Stagnation and stationary state: looking back into the future of the capitalist economy

Introductory lectures on heterodox economics:

History of economic thought

Towards pluralism in macroeconomics?

20 years-anniversary conference of the fmm Research Network – October 20, 2016

Introduction

Classical political economy: growth as progress towards the stationary state

Stagnation: the interwar years – a crisis of capitalism?

Conclusions: stagnation and stationary state –
looking back into the future of the capitalist economy

Introduction

The recent debate on “secular stagnation” in a broader context…

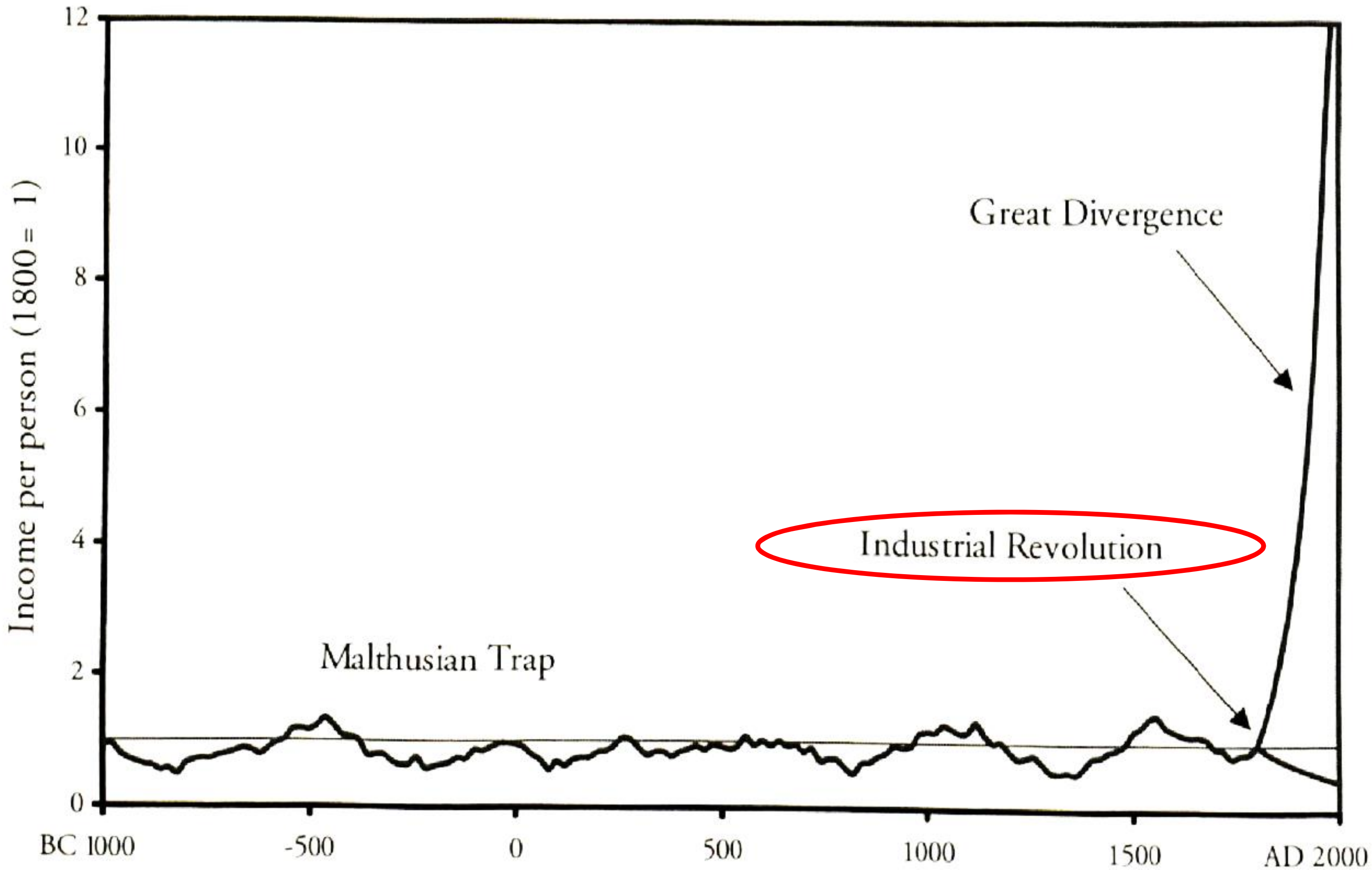


Figure 1.1 World economic history in one picture. Incomes rose sharply in many countries after 1800 but declined in others.

Quelle: Clark, Gregory (2007). A Farewell to Alms: A Brief Economic History of the World. Princeton: Princeton University Press, S. 2.

