

History of Economic Thought I

4 : II . The Birth of a New Science (3)

The Classical Growth Theory

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Key Points for Today's Lecture

- Post Smith Economics : The Rise of the “Classicals” (Karl Marx)
 - David Ricardo as the foremost classical economist
- Emergence of a scientific community
- Major achievements :
- ① Classical Growth Theory
- ② Classical Monetary Theory, Trade theory (comparative advantage theory), Machinery, Disagreements among the Classicals ⇒ Next Lecture

Summing up: What “First Economists” up to Adam Smith Achieved

- 1) Philosophical approval of self-interested behavior
- 2) Distinction between the real and monetary economy
 - The Quantity Theory of Money
- 3) Economic Development Theory
 - Knowledge-based
- 4) Case for Free Trade
- 5) Case for the market mechanism
- 6) Limited yet necessary role of the government: overt government interference and regulation inappropriate

Anti-economic way of thinking vs. Economic way of thinking

- Anti-economics

- 1) Manipulability of the world: one can manipulate the world with the degree of power
- 2) Zero-sum view of interests: When one gains, someone else has to lose
- 3) Superiority over others: superiority over others is more important than the absolute level of welfare

- Economics

- 1) Autonomy of the economy: Economic order is the result of autonomous movement irrespective of human intentions. Intentional manipulation of it would often lead to consequences which betray intention
- 2) Pareto-improving: everyone gains from trade
- 3) Independence of welfare: the absolute level of welfare is more important than relative welfare compared to others

Aside: Popular Economic Discourse

	Anti-Economic way of thinking	Economic way of thinking
Pro-Market	Pro-Business, Business People	Classicals, Neo- classicals
Anti-Market	Leftists	

Italian court rules food theft 'not a crime' if hungry (May 3, 2016: <https://www.bbc.com/news/world-europe-36190557>)

- Stealing small amounts of food to stave off hunger is not a crime, Italy's highest court of appeal has ruled.
- Judges overturned a theft conviction against Roman Ostriakov after he stole cheese and sausages worth €4.07 (£3; \$4.50) from a supermarket.
- Mr Ostriakov, a homeless man of Ukrainian background, had taken the food "in the face of the immediate and essential need for nourishment", the court of cassation decided.
- Therefore it was not a crime, it said.
- For the judges, the "right to survival prevails over property", said an op-ed in La Stampa newspaper (in Italian).
- In times of economic hardship, the court of cassation's judgement "reminds everyone that in a civilised country not even the worst of men should starve".

Historical Background

- The Great Event to the 19th century : The French Revolution (1789) to the Rise of Napoleon Bonaparte
 - The Democratization movement, monarchy in crisis
- Changing perception about poverty : different opinions on property rights and liberty, the right to survival of the poor : emergence of conservatives and radicals, right-wing and left-wings Cf. Burke (1790)
- Napoleonic Wars (-1815) : World War 0
- Continental blockade (1806-1813) : Corn-Laws Debates
- Suspension of gold convertibility (1797 — 1821) : Bullionist Debates
- The industrial revolution

Dissemination of economics (political economy)

- ◆ The French revolution, economics became a dangerous thought
 - ◆ “Philosophic Radicals” : James Mill (1773-1836)
 - ◆ Also conservative takes on economics emerged
- ◆ Emergence of scientific community of economists
 - ◆ Commentaries, criticisms and corrections of the *Wealth of Nations*
 - ◆ Economics came to Great Britain
 - ◆ Textbook e.g. James Mill, *Outline of Political Economy* (1821)
 - ◆ Lectures on political economy at Edinburgh, Cambridge, Oxford universities
 - ◆ Political Economy Club(1821)
- ◆ Influences and interactions with policymakers

Reception and Challenges to Smith's *Wealth of Nations*

- Criticisms on analysis
 - Theory of value and price: labor theory of value, but unclear
 - Theory of distribution: how wage, profit, and rent move over time?
 - Theory of money: Smith little contribution, but his banking theory was important
 - Theory of international values: 18th century rule (absolute advantage theory)
- Dissatisfactions with desirable political society
 - Smith: liberty is desirable, but very cautious about politics
 - Dissatisfactions with oligarchy

Changing Philosophy: Utilitarianism

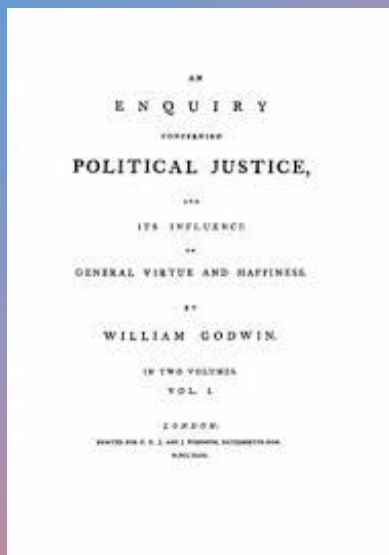
- Jeremy Bentham (1748-1832)
- Calculation of pain and pleasure
- Ethics of pleasure
 - The greatest happiness for the greatest number
- Felicific calculus
- Some difficulties
 - Interpersonal comparison
 - Fallacy of composition
 - Narrowness of motives
- Philosophy for social change and reform
 - Democratization
 - Anti-slavery, anti-colony, anti-child labor
 - gay rights, animal rights





