

Session 1

Introduction to CEQ

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Learning Event on the Commitment to Equity Methodology
Tulane University and the World Bank
Washington, DC
February 18 -20, 2015

Workshop Structure

Day 1: morning

- **Session 1:** What is CEQ and examples of how CEQ Assessments can be used
- **Session 2:** The Analytics of Fiscal Redistribution:
Estimating the Redistributive and Poverty-reduction
Impact of Fiscal Interventions

Workshop Structure

Day 1: afternoon

- **Session 3** (lunch): Fiscal incidence analysis in practice: country experiences
- **Sessions 4 and 5**: Fiscal incidence analysis in practice: methodology

Workshop Structure

Days 2 and 3

Morning

- Describing the CEQ Master Workbook and CEQ *ado* files

Afternoon

- Stata training session

Outline

- **What is CEQ**
- **How can CEQ Assessments be used**
 - **Cross-country analysis**
 - **Country-specific analysis: Brazil**

Why do we need CEQ?

Three key indicators of a government's commitment to reducing inequalities, poverty and social exclusion

- The share of total income devoted to social spending
- How equalizing and pro-poor this spending is
- Who pays for what the government spends

Specifically, suppose one wants to know...

- What is the impact of taxes and government transfers on inequality and poverty?
- Who are the net tax payers to the fiscal system?
- Are the poor impoverished by taxes net of cash transfers?
- How equitable is the use of government education and health services?

Suppose one wants to know...

- Is a specific fiscal intervention equalizing or unequalizing? What is its contribution?
- Is a specific intervention poverty-reducing or poverty-increasing? What is its contribution?
- How much of targeted benefits are leaked to the nonpoor?
- What is the coverage of benefits among the poor?

Suppose one wants to know...

- How do inequality and poverty change when you eliminate VAT exemptions?
- Who benefits from the elimination of user fees in primary education or the expansion of noncontributory pensions?
- Who loses from the elimination of energy subsidies?

What is CEQ: Description of Project

- The Commitment to Equity project (CEQ) was launched with the objective of answering questions like these
- The CEQ project is an initiative of:
 - The Center for Inter-American Policy and Research (CIPR) and the Department of Economics, Tulane University, the Inter-American Dialogue and the Center for Global Development
- CEQ's goals are to:
 - Foster evidence-based policy discussion
 - Assist governments, multilateral institutions, and nongovernmental organizations in their efforts to build more equitable societies

What is CEQ: the CEQ Assessment

The CEQ project developed the CEQ Assessment, a diagnostic instrument

- Comprehensive framework to analyze the effect of taxation and public spending on inequality and poverty
- Method: Fiscal Incidence analysis and qualitative diagnostic approach
- Application of a common methodology across countries makes cross-country comparisons more accurate
- Methodology is designed to be as comprehensive as possible without sacrificing detail in any particular component of the analysis

What is CEQ: Core Team

- Director: Nora Lustig
- Technical Coordinator: Sean Higgins
- Project Coordinator: Samantha Greenspun
- Team: Rodrigo Aranda, Ali Enami, and Yang Wang
- Advisory Board: list on CEQ homepage
- Consultants: Jim Alm, Francois Bourguignon, Jean-Yves Duclos, Peter Lambert, Anthony Shorrocks and Stephen Younger
- Country teams: listed at the end of presentation

What is CEQ: Partnerships and Collaborations

- **World Bank:** 11 countries, background papers, joint papers, policy briefs and LEL (Equity Lab)
- **IDB:** 10 countries in LAC, by ethnicity and race, overview papers for LA
- **ICEFI:** 4 countries in Central America, rural-urban
- **IFAD:** 4 countries, rural-urban
- **UNDP:** Ecuador (top incomes) and Venezuela
- **Economic Research Forum:** Egypt and Iran
- **AfDB:** Tunisia
- **CADEP:** Paraguay
- **CBGA:** India
- **FUSADES:** El Salvador
- **REPOA:** Tanzania
- **University of Ghana:** Ghana
- **OECD:** chapter for flagship publication and project on redistribution and the middle-class
- **IMF:** chapter for edited volume
- **CAF:** background paper
- **ADB:** box for flagship publication
- **CEPAL:** box for flagship publication