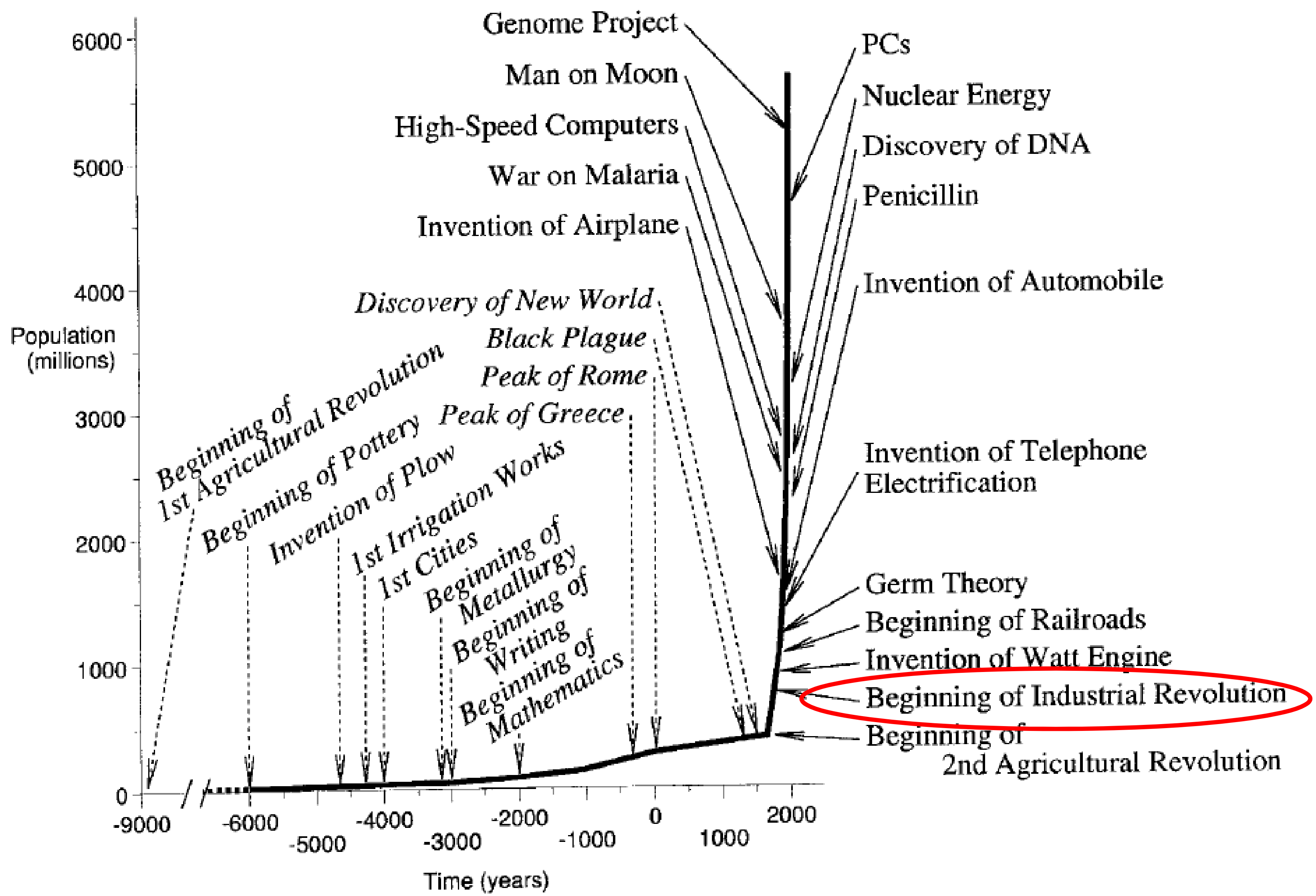


FIGURE 1. THE GROWTH OF THE WORLD POPULATION AND SOME MAJOR EVENTS IN THE HISTORY OF TECHNOLOGY

Fogel, R. W. (1999). Catching Up with the Economy. The American Economic Review, 89, 1, S. 2.

FIGURE 1. THE GROWTH OF THE WORLD POPULATION AND SOME MAJOR EVENTS IN THE HISTORY OF TECHNOLOGY

Notes: There is usually a lag between the invention of a process or a machine and its general application to production. "Beginning" means the earliest stage of this diffusion process.
Sources: Carl W. Bishop, 1936; T. K. Derry and T. I. William, 1960; Graham Clark, 1961; B. H. Slicher von Bath, 1963; Stuart Piggott, 1965; Glenn T. Trewartha, 1969; William McNeill, 1971; Jacob Bronowski, 1973; Carlo M. Cipolla, 1974; B. M. Fagan, 1977. See also E. A. Wrigley, 1987; Robert C. Allen, 1992, 1994.

Fogel, Robert W. (1999), Catching up with the Economy. *The American Economic Review*, 89 (1), 1-21.

Table 1.1. Economic growth in Europe, 1980–1994 (average annual rates of growth)

	GDP	Population	GDP per capita
1890–1994	2.4	0.6	1.8
1890–1913	2.2	0.7	1.4
1913–1950	1.4	0.5	0.9
1950–1973	4.8	0.8	4.0
1973–1994	2.1	0.4	1.7

Note: The growth rates are weighted averages for 15 countries (Austria, Belgium, Czechoslovakia, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Spain, Sweden, Switzerland, and the United Kingdom), all adjusted for boundary changes.

Source: Maddison (1995: 104–11 and 180–7).

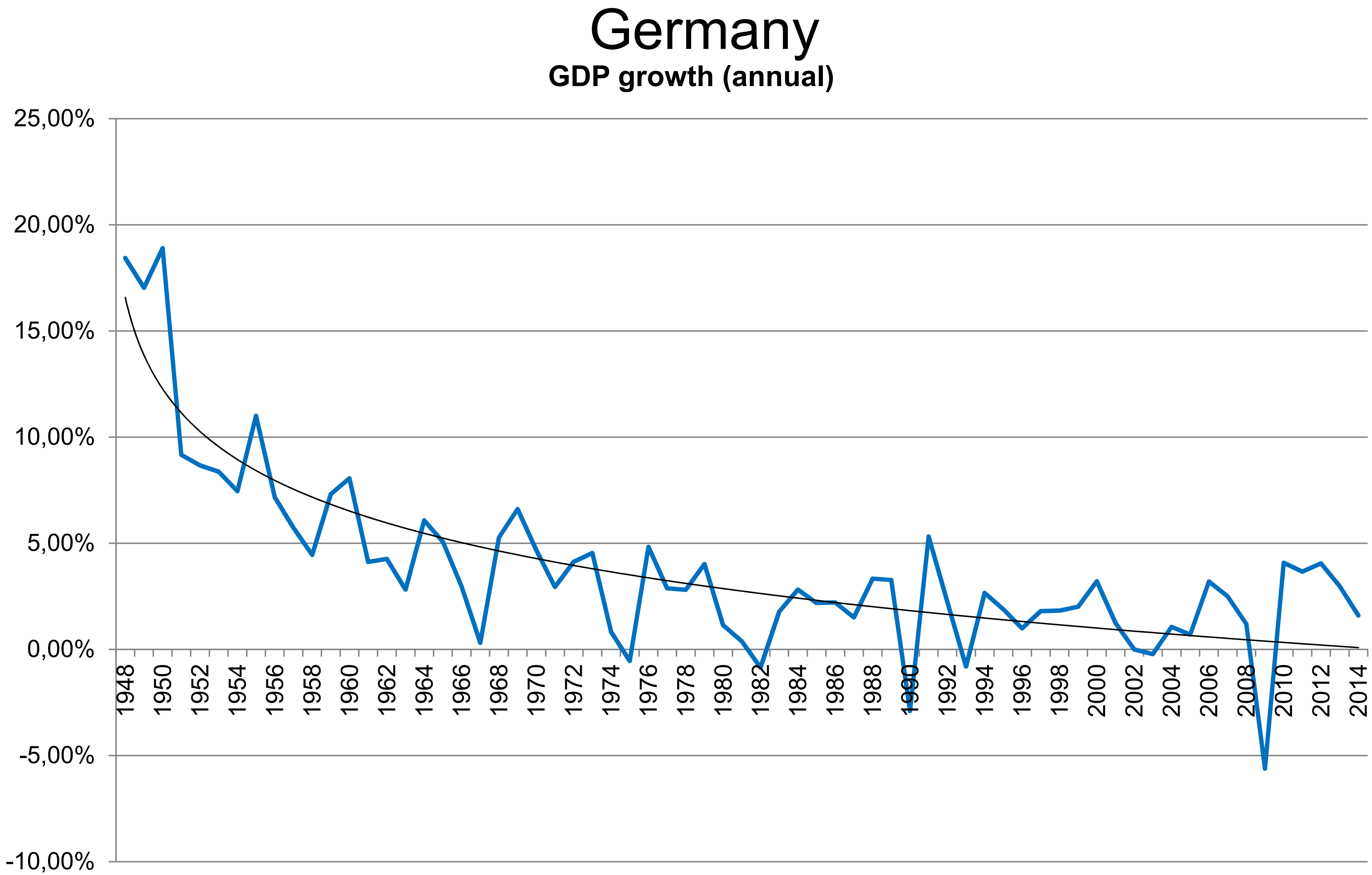
Feinstein, Charles H. et al.: *The European Economy Between the Wars,* 1997, S. 7

Table 1.2. Growth of real GDP per capita in Europe, the United States, Canada, and Japan, 1890–1994 (average annual rates of growth)

	Europe	United States of America	Canada	Japan
1890–1994	1.8	1.8	2.0	2.9
1890–1913	1.4	2.0	2.8	1.4
1913–1950	0.9	1.4	1.4	0.9
1950–1973	4.0	2.9	2.9	8.0
1973–1994	1.7	1.4	1.4	2.8

