

The Limited Redistributive Role of Education In-Kind Transfers for Young Children in Chile

Commitment to Equity Project

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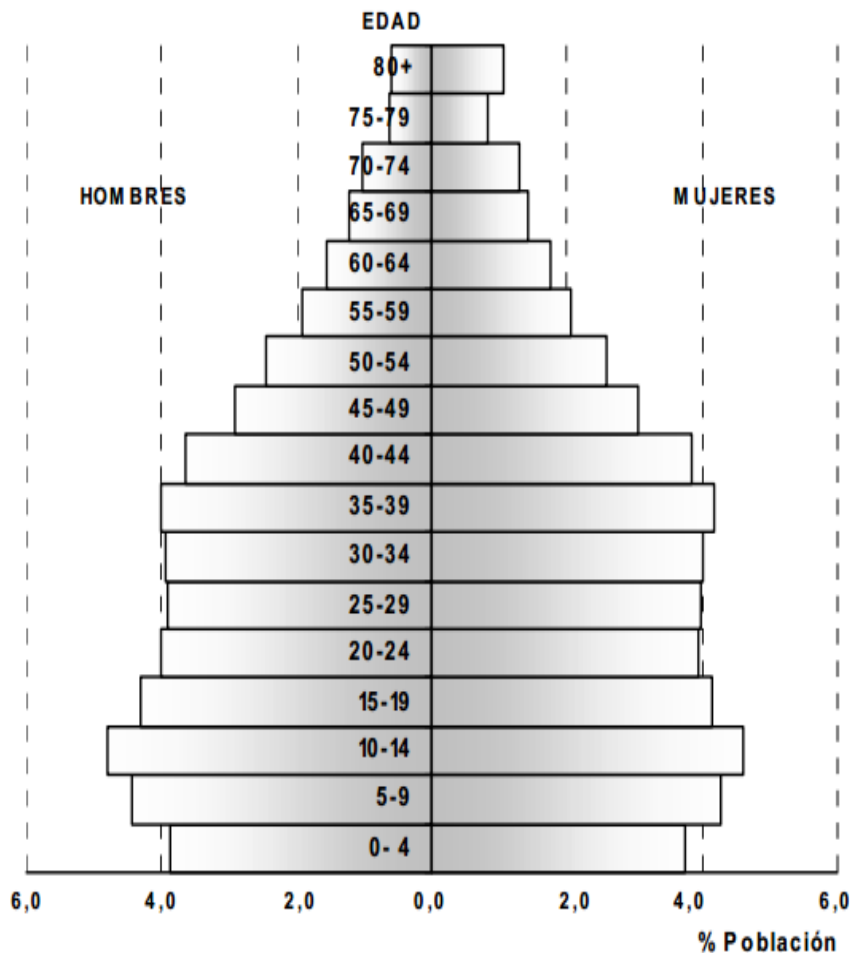
Chilean Context

- **High GDP growth**
 - Over 5% per year 1990-2012.
- **Significant poverty reduction**
 - 38% in 1990 to 14.4% in 2011.
- **Extreme poverty still a challenge**
 - 2.8% in 2011.
- **Historically high income inequality**
 - Gini 0.56 in 1990 to 0.52 in 2011.
- **Short-middle run challenges:**
 - Improve education quality and inequality
 - Reduce income inequality
 - Face a fast ageing process