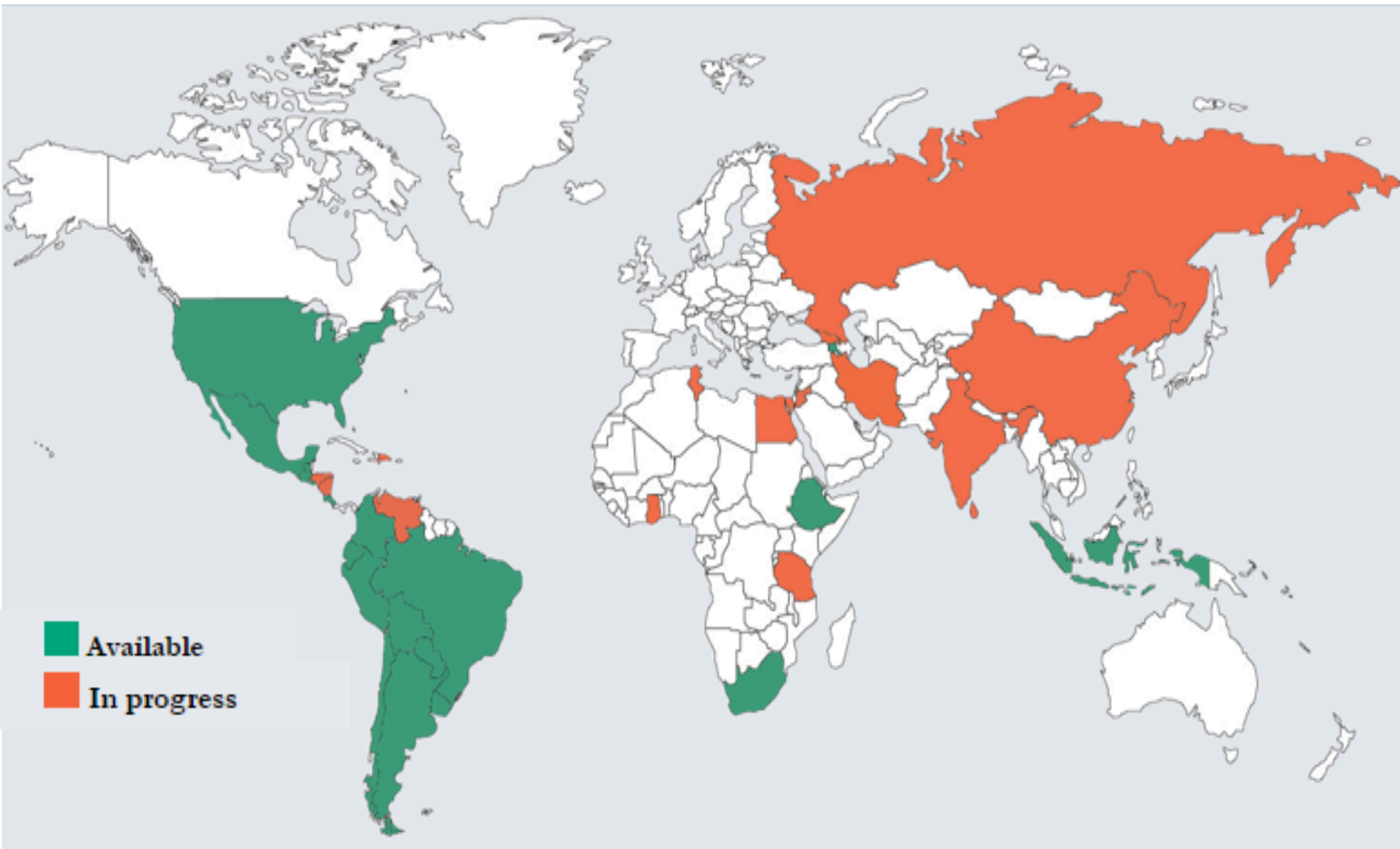
What is CEQ: Funding

- Tulane University (2008 -)
 - Center for Inter-American Policy and Research
 - School of Liberal Arts
 - Stone Center for Latin American Studies
- Bill & Melinda Gates Foundation (US \$581,162)
 - CEQ Handbook (text, master workbook and *ado* files)
 - CEQ Assessments in Ghana and Tanzania
- Canadian International Development Agency (CIDA), the Norwegian Ministry of Foreign Affairs, and the General Electric Foundation (2008-2011)

What is CEQ: Country Coverage

- 33 countries at different stages of completion
 - Asia..... 4
 - ECA.....3
 - LAC.....17
 - MENA.....4
 - SSA..... 4
 - United States
- 17 CEQ Assessments have been completed

www.commitmentoequity.org



What is CEQ: Methodological Contributions

- Design of CEQ Assessments, including guidelines, Master Workbook and software
- Harmonization of concepts and methods
- Analytics of fiscal redistribution
- New measures: Fiscal Impoverishment and Fiscal Gains to the Poor

What is CEQ: Advice & Technical Support

- Adapting methodology to country's idiosyncrasies
- Quality-control
- Interpretation of results
- Training
- Write-ups

What is CEQ: Outputs

- CEQ website www.commitmenttoequity.org
 - Handbook
 - More than 20 Working Papers
 - Basic indicators (in editable excel)
- Lustig, Nora, Carola Pessino and John Scott. 2014. Editors. *The Redistributive Impact of Taxes and Social Spending in Latin America. Special Issue. Public Finance Review*, May, Volume 42, Issue 3.
- **New!**
Inchauste, Gabriela, Nora Lustig, Mashekwa Maboshe, Catriona Purfield and Ingrid Wollard. 2015. *The Distributional Impact of Fiscal Policy in South Africa*. Policy Research Working Paper 7194, The World Bank, February

CEQ Assessment

CEQ Assessment

Main diagnostic instrument of CEQ

- Comprehensive framework to analyze the effect of taxation and public spending on inequality and poverty
- Method: Fiscal Incidence analysis and qualitative diagnostic approach
- Application of a common methodology across countries makes cross-country comparisons more accurate
- Methodology is designed to be as comprehensive as possible without sacrificing detail in any particular component of the analysis

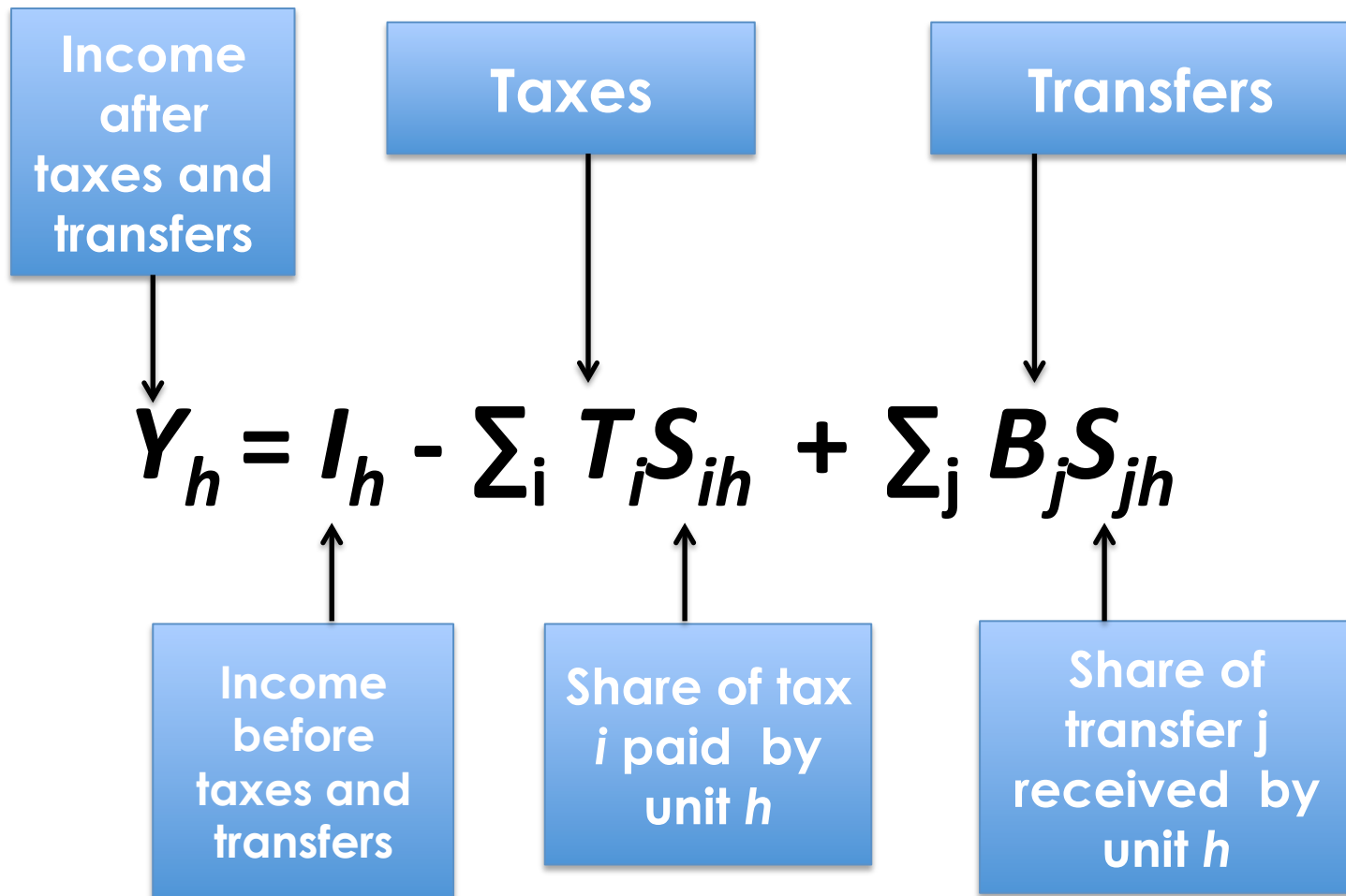
CEQ Assessment: Objectives

- What is the impact of taxes and transfers on inequality and poverty?
- How equalizing are taxes and public spending?
- How effective is the fiscal system in reducing inequality and poverty?
- Who bears the burden of taxes and receives the benefits?
- How equitable is the use of education and health services?
- Fiscal policy and rural/urban, gender and ethnic inequalities
- Identify areas of potential policy reform to enhance the capacity of the state to reduce inequality and poverty through taxes and transfers