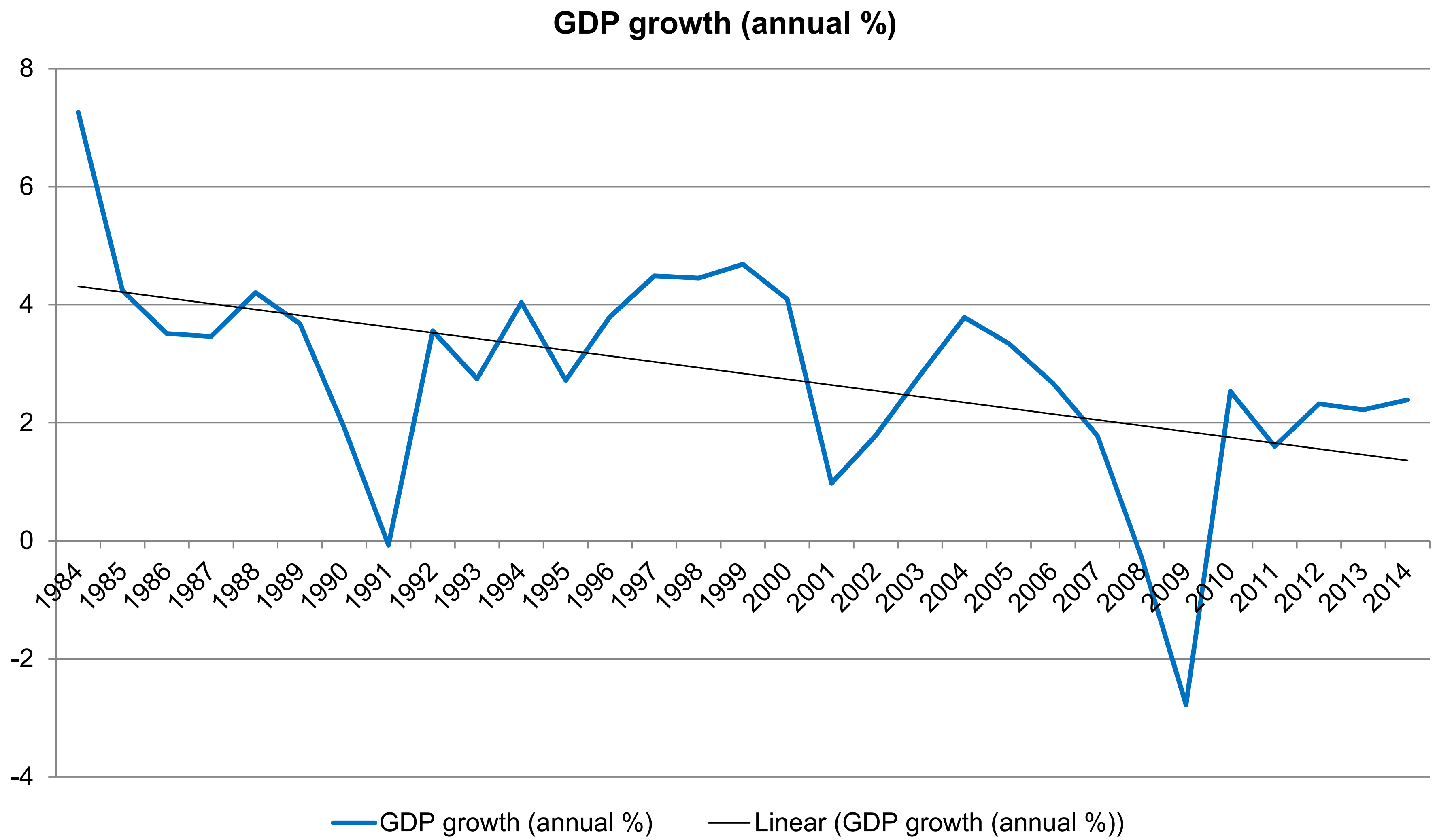
Source: Maddison (1995: 104–11 and 180–7).

Feinstein, Charles H. et al.: *The European Economy Between the Wars,* 1997, S. 9



Data: The Maddison-Project, 2013.

USA



Eigene Darstellung, Datenquelle: The Maddison-Project, 2013.

The recent debate on secular stagnation

Eichengreen, B. (2015). Secular Stagnation: The Long View. *American Economic Review: Papers & Proceedings*, 105, 5, 66-70.

Gordon, R. J. (2015). Secular Stagnation: A Supply-Side View. *American Economic Review: Papers & Proceedings*, 105, 5, 54-59.

Summers, L. H. (2015). Demand Side Secular Stagnation. *American Economic Review: Papers & Proceedings*, 105, 5, 60-65.

Alvin H. Hansen´s term

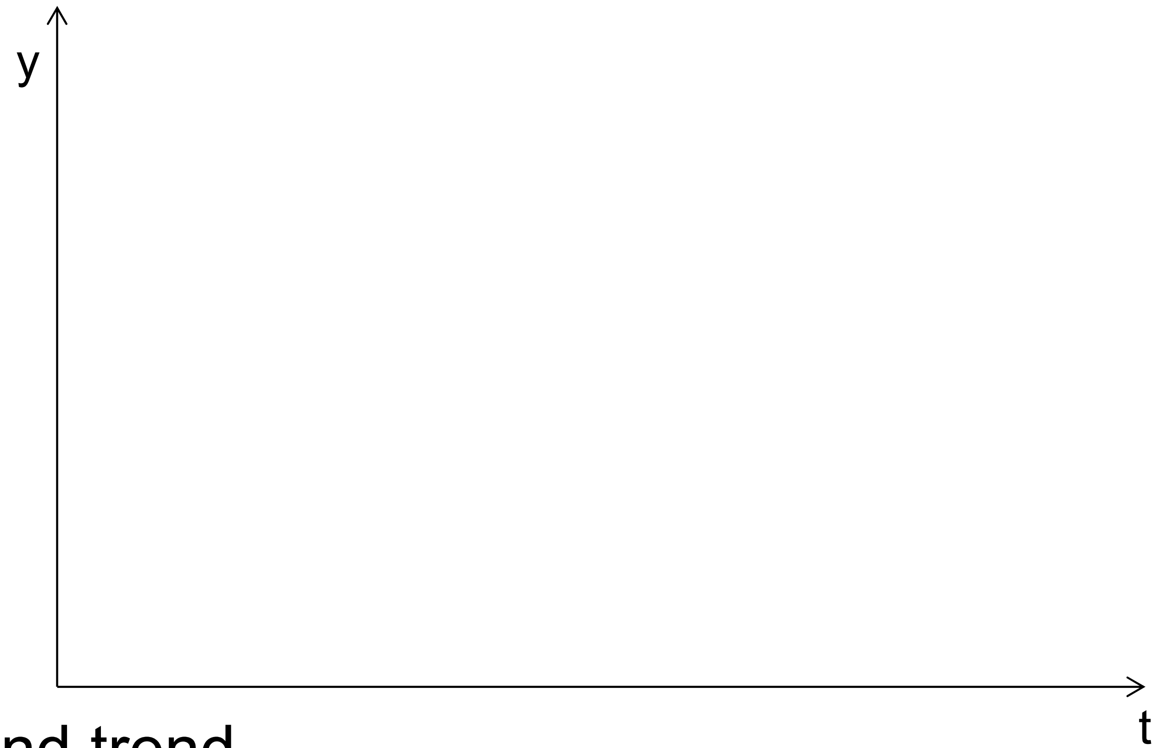
“This is the essence of **secular stagnation** – sick recoveries which die in their infancy and depressions which feed on themselves and leave a hard and seemingly immovable core of unemployment.”

