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FOREIGN EXCHANGE & GROWTH POLICY

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FOREIGN EXCHANGE POLICY

VI.

Content

- Foreign-Exchange Policy
  - History of monetary system
  - Convertibility and Exchange-rate regimes
  - Theory of optimum currency areas
  - Balance of payments
- Growth Policies
  - Measuring growth
  - Stylized facts about growth
  - Growth enhancing policies

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Monetary policy x exchange-rate policy

— **MP**= **internal** value of currency (the purchasing power of money in terms of goods and services produced **locally**)

— **E-RP** = **external** value of currency (the purchasing power of money in terms of goods and services produced **abroad**)

+ Exchange rate is an **important transmission channel**

➡ There cannot be a long-term divergence between the internal and external purchasing power of a currency

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Brief history of the international monetary system

— System of Gold Standard was extended to all major economies in the 1880s and lasted until WWI: value of national currency was determined by a given gold weight

Fixed exchange rates between national currencies

→

Pound sterling developer as an International currency parallel to gold (reserves of Bank of England did not cover the whole currency issue)

—

Brief history of the international monetary system

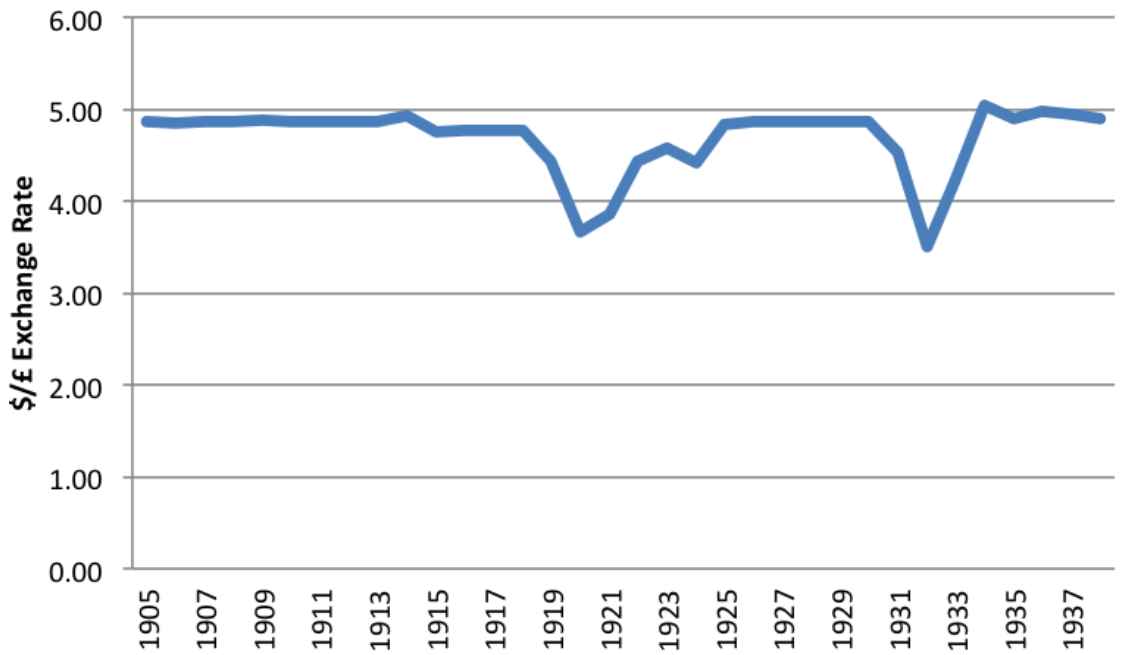
— 1920 – 1924 – Exchange rates between major currencies were left to market forces

— Gold Standard was temporarily restored in the end of 1920s but finally abandoned during 1930s as the countries turned to protectionist measures and *competitive devaluations in response to the Great Depression*.

Golda standard – Exchange rate

- $ = 23.22 grains of pure gold
- £ = 113 grains of pure gold

→ $4.8665 per pound sterling



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Brief history of the international monetary system

- After WWII Bretton Woods Conference: **Gold Exchange Standard**
  - all currencies were convertible to US dollar which were convertible into gold at a fixed rate of $35 per ounce
  - IMF – monitors world payments and helps countries that experience temporary balance-of-payments difficulties to avoid a crisis.
- Contradiction between the need to supply a rapidly growing world economy with enough liquidity and the need to maintain confidence in the dollar, which implied keeping its issuance in line with the gold reserves.
- This system broke down in 1972.

Brief history of the international monetary system

- 1972: European countries: „**European Snake**“ (sets the fluctuation margins between European currencies and between these currencies and the US dollar)

- 1979: **European Monetary System** (EMS)
  - all cross exchange rates had to fluctuate within margins of +/- 2.25 % (in some cases +/- 6 %) around a central rate

- 1993: **Maastricht Treaty**
  - Economic and Monetary Union

- 1999: **European monetary union** was initiated

- US dollar is still core currency for international monetary system.

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Currency convertibility and exchange rate regimes

- When the domestic currency is at least partially convertible, its price can either be set freely by the **market** or managed by the **government** and the **central bank**.

Governments need to make two crucial decisions:

—on the conditions for exchanging the domestic currency for foreign currencies

=> *currency convertibility*

—on the extent of exchange rate flexibility => *exchange rate regime*

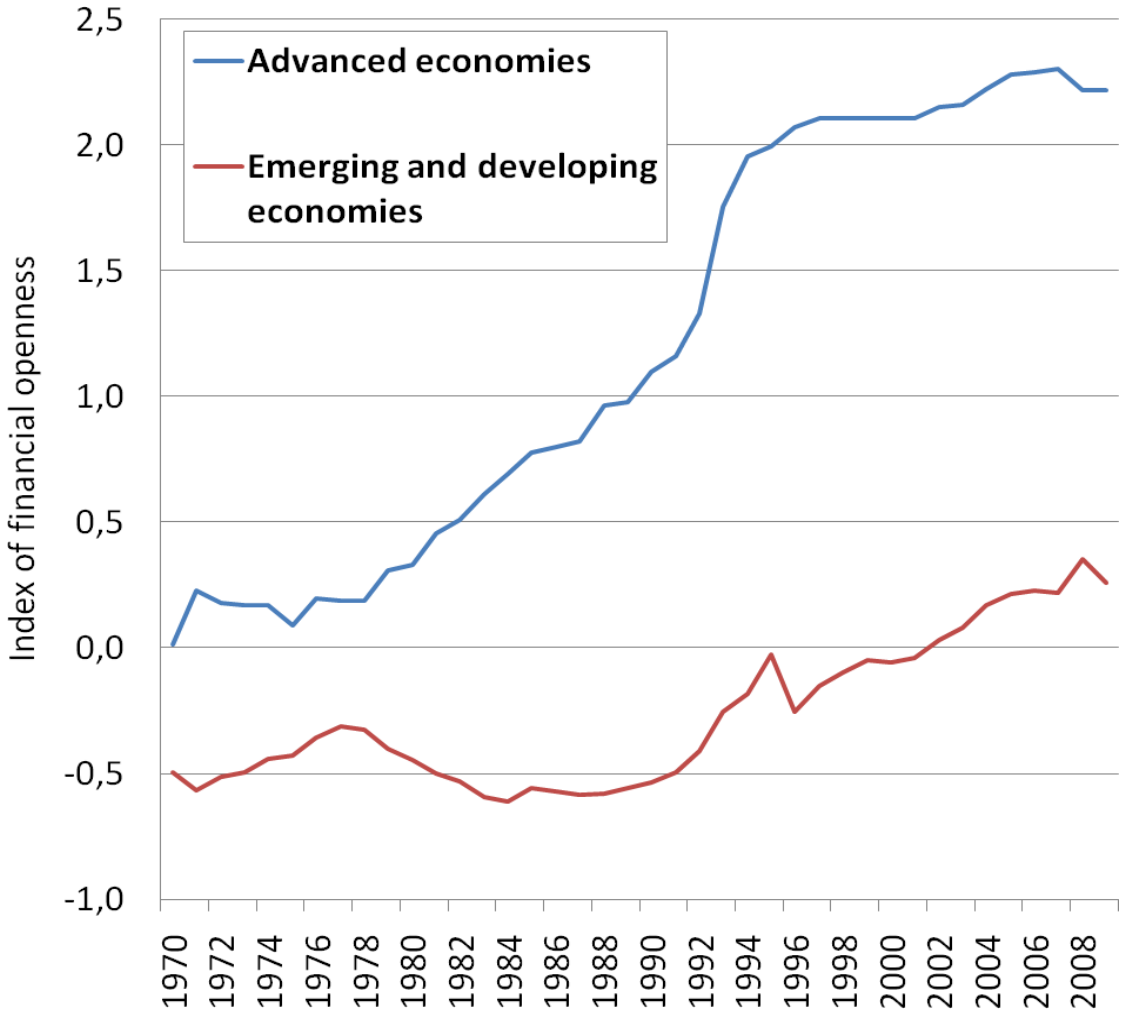
Currency convertibility

- Currency is **nonconvertible** if the government set the value of the exchange-rate and submit foreign-exchange transactions to prior authorization (e.g., Soviet bloc before 1990).

