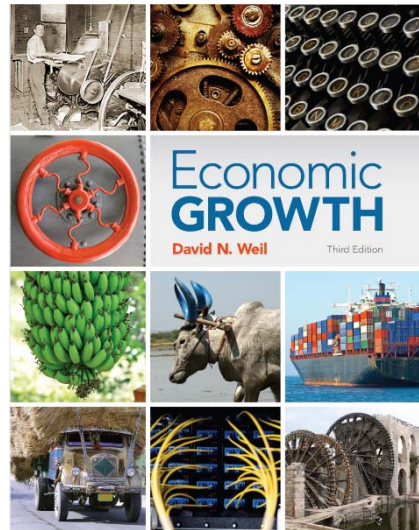


FUNDAMENTALS



Groups and Themes for presentations

- | | |
|--|---------------------------|
| 1. Alessandro, Enrico,
Elena, Hamza | 1. Labour Mkt and Skills |
| 2. Nauhaila, Nada,
Nesrine, Hiba | 2. Business Environment |
| 3. Arrate, Irate,
Tommaso, Khalid,
Valentina | 3. Technological Progress |
| 4. Ghita, Simran, Anna,
Karolina K., Azza | 4. Public Administration |
| 5. Karolina D, Katharina,
Fatma, Paula | 5. Green Economy |
| 6. Tomas, Ammar, Lisa,
Gabriele, Carlo | 6. Education |

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Calendar: 9-10-11 December

1. **Labour Mkt and Skills, 11 Dec h. 10**
2. **Business Environment, 11 Dec h 11**
3. **Technological Progress, 11 Dec h 12**
4. **Public Administration 12 Dec h 10**
5. **Green Economy 12 Dec h 11**
6. **Education 12 Dec h 12**

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Learning assessment procedures

- The evaluation will take place through a written exam and two assessments during the course (33.3% each). Students will have to prepare a written report and to present a specific case-study to the class. Students that will write the report and present a study to the class can choose to answer just one out of three questions at the final exam. [30 minutes per question].
- The written exam consists of three open questions (closed books) on the topics taught in the course. Students that will not present the report and study to the class will be required to write the entire exam (3 questions instead of 1).

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Learning assessment procedures

- The written exam includes open question on a general topic analysed during the course, such as: human capital, technological change, geography...
- The report refers to a short document about of a country/region for a potential customer/employer, be it a public institutions or a private company
- Presentations with slides of about 15 minutes for each student on an issue chosen by students (and approved by the Professor) on European issues/policies

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Syllabus for written exam

Economic Growth, D. Weil

PART I: OVERVIEW

Chapter 1: The Facts to be Explained

Chapter 2: A Framework for Analysis

PART II: FACTOR

ACCUMULATION

Chapter 3: Physical Capital

Chapter 4: Population and Economic Growth

Chapter 6: Human Capital

PART III: PRODUCTIVITY

• Chapter 7: Measuring Productivity

• Chapter 8: The Role of Technology in Growth

PART IV: FUNDAMENTALS

• Chapter 12: Government

• Chapter 14: Culture

• Chapter 15: Geography, Climate, and Natural Resources

PART V: CONCLUSION

• Chapter 17: What We Have Learned and Where We are

Headed

In italics only reading. No appendices

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Country report

3/5 pages, cover included, if any

One page devoted to a statistical overview of the socio-economic background

Eligible countries

- EU28
- Enlargement candidates
 - » [Albania](#), [Bosnia and Herzegovina](#), [the former Yugoslav Republic of Macedonia](#), [Iceland](#), [Kosovo*](#), [Montenegro](#), [Serbia](#), [Turkey](#)
- European Neighbouring countries
 - » [Algeria](#), [Armenia](#), [Azerbaijan](#), [Belarus](#), [Egypt](#), [Georgia](#), [Israel](#), [Jordan](#), [Lebanon](#), [Libya](#), [Moldova](#), [Morocco](#), [Palestine](#), [Syria](#), [Tunisia](#), [Ukraine](#)

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Cases

- Report on a EU contry for an extra EU multinationals
- Report on a candidate country for a government body of a EU country
- Report on a EN country for an ONG based in EU
- Report on either a candidate or a EN country for EU institutions (a DG for example)
- Others?

