



Agriculture and Inclusive Growth

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Outline

- ▶ International experience
 - ▶ Example: agriculture in the EU
 - ▶ Family farming
 - ▶ Conclusions
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International experience

Agriculture and poverty reduction

Millennial Economists want to know: “why focus on agriculture?”

- ▶ “Doesn’t agriculture become less and less important, and, as labor moves out of this low productivity sector and into, say, manufacturing, everybody is better off?”
 - ▶ Isn’t the policy recommendation to accelerate this process for “easy” productivity gains?
 - ▶ Answers:
 - ▶ To successfully complete this process of “structural transformation” is not easy
 - ▶ International experience: there are no short cuts, and the process starts in agriculture
 - ▶ But if done well, poverty is reduced economy-wide
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Structural transformation

- ▶ Before economic transformation takes off, agriculture:
 - ▶ Large share in economic output and the labor force
 - ▶ But its share in economic output is *less* than its share in the labor force
 - ▶ Has *lower* productivity of labor than in industry and services

 - ▶ As industrial growth takes off:
 - ▶ Industry, and in particular manufacturing, increases its share in the economy; later followed by services
 - ▶ Pulls labor out of agriculture more or less rapidly, thereby increasing overall productivity of the economy
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No shortcuts to structural transformation

- ▶ Moving people from farms to factories to offices is difficult: it needs education and new skills
- ▶ Only when agriculture does well, can farmers invest in the resources needed to successfully acquire these
- ▶ And create strong local growth and jobs multipliers in the non-farm sector
- ▶ Agricultural productivity needs to increase to feed the growing demand for food coming from the cities
- ▶ As this transformation occurs sometimes only slowly, agriculture often remains important for jobs in middle income countries, not just in poor countries
- ▶ And if there is no good social safety net in urban areas, an economic crisis often results in the urban unemployed falling back on agriculture
- ▶ In high income countries, agriculture can become a source for good jobs, and will no longer associated with poverty, but modernized and highly productive

Sources: Kuznets and Chenery, and Timmer (2009); Stiglitz (2016); WDR 2008

The first phase of structural transformation starts in agriculture

- ▶ Growth in agriculture is more effective in reducing poverty than non-agricultural growth:

- ▶ For China (a transforming country), agriculture was 3.5 times more effective
- ▶ For Latin America (an urbanized region), the ratio was 2.7

Source: WDR 2008, Valdes and Foster (2005)

- ▶ China (1980-2001):

- ▶ 75-80 percent of national poverty reduction was due to rural poverty reduction
- ▶ with the rest due to migration

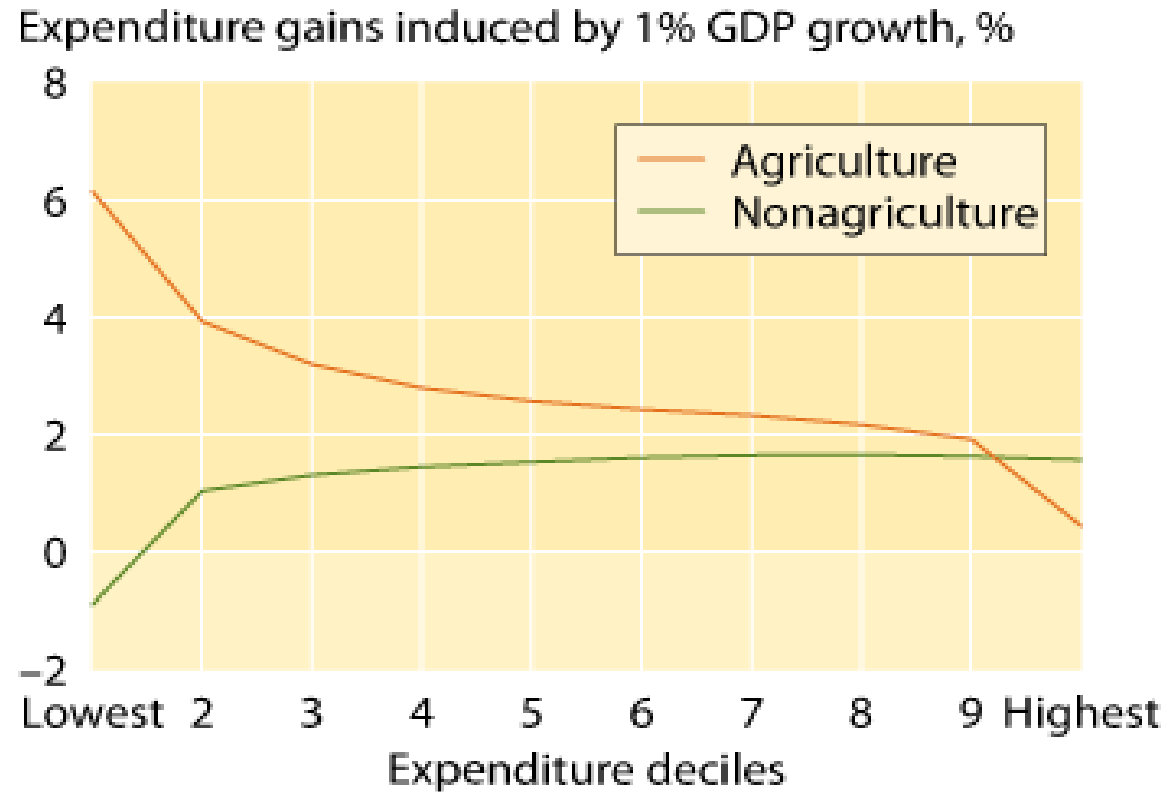
Source: Ravallion and Chen (2007)