- In all other cases, the currency is convertible.
  - **current account convertibility**: the currency can be exchanged freely for the purpose of importing good and services, current transfers and factor income
  - **financial account convertibility**: direct investments, portfolio investments and bank loans without restriction (=> *capital mobility*)
    Capital is actually never fully mobile, because there are valid reasons for control (e.g., fight against money laundering and terrorist finance)

Financial openness

— While advanced economies have liberalized capital flows in the 1980s, this movement is still incomplete in developing countries.



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The pros and cons of capital openness

Theoretical advantages:

- enables the capital to flow to the most efficient places – helping both investors as well as all stakeholders
- allows emerging economies to grow faster
- capital flows from capital rich to capital poor countries as they should have higher returns
  - reduce cost of capital
  - enable investments
  - increase growth

The pros and cons of capital openness

Potential problems:

—Capital inflow is connected with appreciation of domestic currency. It can make domestic manufacturers less competitive in global markets

—Fear of *hot money*; inflows and consequently sudden outflows of funds can

cause huge economic crisis

—Fear of large capital inflows, that can cause price bubbles

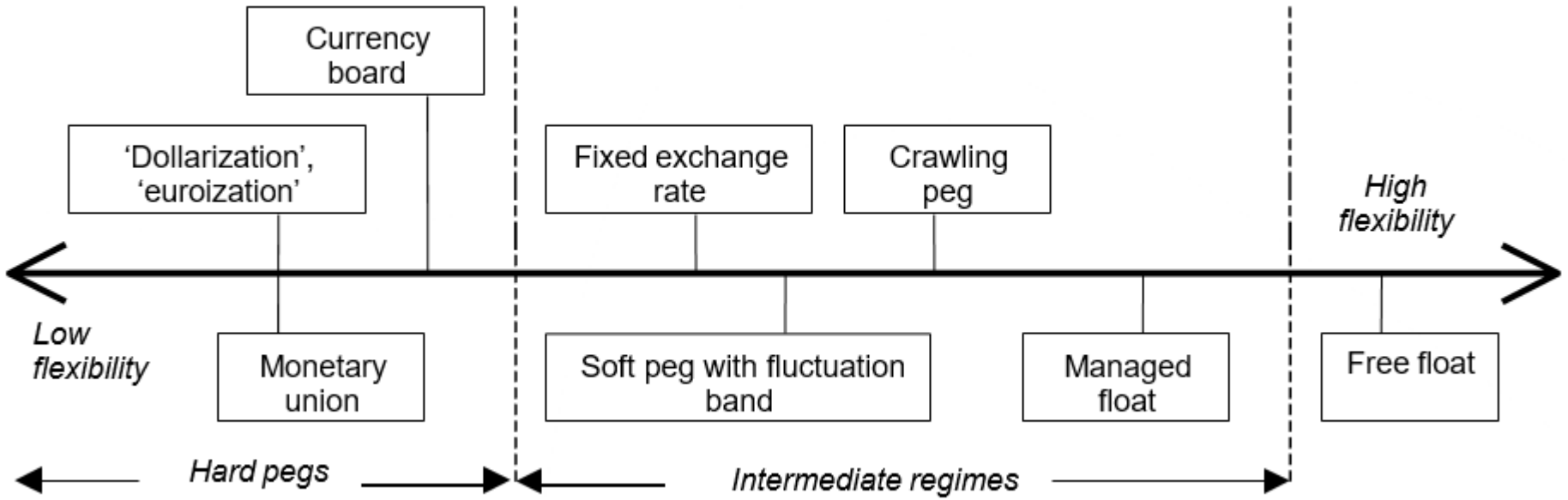
—Fear of loss of monetary autonomy; see impossible trinity

Exchange-rate regimes

—Large exchange-rate fluctuations are source of uncertainty for the economy

—In developing countries, foreign liabilities are denominated in key foreign currencies => depreciation of the domestic currency raises the value of the external debt.

=> governments may to wish to reduce the extent of exchange-rate fluctuations.



Exchange-rate regimes

- **Dollarization, euroization**: the currency of another country circulates as the sole legal tender: dollar (e.g., Panama, Ecuador), euro (e.g., Montenegro and San Marino).
  - Countries are unable to control the domestic money supply and its central bank is left with the sole mission of performing technical tasks.

- **Currency board**: explicit legislative commitment to exchange domestic currency at a fixed rate, issuance of domestic currency is backed by foreign assets only (e.g., Bosnia and Hercegovina, Bulgaria).

- **Fixed exchange rates**: the country pegs its currency within margins of +/- 1 % or less vis-à-

  vis another currency or basket of currencies (e.g., Mali, Niger).

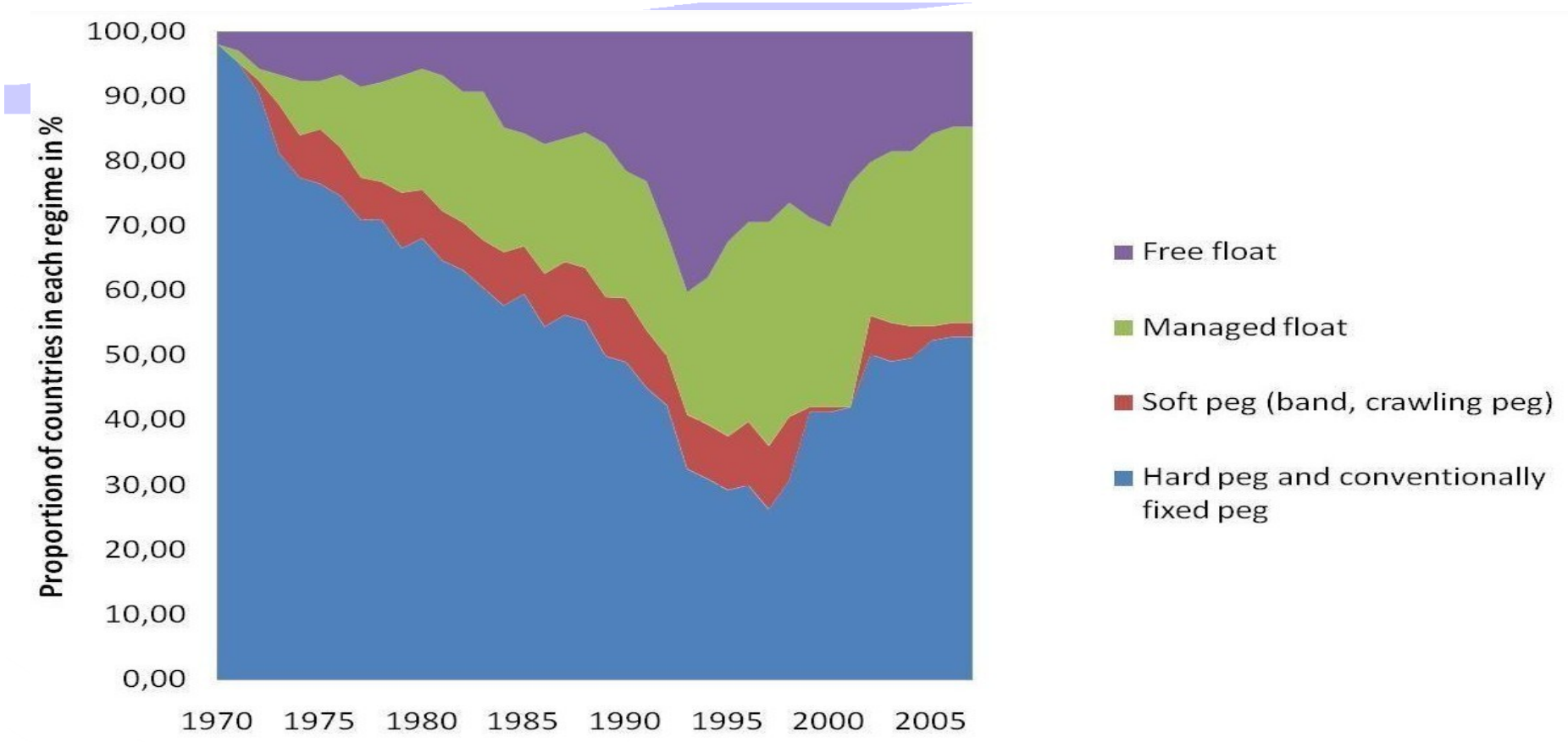
Exchange-rate regimes

—**Soft pegs with fluctuation band**: the value of the currency is maintained within certain margins of fluctuation of more than +/- 1 % around a fixed central rate (e.g., Denmark).

—**Managed floating**: The CB attempts to influence the exchange rate without having a specific exchange rate path or target (e.g., Albania, Chile, Hungrary, Moldova, Ukraine)

—**Free floating**: the exchange rate is fully market-determined (e.g., Czech Republic, eurozone, USA, United Kingdom, Poland)

Exchange-rate regimes



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Exchange-rate regimes – Czech Republic

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The Exchange Rate Regime Dilemma: the pros and cons of fixed regime

— The risk of speculative attacks when the firmness of the commitment is being questioned that can lead to currency crisis.