CEQ Assessment: Method

- Relies on state-of-the art tax and benefit incidence analysis
 - Ongoing consultation with experts to improve economic incidence estimates
- Uses conventional and newly developed indicators to assess progressivity, pro-poorness and effectiveness of taxes and transfers
- Allows to identify the contribution of individual fiscal interventions to equity and poverty reduction objectives

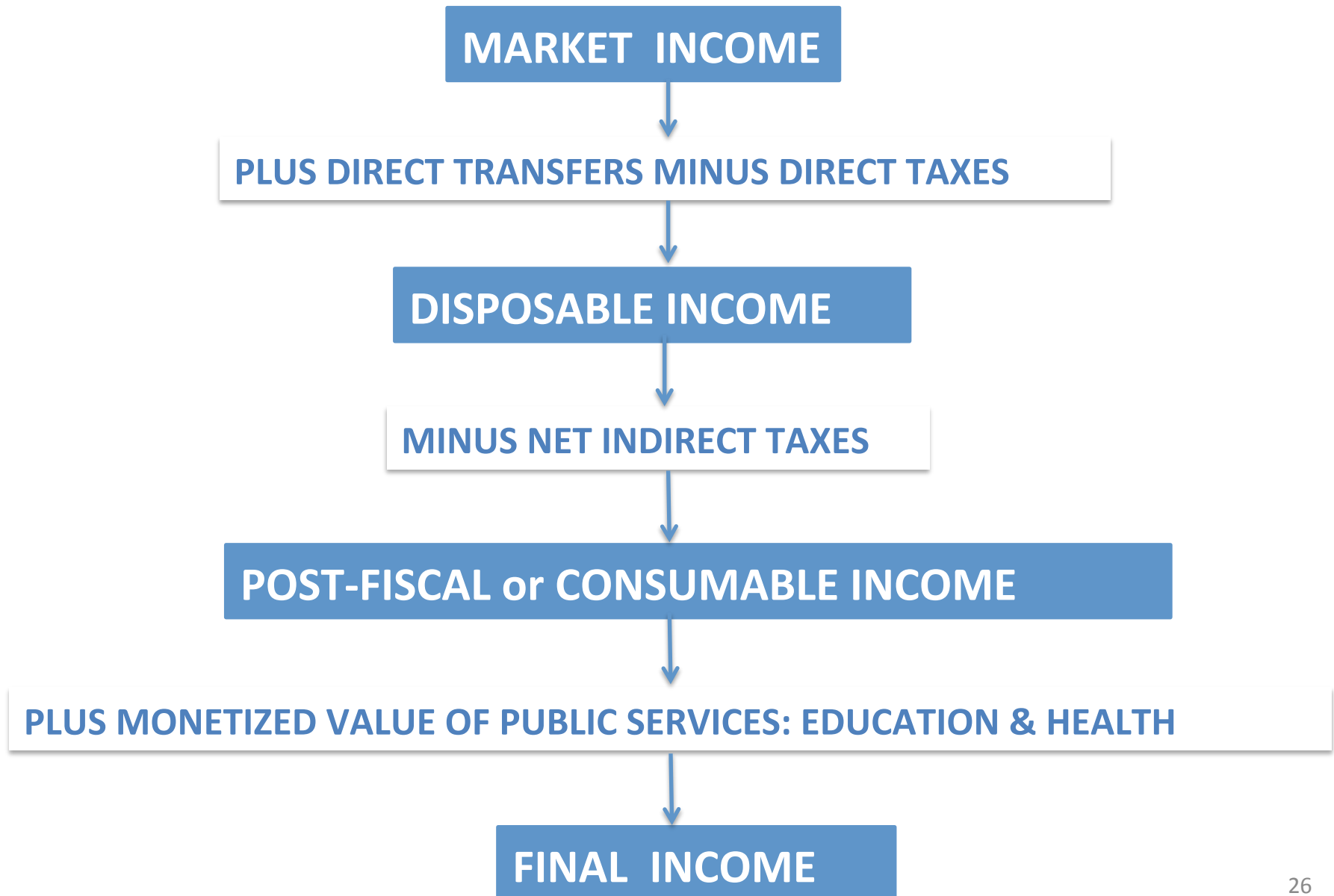
CEQ Assessment: Fiscal Incidence Analysis



CEQ Assessment: Fiscal Interventions

- Currently included:
 - Direct taxes
 - Direct cash transfers
 - Non-cash direct transfers such as school uniforms and breakfast
 - Contributions to pensions and social insurance systems
 - Indirect taxes on consumption
 - Indirect subsidies
 - In-kind transfers such as spending on education and health
- Working on:
 - Corporate taxes
 - Housing subsidies

