employees, and another 14 percent in firms with only 6 to 10 employees. Similarly, 47 percent of workers who earn between 50 and 99 percent of the minimum wage work in firms with 10 or fewer workers.

Despite the trend throughout the decade of rising employment in more well paying large firms, year-to-year transitions show that job mobility into these firms among the self-employed and workers in microenterprises is limited: fewer than 3 percent of the employed in either of these categories transitioned into large-firm wage employment in the following year. A five-quarter

Box 3. A comparison of minimum wages, Paraguay and selected Latin American countries

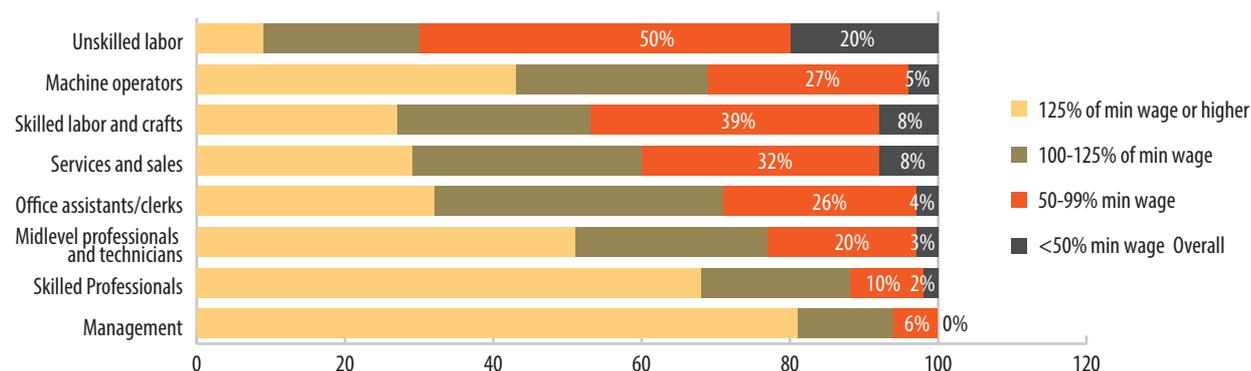
At 6 percent of GDP per capita, Paraguay's minimum wage in 2013 was in line with minimum wage legislation throughout Latin America. In the majority of countries in the region (10 of the 18 selected), minimum wages are 4 or 5 percent of per capita GDP (figure B3.1). There are a number of outliers, including Mexico, where the minimum wage is 1 percent of per capita GDP; El Salvador and Uruguay, at 2 percent; and Guatemala and Honduras, at 10 and 19 percent, respectively. A proposed increase of 25 percent in Paraguay, would raise the minimum wage there to 7 percent of the GDP per capita in 2012, pushing the minimum wage slightly higher relative to most Latin American countries.

Figure B3.1: Minimum wage as a share of GDP per capita, selected Latin American countries, 2013



Source: Minimum wage values are from the Doing Business Project (International Financial Corporation); GDP per capita in current U.S. dollars is from the World Development Indicators database.

Figure 44: Monthly earnings as a share of the minimum wage among full-time wage workers in the private sector



Source: Calculations using ECE 2013 data, quarters 1–4. Note: The data universe is all adults whose main occupations are reported as wage workers in private firms working more than 30 hours in the reference week and whose typical hours are over 30 hours per week. Domestic workers and public sector workers are excluded.

Table 2. Matrix of five-quarter transitions, by sector of employment, 2010–13

Origin	Wage (Large Firm)	Wage (Small Firm)	Self-employed	Unemployed	Out of the LF	Employer/ Professional SE	Total
Wage (Large Firm)	91%	4%	2%	2%	1%	1%	11%
Wage (Small Firm)	2%	80%	4%	4%	7%	3%	36%
Self-employed	1%	13%	60%	5%	13%	8%	13%
Unemployed	3%	40%	6%	20%	29%	3%	6%
Out of the LF	2%	12%	7%	12%	65%	3%	25%
Employer/ Professional SE	2%	9%	12%	4%	6%	67%	8%
Total	11%	37%	13%	7%	23%	9%	

Source: Calculations using linked ECE panel data (2010–11, quarter 1; 2011–12, quarter 2; 2012–13, quarter 3). Note: The data universe is all adults aged 16–65 years. The unpaid sector (1.7 percent of the total) is excluded.

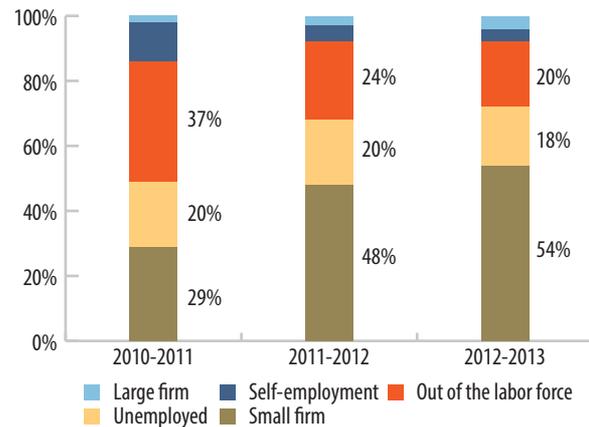
matrix of employment transitions reveals evidence of this limited mobility from high-volatility low-wage sectors to employment in large firms (table 2). Wage employment in larger firms is the most persistent employment sector: a full 91 percent of wage workers in larger firms report that they were working in large firms the following year. To some degree, this reflects the higher employment stability and improved labor outcomes associated with larger employers.

Rather than becoming small-business owners, the self-employed typically transition into employment in a microfirm or leave the labor force. The proportion of low-skilled workers who are employers is almost negligible. The majority of the self-employed (60 percent)—the

employment sector most associated with extreme poverty—were self-employed one year later.

Microenterprise employment is also persistent: four in five workers in small firms were working in small firms five quarters later. While some self-employed or formerly unemployed workers transitioned to employment in microenterprises, there were relatively few transitions between small and large firms, that is, while employment in small firms could potentially serve as a stepping-stone to large-firm employment by providing opportunities for building experience and human capital, this does not seem to have been happening. Instead, one-year employment transitions suggest that there were two distinct labor markets in urban Paraguay: workers in large

Figure 45: Employment status one year following unemployment, 2010–13



Source: Calculations using linked ECE panel data (2010–11, quarter 1; 2011–12, quarter 2; 2012–13, quarter 3).

firms (mostly covered by minimum wage legislation) and workers with more employment uncertainty who may transition from tenuous employment situations (unemployment and self-employment) to microenterprises.

The persistence of unemployment is particularly alarming: one in five of the unemployed in 2010-12 were unemployed one year later (figure 45). This indicates that part of the population was experiencing either chronic or frequent spells of unemployment. Additionally, a large proportion of the unemployed exited the labor force one year later, potentially as discouraged workers. This tendency was less apparent after 2010, when over a third of the unemployed dropped out of the labor force. By 2013, only 20 percent of those who had been employed the previous year had exited the labor force. The most likely outcome among the formerly unemployed is employment in small firms. While less than a third of the unemployed in 2010 reported they were wage employed in small firms a year later, more than half of those who had been unemployed the previous year were working in small firms by 2013.

In sum, through increased employment opportunities and higher earnings, labor markets played an important role in reducing the incidence of both extreme and moderate poverty in urban areas. The challenges remain twofold: self-employment and unemployment are still prevalent among the least well off, who are thus exposed to fluctuations in the economy and largely untouched by minimum wage legislation. In addition, despite the trend observed throughout the decade of rising employment

in more well paid, more stable jobs in large firms, year-to-year transitions show that mobility into such employment is limited among the self-employed and workers in microenterprises, even in a favorable economy, such as in recent years. These challenges threaten the sustainability of the improvements in the country.