I . Classical Growth Theory (1)

- Thomas Robert Malthus (1765 — 1832年)
- Cambridge University, Mathematics
- Clergy, then professor of political economy at East India College
- *An Essay on the Principles of Population*, First edition, 1798
- *Principles of Political Economy*, First edition, 1820



William Godwin, 1756 – 1836

- English journalist, political philosopher (anarchist), novelist
- Married to Mary Wollstonecraft
 - Daughter Mary Wollstonecraft Shelly
- *Enquiry Concerning Political Justice* (1793)
 - Beliefs in Human progress and power of reason
 - Anti-government
 - Anti-division of labor and exchange
 - For egalitarian distribution of property



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.
LONDON:
PRINTED FOR J. JOHNSON, IN ST. PAUL'S
CHURCH-YARD.
1798.

An Essay on the Principle of Population

- Principles: human growth rate is checked by food production: positive checks and preventive checks
- Purpose: Rebut the arguments by radicals such as Condorcet and William Godwin
 - Call for redistribution and rejection of property rights
- Fierce controversies: Population debate
- Later revisions and editions
 - 2nd edition, 1803, 6th edition, 1826
- From preventive checks to moral restraint
 - The road to Neo-Malthusianism

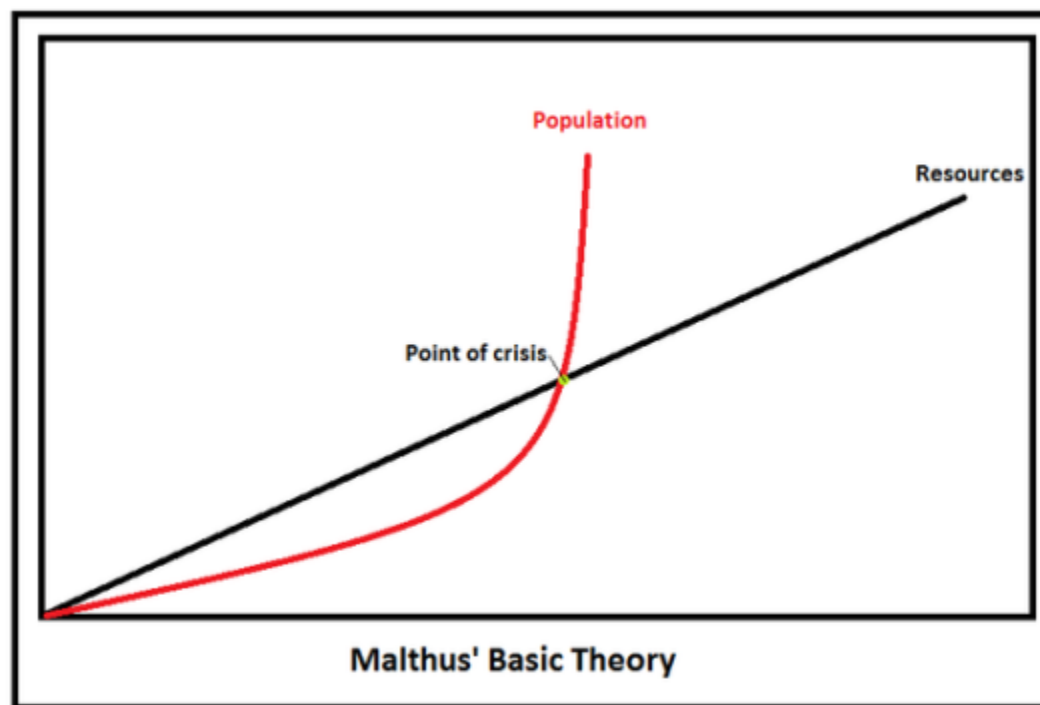
Preface, *Essays on Population*

- The following Essay owes its origin to a conversation with a friend, on the subject of Mr. Godwin's Essay, on avarice and profusion, in his Enquirer. The discussion, started the general question of the future improvement of society; and the Author at first sat down with an intention of merely stating his thoughts to his friend, upon paper, in a clearer manner than he thought he could do in conversation. But as the subject opened upon him, some ideas occurred, which he did not recollect to have met with before; and as he conceived, that every, the least light, on a topic so generally interesting, might be received with candour, he determined to put his thoughts in a form for publication.
- It is an obvious truth, which has been taken notice of by many writers, that population must always be kept down to the level of the means of subsistence; but no writer, that the Author recollects, has inquired particularly into the means by which this level is effected: and it is a view of these means, which forms, to his mind, the strongest obstacle in the way to any very great future improvement of society.

“I think I may fairly make two postulata.”

- First, That food is necessary to the existence of man.
- Secondly, That the passion between the sexes is necessary and will remain nearly in its present state.
- Assuming then, my postulata as granted, I say, that the power of population is indefinitely greater than the power in the earth to produce subsistence for man.
- Population, when unchecked, increases in a geometrical ratio. Subsistence increases only in an arithmetical ratio. A slight acquaintance with numbers will shew the immensity of the first power in comparison of the second.