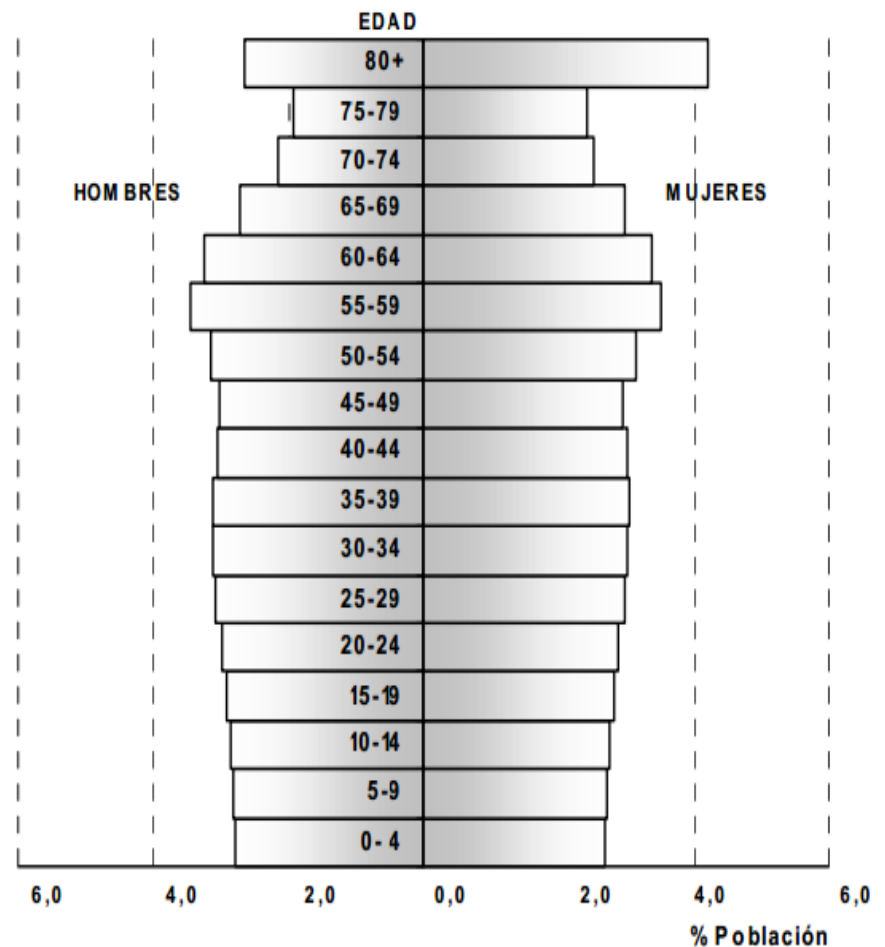
Distribution of Population by Gender

(According to five-year Age groups)

Censo 2002



Proyección 2050



Taxes, Transfers, Inequality and Poverty

Benchmark: Contributory pensions as part of Market Income

Indicator	Market Income	Net Market Income	Disposable Income	Post-fiscal Income	Final Income
Gini	0.564	0.546	0.526	0.525	0.438
Headcount index (\$1.25 PPP)	2.2%	2.2%	0.9%	0.9%	
Headcount index (\$2.5 PPP)	4.8%	4.9%	3.2%	3.2%	
Headcount index (\$4 PPP)	10%	11%	7%	10%	
Headcount index (Extreme Poverty Line, National)	5.2%	5.3%	3.0%	3.9%	
Headcount index (Poverty Line, National)	16%	17%	13%	19%	

- Inequality reduction after taxes and transfers not small (3 points of Gini).
- Large inequality reduction after in-kind transfers.
- Targeted transfers and indirect subsidies reduce poverty, but 19% VAT significantly increases poverty.

Social Spending , by component, as a percentage of GDP: 2009

Total Primary Spending		23.2%
Total Social Spending		7.8%
Direct Transfers		
Direct Benefits:		1.1%
	<i>Cash Transfers</i>	0.5%
	<i>Social Security</i>	0.6%
In Kind Transfers		
In-Kind Benefits:		6.6%
	<i>Pre-school Education</i>	0.4%
	<i>Primary Education</i>	1.7%
	<i>Secondary Education</i>	0.9%
	<i>Tertiary Education</i>	0.5%
	<i>Health</i>	3.1%

