MPhil (Econ.) & MSc (Political Economy)

Dept. of Economics

National and Kapodistrian University of Athens



Lecture 6: Classical Political Economy: Malthus and Ricardo

Nicholas J. Theocharakis

Objectives of Lecture

- Analyze the works of thinkers from Smith to Malthus and Ricardo
- Explain the theories of Malthus, especially the theory of population, value and excess supply
- Analyse the theories of Ricardo and in particular
 - differential rent
 - labour theory of value
 - comparative advantage
 - Ricardian equivalence

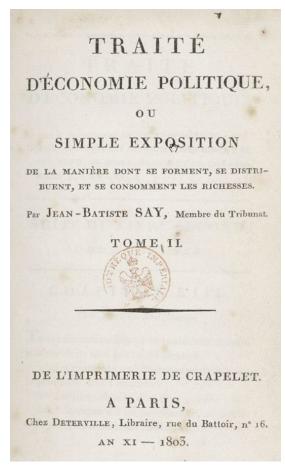


Contents

- Jean-Baptiste Say * Condorcet * William Godwin
- Thomas Robert Malthus
 - Essay on Population
 - Principles of Political Economy
 - Theory of value * Theory of gluts
- David Ricardo
 - Essay on Profits (Differential rent and theory of value)
 - Principles of Political Economy and Taxation
 - Labour theory of value
 - Comparative advantage
 - Ricardian equivalence









Jean-Baptiste Say

Gravure de Godefroi Engelmann, d'après un dessin d'Achille Devéria (Bibliothèque nationale de France)



TRATADO

DE ECONOMÍA POLÍTICA,

Ó

EXPOSICION SIMPLE

DEL MODO COMO SE FORMAN, DISTRIBUYEN
Y CONSUMEN LAS RIQUEZAS.

ESCRITO EN FRANCÉS

POR JUAN BAUTISTA SAY,

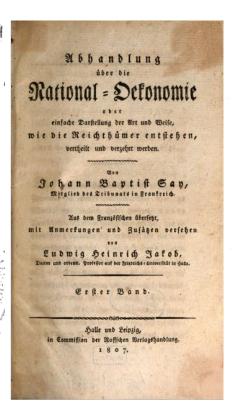
Y TRADUCIDO AL CASTELLANO.

POR

TOMO PRIMERO

MADRID

EN LA OFICINA DE PEDRO MARÍA CABALLERO. AÑO DE 1804.



TREATISE

ox

POLITICAL ECONOMY;

OR THE

PRODUCTION, DISTRIBUTION, AND CONSUMPTION

WEALTH.

. . .

JEAN-BAPTISTE SAY.

TRANSLATED FROM THE FOURTH EDITION OF THE FRENCH,

BY C. R. PRINSEP, M.A.

WITH NOTES BY THE TRANSLATOR.

IN TWO VOLUMES.

VOL. I.

LONDON:

PRINTED FOR LONGMAN, HURST, REES, ORME, AND BROWN,
PATERNOSTER-ROW.

1821.

ONTWIKKELING

VAN DE BEGINSELEN DER

STAATHUISHOUDKUNDE,

EENVOUDIGE VERKLARING

VAN DE WIJZE, WAAROP DE RIJKDOM VOORT-GEBRAGT, VERDEELD EN VERBRUIKT WORDT

DOOR

JEAN-BAPTISTE SAY.

(NAAR HET FRANSCH.)

Eerste Gedeelte.

DEVENTER,

J. DE LANGE. 1857.





CATÉCHISME

D'ÉCONOMIE POLITIQUE

οu

INSTRUCTION FAMILIÈRE

Qui montre de quelle façon les Richesses sont produites, distribuées et consommées dans la Société.

SECONDE ÉDITION

Entièrement refonduc et augmentée de Notes en faveur des personnes qui veulent approfondir davantage les principes de cette science.

> Par JEAN-BAPTISTE SAY, Auteur du Traité d'Économie politique.

A PARIS,

Chez Bossange père, Libraire, rue de Tournon, N°. 6 bis.

A LONDRES.

Chez Martin Bossange and C°. 14. great Marlborough street.

1821.

1st edition 1815



CATECHISM

POLITICAL ECONOMY:

Familiar Convergations

ON THE MANNER IN WHICH

WEALTH

PRODUCED, DISTRIBUTED, AND CONSUMED

SOCIETY.

BY JEAN-BAPTISTE SAY,

PROFESSOR OF POLITICAL ECONOMY IN THE "ATERNEE ROYAL" OF PARIS, KNIHHT OF 67. WOLGOMER OF RUNGA, MINNERS OF THE SOURCES OF DESCRIPTION, &C. AND AUTHOR OF A PRAISE OF POLITICAL RECORDING.

Eranslated from the French
By JOHN RICHTER.

LONDON:

PRINTED FOR SHERWOOD, NEELY, AND JONES,

1816.

CATECISMO

DЕ

ECONOMÍA POLÍTICA,

ó

INSTRUCCION FAMILIAR

Que muestra de que modo se producen, distribuyen y consumen las riquezas en la sociedad.

Del todo refundida y aumentada con notas en favor de las personas que quieren profundizar mas las reglas de esta ciencia.

Por JUAN-BAUTISTA SAY,

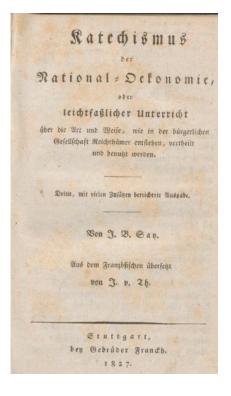
AUTOR DEL TRATADO DE ECONOMÍA POLÍTICA.

NEW YOR

EN MADRID.

IMPRENTA DE ALBAN.

1822.





ECONOMIA POLITICA

OSSIA

ISTRUZIONE FAMILIARE

INTORNO AL MODO CON CUI LE RICCHEZZE SONO PRODOTTE, DISTRIBUITE E CONSUMATE

OPERA

Poggiata sui fatti, ed utile alle differenti classi di persone in quanto che mostra i vantaggi che ognuno può ricavare dalla sua situazione e da' suoi talenti

D 1

GIO: BATTISTA SAY

AUTORE DEL TRATTATO DI ECONOMIA POLITICA

Recata nell' Italiana favella.

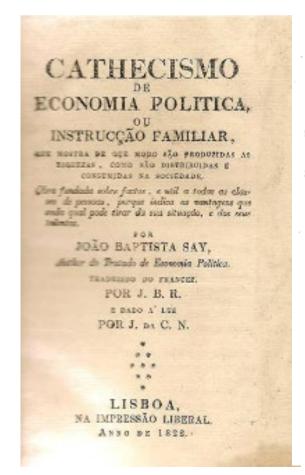


NAPOLI 1817. Presso Giovanni de Bonis

Si vende nel Gabinetto letterario al largo del Gesù nuovo.







ΗΟΛΙΤΙΚΗΣ ΟΙΚΟΝΟΜΙΑΣ ΚΑΤΗΧΗΣΙΣ

HTO

ΟΙΚΙΑΚΗ ΔΙΔΑΣΚΑΛΙΑ

Περὶ τοῦ πῶς γεννώνται , διανέμονται καὶ ἀναλίσλονται εἰς τὴν Αοινωνίαν τὰ Χρήματα. Μεθ ἢν ἔπονται

Σημειώσεις πρὸς ὼφέλειαν τῶν θελόντων νὰ ἐμιδαθύνωστ πλειότερον εἰς τὰς ἀρχὰς τῆς ἐπιστήμης ταντῆς.