Hansen, A.H. (1939). Economic Progress and Declining Population Growth, *American Economic Review*, 29, 1-15.

Presidential address delivered at the Fifty-first Annual Meeting of the American Economic Association, Detroit, Michigan, December 28, 1938.

In terms of “textbook”-macro:

growth: trend



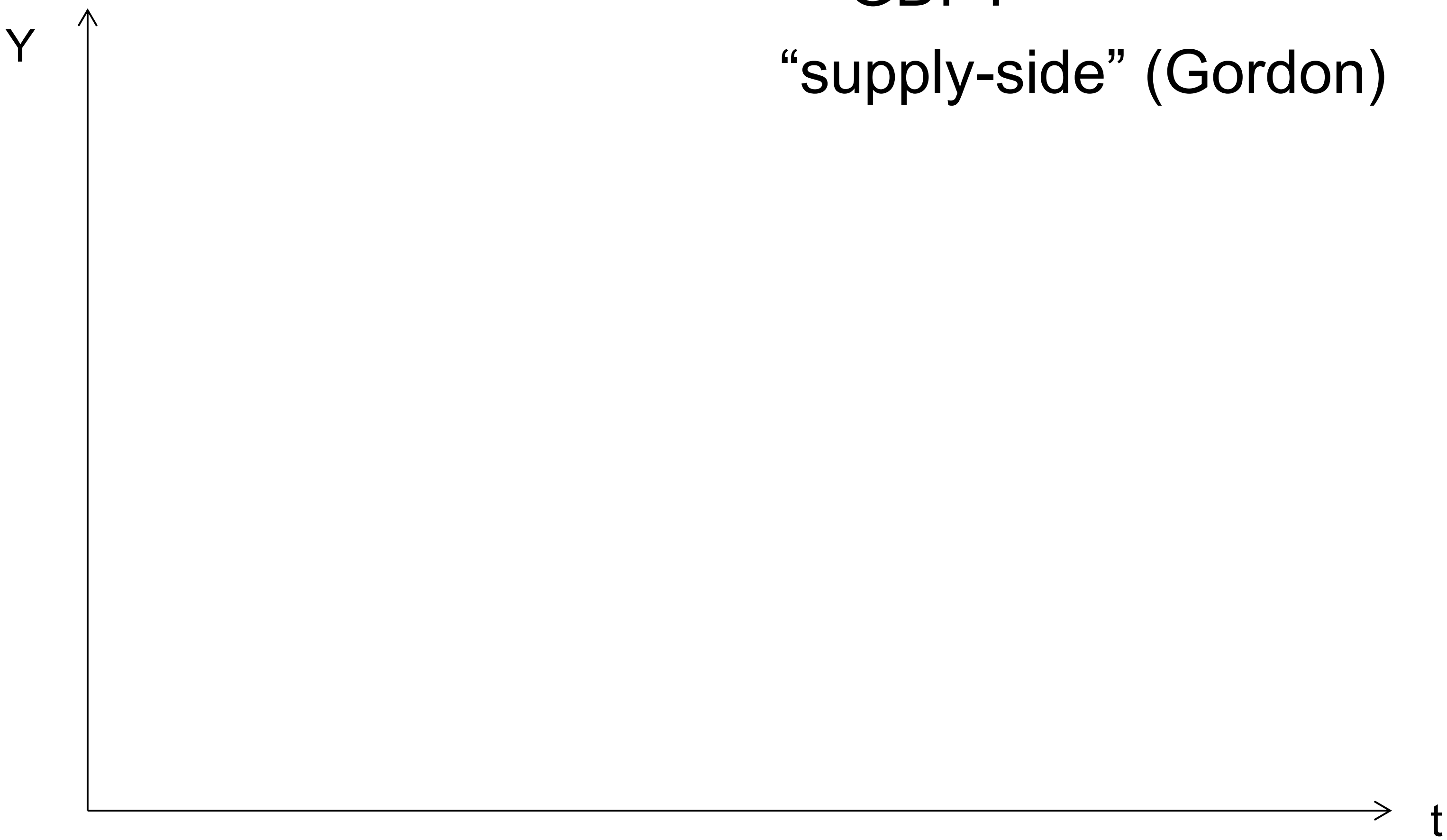
business “cycle” around trend

J. A. Schumpeter (1912)

The capitalist economy (always) grows in cycles.

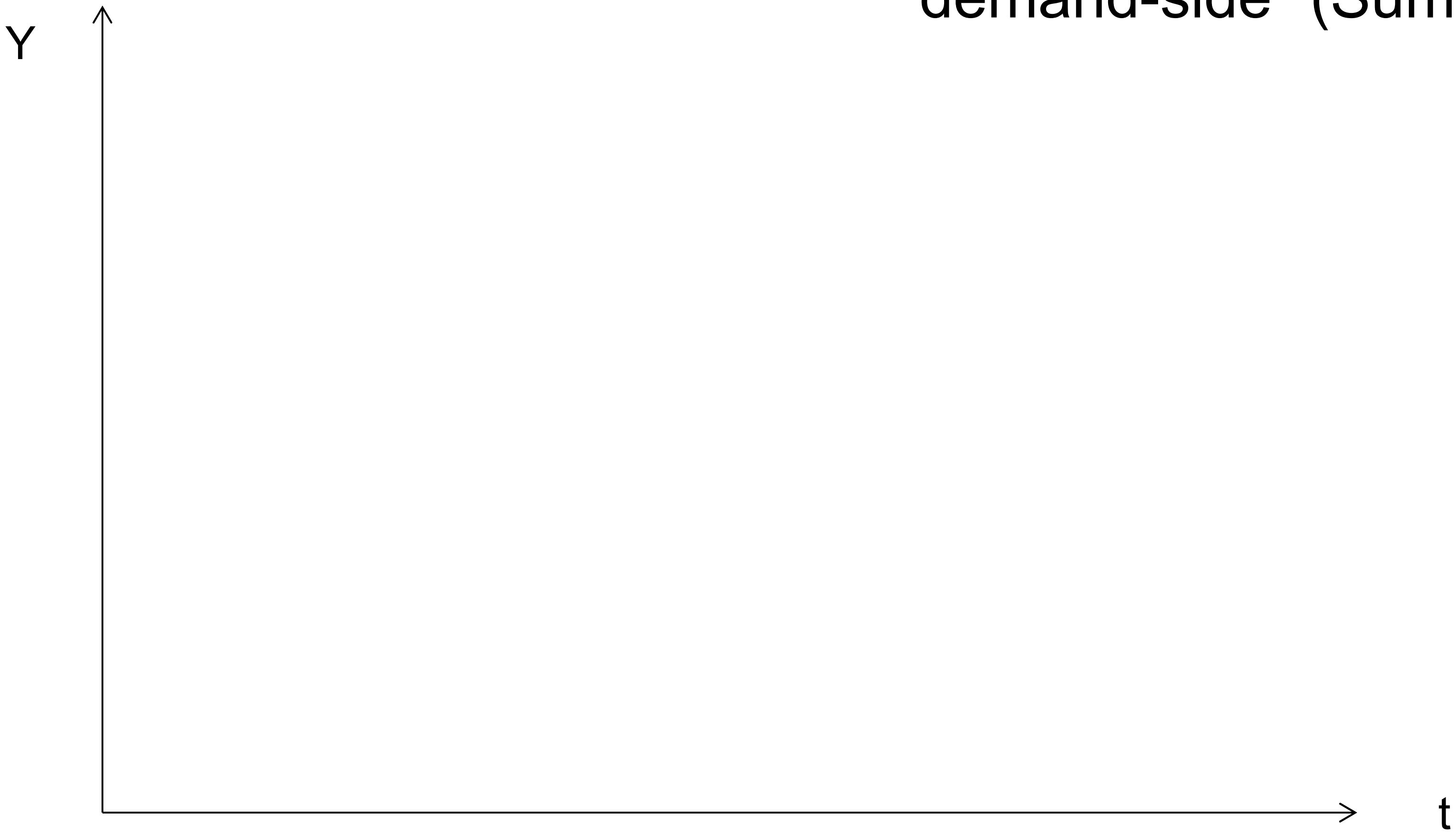
Reduced growth of potential GDP?