India's experience with poverty reduction

- ▶ **Effect of Urban Growth**
 - ▶ *Urban growth reduced urban poverty*
 - ▶ ... but had adverse distributional effect *within the urban sector*
 - ▶ ... there was no positive spillover of *urban growth* on *rural poverty*
- ▶ **Effect of Rural Growth**
 - ▶ *Rural growth* was distributionally neutral in the *rural* sector
 - ▶ It sizably reduced *rural poverty*
 - ▶ *Rural growth* also had pro-poor distributional effects on *urban poverty*
 - ▶ This reinforced the importance of *rural growth* for *national poverty reduction*
- ▶ **Poverty responds more to rural economic growth than to urban economic growth**

Sources: Several papers by Martin Ravallion and Gaurav Datt, using time series of consumption data from 35 National Sample Surveys spanning 1951-94. This is one of the longest series of national household surveys existing in the world today suitable for tracking living conditions of the poor.

GDP growth originating in agriculture is more inclusive



Source: Ligon and Sadoulet, 2007. Background paper to the WDR 2008 (see website)
Based on data from 42 countries (1983-2003)

How does agriculture support incomes in rural areas?

- ▶ On farm, by raising agricultural profits and labor incomes
 - ▶ With agricultural wages often the reservation wage for unskilled laborers
- ▶ Locally, by raising non-farm profits and labor income via strong multipliers:
 - ▶ Local agricultural growth multipliers large: around 1.5 to 2.0
 - ▶ Local consumption linkages even larger than production linkages
 - ▶ Few industries locate to rural areas due to lack of economies of scope and agglomeration
 - ▶ Non-farm component of the rural economy is most dynamic and productive when farming is thriving

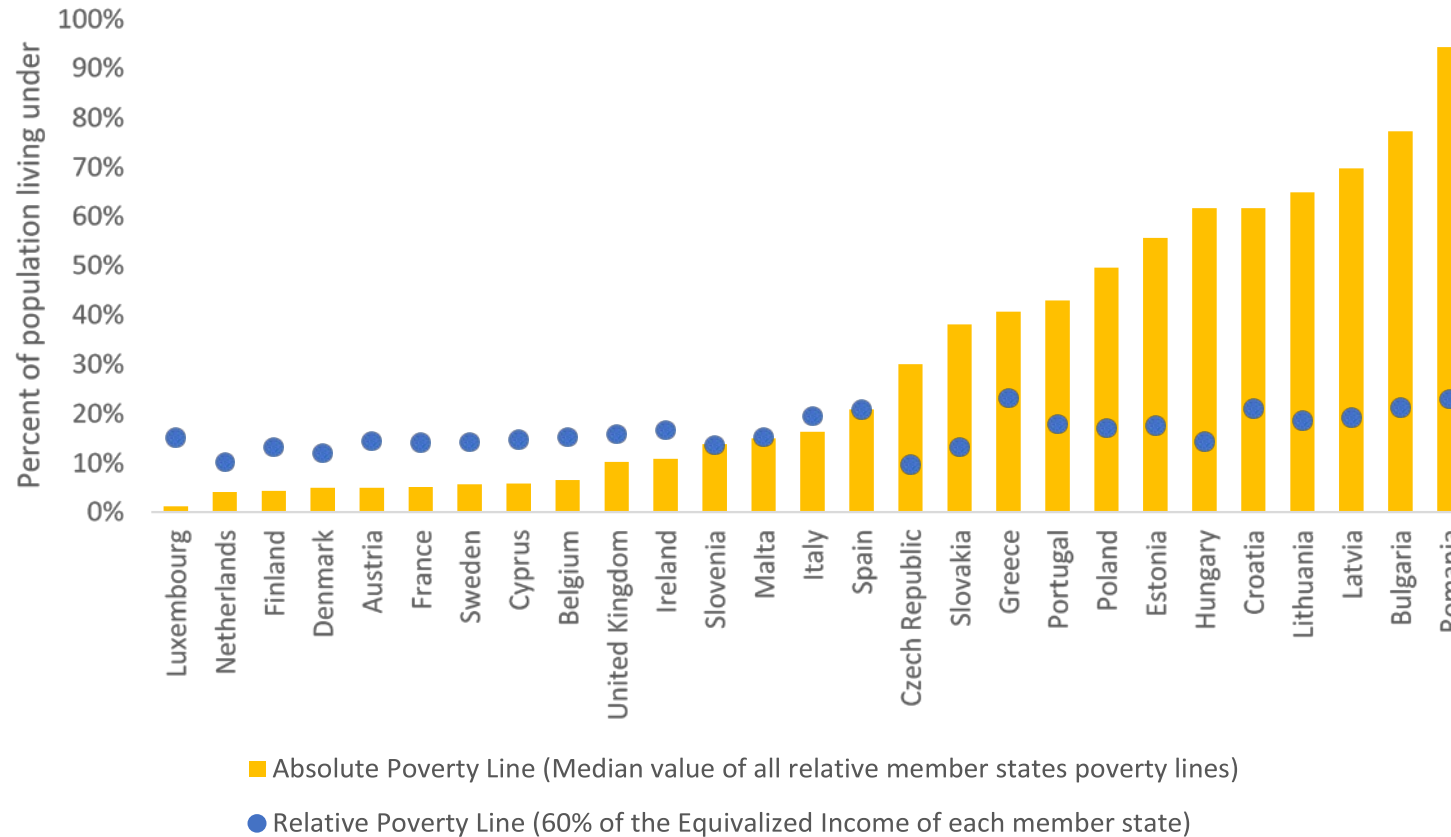
Sources: Datt and Ravallion (1996); Johnston and Mellor (1961), Delgado and Alfano (1994), WDR 2008, Delgado et al. (1998), Block and Timmer (1994)