CEQ Assessment: Income Concepts

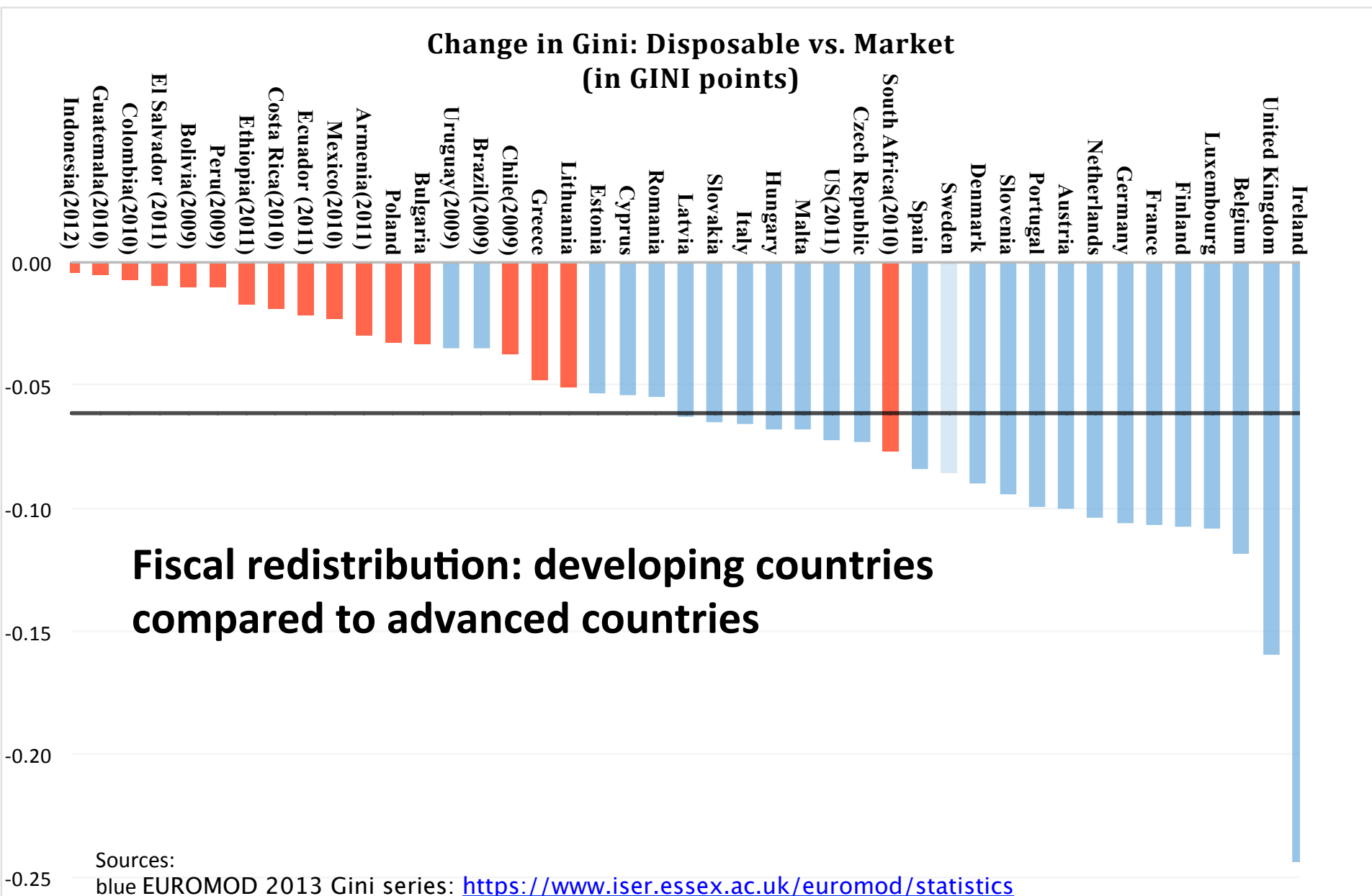


CEQ Assessment: Tools

- **Handbook:** Lustig and Higgins, current version Sept 2013; includes sample Stata code (available on CEQ website)
- **Master Workbook:** Excel Spreadsheet to present background information, assumptions and results. Lustig and Higgins, version Feb 2015 (available with permission)
- **Diagnostic Questionnaire:** available on website
- **Ado Stata Files:** Completed: disaggregated tables of results and sheets D1 and D11 of Master Workbook (available with permission)
- **CEQ Handbook (forthcoming)**
Lustig and Higgins, editors. *Commitment to Equity Handbook: Estimating the Redistributive Impact of Fiscal Policy*

Outline

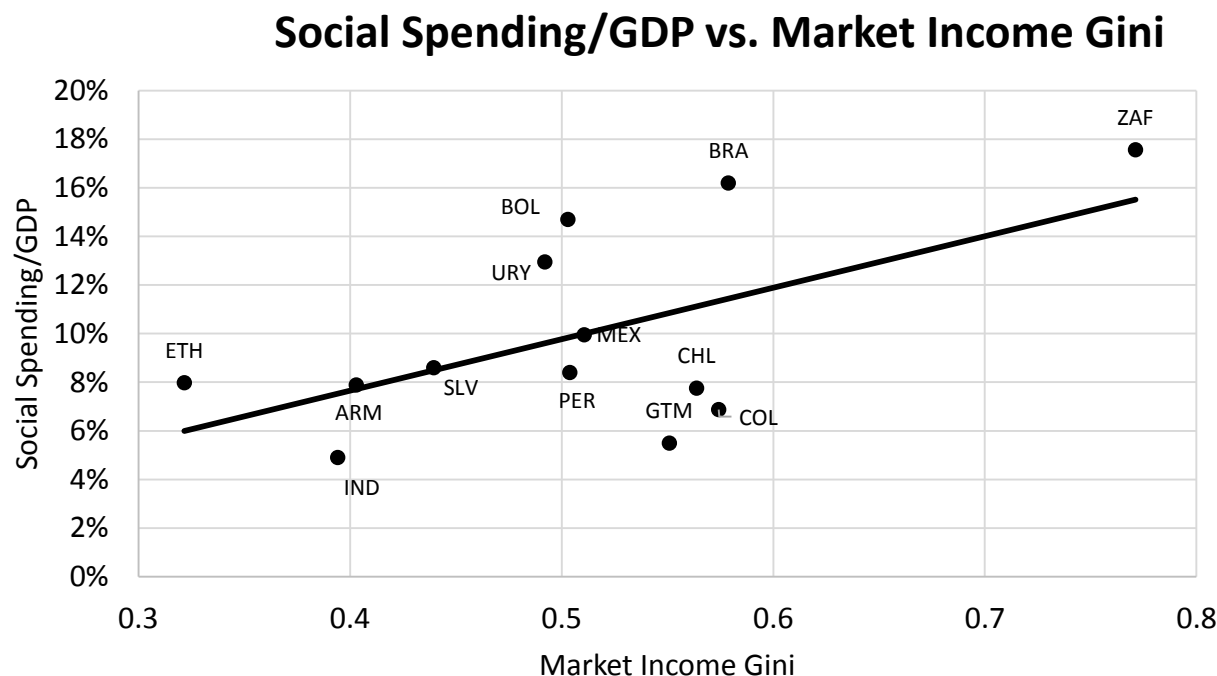
- What is CEQ
- How can CEQ Assessments be used
 - Cross-country analysis
 - Country-specific analysis: Brazil



Cross-country Analysis: CEQ 13

- Do more unequal countries spend more on social programs?

➤ Yes

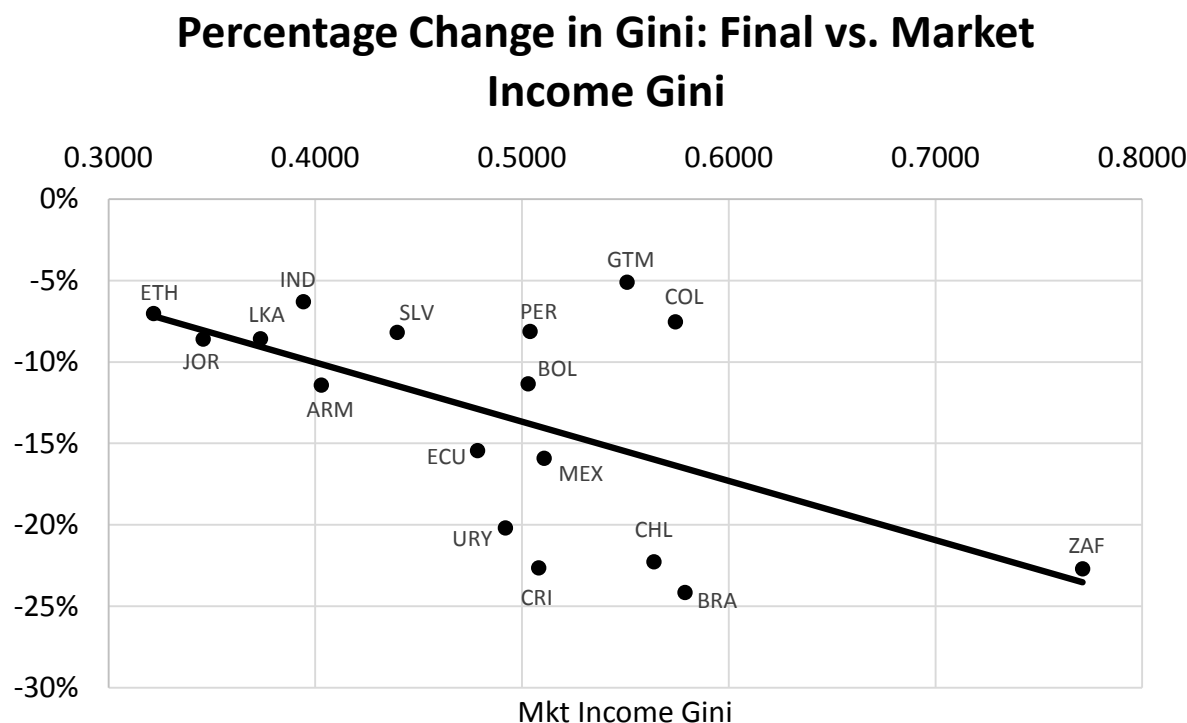


Source: Lustig (2015a)

Cross-country Analysis: CEQ 13

- Do more unequal countries redistribute more?