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Report delivery

- Report: pdf file via mail to stefanousai@unica.it
- File name: surname_name.pdf
- Mail subject: country report
- Mail text: specification of the case (see above)
- deadline: end of January?

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Report: examples

- [Example 1](#)
- [Example 2](#)
- [Example 3](#)
- [Example 4](#)

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Presentations

- Groups,
- Mixed group
- Theme: European issue/policy (your/our choice)
- 45/60 minutes
- Group and Individual assessment
- December/January?

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Presentations: standard outline

- Introduction: motivations, aims and summary
- Main analytical background and framework
- Main empirical scenario
- Focus
- Conclusions

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Presentations: examples

- [Example 1](#)
- [Example 2](#)

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Groups and Themes for presentations

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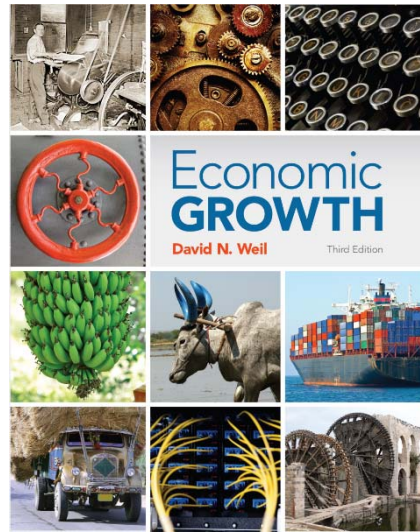
Calendar: 11-12 December

1. Labour Mkt and Skills, 11 Dec h. 10
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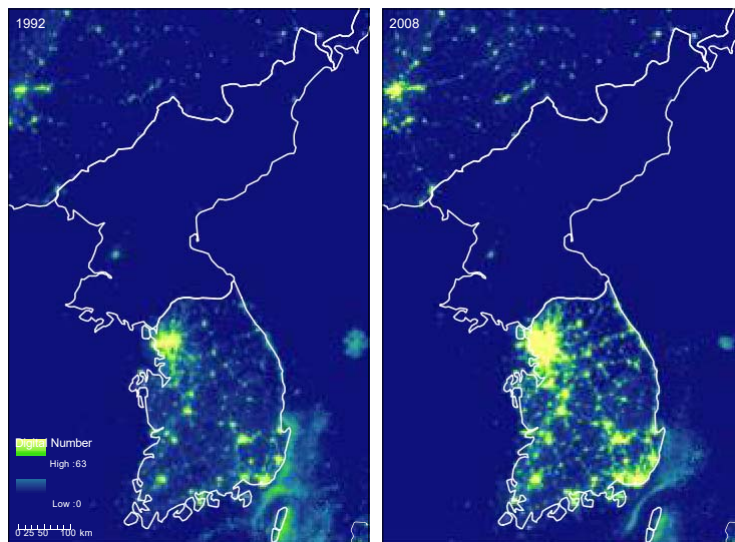
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Chapter 12

GOVERNMENT INSTITUTIONS



Motivation



GDP/capita 16x in south vs north (2009).



East and West Germany

Same culture, history including 2WW damage, natural resources.

West Germany: EEC. Market economy. Mercedes-Benz, BMW East

Germany: COMECON. Planned economy. Trabant.

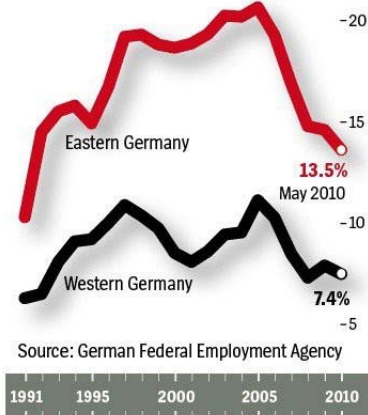
East and West Germany

Together but Apart

Economic figures from eastern and western Germany

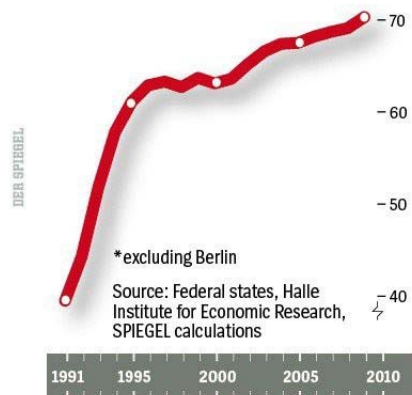
Unemployment rate

as percentage of the labor force



Economic output

per capita in eastern Germany* as a percentage of western German economic output



Government

Government and institutions affect:

Accumulation of physical capital, through

- ◆ Public spending (e.g., roads...).
- ◆ Incentives/rules/laws.