— A country must keep large quantities of foreign currency.

— By committing to a fixed rate a country commits itself not to engage in inflationary policies.

— CB must give up independent monetary policy.

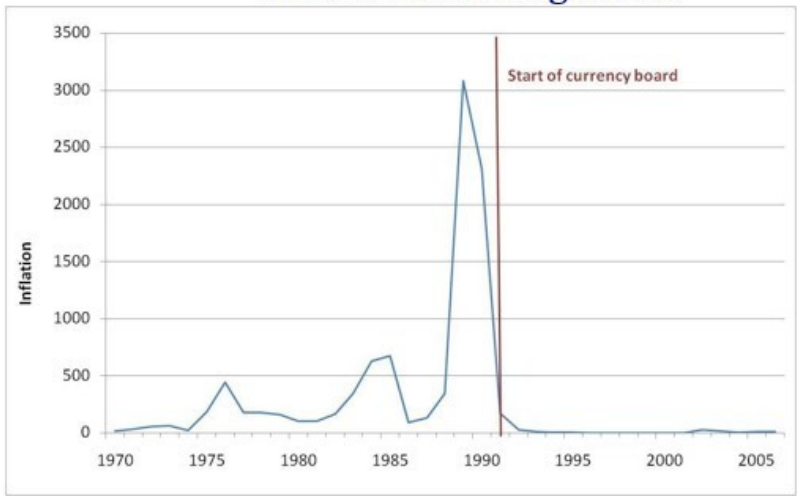
The benefits of pegs: credibility

Inflation and growth performance under various exchange-rate regimes

	CPI inflation	GDP growth
Pegged	8.4%	1.4%
Intermediate	11.6%	2.1%
Floating	15.2%	1.7%

Source: Gulde, Gosh and Ostry (1997), based on 36 countries over 1960-1990.

Disinflation in Argentina



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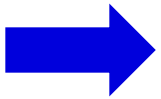
The Exchange Rate Regime Dilemma: the pros and cons of floating

—Large exchange rate fluctuations are a major source of uncertainty.

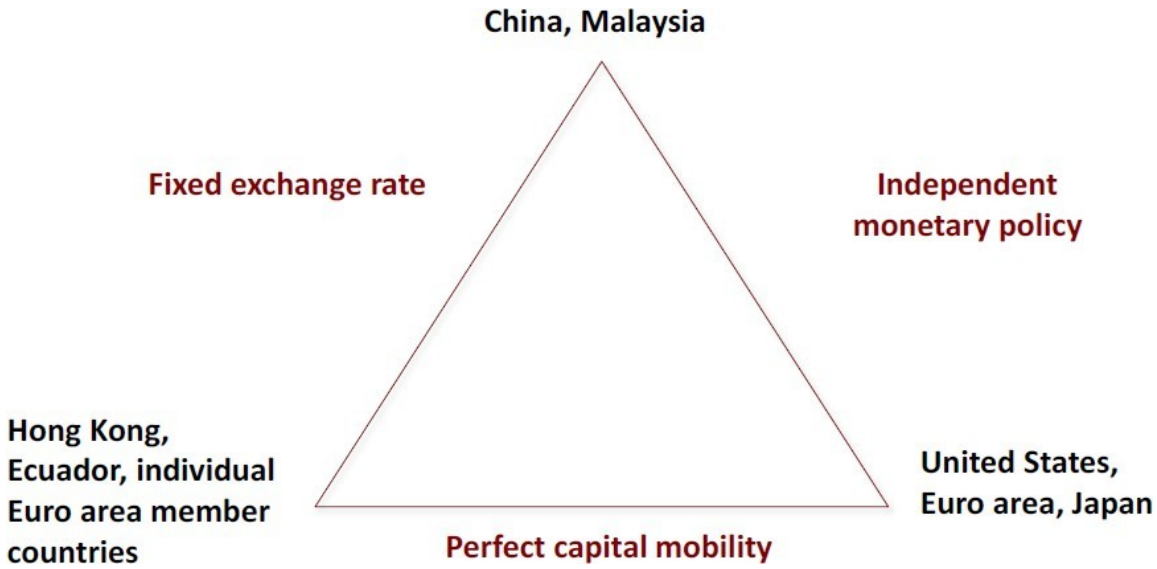
—Exchange rate fluctuations affect the relative value of assets and liabilities => depreciation raises the value of the external debt.

—Monetary independence of the CB is sustained.



—Countries are better able to absorb economic shocks

Convertibility and exchange-rate regime: a joint choice



- A country cannot simultaneously enjoy an independent MP, a stable exchange rate and a perfectly mobile capital (**Mundell's impossible trinity**)

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Regime choice: the optimum currency area theory (OCA)

— The OCA theory predicts that fixed exchange rates are most appropriate for areas closely integrated through international trade and factor movements.

The optimum currency area theory – benefits

— Saving from avoiding the uncertainty, confusion, and calculation and transaction costs that arise when exchange rates float

— Are higher, the higher the degree of economic integration between the joining country and the fixed exchange rate area

The optimum currency area theory – costs

—arise because a country that joins an exchange rate area gives up its ability to use the exchange rate and monetary policy for the purpose of stabilizing output and employment

—are lower, the higher the degree of economic integration between a country and the fixed exchange rate area that it joins

The optimum currency area theory – criteria

- Degree of trade openness and integration
- Product diversification
- Labour mobility
- Wage flexibility
- Level of debt
- Fiscal transfer possible
- Homogenous policy preferences
- High degree of solidarity with other nations

Is the euro area an optimal currency area?

- Degree of trade openness and integration – high
- Product diversification – high
- Labour mobility – low
- Wage flexibility – low

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Is the euro area an optimal currency area?

- Level of debt – varies from low to high
- Fiscal transfer possible – limited
- Homogenous policy preferences – regional/limited
- High degree of solidarity with other nations – regional/limited

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Is the euro area an optimal currency area?

— The Euro Zone does not come close to an OCA by most criteria, because:

- The core group of EU countries are broadly similar (Germany + France + Netherlands + Belgium) but peripheral countries have big structural differences
- There are barriers to the mobility of labour
- Price and wage flexibility is rather low
- The role of fiscal transfers is limited

➡ **Euro is more a political than an economic project**

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GROWTH POLICY

VII.

Growth vs. stabilization policies

- Stabilization policy seeks to mitigate short-term cyclical fluctuations whereas growth policies aim at raising potential level of production in the long run.

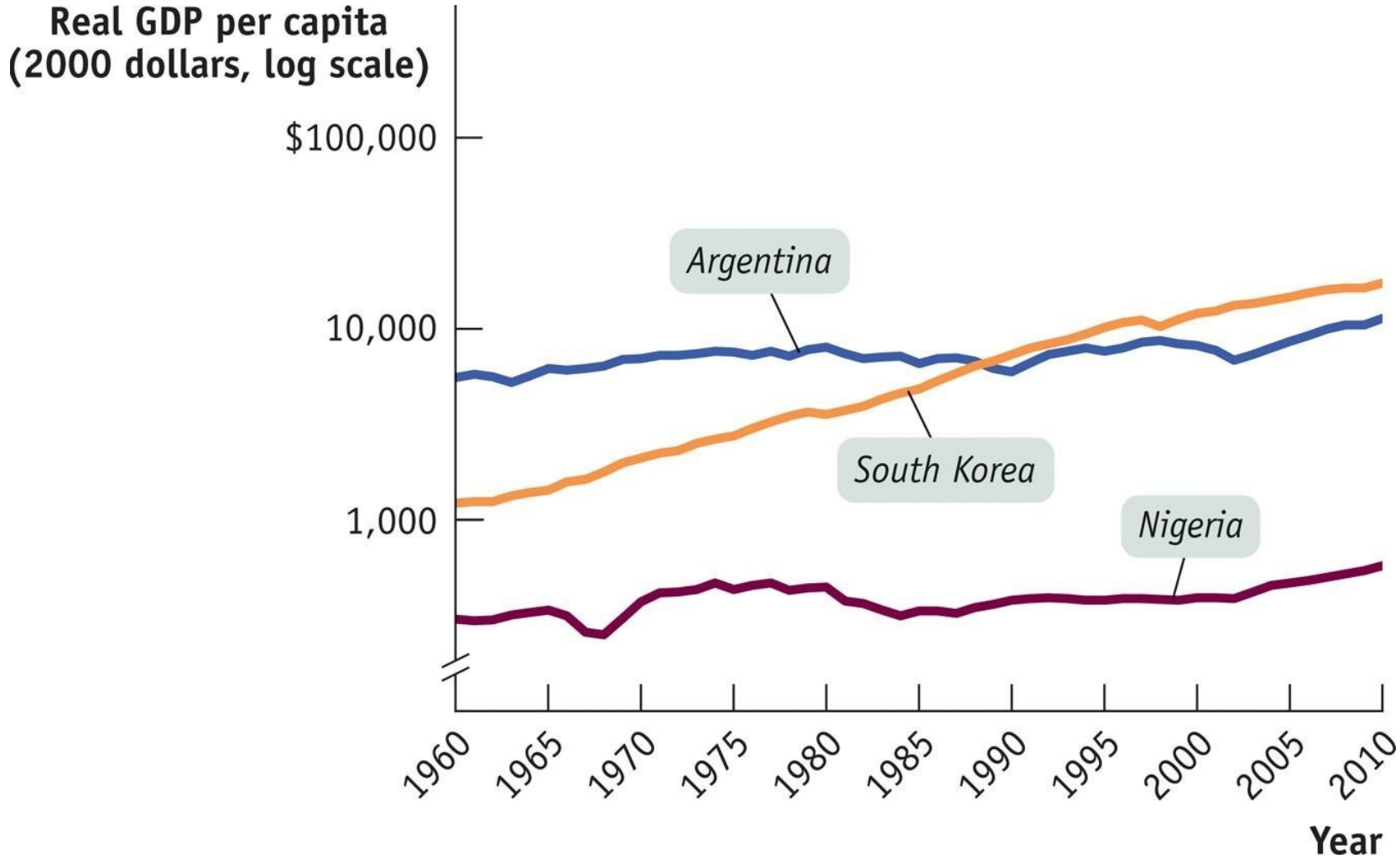
- But, there are interrelations between long-term trends and short-term fluctuations because of:
  - *precautionary behaviour*: excessive inflation is bad for long-term growth
  - *unemployment hysteresis*: skills of unemployed workers deteriorate and they become less employable even in boom