➤ Yes



Source: Lustig (2015a)

Cross-country Analysis: CEQ 13

Are (net) indirect taxes unequalizing? Do they increase poverty?

- In 6 countries their marginal contribution is unequalizing
- in 5 countries they increase poverty over and above market income poverty

Source: Lustig (2015a)

Cross-country Analysis: CEQ 13

- How pro-poor is spending on education and health?

	Educ Total			Pre-school			Primary			Secondary			Tertiary				Health		
	Pro-poor CC is negative	Same per capita for all; CC=0	Progressive CC positive but lower than market income Gini	Pro-poor CC is negative	Same per capita for all; CC=0	Progressive CC positive but lower than market income Gini	Pro-poor CC is negative	Same per capita for all; CC=0	Progressive CC positive but lower than market income Gini	Pro-poor CC is negative	Same per capita for all; CC=0	Progressive CC positive but lower than market income Gini	Pro-poor CC is negative	Same per capita for all; CC=0	Progressive CC positive but lower than market income Gini	Regressive CC positive AND higher than market income Gini	Pro-poor CC is negative	Same per capita for all; CC=0	Progressive CC positive but lower than market income Gini
Armenia (2011)	+				+		+			+					+			+	
Bolivia (2009)		+		+			+			+					+			+	
Brazil (2009)	+			+			+			+					+		+		
Chile (2009)	+			+			+			+					+		+		
Colombia (2010)	+			+			+			+					+		+		
El Salvador (2011)	+			+			+				+				+	*			+
Ethiopia (2011)			+	na				+				+				+			+
Guatemala (2010)		+		+			+				+					+			+
Indonesia (2012)		+		na			+				+					+			+
Mexico (2010)	+			+			+			+					+			+	
Peru (2009)	+			+			+			+					+				+
South Africa (2010)	+			+			+			+					+		+		
Uruguay (2009)	+			+			+			+					+	*	+		

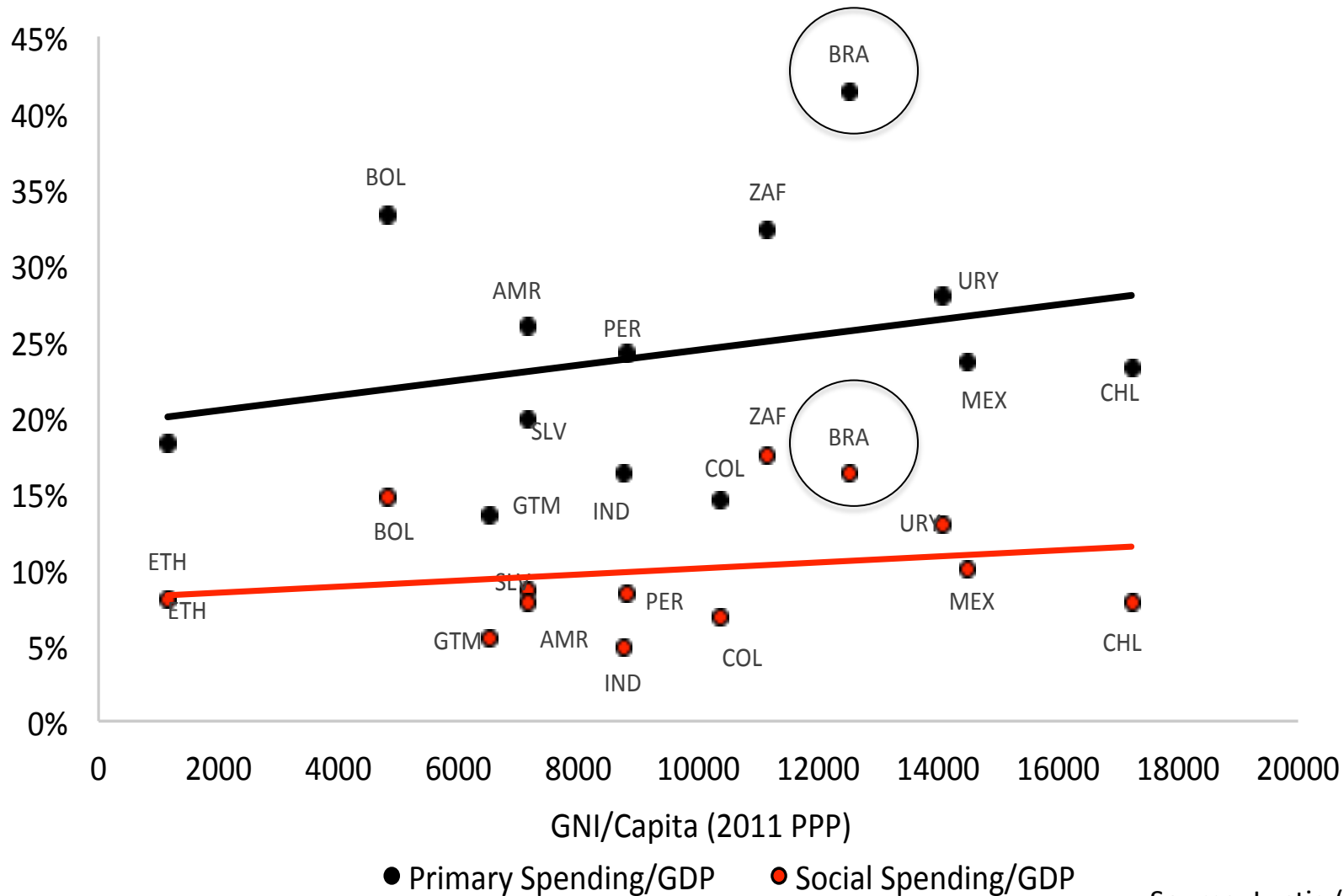
*CC is almost equal to market income Gini coefficient

Source: Lustig (2015b)

BRAZIL

Source: Higgins and Pereira (2014) and Lustig (2015a, b, c)

