# ECON 4311 — Economy of Latin America

Lecture 12A: Poverty & Inequality

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  - Relative Poverty
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#### Introduction

- ▶ Only a small group of countries in the region can realistically hope to join the club of high-income countries in the near future.
- Most countries in LatAm are middle-income economies, plagued by much economic inequality and (some) by substantial levels of poverty.
  - Latin America: world's region with most unevenly distributed income.
  - High poverty rates.
- Today we dig deeper on poverty and inequality:
  - Data.
  - Consequences.
  - Causes.
  - Policies.

## Poverty: Standards of Living

To put things in perspective, we review the standards of living in Latin America compared to other world regions.

	Population (millions)	GDP (billions)	GDP per capita
Argentina	44.3	637.4	14,398.4
Bolivia	11.1	37.5	3,394.0
Brazil	209.3	2,053.6	9,812.3
Chile	18.1	277.1	15,346.4
Colombia	49.1	314.5	6,408.9
Costa Rica	4.9	57.3	11,677.3
Ecuador	16.6	104.3	6,273.5
El Salvador	6.4	24.8	3,889.3
Guatemala	16.9	75.6	4,471.0
Honduras	9.3	23.0	2,480.1
Mexico	129.2	1,150.9	8,910.3
Nicaragua	6.2	13.8	2,221.8
Panama	4.1	62.3	15,196.4
Paraguay	6.8	39.7	5,823.8
Peru	32.2	211.4	6,571.9
Uruguay	3.5	56.2	16,245.6
Venezuela, RB	32	482.4	15,692.4
Latin America	644.1	5,972.1	9,271.6
Low income	732.4	576.9	787.7
Middle income	5,548.8	28,758.6	5,182.8
High income	1,248.4	51,625.9	41,352.4
World	7,529.7	80,934.8	10,748.7

Source: World Bank (2019).

Poverty

## **Absolute Poverty**

Absolute poverty.

#### Absolute Poverty

- ▶ **Absolute poverty**. Lack of the amount of money necessary to meet certain thresholds of human existence.
- ► Two commonly-used measures ("poverty lines"):
  - \$2.50 USD/day.
  - \$4.00 USD/day.

#### Absolute Poverty

- ▶ **Absolute poverty**. Lack of the amount of money necessary to meet certain thresholds of human existence.
- ► Two commonly-used measures ("poverty lines"):
  - \$2.50 USD/day.
  - \$4.00 USD/day.
- Looking at absolute poverty, we see that Latin America has:
  - Low rates compared to much of the rest of the world.
  - Reduced poverty drastically since the 1990s.
  - Still substantial progress to be made:
    - ▶ 1 out of 10 people has less than \$2.50 US/day.
    - ▶ 1 out of 4 people has less than \$4.00 US/day.

# Absolute Poverty in Latin America

Region	Poverty rates (US\$2.50 per day)		Poverty rates (US\$4 per day)	
	1990	2018	1990	2018
Latin America	29.4	10.6	46.5	26.3
East Asia and the Pacific	88.6	12.4	95.9	34.8
Eastern Europe and Central Asia	11.1	5.4	28.3	14
Middle East and North Africa	36.1	15.6	63.3	42.1
South Asia	90.8	_	97.2	_
Sub-Saharan Africa	82.6	66.3	91.6	84.5

Source: World Bank (2019).

# Relative Poverty

Relative poverty.

#### Relative Poverty

- ▶ **Relative poverty**. Standard of living defined by an individual country to measure number of citizens it considers to be poor *within country*.
  - Someone poor in the US, may be "rich" in Nicaragua.
  - Someone "rich" in Nicaragua may be poor in the US.

## Relative Poverty

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  - Someone poor in the US, may be "rich" in Nicaragua.
  - Someone "rich" in Nicaragua may be poor in the US.
- Relative poverty is a concept that is ill-suited for cross country comparisons.
- On top of that, many countries do not provide their own definition of relative poverty.
  - This is one of the reasons why many economists look at distributions of income and wealth (or at their key summary statistics.)

