World Economy

Administrative information

- Libor Žídek
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- Office hours – Tuesday 13:00 – 14:30
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- IS: interactive syllabus

Administrative information

- **literature**: Dějiny světového hospodářství
  - graphs and tables
- **supplementary literature**: in IS by themes
- **lectures**
  - don´t be afraid and ask questions
  - but, PLEASE, keep calm
  - play with any screen is impolite and for me highly unpleasant!
- **ROPOTS in IS**!
  - obligatory for everyone on a weekly basis
  - **absence**
    - ONE possible during the semester
    - excused only in the case of written excuse in IS

Final exam

- **written** –both textbook and lectures are required
- **macroeconomics** included
- X to pass your exams as soon as possible -> my interest
- ⇨ **continuous learning is recommended**

List of abbreviations

- b/c = because
- EP = economic policy
- BofP = balance of payments
- FT = foreign trade
- U = unemployment
- Π = inflation
- LF = labour force
- G = government expenditures
- T = taxes
- LR = long run
- SR = short run
- WW = World War
- CPE = centrally planned economy
- WE = world economy
- DC = developing countries
- EEC = European Economic Community

Subject matter

- **Goal:** to get know the basics of development and current situation of the WE
  - information
  - connections
  - effect of policy on the WE
- **After the course** – you would:
  - be familiar with basic connections of the development of the WE since 1800
  - better understand the current international situation
  - be able to connect the current development with its historical causes

What is WE?

- **Definition (e.g.):**
  - WE as scientific discipline – subject of its study is the real global socio-economic system
  - WE is the single social organism in which national economies are integrated at varying degrees through international division of labour and material elements of economic relations.
- **We will consider** within the WE
  - a global economy (at worldwide level) – its development as well as the development of individual economies, relations among them, relations among supranational blocs and relations to international organizations.

Course content

- **Lectures No.1-6** – chronological development of WE from the beginning of 19th century to 1990
- **Lecture No. 7** – development of the International Monetary System
- **Lectures No. 8-9** – development in 3 key economic centers (USA, Europe, Japan) after WW2
- **Lectures No. 10-12** – DC, Russia and CPR, Czechoslovakia and international institutions
- **Lecture No. 13** – current situation in the WE

Content of this lecture

A. Short revision of basics of macroeconomics

B. Global trends

Short revision of basics of macroeconomics

A. Macro

- GDP
  - GDP real X nominal
  - shortcomings of GDP
  - econ. growth X econ. development
- ⇨e.g. Human Development Index - HDI
  - since 1990 by UNDP
  - GDP per capita, literacy and life expectancy
  - actual data on WWW.UNDP.ORG (H)
- potencial product
- economic cycle

Ranking HDI and GDP p.c. in 2013

Ranking HDI vs GDP

Top 15 Countries measured by HDI:

Ranking HDI	Ranking GDP per capita 2013 (2011 PPP$)	Country
1	6	Norway
2	15	Australia
3	8	Switzerland
4	14	Netherlands
5	9	United States
6	16	Germany
7	29	New Zealand
8	20	Canada
9	4	Singapore
10	18	Denmark
11	13	Ireland
12	17	Sweden
13	22	Iceland
14	27	United Kingdom
15	11	Hong Kong, China (SAR)

Bottom 15 Countries measured by HDI:

Ranking HDI	Ranking GDP per capita 2013 (2011 PPP$)	Country
163	167	Ethiopia
164	175	Malawi
165	174	Liberia
166	156	Mali
167	170	Guinea-Bissau
168	171	Mozambique
169	168	Guinea
170	176	Burundi
171	160	Burkina Faso
172	169	Eritrea
173	157	Sierra Leone
174	149	Chad
175	172	Central African Republic
176	177	Congo (Democratic Republic of the)
177	173	Niger

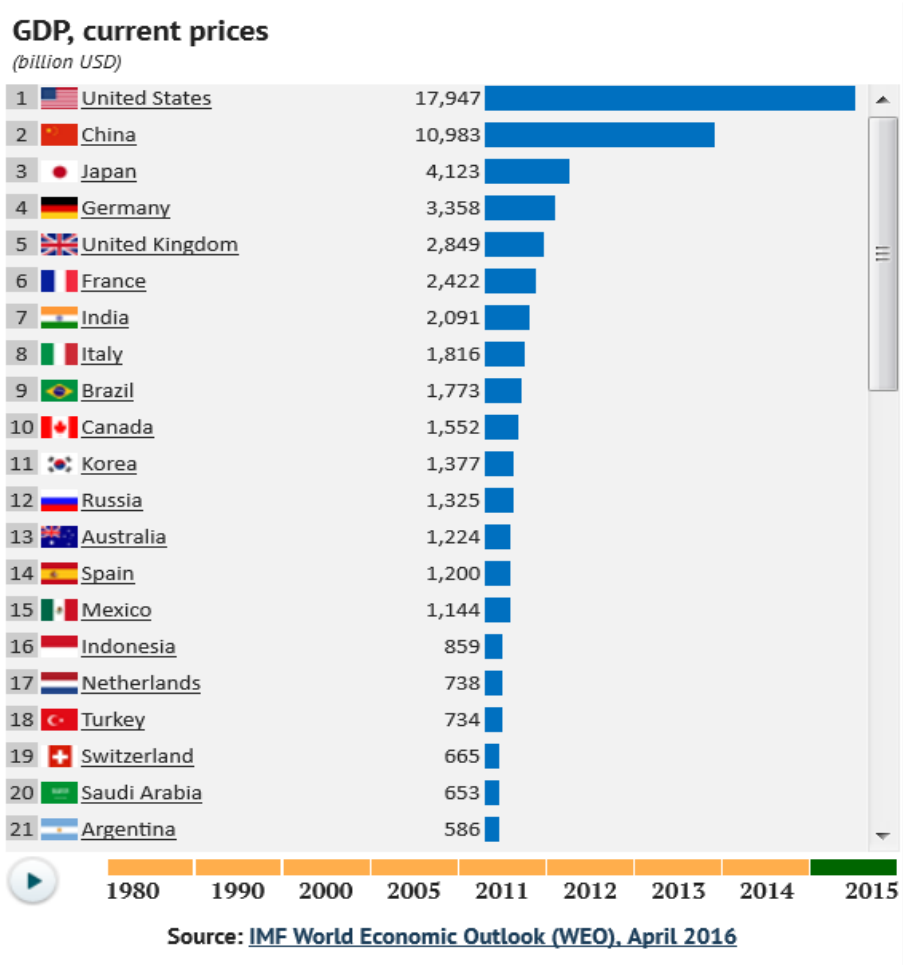
Macro

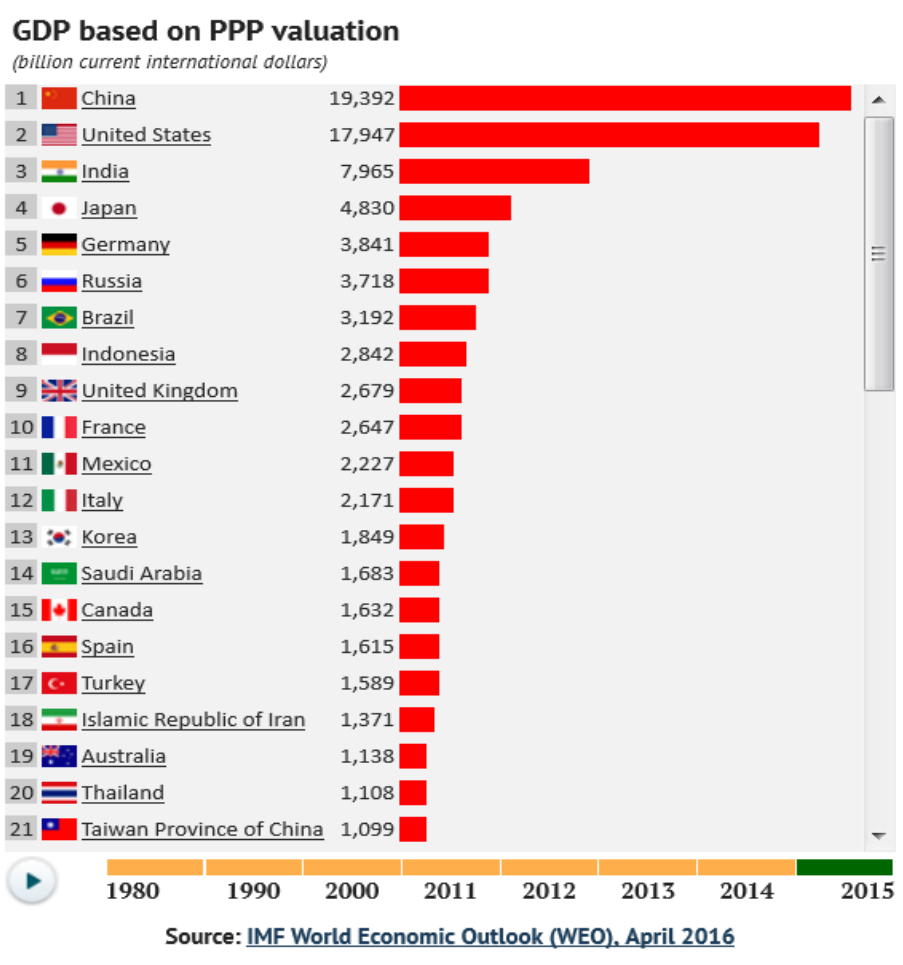
- economic growth: intensive x extensive
- classical recession x slumpflation
- economic strength x economic standards
  - purchasing power parity(PPP)

