

ECON 4311 – Economy of Latin America

Lecture 2B: Economic Growth and Latin America (pt. 2)

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Outline

- 1 Recap
- 2 Institutions and Growth
 - Proximate vs. Fundamental Causes of Growth
- 3 Institutions in Latin America
- 4 Insights From Basic Growth Models

Before The Break

- ▶ We learned:
 - How to make cross-country income comparisons.
 - Why GDP, although not perfect, is a good metric to measure growth.
 - The welfare implications of designing econ policies that foster growth.
 - That the relative position of a country in the world income distribution can change relatively quickly.
 - Some properties of logs and how useful these are.
 - The Kaldor facts.
 - How to do growth accounting.

After The Break

- ▶ Mostly focus on what is covered in Ch. 3 of [Reyes & Sawyer \(2020\)](#):
 - Institutional basics.
 - Basic implications of Solow's growth model.
 - Labor markets in Latin America.
 - Briefly discuss new growth theory.

- ▶ Bring insights on the relationship between institutions and growth.

- ▶ Provide some more data.

Institutions and Growth

- ▶ When formulating theories, we typically make implicit assumptions.
- ▶ **In most theories of economic growth, an implicit assumption is that a good institutional set-up is in place.**
- ▶ Institutions, however, play a key role in explaining differences in economic performance across nations.
- ▶ Today, we try to understand the relationship between economic growth and institutions more in depth.
 - What are institutions made of?
 - How do institutions affect economic growth?

Sources of Prosperity

- ▶ Let's start with a basic question:

What explains the observed vast differences in incomes per capita across countries?

- ▶ Standard answers to this question:

- **Physical capital** (poor countries don't save enough).
- **Human capital** (not enough investment in education and skills).
- **Technology** (poor countries do not invest enough in R&D and/or do not adopt new technologies).

- ▶ As **North and Thomas (1973)** put it: *“the factors we have listed [...] are not causes of growth; they are growth”*.

Sources of Prosperity

- ▶ **Standard answers leave us with many unsatisfactory questions:**
 - If physical capital accumulation is so important, why did Venezuela not invest more in it?
 - If education is so important, why did Guatemala not invest more in it?
 - If technology is so important, why did Honduras not adopt or develop new technologies?
- ▶ **Something is clearly missing from our discussion!**
 - What could it be?
 - What are the fundamental causes of growth?

Proximate vs. Fundamental Causes of Growth

- ▶ Economists have come up with **four major candidates for the fundamental causes of growth**:
 1. **Luck.**
 2. **Geography.**
 3. **Culture.**
 4. **Institutions.**
- ▶ Most economists believe that fundamental differences in standards of living across countries are explained by differences in institutions.
- ▶ From now on, we will make the following distinction:
 - **Proximate causes of growth**: human- and physical capital, technology.
 - **Fundamental causes of growth**: luck, geography, culture, institutions.

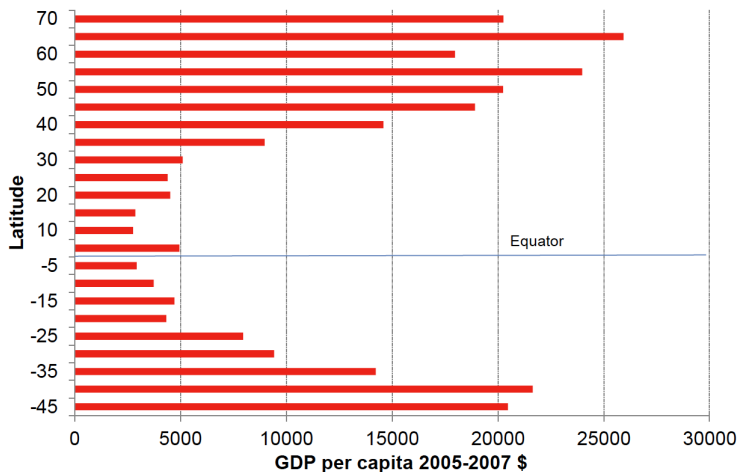
Fundamental Causes of Growth

Luck and Geography

1. **The luck hypothesis:** possible but highly unlikely!
 - ★ Multiple equilibria in technology adoption.
 - ★ Multiple steady states and path dependence.
2. **The geography hypothesis** emphasizes the role of nature
 - Climate determines work effort and incentives to produce (Montesquieu, 1748; Marshall, 1890)
 - Ecology and technology: soil quality, natural resources, topography, technology in temperate- vs. tropical- climates (Myrdal, 1968; Sachs, 2001)
 - Disease burden: tropics more sensible to diseases, e.g. malaria, AIDS (Sachs, 2000)