CHAPTER 3

Second Pillar: The pursuit of opportunities for all

Among the greatest structural barriers to equity that Paraguay faces today is the high and persistent level of inequality in opportunity across population groups. A society is equitable if socioeconomic achievement and access to opportunities are not dependent on circumstances of birth over which individuals have no control, including family background. If inequality in one generation affects the life chances of children, it transmits the existing inequitable pattern into the next generation. A growing literature shows that deficiencies in nutrition, education, and health at early stages in life can have long-lasting effects. In Paraguay, differences in living standards are substantial in many dimensions of well-being and are expressed at various points throughout the life cycle.

3.1 Equality of childhood opportunity

Equality of opportunity among children in Paraguay has been improving since 2003, in line with the findings in section 1 regarding improvements in nonmonetary dimensions. The human opportunity index measures inequality-adjusted access to services among children according to circumstances at birth, that are beyond the control of the children such as ethnicity, the socioeconomic status of parents, place of birth, or gender (Molinas et al. 2012). The trend in the index in Paraguay shows that, while overall inequality of opportunity was expanding,

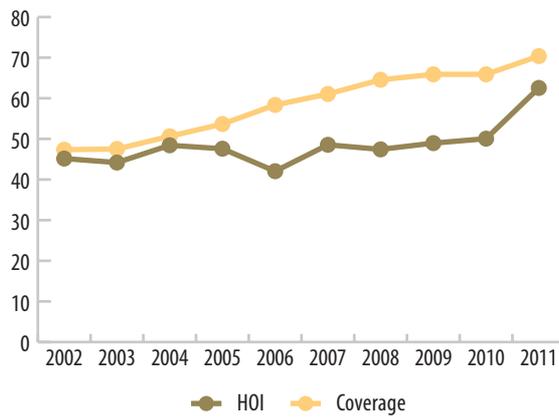
the penalties associated with unequal access were less severe at the start than at the end of the decade (figure 46).

Access to basic services still depends, to a large extent, on whether a child is born in a rural or urban household and, to a lesser, though yet considerable extent, on the socioeconomic status of the family. Half the children born in rural areas have access to flushing toilets inside their home; this is so among almost all children in urban areas, but particularly children in non-poor households (figure 47). The situation is substantially worse among children born in extremely poor households: only one in five children in poor families has proper sanitation and slightly fewer if the household only speaks Guaraní at home.¹⁸ A similar, though less pronounced situation is found with respect to access to water in the dwelling. Children born in rural areas have a 76 percent chance of having tap water in their homes, whereas, if they had been born in an urban area, their chances would increase to 97 percent. Chances are not much better in rural areas if they are born in non-poor households (81 percent).

While differences in school enrollment are less pronounced, the quality of schooling varies widely across

¹⁸ Guaraní is an official language in Paraguay. Though it is an indigenous language, it is also spoken by nonindigenous people, particularly in rural areas.

Figure 46: Trends in the human opportunity index, 2003–11



Source: Calculations based on EPH 2003–11. Note: The human opportunity index includes access to electricity, completion of sixth grade on time, access to sanitation, school attendance, and access to water.

groups, particularly between urban and rural areas.

While school enrollment rates among children aged 7–15 years are quite high, the extreme poor in rural areas show a markedly lower likelihood of attending school than nonpoor children in urban areas (89 percent compared with 99 percent), although this trend has been improving. School quality in Paraguay at the elementary level is extremely low by Latin American standards. According to the Second Regional Comparative and Explanatory Study carried out by the United Nations Educational, Scientific, and Cultural Organization in 2006, Paraguay is among the bottom five countries of the 17 Latin American countries included. Additionally, depending on where they live and the level of education of their parents, there are noticeable differences in the performance of Paraguayan children who reach sixth grade. Children in households with higher socioeconomic status in rural areas perform only marginally better than children in households with lower socioeconomic status in urban areas (figure 48). In addition, an urban child in a household with wealthier socioeconomic background scores similarly to the average Brazilian child on tests (Brazil was sixth among the countries studied), whereas a poor rural child is likely to score below the mean in any country in the sample, including the Dominican Republic, Ecuador, and Guatemala, the three countries at the bottom overall.

Considerable differences are also found in the timely completion of grades, another indicator of school quality. The indicator aims to capture the capacity of the education system in general and of schools in particular to deal with children from different backgrounds and to

guide them to complete their studies without dropping out or repeating grades. There are striking disparities between urban and rural areas and, within these areas, by socioeconomic group in the completion of both sixth grade and secondary education. While the non-poor group in urban areas shows a completion rate of around 90 percent in sixth grade and over 70 percent in secondary education, the rates among the extreme poor in rural areas are below 55 and 20 percent, respectively (figure 49).

3.2 Equality of opportunity in the labor market

Inequality of opportunity in the labor market has been expanding in recent years.

Inequality of opportunity is measured by differences in mean income among groups based on circumstances not governed by choice or effort (such as language spoken at home, rural or urban residence, and region of birth). Whereas total inequality has fluctuated, ultimately dropping between 2003 and 2013, the share of inequality accounted for by differences in the circumstances of individuals increased from 18 percent in 2003 to over 22 percent in 2012 and then fell to 19 percent in 2013 (figure 50). This worsening in inequality driven by circumstance, which is found at the national level, is also observed in rural areas; the inequality of opportunity index in rural areas rose by 50 percent between 2003 and 2013.

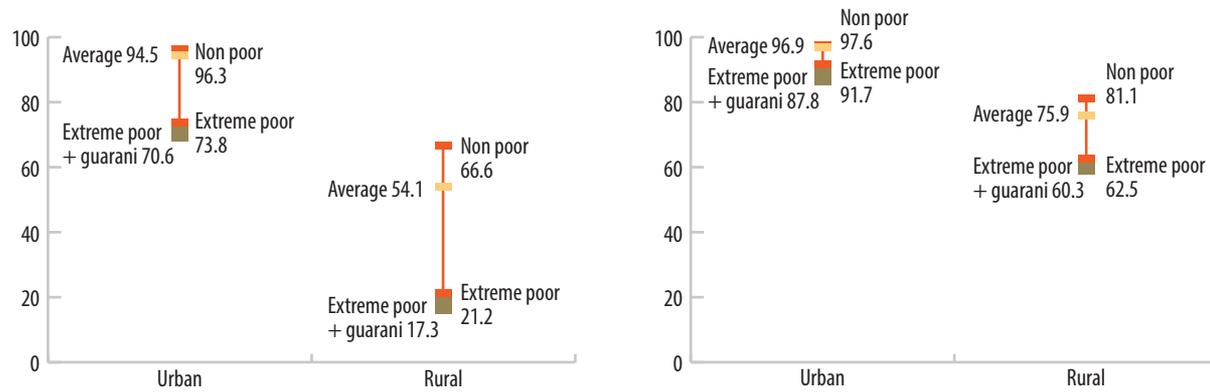
Birth’s location and the language spoken at home are important factors associated with the observed inequality of opportunity in labor markets (figure 51).

This is in line with the finding that 75 percent of the people who remained in poverty in both 2003 and 2013 only spoke Guaraní at home. While the vast majority of the population is bilingual, the language of choice is highly correlated with economic outcomes. Additionally, gender has become a more important factor in explaining opportunity inequality: while gender did not appear as a factor in 2003, it had appeared as a contributor to between-group inequality by 2011.