Macroeconomic results of CEFTA countries during 1994 - 96

	Year		Czech	Hungary	Poland	Slovakia	Slovenia
GDP	1994	mld. $	36,99	39,43	86,33	14,10	14,59
	1995	mld. $	47,04	39,39	115,88	17,51	17,45
	1996	mld. $	52,11	40,16	127,20	18,32	18,80
	1997*	mld. $	59	42	138	20	20
Economic growth	1994	s.c.	2,6	2,9	5,2	4,9	4,9
	1995	s.c.	4,8	1,5	7	7,4	3,5
	1996	s.c.	4,1	0,5	6	6,4	2,6
GDP per person	1995	current $	4 560,7	3 872,2	3 001,4	3 270,7	8 768,8
	1996	PPP	10 500	6 723	5 599	7 255	10 700
	1995	Current $	5 051,8	3 945	3 291,1	3 405,2	9 400
	1996	PPP	11 503,2	6 861,3	6 209,4	7 552,7	11 229

GDP in USD billion, c.p. and PPP





Historical development:

- https://knoema.com/nwnfkne/world-gdp-ranking-2015-data-and-charts
- https://knoema.com/nwnfkne/world-gdp-ranking-2015-data-and-charts

Macro – foreign trade

- Absolute and comparative advantages
- Economic openness
  - measured by e.g. EX/GDP*100 or IM/GDP*100
  - negative correlation between the size of economy and the degree of its openness
  - positive correlation between the level of economic development and the degree of openness
- Terms of trade
  - $R_c = I_e / I_i * 100$
    - I_e - index of export prices in time t
    - I_i - index of import prices in the same time

Macro – foreign trade

- balance of payments
- stages of integration
  - free trade area- NAFTA, CEFTA, ESVO
  - customs union– German Customs Union, Benelux, CR + SR
  - common market- EEC after its establishment
  - economic union
  - complete economic integration (monetary union)
- exchange rate regimes (floating, …,fixed)
  - devaluation x depreciation
    - impact on EX, IM, prices…
- sterilizing of capital inflows
- theorem of locomotive

Macro - other

- Gresham´s law
  - Thomas Gresham (1519-79)
  - If there are 2 concurrently circulating currencies „bad money“ will drive out „good one“.
  - in general: money with higher intrinsic value will be retained
- inflation - deflation – desinflation
  - causes and consequencies
- equation of exchange!

Global Trends

B. Global trends

- **tendencies** (changes) during the whole analysed period
  - long-term – institutions, demography, technologies, …
  - short-term – revolutions, crises, …

- **during 1820 - 1990 in the western countries**
  - ⇧ of value of production (goods and services) by 70 times
  - ⇧ of population by 5 times
  - ⇧ of income per capita by 14 times
  - ⇧ of life expectancy by 2 times
  - ⇩ of hours worked during the year by 2 times

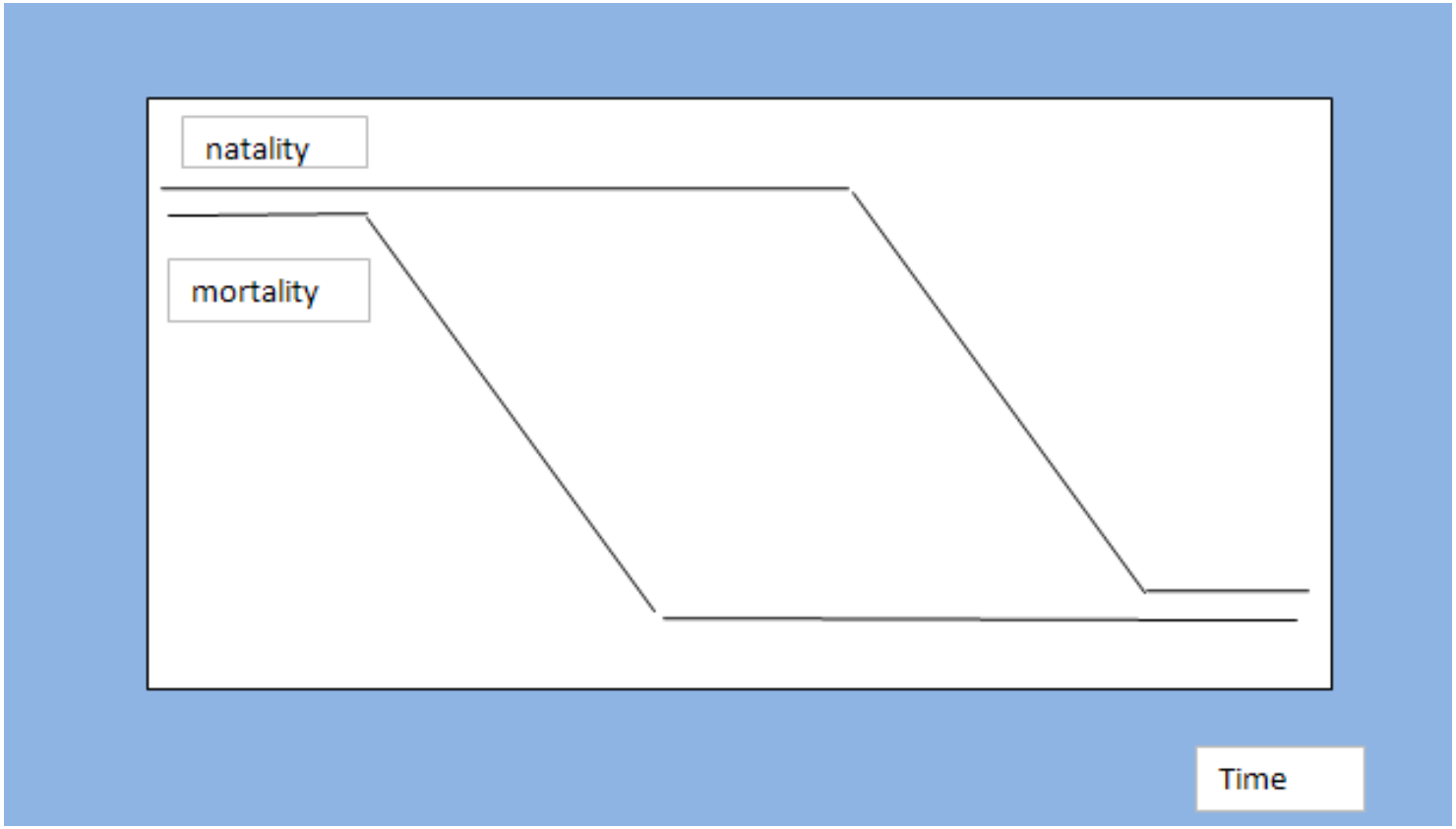
Areas of global changes

1. demographic ch.
2. political ch.
3. institutional ch.
4. technological ch.
5. structural ch.
6. role of state
7. foreign trade
8. economic growth – creation of 3 centers