Fundamental Causes of Growth

Geography: The Importance of Climate

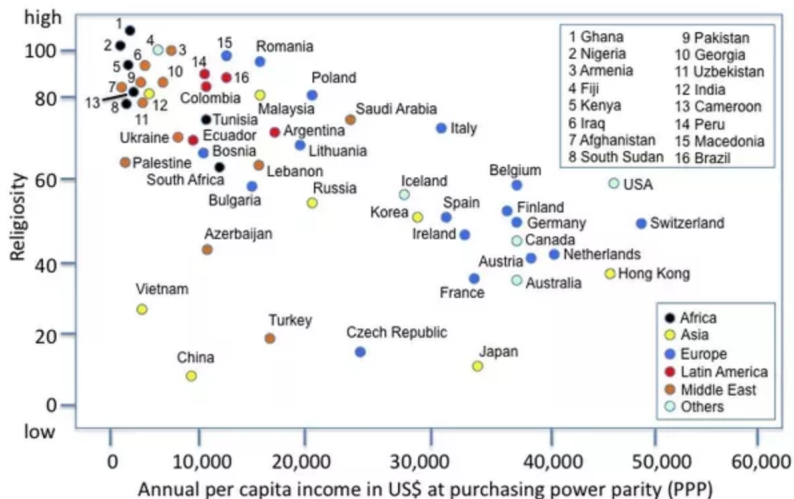


Fundamental Causes of Growth

3. **The culture hypothesis:** beliefs, values, and religion affect economic outcomes. Potential reasons:
- Willingness to engage in productive activity vs. leisure.
 - Degree of cooperation and trust.
 - Protestantism vs. Catholicism ([Weber, 1930; 1958](#)).
 - Southern- vs. Northern- Italy ([Banfield, 1958](#)).

Fundamental Causes of Growth

Culture: The Importance of Religion



Fundamental Causes of Growth

4. **The institutions hypothesis:** institutions shape economic incentives to invest in technology, physical capital, HC, etc.
- Knack and Keefer (1995), Hall and Jones (1999), Acemoglu, Johnson and Robinson (2001, 2002).
 - Institutions are *endogenous*, i.e., societies' own choices.
 - Institutions set constraints (formal & informal) on individual behavior:
 - ★ Property rights, the rule of law, infrastructure, limiting firms' power, political rights, corruption, social insurance, stabilization, . . .
 - Connection between institutions, geography and culture.

Quasi-natural experiments supportive of the institutional hypothesis:
South- vs. North- Korea, East- vs. West- Germany, colonies. . .

