

# Facing the Challenges of the 21<sup>st</sup> Century – the future for economics (and business) education

Wendy Carlin  
University College London, CEPR,  
and CORE

Symposium  
Challenges in University Education in the  
Fields of Economics and Business  
Faculty of Economics and Business,  
University of Barcelona

May 17<sup>th</sup> 2019



ROCCO

# Agenda

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Note – my remarks focus on economics education, including the economics content of business degrees

1. What challenges? Demands for change in economics education from the public, employers, students – conflicting or complementary?
2. An international project to meet the challenge
3. **New content** – the problems have changed, economics has changed, economics education needs to change
4. **New pedagogy** – from complex problems to economic models – teaching and learning the benefits of abstraction
5. **New skills** – data handling, coding, visualization, interpretation, communication

# Agenda

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1. What challenges? Demands for change in economics education from the public, employers, students – conflicting or complementary?

The public

The global financial crisis -  
Economists in the doghouse

# The Telegraph

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Politics Investigations Obits Education Science Earth Weather Health Royal Celebrity

Queen Elizabeth II | Prince Philip | Prince Charles | Prince William | Duchess of Cambridge | Prince C

HOME » NEWS » UK NEWS » THE ROYAL FAMILY

## The Queen asks why no one saw the credit crunch coming

The Queen, whose personal fortune is estimated to have fallen £25 million in the credit crunch, has demanded to know why no one saw the financial crisis coming.



The Queen and the Duke of Edinburgh at the opening of a new building at the London School of Economics Photo: PA

By Andrew Pierce  
4:40PM GMT 05 Nov 2008

The Royal Family  
News » UK News »  
Financial Crisis »

In The Royal Family



Joining forces: Harry  
in the US



Surpassing Victoria:  
33 fun facts



# What's the point of economists?

Robert Shiller

Why has the failure to foresee the financial crisis stoked so much anger against the profession, asks **Robert Shiller**

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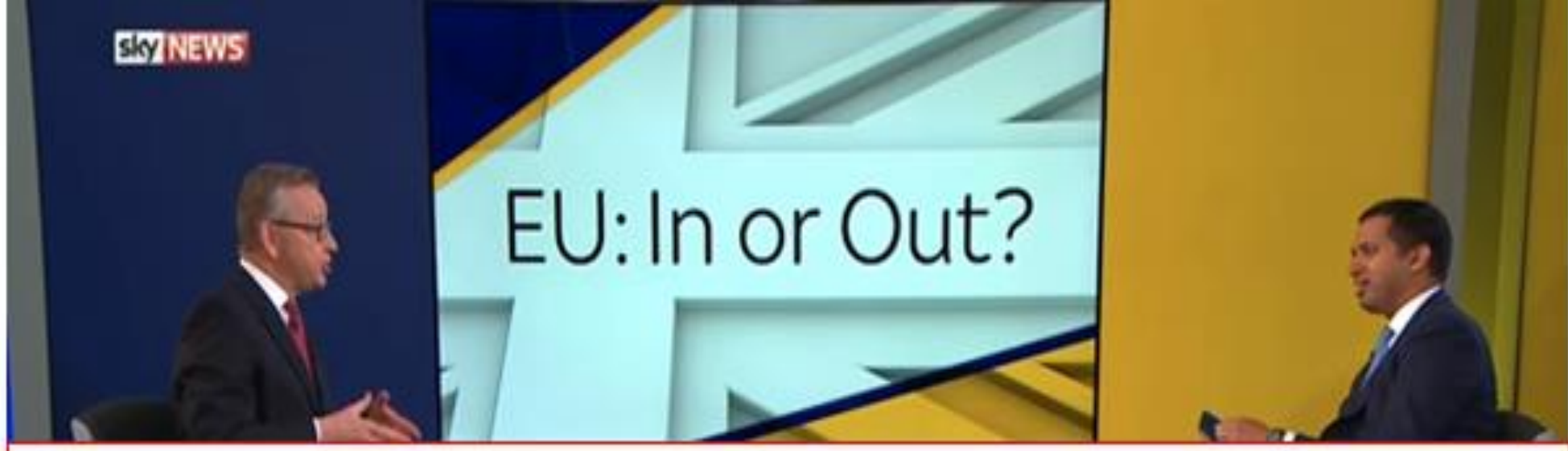
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s banking retail markets eurozone

Nobel prize-winning economists warn of long-term damage after Brexit



Michael Gove (Minister in Theresa May's government):  
"Britons have had enough of experts"

[Commentary](#) > [Articles](#)

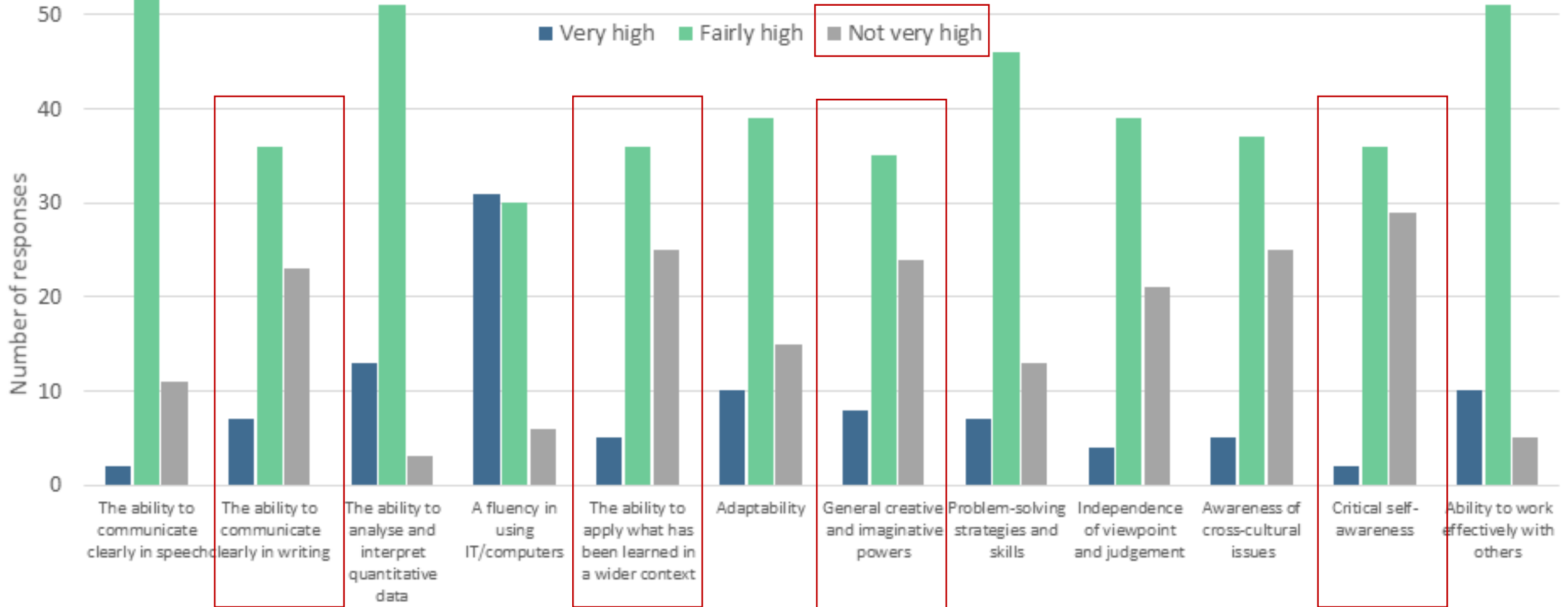
# Why Economists Failed as "Experts"—and How to Make Them Matter Again

**By Martin Wolf**

MAR 12, 2019 | **ECONOMICS PROFESSION**

## Economics Employers' Survey 2014-15

### How do you rate the general skills of economics graduates?



**EMPLOYERS**

**THE OPINION OF EMPLOYERS  
REGARDING THE EDUCATION  
RECEIVED BY GRADUATES OF  
ECONOMICS AND BUSINESS**

Ability to come up with and plan commercial actions	46.2
<b>Ability to manage complexity and uncertainty</b>	<b>46.2</b>

Which expression	2011	2010	2009
Ability to offer new ideas and solutions	32.6	26%	35%
Responsibility at work	38.2	36%	39%
Autonomous work	43.8	44%	44%
Practical training	51.4	51%	51%
Problem solving and decision-making	56.3	62%	54%



What do beginning **students** of economics think economists should do?

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What is the most pressing issue that economists today should address?



## Worldwide

- 2016-18 by 4,442 students
- from 25 universities
- in 12 countries

# inequality

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1. What challenges? Demands for change in economics education from the public, employers, students – conflicting or complementary?
2. An international project to meet the challenge

### 3. An international project to reform economics education

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- New possibilities for rapid improvement in teaching and learning resources
- An example – **The CORE project** – digital-first & open access
- An international collaboration of researchers and educators from top universities – content, teaching and learning resources, translations

THE CORE TEAM  
THE ECONOMY

Read now

core  
econ

Free online,  
go to [www.core-econ.org](http://www.core-econ.org)

L'ÉQUIPE CORE  
Version Française par Yann Algan et l'Équipe CORE France

**L'ÉCONOMIE**  
*L'économie pour un monde différent*

EYROLLES coreecon

THE CORE ESPP TEAM

**ECONOMY, SOCIETY, AND PUBLIC POLICY** BETA

Read now

coreecon

EILEEN TIPOE AND THE ESPP EMPIRICAL PROJECTS WORKING GROUP

**DOING ECONOMICS: EMPIRICAL PROJECTS** BETA

Read now

coreecon

15:05  
core-econ.org

Contents

**QUESTION 2.5**  
**CHOOSE THE CORRECT ANSWER(S)**

Look again at Figure 2.12 which depicts isocost lines for the 1600s and the 1700s in Britain.

Which of the following is true?

- The flatter isocost line HJ for 1600s Britain indicates higher wages relative to the price of coal.
- The increase in wages



Azim Premii  
University,  
Bangalore



Antonio Cabrales CORE-UCL

coreecon


Yann Algan  
CORE-Sciences Po, Paris

# Overview of CORE's resources



*THE ECONOMY*

Free, open access text for introductory undergraduate courses



*ECONOMY, SOCIETY, AND PUBLIC POLICY*

Using policy problems to motivate learning the concepts and methods of economics ...more



*DOING ECONOMICS*

Work through policy problems using real data

Teacher resources

Student resources

Specialists

Non-specialists

Both

# The CORE team – authors : A global collaboration of researchers



**Yann Algan**  
Sciences Po, Paris



**Tim Besley**  
LSE



**Samuel Bowles**  
Santa Fe Institute



**Antonio Cabrales**  
UCL



**Juan Camilo Cárdenas**  
Universidad de los Andes



**Wendy Carlin**  
UCL



**Diane Coyle**  
University of Manchester



**Marion Dumas**  
Santa Fe Institute; LSE



**Georg von Graevenitz**  
Queen Mary University of  
London



**Cameron Hepburn**  
University of Oxford



**Daniel Hojman**  
University of Chile



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King's College London



**Arjun Jayadev**  
Azim Premji University



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**Robin Naylor**  
University of Warwick

# The CORE team – authors : A global collaboration of researchers



**Kevin O'Rourke**  
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**Malcolm Pemberton**  
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**Paul Segal**  
King's College London



**Nicholas Rau**  
UCL



**Rajiv Sethi**  
Barnard College, Columbia University



**Margaret Stevens**  
University of Oxford



**Alex Teytelboym**  
University of Oxford

- **Researchers and teachers from around the world** – from Colombia to Bangalore, from Sciences Po to Columbia University
- United by the **goal** of creating high quality open access resources to **bring to students the best of economics**
- Enabling them to engage in **evaluation and debates** on the pressing **public policy issues** of today



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1. Demands for change in economics education from the public, employers, students – conflicting or complementary?
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### 3. The content – what should the introductory course accomplish?