B1. Demographic development

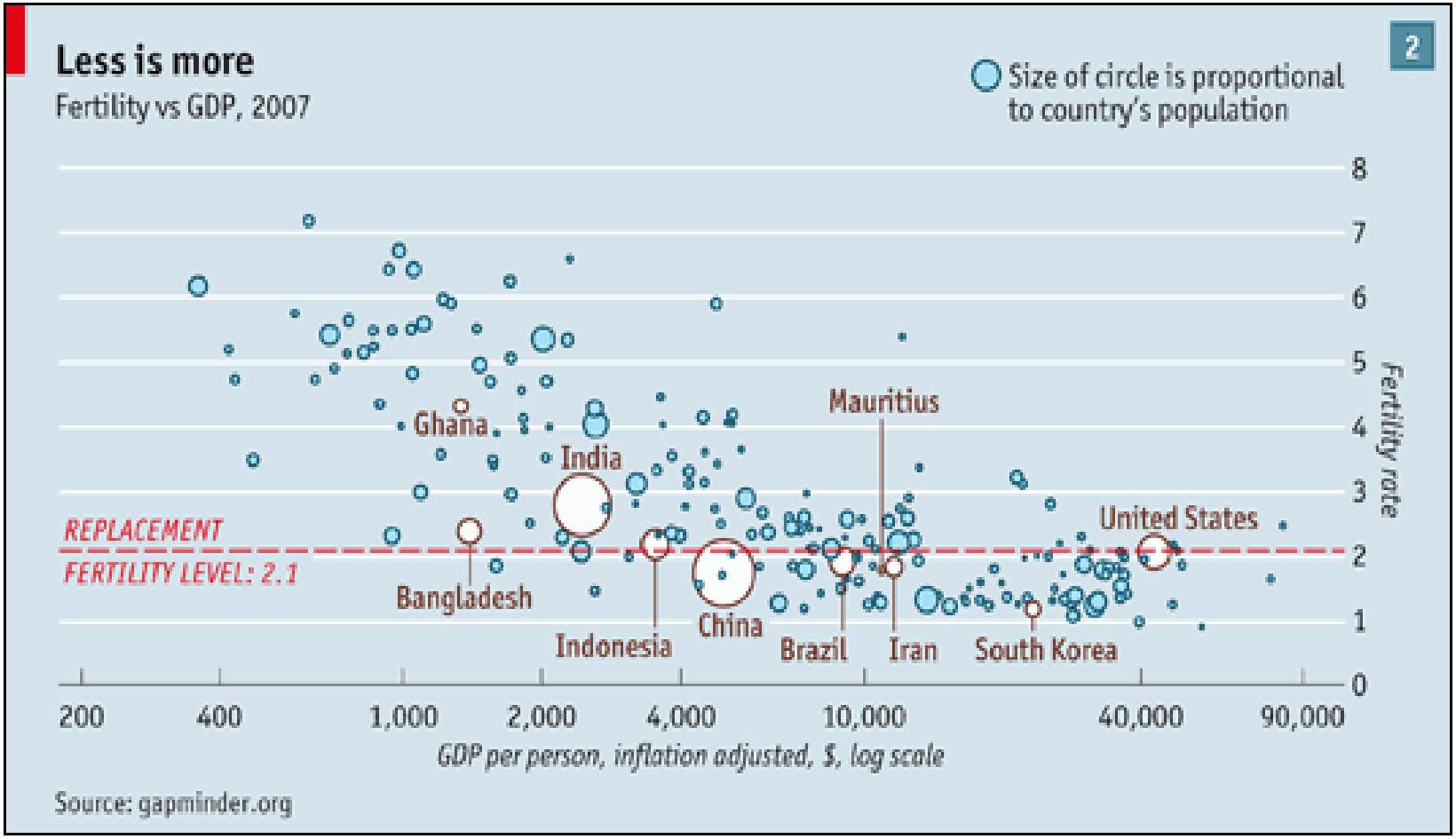
- ⇩ **in death rate** since the Industrial Revolution b/c:
  - advancement in medicine
  - improvement of hygiene and nutrition habits
    - cheaper clothes (cotton, ...) (industr. rev.)
    - taking a bath
    - mass use of soap (indust. rev)
  - better nutrition
- simultaneously there was no ⇩ in birth rate ⇨ ⇧ of population ⇨ **demographic transition (DT)**
  - beginning of the 19th – world population 1 billion of persons
  - length of DT in advanced economies – 100 years
    - DT is currently shorter in developing countries

Demographic transition



- https://www.youtube.com/watch?v=VcSX4ytEfcE

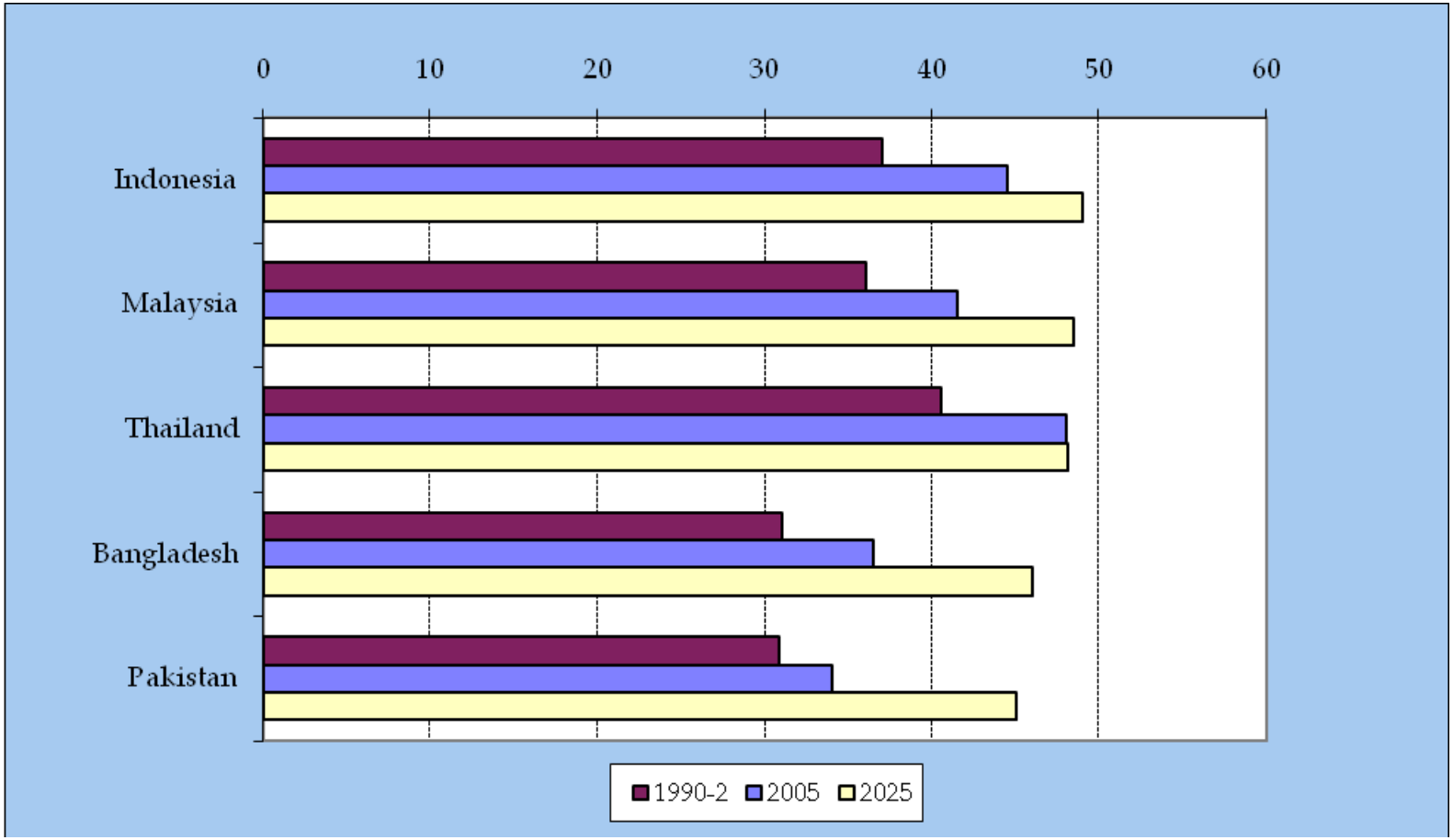
GDP/person and fertility



Life expectancy

- https://www.gapminder.org/tools/bubbles#_state_time_value=1800

Percentage of population aged 25-59, 1990-2025



Demographic development

- demographic characteristics ⇨ countries´ level of development
- relation to economic growth
- economic implications

