

Social Spending, Taxes and Income Redistribution in Paraguay

CEQ 2011
(in progress)

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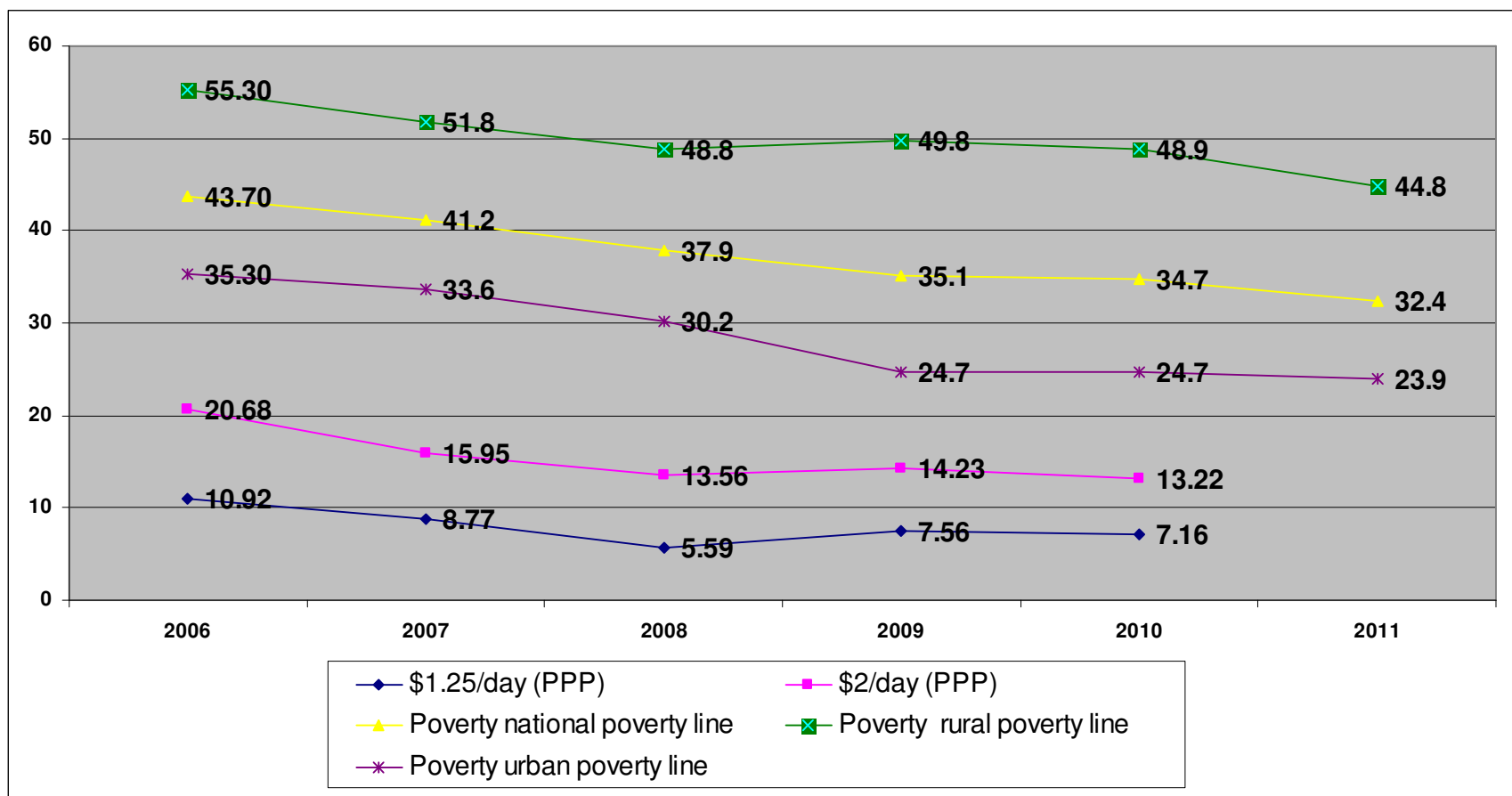
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Macroeconomic background

- The economy is growing at an average 4.5% per year on the last 9 years
- Highly dependant on commodities and favourable climate conditions
- Poverty is decreasing but still high at 32%
- Inefficient public services and poor infrastructure
- Large informal sector and only 18% of the labour force is covered by social security
- Weak public sector in terms of tax revenue / GDP (12%)