Accumulation of human capital, through

- ◆ Public spending, e.g. education & health services.
- ◆ Incentives/rules/laws.

Political certainty/uncertainty.

Population growth (e.g. China's one-child policy).

Technological change (public spending on R&D, incentives, patent system)

Efficiency (tax system, regulation, security, administration of laws)



21 /

Theory: What is the role of government?

- Why do we need a government for growth?
 - Correction of market failures.
 - Redistribution of income.



22 /

Market failures

Market failure occurs when the market does not produce an efficient outcome. Due to:

Public goods:

E.g. defence, infrastructure, rule of law, currency.

Externalities:

E.g. R&D, pollution.

Monopoly:

E.g. electricity transmission.

Coordination failures:

When a group of firms could achieve a more desirable equilibrium but fail to because they do not coordinate their decision making.

E.g. car producers unwilling to invest bc of uncertainty about supply of car parts; supplier industry unwilling to invest bc of uncertainty about demand.

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E.g. car producers unwilling to invest bc of uncertainty about supply of car parts; supplier industry unwilling to invest bc of uncertainty about demand.

Redistribution

High- to low income.

Between generations.

But does it help growth?

- ◆ Lower inequality is correlated with faster growth.
- ◆ Redistribution is correlated with higher growth
- ◆ Inequality affects physical and human capital accumulation

The case against government intervention

In theory government regulation can eliminate market failures. In practice, potential for *government failure*:

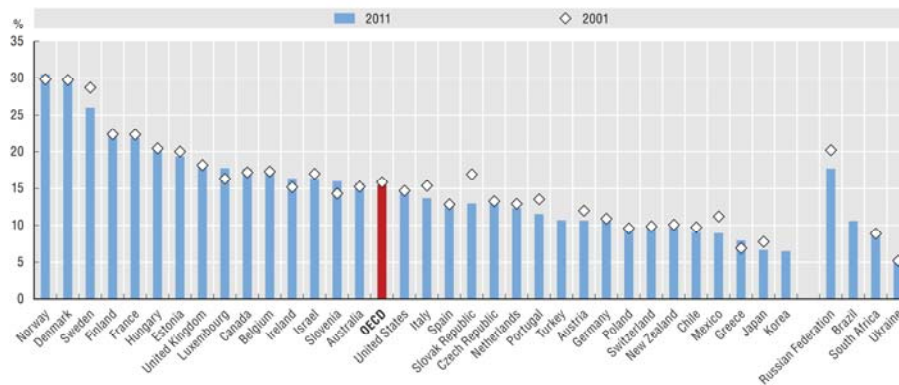
- ◆ When government intervention causes a more inefficient allocation of resources than would occur without that intervention.
- ◆ E.g. inefficiency in state-run firms (lack of incentives such as profits).
- ◆ What's the lowest cost: Inefficiency of monopoly or inefficiency of government regulation?
- ◆ Difficult to set the right tax/subsidy to internalize externalities.

Redistribution: Trade-off between redistribution and efficiency?

- ◆ Efficiency loss by raising taxes.
- ◆ Benefits from greater degree of equality.
- ◆ Arthur Okun (1975) "Equality and Efficiency: The Big Tradeoff"

Government employment across countries

5.1. Employment in general government as a percentage of the labour force (2001 and 2011)



Includes central, state, local employment. OECD (2013).

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Empirics: How the government affects growth

Rule of law.

The tax system.

Economic planning and policy.

Absence of government (conflict).