B2. Political changes

- regional and world **wars**
- from monarchies to democratic systems
  - establishment and collapse of **CPE**
  - establishment and collapse of **colonies**
- ⇧ **of democracies**
  - in1900 only 6 from 43 states with certain form of democracy
  - democratic boom after 1945 – DE, JP, IT + India from DC
  - in 1980 – 37 from 121 states with democratic system - 35% of world population
  - in 1998 – 117 from 193 states with democratic system - 54% of world population

Political changes

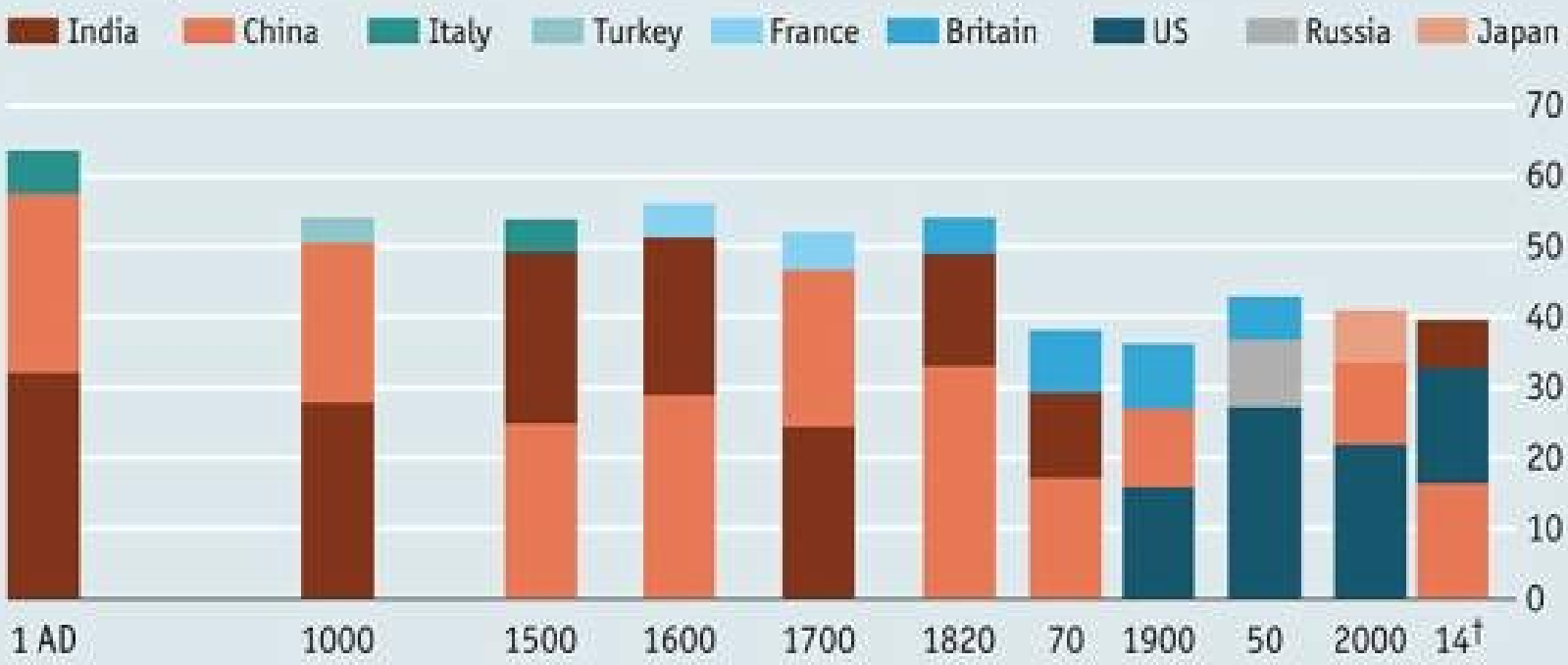
- **changes in the position of superpower**
  - Netherlands -> GB -> USA