Παρά ΙΩ. ΒΑΠΤΙΣΤΟΥ ΣΑΗ.

Μεταφρασθείσα έχ τοῦ Γαλλιχοῦ

Παρά Γ. ΧΡΥΣΗιΔΟΥ.

N AITINE

1828





L'homme dont l'industrie s'applique à donner de la valeur aux choses en leur créant un usage quelconque, ne peut espérer que cette valeur sera appréciée et payée, que là ou d'autres hommes auront les moyens d'en faire l'acquisition. Ces moyens, en quoi consistent-ils? En d'autres valeurs, d'autres produits, fruits de leur industrie, de leurs capitaux, de leurs terres : d'où il résulte, quoiqu'au premier aperçu cela semble un paradoxe, que c'est la production qui ouvre des débouchés aux produits.

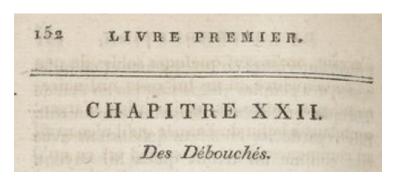
étole ou un surplis, mais tout autre produit plus utile. La consommation qui a été faite du produit appelé surplis, a eu lieu aux dépens d'une autre consommation. De toute manière, l'achat d'un produit ne peut être fait qu'avec la valeur d'un autre '.

non plus. Or, on ne peut se défaire de son argent qu'en demandant à acheter un produit quelconque. On voit donc que le fait seul de la formation d'un produit ouvre, dès l'instant même, un débouché à d'autres produits.

6th edition 1841

CHAPITRE XV.

Des débouchés.



- The harmony of markets.
- There is no case of generalized oversupply
- Say's Law: "Supply creates its demand"





Marie Jean Antoine Nicolas de Caritat, Marquis de Condorcet

TABLEAU GÉNÉRAL

De la Science, qui a pour objet l'application du calcul aux sciences politiques & morales.

(ro6)

En Hollande, le célèbre Jean de Witt, disciple de Descartes, & en Angleterre, le chevalier Petti, donnèrent les premiers essais de cette science dans le siécle dernier, à-peu-près à l'époque où Fermat & Pascal créoient le calcul des probabilites, qui en est une des premières bases, & n'osoient l'appliquer qu'aux jeux de hasard, ou n'avoient pas même eu l'idée de l'employer à des usages plus importans & plus utiles.

Maintenant l'étendue de ces applications permet de les regarder comme formant une science à part, & je vais essayer d'en tracer le tableau.

Comme toutes ces applications sont immédiatement relatives aux intérêts sociaux, ou à l'analyse des opérations de l'esprit humain, & que, dans ce dernier cas, elles n'ont encore pour objet que l'homme perfectionné par la société, j'ai cru que le nom de mathématique sociale étoit celui qui convenoit le mieux à cette science.





OBJETS

DE LA MATHÉMATIQUE SOCIALE.

I.

ΙI.

L'HOMME.

humain.

L'Homme individu.
 Les opérations de l'esprit

LES CHOSES.

Réduction des choses à une mesure commune. Calcul des valeurs (1).

2.
Appréciation des faits.

III.

L'HOMME ET LES CHOSES.

Méthode de la Science.

1.

Détermination des faits.

Formation & usages des valeurs.

Faits observés. 2. Faits bypothétiques.

Formation & usages des valeurs.
Moyens. 5.
Leur probabilité (4).

1. Enumération des faits. 2. Claffification des faits. (3) Combinaifons (2).

Probabilité des faits (4).

3.

Réfultat des faits.

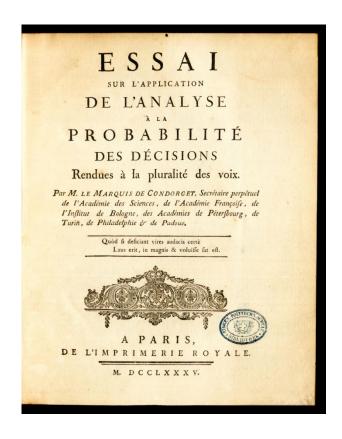
Probabilité des réfultats (4).

Théories préliminaires qui doivent précéder les applications.

- Théorie des grandeurs fusceptibles d'accroiffemens proportionnels.
- 2. Théorie des Combinaisons.
- Méthode de déduire des faits individuels observés, soit les faits généraux qui en résultent, soit les loix générales qui y sont observées.
- 4. Théorie générale des Probabilités.
- 5. Théorie générale des Valeurs moyennes.

Cependant la détermination de cette mesure commune, telle qu'elle résulte des besoins de l'honnne & des loix de la société, est bien éloignée de cette précision, de cette invariabilité qu'exige une véritable science, & la théorie de la réduction des valeurs à une mesure commune devient une partie nécessaire de la mathématique sociale.





SOCIAL CHOICE AND INDIVIDUAL VALUES

By
Kenneth J. Arrow



JOHN WILEY & SONS, INC., NEW YORK CHAPMAN & HALL, LIMITED, LONDON 1951

Condorcet Paradox

Arrow Paradox





D'U N

TABLEAU HISTORIQUE

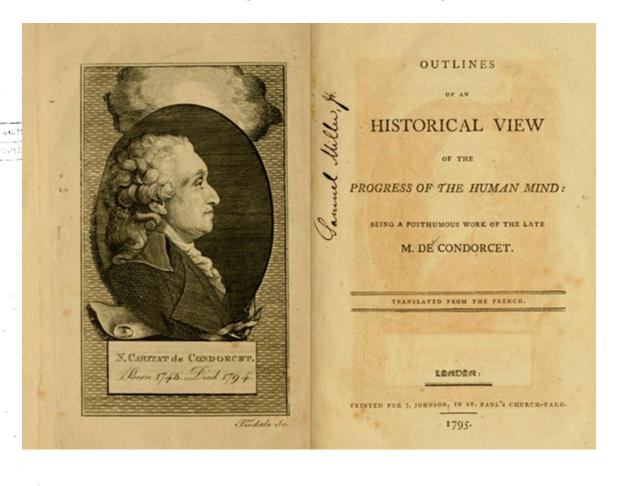
DES PROGRÈS DE L'ESPRIT HUMAIN.

Ouvrage posthume de Condoncer.

A PARIS,

Chez AGASSE, rue des Poitevins, No. 13.

L'AN III. DE LA RÉPUBLIQUE, UNE ET INDIVISIELE.





TENTH EPOCH.

Future Progress of Mankind.

Our hopes, as to the future condition of the human species, may be reduced to three points: the destruction of inequality between different nations; the progress of equality in one and the same nation; and lastly, the real improvement of man.

Three principal causes may be affigued for these distinctions: inequality of wealth, inequality of condition between him whose refources of subsistance are secured to himself and descendable to his family, and him whose resources are annihilated with the termination of his life, or rather of that part of his life in which he is capable of labour; and lastly, inequality of instruction.