“supply-side” (Gordon)



Drawn-out recession?

“demand-side” (Summers)



causes

- supply-side: decline in total factor productivity growth since 1972

- demand-side: decline in real interest rates, “zero lower bound” of nominal rates
    - Decline in investment demand (slow population growth, decline in relative price of investment goods, “excess” cash holdings in companies)
    - Increased savings (emerging markets, rising inequality, increased demand for safe assets after financial crisis)

…differences

- description of the problem
- analysis/identification of causes
- policy measures

…shared assessment

stagnation is an unwanted situation, it should and can be overcome.

Introduction

Classical political economy: growth as progress towards the stationary state

Smith, Malthus, Ricardo, Mill

Stagnation: the interwar years – a crisis of capitalism?

Conclusions: stagnation and stationary state –
looking back into the future of the capitalist economy

Adam Smith (1776)

An inquiry into the nature and causes of the wealth of nations

David Ricardo (1817)

Principles of political economy and taxation

Thomas Robert Malthus (1820)

Principles of political economy

John Stuart Mill (1848)

Principles of political economy. With some of their applications to social philosophy.

Classical growth theory

- growth is a phase of transition, of convergence to the stationary state

- declining rate of profit
  - Smith: competition – limited investment opportunities
  - Ricardo: land is “fixed” factor of production

- population growth dilutes increases in income – “malthusian trap”

Adam Smith´s “system”

Theory of moral sentiments (1759)

An inquiry into the nature and causes of the wealth of nations (1776)

Lectures on jurisprudence (1762-64)

An Inquiry into the Nature and Causes of the Wealth of Nations by Adam Smith 1776

Introduction and Plan of the Work

The annual labour of every nation is the fund which originally supplies it with all the necessaries and conveniences of life which it annually consumes, and which consist always either in the immediate produce of that labour, or in what is purchased with that produce from other nations.

According therefore as this produce, or what is purchased with it, bears a greater or smaller proportion to the number of those who are to consume it, the nation will be better or worse supplied with all the necessaries and conveniences for which it has occasion.

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“causes” of the wealth of nations?

The annual labour of every nation is the fund which originally supplies it with all the necessaries and conveniences of life…

Division of labour increases **labour productivity**

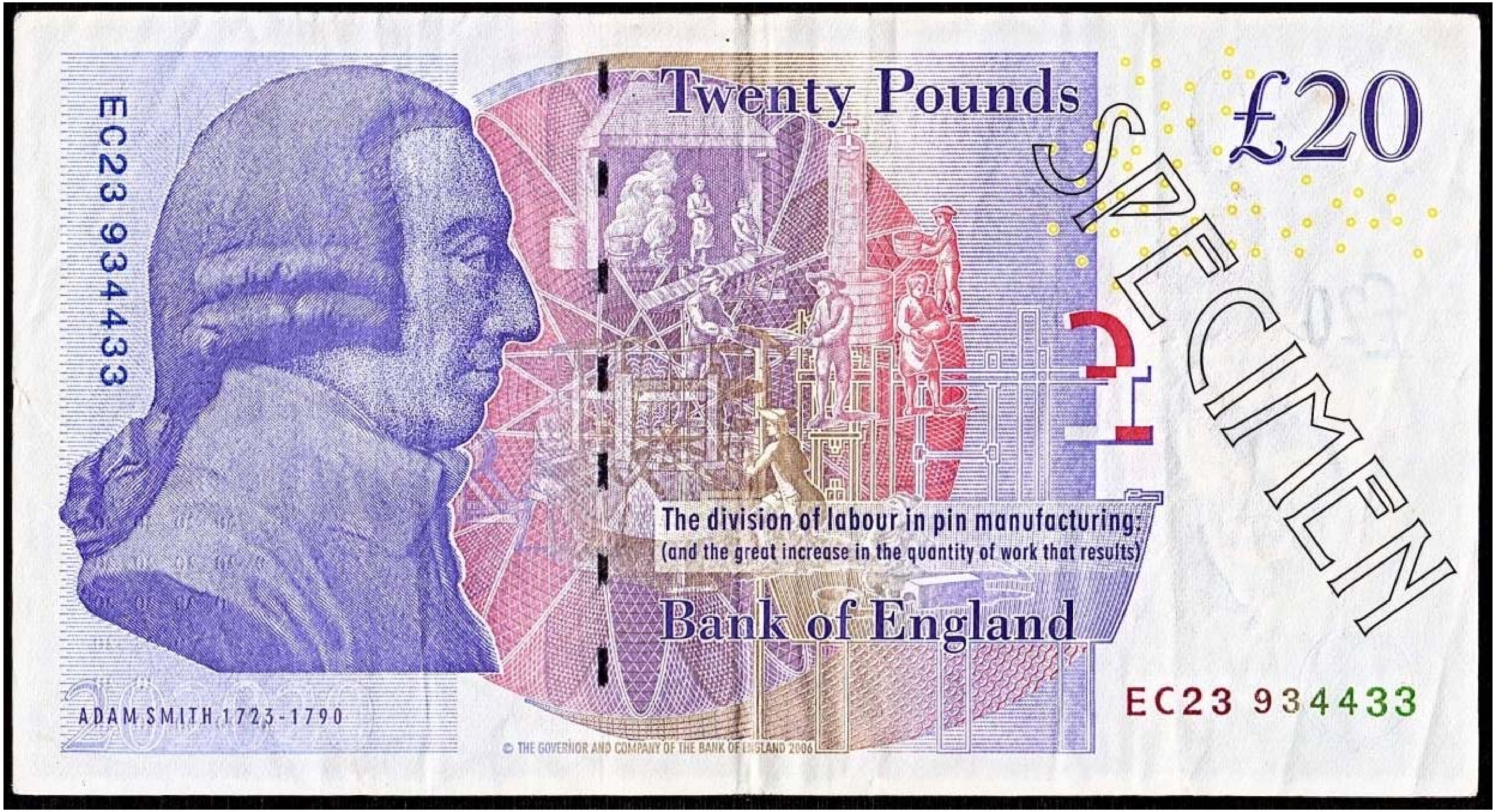
- improved dexterity
- saving of time
- application of machinery, invented by workmen

  „A great part of the machines made use of in those manufactures in which labour is most subdivided, were originally the inventions of common workmen…“ (Smith 1976 [1776], 13)

  „Many improvements have been made by the ingenuity of the makers of the machines, when to make them became the business of a peculiar trade; and some by that of those who are called philosophers or men of speculation, whose trade is not to do any thing, but to observe every thing; and who … are often capable of combining together the powers of the most distant and dissimilar objects.“(Smith 1976 [1776], 14)

The increase in labour productivity increases the purchasing power of the worker´s wage:

with increasing division of labour the (poor) worker in the commercial society becomes “richer” because his labour is worth more goods and services “in exchange”.