Fundamental Causes of Growth

The Institutions Hypothesis: Korea

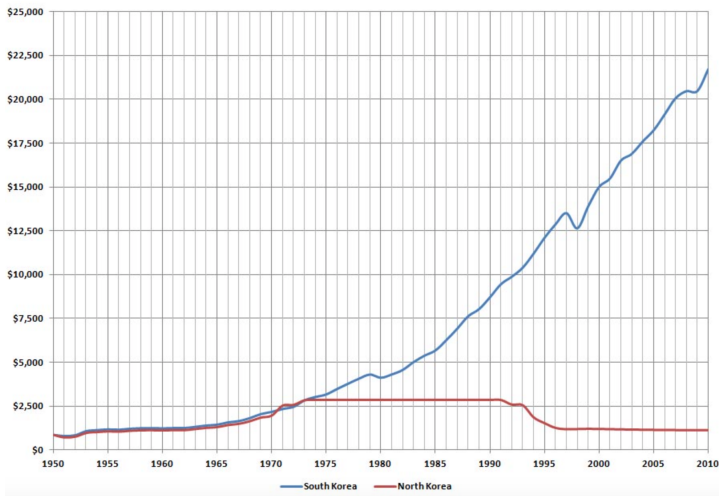


Figure: Economic performance in Korea, 1950-2010

Fundamental Causes of Growth

The Institutions Hypothesis: Germany

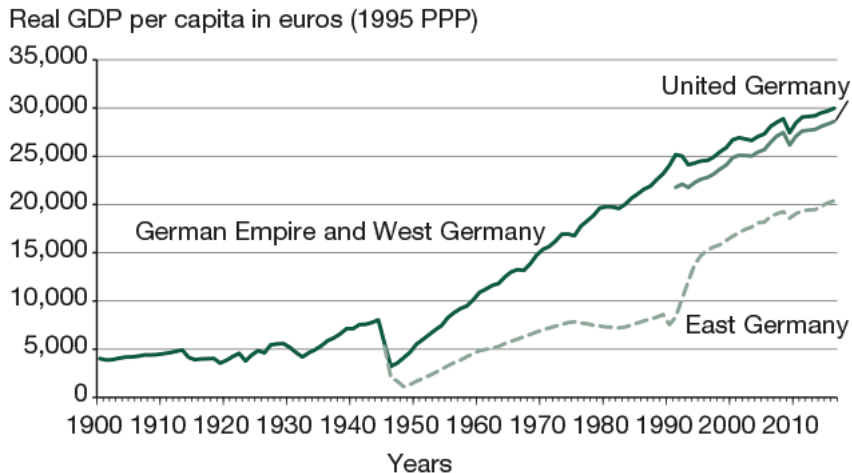


Figure: Economic performance in Germany, 1900-2017

Institutions

What are institutions exactly?

We have said that:

- ▶ Institutions are endogenous (i.e., man-made).
- ▶ Shape economic incentives and set constraints on individual behavior.
- ▶ Determine the degree to which property rights are enforced, the rule of law applied, public infrastructure and social insurance provided, . . .

North (1990) found a way to summarize all this:

“Institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction”

Historical Roots of Current Institutions in Latin America

- ▶ Disease and retaliation from indigenous people → high mortality rates → extractive institutions.
- ▶ Encomiendas and repartidas.
- ▶ Mita system.
- ▶ Jesuit reductions.
- ▶ Mercantilism.
- ▶ Trade barriers.

Institutions in Modern Latin America

- ▶ Large heterogeneity in the quality of institutions.
- ▶ Significantly weaker institutions than in many developed countries.
- ▶ Strengthening of institutions still a big challenge for many countries.
 - Large informal sectors.
 - High crime rates.
 - Corruption.
 -

Institutional Basics

- ▶ Some institutional basics are preconditions for economic growth:
 1. Property rights.
 2. Rule of law.... and many more.

- ▶ The first two conditions are so fundamental that they are at the root of the definition of **failed state**.
 - We think of failed states as states where there is almost a complete lack of either property rights or the rule of law.
 - These are typically the poorest countries in the world.

- ▶ Fortunately, there are not many failed states in Latin America.

Property Rights

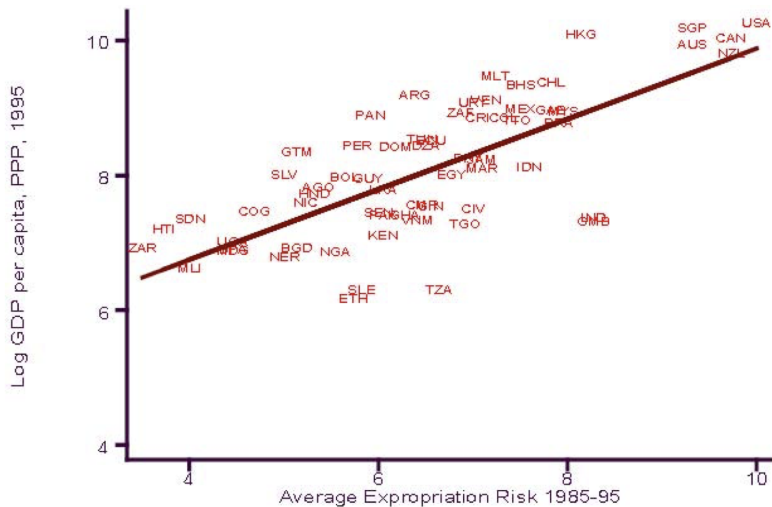
- ▶ Property rights are essential for the functioning of a market economy:
 - Who wants to buy a house when it can be occupied without consequences?
 - Who wants to run a business when expropriation risk is high?
 - Who wants a lost/stolen Rolex when PRs are enforced internationally?
- ▶ **The lack of enforcement of property rights makes market participants more reluctant to engage in economic activity.**
 - Low enforcement of PRs → fewer & smaller transactions → GDP.
- ▶ In most developed countries, PRs are typically taken for granted.
- ▶ LatAm occupies middle ground with respect to enforcement of PRs.