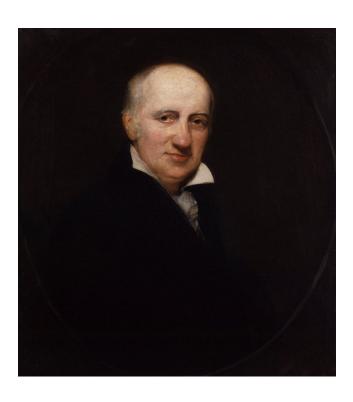
In a word, will not men be continually verging towards that state, in which all will possess the requisite knowledge for conducting themselves in the common affairs of life by their own reason, and of maintaining that reason uncontaminated by prejudices; in which they will understand their rights, and exercise them according to their opinion and their conscience; in which all will be able, by the development of their faculties, to procure the certain means of providing for their wants;

lastly, in which folly and wretchedness will be accidents, happening only now and then, and not the habitual lot of a considerable portion of society?



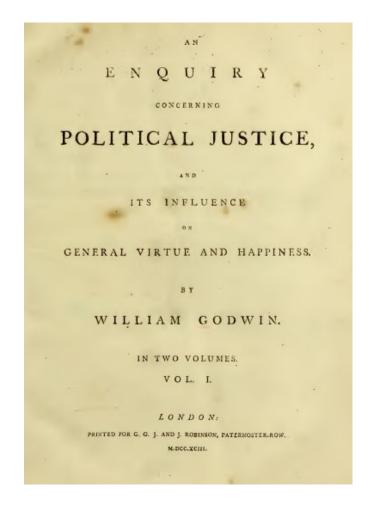
In examining he three questions we have enumerated, we shall find the strongest reafons to believe, from past experience, from observation of the progress which the sciences and civilization have hitherto made, and from the analysis of the march of the human understanding, and the developement of its faculties, that nature has fixed no limits to our hopes.





William Godwin by Henry William Pickersgill

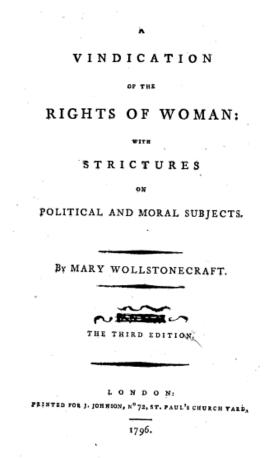
One of the first theorists of anarchism







Mary Wollstonecraft (1759–1797) John Opie, National Portrait Gallery



One of the first "feminists", partner of Godwin





Mary Shelley (1797-1851) by Richard Rothwell, oil on canvas, 1840, NPG

Daughter of Wollstonecraft and Godwin, author of Frankenstein



Percy Bysshe Shelley (1792-1822)

by Amelia Curran oil on canvas, 1819, NPG

One of the greatest English Romantic poets

FRANKENSTEIN;

OR.

THE MODERN PROMETHEUS.

IN THREE VOLUMES.

Did I request thee, Maker, from my clay
To mould me man? Did I solicit thee
From darkness to promote me?—
PARADISE LOST.

VOL. 1.

Lonton :

LACKING FON, HUGHES, HARDING, MAYOR, & JONES, FINSBURY SQUARE.

1818.



BOOK I. CHAP. V. hardly be known but by report. If every man could with perfect facility obtain the necessaries of life, and, obtaining them, feel no uneasy craving after its superfluities, temptation would lose its power. Private interest would visibly accord with public good; and civil society become all that poetry has seigned of the golden age. Let us enquire into the principles to which these evils owe their existence, and the treatment by which they may be alleviated or remedied.

originate, 1. in extreme poverty. First then it is to be observed, that, in the most refined states of Europe, the inequality of property has arisen to an alarming height. Vast numbers of their inhabitants are deprived of almost every accommodation that can render life tolerable or secure. Their utmost industry scarcely suffices for their support. The women and children lean with an insupportable weight upon the efforts of the man, so that a large samily has in the lower order of life become a proverbial expression for an uncommon degree of poverty and wretchedness. If sickness or some of those casualties which are perpetually incident to an active and laborious life, be superadded to these burthens, the distress is yet greater.

A fecond fource of those destructive passions by which the 2. in the oftentation of peace of society is interrupted, is to be found in the luxury, the the rich: pageantry and magnificence with which enormous wealth is assume accompanied. Human beings are capable of encoun-

3. in their tyranny:

A third disadvantage that is apt to connect poverty with

discontent confists in the insolence and usurpation of the rich.

First then, legislation is in almost every country grossly the 1. by legislation:

2. by the administration of law: Secondly, the administration of law is not less iniquitous than the spirit in which it is framed. Under the late government of France the office of judge was a matter of purchase, partly by an

Thirdly, the inequality of conditions usually maintained by 3. by the inequality of political inftitution, is calculated greatly to enhance the imagined conditions.

excellence of wealth. In the ancient monarchies of the cast,



CHAP. VI.

HUMAN INVENTIONS CAPABLE OF PERPETUAL IMPROVEMENT.

PERFECTIBILITY OF MAN-INSTANCED, FIRST, IN LAN-

HE subject of property is the key stone that completes the fabric of political justice. According as our ideas respecting it are crude or correct, they will enlighten us as to the confequences of a simple form of society without government, and remove the prejudices that attach us to complexity. There is nothing that more powerfully tends to distort our judgment and opinions, than erroneous notions concerning the goods of fortune. Finally, the period that shall put an end to the system of coercion and punishment, is intimately connected with the circumstance of property's being placed upon an equitable basis.

What is the criterion that must determine whether this or that substance, capable of contributing to the benefit of a human being, ought to be considered as your property or mine? To this question there can be but one answer—Justice. Let us then recur to the principles of justice *.

To whom does any article of property, suppose a loaf of bread,

justly belong? To him who most wants it, or to whom the posfession of it will be most beneficial. Here are six men famished with hunger, and the loaf is, absolutely considered, capable of fatissying the cravings of them all. Who is it that has a reasonable claim to benefit by the qualities with which this loaf is endowed? They are all brothers perhaps, and the law of primogeniture bestows it exclusively on the eldest. But does justice confirm this award? The laws of different countries dispose of property in a thousand different ways; but there can be but one way which is most conformable to reason.

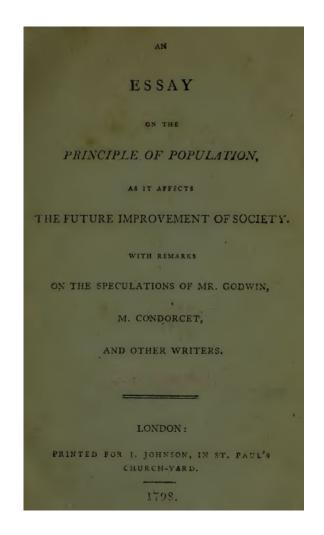
Perfectibility: People's fate can be made better if institutions change







by John Linnell, mezzotint, 1834, NPG



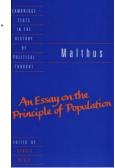


Principal events in the life of Robert Malthus

- 1766 Born at The Rookery, Wooton, Surrey, 13 February. Seventh child and second son of Daniel Malthus.
- 1782-4 Educated by Gilbert Wakefield at the Dissenting Academy at Warrington and later at Wakefield's home in Bramcote, Nottinghamshire.
- 1784-8 Undergraduate at Jesus College, Cambridge, where he graduated as Ninth Wrangler in the Mathematics Tripos.
- 1789 Ordained as Deacon and appointed curate of Okewood, near his parent's home in Surrey.
- 1793 Appointed Fellow of Jesus College.
- 1796 Wrote 'The Crisis, a View of the Present Interesting State of Great Britain, by a Friend to the Constitution' (unpublished).
- 1798 First Essay on Population published anonymously.
- 1799 Travel in Norway, Sweden, and Germany with friends, also collecting additional material on population.
- 1800 Published An Investigation of the Causes of the High Price of Provisions.
- 1803 Second and much enlarged edition of Essay on Population. Appointed Rector of Walesby, Lincolnshire, a living which he retained throughout his life, paying a curate to carry out the duties.
- 1804 Married Harriet Eckersall: first of their three children born.
- Appointed first Professor of General History, Politics, Commerce and Finance at East India College, Haileybury, an establishment designed to train civil servants prior to service in India.
- 1807 Published A Letter to Samuel Whitbread criticizing Whitbread's proposals for the Poor Law.