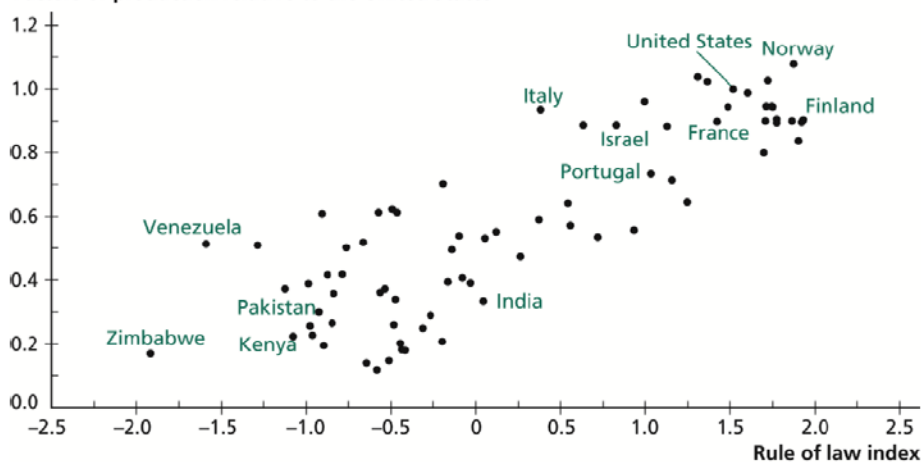
11 / 35

(1) Rule of law

- Essential public good.
- Existence of courts that enforce contracts.
 - Patent laws.
- Existence of courts and police to enforce ownership.
- Lack of rule of law a major reason for low growth and underdevelopment for many countries.
- ◆ “The inability of societies to develop effective, low-cost enforcement contracts is the most important source of both historical stagnation and contemporary underdevelopment in the Third World” (Nobel price laureate Douglass North, 1993).

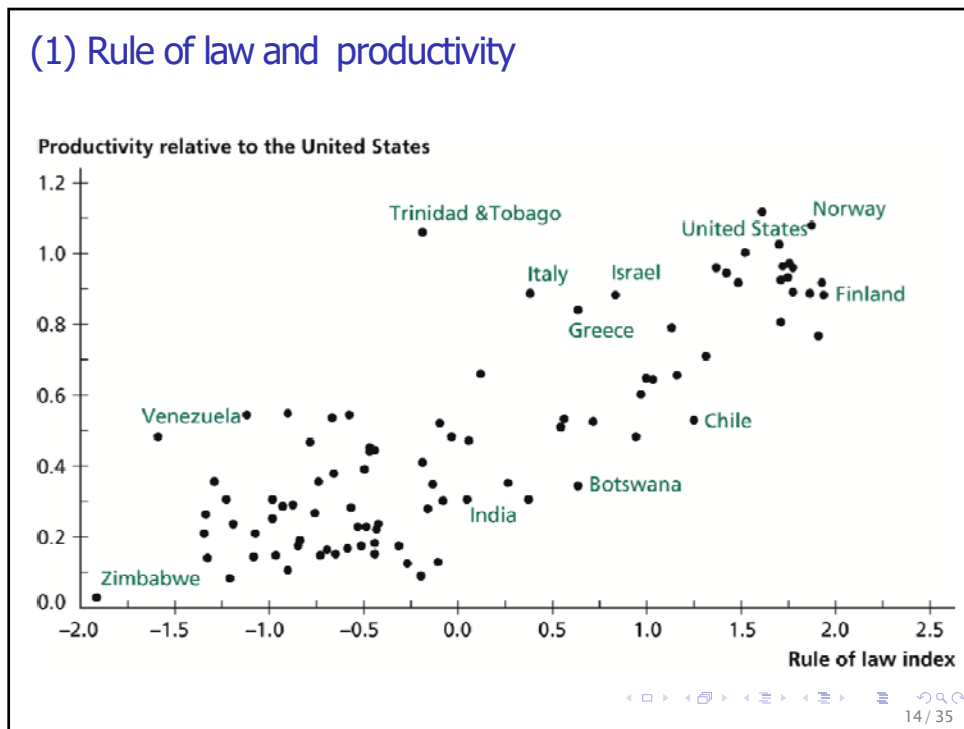
(1) Rule of law and factor accumulation

Factors of production relative to the United States



Rule of law index (2009): average of enforcement of contracts, efficiency of courts & crime.