3.3 Challenges in the delivery of social services

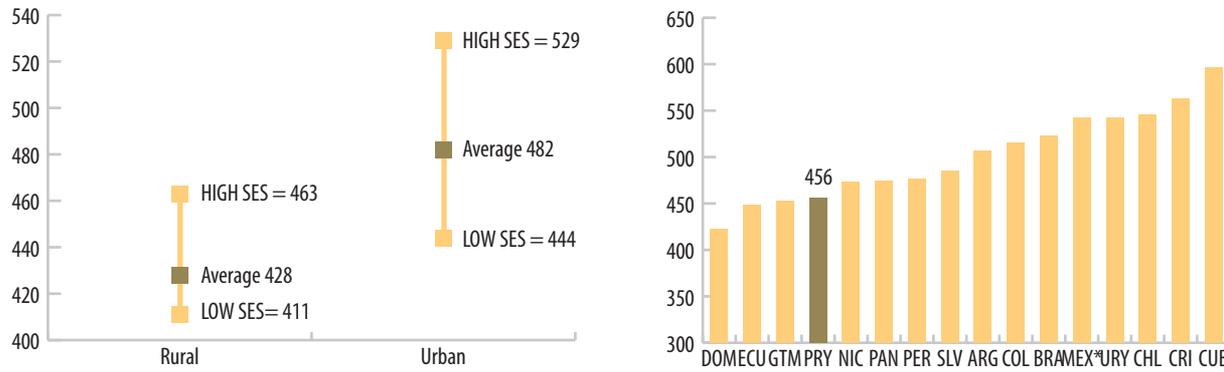
Addressing income inequality and boosting intergenerational mobility require inclusive growth and the implementation of effective policies to foster gains among population segments that do not directly benefit from growth. Access to basic opportunities in child-

Figure 47: Access to flushing toilet (left) and tap water (right) in the dwelling, 2013



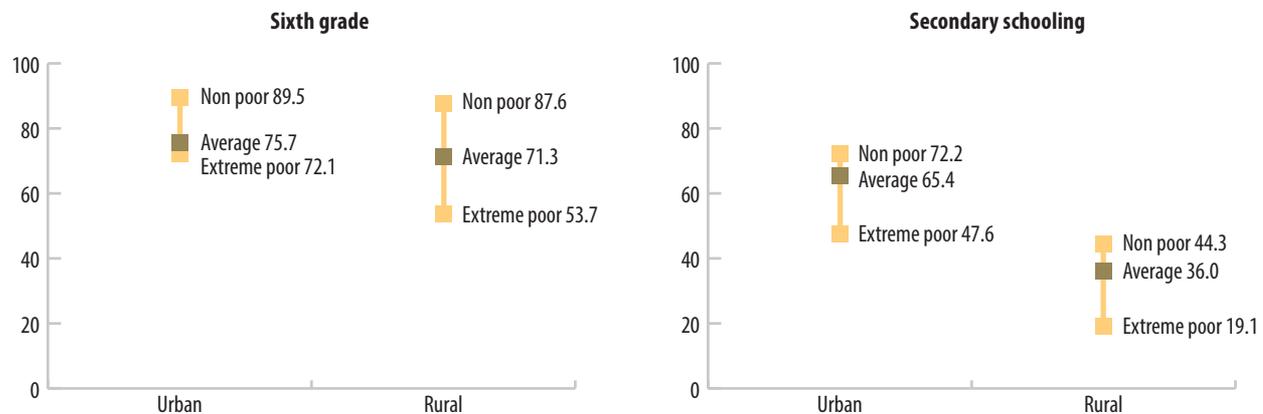
Source: Calculations based on EPH 2013.

Figure 48: Test scores of sixth graders, by residence and parental background, Paraguay and other Latin American countries, 2006



Source: Calculations based on the 2006 Second Regional Comparative and Explanatory Study. Note: High SES = parents who have completed tertiary education. Low SES = parents who have, at most, completed primary education. Mexico is represented by the state of Nuevo León only.

Figure 49: Completing sixth grade and secondary school on time, 2013



Source: Calculations based on EPH 2013.

hood is poor and inequitable in Paraguay. Good delivery of social services and sustainable fiscal policy can play an important role in reducing inequality and providing access to opportunities. Expanding the fiscal space for investments in boosting the access to and the quality of basic opportunities is one essential element in the effort to enhance fairness. There is substantial room for improvement in Paraguay in terms of progressive taxation policies, combined with well-targeted transfer programs. The effort should seek to reduce income inequality and alleviate poverty by providing essential safety nets so people may weather fluctuations in the labor market and offset the effects of inequality in the access of children to basic services. A key to well-designed, well-implemented social service delivery is appropriate fiscal policy and social spending. Shortfalls in the delivery of social services and in fiscal policies explain much of the inequality of opportunity and the associated outcomes in Paraguay.

Though social expenditure in Paraguay has grown rapidly, from \$95 per capita in 2003 to \$584 in 2010, key, basic social services, such as access to improved sewerage and running water, continue to be relatively inadequate (Guillen Estella 2010). The coverage of basic services is inequitable, as shown through the human opportunity index (see above). To some degree, the persistence of extreme poverty through 2011, despite economic growth, can be attributed to ineffectual social service delivery. The paradox of greater social spending and stubbornly inadequate service delivery can be explained by at least three factors:

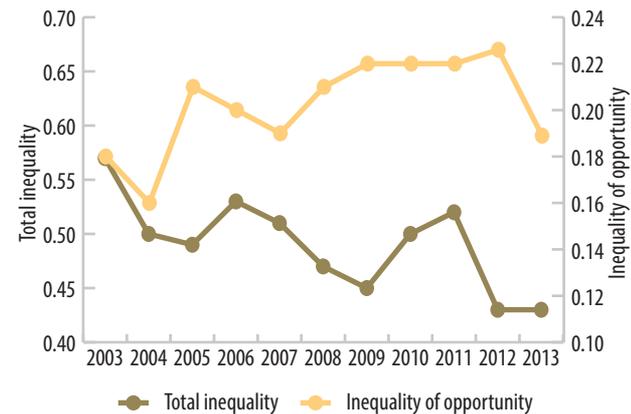
1. The ineffective allocation of resources
2. Institutional and operational inefficiencies
3. The lack of an effective monitoring and evaluation system

Ineffective allocation of resources

Although the government's poverty strategy provides for a process for the allocation of resources to social programs that is based on socioeconomic indicators by geographical location, some resource allocations at the sectoral level are regressive.¹⁹ A recent study shows, for example, that public investment in education

19 This refers to the flagship Sembrando Oportunidades Program launched by the government in September 2013.

Figure 50: Overall inequality and inequality of opportunity, 2003–13



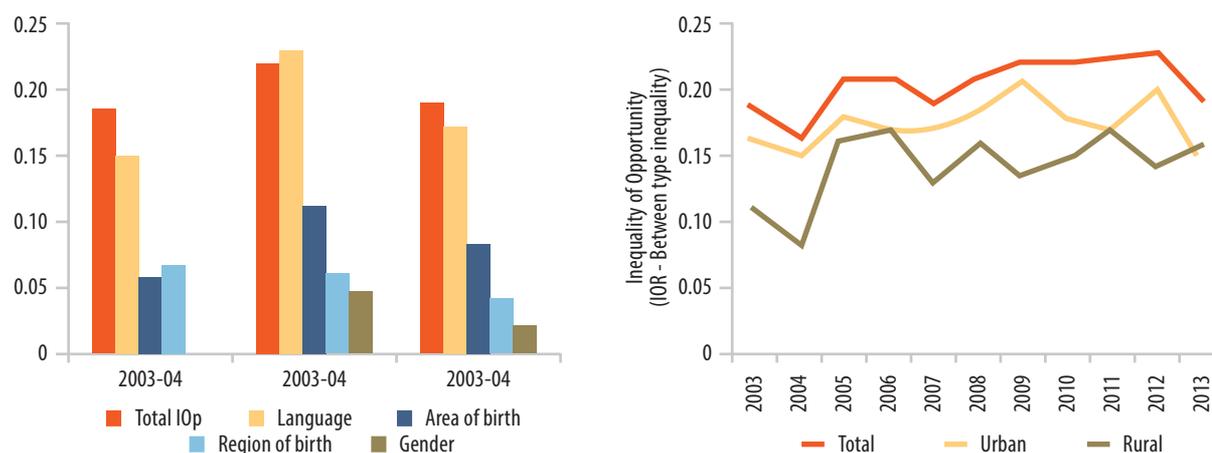
Source: Calculations based on EPH 2003–13. Note: Total inequality is measured by the mean log deviation, whereas inequality of opportunity is measured as between-group inequality relative to overall inequality, whereby groups are defined by language spoken at home, place of birth (rural versus urban, and region), and gender.

is not only low (and declining) in Paraguay compared with other Latin American countries, but also that investment in new classrooms is concentrated among schools serving the top quintile in the classroom availability index, while investments are lower where the need is most urgent, among poorer quintiles (figure 52) (Wodon 2014).²⁰

Other relevant social services such as water and sanitation, electricity, and health services are also characterized by inefficient resource allocation. In the case of water and sanitation, a recent study finds that, while access to treated water is relatively good, at 86 percent, particularly in urban areas (but also covering 66 percent of the rural population), reliability and quality are lacking, especially in rural areas and among poor households. About 40 percent of the population does not have home connections; as a result, it takes an average of 16 minutes to provide water to household members (by an adult woman in 49 percent of the cases). At the national level, even among households with connections, only 73 percent have 24-hour service without interruption. In sewerage, the problem is twofold: coverage and quality. Less than 10 percent of the population is connected to sanitary sewers, and essentially no sewerage system involves water treatment.