Property Rights

Squatting in Latin America (UN estimates).

- ▶ For those who do not know: squatters are those who inhabit property or land without the legal right to do so.
- ▶ Nearly a billion squatters in the world.
 - 1/4 of the world's urban population.
- ▶ Approximately 130 million squatters in Latin America.
 - 1/4 of the region's urban population.
 - Did you know that Rio de Janeiro is also known for its favelas?
 - ▶ *Favela da Rocinha* was home to 150–300k people in 2010.
 - ▶ Census: 62,000.
- ▶ **Question:** Do you know any location in LatAm, other than Rio, famous for its slums?

Property Rights



Property Rights

Table: Property rights in Latin America

Country	Ranking (1–7)
US	5.8
Portugal	4.8
Spain	4.6
Chile	5.0
Uruguay	4.8
Panama	4.8
Costa Rica	4.8
Brazil	4.3
Mexico	4.0
Latin America	3.8
Argentina	3.6
Venezuela	1.8

Table Notes. Data from the World Economic Forum (2019).

Intellectual Property Rights (copyrights and industrial property)

IPRs are still today a big source of conflict between firms and countries, and play a large role in trade negotiations.

Table: Intellectual property rights in Latin America

Country	Ranking (1–7)
US	5.8
Portugal	5.0
Spain	4.5
Costa Rica	4.8
Uruguay	4.7
Panama	4.7
Chile	4.4
Brazil	4.2
Mexico	4.1
Latin America	3.8
Bolivia	3.2
Venezuela	2.0

Table Notes. Data from the World Economic Forum (2019).

The Rule of Law

- ▶ Economists like to think of economic activity and transactions as **legally-binding contracts**. E.g.,
 - Work contracts.
 - Purchase agreements.
- ▶ Sometimes contracts can lead to disputes:
 - Clause *III* of contract *X* breaks law *Y*.
 - Want to unilaterally break my house lease.
 - Company *A* doesn't like the terms of trade with company *B* anymore.
- ▶ Societies need sufficiently developed legal systems to enforce contracts and, needless to say, to guarantee safety of its citizens.

The Rule of Law

- ▶ Some countries are better at enforcing laws than others.
- ▶ Latin America is a region that is typically recognized as having problems to enforce the rule of law.
 - Many point to this as a cause for slow growth.
- ▶ Factors that make the rule of law stronger:
 - Broad applicability of the law: system available to all citizens.
 - Judicial independence (from government).
 - Impartial application of the law (e.g., by police, courts, etc.)
 - *“To my friends, everything; to my enemies, the law” ~ Benavides*
 - Small number of legal procedures and quick enforcement of contracts.

The Rule of Law

Table: Overall application of the rule of law in Latin America

Country	Percentile Rank (governance score)
US	91.8
Portugal	84.1
Spain	81.3
Chile	81.7
Uruguay	72.1
Panama	54.3
Argentina	46.2
Brazil	43.8
Latin America	36.0
Mexico	31.7
Guatemala	13
Bolivia	9.6
Venezuela	0.5

Table Notes. Data from the World Bank (2017).

Judicial Independence

A big impediment to the application of the law is judicial independence.

Table: Judicial independence in Latin America

Country	Ranking (1-7)
US	5.5
Portugal	4.9
Spain	4.2
Uruguay	5.6
Costa Rica	5.4
Chile	4.9
Brazil	4.1
Guatemala	3.6
Argentina	3.2
Latin America	3.1
Peru	3.0
Paraguay	2.1
Venezuela	1.1

Table Notes. Data from the World Economic Forum (2017).

Public Infrastructure

- ▶ Many areas in Latin America lack some of the usual infrastructure needed to sustain a population and foster a country's growth rate.
 - Water and sewage service.
 - Electricity.
 - Roads and airports.
 -

- ▶ Infrastructure problems especially prevalent in rural areas.