Example: agriculture in the EU

Agriculture and poverty in the EU

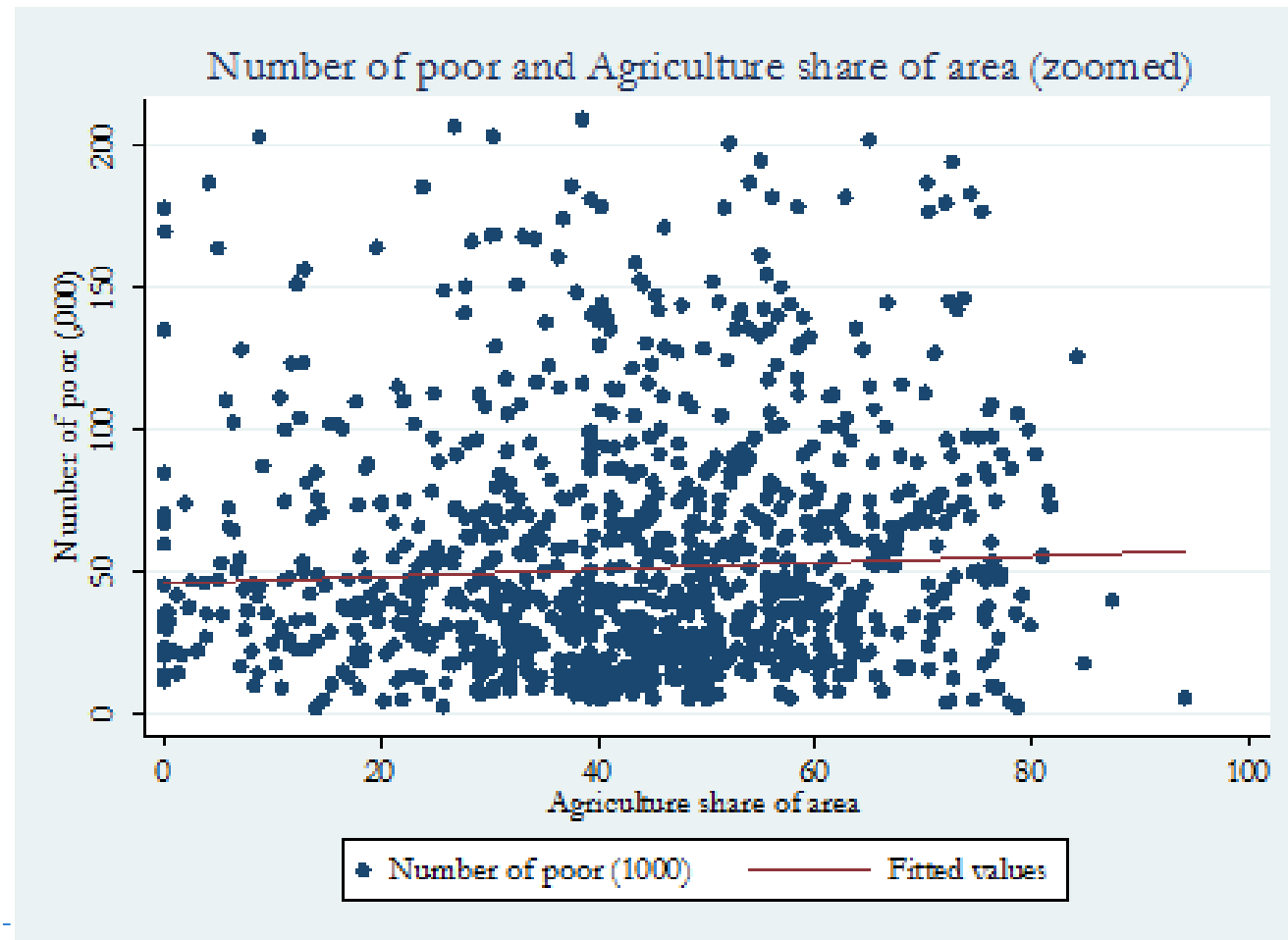
EU: absolute poverty levels differ starkly