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Paul Samuelson *Economics* 1948 – the first modern economics textbook – written in the shadow of the Great Depression

“aims at an understanding of the economic institutions and problems of American civilization in the middle of the twentieth century.”

- The problem was unemployment
- The response was a teachable version of Keynes
- And bringing to the classroom the new ‘big problem’-related research

Samuelson hoped by educating future policymakers and citizens, good policy would prevent another Depression

The CORE project responded to a new ‘Samuelsonian moment’ – the problems are different and so is the new economics (the best of contemporary research)

# What do economists really do?



Petra Moser: How copyright improved Italian opera

## EXERCISE 3.9 EFFECTIVE POLICYMAKING FOR INTELLECTUAL PROPERTY RIGHTS

Watch the 'Economist in action' video, in which Petra Moser discusses copyright protection for nineteenth-century Italian operas.

1. Outline Petra Moser's research question, and her approach to answering it.
2. What were Petra Moser's findings about patents and copyrights?
3. What factors should governments consider when deciding on the effective time period of IPR protection laws, such as patents and copyrights?

## EXERCISE 17.9 BANKING REGULATIONS CAN HELP BRING ON FINANCIAL CRISES

An 'Economist in action' video shows Anat Admati, an economist, explaining the problems with the regulation of the banking system.



Anat Admati: What's wrong with banking (and what to do about it).

1. Using housing prices as an example, explain the upsides and downsides of leverage.
2. According to the video, what is the key difference between banks and other corporations, and why is this dangerous for the banking system?
3. What are some factors that contribute to the fragility and riskiness of the banking system, and how can we prevent future financial crises from occurring?



# inequality



Petra Moser: How copyright improved Italian opera

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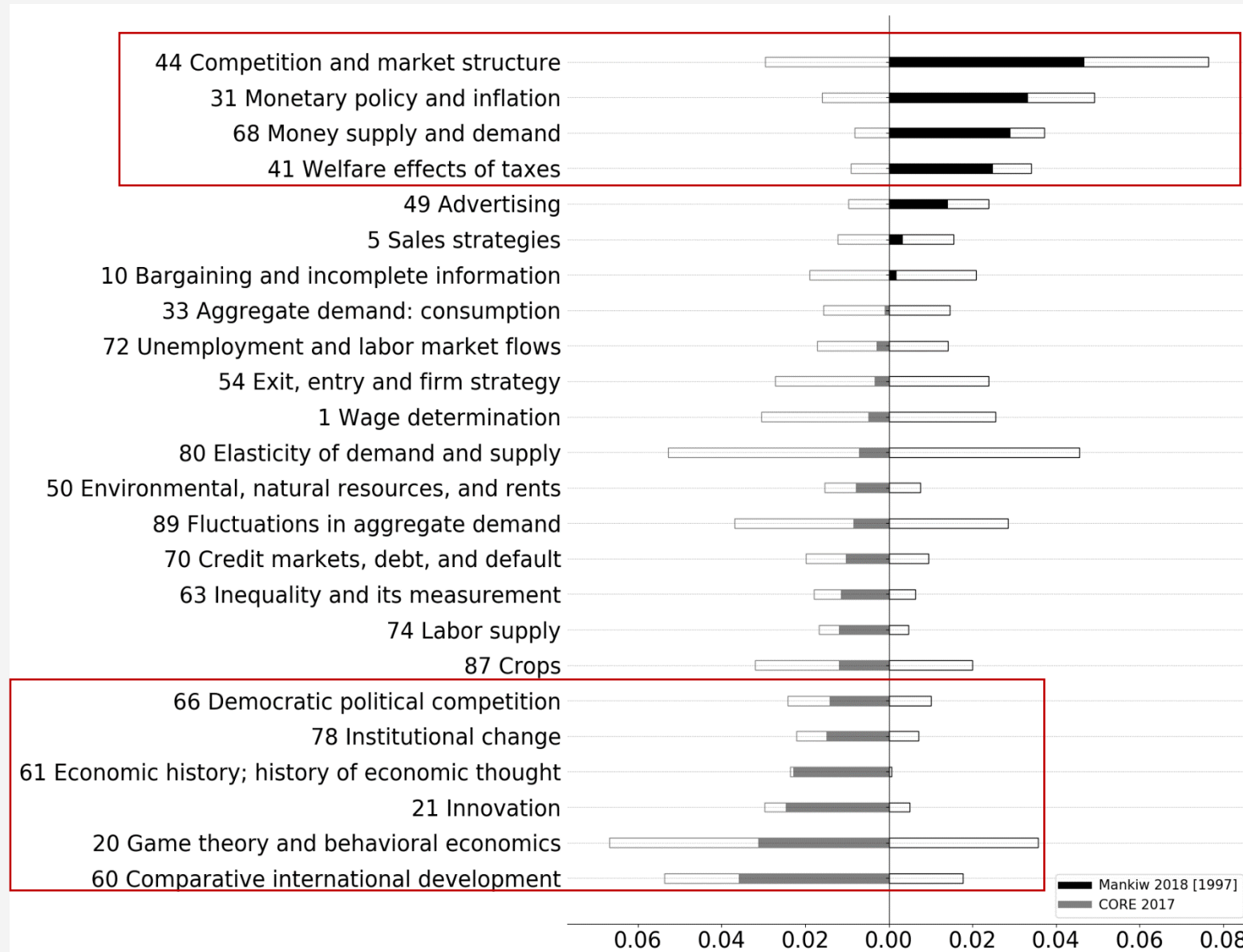
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# The modern texts – comparing CORE’s *The Economy* with Mankiw

To the right, greater weight in Mankiw



To the left, greater weight in CORE’s *The Economy*

# Where to begin a course? 'Pizza and beer' or ...

Contents

The Economy



UNIT 1

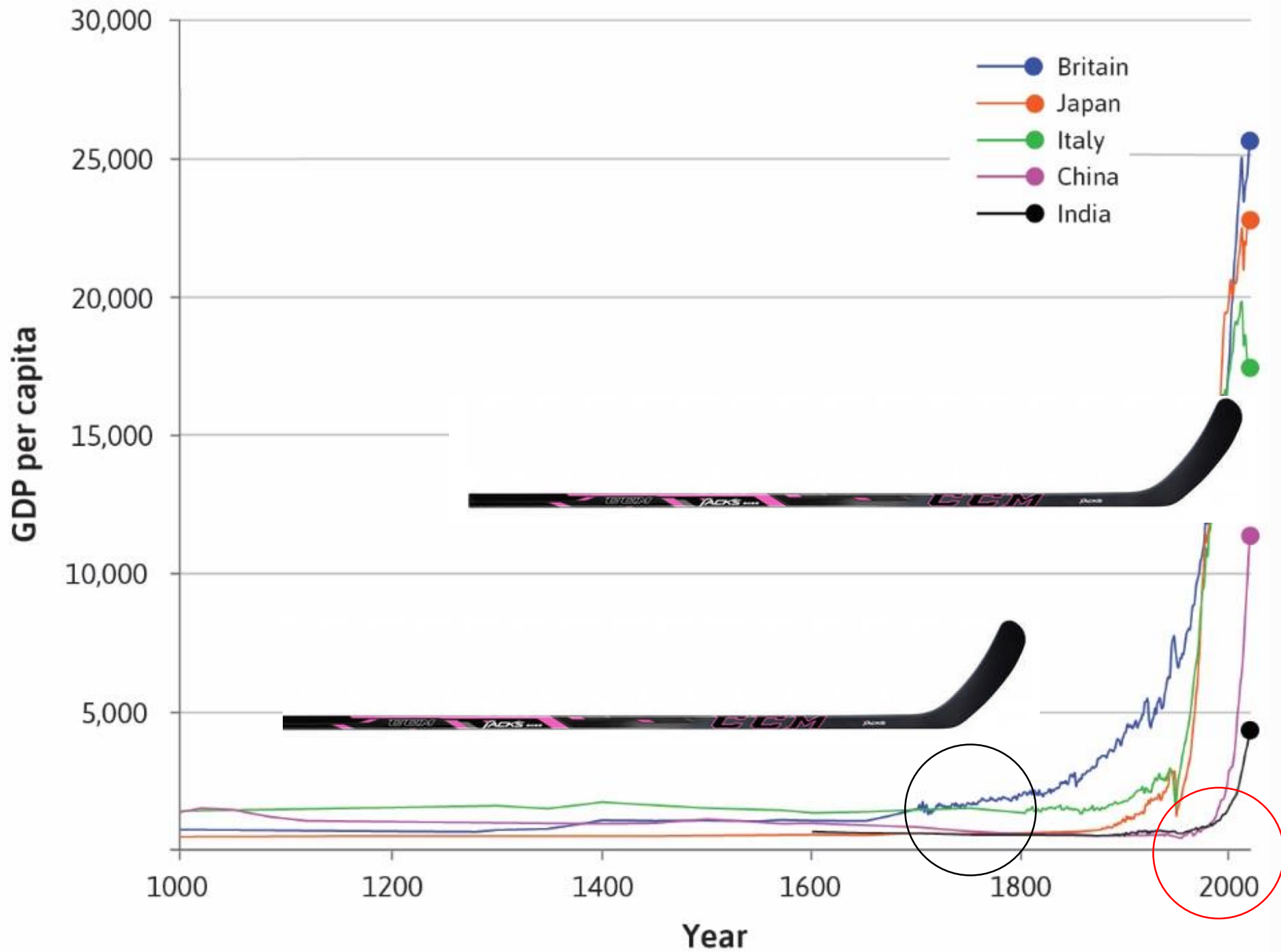
## THE CAPITALIST REVOLUTION

**How capitalism revolutionized the way we live, and how economics attempts to understand this and other economic systems**

- Since the 1700s, increases in average living standards became a permanent feature of economic life in many countries.
- This was associated with the emergence of a new economic system called capitalism, in which private property, markets and firms play a major role.