- **future development**
  - theory of Fukuyama
  - theory of Huntington

Time is money

World's biggest three economies, GDP at PPP* as % of world total

Historical output within the boundaries of modern countries



Sources: Angus Maddison; IMF; *The Economist*

*Purchasing-power parity †Forecast

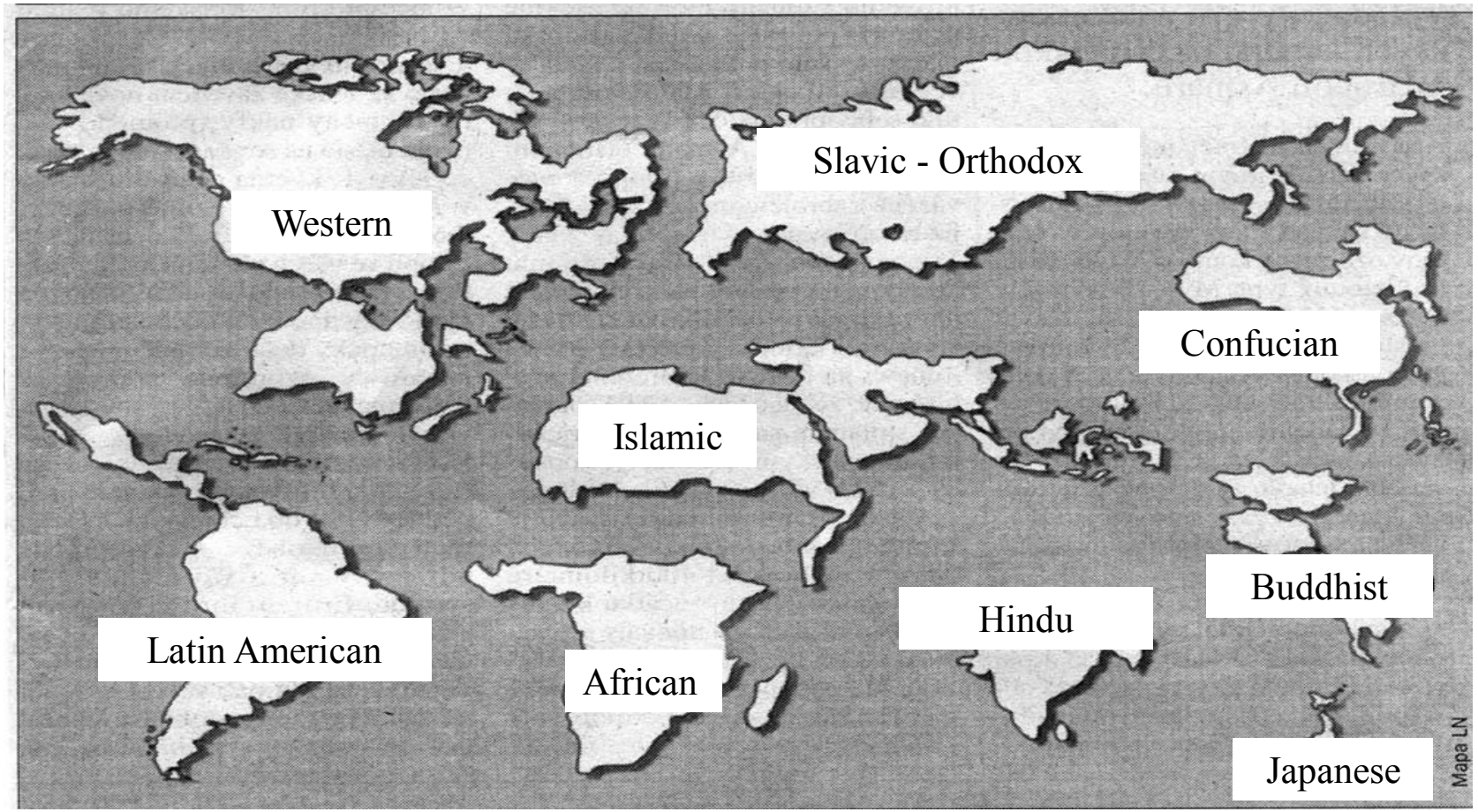
Fukuyama

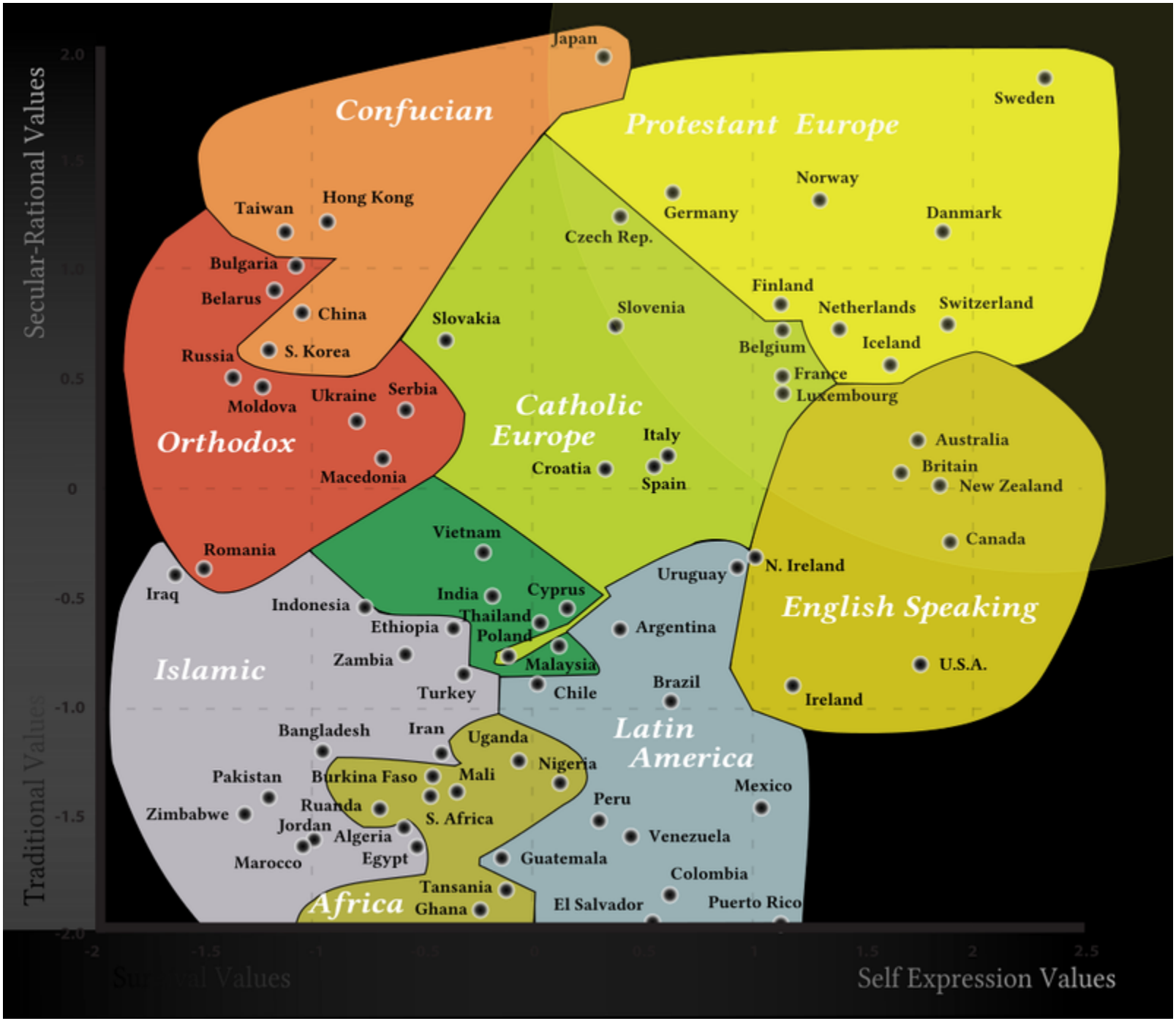
- **essay**: The End of History
- 1989
- **basic thesis** : the world is heading for democracy and liberal principles

Huntington

- **The Clash of Civilizations**- 1993 (The Clash of Civilizations and the Remaking of World Order)
- national and cultural groups = **civilizations**
  - 8 major civilizations: Western, Confucian, Japanese, Islamic, Hindu, Slavic – Orthodox, Latin American, +African and Buddhist (added later)
  - Geographic borders among them = bloody borders
- **fundamental differences among civilizations**
  - history, language, culture, traditions and primarily religion
  - conflicts also inside the civilizations, but less likely and intensive

Civilizations according to Huntington

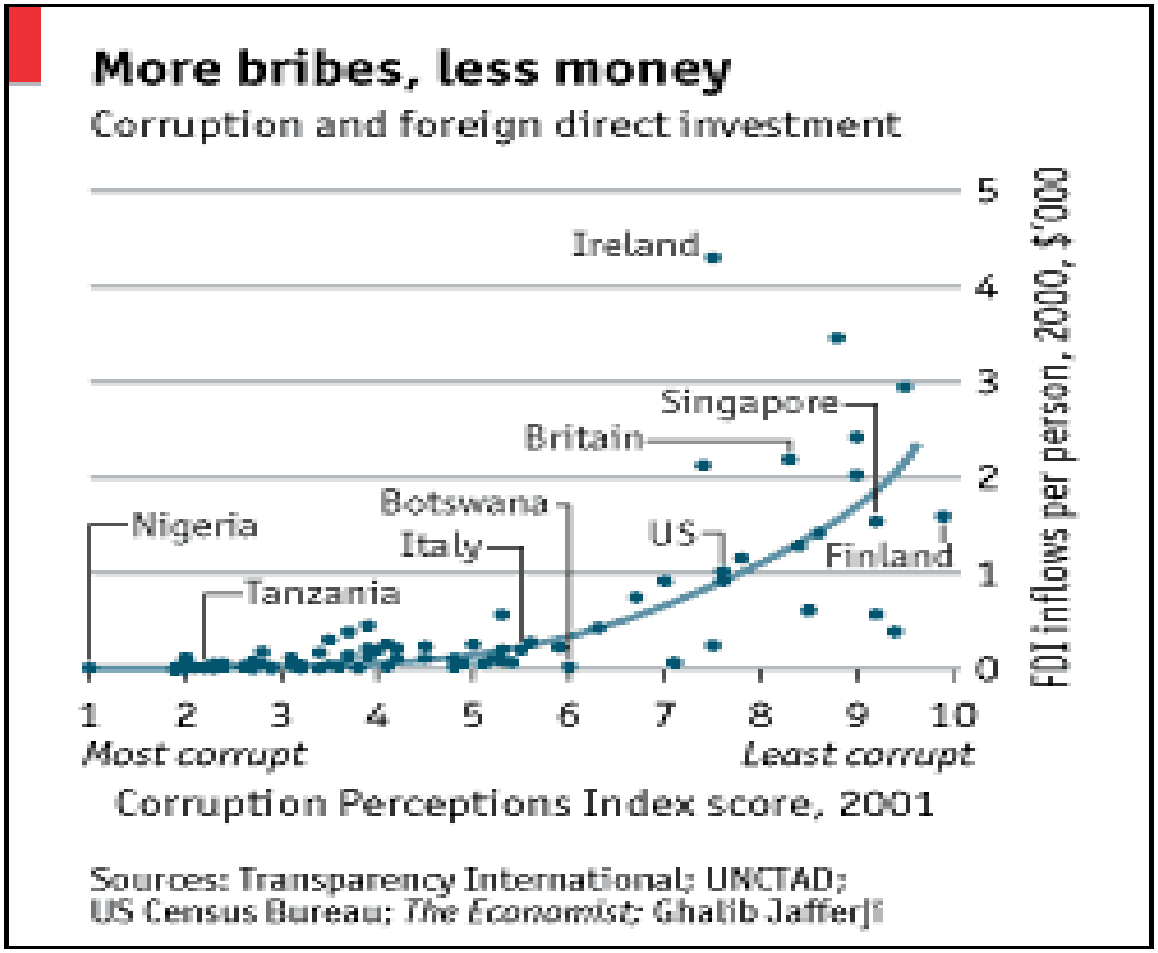



Secular-Rational Values
Traditional Values
Survival Values
Self Expression Values
2.0
1.5
1.0
0.5
0
-0.5
-1.0
-1.5
-2.0
-2
-1.5
-1
-0.5
0
0.5
1
1.5
2
2.5
Confucian
Protestant Europe
Catholic Europe
Orthodox
English Speaking
Islamic
Latin America
Africa
Japan
Sweden
Norway
Germany
Danmark
Czech Rep.
Taiwan
Hong Kong
Bulgaria
Belarus
China
Russia
S. Korea
Moldova
Ukraine
Serbia
Macedonia
Slovakia
Slovenia
Finland
Netherlands
Switzerland
Belgium
Iceland
France
Luxembourg
Italy
Croatia
Spain
Australia
Britain
New Zealand
Canada
N. Ireland
Ireland
U.S.A.
Uruguay
Argentina
Brazil
Chile
Mexico
Peru
Venezuela
Colombia
Guatemala
El Salvador
Puerto Rico
Vietnam
Romania
Iraq
India
Cyprus
Indonesia
Thailand
Ethiopia
Poland
Malaysia
Zambia
Turkey
Bangladesh
Iran
Uganda
Nigeria
Pakistan
Burkina Faso
Mali
Zimbabwe
Ruanda
S. Africa
Jordan
Algeria
Egypt
Marocco
Tansania
Ghana