Figure 1. There are large differences between EU countries in terms of absolute poverty



Source: EUROSTAT, WB staff calculations.

In the EU: Agriculture and poverty are not correlated



Agriculture in the EU: key characteristics

- ▶ Agriculture (narrowly defined as primary production):
 - ▶ 1.4 percent of GDP
 - ▶ 4 percent of total employment
 - ▶ About one tenth of the EU workforce works regularly on farms, even if not full-time
 - ▶ In 2010, in terms of numbers, 97 percent of all holdings were family farms:
 - ▶ only 16 percent of total agricultural labor: non-family workers
-

World Bank study on the Common Agricultural Policy

▶ Methodology:

- ▶ Overall approach: time series of countries and regions (NUTS 2 and 3—for poverty data)
- ▶ with the “treatment” (CAP programs) coming in at different years, and at different intensities and mixes

▶ New data:

- ▶ Poverty maps at NUTS3 level, labor data at NUTS2
- ▶ Detailed CAP payments data
- ▶ Panels are EU-wide

▶ Analysis is not based on:

- ▶ projections, models, single country before-after comparisons, or simple cross-sectional analysis
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[Link to the report: Thinking CAP](#)

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EU REGULAR ECONOMIC REPORT 4

WORLD BANK REPORT
ON THE EUROPEAN UNION



Thinking CAP

**Supporting Agricultural Jobs
and Incomes in the EU**

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 WORLD BANK GROUP

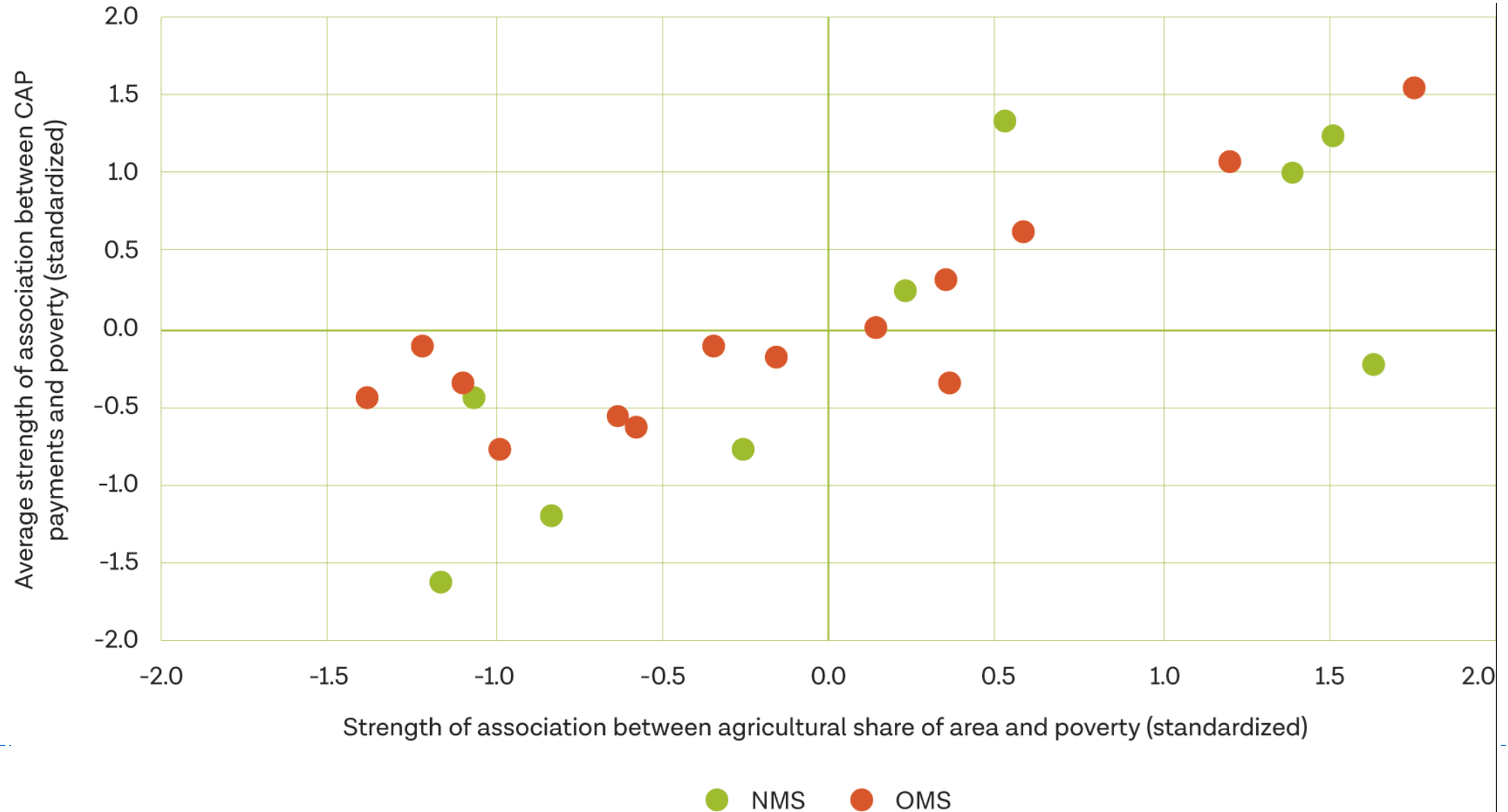
CAP reaches many different farmers

- ▶ CAP reaches very far and wide:
 - ▶ Old widow in a Newer Member State, who has two cows, some pigs and some vegetables—she uses it to complement her pension
 - ▶ Young, modern farmer in a NMS, doing intensive agriculture
 - ▶ Large, labor-intensive farm with foreign guest workers in an Older Member State
 - ▶ Large, mechanized and automatized farm in an OMS
 - ▶ The reach of the program is impressive: the “plumbing” reaches virtually everywhere
 - ▶ But is it effective in supporting inclusive growth?
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Newer Member States and Older Member States

- ▶ The NMS, or the EU-13, are the countries that joined since 2004: Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, and Slovenia.
 - ▶ The OMS, or the EU-15, are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom.
 - ▶ One would think that in general in the NMS, agriculture and (relative) poverty are correlated...
 - ▶ But this is not the case (see next slide)
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CAP payments, poverty and agriculture: the process of structural transformation



Structural transformation in the EU: half-way there

- ▶ Incomplete transformers:
 - ▶ the CAP targets the poorer, agricultural areas:
 - ▶ Upper right quadrant:
 - ▶ Poverty and agriculture are correlated (X-axis)
 - ▶ the CAP is consistent with this (Y-axis)
- ▶ Successful structural transformers:
 - ▶ the CAP no longer targets the poorer regions in the country:
 - ▶ lower left quadrant:
 - ▶ Poverty and agriculture are no longer associated with each other (X-axis)
 - ▶ CAP support is consistent with this (Y-axis)
- ▶ If basic conditions, are in place, CAP payments* can help countries move from the “incomplete” quadrant to the “successful” quadrant: the CAP targets well.