### THEMES AND CAPSTONE UNITS

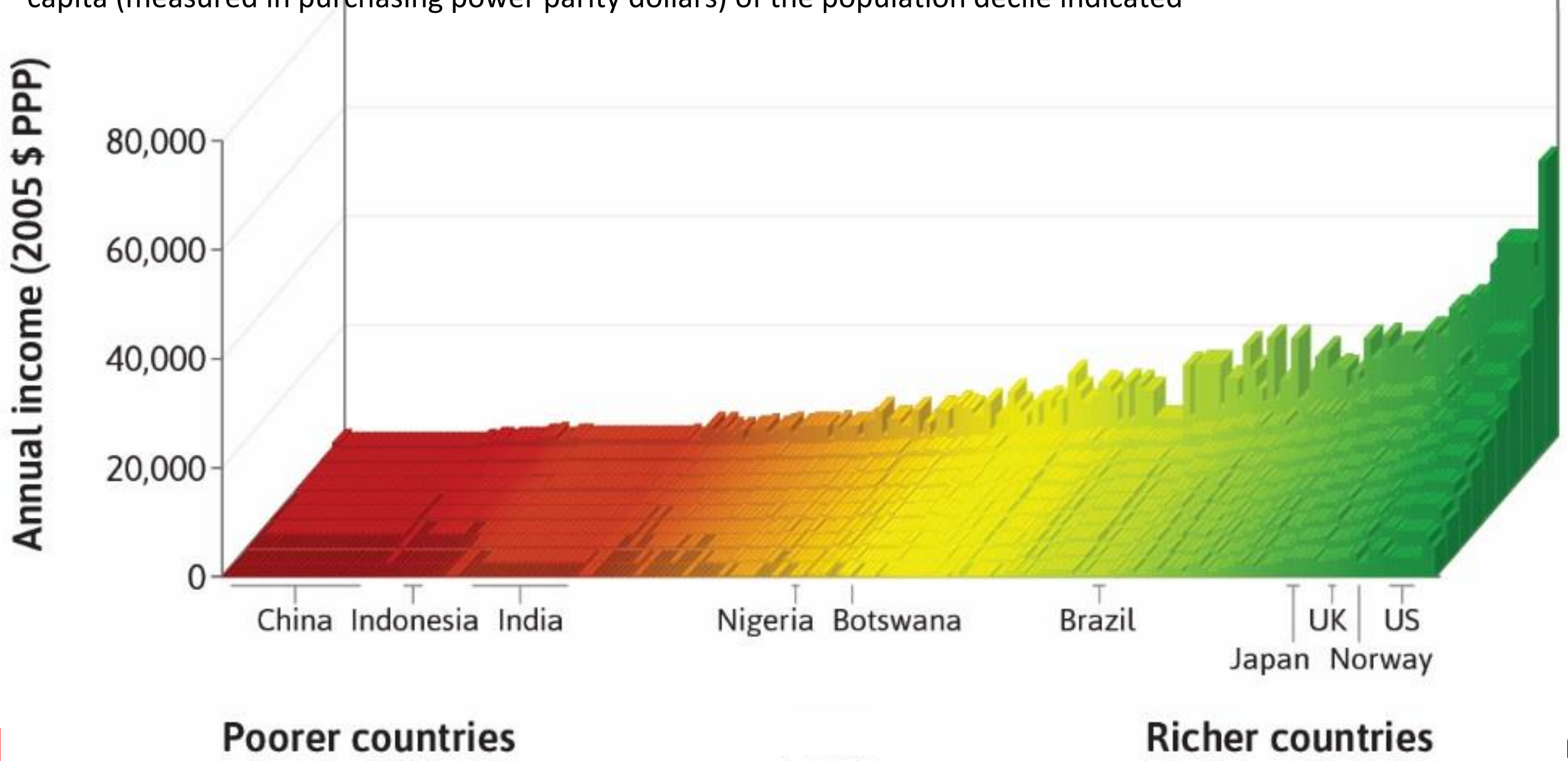
- History, instability, and growth
- Global economy
- Inequality
- Environment
- Innovation
- Politics and policy



# One of the first figures the student sees in CORE (and can [manipulate](#))

The distribution of income in the world. Height of the bars is the gross domestic income per capita (measured in purchasing power parity dollars) of the population decile indicated

**1980**





1990

Annual income (2005 \$ PPP)

80,000  
60,000  
40,000  
20,000  
0

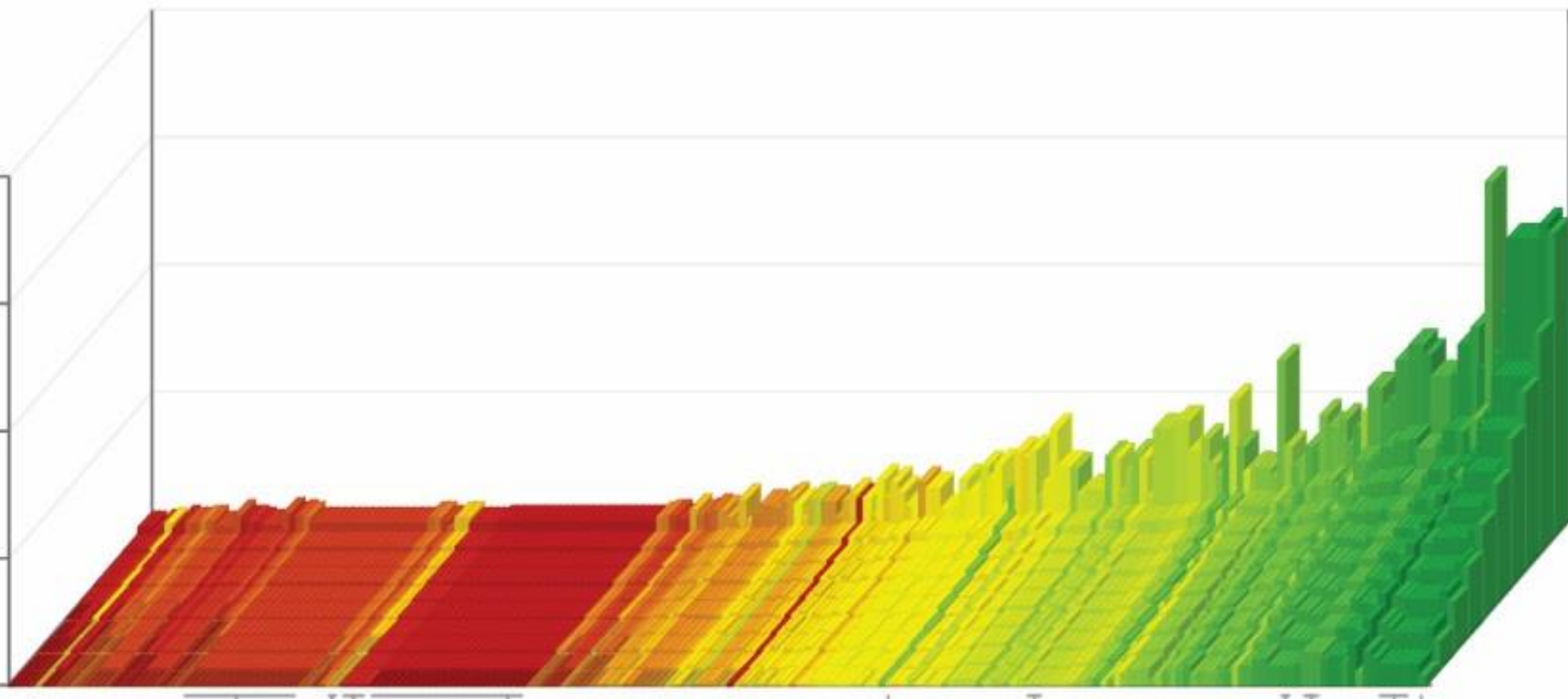
India  
Nigeria  
Indonesia  
China

Botswana  
Brazil

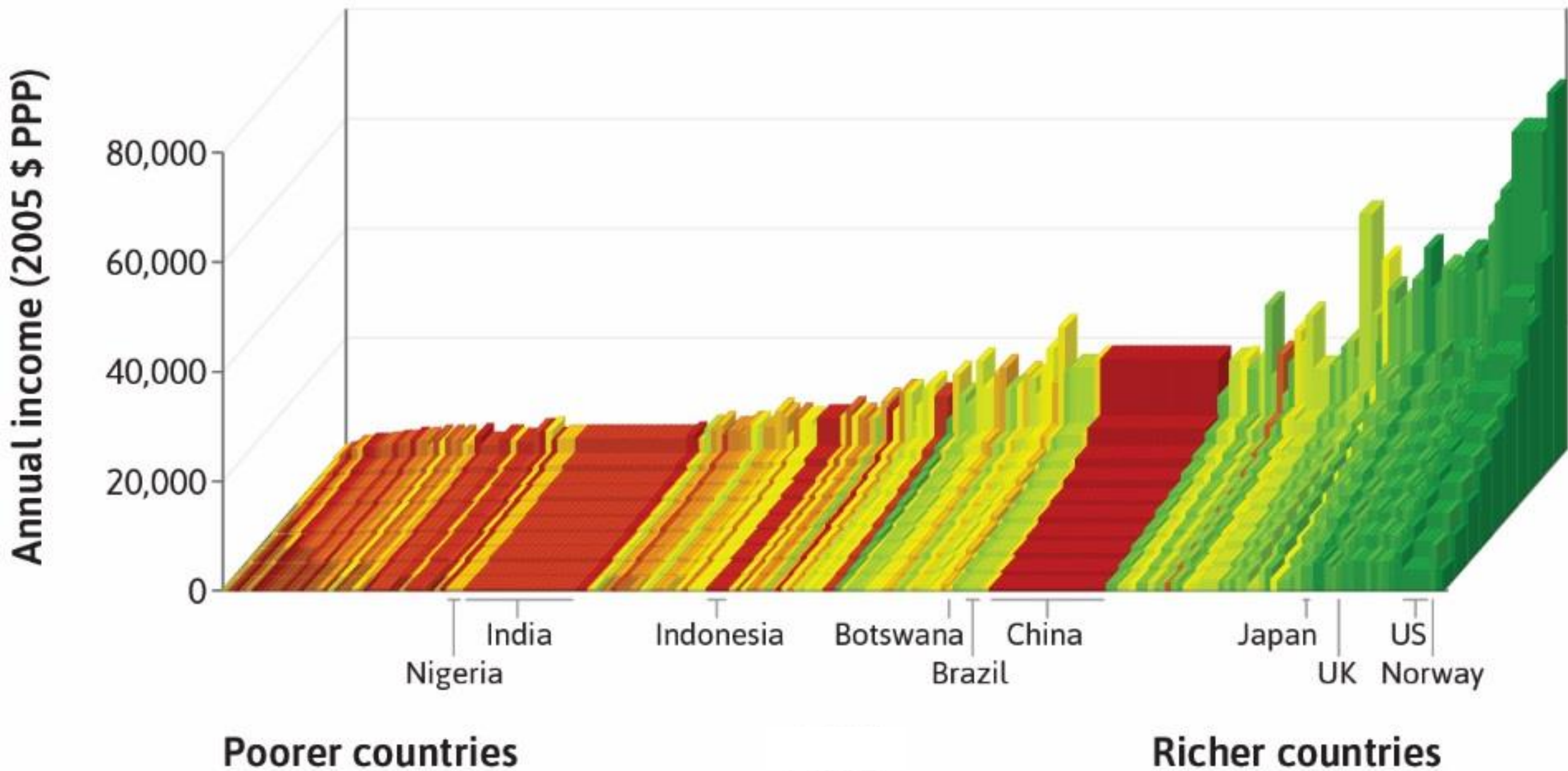
UK  
Japan  
US  
Norway

Poorer countries

Richer countries



2014





How to teach inequality analytically?