Government Revenues by component, as a percentage of GDP: 2009

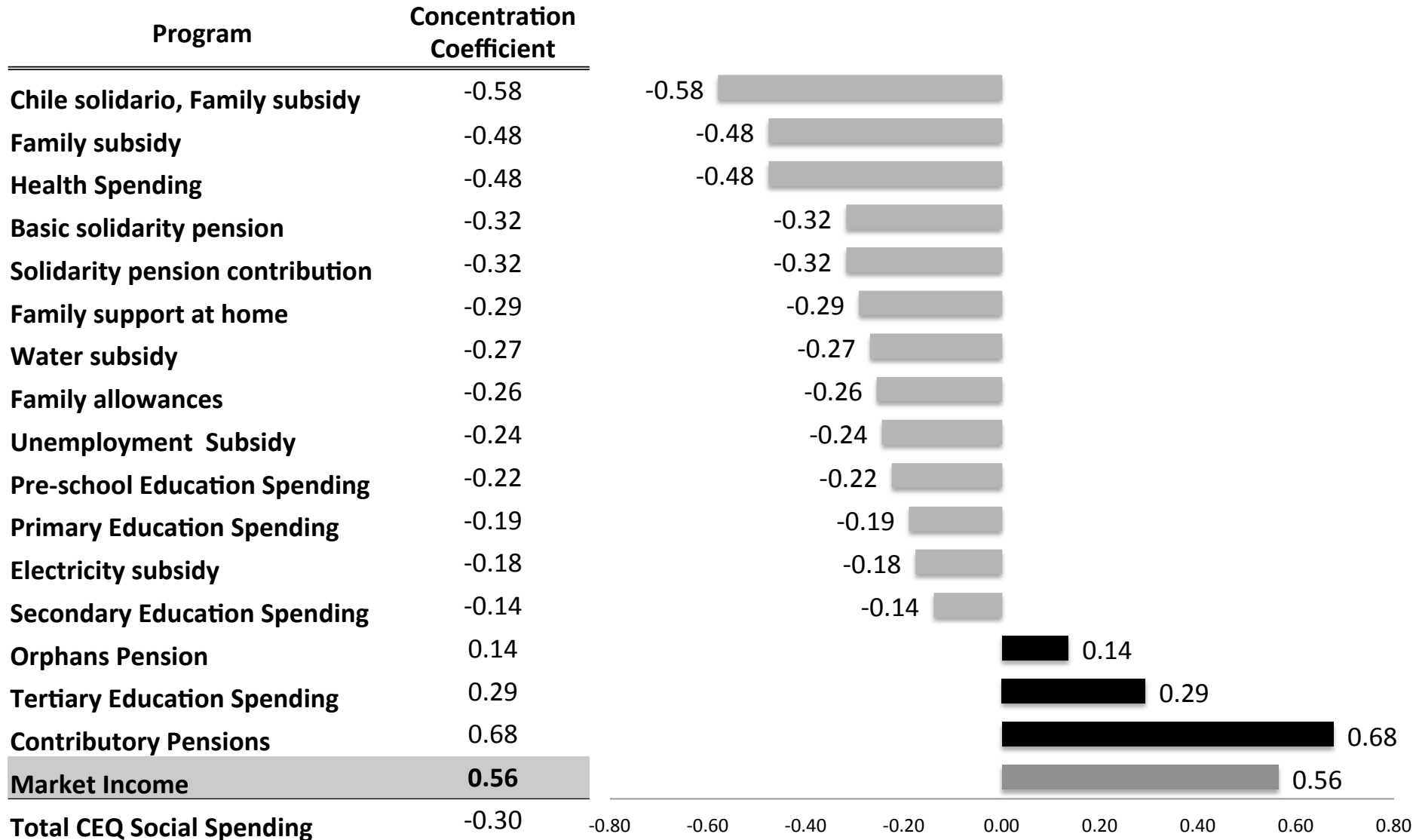
Taxes		
Benchmark Taxes		9.3%
	<i>Income Taxes on individuals</i>	2.2%
	<i>Indirect Taxes</i>	7.1%
Non-Tax Revenues		
SS Contributions		3.3%
	<i>Pensions</i>	0.1%
	<i>Other Social Contributions</i>	3.2%

Incidence of Taxes and Transfers by Decile

	Incidence by Market Income Deciles (Change in Income divided by Market Income of every Decile)										Total Population
	I	II	III	IV	V	VI	VII	VIII	IX	X	
Market Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Direct Taxes	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.3	-0.7	-8.6	-4.1
Contributions to SS	-2.3	-4.4	-5.1	-5.4	-5.8	-6.3	-6.7	-7.0	-7.2	-5.5	-6.0
Net Market Income	-2.3	-4.5	-5.2	-5.5	-6.0	-6.5	-7.0	-7.6	-8.1	-14.4	-10.3
Contributory Pensions	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2
Non-contributory Pensions	34.7	7.3	4.4	2.6	1.9	1.3	0.8	0.6	0.3	0.0	1.1
Flagship CCT	1.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Other Direct Transfers	17.4	7.1	4.5	3.0	2.1	1.4	0.9	0.5	0.2	0.0	0.9
Disposable Income	51.1	10.3	4.0	0.3	-1.9	-3.6	-5.1	-6.1	-7.3	-14.0	-8.0
Indirect Subsidies	0.8	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Indirect Taxes	-15.7	-13.5	-13.9	-13.9	-14.0	-14.3	-14.6	-14.5	-13.4	-12.8	-13.5
Post-Fiscal Income	36.2	-2.9	-9.8	-13.5	-15.8	-17.8	-19.6	-20.6	-20.7	-26.9	-21.4
In-kind Education	80.1	36.9	26.6	18.4	14.4	11.0	8.1	5.7	3.6	0.8	6.7
In-kind Health	135.7	51.6	30.6	21.1	15.2	8.5	3.9	1.3	0.0	-0.3	5.9
Final Income	252.0	85.6	47.4	26.0	13.8	1.6	-7.6	-13.6	-17.1	-26.3	-8.9

- From decile 2 onwards, net payers.
- When considering in-kind transfers, from decile 7 net payers.
- New tax design would include more progressivity in direct taxation + larger in-kind transfers.