## Relative Poverty in Latin America

Relative poverty shares generally much higher than population shares for the two common poverty lines.

Figure: Population shares in absolute vs. relative poverty

	\$2.50 per day	\$4 per day	Poverty percentage (year)
Argentina	2	7.1	=
Bolivia	11.8	24.7	32.7
Brazil	9.6	21	16.5
Chile	1.8	6.4	7.8
Colombia	10.8	27.6	28.6
Costa Rica	2.7	9.7	18.6
Ecuador	8.7	23.2	29.8
El Salvador	8.5	29	41.6
Guatemala	24.2	48.8	67.7
Honduras	31.6	52.6	74.3
Mexico	11.2	34.8	41.2
Nicaragua	12.8	34.8	58.3
Panama	6.3	14.1	21.4
Paraguay	5.6	18.6	42.3
Peru	9.8	23.9	22.7
Uruguay	0.4	2.9	4.4
Venezuela	_	_	32.1
Latin America	9.9	23.7	33.8

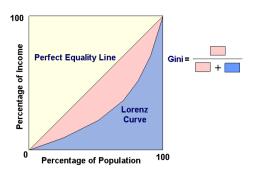
Source: World Bank (2019) and ECLAC (2019).

## **Economic Inequality**

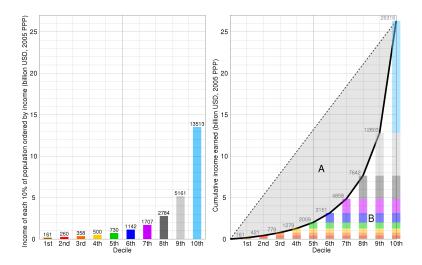
- ► Many types of economic inequality: income inequality, wealth inequality, consumption inequality, . . .
- All of them are important and measure slightly different things.
  - To assess welfare differences, economists typically look at consumption (and leisure) inequality.
  - Consumption, income and wealth measures are often highly correlated.
- A popular measure of inequality is the Gini coefficient.
  - Applied to income, the Gini coefficient measures deviations of the actual income distribution from perfect equality.
  - The Gini coefficient takes values between 0 and 1.
  - Value of 0 indicates perfect equality; 1 indicates perfect inequality.

#### The Gini Coefficient and the Lorenz Curve

- ▶ Perfect equality line: 45° line. (x% of population owns x% of income)
- Lorenz curve: graphical depiction of actual distribution of income. (x% of population own y% of income)
- ► Gini coefficient: Area between perfect equality line and Lorenz curve divided by that same area plus the area below the Lorenz curve.



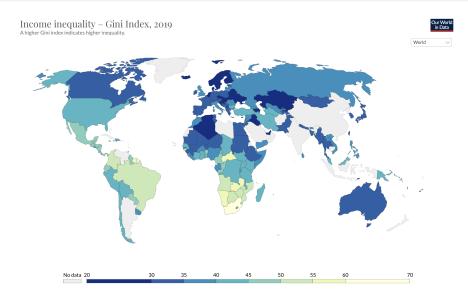
# Easy Way to Compute Lorenz Curve



## Income Inequality: The Gini Coefficient

- ▶ Median Gini coefficient in the world  $\approx$  0.35.
- ► Gini coefficient in Latin America (2017): 0.46.
  - Most unequal region.
  - Relative uniformity in the region:
    - Lowest Gini: 0.40 (Uruguay, El Salvador).
    - ► Highest Gini: 0.51 (Colombia).
  - Sharp decline in Gini coefficient since 2000s.

## Income Inequality in the World



# Income Inequality: Gini Comparison, 2017

High inequality in Latin America, even in comparison to the US, a highly-unequal country. Especially so, when looking at welfare states.