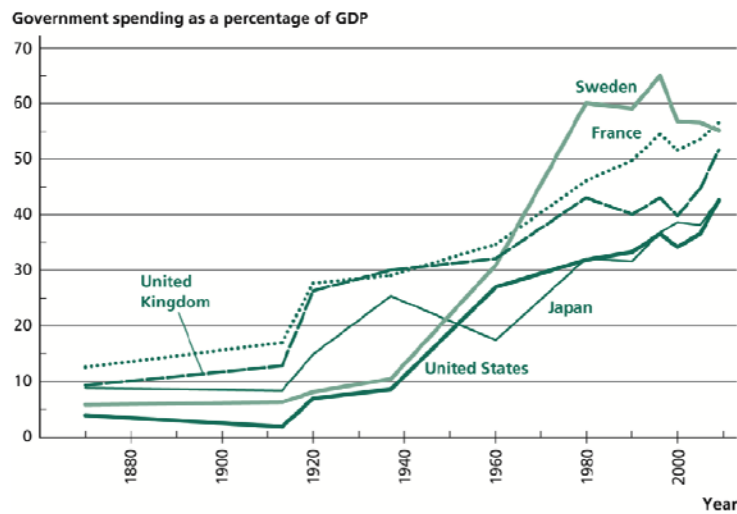
(1) Rule of law and productivity



(2) The tax system

- High growth in spending the last century.
 - Richer countries require more complex regulation.
 - Wagner's law: The income elasticity for public goods > 1 , e.g., health.

Government spending 1870-2009



2009: Average spending among OECD countries 47% of GDP.
 Enormous increase in gov't spending but GDP growth stable over the 20th century.

16/35

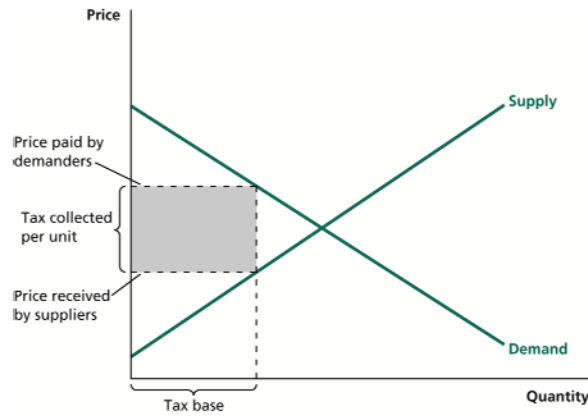
The effect of a tax

Taxes enable governments to increase spending that enables (human and physical) capital accumulation.

But raising taxes also incurs an efficiency loss.

17/35

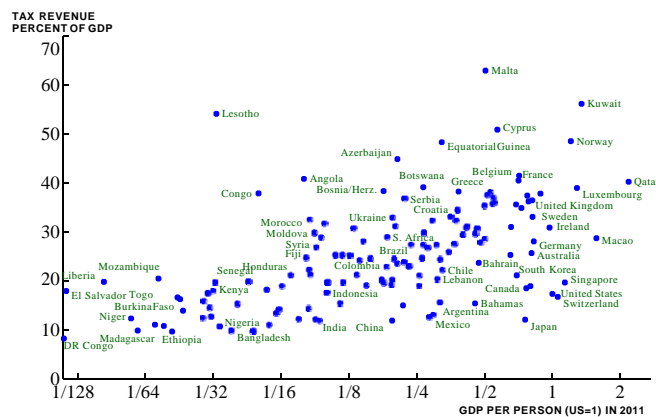
The effect of a tax



Deadweight loss:

Some transactions will not take place (transactions that would benefit buyers and sellers) → lower consumer and producer surplus.
 Very high tax rate yields zero tax revenue and zero transactions.

The effect of a tax



Note: Tax revenue is averaged for the available years between 2000 and 2014, is for the central government only, and includes receipts for social insurance programs. This is an updated graph of a figure from Acemoglu (2005). Source: The World Bank, *World Development Indicators*. GDP per person is from the Penn World Tables 8.0.

No negative correlation between taxes and income - in fact it's positive.
 Governments tend to use tax revenue wisely - infrastructure, education, etc.

(3) Economic planning and policy

Macro policies

Industrial policies:

State ownership.

- ◆ Government owned banks 98% of bank assets in China.
- ◆ Value of gov'n't owned stocks on Norwegian stock exchange 37%.

Tax breaks / subsidies for certain sectors.

Trade restrictions (tariffs and quotas on imports).

- ◆ Infant-industry protection (e.g. South Korea and Taiwan).
- ◆ Agricultural protection in Europe.