*uncoupled Pillar I and Pillar II, not the coupled payments

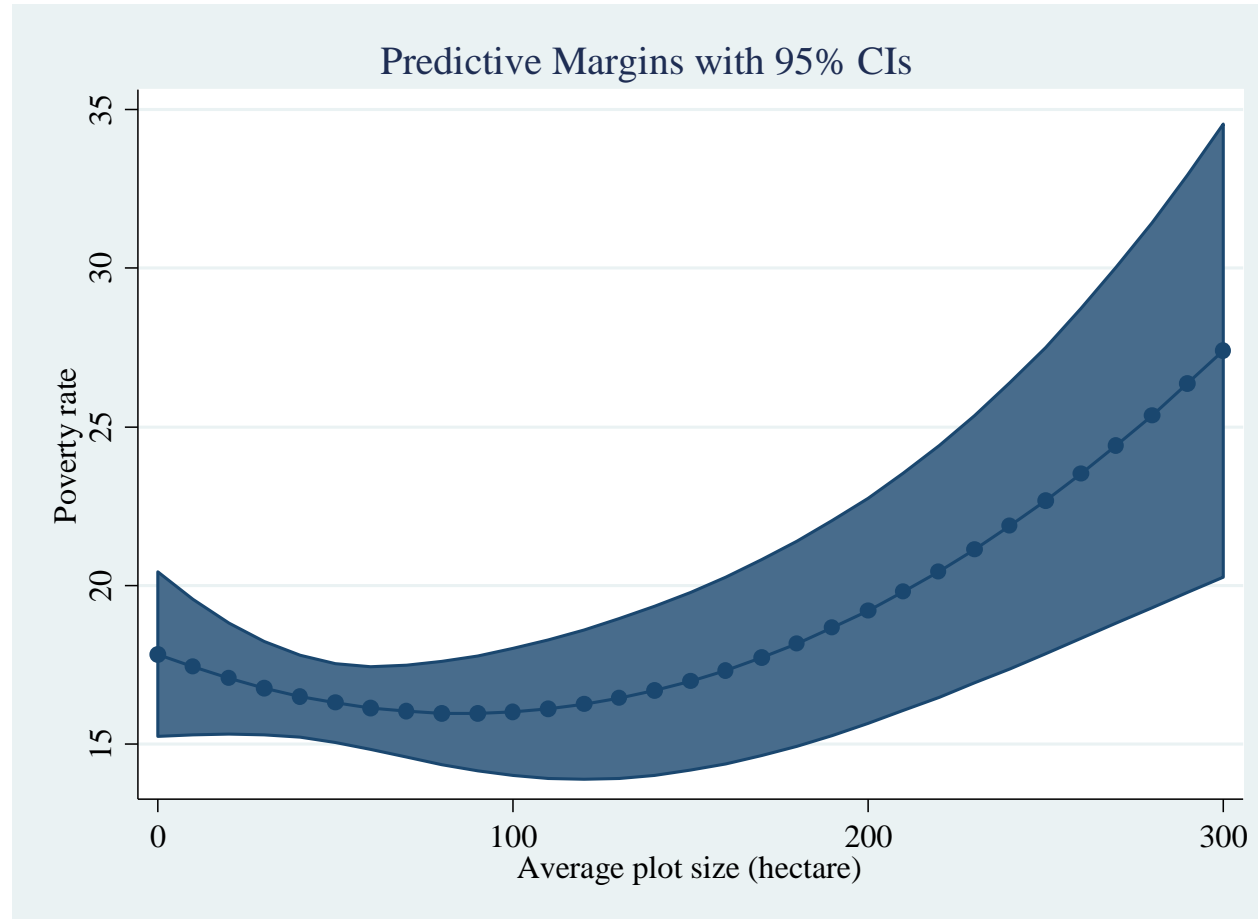
Family farming

Agrarian structure and inclusive growth