EC23 934433
Twenty Pounds
£20
SPECIMEN
The division of labour in pin manufacturing:
(and the great increase in the quantity of work that results)
Bank of England
EC23 934433
ADAM SMITH 1723-1790
© THE GOVERNOR AND COMPANY OF THE BANK OF ENGLAND 2006

Division of labour is limited by the **extent of the market:**

- Demand for free trade (within and between nations)
- Demand for (state financed) provision of infrastructure

(Smith draws attention to the downsides of the division of labour)

Division of labour is at the core of Smith´s “system”

- (modern) “commercial society”
- liberty and individual freedom
- development of the society: morals and ethics, system of law, institutions.

“Progress”

Capital – Adam Smith´s concept

- term: “stock”

- capital is a “stock” of goods, to be employed in production → “real” capital (credit is interpreted as an entitlement to those goods)

- capital is accumulated through saving = not consuming

- capital is necessary for wage payments – a prerequisite to hiring workers

Whatever a person saves from his revenue he adds to his capital, and either employs it himself … or enables some other person to do so, by lending it to him for an interest, that is, for a share of the profits....

Parsimony, and not industry, is the immediate cause of the increase in capital.

Smith 1976 [1776], 358-9

“Law of markets”

- Everything that is saved is invested – in real terms

- If the person who saves does invest himself, he lends to another person, who invests in real terms

- Capital is the result of saving – on the level of the individual as much as on the aggregate level of the “nation”

The annual produce of the land and labour of any nation can be increased by its value by no other means, but by increasing either the number of its productive labourers, or the productive powers of those labourers who had before been employed. … In either case an additional capital is almost always required.

Smith (1976 [1776]), 364

→ capital is prerequisite to growth

The growth process as analyzed by classical political economists:

capital accumulation → wage fund ↑ →
wage rate ↑ → population ↑

capital accumulation → profits↓ → savings↓

rent ↑ due to the limited supply of land

Thomas Robert Malthus

(1766-1834)

An essay on the principle of population, as it affects the future improvement of society, with remarks on the speculations of Mr. Godwin, M. Condorcet, and other writers.

1798

Population growth and subsistence wages

As long as wages are above subsistence the working population increases

→ capital accumulates = wage fund increases

→ demand for labour increases, driving wages above subsistence

→ as labour supply increases, wages are driven back / tend to subsistence

Differential rent theory: a "simultaneous discovery" in 1815

- David Ricardo: *An Essay on the Influence of a Low Price of Corn on the Profits of Stock; Showing the Inexpediency of Restrictions on Importation.*

1772-1823

- Thomas Robert Malthus: *An Inquiry into the Nature and Progress of Rent.*
- Edward West
- Robert Torrens

Differential Rent

Land rent is explained as “difference“ between

- the marginal returns on capital+labour (= cost of production) on the fixed factor land
- and the intramarginal returns

In the growth process rent increases – as poorer land is cultivated or given land is cultivated more intensively – due to diminishing marginal returns.

The profit rate declines in the growth process

due to

- the diminishing returns in agricultural production and
- the lower limit to the wage rate (subsistence)

(also in Smith and Marx – however: based on different theoretical arguments)

The growth process as analyzed by classical political economists:

capital accumulation → wage fund ↑ →
wage rate ↑ → population ↑

capital accumulation → profits↓ → savings↓

rent ↑ due to the limited supply of land

stationary state

profit rate ≈ 0 → capital accumulation ceases

wage fund constant → wages at the subsistence level → population growth ceases

rents are high (limited supply of land)

Adam Smith (and his successors) did not assume unlimited growth:

- Growth as phase of transition characterized by increasing output, employment and population.
- The stationary state is characterized by constant output and population.

