

Principles of classical economics- Competition, Free, Comparative advantage

Adam Smith (1723-1790)

An inquiry of nature and causes of the wealth of nations (国富論) 1759

1 The idea of "invisible hand"

Adam Smith's important claim is that individuals' efforts to maximize their own gains in a free market benefits society, by the invisible hand, even if the ambitious have no benevolent intentions.

(1) It may mean

Competition (efforts to maximize own gain) is virtue, not sin, because it is good for the society and makes wealth.

(2) Required conditions

Free market (**but fair play**): free completion Fair= not disturb the function of market ?

(3) This is **the principle** (natural law) for the order of the society in connection with the economy.

Original text of Adam Smith Volume IV chapter 2.paragraphe 9

, he intends only his own gain, and he is in this, as in many other cases, led by **an invisible hand** to promote an end which was no part of his intention. Nor is it always the worse for the society that it was not part of it. By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it. I have never known much good done by those who affected to trade for the public good. It is an affectation(気取り), indeed, not very common among merchants, and very few words need be employed in dissuading them from it.

個人は、この場合にも、他の多くの場合と同様に見えざる手に導かれて自分の意図には全くなかった目的を推進するのである。それが個人の意図に全くなかったということは、必ずしも社会にとって悪いわけではない。自分自身の利益を追求することによって、個人はしばしば、社会の利益を、実際のそれを促進しようとする場合よりも効果的に推進するのである。

2 Other subjects of the wealth of nations

Specialization(分業), stock, market, prices, money (貨幣) , trade, criticism of mercantilism (重商主義) ,

3 Another study of Adam Smith

He had an idea that there is a principle other than competition, for the order of the society. It would be something moral. But he did not finally identified this principle.

Welfare economics

David Ricardo (1772-1823)

Principles of Political Economy and Taxation 1817

Principle of comparative advantage

Point I Trade is mutually beneficial for participating countries

1-1 Assumption of required labour unit for producing a unit of product

	Industrial product Labour units to produce one unit of product	Agricultural product Labour units to produce one unit of product
Japan	4	8
USA	6	2

1-2 Comparative advantage

Japan has comparative advantage in the industrial sector

Japan	USA
Advantage of industrial product against agricultural products	Advantage of industrial product against agricultural products
$8/4 = 2$	$2/6 = 1/3$

1-3 Specialization of producing the product of comparative advantage

	Industrial product	Agricultural product	Total
Japan	+2 units	-1	+1
USA	-1	+3	+2
Total	+1	+2	+3

1-4 Assumption of wages for labour

	Wage /hour	Price of product	
		Industrial product	Agricultural product
Japan	1000 Yen	4000 Yen	8000 yen
USA	10 dollars	60 dollars	20 dollars

1-5 Exchange rate and trade

Exchange rate	Less than 66.7 Yen/ dollar, (4000/60)	100Yen/ Dollar	200Yen/ Dollar	More than 400 Yen/dollar (8000/20)
Agricultural Product	USA more competitive	2000Yen (20 dollars x 100) In Japan 8000Yen	4000yen (20 dollars x 200)	Japan more competitive
Industrial Product	USA more competitive	40 dollars (4000yen/100) (In USA 60 dollars)	20 dollars (4000yen/200)	Japan more competitive

Point II (the most important)

Ricardo argued that even that the country has absolute advantage in the production of both commodities it is beneficial for that country to specialize in the production of that commodity in which it has a greater comparative advantage.

Case II Absolute advantage on both products

2-1 Assumption of needed labour unit to produce a unit of products

	Industrial product Labour units to produce one unit of product	Agricultural product Labour units to produce one unit of product
Japan	3	3
USA	6	3

2-2 Comparative advantage

Japan has comparative advantage for industrial product

Japan	USA
Advantage of industrial product against agricultural product	Advantage of industrial product against agricultural product
$3/3=1$	$3/6= 1/2$

2-3 Shift(specialization) of labour to product of comparative advantage

	Industrial product	Agricultural product	Total
Japan	+1 units	-1	+0
USA	-1	+2	+1
Total	+0	+1	+1

2-4 Assumption of wages for labour

	Wage /hour	Price	
		Industrial product	Agricultural product
Japan	1000 Yen	3000 Yen	3000 yen
USA	10 dollars	60 dollars	30 dollars

1-5 Exchange rate and trade

	Less than 100 Yen/ dollar, 3000/30	90 Yen/dollar	80 Yen/dollar	More than 50 Yen/dollar 3000/60
Agricultural Product	USA more competitive	2700Yen (In Japan3000Yen)	2400 Yen	Japan more competitive
Industrial Product	USA more competitive	50 dollars (In USA 60 dollars)	37.5 dollars	Japan more competitive

Attention 絶対的優位と比較優位の違い

	Industrial product 1 unit	Agricultural product 1 unit
Country A	3 units of labour	1
Country B	4	8