Malthus' Basic Theory: An Illustration

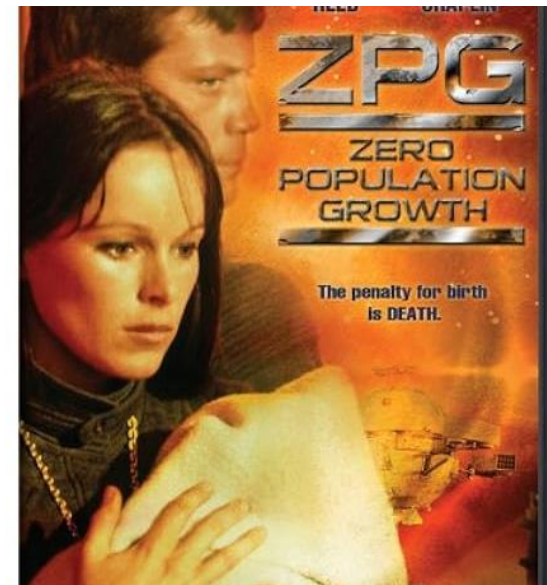
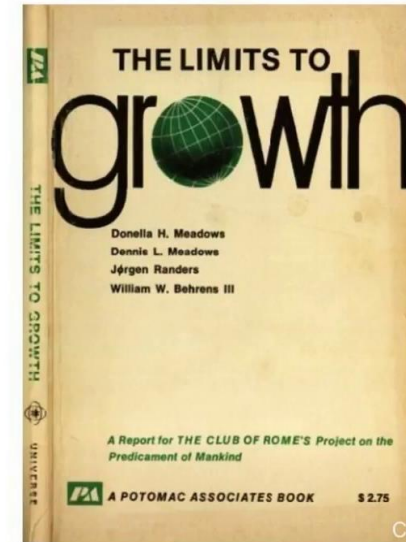




Is Thanos right? What should Gamora have said to Thanos?

Evaluation : Significance and Limitations

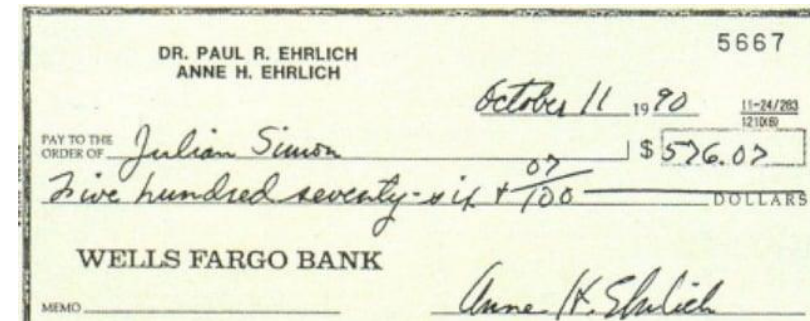
- Significance :
 - Negative feedback mechanism
 - Biological, evolutionary view
 - Resource constraints: Today's Malthusian
 - Paul Ehrlich, *The Population Bomb* (1968)
 - Club of Rome, *The Limits to Growth*, (1972)
 - Movie *ZPG*(1972)
 - Movie *Soylent Green*(1973)
 - Thanos first appeared in The Iron Man comic book (1973)
 - Oil shocks (1973, 1979)
 - Environmental constraint
 - Climate change
- Limitations:
 - The world before modern economic growth
 - See Clark 2007, Galor 2011, 2021
 - To what extent resources and environment are constrained?