B3. Institutional changes

- institutions
  - organizations (e.g. WTO)
  - broadly understood as „rules“ (e.g. property rights protection)
    - Determinant of LR growth
- pros
  - development of financial institutions
  - corporate culture
  - accounting systems
- cons
  - infestation of law – e.g. complexity of tax law (unmanageable for ordinary people)

Corruption and FDI



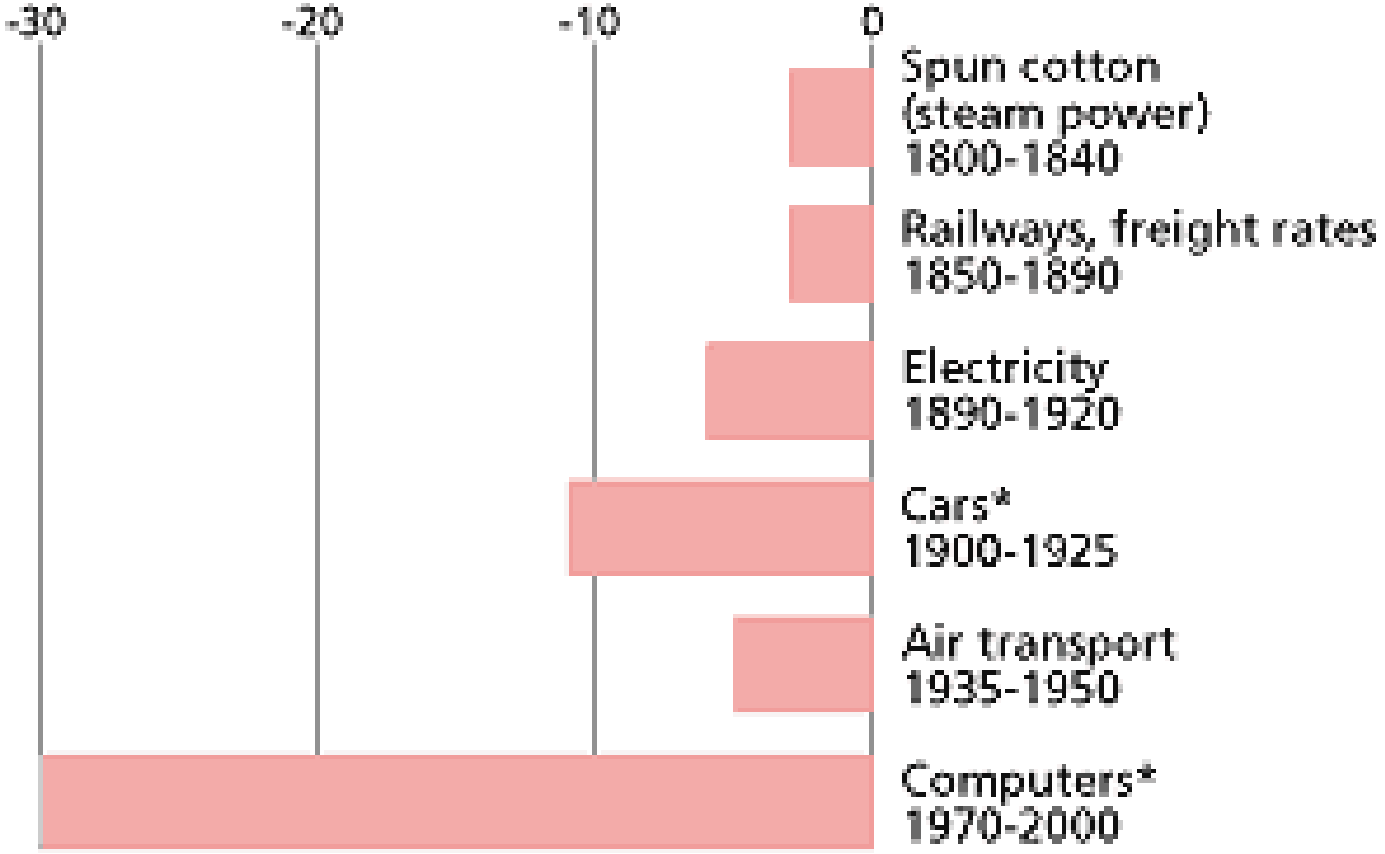
B4. Technological changes

- huge increase in technology
  - closely related to economic growth
- changes in few waves
  - steam engine
  - electrical power
  - computers and biotechnology (e.g. Gmail)
- changes in power sources and transportation
- + increase in human capital
  - constant growth in education

The price of change

3

Decline in real prices during technological revolutions, annual average %



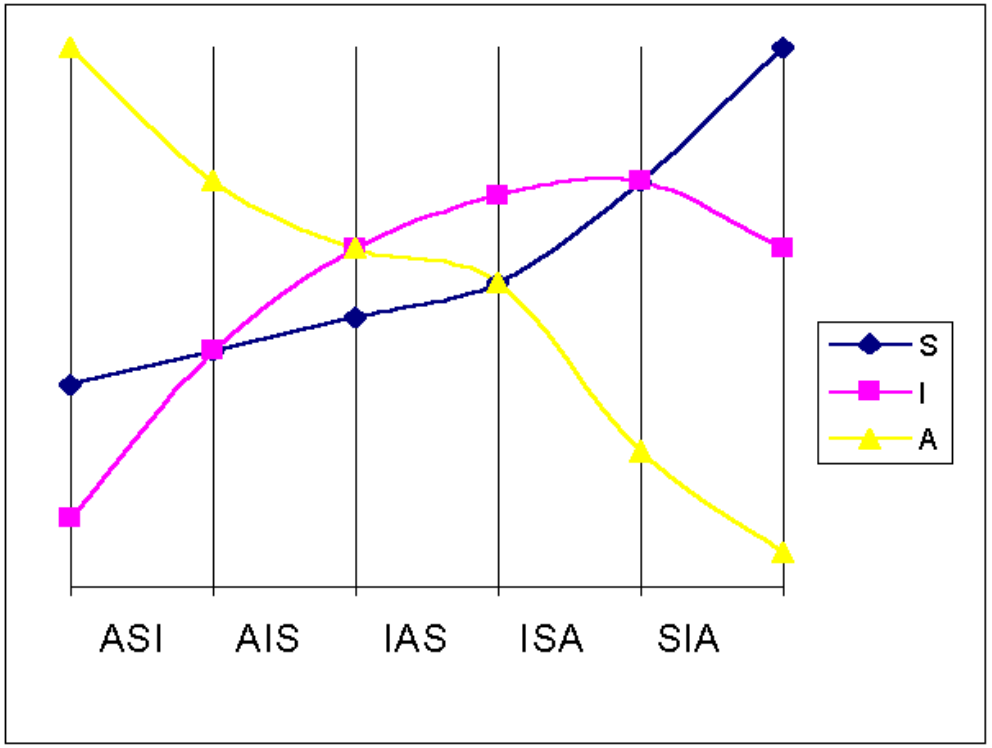
Sources: Jeremy Greenwood, University of Rochester; Daniel Sichel, Federal Reserve Board; Daniel Raff and Manuel Trajtenberg