Primary and Social Spending/GDP vs GNI/capita

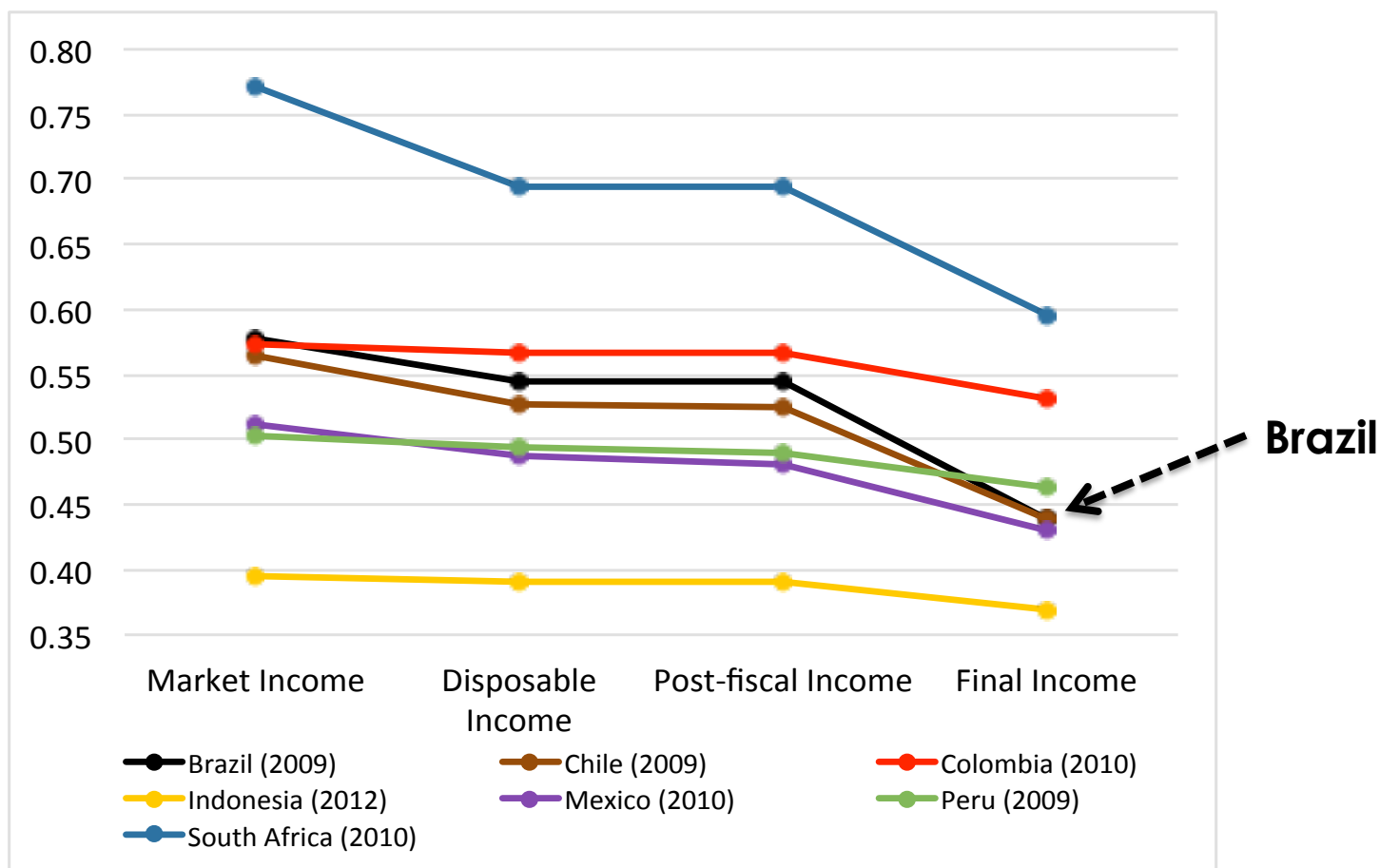


Suppose you want to know...

- What is the impact of taxes and government transfers on inequality and poverty?
- What is the contribution of direct taxes and direct transfers to the change in inequality?
- Who (which income category) are the net tax payers to the fiscal system?
- Are the poor impoverished by taxes net of cash transfers?

Fiscal Redistribution: Brazil, Chile, Colombia, Indonesia, Mexico and South Africa

Gini Coefficient, circa 2010



Source: Lustig (2015a)

Suppose you want to know...

- Is a specific intervention equalizing or unequalizing?
What is its contribution?
- Next table shows marginal contributions of direct taxes and direct transfers

Marginal Contribution of Direct Taxes and Transfers

	Brazil (2009)
Market Income Gini	0.5788
RE	0.0350
Direct Taxes	0.0172
Direct Transfers	0.0210

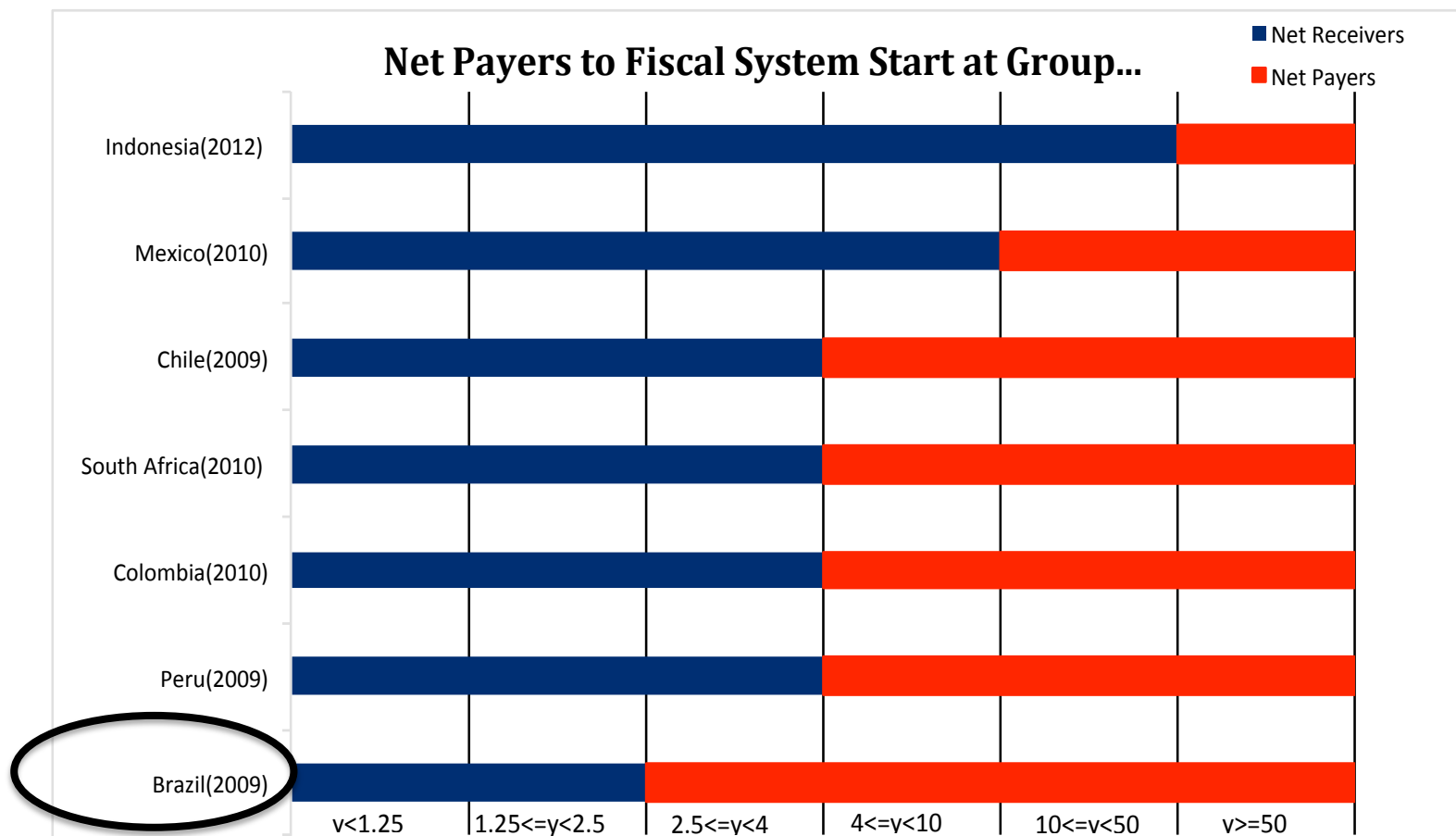
Note:

RE= Gini for market income less Gini for disposable income

Suppose you want to know...