Pop Culture in the 1970s Japan

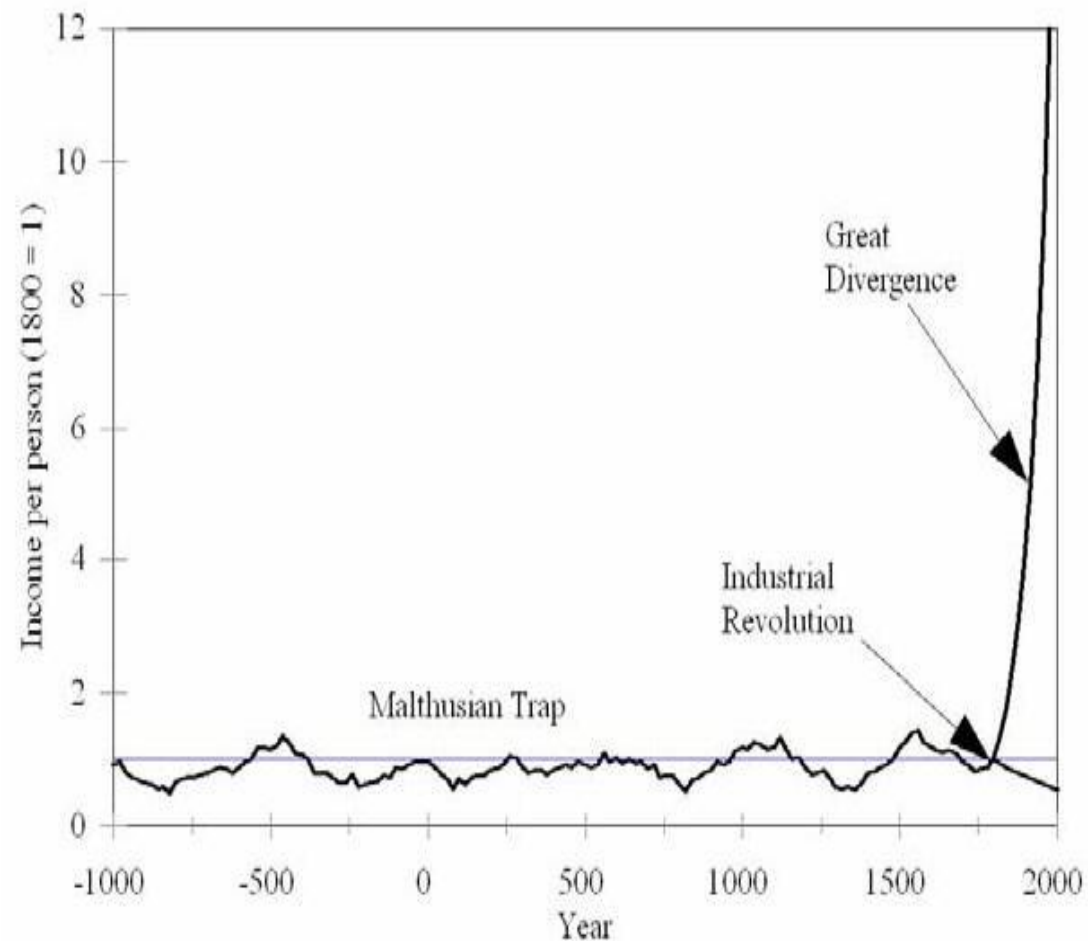


Simon–Ehrlich wager



- Julian Simon vs. Paul Ehrlich
- Ehrlich, *The Population Bomb* (1968)
 - “The battle to feed all of humanity is over. In the 1970s hundreds of millions of people will starve to death in spite of any crash programs embarked upon now. At this late date nothing can prevent a substantial increase in the world death rate.”
- Simon, *Ultimate Resource* (1981)
 - “There is no physical or economic reason why human resourcefulness and enterprise cannot forever continue to respond to impending shortages and existing problems with new expedients that, after an adjustment period, leave us better off than before the problem arose.... Adding more people will cause [short-run] problems, but at the same time there will be more people to solve these problems and leave us with the bonus of lower costs and less scarcity in the long run.... The ultimate resource is people—skilled, spirited, and hopeful people who will exert their wills and imaginations for their own benefit, and so, inevitably, for the benefit of us all.”
- Wager, 1980:
- The Outcome:
- Evaluation
 - <https://www.youtube.com/watch?v=HuxSi2JkL3I&t=25s>
 - <https://www.cato.org/policy-analysis/simon-abundance-index-new-way-measure-availability-resources#the-price-elasticity-of-population>
 - Sabin (2013)