Insights from Basic Growth Models

- ▶ As always, Solow's model is a good starting point.
- ▶ Recall that the Cobb-Douglas production:

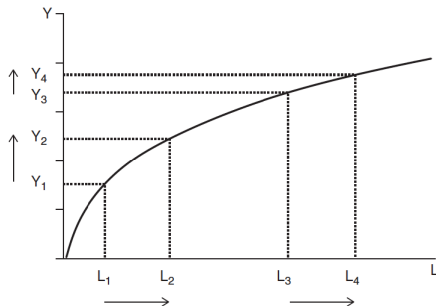
$$Y_t = A_t K_t^\alpha L_t^{1-\alpha}, \quad \alpha \in (0, 1),$$

where A_t is aggregate TFP, K_t is the capital stock, L_t is effective units of labor, and α is the capital income share.

- ▶ You can think of:
 - A_t as taking into account technological progress, improvement in management practices, capturing the institutional environment.
 - K_t as the stock of infrastructure (e.g., paved roads), business structures (e.g., factories), and equipment (e.g., machines).
 - L_t as a fancy measure of hours worked which also takes into account differences in human capital.

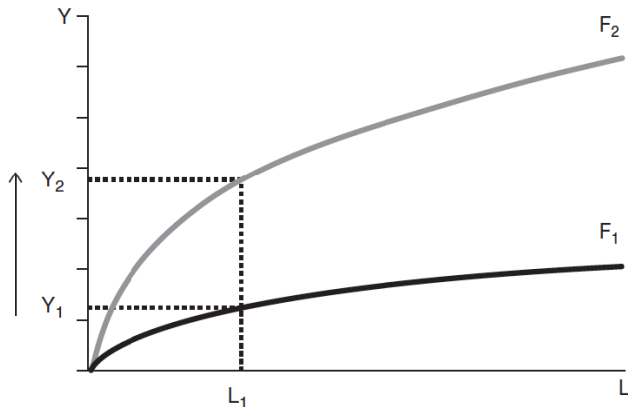
Insights from Basic Growth Models

- Basic properties of this function $Y_t = A_t F(K_t, L_t) = A_t K_t^\alpha L_t^{1-\alpha}$ are:
- $F(0, L) = F(K, 0) = 0 \implies$ capital and labor essential for production.
 - $F_K > 0 \implies$ higher K_t , higher Y_t .
 - $F_L > 0 \implies$ higher L_t , higher Y_t .
 - $F_{KK} < 0 \implies$ diminishing returns to capital.
 - $F_{LL} < 0 \implies$ diminishing returns to labor.



Insights from Basic Growth Models

- ▶ Fix technology and capital or labor, let one factor move.
- ▶ Improvements in either factor lead to higher output.



Insights from Basic Growth Models

- ▶ **Solow's model** is one of the first workhorse models in the growth literature; it **helps us to understand the mechanics of growth**.
- ▶ It sheds light on the importance of saving/investment rates, population growth, human capital, and technology differences.
- ▶ **Solow's model is not entirely satisfactory:**
 - The most important variable is exogenous (*"manna from heaven"*).
 - It only emphasizes the proximate causes of growth. . .
 - To say that a country is poor because it has little capital and inefficient technology is like saying that someone is poor because it has no money!
 - There are factors that make a country have more physical- and human capital and more efficient technologies (as there are factors that make a person to have more money than others).

Insights from New Growth Models

New growth theory:

- ▶ Endogenizes technological progress and emphasizes innovation:
 - **Product-variety models:** innovation causes productivity growth by creating new, not necessarily improved, varieties ([Romer, Jones](#)).
 - **Schumpeterian growth theory:** innovation leads to creative destruction and growth ([Aghion, Howitt, and co-authors](#)).
- ▶ Thinks of countries as parts of a whole rather than as isolated units:
 - **Technology adoption & skill mismatch** ([Acemoglu–Zilibotti, 2001](#)):
 - ▶ Technologies need to be adapted to local environments.
 - ▶ Inappropriateness of technology due to climate or skill mismatch.
 - **International trade:** recognizes role of FDI and imports/exports.
- ▶ Studies whether technical change is biased towards particular factors of production, incorporates climate change considerations, . . .

Taking Stock

Today, we have learnt:

- ▶ Proximate vs. fundamental causes of economic growth.
- ▶ Institutions, “the rules of the game”.
 - Historical roots of current institutions in LatAm.
 - Institutions in modern LatAm.
 - Concept of failed state.
 - Property rights and the rule of law.
 - How different institutional aspects shape economic incentives.
- ▶ How economic theory can help us understand the growth process:
 - The role of R&D, technology adoption, skill mismatch, international trade, technical change, ...

Thank You!