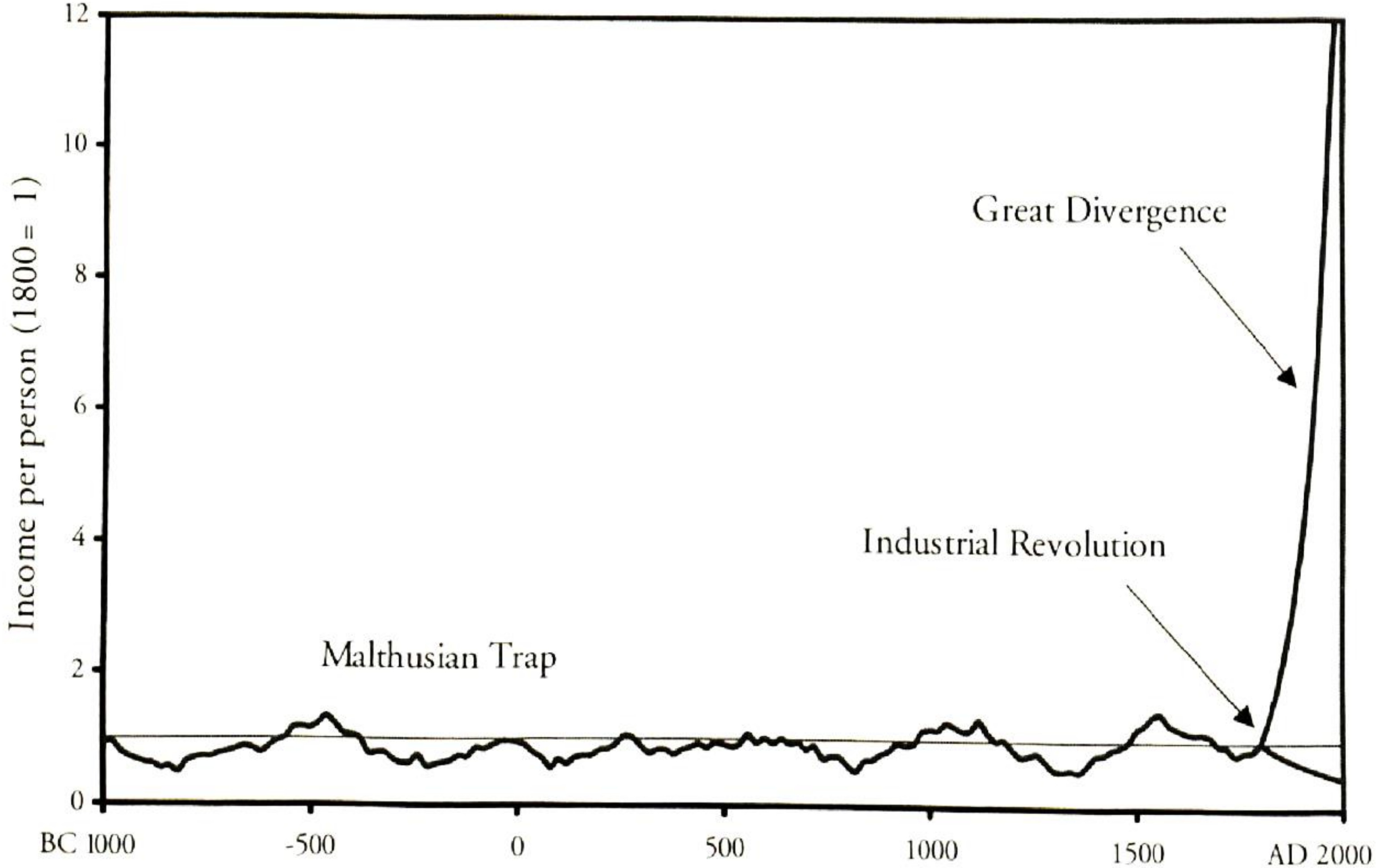


Figure 1.1 World economic history in one picture. Incomes rose sharply in many countries after 1800 but declined in others.

Quelle: Clark, Gregory (2007). A Farewell to Alms: A Brief Economic History of the World. Princeton: Princeton University Press. S. 2.

John Stuart Mill (1848)

“When a country has long possessed a large production, and a large net income to make savings from, and when, therefore, the means have long existed of making a great annual addition to capital; (...) it is one of the characteristics of such a country, that the rate of profit is habitually within, as it were, a hand’s breadth of the minimum, and the country therefore on the very verge of the stationary state.”

Mill (1848) *Principles of Political Economy. With some of their applications to social philosophy*, 731

John Stuart Mill (1848)

Why has England not reached the stationary state?
counteracting circumstances (pp. 733-739):

- “the waste of capital in periods of over-trading and rash speculation, and in the commercial revulsions by which such times are always followed“
- “improvements in production“
- “the acquisition of any new power of obtaining cheap commodities from foreign countries“
- “the perpetual overflow of capital into colonies or foreign countries, to seek higher profits than can be obtained at home.“

John Stuart Mill (1848)

Of the Stationary State. Book IV, Chapter VI in: *Principles of Political Economy with some of their Applications to Social Philosophy*)

"The preceding chapters comprise the general theory of the economical progress of society, in the sense in which those terms are commonly understood; the progress of capital, of population, and of the productive arts. But in contemplating any progressive movement, not in its nature unlimited, the mind is not satisfied with merely tracing the laws of the movement; it cannot but ask the further question, to what goal?... It must always have been seen, more or less distinctly, by political economists, that the increase of wealth is not boundless: that at the end of what they term the progressive state lies the stationary state, that all progress in wealth is but a postponement of this, and that each step in advance is an approach to it."

"I cannot … regard the stationary state of capital and wealth with the unaffected aversion so generally manifested towards it by political economists of the old school. I am inclined to believe that it would be, on the whole, a very considerable improvement on our present condition."

The stationary state allows for general prosperity:

- income (re)distribution, restrictions on inheritance
- limitation of population growth – as basis for higher living standards in the working class

  -> access to education and to the professions for women
- progress in moral and cultural terms
- abundance of capital allows for government spending.

The "classical" stationary state – and (post-)modern concerns with sustainability

- Given supply of land limits growth possibilities
- Technical progress cannot overcome the "natural" limits to growth indefinitely.

The classical discussion of growth and stationarity can shed light on the (post-)modern concerns: description of the problem*, analysis of mitigating and accelerating influences.

*note the concern with direct/private costs in classical political economy vs. the predominance of externalities and social costs in the modern debate.

Introduction

Classical political economy: growth as progress towards the stationary state

Stagnation: the interwar years – a crisis of capitalism?

Keynes, Hansen, Schumpeter

Conclusions: stagnation and stationary state –
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John Maynard Keynes (1883-1946)

The General Theory of Employment, Interest and Money (1936)

Keynes rejects the “classical” analysis of saving and investment:

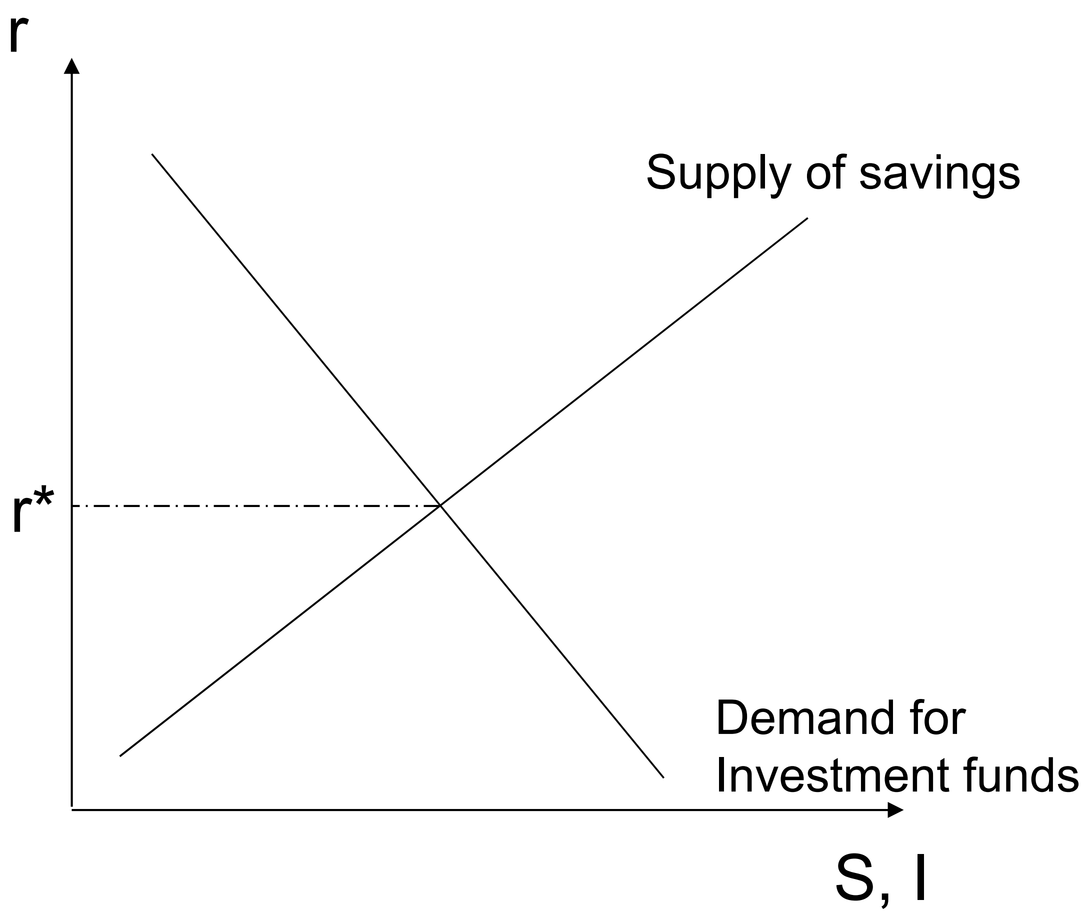
- Adam Smith (*classical* from a history-of-thought perspective)
  on an individual level the decision to save is a decision to invest – linked to the expectation of returns. If the individual does not invest, he lends his funds to somebody who does invest – for a share in the profits. In reasonably safe circumstances, individuals will not hoard money.