From Malthusian Trap to Modern Growth

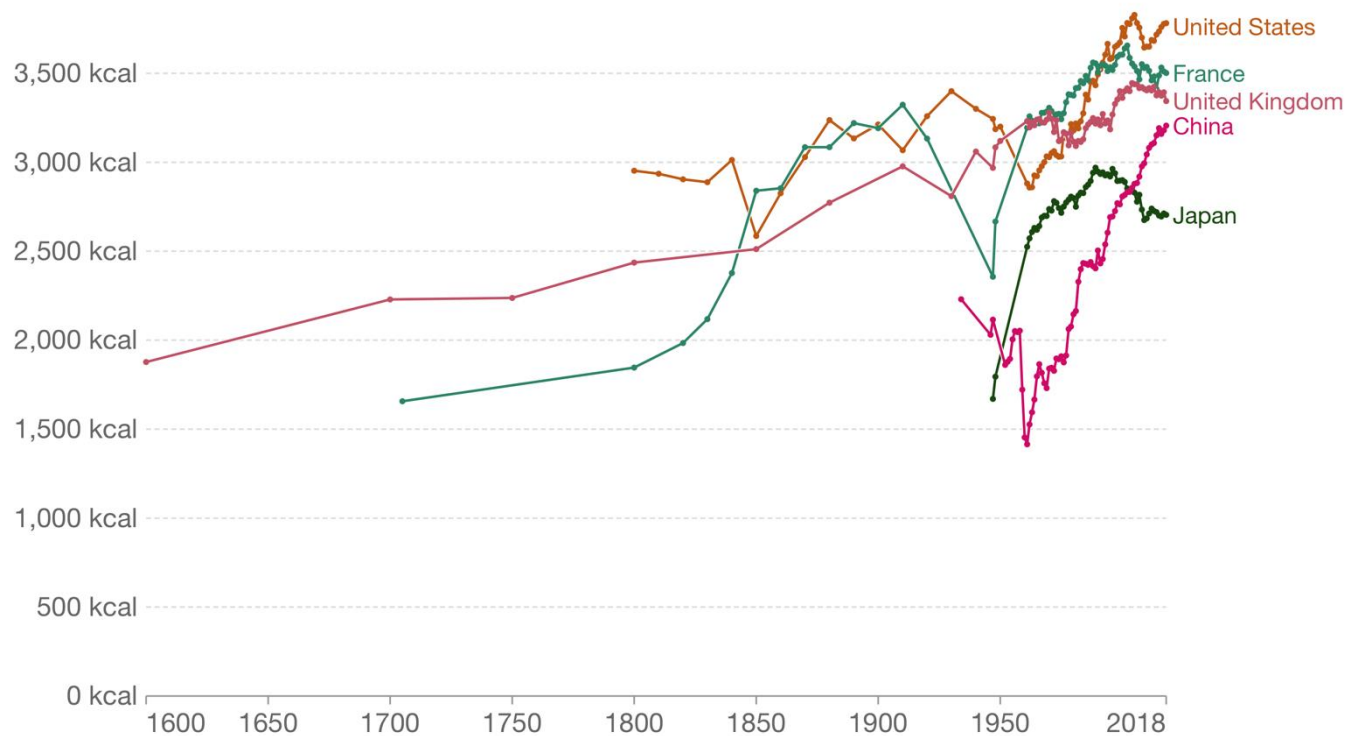


Increasing Food

Daily supply of calories per person, 1600 to 2018

Our World
in Data

Daily per capita caloric supply is measured in kilocalories per person per day. This indicates the caloric availability delivered to households but does not necessarily indicate the number of calories actually consumed.



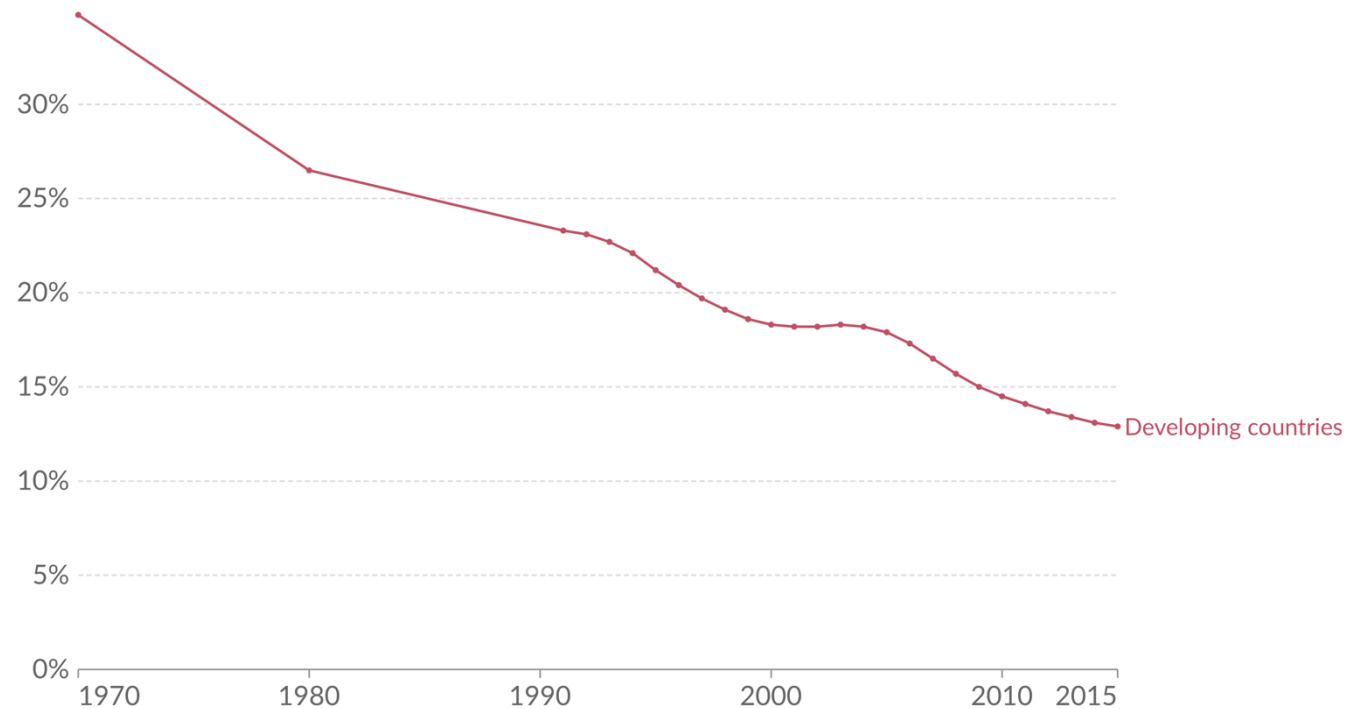
Data source: Our World in Data based on the Food and Agriculture Organization of the United Nations & historical sources
OurWorldInData.org/food-supply | CC BY

Decreasing undernourishment

Prevalence of undernourishment in developing countries, 1970 to 2015



The share of individuals that have a daily food intake that is insufficient to provide the amount of dietary energy required to maintain a normal, active, and healthy life.



Data source: Food and Agriculture Organization of the United Nations and ESS Indicators

Note: Data from 1990 onwards is well-established within FAO estimates. Earlier estimates are significantly more uncertain.