Why growth matters

- Anything that effects the long-run rate of economic growth – even by a tiny amount – will have huge effects on living standards in the long run.

annual growth rate of income per capita	percentage increase in standard of living after…		
	…25 years	…50 years	…100 years
2.0%	64.0%	169.2%	624.5%
2.5%	85.4%	243.7%	1,081.4%

Three stories of economic growth: success, disappointment and failure



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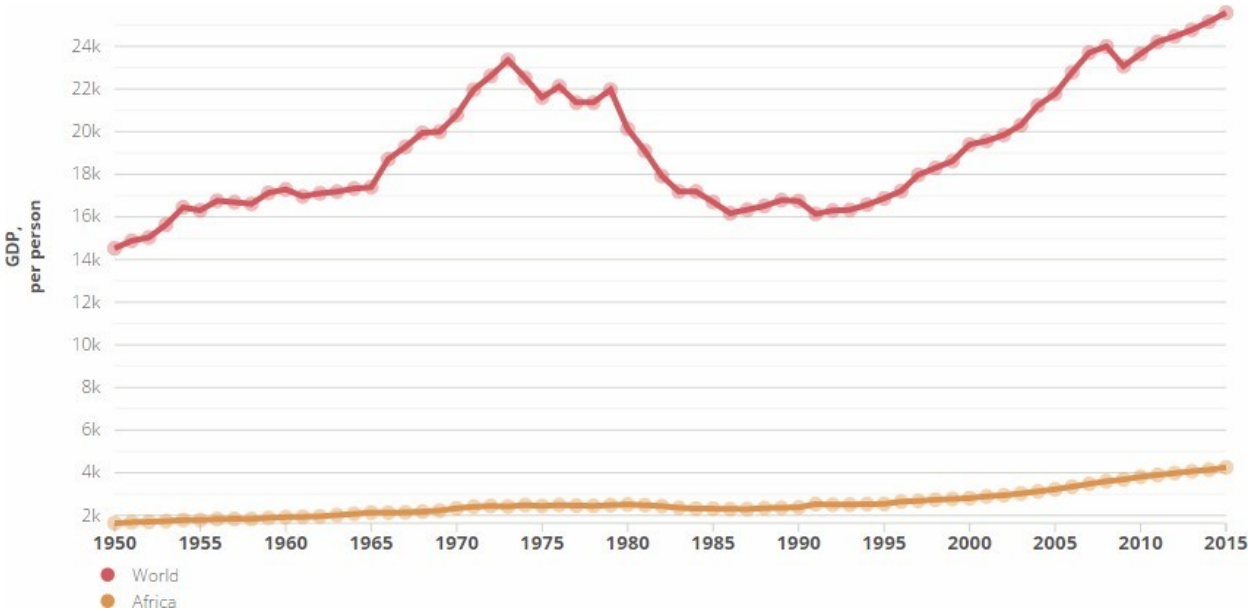
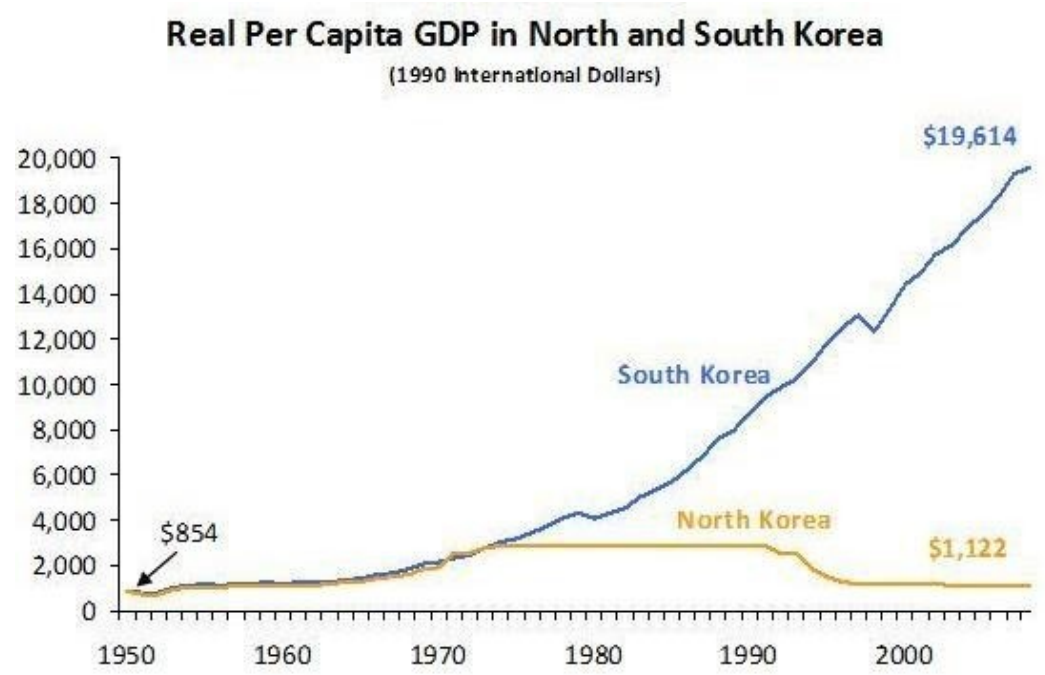
Economic Growth





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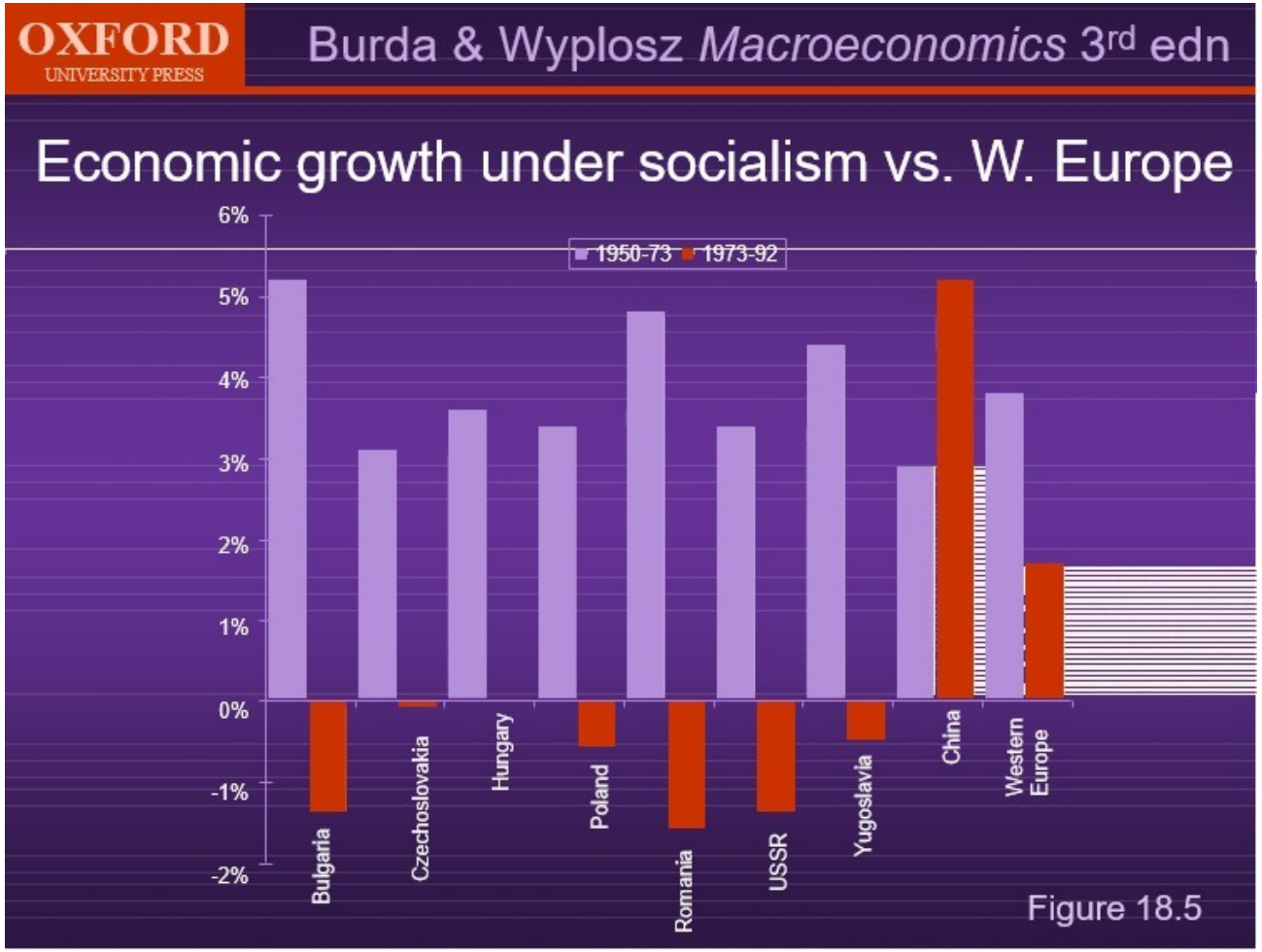
Measuring economic growth