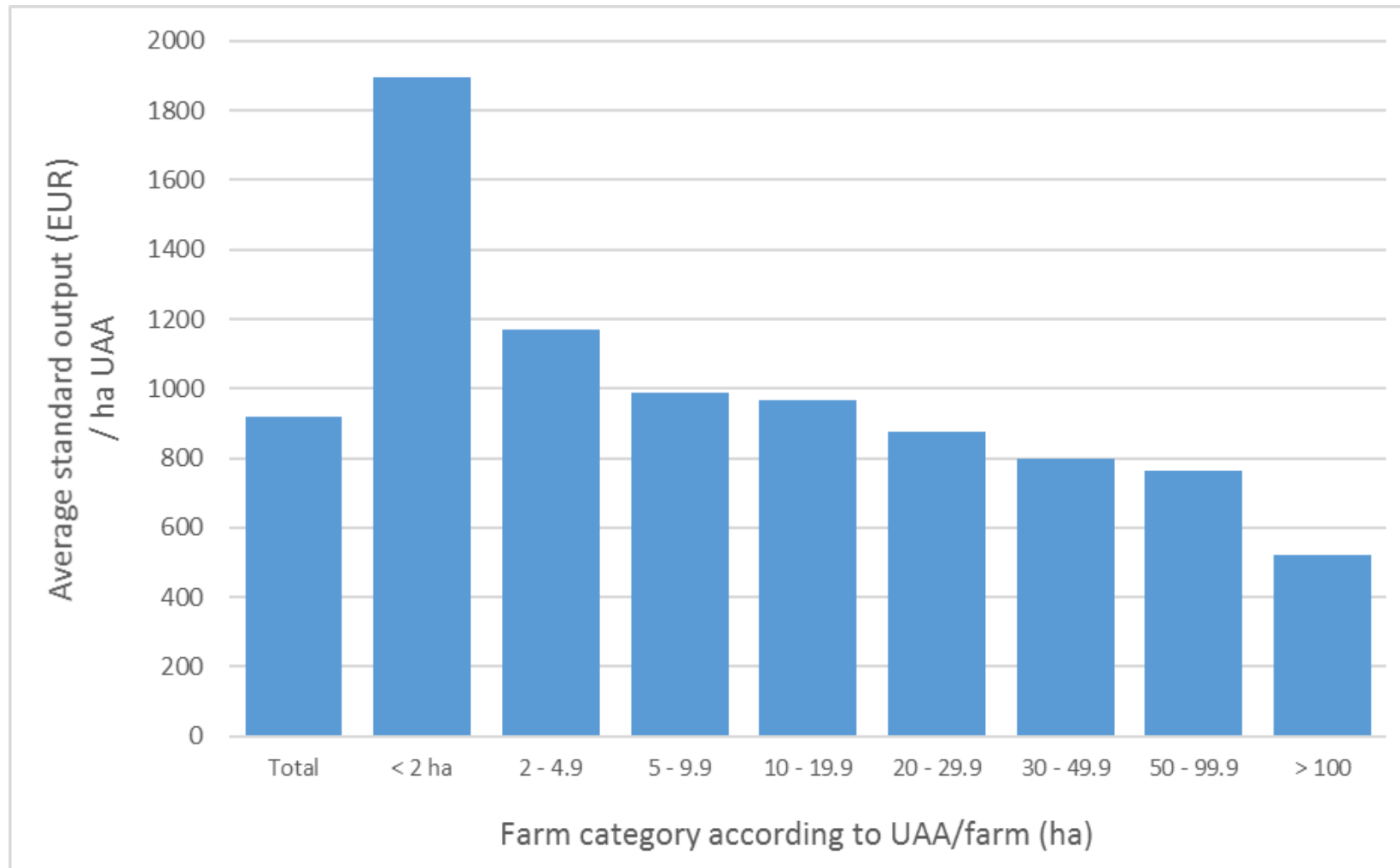
Are small farms the cause of poverty?

Small farms are in areas of high poverty...