	Gini coefficient
Argentina	0.42
Bolivia	0.45
Brazil	0.51
Chile	0.48
Colombia	0.51
Costa Rica	0.49
Ecuador	0.45
El Salvador	0.40
Guatemala	0.48
Honduras	0.50
Mexico	0.43
Nicaragua	0.46
Panama	0.50
Paraguay	0.48
Peru	0.44
Uruguay	0.40
Venezuela, RB	0.47
Latin America	0.46
Portugal	0.36
Spain	0.35
Canada	0.34
US	0.42

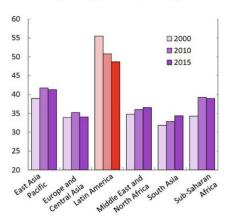
Source: UN Development Programme (2019).

# Income Inequality: Gini by Region

Excerpt from the IMFBlog (June 21, 2018)

Latin America has brought down inequality over the past two decades, although it remains the most unequal region.

Gini Coefficient (Gini index; population weighted average)



- No single explanation for the existence of poverty and high inequality.
- ► Rather, there are a number of factors that contribute to a greater or lesser extent to their existence.
- We now discuss some factors that have been important contributors to the high levels of poverty and inequality witnessed in the region:
  - Historical roots.
  - Import Substitution Industrialization.
  - Business and labor-market regulations.
  - Educational inequality.

#### Historical Roots

- Extractive policies/institutions since colonial times.
  - Importance of initial conditions: highly unequal distribution of land difficulted economic development.
    - Little or no incentive to provide education or political power to the large mass of people in the region.
- ▶ Independence from colonial powers: political instability and territorial fights held economic progress for decades.
- ► The Golden age signified the end of political instability and widespread participation in the political system.
  - Importance of initial conditions: highly unequal distribution of land difficulted economic development.
    - Still many oligarchies. (land and other resources).
    - Many years of dictatorships.

Import Substitution Industrialization

- Direct and indirect subsidies to a small number of firms.
  - Capital owners could make high profits.
  - Consumers had to pay high prices for low-quality goods.
- ► ISI encouraged the development of capital-intensive industries:
  - Increases in capital returns.
  - Decreases in wages.

Business and Labor-market Regulations

- Latin America: not an easy place to make business.
  - Incentives only for large firms to deal with regulation.
    - ▶ Small firms tend to go to the informal sector  $\rightarrow \uparrow$  informality.
    - ▶ Reduced competition: more likely formation of monopolies/oligopolies.

#### Dual labor market:

- Formal sector: higher wages and high levels of job security.
- Informal sector: lower wages and extremely low levels of job security.

#### **Educational Inequality**

- Wages are increasing in educational attainment.
  - Education  $\rightarrow$  Human capital  $\rightarrow$  Productivity  $\rightarrow$  Wages.
- Unequal distribution of education in Latin America:
  - Gini coefficient for years of education obtained:
    - Global average: 0.433.
    - High income countries: 0.275.
    - Africa: 0.618.
    - Asia: 0.48.
    - Latin America: 0.34 (not so bad).
  - Educational inequality has been falling since the 1960s. (worldwide)

Educational Inequality in Latin America

# Chile is the most equal country in terms of education Guatemala is the most unequal country in terms of education

	Gini coefficients	
Argentina	0.205	
Bolivia	0.399	
Brazil	0.349	
Chile	0.195	
Colombia	0.357	
Costa Rica	0.283	
Ecuador	0.323	
El Salvador	0.418	
Guatemala	0.560	
Honduras	0.425	
Mexico	0.324	
Nicaragua	0.473	
Panama	0.270	
Paraguay	0.317	
Peru	0.330	
Uruguay	0.237	
Venezuela	0.284	
Latin America	0.338	

Source: Cruces et al. (2014).