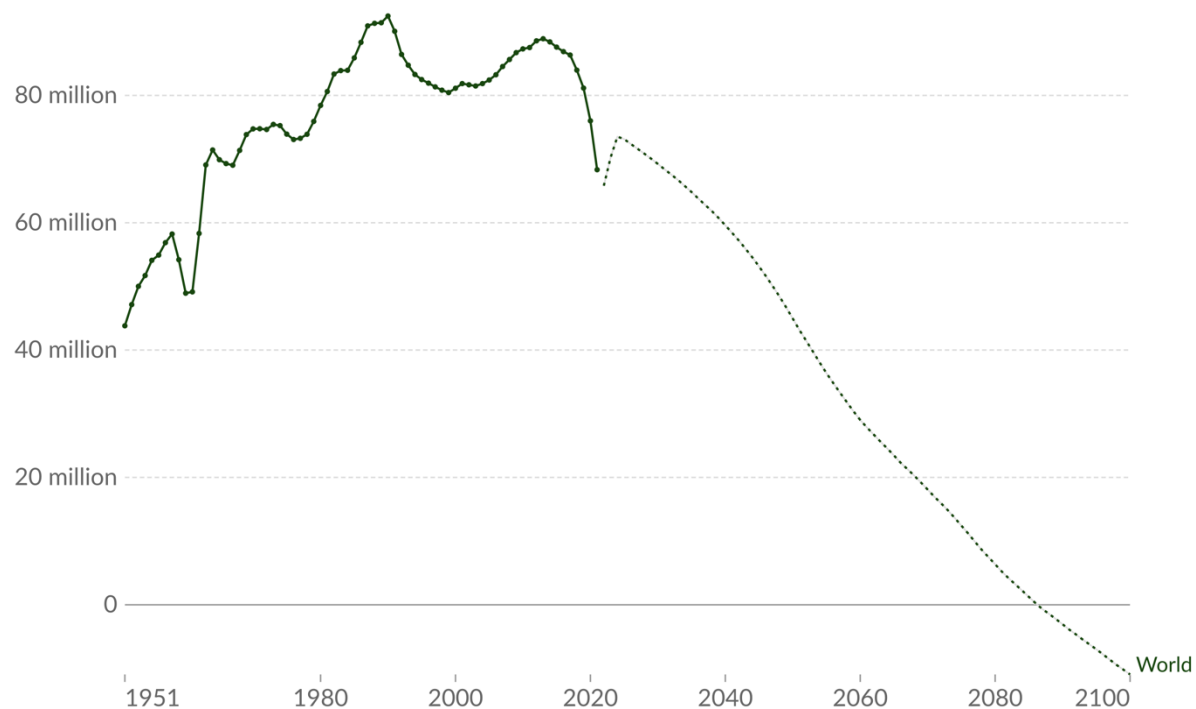
OurWorldInData.org/hunger-and-undernourishment | CC BY

Decreasing World Population

Annual population growth


Historic estimates with future projections based on the UN medium-fertility scenario¹.

Our World
in Data



Data source: United Nations, World Population Prospects (2022)

OurWorldInData.org/population-growth | CC BY

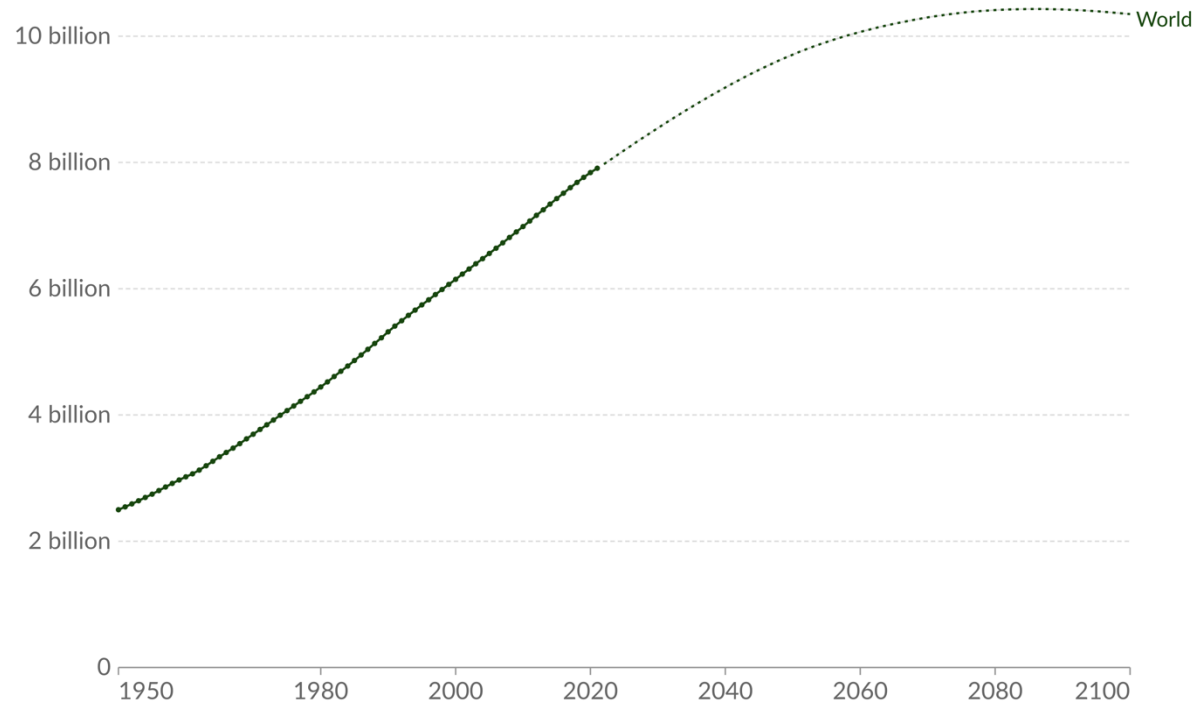
1. UN projection scenarios: The UN's World Population Prospects provides a range of projected scenarios of population change. These rely on different assumptions in fertility, mortality and/or migration patterns to explore different demographic futures.  Read more: Definition of Projection Scenarios (UN)

World Population Is Projected to Stabilize and Decline

Population, 1950 to 2100


Future projections are based on the UN medium-fertility scenario¹.