but so are very large farms



Small farm productivity in an NMS: small and poor...but efficient

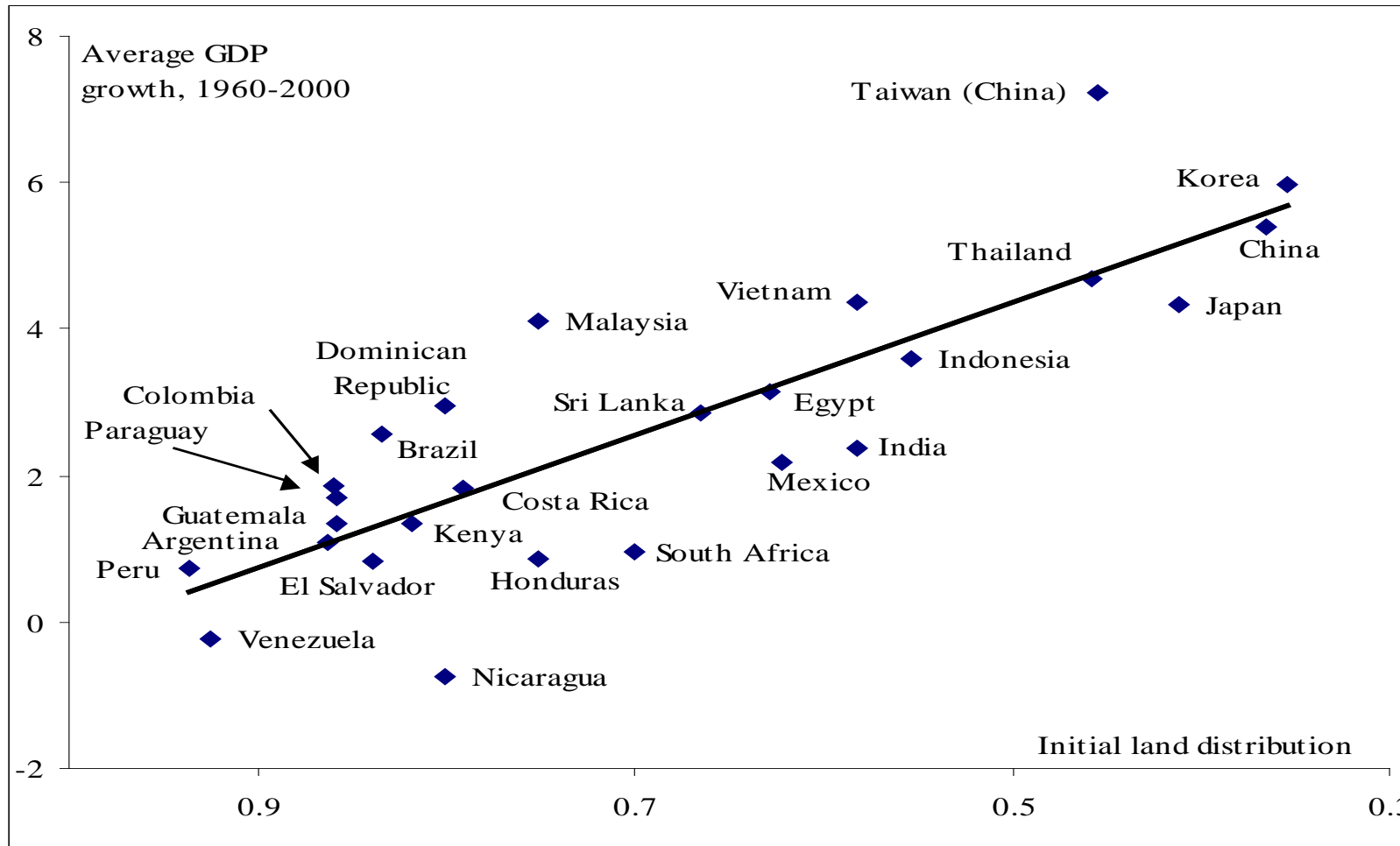


Family farms vs plantations

(same crop, climate, soils, etc.)

<i>Indicators</i>	<i>Colombia</i>	<i>Costa Rica</i>	<i>Guatemala</i>	<i>El Salvador</i>
<i>Structural characteristics</i>				
Land privatization	1870–80	1820–40	1870s	1870s
Farms < 10 ha	61.0	42.2	13.1	13.5
Farms > 50 ha	14.0	37.5	79.5	57.1
<i>Coffee in exports</i>				
(%)	49	76	56	83
1929	55	58	77	93
<i>Social and economic development</i>				
GDP pc	6,130	5,850	3,340	2,610
<i>Adult literacy (%)</i>				
1900	34	36	12	26
1910	40	50	13	26
1930	52	67	18	27
1980	85	91	54	64
HDI (rank)	51	33	117	112
Democracy since	1958	1948	1996	1992

More equal land distribution cause countries to grow faster, permanently



Source: Deininger and Squire, 1997

Institutional “traps”

- ▶ Once a country locks into “bad” institutions it can hurt economic growth and poverty reduction for a very long time
- ▶ Compare the development of North America with South America:
 - ▶ South America started out as the richer continent
 - ▶ But then stagnated for centuries...
 - ▶ Due to “bad” institutions, which diverted economic rents to the elites and prevented the rise of institutions necessary for broad-based economic growth:
 - ▶ Education, health, infrastructure, rule of law, property rights for the poor, accountability in public service delivery, etc.
 - ▶ with unequal land ownership as a major factor
 - ▶ And until today, all South American countries have seen unrest around land....

Sources: Acemoglu and Robinson. “Economic Origins of Dictatorship and Democracy.”; WDR 2003, Sustainable Development in a Dynamic World, authored by a team led by Zmarak Shalizi.

Institutional trap in the South of the US