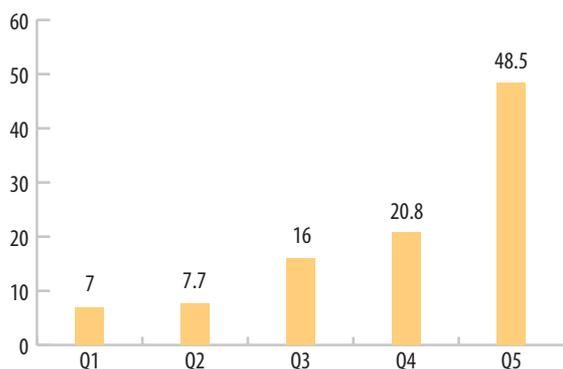
20 The classroom availability index represents “the number of classrooms available in a school normalized by the number of classrooms that should be available so that a value of 100 means that the school has exactly the number of classrooms it needs given its student population (all schools with an index value at or above 100 are not infrastructure poor)” Wodon (2014, 10).

Figure 51: Inequality of opportunity, by language, residence and gender, 2003–13



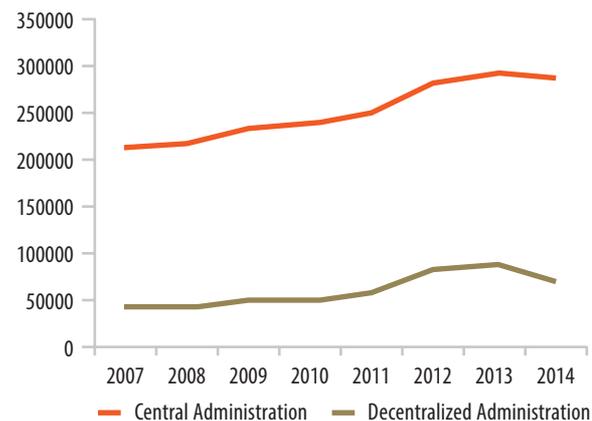
Source: Calculations based on EPH 2003–13. Note: Total inequality is measured by the mean log deviation, whereas inequality of opportunity is measured as between-group inequality relative to overall inequality, wherein groups are defined by language spoken at home, place of birth (rural versus urban, and region), and gender.

Figure 52: Distribution of new classroom investment, by classroom availability index quintile



Source: De Hoyos 2014.

Figure 53: Public sector employment included in centralized and decentralized public agency budgets, 2007-14



Source: Ministerio de Hacienda.

Table 3. Health insurance coverage

Health insurance	Total	Poor		Nonpoor
		Extreme	Total	
Without health insurance	76.5	97.4	93.3	67.6
With health insurance	23.5	2.6	6.7	32.4
IPS	16.5	2.4	5.9	22.1
Private health insurance	5.5	0.1	0.4	8.2
Military or Police Health	1.5	0.1	0.4	2.1

Source: World Bank Policy Notes Volume 2 (2013a).

Health insurance coverage is low, at approximately 24 percent of population and less than 3 percent of the extreme poor (table 3). The poorest quintile is the most underserved, with a coverage rate of only 1 percent, sharply lower than the 52 percent coverage rate among the richest income quintile. Unemployed workers and workers in the informal sector are served by the health care network of the Ministry of Public Health and Welfare, which delivers priority programs, including a prenatal and child health program, an HIV/AIDS program, a noncommunicable disease program, and a reproductive health program (World Bank Policy Notes 2013a). Although health services in the public network are provided without charge at the point of delivery, drugs and other medical supplies are not always sufficient to meet demand.

Institutional and operational inefficiencies

Social services are not delivered in a timely, regular, or coordinated manner, and there is no quality control. There are four reasons for this outcome. First is the weak national planning system and, especially, the lack of a tradition of strong national development planning that aligns service agencies to strategic goals at the national, sectoral, and local levels. Second, there is a lack of integration across planning and programming developed by the public sector and the government budgeting process. This prevents public sector managers from properly tracking social expenditures relevant to the delivery of goods and services. Third, although the Social Cabinet has been strengthening coordination among social service delivery agencies, there is still lack of efficient fiscal, strategic, and management coordination among executive agencies, departments, and municipalities, and there is no quality control over the delivery process. Finally, the civil service system is weak. This weakness is expressed in high turnover rates among public servants and the absence of a formal training system, resulting in substantial instability across public servant positions and a shortage of professional skills. Meanwhile, the number of public employees has risen considerably in the last seven years; almost 70,000 public sector jobs were included in the budget for centralized and decentralized public agencies. This represents an overall 32 percent expansion (figure 53).

Lack of an effective monitoring and evaluation system

A final obstacle facing service delivery is the lack of regular, efficient monitoring and evaluation of the

timeliness, quality, and cost of projects. There is no integrated inventory of the beneficiaries of social programs and no national effort to integrate the few monitoring and evaluation initiatives that exist. With the exception of the evaluation of some programs by the Ministry of Finance as part of a pilot exercise, there is no viable system to measure the performance of public sector management. This has negative consequences in accountability, the management of public programs, and the budget allocation process. Because there is no mechanism for the assessment of the quality of service delivery, identifying optimal policies and strategies is problematic.

In sum, while the country has improved the access of households to basic services, there are still substantial, persistent inequalities across population groups as defined by circumstances at birth, such as place of birth and socioeconomic status, over which the individual has no control. Similarly, the inequalities in the quality of education and access to the labor market are considerable. This poses challenges for the sustainability of recent improvements. Social policies are not sufficiently effective to counterbalance these inherited inequalities. In addition to a weak fiscal system, institutional and operational inefficiencies such as an inadequate civil service and the lack of effective monitoring and evaluation tend to enfeeble the already deprived social service delivery system.

CHAPTER 4

Third Pillar: Strengthening agency

The third dimension in which there is abundant space for Paraguay to achieve progress toward an equitable society relates to the strengthening of agency, understood as the capacity of individuals to be actors in their own development by being able to make effective choices that help them establish and pursue life plans they value. This pillar has manifestations in various realms and dimensions. There is, however, one aspect that is salient and that may be analyzed using available data: the economic and social role of women. This section describes the improvements in gender outcomes in the last decade and the challenges that remain, particularly in the labor market and in three specific manifestations of the lack of agency in Paraguay.

4.1 Improvements in gender outcomes in endowments

Paraguay has made progress over the last decade in promoting women's empowerment and gender equality, particularly in women's endowments in health, education, and the legal framework.