Poverty indicators



Source: World Bank, DGEEC

Economic Indicators

Indicator Name	2003	2004	2005	2006	2007	2008	2009	2010	2011
Population, total (millions)	5.68	5.79	5.90	6.01	6.13	6.24	6.35	6.46	6.57
GDP (billion current US\$)	6,588	8,034	8,735	10,662	13,838	18,505	15,955	20,028	26,008
GDP growth (annual %)	4.32	4.06	2.13	4.81	5.42	6.36	-3.97	13.09	4.34
GNI per capita, PPP (current int. \$)	3460	3700	3840	4240	4780	5170	4850	5480	5900
GINI index	56.88	54	52.45	54.85	53.31	52.05	51.04	52.42	52.0
Tax revenue (% of GDP)	8.69	10.27	10.14	10.49	10.11	10.72	11.64	12.01	12.14
Health expenditure, public (% of GDP)	2.45	2.49	2.47	2.69	2.71	2.64	3.63	3.29	3.75
Public spending on education (% of GDP)	3.84	3.61	3.83	3.89	3.75	3.74	4.39	3.99	4.17

Source: World Bank, National Accounts

Data from Survey

- EPH 2011 Survey that provides information representative of the whole country based on 4,984 households and 19,662 people
- Income information (net) available
- Info on expenses, indirect taxes, subsidies not available
- Information on cash transfer programs available but need to scale up

Social Spending by component, 2011				
Program	CEQ	LCU	% of total	% of GDP
Government Spending		19,579	100.0%	19.6%
Social Spending		10,369	53.0%	10.4%
Health	Yes	2,287	22.1%	2.3%
<i>Medical care</i>	<i>Yes</i>	<i>1,529</i>	<i>14.7%</i>	<i>1.5%</i>
<i>Sanitation and Assistance</i>	<i>Yes</i>	<i>88</i>	<i>0.8%</i>	<i>0.1%</i>
<i>Salaries, others</i>	<i>Yes</i>	<i>669</i>	<i>6.5%</i>	<i>0.7%</i>
Social Promotion and Support	Partial	1,888	18.2%	1.9%
<i>For disable</i>	<i>No</i>	<i>50</i>	<i>0.5%</i>	<i>0.1%</i>
<i>Social Assistance</i>	<i>Yes</i>	<i>844</i>	<i>8.1%</i>	<i>0.8%</i>
<i>Social Tariff Electricity</i>	<i>No</i>	<i>45</i>	<i>0.4%</i>	<i>0.0%</i>
<i>Social Support local governments</i>	<i>No</i>	<i>492</i>	<i>4.7%</i>	<i>0.5%</i>
<i>Rural reforms</i>	<i>No</i>	<i>401</i>	<i>3.9%</i>	<i>0.4%</i>
<i>Salaries, others</i>	<i>No</i>	<i>57</i>	<i>0.5%</i>	<i>0.1%</i>
Social Security	Yes	1,709	16.5%	1.7%
Education	Yes	4,208	40.6%	4.2%
<i>Primary</i>	<i>Yes</i>	<i>1,885</i>	<i>18.2%</i>	<i>1.9%</i>
<i>Secondary</i>	<i>Yes</i>	<i>893</i>	<i>8.6%</i>	<i>0.9%</i>
<i>Tertiary</i>	<i>Yes</i>	<i>831</i>	<i>8.0%</i>	<i>0.8%</i>
<i>Salaries, others</i>	<i>Yes</i>	<i>599</i>	<i>5.8%</i>	<i>0.6%</i>
Scholarships	No	60	0.6%	0.1%
Labour relations	No	16	0.2%	0.0%
Housing	No	202	1.9%	0.2%

Tax revenues

Taxes	Included in Analysis	Billions of Guaranis	% of total	% of GDP
<i>National</i>				
Corporate tax	No	2,611	19.8%	2.6%
Fuel tax	Yes	1,431	10.8%	1.4%
Alcohol and tobacco	Yes	564	4.3%	0.6%
VAT	Yes	6,786	51.4%	6.8%
Others	No	115	0.9%	0.1%
Imported Goods	No	1,704	12.9%	1.7%
<i>Municipal</i>				
Real estate tax	Yes			
Pensions	Included in Analysis	Billions of LCU	% of total	% of GDP
Contributions to Pensions (Employeer)	Yes			
Contributions to Pensions (Employee)	Yes			
TOTAL		13,211	100	13.2%

Income definitions

- **Market Income (ym):** wages, capital, self consumption, owner occ.hh., private transfers, pension (contributory in BC)
- All provided, but need to pass from net to gross (wages) 9% for those in the formal sector. And gross up by 16.5% of employer contributions to SS
- **Net market income (yn):** $ym - \text{direct taxes} - \text{contribution to pensions (employer / employee)}$
- Self reported payment of direct taxes from real state, others

Income definitions

- **Disposable income (yd):** y_n + public transfers
- Provided in the Survey + scale up beneficiaries
- **Post fiscal income (ypf):** y_d + indirect subsidies (Social electricity tariff) - indirect taxes (VAT, fuel, alcohol, cigarettes, etc)
- Not available in the Survey. Social tariff can be imputed using EPH 2010. Possible to impute indirect taxes based on a research and 2001 expenditure survey
- **Final income (yf):** y_{pf} + in kind transfers (health / education). Impute option for education. Health calculations using the 2001 Survey