- Who are the net tax payers to the fiscal system?
- Are the poor impoverished by taxes net of cash transfers?
- What is the impact of taxes and government transfers on poverty?

Net Receivers and Net Payers to the Fiscal System by Income Category (circa 2010)



➤ Brazil: Net payers to the fisc start in the moderate poverty income group

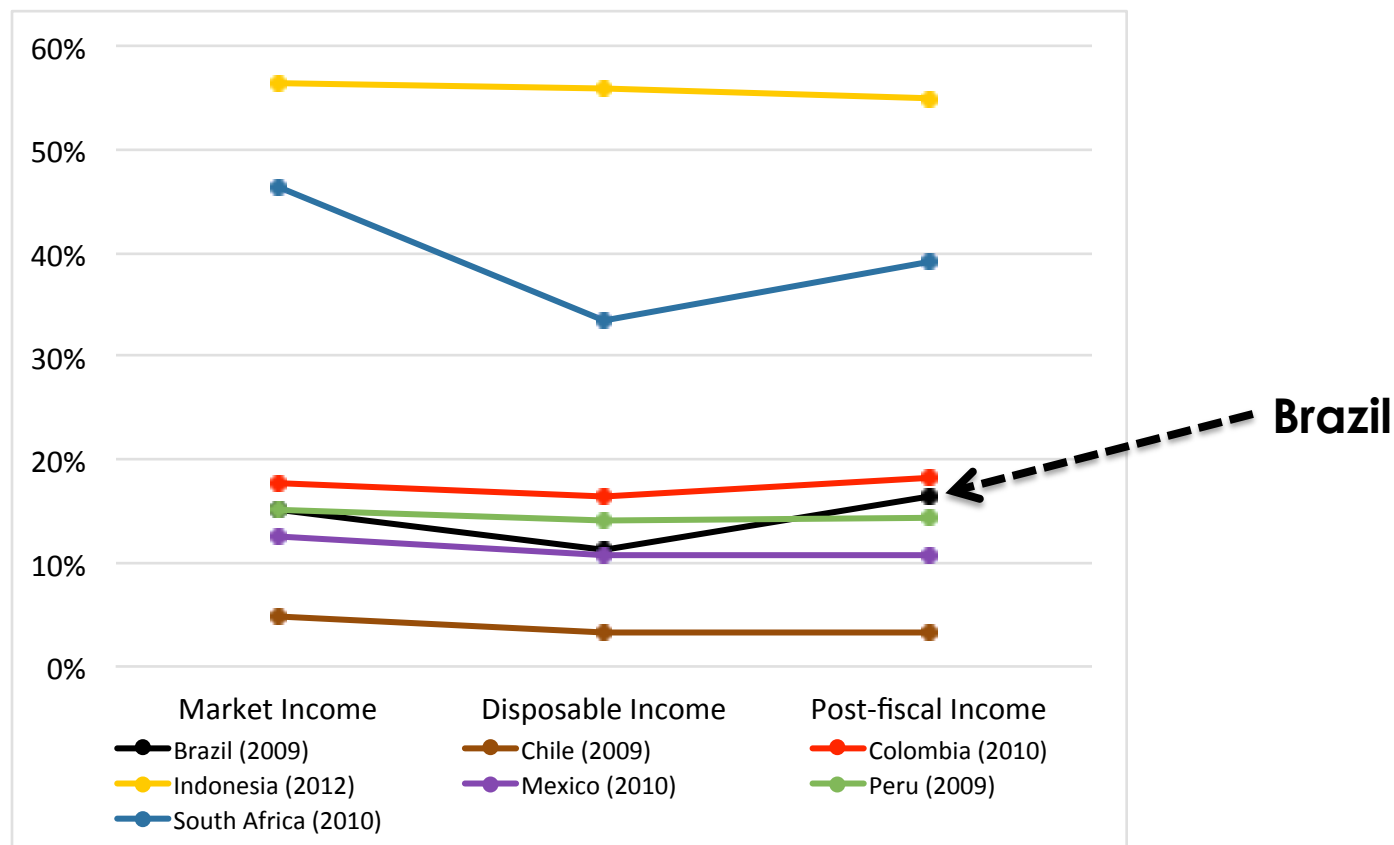
Source: Lustig (2015a)

- Are the poor impoverished by taxes net of cash transfers?
- Yes
 - 36.8% of post-fisc poor are fiscally impoverished
 - Total fiscal impoverishment over USD \$700 million
 - Impoverished pay \$0.19 per person per day (10% of their incomes) in net taxes on average

Source: Higgins and Lustig (2014)

Fiscal Poverty Reduction: Brazil, Chile, Colombia, Indonesia, Mexico and South Africa

Headcount Ratio (\$2.50/day ppp poverty line),
circa 2010



Source: Lustig (2015a)

Suppose you want to know...

- Is spending on education and health pro-poor? Pro-poor is defined as the case in which per capita spending tends to fall with income

- Yes, for the most part
 - Except for tertiary education, spending on education is pro-poor
 - Spending on health is pro-poor
 - *Pro-poor* or the middle-classes opting out of poor quality services

Progressivity and Pro-poorness of Education and Health Spending, circa 2010 (Brazil highlighted in yellow)

	Educ Total			Pre-school			Primary			Secondary			Tertiary				Health		
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South Africa (2010)	+			+			+			+					+		+		
Uruguay (2009)	+			+			+			+					+		+		

Brazil: Summing-up

Inequality

- The net fiscal system is quite equalizing in Brazil, especially when compared with countries that start at similar levels of inequality like Colombia
- Direct taxes, direct transfers and in-kind transfers are equalizing
- Net Indirect taxes are unequalizing but slightly

Poverty

- Net indirect taxes are quite devastating for poverty
 - Poverty is higher than market income poverty
 - Net payers to the fiscal system start as low as the third decile
 - More than a third of the poor are made poorer through the effect of indirect taxes

Use of services

- Mostly pro-poor
- Opting-out of middle-classes due to poor quality

When using data, graphs or tables from this presentation please cite as:

- Higgins, Sean and Nora Lustig. 2014. *Measuring Fiscal Impoverishment*. Mimeo, Department of Economics, Tulane University, November.
- Lustig, Nora. 2015a. “Fiscal Policy, Inequality and the Poor in the Developing World..” *CEQ Working Paper No. 23*, Center for Inter-American Policy and Research and Department of Economics, Tulane University and Inter-American Dialogue. Forthcoming.
- Lustig, Nora. 2015b. *The Redistributive Impact of Government Spending on Education and Health Evidence from Thirteen Developing Countries*. CEQ Working Paper No. 30, Center for Inter-American Policy and Research and Department of Economics, Tulane University and Inter-American Dialogue, Forthcoming.
- Lustig, Nora. 2015c. *Fiscal Redistribution in Middle-income Countries: Brazil, Chile, Colombia, Indonesia, Mexico, Peru and South Africa*. CEQ Working Paper No. 31, Center for Inter-American Policy and Research and Department of Economics, Tulane University and Inter-American Dialogue, Forthcoming.