Absolute advantage 絶対的優位 **Country A has absolute advantage**

Comparative advantage 比較優位

B country has comparative advantage in industrial product

Explanation by the opportunity cost

A country : For increasing one unit of industrial product, A country must lose 3 units of agricultural product(工業製品を1単位増やすのに農産品3単位を減らさなければならない)

B country : For increasing one unit of industrial product, B country must lose 1/2 units of agricultural product(工業製品を1単位増やすのに農産品1/2単位減らさなければならない)

A country has comparative advantage in agricultural product

Effects of the principle of comparative advantage(結論)

1. Even in the case that a country has less productivity in all products, if this country specializes the production of produce which has comparative advantage, this country can export the products, and import products with less comparative advantage. This sort of trade will be beneficial for both participating country in trade. Trade has a function of Win -Win

すべての分野で他の国に生産性が劣っていたとしても、比較優位な分野の産品を多く生産し、輸出し、比較優位でないものを輸入すれば、その国はもとより貿易相手国もより豊かになれる。

(すべての産品について世界的に優位にし、輸入を行わないのは国をより豊かにしない)

貿易はウィン・ウインの関係にある。

2. Trade is a matter of comparative advantage, not absolute advantage. Therefore, the degree of productivity among domestic industries is also an important element for trade.

国際貿易上は絶対優位が問題になるのではなく、比較優位であるから、国内の他の産業がどのくらい優位にあるかも大きな要素になる（国内間の競争）

3. In both domestic and foreign markets, the specialization is accelerated. An industry which has lost its comparative advantage in both markets will fade away. Otherwise, this industry may prevent the both countries from being more prosperous.

国内的にも国際的にも分業が促進される。国内的にも国際的にも比較優位を失った産業は消滅していく運命にある。そうでなければ、自国も他の国もより豊かになれない。

Robert Malthus 1766-1834

An essay on the principle of population 人口論 1798

1 Objective

English is by the original text

It has been said that the great question is now at issue, whether man shall henceforth start forwards with accelerated velocity towards illimitable, and hitherto unconceived improvement,

人間はこれから加速度的に無限のこれまでに考えられたことのないほどの改善に向かって前進を始めるのであろうか。

or be condemned to a perpetual oscillation between happiness and misery, and after every effort remain still at an immeasurable distance from the wished-for goal.

あるいは、幸福と不幸との間の永遠往復運動を運命づけられており、あらゆる努力にもかかわらず、念願する目標からはなお、計り知れないほどの距離にとどまっているのであろうか。

But I see great, and, to my understanding, unconquerable difficulties in the way to them. These difficulties it is my present purpose to state,

私の判断では克服できない諸困難を、私は見る。これらの諸困難について述べることが私の現在の目的である。

2 Postulata (general laws)

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.

私は二つの公準をおいても差し支えないであろうと考える。第一 食料は人間の生存に必要であること。第二 両性間の情念は必然であり、ほぼ現在の状態であり続けること。

3 Principle(chapter 1 and 2)

Population, when unchecked, increases in a geometrical ratio. Subsistence (生活資料) increases only in an arithmetical ratio. (Population 1, 2, 4, 8, 16 Subsistence 1, 2, 3, 4, 5)

Yet still the power of population being a power of a superior order, **the increase of the human species can only be kept commensurate to the increase of the means of subsistence** by the constant operation of the strong law of necessity acting as a check upon the greater power.

And that the superior power of population cannot be checked without producing misery or vice, the ample portion of these too bitter ingredients in the cup of human life and the continuance of

the physical causes that seem to have produced them bear too convincing a testimony.

4 Criticism against the utopian theory (Enlightenment(啓蒙) and rationalism),
Godwin, Condorcet (Chapter 8-15)

5 God and nature(Chapter 18).

In all our feeble attempts, however, to ‘find out the Almighty to perfection’, it seems absolutely necessary that **we should reason from nature up to nature’s God and not presume to reason from God** to nature the Supreme Being should act always according to general laws. The constancy of the laws of nature, or the certainty with which we may expect the same effects from the same causes, is the foundation of the faculty of reason

万能の神を完全に見極める我々の微力な試みにおいて我々は自然から神を推論すべきであって、神から自然へと推論すべきでないことは絶対に必要であると思われる。最高存在が常に一般法則に従って行為することが絶対に必要と思われる。自然の諸法則の恒常性、我々が同じ原因から同じ結果を期待できる確実性は、理性の能力の基礎である。

Charles Darwin(1809-1882)

Origin of species (種の起源)

1 Evolution of Darwin's theory

(1) Progressionism (進歩説) (Evolution of species)

Lamarck(Francais) **Biologist** **Philosophie zoologique 1809**

On the basis of fossils in the different layers of soil he argued that creatures have been developed from very primitive creatures.

Pro. Fukuoka hinted the relation between DNA and progressionism

(2) Uniformitarianism (齊一説)

Lyell **Geologist** **Principles of Geology 1830-1833**

Species are not subject to change. Darwin was under his influence.