- ▶ The failure to allow freed slaves to start family farming after the abolishment of slavery plunged the region into nearly a century of backwardness
- ▶ Labor repression to keep labor uneducated and cheap continued after slavery, blacks not allowed to purchase land or engage in trade, etc.
- ▶ Old plantation elite grabbed political power back and instituted an apartheid system when the Union armies left in 1877
- ▶ No public investments in health, education, infrastructure
- ▶ Income per capita in the South remained about half that of the rest of the United States from the Civil War (1861-65) until the 1940s—only then did it slowly start to converge

Source: James A. Robinson, 2006. “The Political Economy of Equality and Growth in Mexico: Lessons from the History of the United States.”

http://www.people.fas.harvard.edu/~jrobins/researchpapers/unpublishedpapers/jr_Mexico.pdf



Conclusions



Back to the future

Agriculture and inclusive growth

- ▶ **During the economic transformation:**
 - ▶ the main instrument for rural, national and global poverty reduction : improving rural conditions, with agriculture as the main source of growth
 - ▶ This calls for renewed efforts to support family-farm based agriculture around the world
 - ▶ **For inclusive growth:**
 - ▶ Agrarian structure based on family farms with relatively equal distribution of land can create growth and spawn institutions which are good for inclusive growth
 - ▶ **Time-tested policies of successful countries:**
 - ▶ did not tax agriculture (directly or indirectly)
 - ▶ believed in family-owned and operated farms and secured their property rights
 - ▶ invested in rural infrastructure
 - ▶ invested in education
 - ▶ invested in public research and extension
 - ▶ supported farmer organizations
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Thank you

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