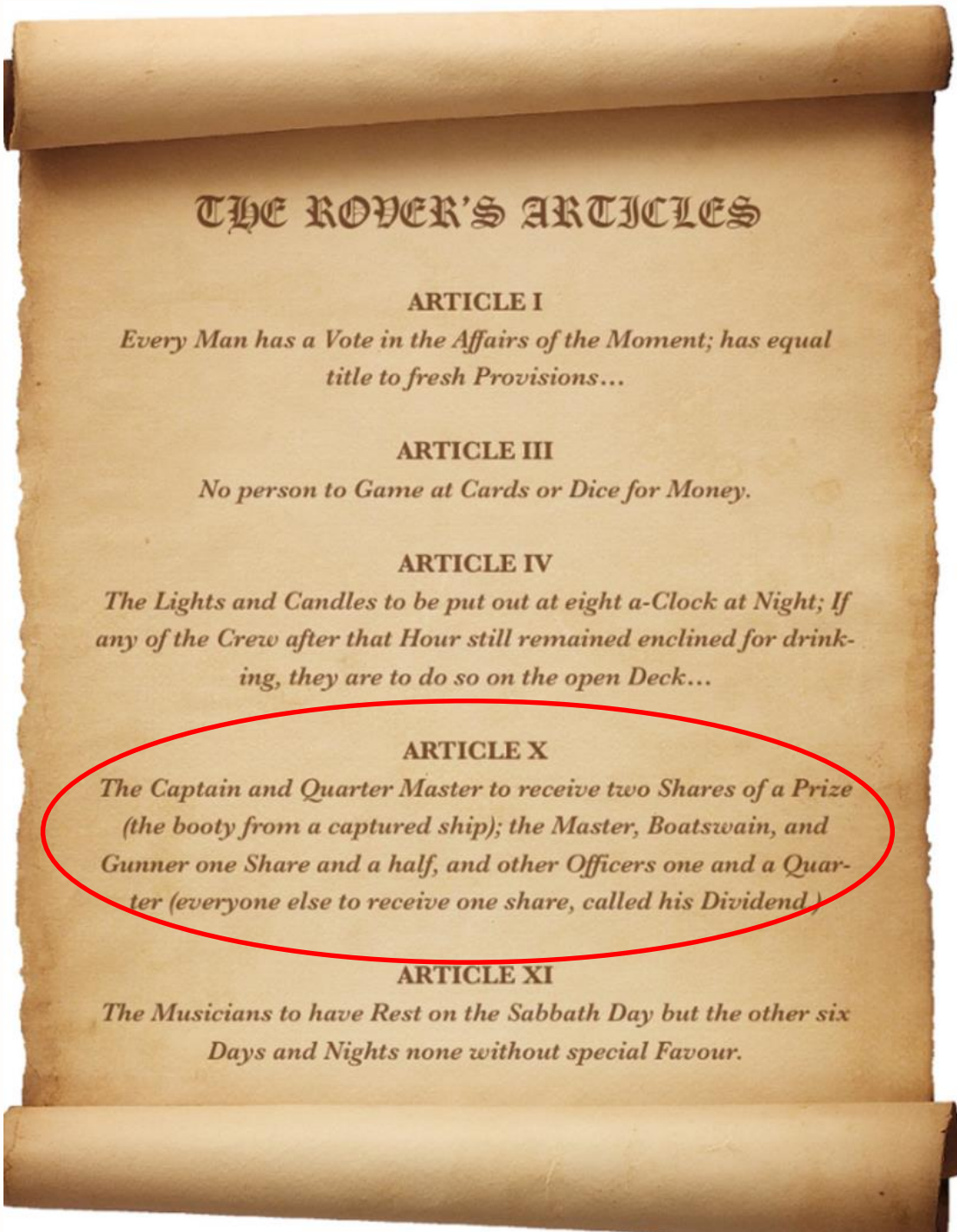
UNIT 5

PROPERTY AND POWER: MUTUAL GAINS AND CONFLICT

Economic institutions are the rules of the game – who does what and who gets what on a pirate ship

HOW INSTITUTIONS INFLUENCE THE BALANCE OF POWER IN INTERACTIONS AMONG ECONOMIC ACTORS, AND HOW THIS AFFECTS THE FAIRNESS AND EFFICIENCY OF THE ALLOCATIONS THAT RESULT

- Technology, biology, economic institutions and people's preferences all matter as determinants of economic outcomes
- Interactions between economic actors can result in mutual gains, and also in conflicts over how the gains are distributed
- *Power* is the ability to do and get the things we want in opposition to others



THE ROVER'S ARTICLES

ARTICLE I

*Every Man has a Vote in the Affairs of the Moment; has equal title to fresh Provisions...*

ARTICLE III

*No person to Game at Cards or Dice for Money.*

ARTICLE IV

*The Lights and Candles to be put out at eight a-Clock at Night; If any of the Crew after that Hour still remained enclined for drinking, they are to do so on the open Deck...*

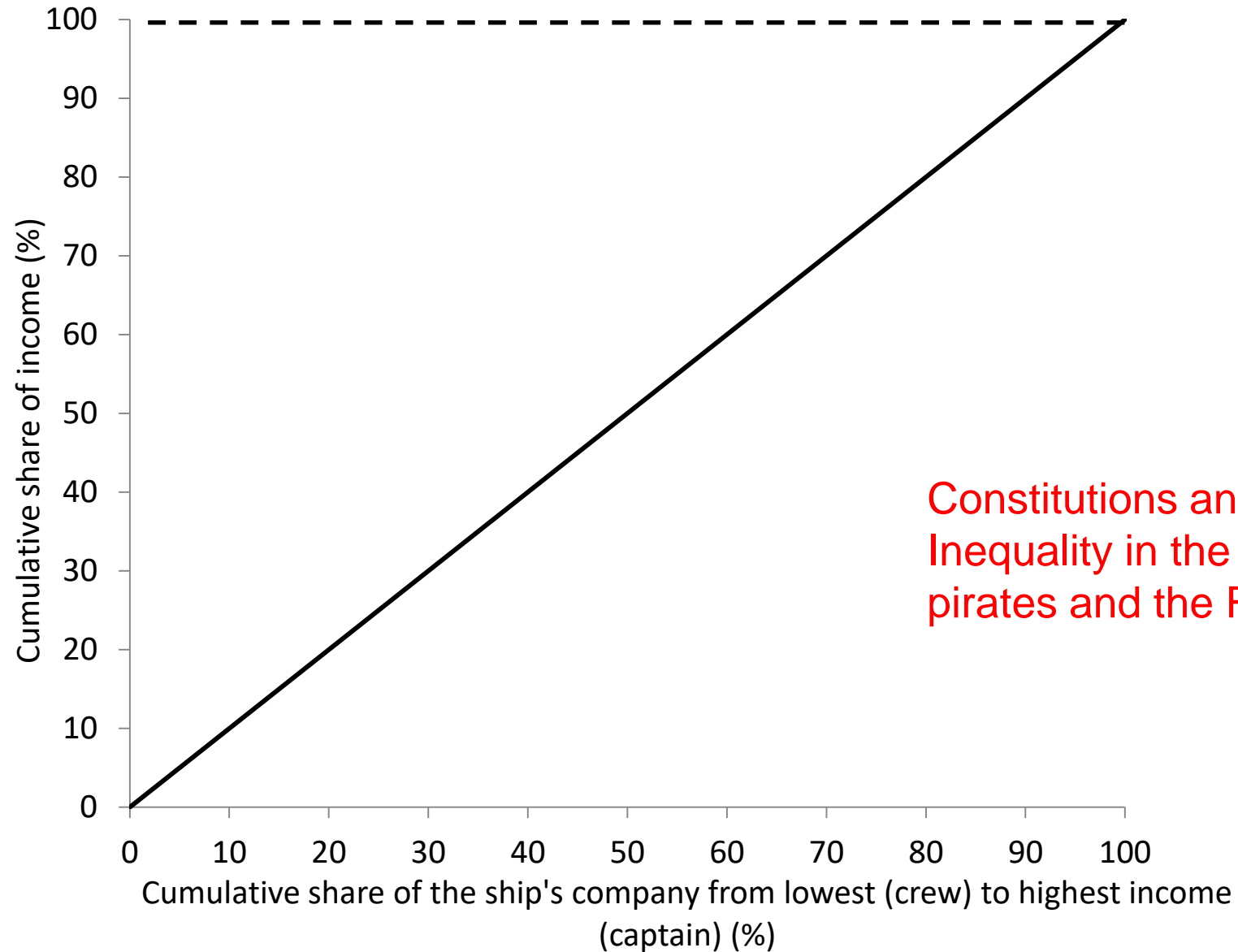
ARTICLE X

*The Captain and Quarter Master to receive two Shares of a Prize (the booty from a captured ship); the Master, Boatswain, and Gunner one Share and a half, and other Officers one and a Quarter (everyone else to receive one share, called his Dividend.)*

ARTICLE XI

*The Musicians to have Rest on the Sabbath Day but the other six Days and Nights none without special Favour.*

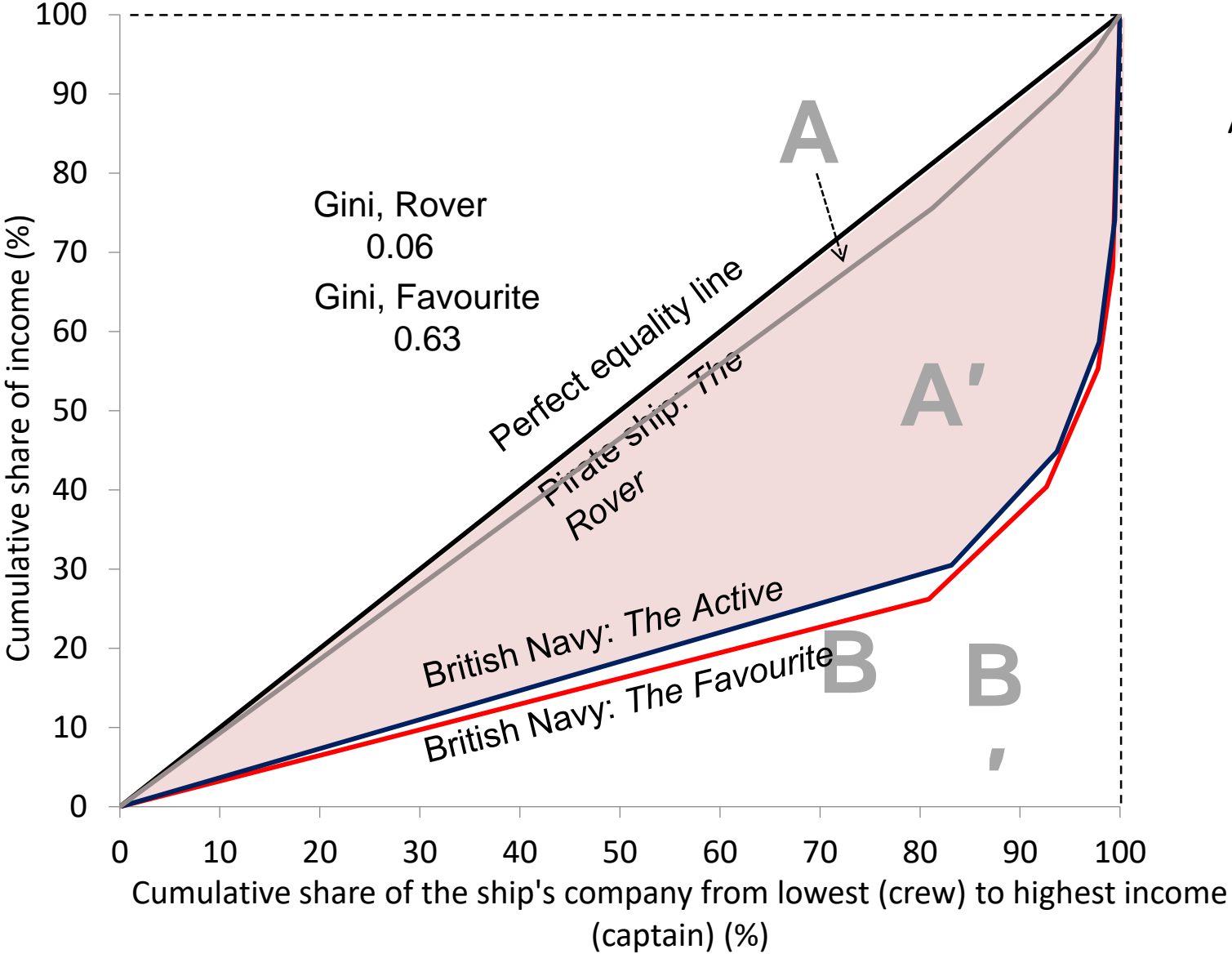
# Connecting institutions to measurement of inequality