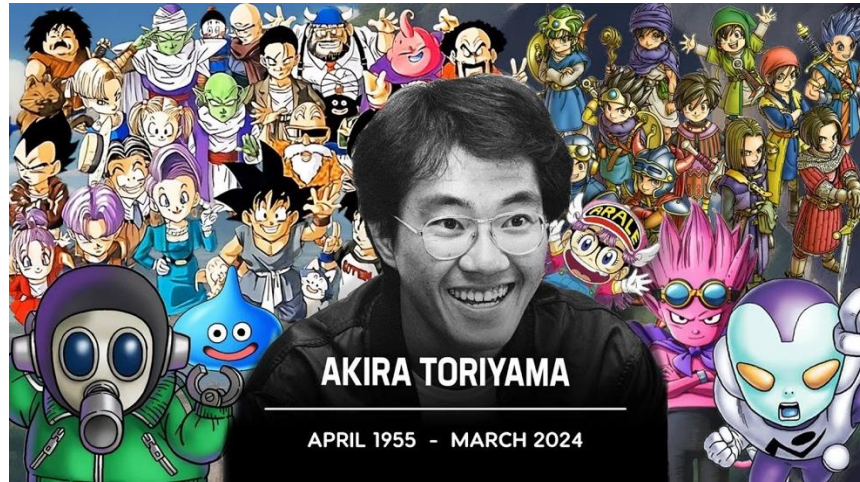
Our World
in Data



Data source: United Nations, World Population Prospects (2022)

OurWorldInData.org/population-growth | CC BY

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Is the Poor responsible for their Poverty ?:

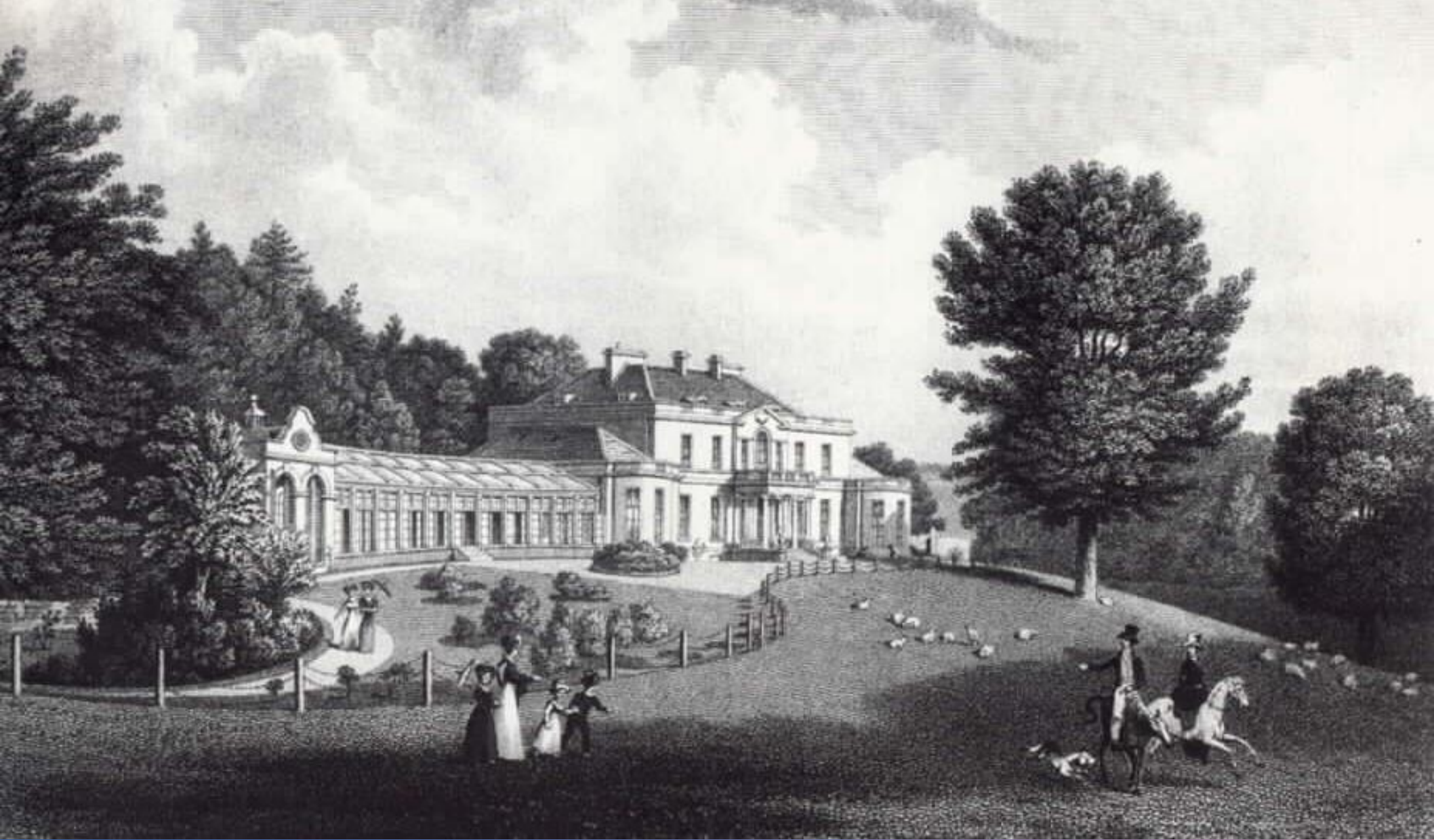
Debates over the Poor Law

- Principle of Population, 2nd edition (Malthus 1803/1996)
- The Poor Law : subsidize wages by the difference between wages and wages enough to support family
- Malthus' critique : The Poor Law gives the poor an incentive to increase population, thus trapping them into poverty. It should be abolished, but gradually.
- Against Malthus : M attributes the poverty to the poor. In the end, he is defending the establishment
- M's rebuttal : Attributing poverty to politics would lead to violent revolution, it this does not solve the problem, people get disillusioned about politics
- M's alternative : Fostering "foresight" among the people by public education, and reform
- Was Malthus an apologist for the establishment? Restraining population growth was extremely anti-establishment back then
- Later, M admitted poverty not due to indolence and ignorance, calling for saving the poor
 - Recession and Hunger

Classical Growth Theory (2)

- David Ricardo (1772-1823)
- Jewish immigrant from Portugal
- Converted to Christianity by marrying a Quaker woman
- Stock jobber, probably the richest economist in history
- Member of Parliament
- *Principles of Political Economy and Taxation* (First ed., 1817; Third ed., 1823)
- Piero Sraffa edited *The Works and Correspondence of David Ricardo*





Gatcombe Park, Then



Gatcombe Park Now

Classical Growth Theory (3)

- February 1815 : four pamphlets by Sir Edward West, Robert Torrens, Malthus, David Ricardo :
 - Laws of diminishing returns = law of diminishing marginal productivity
 - Cf. Smith
 - Differential rent theory
- Ricardo's Principles stood out
 - *Principles*, General Preface
 - Laws of distribution
- Wages? Difference in interpretation
 - A) Subsistence wages (fixed wages) : Schumpeter, Sraffa
 - B) Market wages (flexible wages) : Hollander, Levy

General Preface, *Principles*

- The produce of the earth—all that is derived from its surface by the united application of labour, machinery, and capital, is divided among three classes of the community; namely, the proprietor of the land, the owner of the stock or capital necessary for its cultivation, and the labourers by whose industry it is cultivated.
- But in different stages of society, the proportions of the whole produce of the earth which will be allotted to each of these classes, under the names of rent, profit, and wages, will be essentially different; depending mainly on the actual fertility of the soil, on the accumulation of capital and population, and on the skill, ingenuity, and instruments employed in agriculture.
- To determine the laws which regulate this distribution, is the principal problem in Political Economy

Classical Growth Theory(4) :

The Model

- Three theories
 - 1) Diminishing returns to the application of capital and labor to land
 - Differential rent theory
 - 2) Embodied labor theory of value : Modified with fixed capital, “93%”
 - 3) The Malthusian population principle
- Four assumptions
 - Wage goods = consumer goods = single goods
 - Set aside fixed capital Cf. Ricardo on Machinery
 - Specific production function : Leontief
 - The minimum profit to induce capital accumulation : “effective desire of accumulation”

The Classical Growth Process

- 1. W/o technological change
 - Capital accumulation → Corn production increases → Real wages go up → Population increases → Increased use of lesser quality lands, marginal productivity decreases → Real wages decreases, yet higher than the subsistence level → Population increases, but at a slower rate → → Capital accumulation, population increase, economic growth all halt, wages and profit are at the lowest subsistence level <stationary state>
- 2. W technological change
 - A) One-time change : Profit goes up → Capital accumulation → the same as 1
 - B) Continuous:
- 3. Freer Trade
 - Halting the use of lesser quality lands → capital accumulation and economic growth continues

Conclusions and Policy Implications

- Conclusions :

- ① Without continuous technological change, growth will come to an end, approaching to the “stationary state”
 - Neo-classical growth theory before the neo-classicals
 - In the period up to the stationary state, profit and wages would fall, rent would increase
- ② In a growth phase, wages are above the subsistence wages

- Policy Implications :

- ① Free trade is desirable : Protectionism \Rightarrow Demand for “corn” within a country increases \Rightarrow Production of corn increases \Rightarrow Use of land in a country expands \Rightarrow Diminishing returns
- ② Technological change is desirable : it delays the approach to the stationary state

Think Further

- Read through different editions of Malthus' *Essay on the Principles of Population*. How did he change his arguments?
- What was the Debate on Malthus' *Essay*?
- After all, which is better, fewer population or more population?
- What are the problems of the embodied labor theory of value?
- What are other conditions for continued economic growth in the classical growth theory other than technological change?

Next Week

- Read the following
- Classics
 - Thornton, *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain*, Chapter 4
 - Ricardo, *Principles*, Chapters 7, 27, 31

参照文献

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