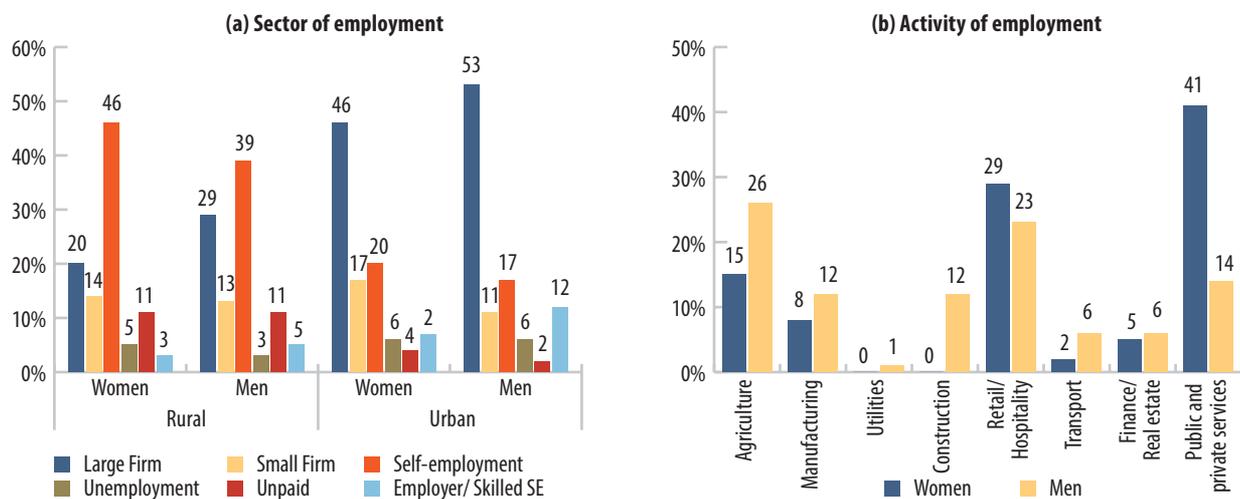
Specifically, sexual and reproductive health indicators have improved over the last decade, though Paraguay still lags behind the region in some areas. Female and male life expectancy at birth increased by three years,

from 71.4 years in 1996 to 74.4 in 2011 among women and, among men, from 66.9 years in 1996 to 70.0 years in 2011.²¹ More women who were pregnant were receiving prenatal care, from 94.2 percent in 2004 to 96.3 percent in 2008, and they are more likely to be attended by skilled health staff during birth, from 77 percent in 2004 to 82 percent in 2008, though this was still below the average across the region (90 percent in 2010). As a result, the maternal mortality rate showed a clear improvement in the last decade: 180 deaths per 100,000 live births in 2002 versus 100 deaths per 100,000 live births in 2010, 20 deaths per 100,000 live births more than the average in the region.

Girls now outperform boys in educational attainment and achievement. While the female-to-male ratio in primary enrollments was steady over the decade, at 0.96, the gender gap is in favor of girls at higher levels of schooling. The female-to-male ratios in secondary and tertiary education in 2010 were 1.07 and 1.27, respectively. The share of girls completing primary school was larger than the share of boys in 2010 (83.8 percent and 81.4 percent, respectively). This was on a par with results in the region. The repetition rate was higher among males than among

²¹ If not otherwise stated, data are from World Development Indicators (November 2013).

Figure 54: Sectoral employment and employment activity, by gender, 2013



Source: Calculations based on SEDLAC data (CEDLAS and the World Bank).

female in 2010 in primary school (5.7 percent versus 3.6 percent, respectively) and secondary school (1.3 percent versus 0.5 percent, respectively).

The legal and institutional framework has improved such that the stage is set for the realization of equal gender rights in the country. Paraguay has ratified major international human rights instruments to protect and promote women's rights and gender equality.²² For instance, the country ratified the Convention on the Elimination of All Forms of Discrimination against Women through Law 1215 on November 28, 1986. By Law 605/95, on June 21, 1995, Paraguay ratified the Convention on the Prevention, Punishment, and Eradication of Violence against Women, promoted by the Organization of American States, as well as the convention's Optional Protocol (Law 2396/04).

Over the past decade, laws were amended, and new laws were implemented by the government to promote women's empowerment and gender equality in the country.²³ Under Law 496/95, which amended and updated Labor Code Law 213/93, women and men enjoy the same rights and duties without discrimination in the workplace, including special protections for maternity. The law also establishes sexual harassment by an employ-

ee as grounds for firing the employee and prohibits wage discrimination based on gender. Law 834/96 of the Electoral Code sets a quota for a minimum level of participation by women candidates at 20 percent and establishes penalties for parties that do not comply. The law contains an explicit prohibition of gender discrimination in electoral and political campaigns. Finally, Law 1600 of 2000 and the Penal Code address a major problem in Paraguay: domestic violence.

Furthermore, to promote women's empowerment and gender equality, Paraguay elevated the Women's Secretariat of the Presidency of the Republic to the Ministry of Women through Law 4.675/2012.

4.2 Limited economic progress among women

Despite these improvements, challenges persist in the effort to achieve gender equality. The female-to-male labor force participation ratio remains low, at 0.65, indicating that there is a persistent gender gap in the labor force. Female unemployment is greater than male unemployment (6 percent versus 4 percent in 2012), especially among youth (18 percent among girls versus 10 percent among boys).²⁴

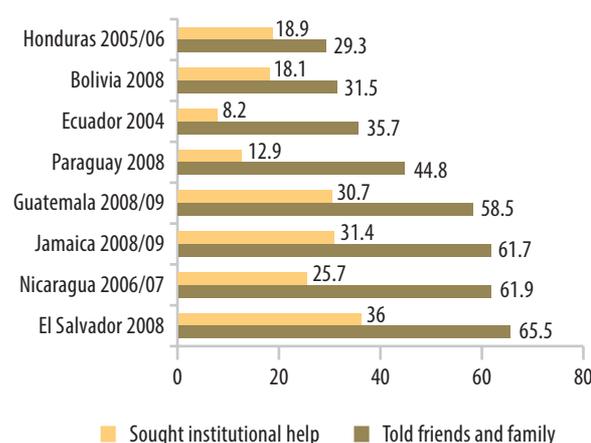
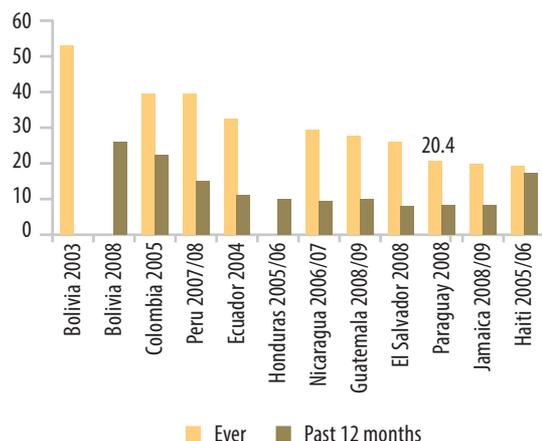
Men's and women's jobs differ greatly across sectors, industries, occupations, characteristics, and firms

22 "Observatorio de Género de la Corte Suprema de Justicia de Paraguay," <http://www.pj.gov.py/contenido/537-observatorio-de-genero/537>.

23 Unless otherwise indicated, "III Plan Nacional de Igualdad de Oportunidades entre Hombres y Mujeres, 2008-2017," [http://www.mujer.gov.py/userfiles/file/IIIPNIO\(1\).pdf](http://www.mujer.gov.py/userfiles/file/IIIPNIO(1).pdf).

24 World Development Indicators database.

Figure 55: Physical or sexual violence ever and within past 12 months, selected Latin American and Caribbean countries, various years



Source: Bott et al. 2012.

and, thus, earnings. Women are more likely than men to work in the informal sector (51 percent among women in the labor force compared with 44 percent among men), particularly among the rural population (72 percent among all women in the rural labor force compared with 63 percent among men).²⁵ Informal sector workers typically lack the social protection afforded to formal sector workers, such as worker benefits and health insurance. They also tend to work under irregular or casual contracts and are paid lower wages than in the formal sector. Indeed, women receive lower earnings than men, and the size of the gender wage gap was steady over the decade: women earned around 70 percent of the earnings of their male counterparts (World Bank 2012a). The female-male earnings gap does not necessarily reflect discrimination, but arises primarily because of differences in the types of tasks performed. Women tend to hold lower-level positions in firms. Only one in five firms had a top woman manager in 2011, and, in 2013, only 1.5 percent of women in the labor force were employers, compared with 7.7 percent of men in the labor force. Furthermore, women tend to work in less productive sectors, but also less productive activities within these sectors: 40 percent of women workers in the labor market are active in public and private services, and many of these women are domestic workers in private households (figure 54).