- 1811 Beginning of correspondence and friendship with David Ricardo.
- Published Observations on the Effects of the Corn Laws, in which he adopted an impartial approach to the merits of free trade and protection.
- Published An Inquiry into the Nature and Progress of Rent and The Grounds of an Opinion on the Policy of Restricting the Importation of Foreign Corn, the latter expressing a 'deliberate, yet decided opinion' in favour of import restrictions.
- Published Principles of Political Economy Considered with a View to their Practical Application, a work partly designed to embody the conclusions he had reached as a result of teaching political economy at Haileybury, and partly to answer David Ricardo's Principles.
- Published The Measure of Value Stated and Illustrated and the article on 'Population' for Encyclopaedia Britannica, later reissued as A Summary View of the Principle of Population (1830).
- 1826 Published sixth and final edition of Essay on Population.
- 1827 Published Definitions in Political Economy.
- 1834 Founder member of London Statistical Society.
- 1834 Died 29 December, buried in Bath Abbey.

An essay on the principle of population: by T.R. Malthus; selected and introduced by Donald Winch, Cambridge UP, 1992





PRINCIPAL WORKS

- 1798. 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: J. Johnson). Subsequent editions 1803, 1806, 1807, 1817, 1826.
- 1800. An Investigation of the Cause of the Present High Price of Provisions (London: J. Johnson).
- 1807. A Letter to Samuel Whitbread, Esq. M.P. on His Proposed Bill for the Amendment of the Poor Laws (London: J. Johnson and J. Hatchard).
- 1808. 'Spence on Commerce', Edinburgh Review, 11, January, pp. 429-48.
- 1808. 'Newneham and Others on the State of Ireland', Edinburgh Review, 12, July, pp. 336-55.
- 1809. 'Newneham on the State of Ireland', Edinburgh Review, 14, April, pp. 151-70.
- 1811. 'Depreciation of Paper Currency', Edinburgh Review, 17, February, pp. 340-72.
- 1812. 'Pamphlets on the Bullion Question', Edinburgh Review, 18, August, pp. 448-70.
- 1813. A Letter to the Rt. Hon. Lord Grenville ... (London: J. Johnson).
- 1814. Observations on the Effect of the Corn Laws ... (London: J. Johnson).
- 1815. An Inquiry into the Nature and Progress of Rent ... (London: John Murray).
- 1815. The Grounds of an Opinion on the Policy of Restricting the Importation of Foreign Corn ... (London: John Murray).



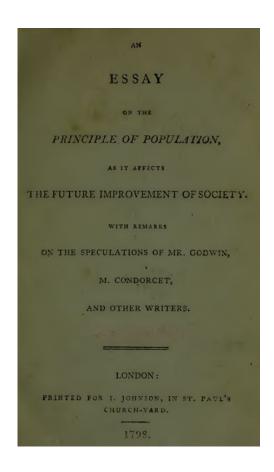
- 1817. Statement Respecting the East-India College ... (London: John Murray).
- 1820. Principles of Political Economy: Considered with a View to Their Practical Application (London: John Murray). Second edition 1836.
- 1821. 'Godwin on Malthus', Edinburgh Review, 35, July, pp. 362-77.
- 1823. The Measure of Value Stated and Illustrated ... (London: John Murray).
- 1823. 'Population' in Supplement to the Fourth, Fifth and Sixth Editions of the Encyclopaedia Britannica.
- 1823. 'Tooke On High and Low Prices', Quarterly Review, 29(57), April, pp. 214-39.
- 1824. 'Political Economy', Quarterly Review, 30(60), January, pp. 297-334.
- 1827. Definitions in Political Economy ... (London: John Murray)
- 1829. 'On the Measure of the Conditions Necessary to the Supply of Commodities', in *Transactions of the Royal Society of Literature of the United Kingdom*, Vol. 1 (London: John Murray), pp. 171-80.
- 1829. 'On the Meaning Which is Most Usually and Most Correctly Attached to the Term "Value of a Commodity", in *Transactions of the Royal Society of Literature of the United Kingdom*, Vol. 2 (London: John Murray), pp. 74-81.
- 1830. A Summary View of the Principle of Population (London: John Murray).

Geoffrey M. Hodgson, "MALTHUS, Thomas Robert (1766-1834)", *Biographical Dictionary of British Economists*, edited by Donald Rutherford (Bristol: Thoemmes Continuum), 2004.

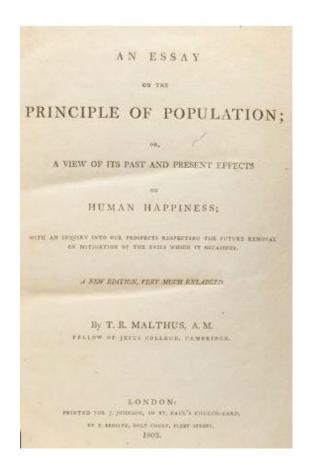


Theory of population



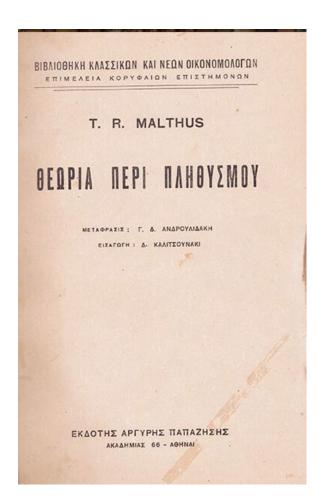


Essay on the Principle of Population 1st anonymous edition, 1798



2nd "very much enlarged" edition, 1803. Four more editions followed with minor changes, the last one (6th) in 1826





Θεωρία περί πληθυσμοῦ / Τ. R. Malthus. Μετάφρασις Γ. Δ. Ἀνδρουλιδάκη, εἰσαγωγή Δ. Καλιτσουνάκη. Ἀθῆναι : Εκδότης Αργύρης Παπαζήσης, 1940



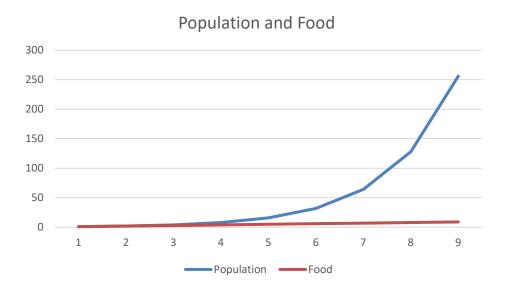
6. AN ESSAY ON THE

The speculative philosopher equally offends against the cause of truth. With eyes fixed on a happier state of society, the blessings of which he paints in the most captivating colours, he allows himself to indulge in the most bitter invectives against every present establishment, without applying his talents to consider the best and safest means of removing abuses, and without seeming to be aware of the tremendous obstacles that threaten, even in theory, to oppose the progress of man towards perfection.