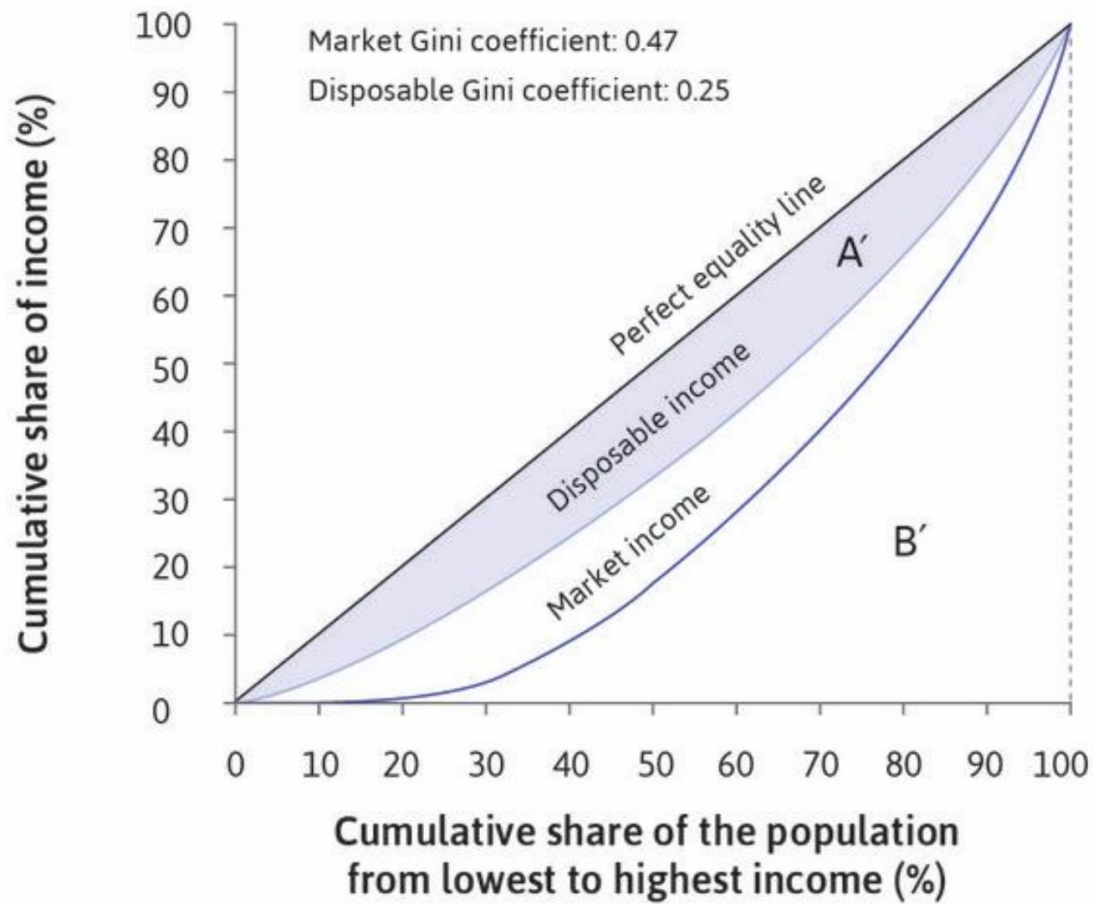
Constitutions and contracts  
Inequality in the division of the spoils:  
pirates and the Royal Navy

# Constitutions and contracts

## Inequality in the division of the spoils: pirates and the Royal Navy



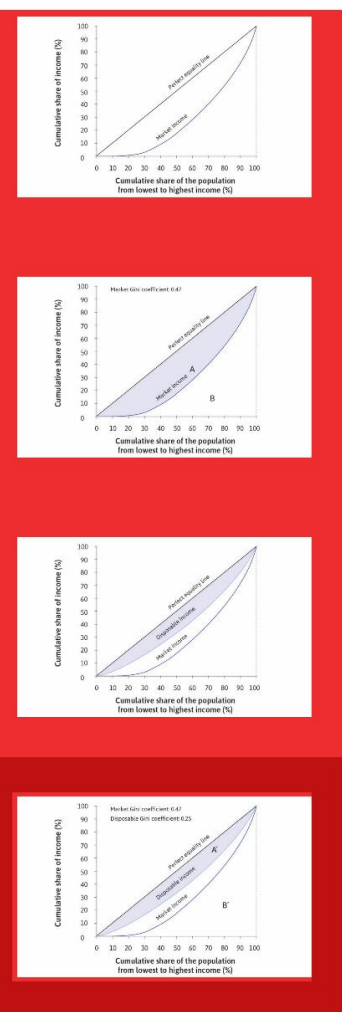
A Pirate Ship Lorenz Curve and Gini Coefficient



### The Gini for disposable income

The Gini coefficient for disposable income is lower: the ratio of areas A' (between the disposable income curve and the perfect equality line) and A' + B' (below the perfect equality line) is 0.25.

**Figure 5.15** Distribution of market and disposable income in the Netherlands (2010).



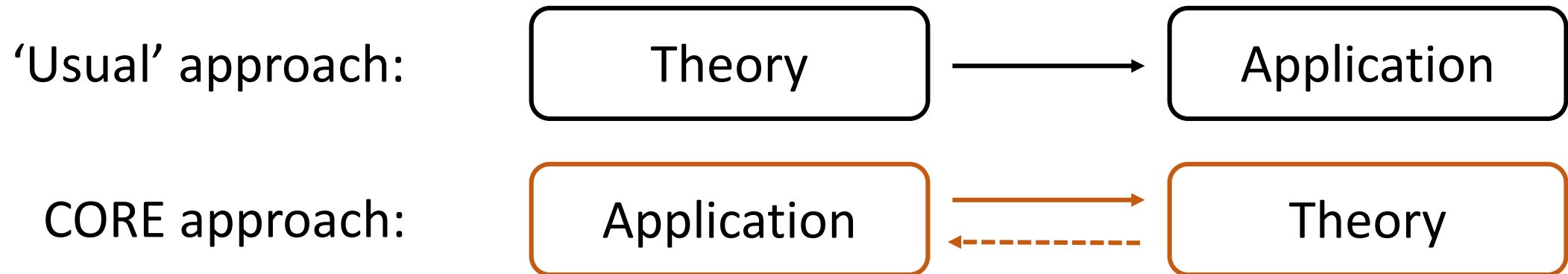
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# Key feature #1: Evidence-based learning



- Start with a question, and look at the evidence.