25 Informal is defined as wage workers in microenterprises, the nonprofessional self-employed, and zero-income workers (EPH 2013).

4.3 Manifestations of the lack of women's agency in Paraguay

Given the progress reported in women's endowments, why are women still trailing men in labor market outcomes? "Investments in health and education—human capital endowments—shape the ability of men and women to reach their full potential in society. The right mix of such investments allows people to live longer, healthier, and more productive lives" (World Bank 2012b, 104). The quality of women's participation in the labor market may be affected by a combination of factors, including their human capital endowments, the opportunities available to them, and their preferences and goals, as well as other societal factors such as social norms and gender roles that urge a specific division of labor between the genders. In Paraguay and throughout the Latin American and Caribbean region, women have primary responsibility for childcare and domestic work. This has consequences for the distribution of labor outside the home, where women are considered secondary earners, while men are considered primary breadwinners.

The lack of women's agency blocks women from fully utilizing their human capital endowments (World Bank 2012b). Enhanced agency enables women to use endowments and benefit from economic opportunities, thereby fostering gender equity. While measuring agency through quantitative methods is difficult, manifestations of the lack of agency are numerous. Limited political participation and voice, the prevalence of domestic violence,

Box 4. Teenage pregnancy and lack of agency: Key results from a mixed-methods study in Paraguay

A mixed-method study was conducted in 2012–13 on risk factors and social circumstances related to adolescent parenthood in Paraguay.^a For the qualitative component, the study consisted of semistructured in-depth interviews and mini focus groups, and, for the quantitative component, a standardized survey among 1,000 boys and girls in the target age-group of 15–19 years. The goal of the study was

- 1) to gather comprehensive information about perceptions, attitudes, knowledge, values, and concerns
- 2) to illuminate on essential contextual information such as peer effects and cultural and social norms

The study found that lower levels of agency and agency enablers such as aspirations and empowerment are associated with a higher risk of becoming a teenage mother. Thus, a girl may become pregnant because she lacks the capacity to take control over her life projects; instead, life (including pregnancy) simply happens to her. Furthermore, the surroundings within which adolescent mothers grow up may not provide them with positive role models to help them identify concrete educational and occupational goals or the steps necessary to achieve these goals. Additionally, social norms may favor the passivity women within relationships, communities, and society, which, in itself, is contrary to the exercise of agency. Finally, multiple factors within relationships and the community may disempower young girls, thereby hindering them from making decisions and engaging in the necessary steps to implement these decisions.

Both the qualitative and the quantitative parts of the study showed that one of the key constraints facing teenage mothers in making meaningful choices and making decisions to shape their own future is related to the capacity of these girls to aspire. With regard to the quality and the remuneration of the jobs they will be performing in the coming decade, adolescent mothers have lower expectations than their peers who do not have children in adolescence. When they were asked about their educational aspirations, the adolescent mothers interviewed for the study generally agreed that education is important, but this appreciation was generic: their recognition of the value of education was not accompanied by a clear plan of the concrete steps they would have to take to improve their own educational outcomes. Furthermore, when asked about their visions for their own lives, they expressed little clarity in general, and they had identified no concrete mechanisms that were available to them so they could shape their own future. This lack of control over their life projects is reflected in their pregnancies: the in-depth interviews conducted during the study showed that pregnancy was neither completely intended nor completely unintended in the vast majority of cases. Most interviewees did not mention an explicit, conscious motivation for pregnancy; at the same time, pregnancy does not seem to interrupt careers or planned life paths. Thus, pregnancy occurred without the majority of the girls showing signs of control over or conscious decision making about this important life event.

Context-related factors can limit or strengthen agency among adolescent girls. Not only the family environment, but also peers and society influence the way adolescent girls see themselves, how they imagine themselves in the future, and if and how they are enabled to make meaningful decisions regarding their present and their future. Aspirations are also shaped by observation. Thus, compared with their nonpregnant peers, a smaller share of adolescent mothers said their families provided them with some form of role model (89 percent versus 75 percent).^c Similarly, several results from the qualitative and quantitative components of the study indicate that role models for teenage mothers are not common among their peers. Teenage mothers are more likely to know male peers that engage in risky behavior, such as violence and gang activities, compared with girls who are not mothers. Teenage mothers also reported that their friend groups had earlier sexual debuts. Gender norms can limit the options of individuals in terms of behavior, occupations, and roles, for example. The survey shows that teenage mothers agree with gender stereotypes more often compared with their peers who are not mothers.^d

Box 4. Teenage pregnancy and lack of agency: Key results from a mixed-methods study in Paraguay

Girls in several social and cultural contexts lack the power to influence the behavior of others, which can turn them into passive figures in relationships, in families, or in communities. Limitations in access to information are motivated to a much greater extent by constraints such as fear, economic issues, and shame among teenage mothers relative to girls who are not mothers: 40 percent of teenage mothers declared these to be the reasons they did not access relevant information compared with 29 percent of girls who were not mothers. This suggests that adolescent mothers are not sufficiently empowered to receive the information they need and want, while girls who are not mothers lack access mostly because of choice (no necessity or no interest were the more common responses). Access to accurate and complete information is an essential basis for decision making.^a Finally, the average age gap between teenage mothers and their partners (if the girls are in relationships) was twice the corresponding age gap among girls who were not mothers (six years versus three). Significant age gaps can result in greater constraints on women's decision making as a result of the power imbalances within the couple. Some adolescent mothers also depended financially on their partners, and several interviewees mentioned that their decision-making capacity was limited by their partners. A larger share of teenage mothers reported some form of controlling behavior by their partners (47 percent among girls who were not mothers versus 76 percent among teenage mothers).

a. The study was implemented by the Sociedad de Estudios Rurales y Cultura Popular, led by Daniel Campos Ruiz Díaz, María Celsy Benavidez, and Pedro Amado de Llamas Granada.

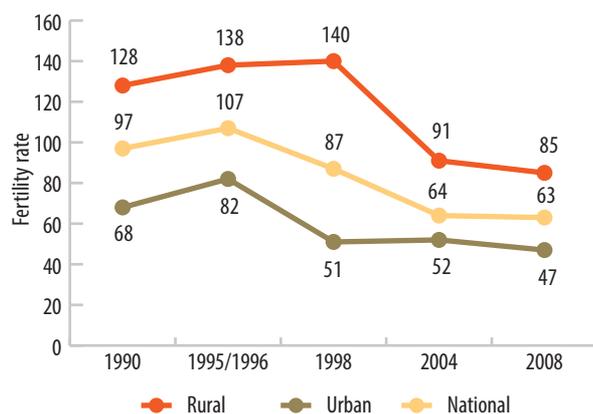
b. Following López-Calva and Cord (2013), the study groups enablers of agency as follows: (1) enablers internal to individuals (aspirations, self-drive, and so on), (2) context-related environmental enablers (norms, informal and formal sector institutions that enable or prevent one from acting), and (3) external empowerment (economic, political, and other conditions that help society act to further the appropriate rights and interests of the individual). The results described here are correlations; they do not show causal effects.

c. Teenage mothers are more likely to have witnessed psychological violence between their parents such as screaming and insults: 31 percent of teenage mothers report this behavior by their parents versus 23 percent of notpregnant teenagers.