- GDP per person (per capita) corresponds to the average standard of living (GDP (nominal) x GDP (PPP))
- GNP, HDI (GNP, life expectancy, access to public, education)
- Labour productivity reflects effectiveness of production system
- Comparability issues (prices, exchange rates ...)
- GDP per person is not well-being
  - correction for: pollution, working time, life expectancy, precariousness, inequality, sustainability

Economic growth: CPEs vs. Western Europe



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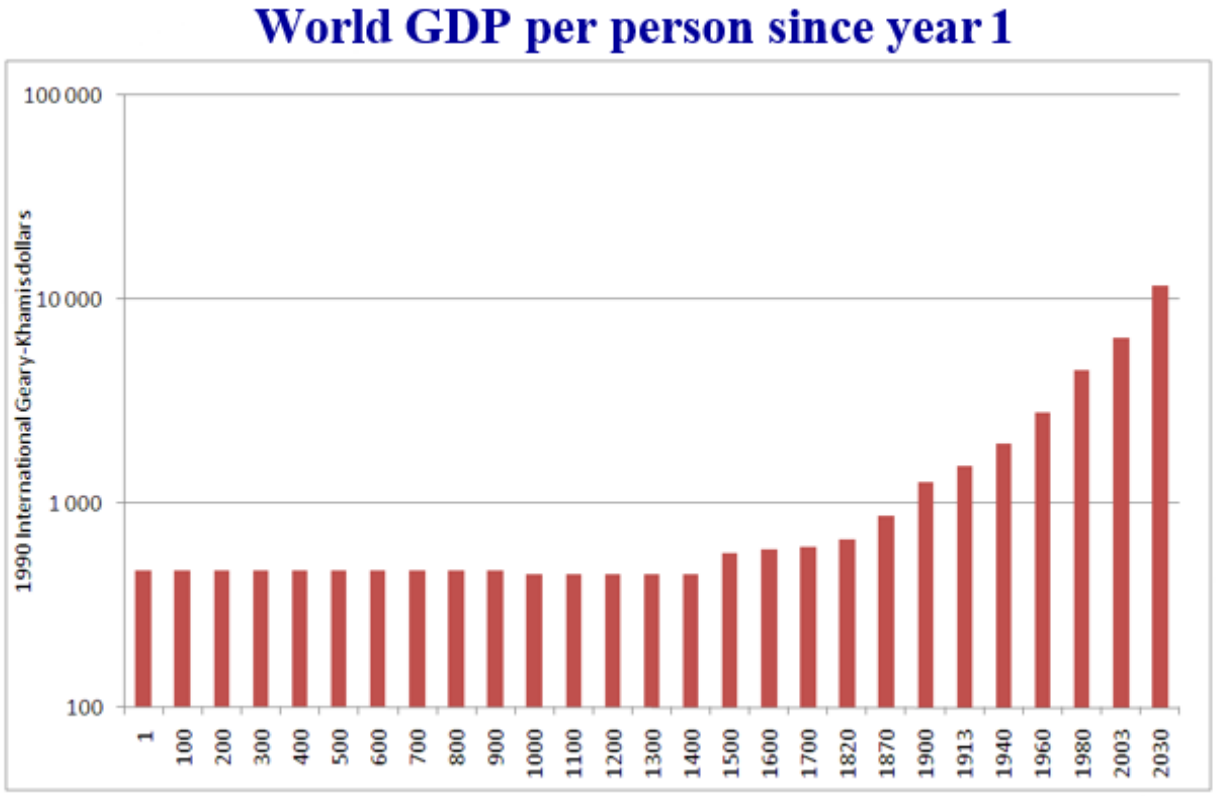
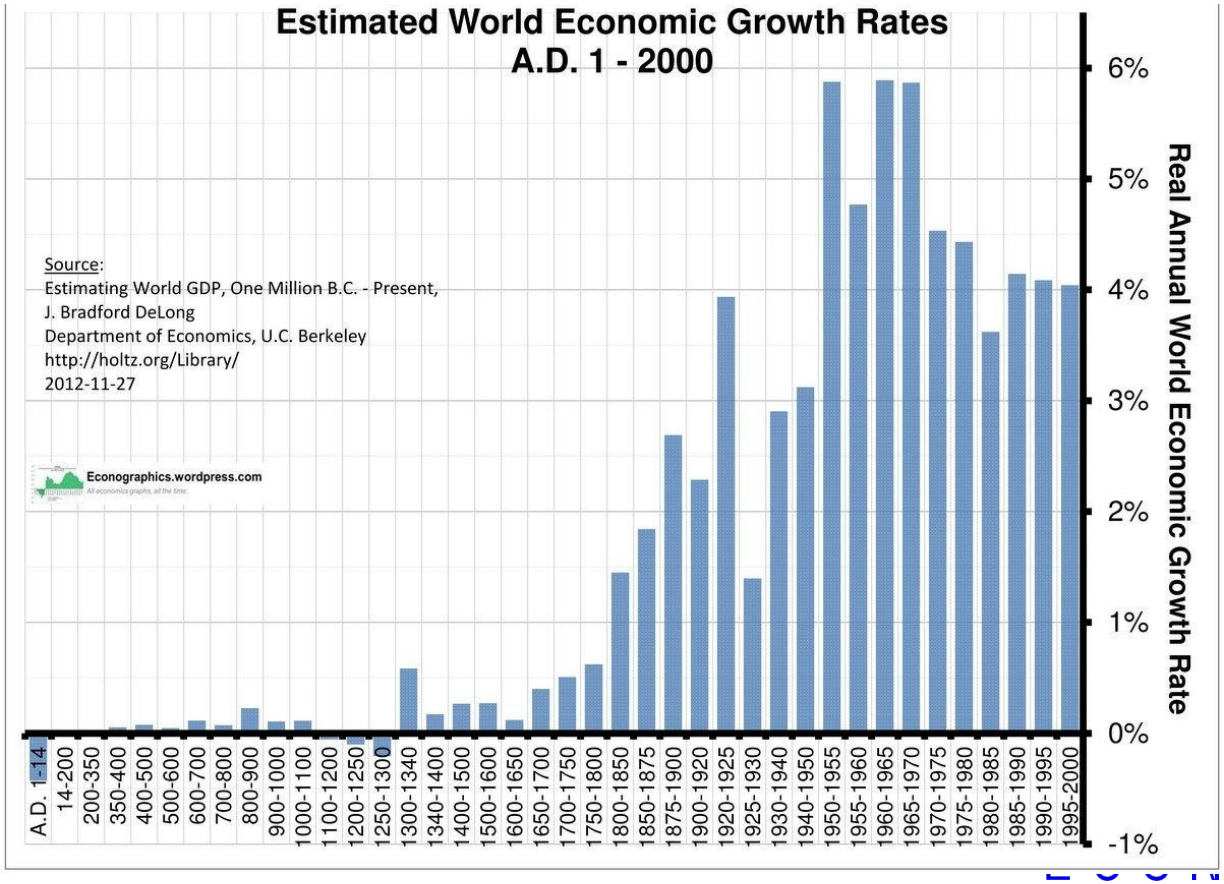
Some stylized facts about growth