Potential concerns:

Lack of incentives. Rent seeking. Business decisions based on political connections etc.

But outcome of policies varies across countries. Why?

(4) Conflict

Lack of government & conflict dampen growth:

Looting.

Flight of refugees.

Destruction of physical and human capital.

Fall in investment, supply of public goods, domestic and international trade.

Example:

GDP of Mozambique fell by 1.3% every year during the civil war (1977-1994), then grew by 4.9% annually between 1995-2010.

(4) Conflict traps

Countries caught in *conflict traps*:

Conflict \rightarrow growth \downarrow
 ..and growth $\downarrow \rightarrow$ conflict \uparrow .

\rightarrow Violence and poverty self-reinforcing.

\rightarrow Multiple equilibria.

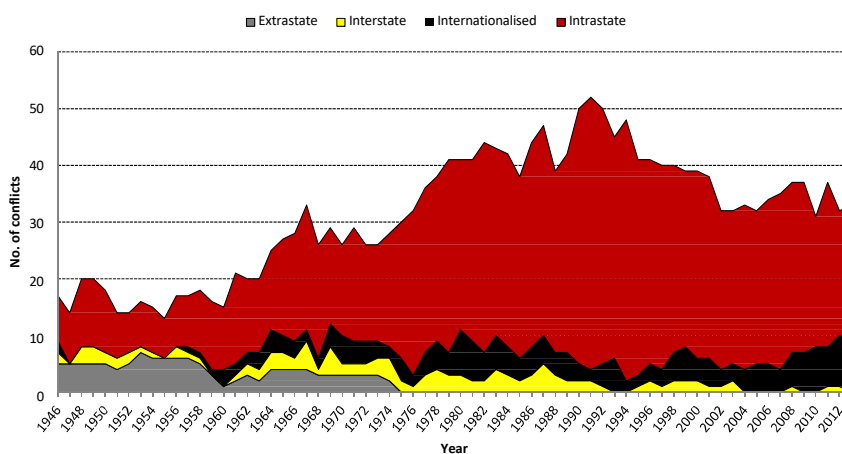
Why does poverty increase the likelihood of conflict?

Opportunity cost of conflict low.

Poor countries do not have necessary resources to stop violence.

(4) Recent trends

Armed Conflict by Type, 1946-2013



From Uppsala Conflict Data Program (UCDP, 2014)

Why some governments do not facilitate growth

A different objective function.

Corruption : staff of government act in their self-interest rather than the interest of the country.

Self-preservation : low growth policies best way to preserve power.

(1) A different objective function

Environmental concerns.

Redistribution.

E.g. aim to increase GNH instead of GDP in Bhutan since 1971.

(2) Corruption

Corruption lowers income.

Direct effects:

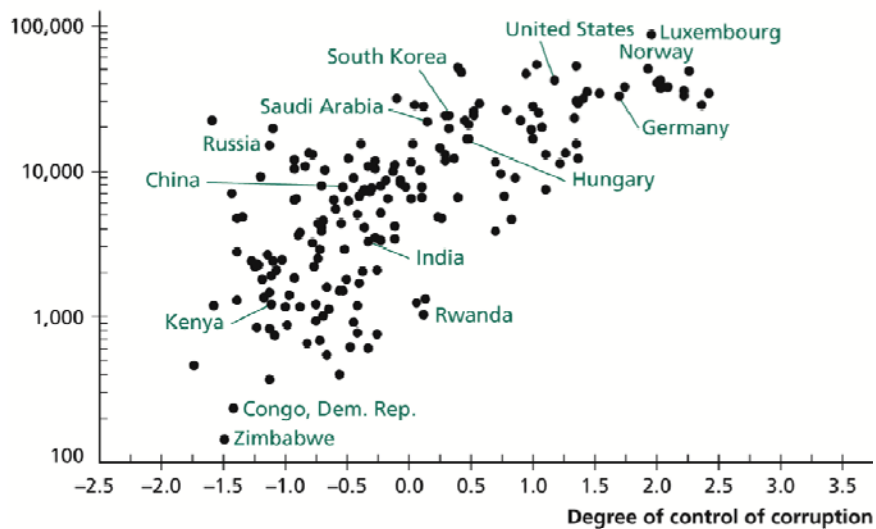
- Waste/misuse of government funds.
- E.g. tax fraud (bribing tax authorities).