d. Teenage mothers responded to the following statements in a way that reflected gender stereotypes: women should not work, but should be devoted to the home and the children; the man should be the economic provider of the household; men should not cry; university education is more important for men than women; if jobs are scarce, men have more right to the available jobs compared with women; men are generally better political leaders compared with women; and to be a man, it is necessary to have at least one child; to be a woman, it is necessary to have at least one child. Teenage mothers also tended to respond in a more biased manner to statements that reflected traditional gender stereotypes with regard to sexual behavior, such as female submission and male domination. The survey included the following statements: the woman not the man should use contraception during sex; condoms are difficult to use; people who use condoms have frequent sex with lots of people; I feel ashamed to buy contraceptives; my partner does not like to use condoms; the majority of men do not like to use condoms; it is not necessary to use condoms if one knows one's partner; if I use a condom, my partner will be suspicious of me; if a girl goes out with a boy for a long time and does not want to have sexual relations, she does not love him; the majority of my friends have lost their virginity; if my first sexual experience is (or was) much later in life than the first sexual experiences of my friends, they will make fun of me; for a woman, losing one's virginity is an act of love.

e. The effective use of contraceptives is an important factor in a woman's control over her own body and fertility. Teenage mothers show lower self-efficacy in contraceptive use in their current relationships compared with girls who are not mothers: 66 percent of girls who were not mothers said they were either very or somewhat secure that they would not have sexual intercourse if their partners did not want to use any birth control method, compared with 55 percent of teenage mothers.

Figure 56: Adolescent fertility rate (per 1,000 women aged 15–19 years), by residence, 1990–2008



Source: ENDSR 1990, 1995/1996, 1998, 2004, 2008.
Note: The universe is limited to women aged 15–19 years.

and high rates of teenage pregnancy are ready examples of the lack of women’s agency.

The political participation of women at the central ministries has increased in recent years, but it is still constrained in parliament and at the local level. Women’s representation in ministerial positions has rose from 14.3 percent in 2008 to 27.8 percent in 2010 and 30 percent in 2013. Nonetheless, women occupied only 12.5 percent of the parliamentary seats, and the share of women mayors was small, at 7.5 percent in 2011.²⁶

Despite recent measures to protect woman victims, domestic violence is a serious problem. The first shelter for victims of domestic violence was created recently, and comprehensive services for victims of domestic violence have been established, including six specialized police stations equipped to receive and address complaints of violence against women, children, and adolescents. However, these measures are insufficient. One in five women in Paraguay acknowledges that she has experienced physical violence, including sexual violence, by a partner at some point in her life; 8 percent reported such violence in the previous 12-month period (figure 55). Yet, only 12 percent of these women turned to institutions for support. Women cited many reasons for not seeking institutional help, including shame, fear of retaliation, not knowing where to go, and not believing that anyone would help. There is a lack of a coordinated and coherent institutional system for collecting data on gender-based violence, and

there is a shortage of trained medical personnel able to treat woman victims properly.²⁷

Another manifestation of lack of agency among women is represented by the rate of pregnancy among teenagers (box 4). As elsewhere in the region, the adolescent fertility rate—the number of births per 1,000 women aged 15–19 years—is higher than expected in Paraguay considering the country’s GDP and primary school completion rate. The rate declined from 86 births per 1,000 in 2000 to 68 in 2011, slightly below the regional average of 69. However, the rate in Paraguay is higher than the average in lower-middle-income countries (49 percent). While adolescent fertility has been declining, as has the fertility rate among adult women, the decline has been slower; thus, the contribution of adolescent fertility to total fertility actually rose, from 10.5 percent in 1987–90 to 12.8 percent in 2005–08.²⁸

The incidence of teenage pregnancy is greater in rural areas than in urban areas, and it is greater among teenagers in households of lower socioeconomic status. While the fertility rate was 85 among rural teenagers in 2008, it was only 47 among urban teenagers (figure 56). Similarly, socioeconomic status and the level of education of young women are inversely proportional to the probability of experiencing at least one pregnancy.

4.4 Perceptions and social norms

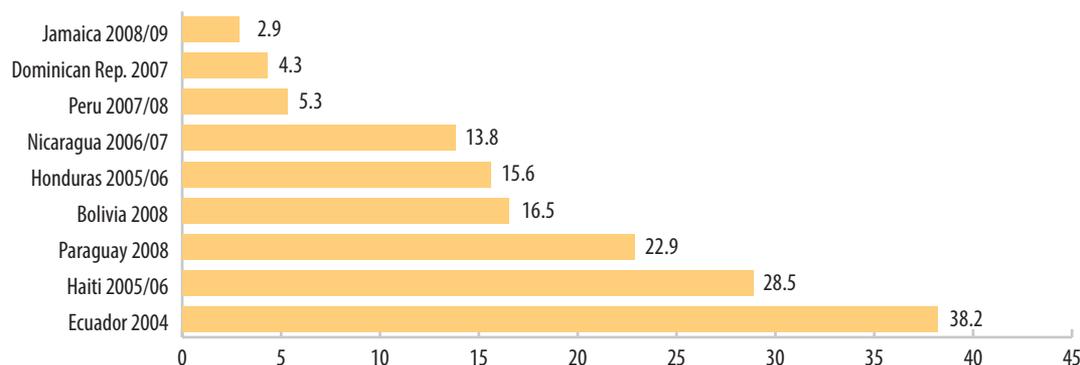
To some extent, the challenges faced by women are related to social norms, which are enablers of agency. According to a 2008 survey by the Sociedad de Estudios Rurales y Cultura Popular, Paraguay is ranked third in the region in terms of women’s agreement that wife-beating is sometimes justified (23 percent) (figure 57). A third of the survey interviewees believed that wives must obey their husbands regardless of whether they agree with him or not; one in four thought that the man must show his wife that he is the boss; and 8 percent believed that having sex is a wife’s obligation even if she does not want to have sex.

Almost 40 percent of Paraguayans believe that, in times of job scarcity, men should have more right to paid work than women (figure 58). Men were more

27 The Concluding Observations of the Committee on the Elimination of Discrimination against Women, 2011.

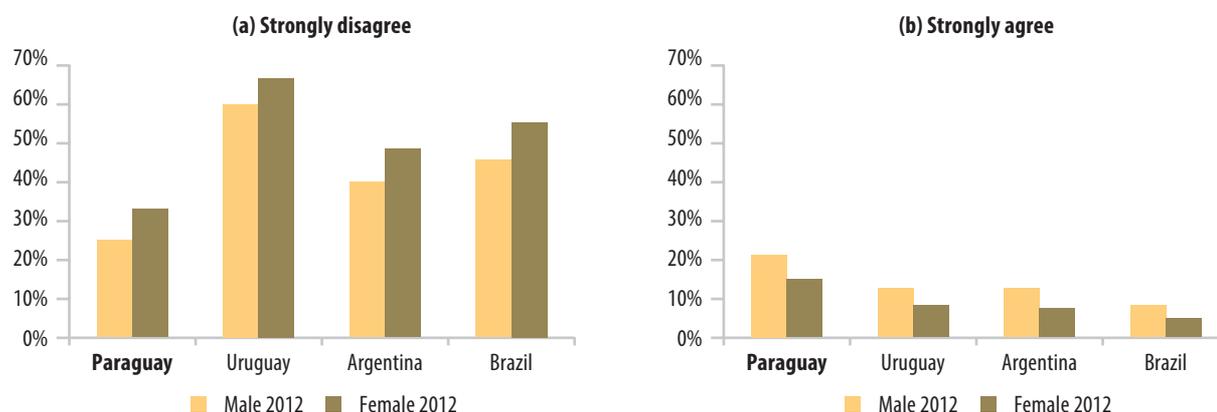
28 2008 Encuesta Nacional de Demografía y Salud Reproductiva (ENDSSR 2008).

Figure 57: Proportion of respondents who agree that wife-beating is justified for at least one reason, selected countries in Latin America and the Caribbean, various years



Source: Bott et al. 2012.