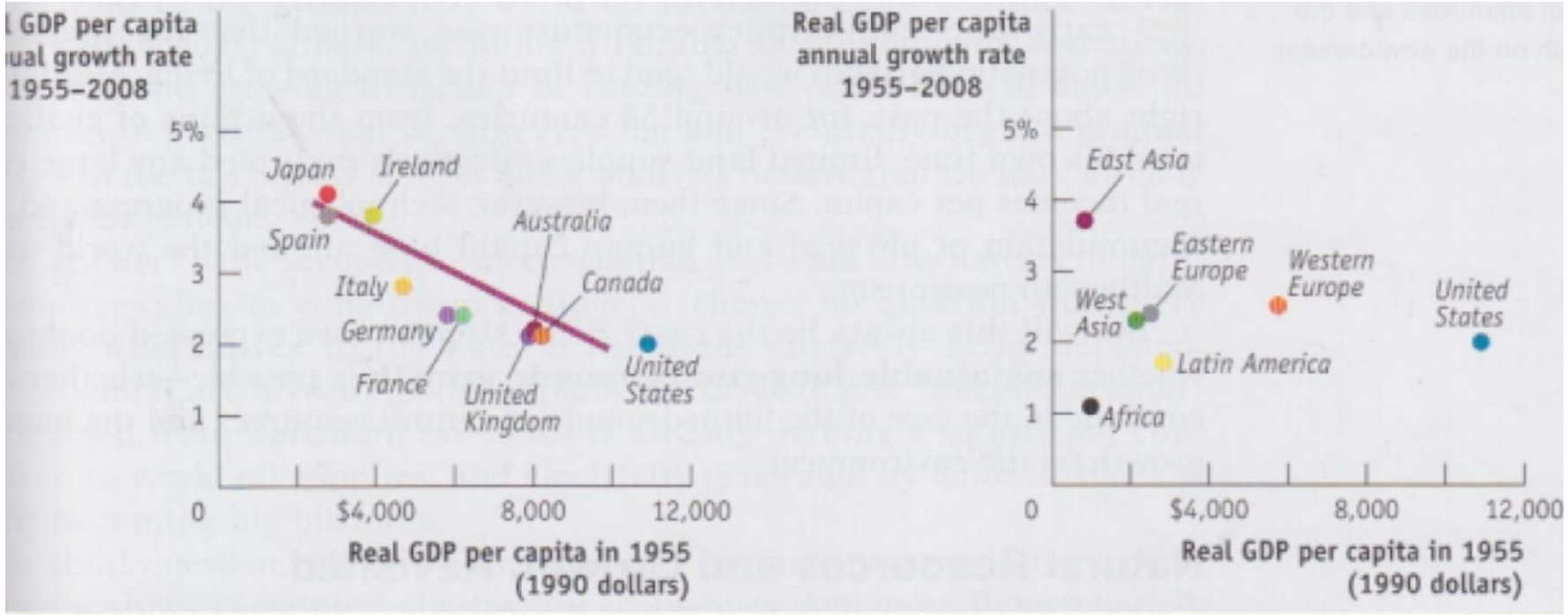
- Growth is a recent phenomenon by historical standards.





Convergence and inequality

- Some countries have caught up towards the richest countries, some have not and even further diverged.



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Convergence and inequality

—**Who benefits from the increase of world income and wealth?**

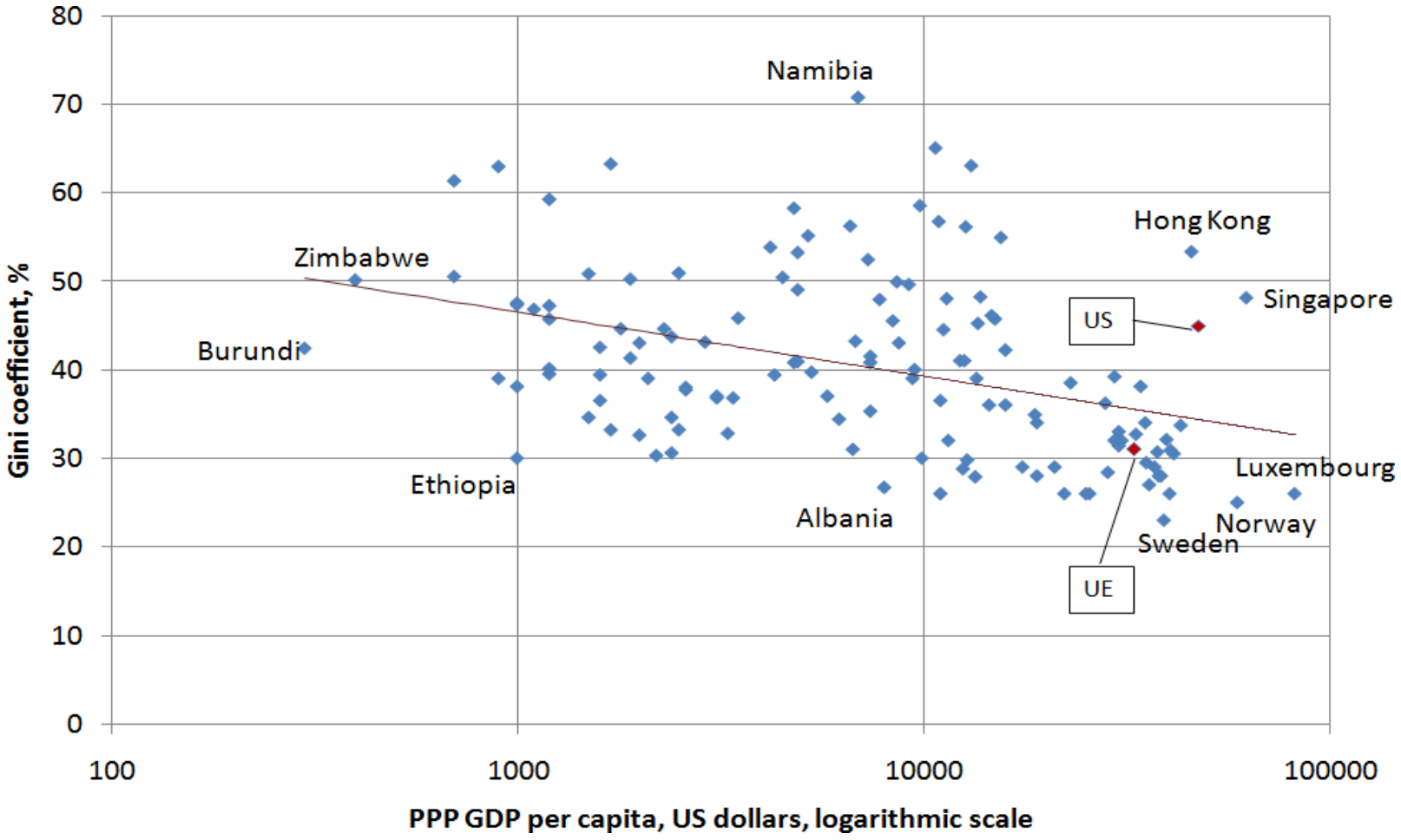
—No stable relationship between inequality and growth, but growth tends to increase inequality within rich countries.

—Among advanced economies, technologicalchange and growth may increase income inequalities.

Growth and income distribution: a two way relationship

- Growth → inequality
  - Kuznets (1955): U-shaped relationship between development level and income inequality
  - Unequal access to finance, education
- Inequality → growth
  - Inequality → inequality of opportunities
  - Risk of political instability/deadlock
  - Demand for redistributive taxation (Alesina and Rodrik, 1994)

Growth and income distribution



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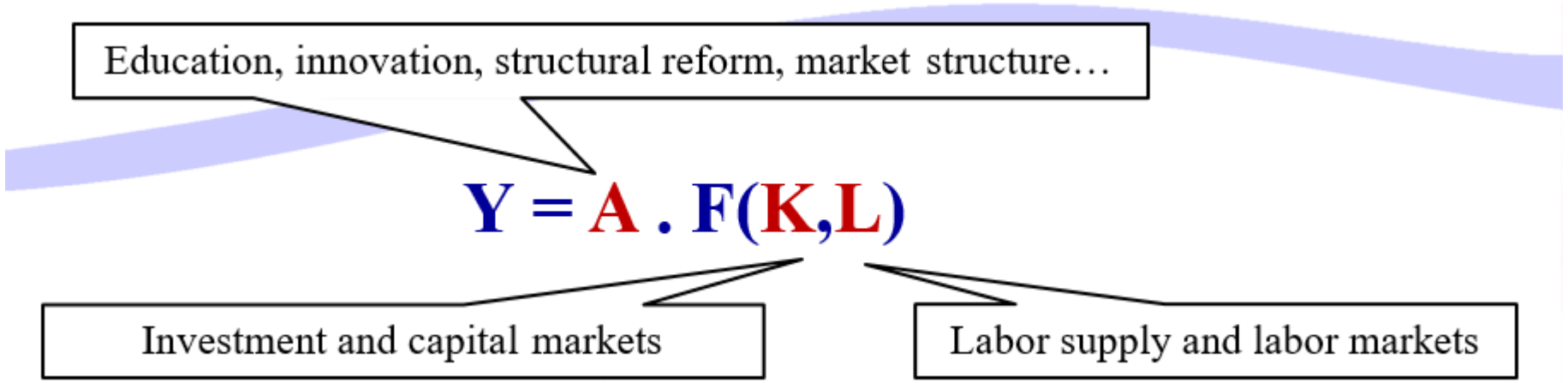
Theoretical background – growth accounting



Solow (1956)

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Theoretical background

- In the short run (a few months to a few years), potential output is exogenous; growth is dominated by cyclical fluctuations and by stabilization policies