Concentration Coefficients by Categories



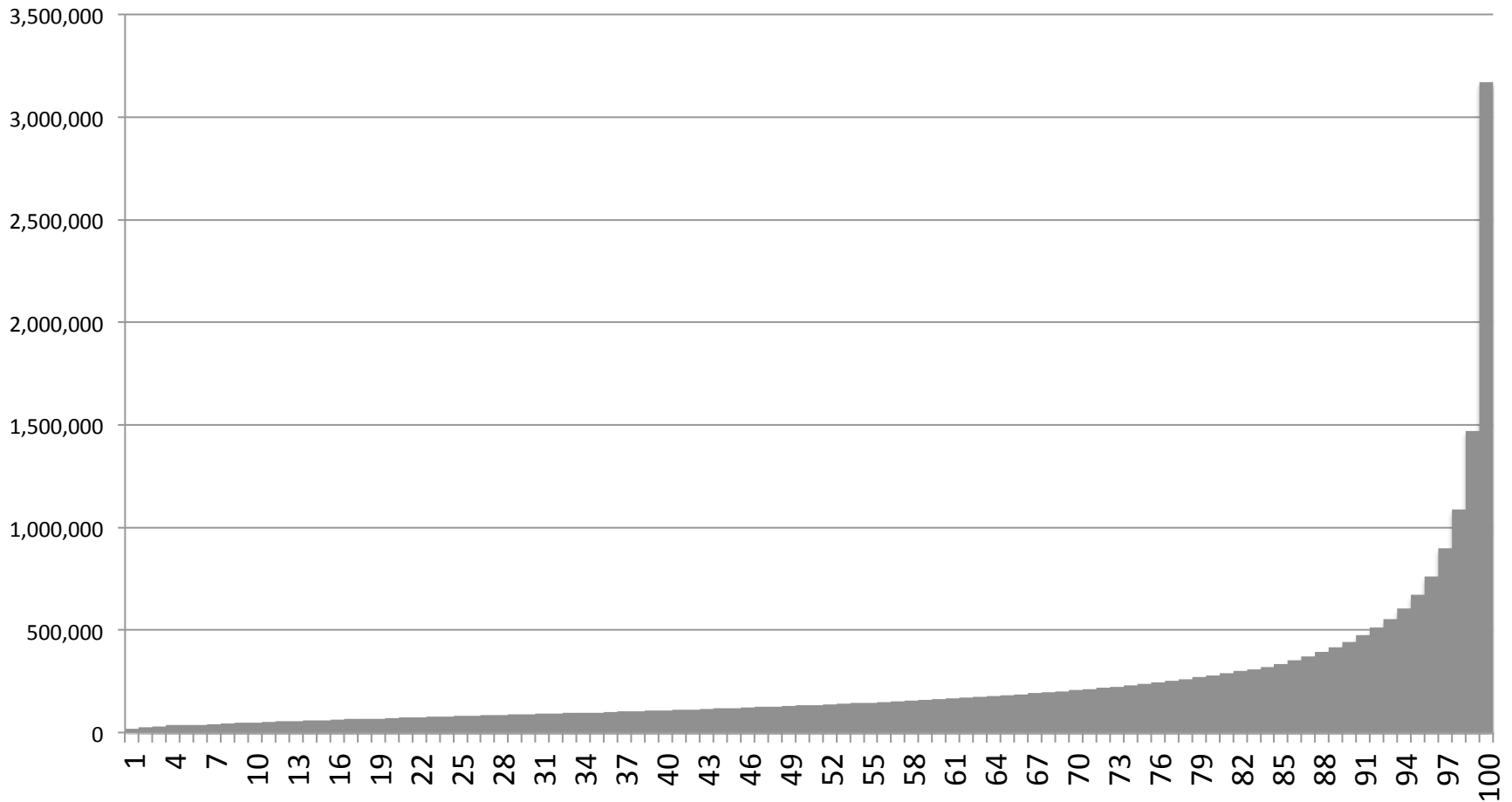
Chilean Fiscal Impact

- Direct transfers well targeted to the poor.
- Relatively small amount of direct redistribution because of small amounts.
- VAT hits the poor hardly.
- In-kind transfers through education and health progressive, but:
 - Tertiary Education not reaching the low-middle income households.
 - Pre-school not reaching the youngest.