The reformers are wrong: Human destiny cannot be improved. The present order of things is imposed by nature. And thus it appears, that a fociety confittuted according to the most beautiful

form that imagination can conceive, with benevolence for its moving principle, instead of felf-love, and with every evil disposition in all its members corrected by reason and not force, would, from the inevitable laws of nature, and not from any original depravity of man, in a very fhort period, degenerate into a fociety, constructed upon a plan not effentially different from that which prevails in every known State at prefent; I mean, a fociety divided into a class of proprietors, and a class of labourers, and with felf-love for the main-fpring of the great machine.





Taking the whole earth, instead of this island, emigration would of course be excluded; and, supposing the present population equal to a thousand millions, the human species would increase as the numbers, 1, 2, 4, 8, 16, 32, 64, 128, 256, and subsistence as 1, 2, 3, 4, 5, 6, 7, 8, 9. In two centuries the population would be to the means of subsistence as 256 to 9; in three centuries as 4096 to 13, and in two thousand years the difference would be almost incalculable.

Population, when unchecked, increases in a geometrical ratio. Subfistence increases only in an arithmetical ratio.

A slight acquaintance with numbers will shew the immensity of the first power in comparison of the second.

By that law of our nature which makes food necessary to the life of man, the effects of these two unequal powers must be kept equal.

Food increases by arithmetic progression, the population, if unchecked, by geometric progression. So, there is not enough food for everyone.



- A man who is born into a world already possessed, if he cannot get subfistence from his parents on whom he has a just demand, and if the fociety do not want his labour, has no claim of right to the fmallest portion of food, and, in fact, has no business to be where he At nature's mighty feaft there is no vacant cover for him. She tells him to be gone, and will quickly execute her own orders, if he do not work upon the compassion of some of her guests. If these guests get up and make room for him, other intruders immediately appear demanding the fame favour. The report of a provision for all that come, fills the hall with numerous claimants. The order and harmony of the feast is disturbed, the plenty that before reigned is changed into fcarcity; and the happiness of the guests is destroyed by the specticle of misery and dependence in every part of the hall, and by the clamorous importunity of those, who are justly enraged at not finding the provision which they had been taught to expect. The guests learn too late their error, in counteracting those strict orders to all intruders, iffued by the great miftrefs of the feaft, who, wishing that all her guests should have plenty, and knowing that she could 3 Y 2 not

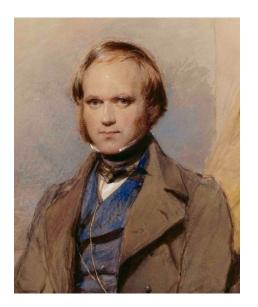
Effect of the knowledge of the BOOK IV.

not provide for unlimited numbers, humanely refused to admit fresh comers when her table was already full.

This appalling text on the "feast of nature" appeared in the second edition of the *Essay* in 1803 but was eliminated from subsequent editions.

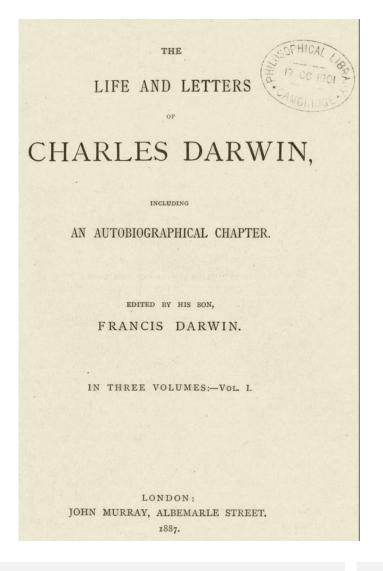


532



Darwin is influenced by Malthus in writing the Origin of Species

In October 1838, that is, fifteen months after I had begun my systematic enquiry, I happened to read for amusement 'Malthus on Population,' and being well prepared to appreciate the struggle for existence which everywhere goes on from long-continued observation of the habits of animals and plants, it at once struck me that under these circumstances favourable variations would tend to be preserved, and unfavourable ones to be destroyed. The result of this would be the formation of new species. Here then I had at last got a theory by which to work; but I was so





It has appeared, that from the inevitable laws of our nature, some human beings must suffer from want. These are the unhappy persons who, in the great lottery of life, have drawn a blank. The number of these claimants would soon exceed the ability of the surplus produce to supply.

No matter what we do - even give money to the unfortunate poor nature does not allow everyone to eat.

Suppose, that by a subscription of the rich the eighteen pence or two shillings, which men earn now, were made up five shillings: it might be imagined, perhaps, that they would then be able to live comfortably, and have a piece of meat every day for their dinner. But this would be a very false conclusion. The transfer of three additional shillings a day to each labourer would not increase the quantity of meat in the country. There is not at present enough for all to have a moderate share. What would then be the consequence? the competition among the buyers in the market of meat would rapidly raise the price from eight pence or nine pence to two or three shillings in the pound, and the commodity would not be divided among many more than it is at present. When an article is scarce, and cannot be distributed to all, he that can shew the most valid patent, that is, he that offers the most money, becomes the possessor.



A collection from the rich of eighteen shillings in the pound, even if distributed in the most judicious manner, would have an effect similar to that resulting from the supposition which I have just made; and no possible sacrifices of the rich, particularly in money, could for any time prevent the recurrence of distress among the lower members of society, whoever they were.

Elevated as man is above all other animals by his intellectual faculties, it is not to be supposed that the physical laws to which he is subjected should be essentially different from those which are observed to prevail in other parts of animated nature. He may increase slower than most other animals, but food is equally necessary to his support; and if his natural capacity of increase be greater than can be permanently supplied with food from a limited territory, his increase must be constantly retarded by the difficulty of procuring the means of subsistence.

It may be safely asserted, therefore, that population, when unchecked, increases in a geometrical progression of such a nature as to double itself every twenty-five years. By the laws of nature man cannot live without food. Whatever may be the rate at which population would increase if unchecked, it never can actually increase in any country beyond the food necessary to support it. But, by the laws of nature in respect to the powers of a limited territory, the additions which can be made in equal periods to the food which it produces must, after a short time, either be constantly decreasing, which is what would really take place; or, at the very most, must remain stationary, so as to increase the means of subsistence only in an arithmetical progression.

On examining these obstacles to the increase of population which I have classed under the heads of preventive and positive checks, it will appear that they are all resolvable into moral restraint, vice, and misery.

Moral self-restraint [*i.e.*, marriage at an older age], vice [including contraception] and misery ultimately limit population growth.



CHAP. V.

Of the Consequences of pursuing the opposite Mode.