- In the medium run (a few years), governments can influence potential output through investment and labour supply

- In the long run (many years), GDP and the labour/capital mix are determined by demography, technology, institutions and market structures

Policies

- Education
- Research
- Infrastructure

- Externalities

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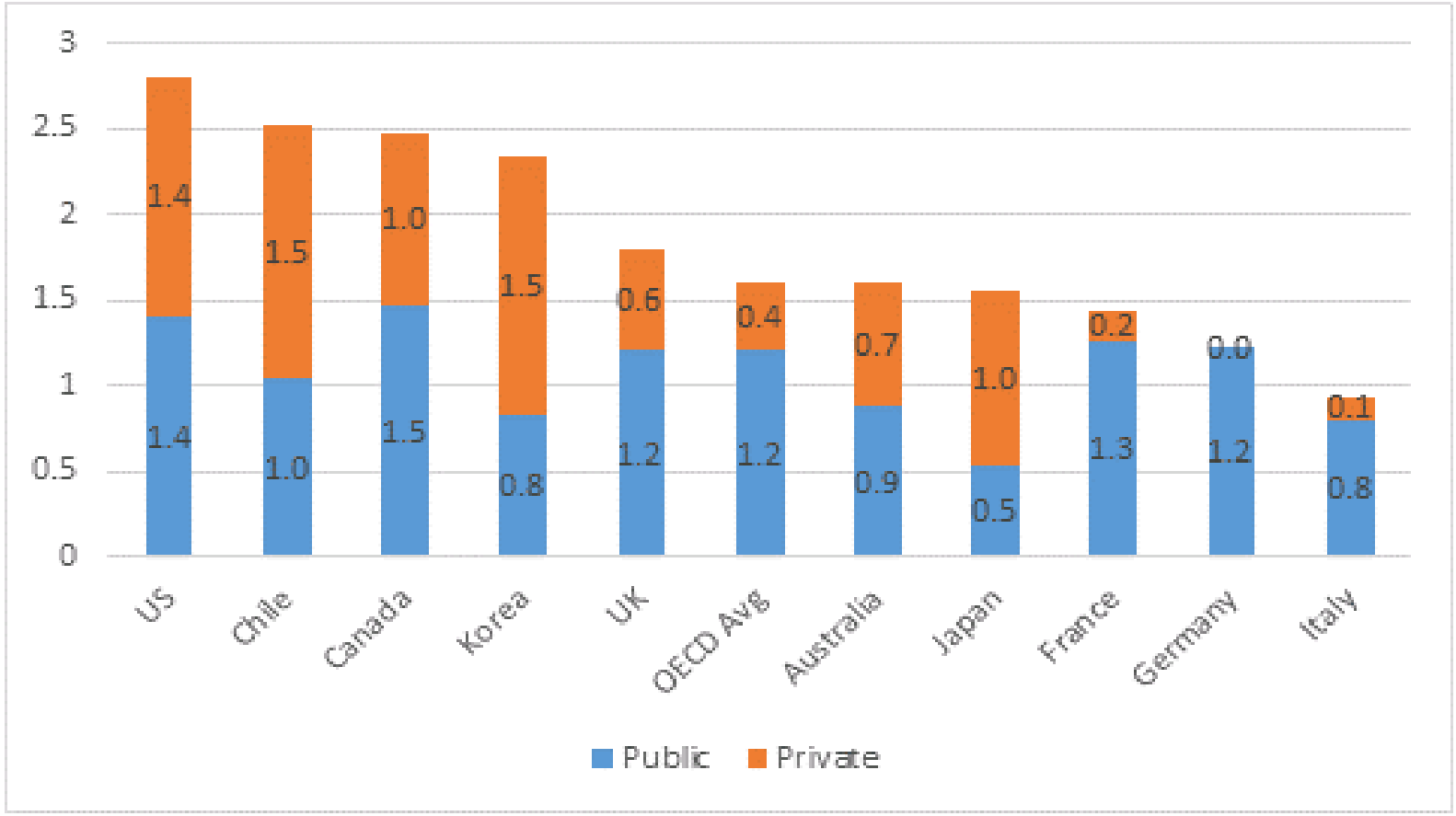
Policies - Education

- Public financing is justified by credit constraints and unequal access to knowledge. It is difficult to assess private and social return to human capital
  - It is difficult to know which part of the supplementary wage income generated by an additional year of higher education measures the marginal yield of study, pre-existing talent, or rent accruing to belonging to a particular social, ethnic or gender group
- Discrepancy between Europe and US in total expenditures on tertiary education

Spending on tertiary education (% GDP)



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R&D and innovation

—Social return on research spending generally exceeds its private return

—Market imperfection: investments to R&D are constrained by the unavailability

of funds

⇒ Public funding of fundamental research and university clusters

⇒ Incentives to private funding of applied research

—Intellectual protection

—Innovation-friendly competition regime

—Tax rebates

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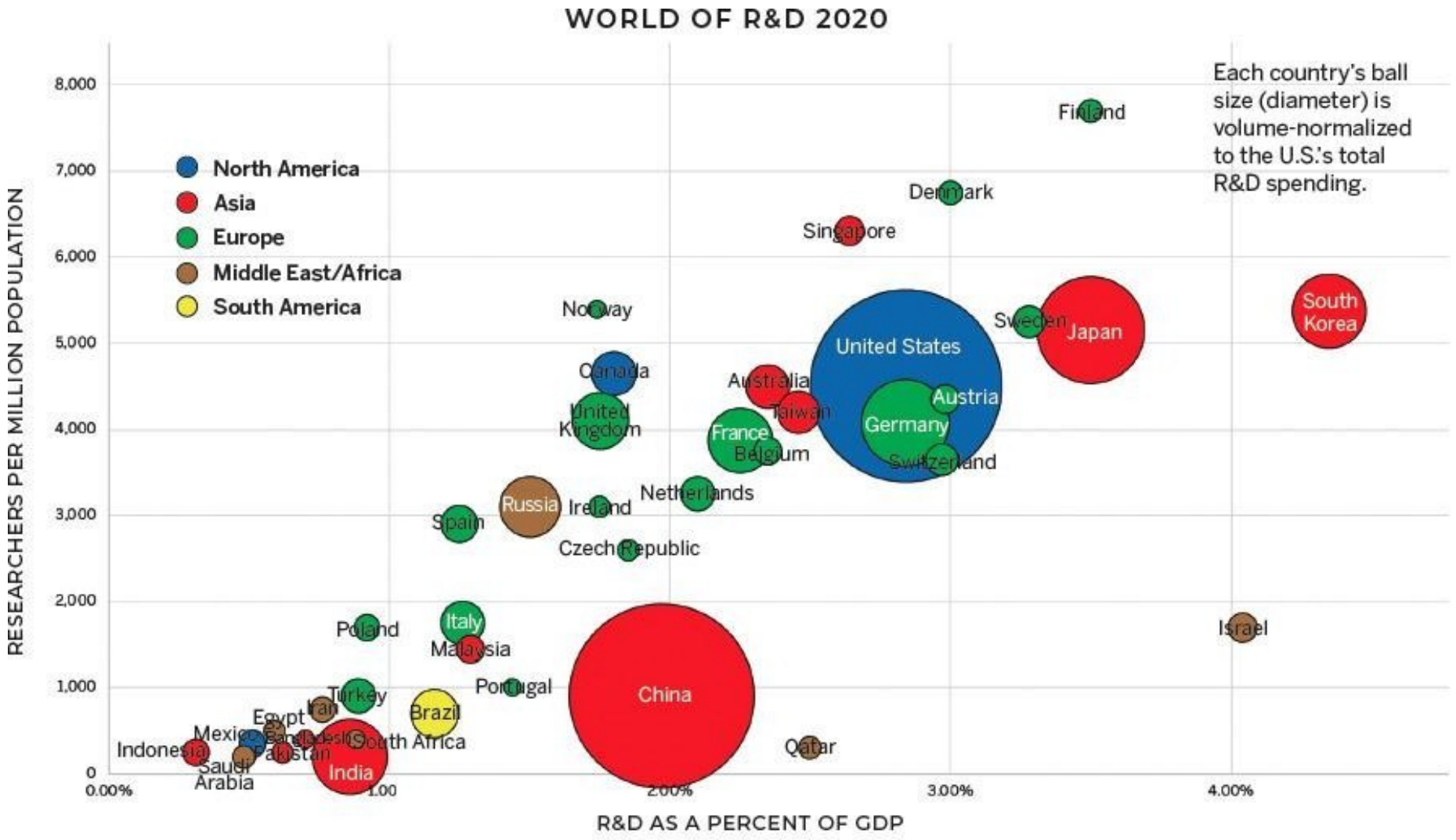
Unequal R&D effort

- R&D expenditures:
  - Discrepancy among countries (see next slide)
- Different dynamics:
  - US: new innovating SMEs
  - EU: firms already in place
- In the US, innovating firm creation encouraged by:
  - risk capital and initial public offerings
  - lower entry cost


WORLD OF R&D 2020
Each country's ball size (diameter) is volume-normalized to the U.S.'s total R&D spending.
North America
Asia
Europe
Middle East/Africa
South America
RESEARCHERS PER MILLION POPULATION
R&D AS A PERCENT OF GDP
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
0.00%
1.00
2.00%
3.00%
4.00%
Finland
Denmark
Singapore
Norway
Sweden
Japan
South Korea
United States
Canada
Australia
Taiwan
Austria
United Kingdom
Germany
France
Belgium
Switzerland
Netherlands
Russia
Ireland
Spain
Czech Republic
Poland
Italy
Malaysia
Israel
Portugal
China
Turkey
Iran
Egypt
Brazil
Mexico
South Africa
Indonesia
Pakistan
Saudi Arabia
India
Qatar

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Public infrastructures

- Government intervention is needed, because:
  - many infrastructures are natural monopolies
  - Infrastructures involve externalities
  - market cannot finance infrastructures by itself

=> European networks program, public-private partnerships

Labour supply

How to increase labour supply?