*Adjusted for quality improvements

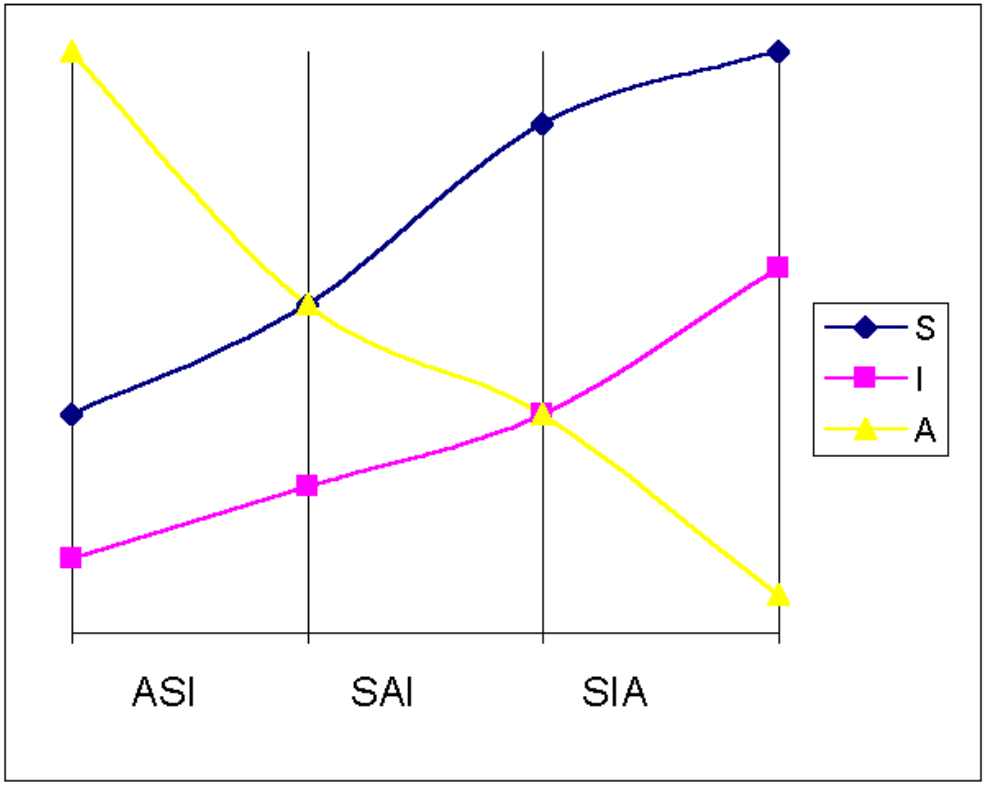
B5. Structural changes

- **division of economy**:
  - agriculture (A), industry (I), services (S)
- ASI traditional structure ⇨ SIA modern structure
- **the ways of change from ASI to SIA**
  - standard way– UK, France, Germany
  - structural shortcut - USA, Japan, Canada

Standard way of structural development



Structural shortcut



Structural changes

- structure indicates the level of development
  - SIA insufficient sign of developed economy
  - small share of agriculture – with exceptions:
    - Chile
      - economic growth accompanied by small increase in share of agriculture

- differences even among developed countries
  - share of I

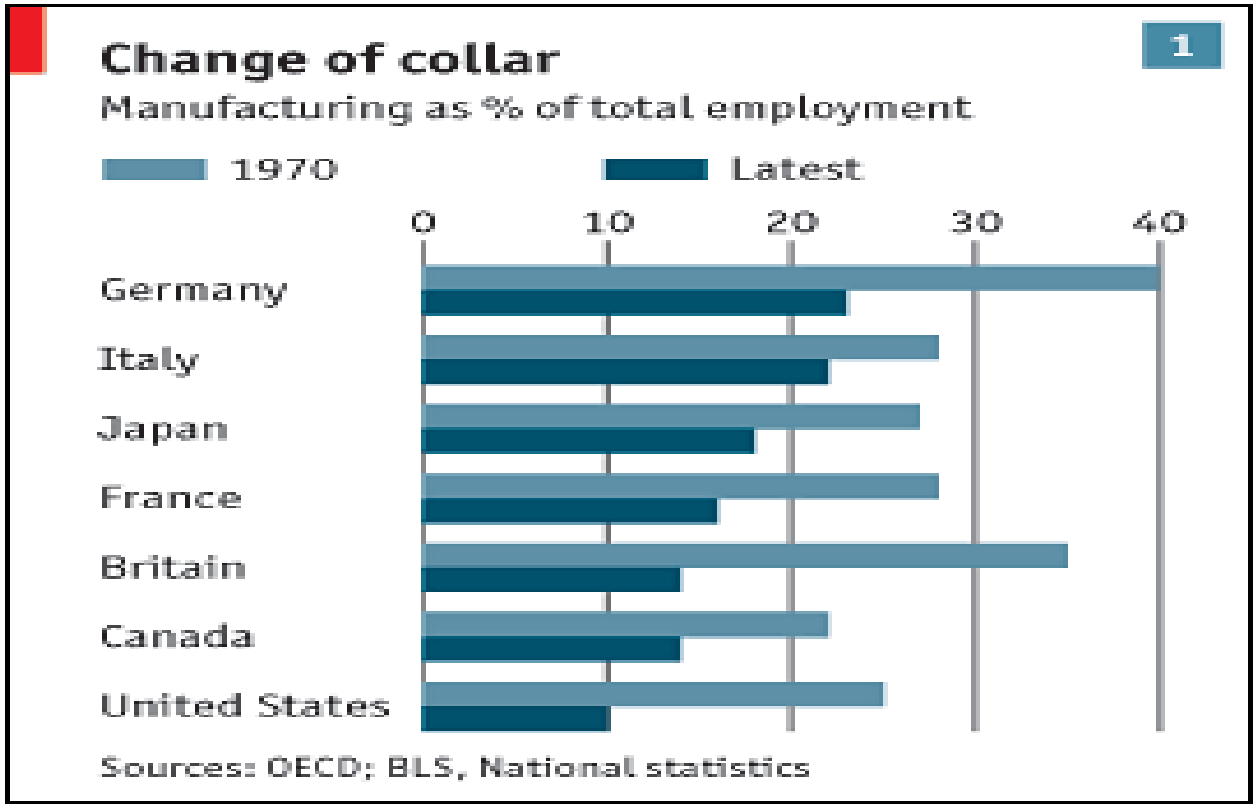
Birth and death rates in selected countries (per thousand inhabitants)

Country	1900 – 1910		1950		1987	
	birth rate	death rate	birth rate	death rate	birth rate	death rate
Austria (A-H Empire)	34,7	23,3	15,6	12,4	11,4	11,2
England and Wales	27,2	15,4	15,8	11,7	13,6	11,3
France	20,6	19,4	20,7	12,8	13,8	9,5
Japan	32,2	20,7	28,2	10,9	11	6,2
Sweden	24,8	14,9	16,4	13,7	12,5	11,1
USA	24,3	15,7	23,5	9,6	15,6	8,7

Share of agriculture in overall employment (in %)

Country	1870	1960	1990
Denmark	48	18,2	5,6
Finland	71	35,2	8,4
Italy	61	32,6	9
Germany	47	14	3,4
Portugal	65	43,9	17,8
Austria	65	22,6	7,9
Switzerland	61	14,5	5,6
Turkey	-	75,9	47,8
UK	15	4,7	2,1
USA	-	8,5	7,5
OECD Total	-	21,6	7,5

Manufacturing as % of total employment



B6. The role of state

- the role of state in economy is **constantly growing**
- **reasons**:
  - political
  - economical
    - fiscal policies asymmetry
- **Wagner‘s law**
- **unsuccessful attempts to break the trend**
  - Reaganomics or Thatcherism
- **negative relationship** to economic growth

Total government expenditures as percentage of GDP, 1870-2009

	1870	1913	1920	1937	1960	1980	1990	2000	2005	2009
Austria	10,5	17,0	14,7	20,6	35,7	48,1	38,6	52,1	50,2	52,3
Belgium	*no*	13,8	22,1	21,8	30,3	58,6	54,8	49,1	52,0	54,0
Bntain	9,4	12,7	26,2	30,0	32,2	43,0	39,9	36,6	40,6	47,2
Canada	*no*	*no*	16,7	25,0	28,6	38,8	46,0	40,6	39,2	43,8
France	12,6	17,0	27,6	29,0	34,6	46,1	49,8	51,6	53,4	56,0
Germany	10,0	14,8	25,0	34,1	32,4	47,9	45,1	45,1	46,8	47,6
Italy	13,7	17,1	30,1	31,1	30,3	42,1	53,4	46,2	48,2	51,9
Japan	8,8	8,3	14,8	25,4	17,5	32,0	31,3	37,3	34,2	39,7
Netherlands	9,1	9,0	13,5	19,0	33,7	55,8	54,1	44,2	44,8	50,0
Spain	na	11,0	8,3	13,2	18,8	32,2	42,0	39,1	38,4	45,8
Sweden	5,7	10,4	10,9	16,5	31,0	60,1	59,1	52,7	51,8	52,7
Switzerland	16,5	14,0	17,0	24,1	17,2	32,8	33,5	33,7	37,3	36,7
United States	7,3	7,5	12,1	19,7	27,0	31,4	33,3	32,8	36,1	42,2
Average	10,4	12,7	18,4	23,8	28,4	43,8	44,7	43,2	44,1	47,7