Figure 58: Respondents who strongly disagree and strongly agree with the following statement “When there aren’t enough jobs, men should have more rights to jobs than women”



Source: Latin American Public Opinion Project, (LAPOP) 2012 data. Note: Overall agreement is represented by responses 5 to 7 on a 7-point scale, in which 7 is “agree very much.”

likely to agree with this statement. In a comparison of the extreme answers (very much disagree or very much agree) among neighboring countries, Paraguay shows more stereotypical attitudes: a relatively smaller proportion of both men and women strongly disagree with the statement, and a slightly larger share strongly agree with it. Attitudes such as these show that men are preferred as breadwinners over a fair and equitable distribution of jobs and economic opportunities based on merit and talent.

In sum, Paraguay has made progress over the last decade in promoting women’s empowerment and gender equality, particularly in women’s endowments in health and education and in strengthening the legal framework to promote gender equality. Despite these

improvements, challenges persist in achieving gender equality in the labor market, where a smaller share of women tends to participate compared with their male counterparts. Women thus exhibit a lower capacity to earn income. Women are also active in less productive sectors and positions and lack social protection more frequently than men. Paraguay seems to lag considerably in women’s agency. Women in Paraguay continue to show low rates of political participation and high rates of adolescent fertility and suffer from high rates of domestic violence. The lack of women’s agency is important as a development outcome, but it is also a missing catalyst: women are thereby prevented from fully utilizing their human capital endowments. Thus, if women’s agency is effectively promoted, it is likely that development outcomes in other dimensions will be positively impacted as well.



CHAPTER 5

Conclusions and policy options

Paraguay has made substantial progress in the last decade in improving welfare and reducing inequality among the population. There are reasons for optimism, including the greater labor productivity in agriculture and the enhanced employment opportunities, suggesting that long-lasting transformation is possible. Nonetheless, the country faces challenges that may threaten the sustainability of the improvements.

A key obstacle is the fact that a large share of the population faces a volatile economic environment. Both the rural and urban poor rely on volatile earnings streams, leaving them exposed to labor market and macroeconomic risks. While the urban poor have limited job prospects, leading to high rates of unemployment and self-employment, the rural poor disproportionately depend on agriculture for their incomes, exposing them to macroeconomic price fluctuations and local risks such as bad weather and agricultural pests. Large segments of the population that have escaped poverty therefore remain vulnerable to poverty and seem unable to join the ranks of the middle class.

A second key obstacle relates to the persistent lack of opportunity for all. Although income inequality has fallen, some structural determinants of inequity remain. Inequalities persist across geographical areas, and

access to good-quality basic services, such as safe water and education, is limited to more well off population segments, especially in urban areas. These inequalities reflect the lack of productive capacity and institutional weaknesses in the delivery of high-quality services.

Finally, agency and autonomy, particularly among women in the participation in labor markets, community structures, and personal relationships, are at the core of an equitable society. Women in Paraguay continue to show low rates of political participation, and domestic violence appears to be widely prevalent. While the adolescent fertility rate declined substantially after 2000, it continues to be higher than the average in lower-middle-income countries, and it is now contributing a greater share to total fertility relative to 20 years ago. Each of these manifestations of the lack of agency must be addressed directly. Furthermore, considering the catalyzing effect of agency, it is essential to strengthen women's agency. This will most likely show positive effects on other development outcomes, such as opportunities in the labor market.

The objective is to reduce structural inequities in monetary and nonmonetary outcomes by addressing the relevant structural determinants, namely, (1) policies to protect those who are vulnerable to falling into

poverty in the face of shocks, (2) equality of opportunity, and (3) the capacity of all individuals to benefit from agency and voice in society. The dynamics of equity in these dimensions constitute a precondition for ensuring shared, sustainable shared growth.

The following are areas of appropriate policy focus in Paraguay in coming years:

First Pillar: Mobility out of poverty

- Well-functioning, accessible markets are required to support the ability of all segments of the population to procure well-paying, high-productivity jobs. This involves, for instance:
 - a. Promoting activities aimed at increasing the productivity, income generating capacity, and asset accumulation of households that have been able to leave poverty, but are vulnerable to the risk of downward mobility will facilitate economic security and the growth of the middle class. Appropriate activities include an expansion of the benefits going to employees in small firms and the self-employed such as minimum wage coverage for low-skilled wage labor, access to public retirement savings plans (or continued expansion of noncontributory pensions), and access to unemployment insurance. Because the poor are largely self-employed, the provision of adult training programs and microcredit could lead to greater productivity among these people.
 - b. While strengthening value chains linked to the dynamic sectors of the economy and emphasizing value added in the service sector will require substantial investments in human capital and are important in all sectors, investing in connectivity and human capital in rural areas will allow rural households to diversify their income sources and benefit from more dynamic markets.
 - c. Enhanced risk management at the macro and micro levels can protect households from shocks.
 - c. As highlighted by a recent World Bank report (2013d), to help prevent, cope with, and mitigate the agricultural risks faced by poor families in rural areas, it is crucial to ensure crop diversification (including crops that are less seriously affected by drought or that are characterized by short cycles such as sesame) as well

as good practices in irrigation and pest control and the commercialization of the products of these households so that they are incorporated into value chains.

- d. Expanding access to formal financial markets and insurance instruments (both health and agricultural) can help households mitigate their exposure to income volatility. Additionally, it may be relevant to consider the creation of contingency funds for families affected by weather shocks.
- e. Broadening the coverage and enhancing the responsiveness of targeted programs—such as conditional cash transfers (Tekopora) and temporary employment programs—can help households cope better with price shocks and systemic and idiosyncratic shocks in general (in the absence of integrated social safety nets).
- f. Longer-term risk management policies can support engagement in second-generation reforms in the social protection system, including elements of social assistance for the poor and social insurance for the large vulnerable population that can easily fall back into poverty were the external environment to deteriorate. Such policies would include wide-coverage unemployment insurance programs for the informal sector and temporary food assistance for needy families.
- Equitable, efficient, and sustainable fiscal policy can ensure a solid fiscal position that fosters redistributive fiscal policy.
- g. Increase tax revenues through progressive taxation policies to create fiscal space for more effective redistribution via the diversification of the asset holdings of the poor and the establishment of social safety nets, as well as enhancing targeting mechanisms to reduce ex post inequality in income distribution in the short run.

Second Pillar: The pursuit of opportunities for all

- Ensuring the fairness and transparency of institutions in the provision of public goods requires the use of credible, stable institutions to deliver high-quality services without excluding any segments of the population and to enhance the equality of opportunity for all.

- a. Conditional targeted programs can promote better access to health care and education among children, resulting in enhanced equality of opportunity and greater intergenerational mobility.
- b. Improved quality of services for all will require both infrastructure and human capital investment.
- c. Improved service delivery implies improving the fiscal and strategic coordination among the central government, departments, and municipalities, as well as integrating planning and programming processes within the budget process to track progress in social delivery.
- d. It will be crucial to design a monitoring and evaluation system to track progress in social service delivery, results, and impacts and developing tools for targeting services on the segments of the population with the most urgent needs.

Third Pillar: Strengthening agency

- Policies to expand women's opportunities in the labor market will reduce labor gaps (employment, earnings, and quality) and will also enhance women's agency, self-esteem, and aspirations.
- a. Strengthen and expand systems that support women's inclusion in the labor market through, for instance, access to childcare and professional training.
 - b. Improve labor conditions in woman-dominated sectors, such as domestic services, by formalizing the activities, introducing a minimum wage, and promoting social security payments for pensions and health insurance.
 - c. Empowering girls through the promotion of life skills training and raising expectations through career development and activities likely to enhance aspirations and agency among girls and boys, through, for instance, youth mentoring programs.
 - d. Mitigation efforts to ameliorate the effect of adolescent childbearing in the short run can include support for teenage mothers through access to alternative school schedules and childcare to reduce dropout rates.

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1818 H Street, NW,
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