The targeting challenge

- Chile has been moving to universal benefits (health guarantees, solidarity pensions, free education).
- Targeting tools questioned (proxy means tests).
- Targeting by age:
 - Taking care of the eldest (they vote).
 - Taking care of the youngest (they do not vote).

Disposable Income by Income Percentile



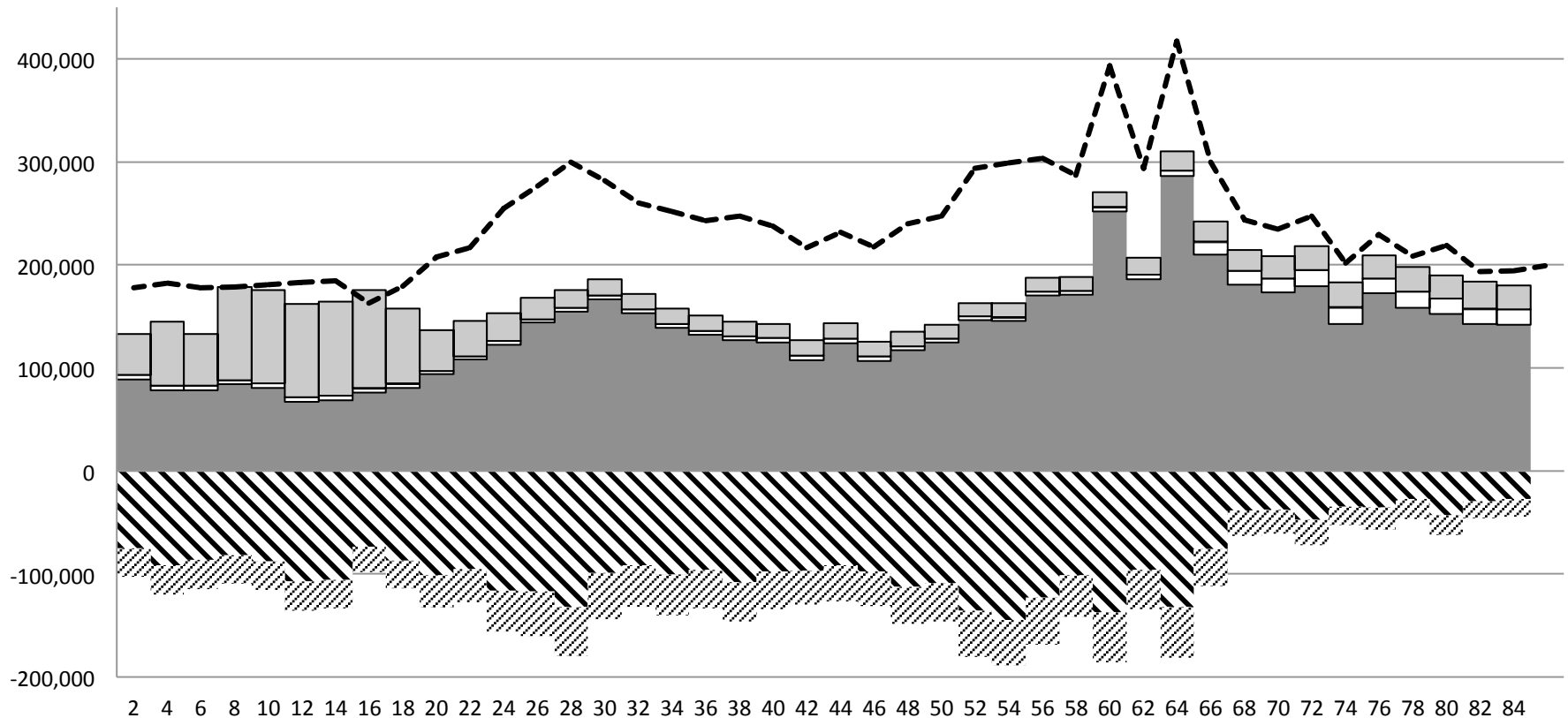
- Targeting or Universal Benefits?