Indirect effects:

- Misallocation / entry barriers.
- Economic policies enacted just to facilitate corruption (import quotas).
- Undermines rule of law and possibility of building good institutions.

(2) Corruption and income, 2009

GDP per capita (2005 International Dollars, ratio scale)



How to measure corruption?

(3) Self-preservation

In some cases low growth may be optimal if the objective of policymakers is self-preservation.

New technology reallocates economic power away from current ruler.

◆ E.g. social media and Arab Spring.

Education and human capital generates new ideas.

Formation of cities and urbanization generate new social structures.

International trade facilitates imports of new ideas.

Trade-off: Absence of economic growth produces discontent and increases the likelihood of invasion.

Why poor countries have bad governments : Empirics

Poor countries tend to have particularly bad governments. Why?

Causality goes both ways

Low income \Leftrightarrow Bad government

We'll discuss the empirical evidence for both directions of causality.

Income to government quality

Higher income can lead to better gov't quality because

Public employees receive higher wages \rightarrow less corruption.

Less conflict within government / between interest groups when government spending/income is larger.

Good government is a luxury good.

Some case studies suggest that income \uparrow \rightarrow gov't quality \uparrow .

Government quality to income

Case studies:

- ◆ N/S Korea experience suggests that the cause is government.
- ◆ Bad government due to colonizers.
 - * Rules out the other direction of causality.
 - * Of the 30 most corrupt countries, 22 are former European colonies.

Why did colonialism lead to bad government?

Borders did not follow ethnic boundaries.

Divide and conquer strategies.

Institutions maximized income of colonial powers, and not of population.

- ◆ Slavery, depletion of natural resources.

Bad institutions persist over time.

Wrong infrastructures... based on interest of foreign countries

How to disentangle causality

Acemoglu, Johnson and Robinson (2001):

What is the causal impact of institutions on economic development?

Instrument variable approach.

Find something that (partly) determines early/current institutions but that does not affect current economic performance directly.

Their solution: Settler mortality.

- ◆ European migration to colonies where disease low (e.g., Australia).
- ◆ Extractive institutions in places where disease high (e.g., Congo).

They find large effects of institutions.

Government quality to income

Bad gov't not always bad for growth -

Chinese growth despite widespread corruption (117th out of 186 countries in corruption measure).

New York City 1800s. High growth & widespread corruption.

Democracy and growth

Why democracy can improve growth:

Limits on power → bad rulers not re-elected. Milton Friedman's "Capitalism and Freedom" (1962):

- ◆ Political freedom → Economic freedom → Growth.
- ◆ E.g. no real dissent possible if capital owned by the gov't.

On the other hand, democracies can be

Prone to political instability.

- ◆ Short-run gains versus long-run growth.

Special interests and lobbying.

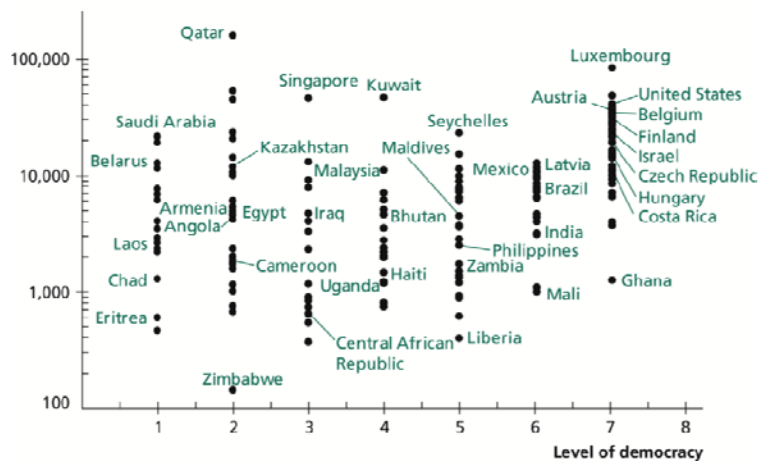
Slow and inefficient.

Case study: India versus China.

7.9% growth in China vs 3.7% in India (1975-2009).

Democracy and growth

GDP per capita, 2009 (2005 International Dollars, ratio scale)



Democracy data from Freedom House.

Correlation positive but not very strong.

Direction of causality?