- Through family-oriented policies
- Immigration
- Welfare-to-work:
  - In-work benefits
  - pension reforms

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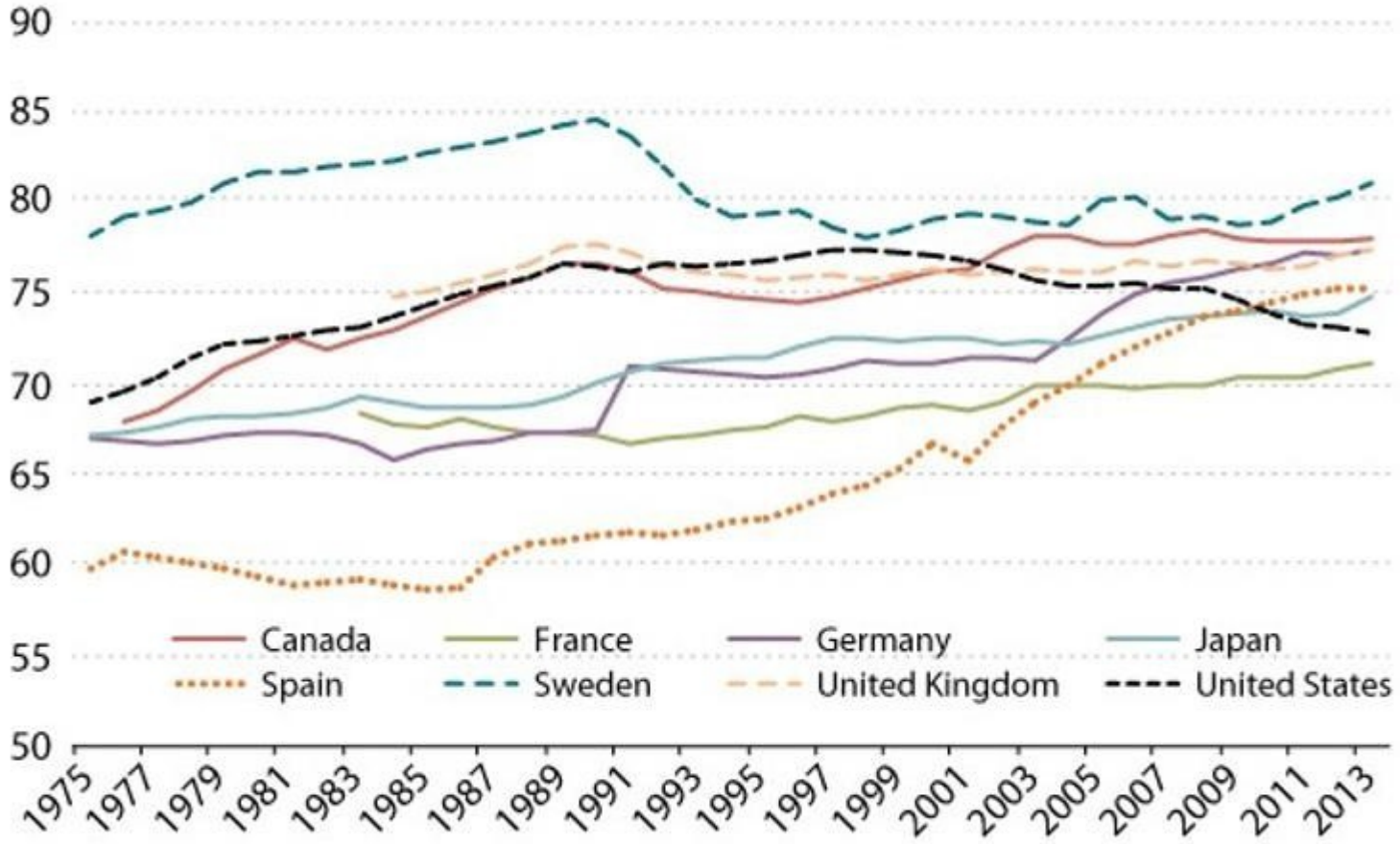
Labor Force Participation Rates, Both Genders, Ages 15-64*



Source: Dvorkin&Shell(2015)

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Developing financial markets

- Often neglected in growth strategies

- Channels on influence on long-term growth:
  - Lower cost of capital
  - Higher savings
    => Increase in GDP per capita
  - Better allocation of capital
    Information
    Risk diversification
    Finance innovation

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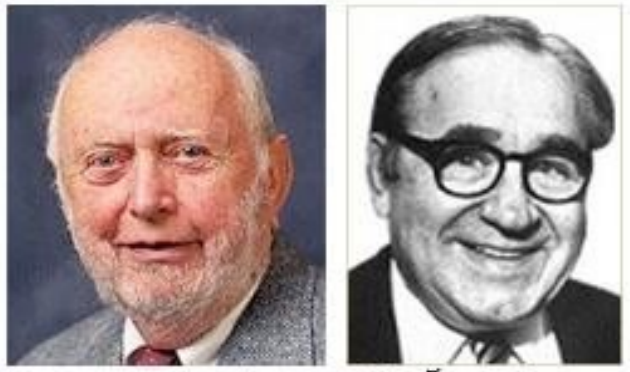
Growth and institutions

— Institutions: "*The humanly devised constraints that structure human interaction. They are made up of formal constraints (rules, laws, constitutions), informal constraints (norms of behaviour, conventions, and self-imposed codes of conduct), and their enforcement characteristics*."

— D. North and R. Fogel (1990)



Douglass Robert
North Fogel
1920- 1926-

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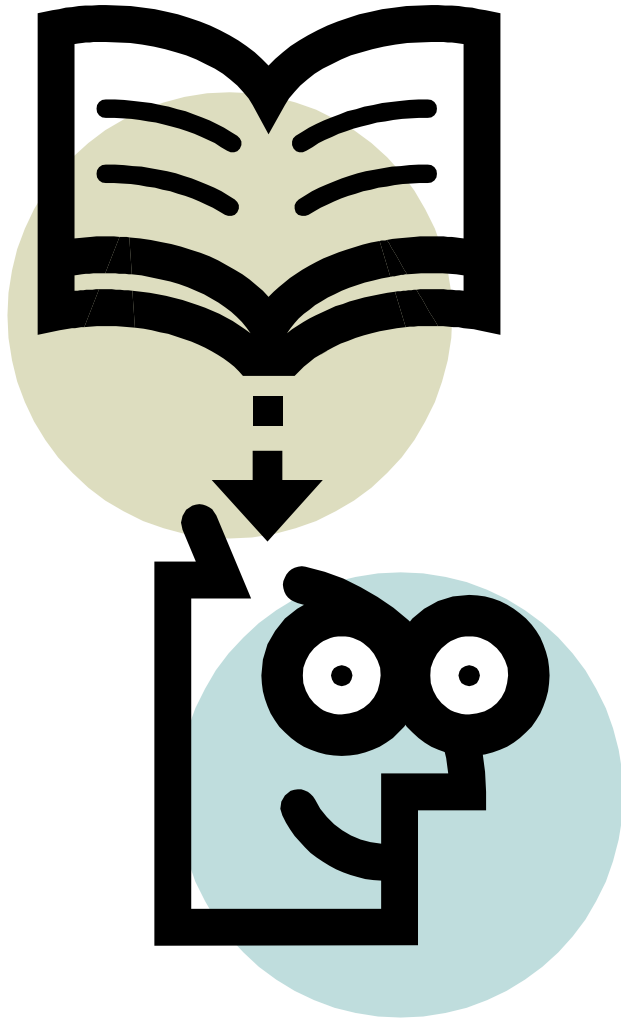
Improving institutions

- General recommendations:
  - Create legal framework which is conducive to private initiative
  - Put in place effective market regulation
  - Achieve macroeconomic stability
- It is difficult to identify a set of specific recommendations because of different institutional set-ups

Reference textbook

— **Foreign-Exchange Policy:** Benassy-Quéré, A. et al. *Economic Policy: Theory and practise*. Oxford University Press, 2010. ***Chap. 5.***

— **Growth Policies**: Benassy-Quéré, A. et al. *Economic Policy: Theory and practise*. Oxford University Press, 2010. ***Chap. 6.***



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