Probability of Being and Remaining Poor After Direct Transfers is Larger for the Youngest

Dependent dummy variable (right):	Poor before transfers			Poor after transfers (conditional on poor before)		
Independent variables (below):	Coefficient	Std Error	Significant	Coefficient	Std Error	Significant
Children						
Number of Children	0.24	0.02	***	0.03	0.03	
Region						
North	-0.24	0.06	***	0.36	0.10	***
Center	-0.32	0.04	***	0.32	0.07	***
Gender of household head						
Male	0.15	0.04	***	0.04	0.08	
Age of household head						
25-40 years old	-0.15	0.10		-0.11	0.18	
41-64 years old	-0.26	0.09	***	-0.39	0.18	***
65 years old or over	-0.48	0.10	***	-1.67	0.19	***
Education level of household head						
Secondary	-0.19	0.03	***	0.29	0.08	*
Tertiary	-0.14	0.04	***	0.04	0.07	***
Marital status						
Married	-0.31	0.04	***	0.16	0.08	
Labor Status						
Employed	-1.24	0.04	***	-0.02	0.08	
Urban or rural						
Rural	0.40	0.04	***	-0.14	0.07	*
Native language						
Indigenous	0.15	0.05	***	0.02	0.09	

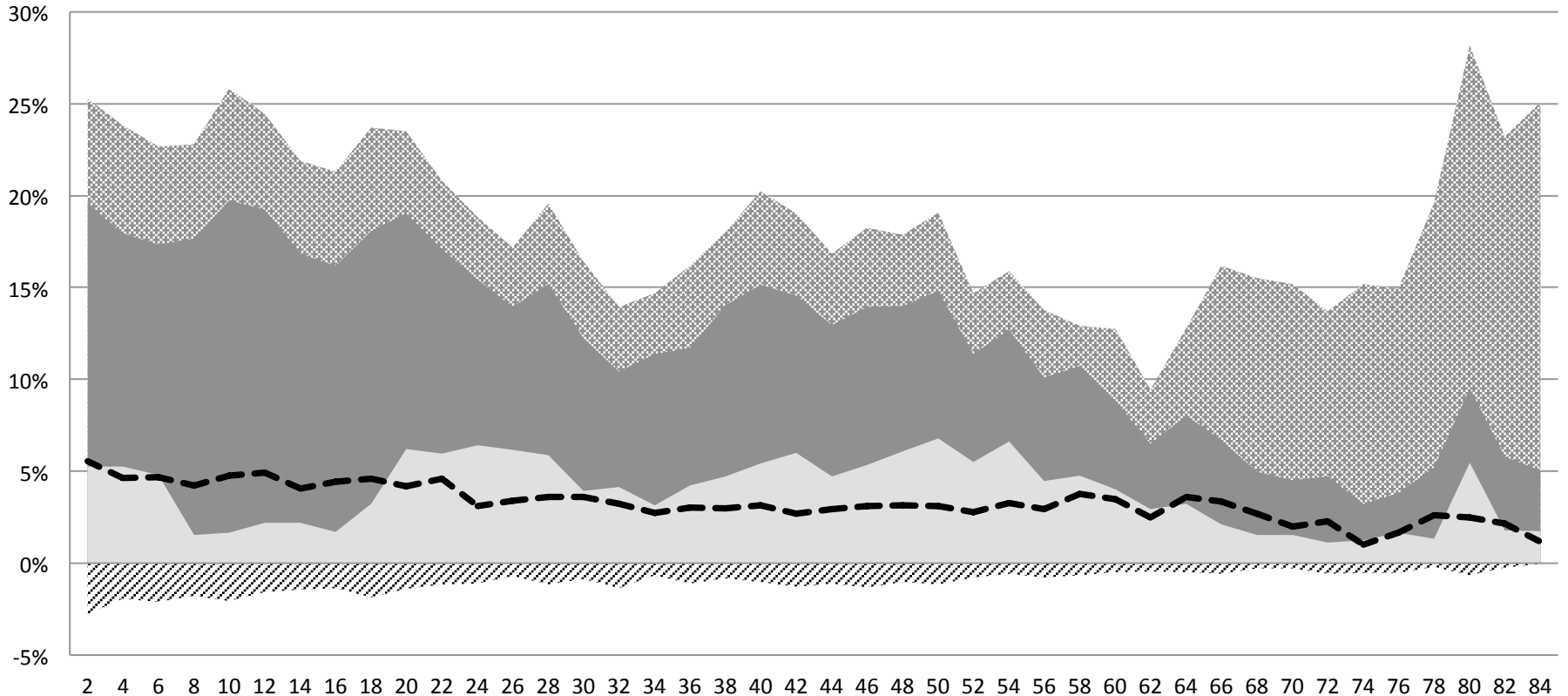
NOTE: * indicates statistically significant from zero at the 10% level, ** at the 5% level, *** at the 1% level.