Lyell criticized Lamarck by the reason that

Lamarck had not evidence, and he developed his idea by just imagination.

Human beings are not in the continuity with the other animals

(3) Darwin's separation from the theory of Lyell

Voyage to South America and other countries 1831-1836

“Narrative of the Surveying Voyages of His Majesty's Ships Adventure and Beagle”

(4) Supreme existence, 1842 in “Sketch”

It was very difficult to explain why and how new species are created in the theory of evolution.

He relied on a supreme and wise existence who selects for many years, if variation occurs in plant and animals.

Original text of Sketch

But if every part of a plant or animal was to vary <illegible>, and if a **being infinitely more sagacious than man** (not an omniscient creator(神)) during thousands and thousands of years were to select all the variations which tended towards certain ends. ([or were to produce causes <?> which tended to the same end]),

2 Origin of species 1859

(1) Struggle for existence (生存闘争)

All organic beings are exposed to **severe competition**. (Original text Chapter3)

I should premise that I use the term Struggle for Existence in a large and metaphorical sense, including dependence of one being on another, and including not only the life of the individual, but

success in leaving progeny (子孫).

(2) Variation of character (形質の分岐)

the more diversified the descendants from any one species become in structure, constitution, and habits, by so much will they be better enabled to seize on many and widely diversified places in the polity of nature, and so be enabled to increase in numbers (Chapter 4 Natural selection) .

ある一つの種から生じた子孫がその構造、体質、習性においてより多様に分岐していればいるほど彼らは自然の国において多くの大きく異なった場所をもっと占めることができ、それによって個体数を増やすことができる。

(3) Natural selection(自然淘汰) (Chapter 4 Natural selection)

It may be said that natural selection is daily and hourly scrutinising, throughout the world, every variation, even the slightest; rejecting that which is bad, preserving and adding up all that is good; silently and insensibly working, whenever and wherever opportunity offers,

自然淘汰は、世界のいたるところで一日も一時も欠かさずにごくごくわずかなものまであらゆる変異を精査しているといつてよいであろう。悪い変異は破棄し、よい変異はすべて保存し蓄積していく。個々の生物を他の生物との関係や物理的な生活条件に照らして改良すべく、機会さえ与えられればあらゆる時と場所で静かに少しずつその仕事を進めている。長い年月が経過するまでゆっくりと進むその変化に我々は気がつくことはない。

In 1858 Wallace announced the theory of natural selection. One year before the publication of “ Origin of species of Darwin

Wallace が 1858 年に自然状態の不断の生存闘争として自然淘汰の原理を発表していた。

(4) Difficulties on theory (Chapter 6)

Natural selection can act only by taking advantage of slight successive variations; she can never take a leap (飛躍)

a) Transitional forms

But, as by this theory innumerable transitional forms must have existed, why do we not find them embedded in countless numbers in the crust of the earth

b) Instinct (Chapter 7)

as that of the hive-bee(ミツバチ) making its cells will probably have occurred to many readers, as a difficulty sufficient to overthrow my whole theory.

Chapter VII On Foreign Trade
Principles of Political Economy and Taxation 1817 David Ricardo

If Portugal had no commercial connexion with other countries, instead of employing a great part of her capital and industry in the production of wines, with which she purchases for her own use the cloth and hardware of other countries, she would be obliged to devote a part of that capital to the manufacture of those commodities, which she would thus obtain probably inferior in quality as well as quantity.

The quantity of wine which she shall give in exchange for the cloth of England, is not determined by the respective quantities of labour devoted to the production of each, as it would be, if both commodities were manufactured in England, or both in Portugal.

England may be so circumstanced, that to produce the cloth may require the labour of 100 men for one year; and if she attempted to make the wine, it might require the labour of 120 men for the same time. England would therefore find it her interest to import wine, and to purchase it by the exportation of cloth.

To produce the wine in Portugal, might require only the labour of 80 men for one year, and to produce the cloth in the same country, might require the labour of 90 men for the same time. It would therefore be advantageous for her to export wine in exchange for cloth. This exchange might even take place, notwithstanding that the commodity imported by Portugal could be produced there with less labour than in England. Though she could make the cloth with the labour of 90 men, she would import it from a country where it required the labour of 100 men to produce it, because it would be advantageous to her rather to employ her capital in the production of wine, for which she would obtain more cloth from England, than she could produce by diverting a portion of her capital from the cultivation of vines to the manufacture of cloth.

Thus England would give the produce of the labour of 100 men, for the produce of the labour of 80. Such an exchange could not take place between the individuals of the same country. The labour of 100 Englishmen cannot be given for that of 80 Englishmen, but the produce of the labour of 100 Englishmen may be given for the produce of the labour of 80 Portuguese, 60 Russians, or 120 East Indians. The difference in this respect, between a single country and many, is easily accounted for, by considering the difficulty with which capital moves from one country to another, to seek a more profitable employment, and the activity with which it invariably passes from one province to another in the same country.*