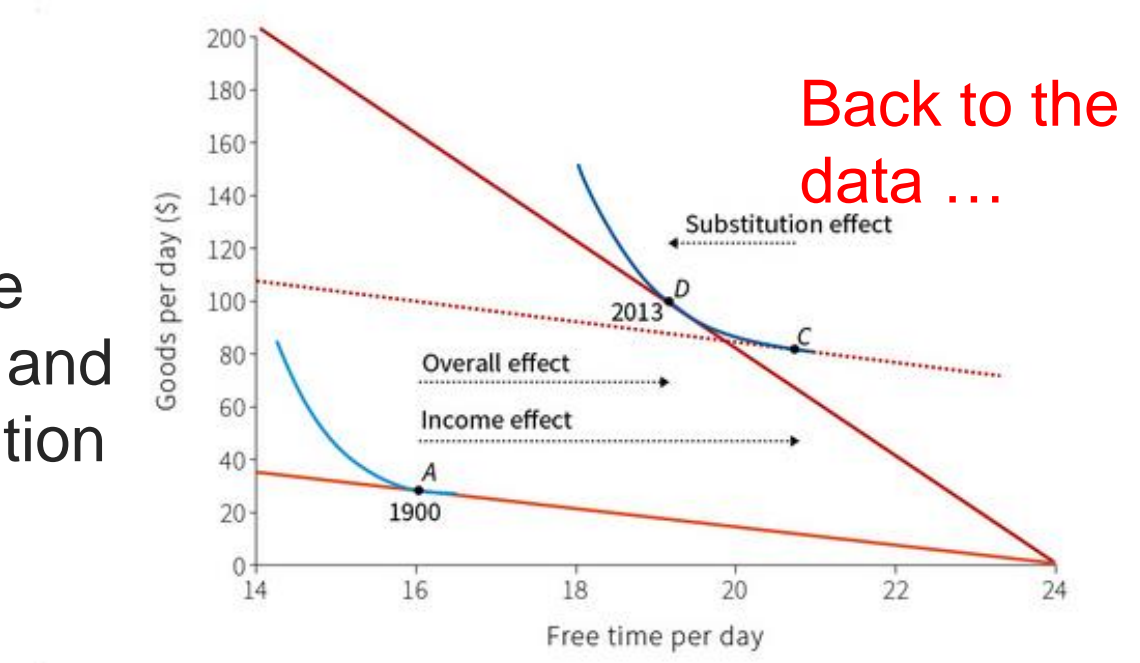
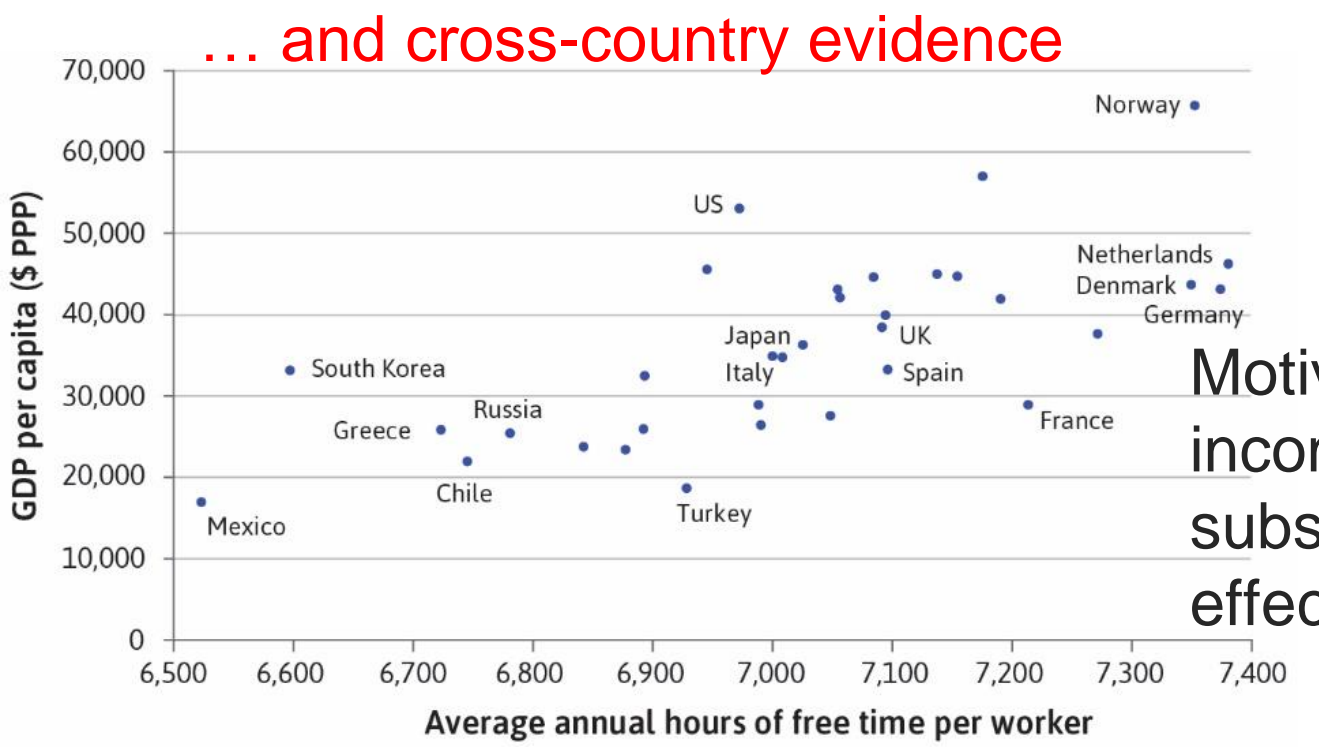
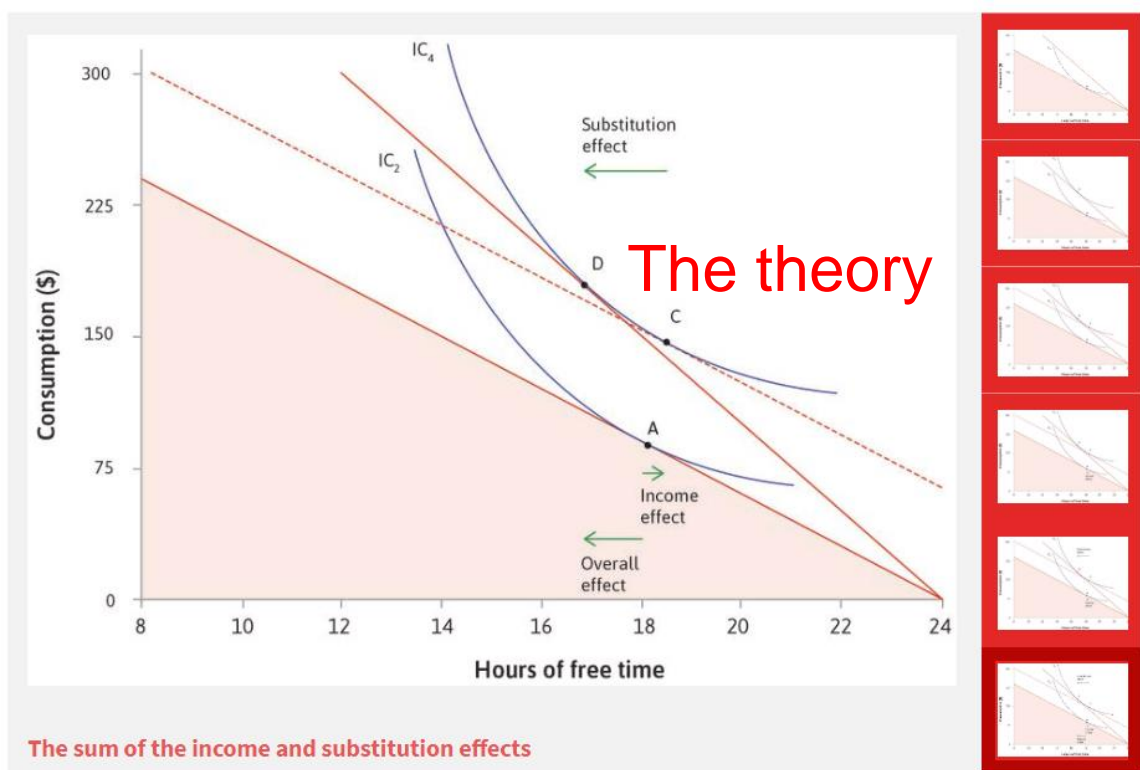
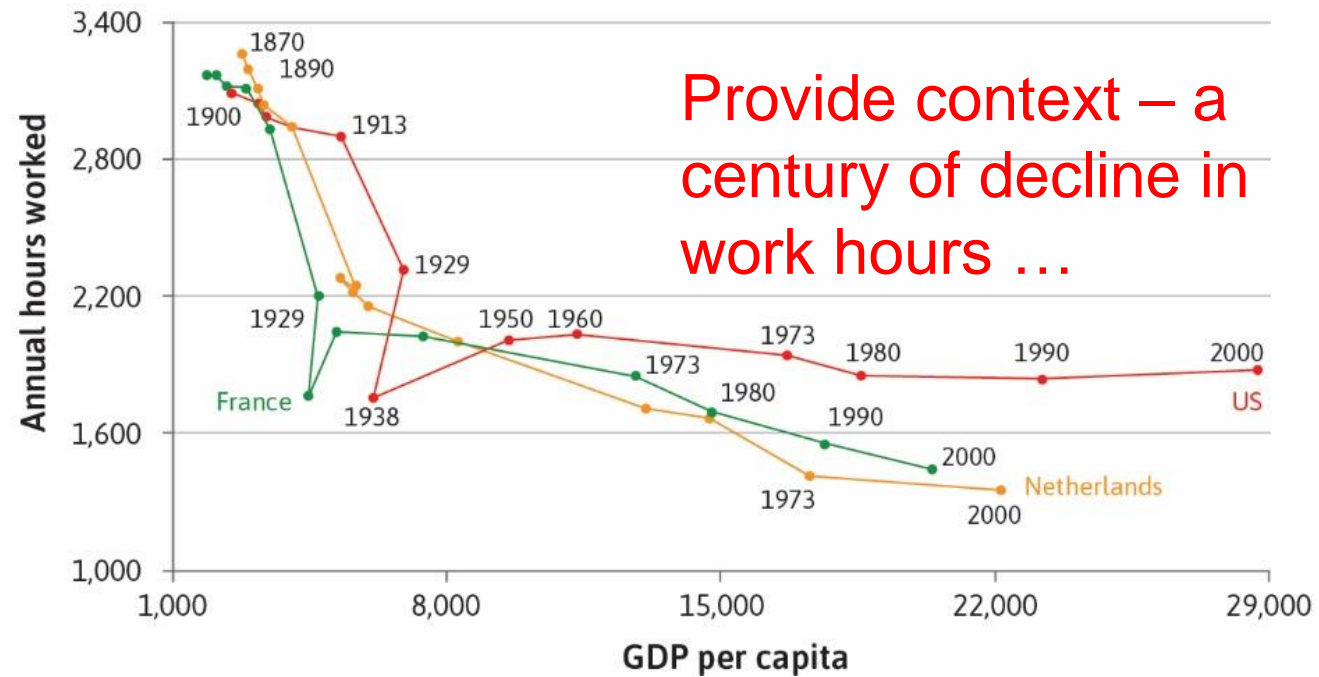
‘Why do working hours differ across countries and time?’

- Build a model that helps us understand what we see.

Constrained optimization (indifference curves, feasible set)

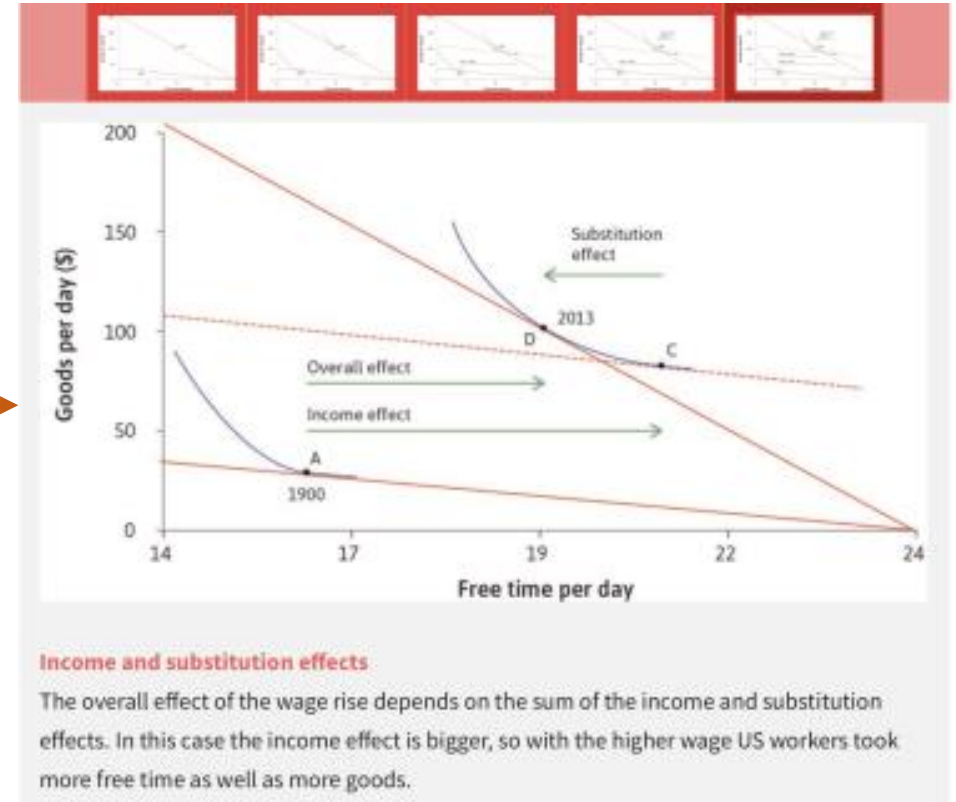
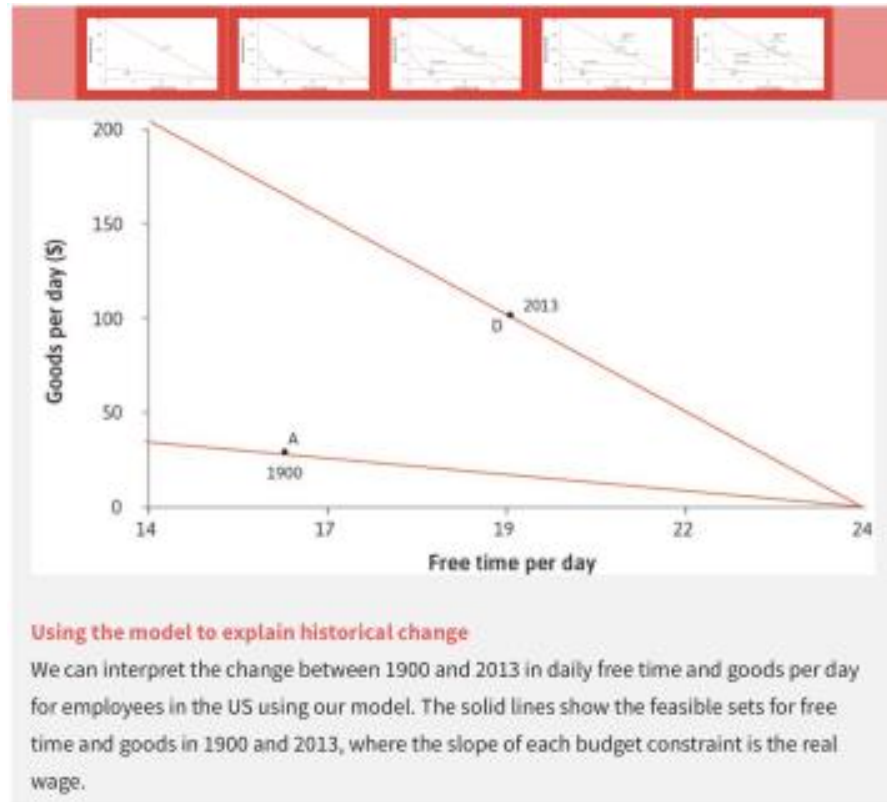
- Critically evaluate the model

Can workers really choose? Influence of culture and politics



# Key feature #2: Interactive learning

## *The Economy; Economy, Society, and Public Policy*



Slides

# Key feature #2: Interactive learning

## *The Economy; Economy, Society, and Public Policy*



‘Economist in Action’ videos

### QUESTION 3.5 CHOOSE THE CORRECT ANSWER(S)

What is the marginal rate of substitution (MRS)?