The Youngest pay high Taxes and Receive Small In-Kind Transfers



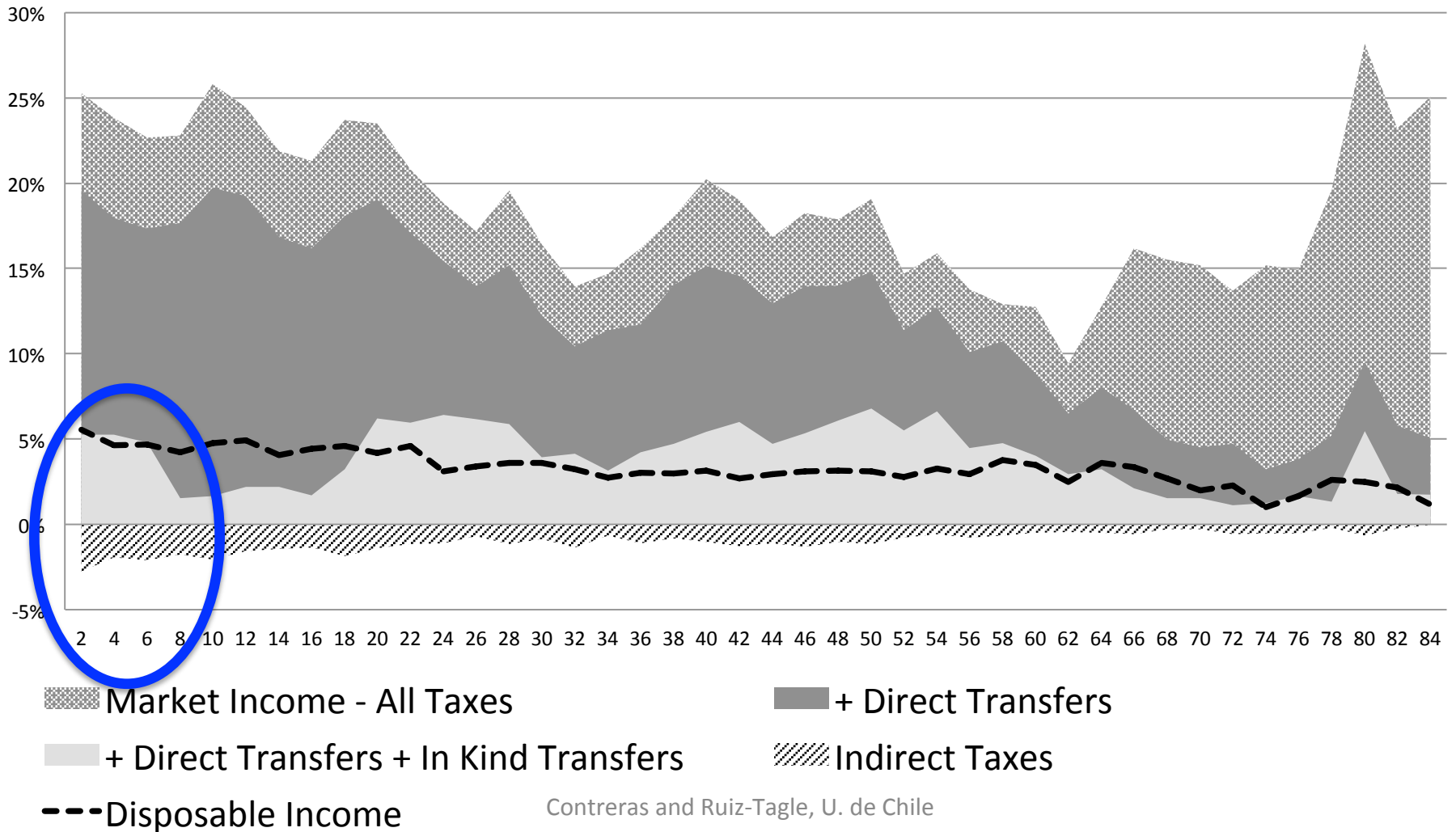
- Market Income - All Taxes
 Direct Transfers
 Indirect Subsidies
- In-Kind Transfers
 Direct Taxes
 Indirect Taxes
- Disposable Income

Youngest: High Extreme Poverty, but not the highest beneficiaries of in-kind transfers