  Therefore: on the aggregate level (all) savings are invested (= corollary of Say´s Law).

Keynes rejects the “classical” analysis of saving and investment:

- Knut Wicksell (*neoclassical* from a history-of-thought perspective) the adjustment of the real interest rate brings about equilibrium between (real) savings and (real) investment: if “natural” rate and market rate coincide, the economy is in a goods market equilibrium with price stability.

real interest rate = price of funds (borrowed or lent)



r*
- time preference
- productivity of investment

The equilibrium interest rate reflects the scarcity of savings / of capital

Keynes´s critique

- Savings depend on income (remember the consumption function).
- Investment demand is explained by the marginal efficiency of capital -> central are expected returns.

- (Monetary interest rate explanation)

“marginal efficiency of capital“:

“More precisely, I define the marginal efficiency of capital as being equal to that rate of discount which would make the present value of the series of annuities given by the returns expected from the capital-asset during its life just equal to its supply price.” Keynes, J.M. (1936) *The General Theory of Employment, Interest and Money; 135*

- investment decision: the “marginal efficiency of capital“ of the investment project is compared to the (monetary) interest rate.

- only if the expected returns exceed the interest rate, the investment project ***may*** be realized → low interest rates provide a favorable climate for real investment.

- low interest rates alone will not bring about real investment → “animal spirits”

Animal spirits (esprits animaux)

"Most, probably, of our decisions to do something positive, the full consequences of which will be drawn out over many days to come, can only be taken as a result of animal spirits – of a spontaneous urge to action rather than inaction, and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities."

Keynes, J.M. (1936) *The General Theory of Employment, Interest and Money.* 161

Keynes´s **economic policy conclusions**

The interdependencies between the monetary and real sides of the economy are neither simple nor stable: expansionary monetary policy does not necessarily lead to an increase in real investment.

(Depending on market participants´ adjustment of expectations, an increase in the money supply may be ineffective in view of a change in the interest rate.)

→ government tax and expenditure policy aimed at the propensity to consume and real investment.

($\Delta Y = 1/(1-c)\ \Delta\ G$).

Conclusions:

Mature economies tend to underemployment and depression

- low marginal propensity to consume/high propensity to safe
- given the existing capital stock and the low expectations of future returns: insufficient inducement to invest

Government measures to counteract these tendencies!

Keynes rejects a system of “state socialism”:

- the system of individualism safeguards “personal liberty”,
- “variety of life” is “the most powerful instrument to better the future”

A footnote

Keynes´s vision in

“The economic possibilities for our grandchildren” (1930)

Alvin H. Hansen (1887-1975)

Full recovery or stagnation? New York: Norton. (1938)

Economic Progress and Declining Population Growth,

Presidential address, delivered to the fifty-first annual meeting of the AEA, Dec. 28, 1938

(1939) *American Economic Review*, 29, 1-15.

“The swift stream of events in the last quarter century offers, however, overwhelming testimony in support of the thesis that the economic order of the western world is undergoing in this generation a structural change no less basic and profound in character than that transformation of economic life and institutions which we are wont to designate loosely by the phrase “the Industrial Revolution.”” Hansen 1939, 1

Constituent elements of progress in the previous decades

- inventions
- discovery and development of new territory
- growth of population

"The business cycle was par excellence the problem of the nineteenth century. But the main problem of our times, and particularly in the United States, is the problem of full employment. …Not until the problem of full employment of our productive resources from the long run, secular standpoint was upon us, were we compelled to give serious consideration to those factors and forces in our economy which tend to make business recoveries weak and anemic and which tend to prolong and deepen the course of depressions. This is the essence of secular stagnation – sick recoveries which die in their infancy and depressions which feed on themselves and leave a hard and seemingly immovable core of unemployment."

Hansen 1939, 4

“Keynesian” analysis and policy conclusions

- full employment is the policy goal
- insufficient investment demand causes underemployment
- low interest rates are a necessary but not sufficient precondition for a “full-employment” level of investment
- government policy
  - relief from taxes to strengthen consumption
  - public investment in “human and natural resources” and in “consumers´ capital goods of a collective character”

But:

Hansen raises several layers of questions concerning the compatibility of such government policies with a “system of free enterprise” and a “democratic society”.

Joseph Alois Schumpeter (1883-1950)

The theory of economic development. (1912)

Capitalism, socialism and democracy. (1942)

Capitalism

- Development is linked to permanent change.
- The growth process is cyclical in nature.
- “Creative destruction”: the role of innovation and entrepreneurship

The “Great Depression” is not a crisis of capitalism but the result of a coincidence of the petering out of several waves of innovation.

The future of capitalism

“Can capitalism survive? No. I do not think it can.[…]

The thesis I shall endeavor to establish is that the actual and prospective performance of the capitalist system is such as to negative the idea of its breaking down under the weight of economic failure, but that its very success undermines the social institutions which protect it, and “inevitably” creates conditions in which it will not be able to live and which strongly point to socialism as the heir apparent. […]

Prognosis does not imply anything about the desirability of the course of events that one predicts. If a doctor predicts that his patient will die presently, this does not mean that he desires it. One may hate socialism or at least look upon it with cool criticism, and yet foresee its advent. Many conservatives did and do.”

Schumpeter 1942, 59-60

The success of capitalism undermines its own foundations

- with increasing wealth the concomitants of change such as unemployment, income and wealth inequality are criticized – especially by the increasing number of intellectuals: **ideology**
- large companies become bureaucratic: research and development departments systematically in search of innovation produce a steady stream of minor changes – instead of the disruptive “groundbreaking” innovations of the past: **institutional and organizational change**
- the ideal of the bourgeois family, which was behind the entrepreneurial personalities, looses appeal: **changes in family and society**

These changes lead to a gradual transition: the changing role of the government and increasing scope of government activities pave the way to the state control of the economy:

Capitalism “naturally” gives way to socialism

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"In itself, stagnationism is practically as old as economic thought. In any prolonged period of economic malaise economists, falling in like other people with the humors of their time, proffer theories that pretend to show that depression has come to stay."

Schumpeter, J.A. (1952) *History of Economic Analysis*, 1172

- The recent debate about "secular stagnation": Summers, Gordon and Eichengreen
- The stationary state in Classical political economy: Smith, Malthus, Ricardo, Mill
- Stagnation and the crisis of capitalism? Keynes, Hansen, Schumpeter

Stagnation is explained endogenously:

- classical growth theory
- Schumpeter

Stagnation is caused exogenously – its effects are analyzed:

- Keynes
- Hansen
- Modern debate

Smith, Adam (1976[1776]) *An inquiry into the nature and causes of the wealth of nations.* Edited, with an introduction by Edwin Cannan. Reprinted by New York: Modern books.

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