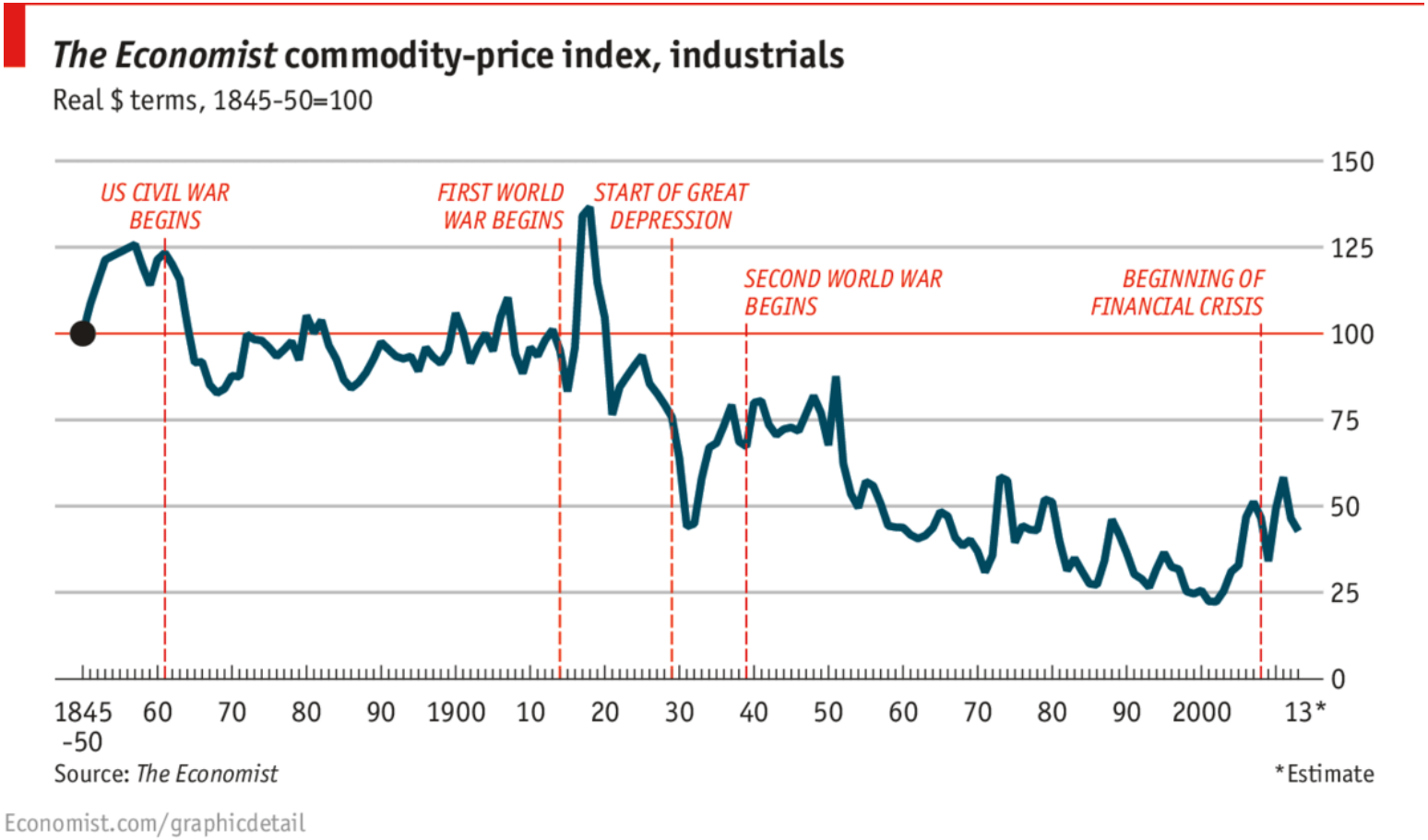
B7. Foreign trade

- **permanent growth of foreign trade**
  - exceptions:
    - WWs or the Great Depression
  - after WW2 unprecedented growth
- **globalization?**
- **economic growth** of countries involved in foreign trade X CPE (autarky)
  - bigger markets
  - specialization
  - labor division
- **commodity structure**
- increase of **capital flows**
- specific **migration**

Commodity share in international trade, 1937-1987

	Primary production			Products	Total
	Food products	Raw materials	total		
1937	23	40	63	37	100
1950	23	34	57	43	100
1960	20	25	45	55	100
1973	15	23	38	62	100
1979	12	29	41	59	100
1987	10	18	28	72	100
2005*	8,6	17,6	26,2	73,8	100

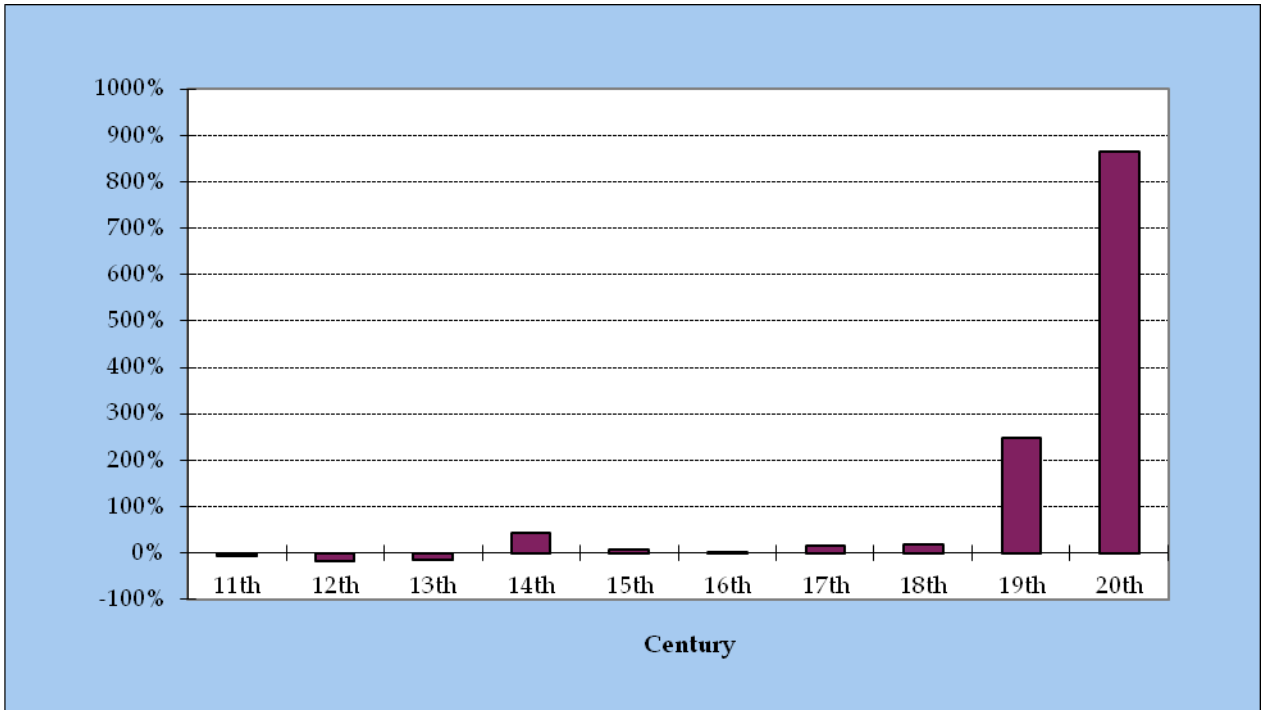
The Economist industrial commodity-price index – since 1845



B8. Economic growth

- **long-term economic growth**
  - differences: before 1800 strong tendency to take chance of capital for new technologies (promise of higher profits) X before („prior to capitalistic period“) defensive strategies
  - determinants of econ. growth – foreign trade, investments, institutions (!) and other changes in he WE

World GDP per capita growth



The End

Thank you for attention!