Also, please cite: CEQ Country Master Workbooks and Papers

(Year of Survey; C=consumption & I=income)

(Master Workbook, MWB, Version)

1. **Armenia (2011; I):** Stephen Younger and Artsvi Khachatryan (March 12, 2014)
2. **Bolivia (2009; I):** Paz Arauco, Verónica, George Gray Molina, Wilson Jiménez Pozo, and Ernesto Yáñez Aguilar. 2014. “Explaining Low Redistributive Impact in Bolivia.” In Lustig, Nora, Carola Pessino and John Scott. 2014. Editors. *The Redistributive Impact of Taxes and Social Spending in Latin America. Special Issue. Public Finance Review*, May, Volume 42, Issue 3. (September 22, 2014)
3. **Brazil (2009; I):** Higgins, Sean and Claudiney Pereira. 2014. “The Effects of Brazil’s Taxation and Social Spending on the Distribution of Household Income.” In Lustig, Nora, Carola Pessino and John Scott. 2014. Editors. *The Redistributive Impact of Taxes and Social Spending in Latin America. Special Issue. Public Finance Review*, May, Volume 42, Issue 3. (November 4, 2014)
4. **Chile (2009, I):** Ruiz-Tagle, Jaime and Dante Contreras. 2014. CEQ Masterworkbook, Tulane University (August 27, 2014)
5. **Colombia (2010, I):** Melendez, Marcela and Nora Lustig. 2014. CEQ Masterworkbook, Tulane University (November 21, 2014)
6. **Costa Rica (2010; I):** Sauma, Juan and Diego Trejos. 2014. [*Social Public Spending, Taxes, Redistribution of Income, and Poverty in Costa.*](#) CEQ Working Paper No. 18, Center for Inter-American Policy and Research and Department of Economics, Tulane University and Inter-American Dialogue, January. (February 2014)

7. **El Salvador (2011; I):** Beneke, Margarita, Nora Lustig y José Andrés Oliva. 2015. *El impacto de los impuestos y el gasto social en la desigualdad y la pobreza en El Salvador*. CEQ Working Paper No. 26, Center for Inter-American Policy and Research and Department of Economics, Tulane University and Inter-American Dialogue, February. (March 11, 2014)
8. **Ethiopia (2010/11; C):** Tassew Woldehanna, Ruth Hill, Gabriela Inchauste, EyasuTsehay, and Nora Lustig. 2014. Chapter 5, Ethiopia Poverty Assessment, World Bank (April 30, 2014)
9. **Guatemala (2011; I):** Cabrera, Maynor, Nora Lustig and Hilcías Morán. 2014. [*Fiscal Policy, Inequality and the Ethnic Divide in Guatemala*](#). CEQ Working Paper No. 20, Center for Inter-American Policy and Research and Department of Economics, Tulane University and Inter-American Dialogue, October. (April 13, 2014)
10. **Indonesia (2012; C) :** Jon Jellema and Matthew Wai-Poi. 2014. CEQ Master Workbook, Tulane University and The World Bank (February 18, 2014)
11. **Mexico (2010; I):** Scott, John. 2014. “Redistributive Impact and Efficiency of Mexico’s Fiscal System.” In Lustig, Nora, Carola Pessino and John Scott. 2014. Editors. *The Redistributive Impact of Taxes and Social Spending in Latin America. Special Issue. Public Finance Review*, May, Volume 42, Issue 3. (September 2013)
12. **Peru (2009; I):** Jaramillo, Miguel. 2014. “The Incidence of Social Spending and Taxes in Peru.” In Lustig, Nora, Carola Pessino and John Scott. 2014. Editors. *The Redistributive Impact of Taxes and Social Spending in Latin America. Special Issue. Public Finance Review*, May, Volume 42, Issue 3. (May 1, 2013)

13. **South Africa (2010; I):** Inchauste, Gabriela, Nora Lustig, Mashekwa Maboshe, Catriona Purfield and Ingrid Wollard. 2015. *The Distributional Impact of Fiscal Policy in South Africa*. Policy Research Working Paper 7194, The World Bank, February. (May 5, 2014)
14. **United States (2011; I):** Higgins, Sean, Nora Lustig, Whitney Ruble and Timothy Smeeding (forthcoming) *Comparing the Incidence of Taxes and Social Spending in Brazil and the United States*, Review of Income and Wealth
15. **Uruguay (2009; I):** Bucheli, Marisa, Nora Lustig, Máximo Rossi, and Florencia Amábile. 2014. "Social Spending, Taxes and Income Redistribution in Uruguay." In Lustig, Nora, Carola Pessino and John Scott. 2014. Editors. *The Redistributive Impact of Taxes and Social Spending in Latin America. Special Issue. Public Finance Review*, May, Volume 42, Issue 3. (August 18, 2014)

Household Surveys Used in Country Studies

1. **Armenia:** Integrated Living Conditions Survey, 2011 (I)
2. **Bolivia:** Encuesta de Hogares, 2009 (I)
3. **Brazil:** Pesquisa de Orçamentos Familiares, 2009 (I)
4. **Chile:** Encuesta de Caracterización Social (CASEN), 2009 (I)
5. **Colombia:** Encuesta de Calidad de Vida, 2010 (I)
6. **Costa Rica:** Encuesta Nacional de Hogares, 2010 (I)
7. **Ecuador:** Encuesta Nacional de Ingresos y Gastos de los Hogares Urbano y Rural, 2011-2012 (I)
8. **El Salvador:** Encuesta De Hogares De Propósitos Múltiples, 2011 (I)
9. **Ethiopia:** Ethiopia Household Consumption Expenditure Survey and Ethiopia Welfare Monitoring survey, 2011 (C)
10. **Guatemala:** Encuesta Nacional de Ingresos y Gastos Familiares, 2010 (I)
11. **Indonesia:** Survei Sosial-Ekonomi Nasional, 2012 (C)
12. **Mexico:** Encuesta Nacional de Ingreso y Gasto de los Hogares, 2010 (I)
13. **Peru:** Encuesta Nacional de Hogares, 2009 (I)
14. **South Africa:** Income and Expenditure Survey and National Income Dynamics Study, 2010-2011 (I)
15. **Uruguay:** Encuesta Continua de Hogares, 2009 (I)

Note: The letters "I" and "C" indicate that the study used income or consumption data, respectively.

Thank you!