It is an evident truth that, whatever may be the rate of increase in the means of subsistence, the increase of population must be limited by it, at least after the food has once been divided into the smallest shares that will support life. All the children born, beyond what would be required to keep up the population to this level, must necessarily perish, unless room be made for them by the deaths of grown persons. It has appeared indeed clearly in the course of this work, that in all old states the marriages and births depend principally upon the deaths, and that there is no encouragement to early unions so powerful as a great mortality. To act consistently therefore, we should facilitate, instead of foolishly and vainly endeavouring to impede, the operations of nature in producing this mortality; and if we dread the too frequent visitation of the horrid form of famine, we should sedulously encourage the other forms of destruction, which we compel nature to use. Instead of recommending cleanliness to the poor, we should encourage contrary habits. In our towns we should make the streets narrower, crowd more people into the houses, and court the return of the plague. In the country, we should build our villages near stagnant pools, and particularly encourage settlements in all marshy and unwholesome situations.* But above all, we should reprobate specific remedies for ravaging diseases; and those benevolent, but much mistaken men, who have thought they were doing a service to mankind by projecting schemes for the total extirpation of particular disorders. If by these and similar means the annual mortality were increased from 1 in 36 or 40, to 1 in 18 or 20, we might probably every one of us marry at the age of puberty, and yet few be absolutely starved.

If, however, we all marry at this age, and yet still continue our exertions to impede the operations of nature, we may rest assured that all our efforts will be vain. Nature will not, nor cannot, be defeated in her purposes. The necessary mortality must come, in some form or other;

Either you wise up or we'll make sure the Grim Reaper gets you



Promiscuous intercourse, unnatural passions, violations of the marriage bed, and improper arts to conceal the consequences of irregular connexions, are preventive checks that clearly come under the head of vice.

When this restraint produces vice, the evils which follow are but too conspicuous. A promiscuous intercourse to such a degree as to prevent the birth of children, seems to lower, in the most marked manner, the dignity of human nature. It cannot be without its effect on men, and nothing can be more obvious than its tendency to degrade the female character, and to destroy all its most amiable and distinguishing characteristics. Add to which, that among those unfortunate females, with which all great towns abound, more real distress and aggravated misery are, perhaps, to be found, than in any other department of human life.

Vice, i.e., non-reproductive intercourse, is morally unacceptable.

The poor-laws of England tend to depress the general condition of the poor in these two ways. Their sirst obvious tendency is to increase population without increasing the food for its support.

Secondly, the quantity of provisions confumed in workhouses upon a part of the society, that cannot in general be considered as the most valuable part, diminishes the shares that would otherwise belong to more industrious, and more worthy members; and thus in the same manner forces more to become dependent.

Welfare for the needy is a dead end. It increases their numbers and deprives food from those who truly deserve it.



It has appeared, that from the inevitable laws of our nature, some human beings must suffer from want. These are the unhappy persons who, in the great lottery of life, have drawn a blank. The number of these claimants would soon exceed the ability of the surplus produce to supply. Moral merit is a very difficult distinguishing criterion, except in extreme cases. The owners of surplus produce would in general seek some more obvious mark of distinction.

And it feems both natural and just, that except upon particular occasions, their choice should fall upon those, who were able, and professed themselves willing, to exert their strength in procuring a further furplus produce; and thus at once benefiting the community, and enabling these proprietors to afford assistance to greater numbers. All who were in want of food would be urged by imperious necessity to offer their labour in exchange for this article fo absolutely effential to existence.

If you draw a blank in the lottery of life you must suffer from want. Your bosses will feed you only if you work hard.



On the state of this fund, the happiness, or the degree of misery, prevailing among the lower classes of people in every known State, at present chiefly depends. And on this happiness, or degree of misery, depends the increase. stationariness, or decrease of population.

You must owe a debt of gratitude to the possessors. Private property and self-interest are responsible for civilization. It is to the established administration of property, and to the apparently narrow principle of self-love, that we are indebted for all the noblest exertions of human genius, all the finer and more delicate emotions of the soul, for every

thing, indeed, that distinguishes the civilized, from the savage state; and no sufficient change, has as yet taken place in the nature of civilized man, to enable us to say, that he either is, or ever will be, in a state, when he may safely throw down the ladder by which he has risen to this eminence.



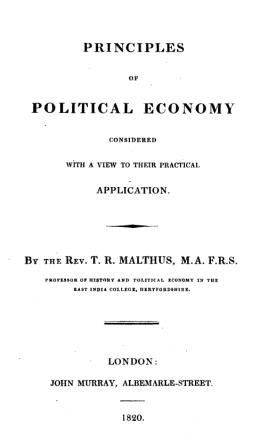
Life is, generally speaking, a blessing independent of a future state. It is a gift which the vicious would not always be ready to throw away, even if they had no fear of death. The partial pain, therefore, that is inflicted by the Supreme Creator, while he is forming numberless beings to a capacity of the highest enjoyments, is but as the dust of the balance in comparison of the happinefs that is communicated; and we have every reason to think, that there is no more evil in the world, than what is absolutely necessary as one of the ingredients in the mighty process.

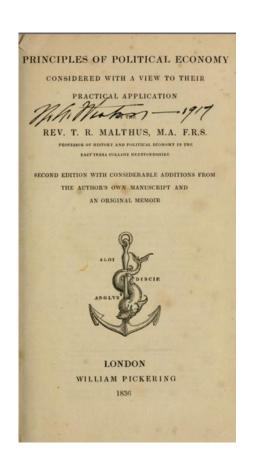
After all, life is a blessing, and you should thank God that you live even with so much misery. Given the limitations of nature, the unfortunate of this life should be happy.



Theory of value







Principles of Political Economy (1820), 2nd posthumous edition 1836



the quantity of labour of a given description (common-day labour, for instance) which it can command, it will appear to be unquestionably the best of any one commodity, and to unite, more nearly than any other, the qualities of real and nominal measure of exchangeable value.

the relative values of commodities in money, or their prices, are determined by the relative demand of them, compared with the supply of them; and this law appears to be so general, that probably not a single instance of a change of price can be found which may not be satisfactorily traced to some previous change in the causes which affect the demand or supply.



Theory of Gluts



Economic crises in England after the Napoleonic Wars.

Labour unrest





Peterloo Massacre

Manchester 1819 Richard Carlile (1790–1843)



General wealth, like particular portions of it, will always follow effectual demand. Whenever there is a great demand for commodities, that is, whenever the whole mass will command a greater quantity of standard labour than before, without any greater value of capital having been required to produce them, there is the same kind of reason for expecting a general increase of commodities, as there is for expecting an increase of particular commodities when their market-prices rise; without a corresponding rise in their money-cost of production. And on the other

hand, whenever the produce of a country estimated in the labour which it will command falls in value, while the same value of advances is continued, the power and will to set labourers to work will be diminished and the increase of produce must, for a time, be checked. The Role of Effectual demand



It has been thought by some very able writers, that although there may easily be a glut of particular commodities, there cannot possibly be a glut of commodities in general; because, according to their view of the subject, commodities being always exchanged for commodities, one half will furnish a market for the other half, and production being thus the sole source of demand, an excess in the supply of one article merely proves a deficiency in the supply of some other, and a general excess is impossible. M. Say, in his distinguished work on political economy, has indeed gone so far as to state that the consumption of a commodity by taking it out of the market diminishes demand, and the production of a commodity porportionably increases it.

This doctrine, however, as generally applied, appears to me to be utterly unfounded, and completely to contradict the great principles which regulate supply and demand.

Rejection of the Say's Law



A third very serious error of the writers above referred to, and practically the most important of the three, consists in supposing that accumulation ensures demand; or that the consumption of the labourers employed by those whose object is to save, will create such an effectual demand for commodities as to encourage a continued increase of produce.