Caveats

- The scale up of CCT transfer is not accurate yet (65% underestimated)
- Preliminary results do not include indirect subsidies ex.: Electricity social tariff
- The research uses a 2001 source for imputing expenses on health and education, and indirect taxes like VAT and fuel tax
- Need more understanding of expenses structure in National Accounts

Ex.: indirect taxes

Paraguay: Índices de Progresividad y Capacidad Redistributiva del Impuesto sobre las Ventas (IVA) según Regimen Tributario

Indicador a nivel de Hogares	Ingresos ordenados según ingreso per cápita		Ingresos ordenados según consumo per cápita	
	Ley 125/91	Ley 2421/04	Ley 125/91	Ley 2421/04
Progresividad: Tasa Media	7.0	7.5	4.1	4.5
Decil 1	24.1	24.6	3.0	3.0
Decil 2	6.2	6.4	3.3	3.5
Decil 3	6.9	7.1	3.6	3.8
Decil 4	5.1	5.6	3.5	3.9
Decil 5	5.3	6.7	3.9	4.4
Decil 6	5.0	5.6	4.1	5.4
Decil 7	4.7	5.2	4.6	5.0
Decil 8	4.3	4.7	4.7	5.2
Decil 9	4.4	4.9	5.2	5.8
Decil 10	4.0	4.6	5.0	5.6
Cuasi-Gini	0.4408	0.4504	0.5202	0.5242
Kakwani	-0.1170	-0.1075	0.0672	0.0712
Capacidad Redistributiva				
Gini del Ingreso antes de la política fiscal	0.5578	0.5578	0.4530	0.4530
Gini del Ingreso después de la política fiscal	0.5630	0.5632	0.4498	0.4491
Reynolds-Smolensky	-0.0052	-0.0054	0.0032	0.0039

Fuente: Elaboración propia en base a la EIH 2000-01

Preliminary results - BC

<i>Indicators</i>	Market Income	Net Market Income	Disposable Income	Post-fiscal Income	Final Income*	Final Income
Gini						
% change wrt market income	--	-0.4%	-0.7%	0.0%	-2.9%	-2.4%
% change wrt net market income	--	--	-0.2%	0.4%	-2.5%	-2.0%
Theil Index						
% change wrt market income	--	0.2%	-0.2%	1.1%	-4.8%	-3.9%
% change wrt net market income	--	--	-0.4%	0.9%	-5.0%	-4.1%
90/10						
% change wrt market income	--	-95.3%	-126.8%	212.5%	-338.1%	-170.3%
% change wrt net market income	--	--	-31.6%	307.7%	-242.8%	-75.0%
Headcount index 1.25 \$ PPP						
% change wrt market income	--	2.0%	1.9%	3.9%		
% change wrt net market income	--	--	-0.1%	1.9%		
Headcount index 2.50 \$ PPP						
% change wrt market income	--	1.2%	1.2%	1.9%		
% change wrt net market income	--	--	0.0%	0.7%		
Headcount index National Ext PL						
% change wrt market income	--	0.3%	-0.2%	2.2%		
% change wrt net market income	--	--	-0.5%	2.0%		
Headcount index National Mod PL						
% change wrt market income	--	1.2%	1.0%	3.4%		
% change wrt net market income	--	--	-0.3%	2.2%		

Preliminary results – SA1

<i>Indicators</i>	Market Income	Net Market Income	Disposable Income	Post-fiscal Income	Final Income*	Final Income
Gini						
% change wrt market income	--	-0.5%	-0.6%	0.0%	-2.9%	-2.4%
% change wrt net market income	--	--	-0.1%	0.5%	-2.4%	-1.9%
Theil Index						
% change wrt market income	--	0.2%	-0.9%	0.4%	-5.5%	-4.5%
% change wrt net market income	--	--	-1.1%	0.3%	-5.7%	-4.7%
90/10						
% change wrt market income	--	-97.9%	-91.9%	247.4%	-303.1%	-135.3%
% change wrt net market income	--	--	6.1%	345.4%	-205.2%	-37.4%
Headcount index 1.25 \$ PPP						
% change wrt market income	--	2.1%	0.6%	2.6%		
% change wrt net market income	--	--	-1.5%	0.5%		
Headcount index 2.50 \$ PPP						
% change wrt market income	--	1.1%	0.4%	1.1%		
% change wrt net market income	--	--	-0.7%	0.0%		
Headcount index National Ext PL						
% change wrt market income	--	0.3%	-0.9%	1.6%		
% change wrt net market income	--	--	-1.2%	1.3%		
Headcount index National Mod PL						
% change wrt market income	--	1.3%	-0.2%	2.2%		
% change wrt net market income	--	--	-1.5%	0.9%		

Next steps

- Find support from other teams for refining scaling up and imputations
- Meet program officials and get more information on targeted to the poor government programs
- Look for latest data available on household expenditure composition so as to better impute indirect taxes and subsidies
- Sort out research funds

Thanks!

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