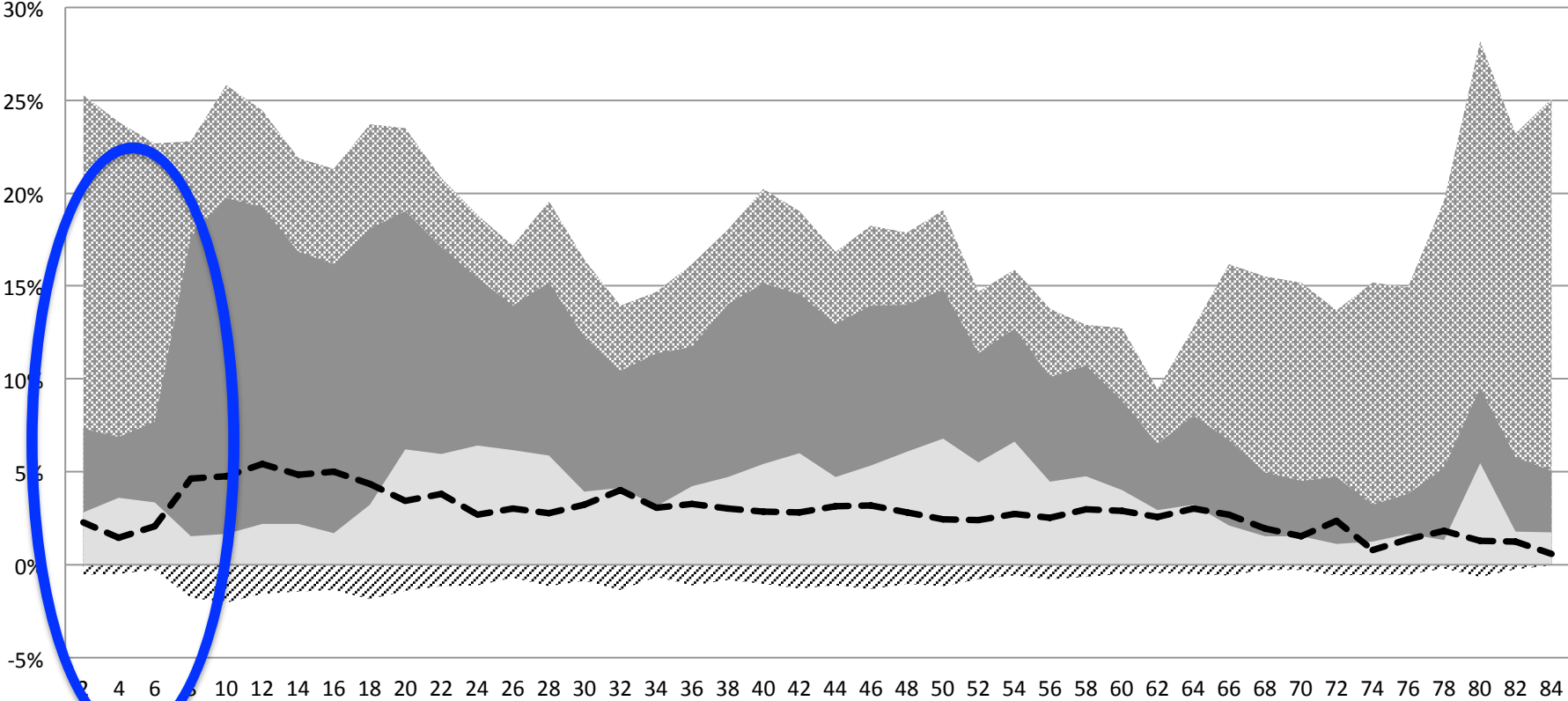


- Market Income - All Taxes
- + Direct Transfers
- + Direct Transfers + In Kind Transfers
- Indirect Taxes
- Disposable Income

Youngest: High Extreme Poverty, but not the highest beneficiaries of in-kind transfers



Simulation: Reducing Youngest Extreme Poverty by a Direct Transfer of US\$30 for Children under-7



- Market Income - All Taxes
- + Direct Transfers
- + Direct Transfers + In Kind Transfers
- Indirect Taxes
- Disposable Income

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Reducing Extreme Poverty by a Direct Transfer Targeting the Youngest

- Giving children under-7 a US\$30 monthly income (half of extreme poverty line):
 - Extreme poverty of under-7 reduced from 5-6% to 2-1%.
 - Policy cost is 0.24% of GDP (11% of households direct taxes).
 - Proposed Tax-reform by Bachelet is 3% of GDP.