Productive workers cannot create sufficient effective demand

that under all common circumstances, if an increased power of production be not accompanied by an increase of unproductive expenditures, it will inevitably lower profits and throw labourers out of employment.

Non-productive spending by the aristocrats is necessary to create effective demand.

Letter from Malthus to Ricardo (1821)

On the whole it may be observed, that the specific use of a body of unproductive consumers, is to give

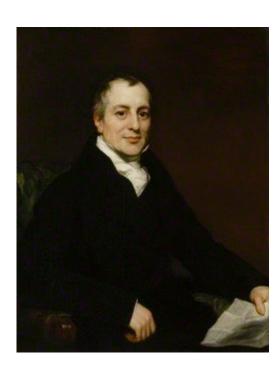
encouragement to wealth by maintaining such a balance between produce and consumption as will give the greatest exchangeable value to the results of the national industry. If such consumers were to pre-



the wages given. And altogether I should say, that the employment of the poor in roads and public works, and a tendency among landlords and persons of property to build, to improve and beautify their grounds, and to employ workmen and menial servants, are the means most within our power and most directly calculated to remedy the evils arising from that disturbance in the balance of produce and consumption, which has been occasioned by the sudden conversion of soldiers, sailors, and various other classes which the war employed, into productive labourers.







David Ricardo by Thomas Phillips oil on canvas, circa 1821, NPG

He was born in London in 1772, the third child of 17 of a Sephardic family of Portuguese descent who had moved to Holland and had recently emigrated to England. His father was a stockbroker and David Ricardo worked in his father's business from the age of 14. At 21 he married a Christian woman and became estranged from his family.

He begins a successful career as a stockbroker and after the Battle of Waterloo he manipulates the market and makes a large fortune. This allows him at 41 to retire from business and buy Gatcombe Park, Gloucestershire. He "purchases" a parliamentary seat in the Irish constituency of Portarlington and participates in the debates of the British Parliament. He dies young of an ear infection. He was a personal friend but theoretical opponent of Malthus.



Published Works of David Ricardo

- 1. The High Price of Bullion, A Proof of the Depreciation of Bank Notes (London, John Murray, 1810; corrected, 1810; enlarged, 1810; enlarged again, 1811).
- 2. Observations on some Passages in an Article in the Edinburgh Review, on the Depreciation of the Paper Currency; also Suggestions for securing to the Public a Currency as Invariable as Gold, with a very moderate Supply of that Metal, Being an Appendix to the Fourth edition of "High Price of Bullion, etc." (London, John Murray, William Blackwood & M.N. Mahon, 1811).
- 3. Reply to Mr. Bosanquet's Practical Observation on the Report of the Bullion Committee (London, John Murray, William Blackwood & M.N. Mahon, 1811).
- 4. An Essay on the Influence of a low Price of Corn on the Profits of Stock; showing the inexpediency of Restrictions on Importation; with remarks on Mr. Malthus' two last Publications: "An Inquiry into the Nature and Progress of Rent;" and "The Grounds for an Opinion on the Policy of restricting the Importation of Foreign Corn" (London, John Murray, 1815).
- 5. Proposals for an Economical and Secure Currency; with Observations on the profits of the Bank of England, as they regard the Public and the Proprietors of Bank Stock (London, John Murray, 1816).
- 6. On the Principles of Political Economy and Taxation (London, John Murray, 1817, 2nd edition 1819, 3rd 1821).
- 7. "Funding System", An article in the Supplement to the Fourth, Fifth and Sixth Editions of the Encyclopaedia Britannica, 1820
- 8. On Protection in Agriculture (London, John Murray, 1822).
- 9. Mr. Ricardo's Speech on Mr. Western's Motion, for a Committee to consider the Effects produced by the Resumption of Cash payments, delivered on the 12th of June, 1822. (London, G. Harvey, 1822).
- 10. Plan for the Establishment of a National Bank (London, John Murray, 1824); published as an appendix to A National Bank the Remedy for the Evils attendant upon our Present System of Paper Currency by Samuel Richardson (London, Pelham Richardson, 1838).
- 11. The Works of David Ricardo, Esq., M.P. With a Notice of the Live and Writings of the Author, by J.R. McCulloch, (London, John Murray, 1826).
- 12. The Works and Correspondence of David Ricardo, 11 volumes, edited by Piero Sraffa with the collaboration of M.H. Dobb, (Cambridge, Cambridge University Press for the Royal Economic Society, 1951-1973).



The now classic edition of Ricardo's works is by Piero Sraffa in collaboration with Maurice H. Dobb, *The Works and Correspondence of David Ricardo*, published by Cambridge University Press for the Royal Economic Society (1951-1973)

Vol. 1 Principles of Political Economy and Taxation

Vol. 2 Notes on Malthus

Vol. 3 Pamphlets and Papers 1809–1811

Vol. 4 Pamphlets and Papers 1815–1823

Vol. 5 Speeches and Evidence

Vol. 6 Letters 1810–1815

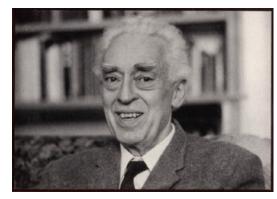
Vol. 7 Letters 1816–1818

Vol. 8 Letters 1819 – June 1821

Vol. 9 Letters 1821–1823

Vol. 10 Biographical Miscellany

Vol. 11 General Index



Piero Sraffa (1898-1983)



Maurice Dobb (1900-1976)



Differential rent

Essay on Profits, 1815



AN

ESSAY

Essay on Profits, 1815

Differential rent and the first attempt at a theory of value The Influence of a low Price of Corn on the Profits of Stock;

SHEWING THE

INEXPEDIENCY OF RESTRICTIONS ON IMPORTATION:

WITH

Remarks

ON

MR. MALTHUS' TWO LAST PUBLICATIONS:

"An Inquiry into the Nature and Progress of Rent;" and "The Grounds of an Opinion on the Policy of restricting the Importation of Foreign Corn."

By DAVID RICARDO, Esq.

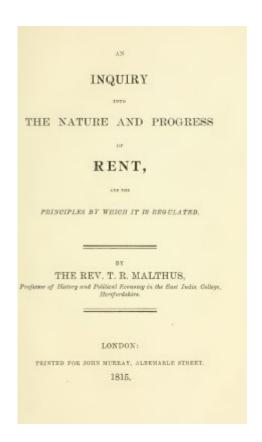
LONDON:

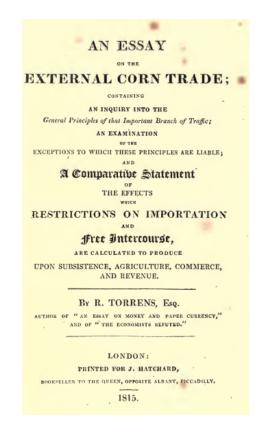
PRINTED FOR JOHN MURRAY, ALBEMARLE STREET.

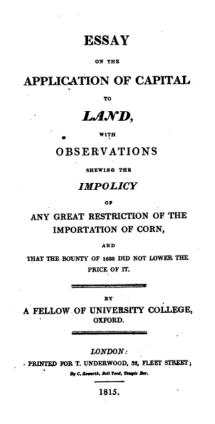
1815.