- The ratio of the amounts of the two goods at a point on the indifference curve.
- The amount of one good that the consumer is willing to trade for one unit of the other.
- The change in the consumer's utility when one good is substituted for another.
- The slope of the indifference curve.

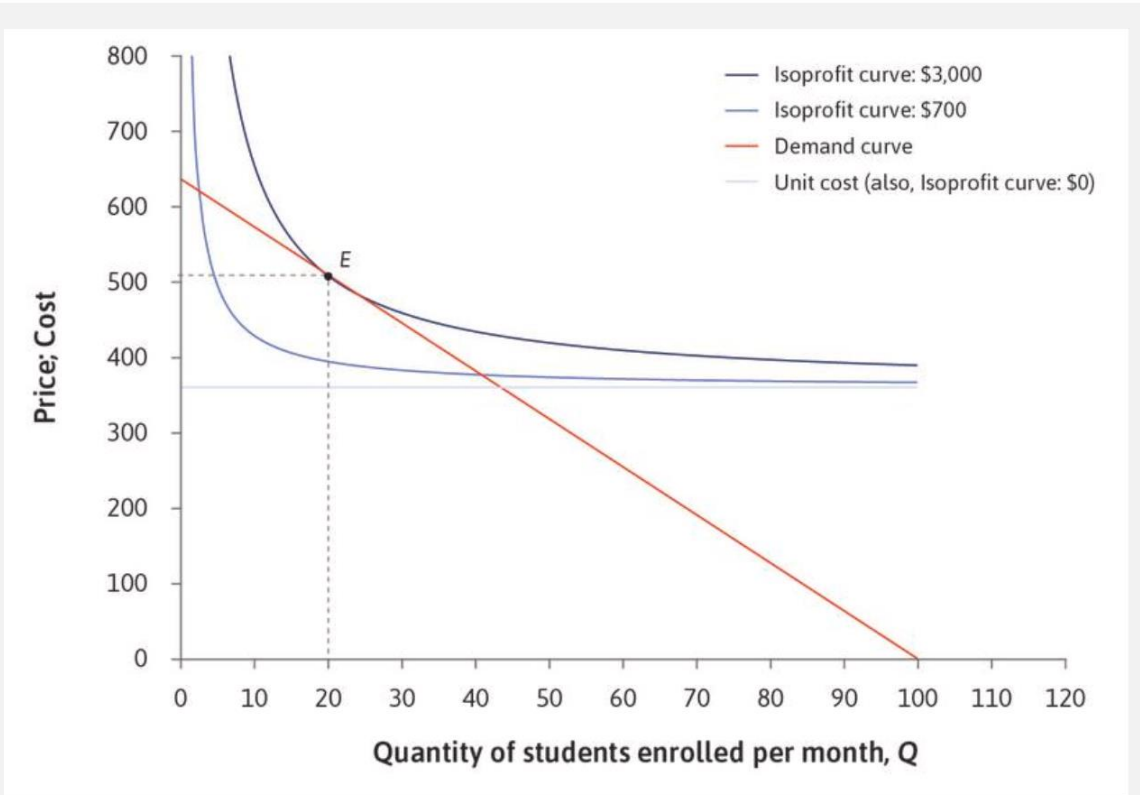
Check my answers

‘Test yourself’ MCQs

# Learn tools that can be applied to different problems in the real world

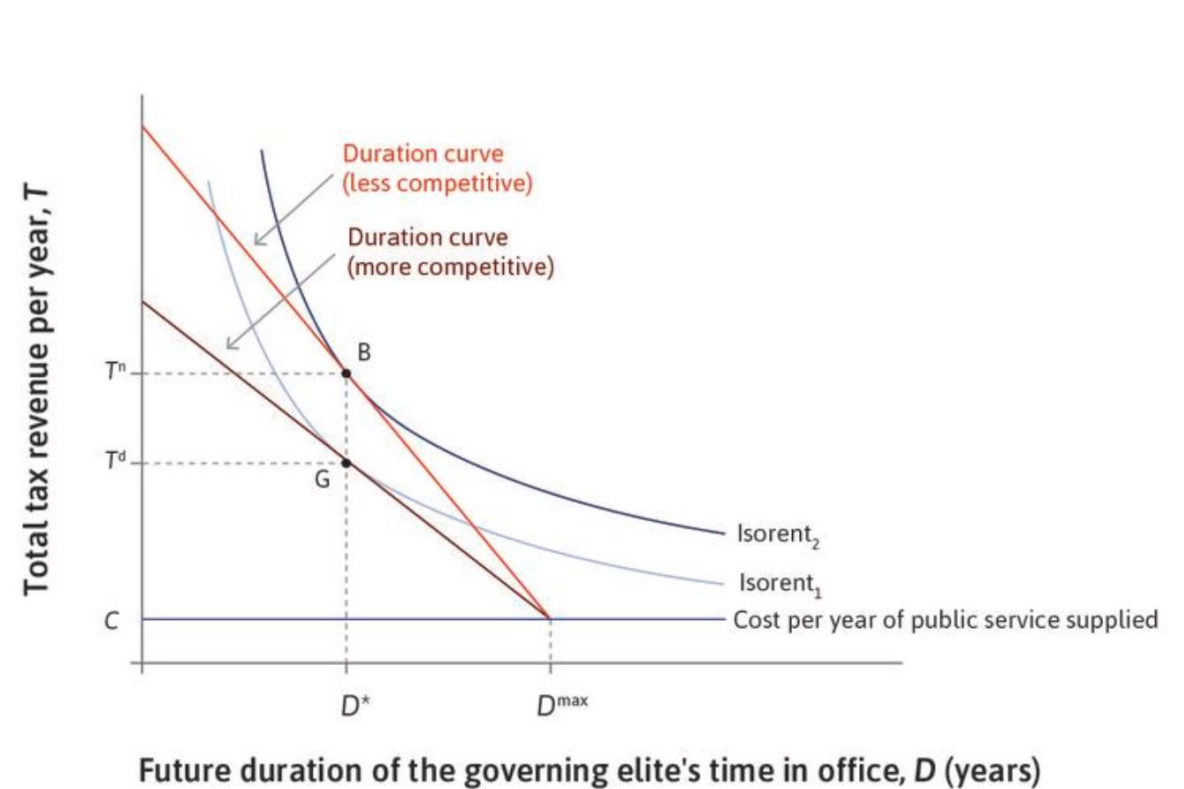
The **profit maximizing firm** sets the price

The **rent-maximizing elite** sets the tax



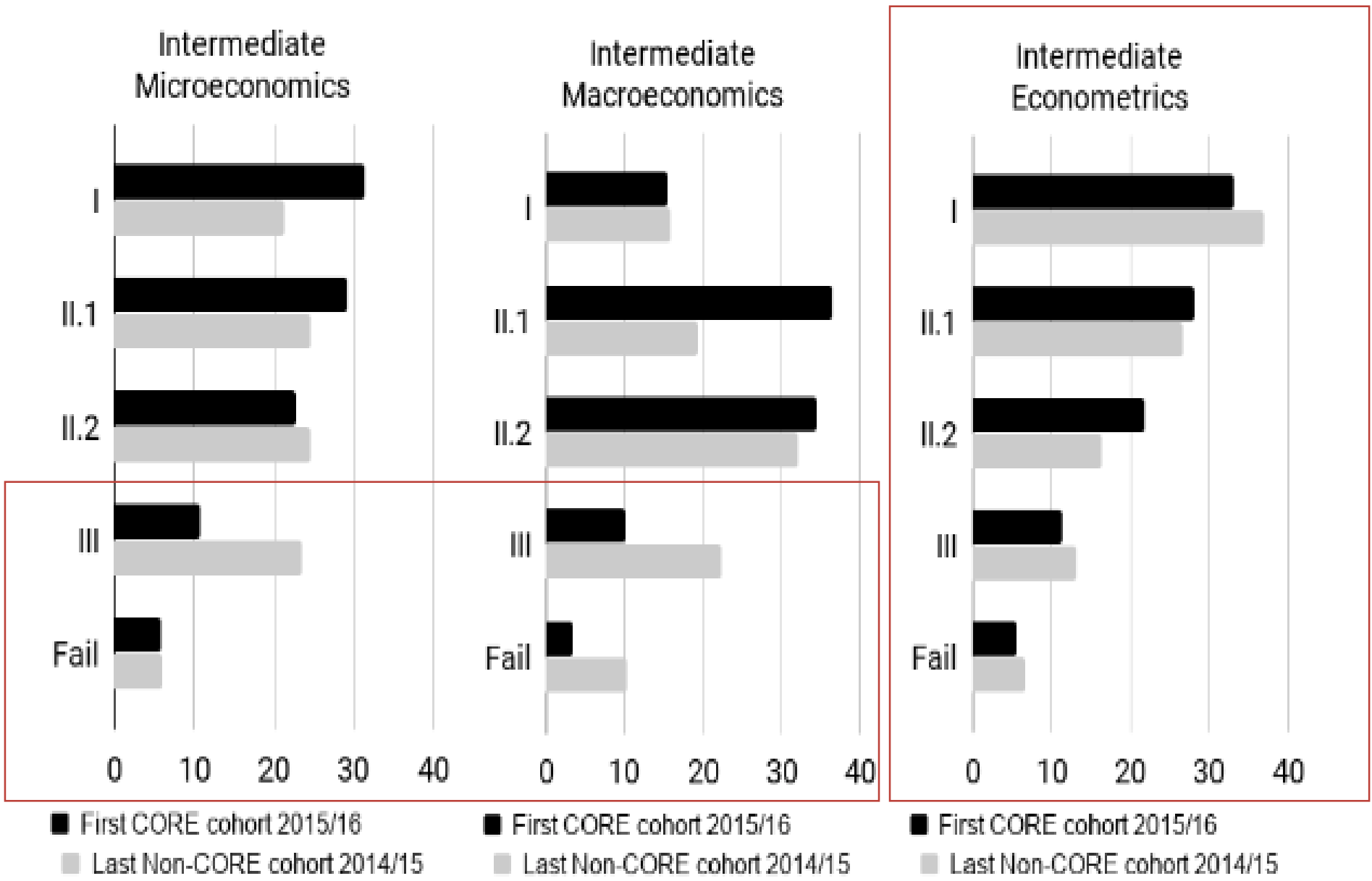
## Maximizing profit at E

The owner reaches the highest possible isoprofit curve while remaining in the feasible set by choosing point E, where the demand curve is tangent to an isoprofit curve. She should choose  $P = \$510$ , selling  $Q = 20$  courses.