Educational Inequality in Latin America

# Most equal countries in Latin America (in terms of educational attainment) also tend to do better internationally in terms of outcomes

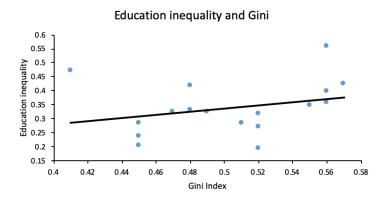
	Reading	Mathematics	Science
Argentina	425	409	432
Brazil	407	377	401
Chile	459	423	447
Colombia	425	390	416
Costa Rica	427	400	420
Mexico	423	408	416
Peru	398	387	397
Uruguay	437	418	435
Latin America	425	402	421
Portugal	498	492	501
Spain	496	486	493
Canada	527	516	528
US	497	470	496

Source: World Bank (2019).

Notice the skewed selection: only looking at higher income countries.

Educational and Income Inequality in Latin America

(Small) positive association between income and educational inequality in Latin America



#### Educational Inequality in Latin America

- Some issues in judging education in Latin America.
  - What is the right metric? Educational quantity (years) vs. quality.
  - Education is much harder to measure than income, wealth, and consumption.
  - Hard to assess the relative position of the region in terms of education:
    - Low participation of developing countries in the Program for International Student Assessment (PISA) of the OECD.
    - Only 6 countries in Latin America participate in PISA program.

- Economic policy can play a key role in reducing poverty and inequality.
- Economic growth is the easiest way to reduce poverty.
  - Clearest example is Asia (from 96% share in poverty in 1990 to 35% share in 2018, as measured by poverty line of \$4 USD/day).
  - The hard part is to set up the stage for sustained growth to happen.
  - What is necessary for Latin America to achieve sustained growth?
    - Increase the savings rate.
    - Reduce barriers to FDI.
    - Improve institutional quality.

- ► Regulation of businesses and labor market.
  - Make it easier to do business! (burecracy, transparency, corruption).
  - Increase labor flexibility.
    - Possibly a good example is the 2017 labor reform in Brazil.
    - Union tax: from mandatory to optional.
    - Division of 30-day vacation into at most 3 (rather than 2) periods.
    - Fewer restrictions imposed by labor laws on the hiring/firing of workers.

- Educational reform.
  - Latin America spends about 4% of GDP in education (developed countries spend  $\approx$  6%).
    - Education investments could be increased.
  - Quality of education is questionable from primary to higher education.
  - Low focus on elementary/primary education.
    - Economic research suggests this is the wrong approach.

- Educational reform.
  - Public investment in education in Latin America has disproportionately focused on higher education. (Bad policy).
  - Heckman (2008) suggests different priorities.



- The role of the welfare state.
  - How effective is the government in reducing inequality?
  - We can look at the Gini coefficient before and after government policies (i.e., before and after taxes and transfers).
  - This would tells by how much the government reduces inequality.
  - Doing such an exercise for Europe and Latin America reveals that:
    - ▶ Europe reduces the Gini coefficient for income by about 0.10.
    - Latin America reduces the Gini coefficient income by 0.02.
    - Differences are exacerbated once we recognize that levels of Gini are much higher in Latin America than in Europe.
  - Current economic policies in LatAm play almost no role in reducing income inequality.

## Taking Stock

- Most countries in Latin America are middle-income economies plagued by large economic inequality and substantial levels of poverty.
- ► In fact, Latin America is the world's region with the most unevenly distributed income.
- ► Latin America countries generally have **high absolute poverty rates**, but do well when compared to other developing countries.
- ▶ Absolute poverty in Latin America has decreased substantially since the 1990s, but much progress can still be made: today, 1 out of 4 people have less than 4 USD/day.
- ► Latin American has high relative poverty rates (much higher than absolute poverty ones).

## Taking Stock

- Many measures of economic inequality (income, wealth, ...).
- A popular one is the Gini coefficient, which measures deviations of some actual distribution (e.g., income, wealth) from perfect equality.
- ► Income inequality in Latin America: 0.46 in 2017.
  - Most unequal world region.
  - Relative uniformity in the region: 0.40–0.51.
  - Sharp declines since 2000s.
- Some causes of poverty and inequality in the region:
  - Extractive institutions and initial conditions.
  - Large informal sectors.
  - Educational inequality.
  - Bad economic policies (e.g., low investment in early education).

# Thank you!