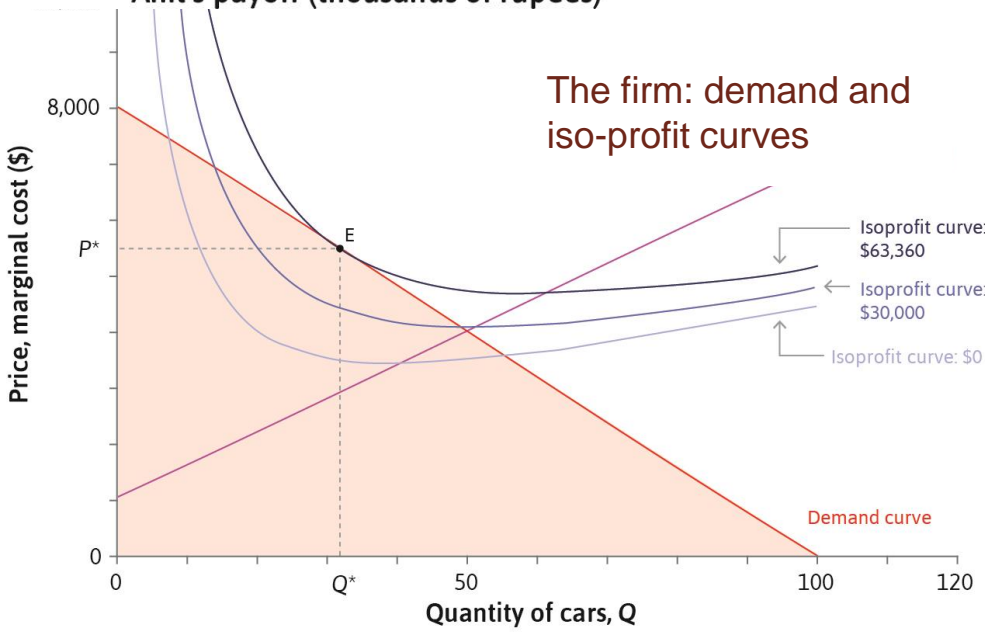
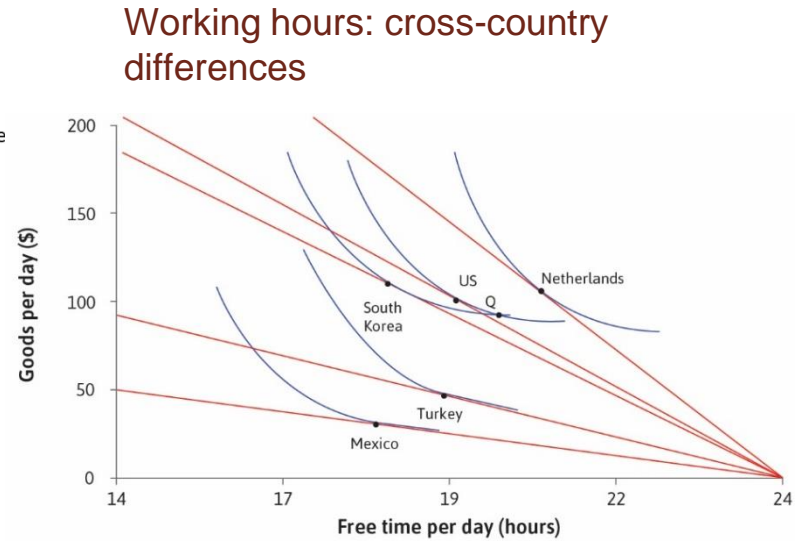
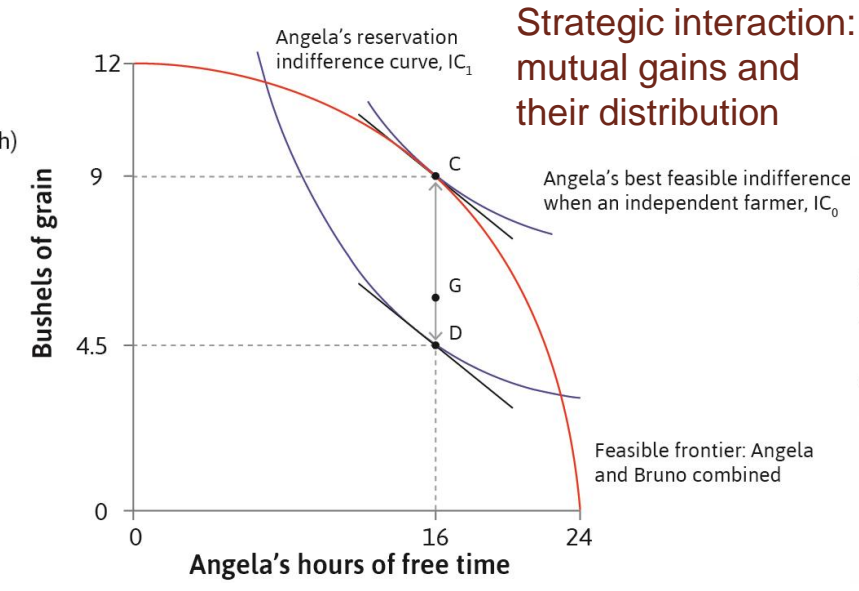
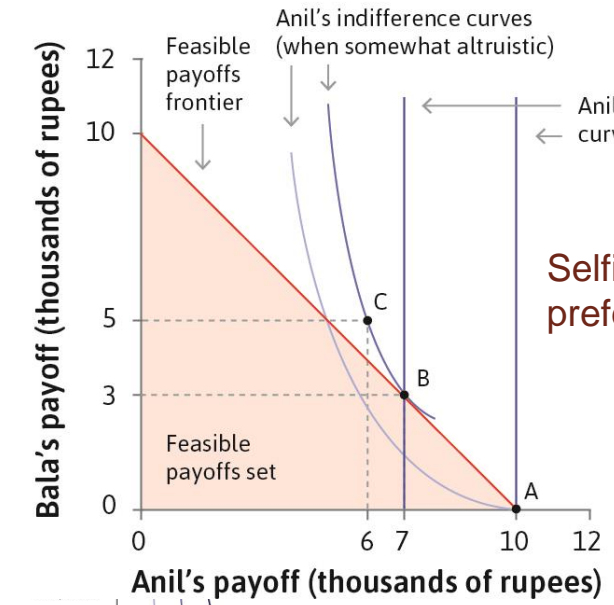
**Figure 22.9** Choice of taxes under less and more competitive conditions.

# Does it work? Student outcomes

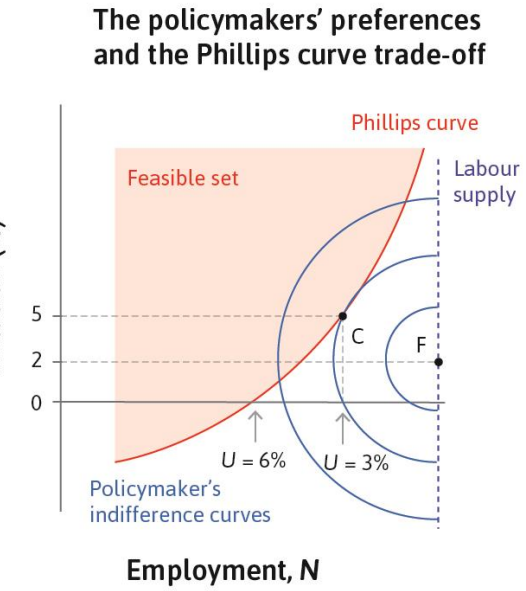
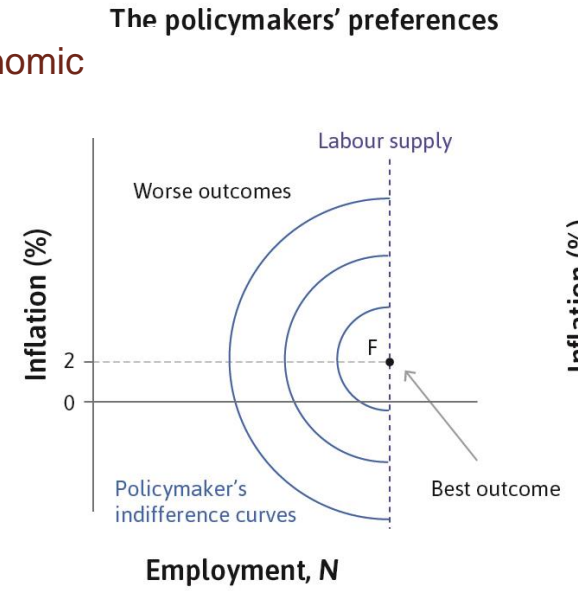


# Why does it work? Teaching the tools of economics – feasible sets and preferences

## – motivated by and applied to real problems in the world



### The macroeconomic policy maker



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5. **New skills – data handling, coding, visualization, interpretation, communication**



## 5. New skills – data handling, coding, visualization, interpretation, communication

Use real data, analyze real problems using spreadsheets and R – no pre-requisites needed



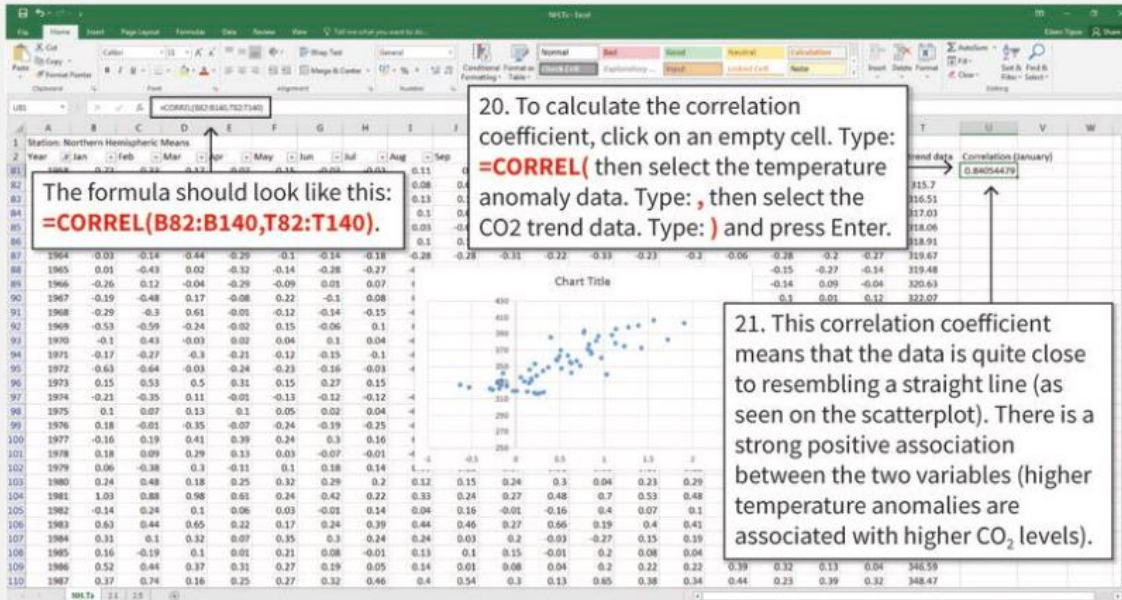
Project	Topic
1	Measuring climate change
2	Collecting and analysing data from experiments
3	Assessing the effect of a sugar tax
4	Measuring wellbeing
5	Measuring economic inequality
6	Measuring management practices
7	Supply and demand
8	Measuring the non-monetary cost of unemployment
9	Credit-excluded households in a developing country
10	Characteristics of banking systems around the world
11	Measuring the WTP for climate change abatement
12	Government policies and popularity

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# Key feature #2: Interactive learning

## Doing Economics: Walk-throughs

How to calculate correlation and draw a scatterplot



### Calculate and interpret the correlation coefficient

The correlation coefficient tells us how close the data is to resembling a straight line on a scatterplot. The correlation coefficient ranges from  $-1$  to  $1$ . A coefficient of  $1$  or  $-1$  means that the data is a straight line (there is a perfect linear relationship between the two variables), while a coefficient of  $0$  means that the data do not resemble a straight

## EXCEL WALK-THROUGH 1.3

### Creating a frequency table

Follow the walk-through in the [CORE](#) video, or in Figure 1.6, to find out how to make a frequency table in Excel.

core econ How to make a frequency table

Watch later Share

Excel walk-through  
How to make a frequency table



**Figure 6.8** Box and whisker plots for a selection of countries.

# Facing the Challenges of the 21<sup>st</sup> Century – the future for economics (and business) education

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Symposium  
Challenges in University Education in the  
Fields of Economics and Business  
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