Three other publications on the same subject in the same year









T.R. Malthus

Robert Torrens

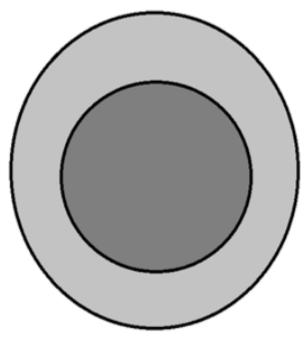
Edward West



Available fertile land

Fertile land in use

Competition between landowners reduces land rent to zero





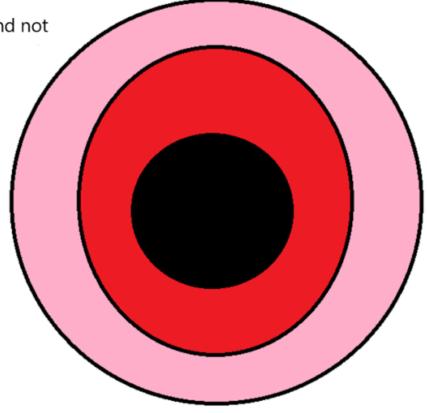
Available high fertility land in use

Low fertility land in use

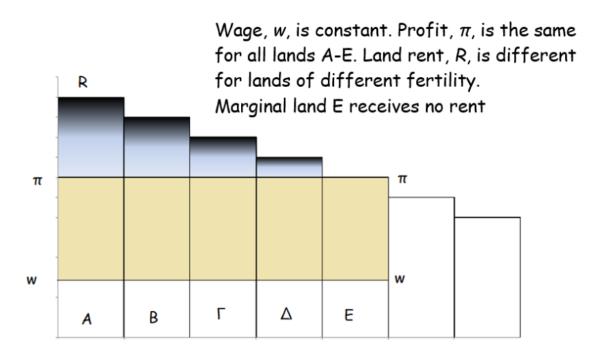
Low fertility land not

in use

Low fertility land owners do not receive land rent, but high fertility land owners receive as rent the difference in productivity between high and low fertility lands

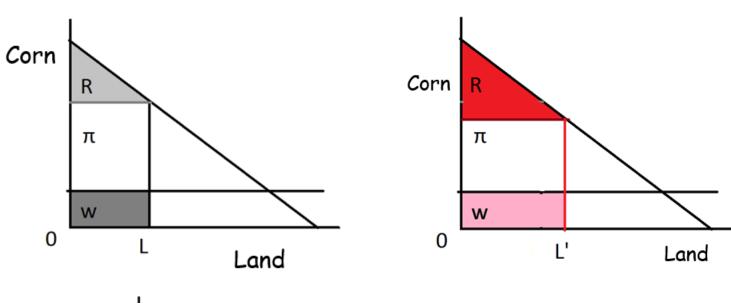


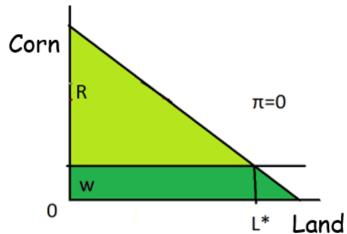




Luigi Pasinetti, 1960. "A mathematical formulation of the Ricardian system", *Review of Economic Studies*, 27: 78–98







As the amount of land under cultivation increases, the rate of profit decreases. After L* there is no profit



Opposition to the Corn Laws (1815-1846) which prevented the importation of grain from abroad, benefited landowners and increased wages



Ricardo's first attempt at a labour theory of value.

Let r, the rate of profit in agriculture, Y the product of agriculture in units of corn, L the number of workers in agriculture and w the wage in units of corn in all sectors. Define also l=L/Y, i.e., workers per unit of corn. Corn is the numeraire good, i.e., its price is equal to one. Then we have the profit rate in agriculture in terms of wages and labour per unit of corn as

$$r = \frac{Y - wL}{wL} = \frac{\frac{Y}{Y} - w\frac{L}{Y}}{w\frac{L}{Y}} = \frac{1 - wl}{wl}$$

profit rate in agriculture

Use the subscript c, to denote variables in the textile industry. Hence, let r_c , the rate of profit in the textile industry, Y_c the product of the textile industry in units of cloth, L_c the number of workers in the textile industry and w the wage in units of corn in all sectors. Define also $l_c = L_c/Y_c$, i.e., workers per unit of cloth. Let p_c be the price of a unit of cloth in terms of corn. Then we have the profit rate in the textile industry in terms of wages and labour per unit of cloth as

$$r_c = \frac{p_c Y_c - w L_c}{w L_c} = \frac{p_c - w l_c}{w l_c}$$

Profit rate in the textile industry

$$r = r_c \Rightarrow \frac{1 - wl}{wl} = \frac{p_c - wl_c}{wl_c}$$

$$p_c = \left(\frac{1 - wl}{wl}\right) wl_c + wl_c = wl_c \left(\frac{1 - wl}{wl} + 1\right) \Rightarrow$$

$$p_c = wl_c \left(\frac{1 - wl + wl}{wl}\right) = \frac{wl_c}{wl} = \frac{l_c}{l}$$

Since the profit rate is uniform across industries we equate the profit rates in the two sectors, and after some simple algebraic manipulation we derive the ratio of the prices of units of cloth and corn as the ratio of labour in a unit of cloth divided by the labour in a unit of corn. The trick was to derive the rate of profit in agriculture in physical units (corn) without the need to use the value of other wage goods.



Relative prices of goods are expressed by the ratio of labour content per unit of good

Critique of Malthus: workers' wages do not consist solely of corn



Ricardo's attempt at a labour theory of value in *Principles of Political Economy and Taxation* (1817)



ON

THE PRINCIPLES

OF

POLITICAL ECONOMY,

AND

TAXATION.

By DAVID RICARDO, Esq.

LONDON:

JOHN MURRAY, ALBEMARLE-STREET.

1817.

1817

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THE PRINCIPLES

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POLITICAL ECONOMY,

AMD

TAXATION.

BY DAVID RICARDO, ESQ.

SECOND EDITION.

LONDON:

JOHN MURRAY, ALBEMARLE-STREET.

1819.

1819

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THE PRINCIPLES

POLITICAL ECONOMY,

TAXATION.

BY DAVID RICARDO, ESQ.

THIRD EDITION.

LONDON:

JOHN MURRAY, ALBEMARLE-STREET.

1821.

1821



THE WORKS
AND CORRESPONDENCE OF

David Ricardo

Edited by Piero Sraffa with the Collaboration of M. H. Dobb



VOLUME I

On the Principles of Political Economy and Taxation

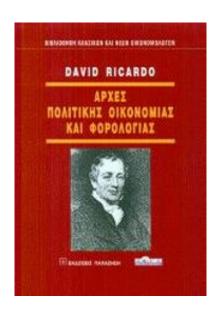
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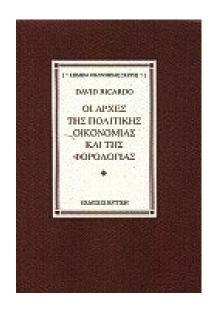
LIBERTY FUND

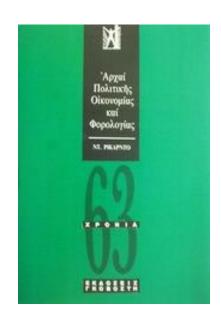
INDIANAPOLIS

Sraffa edition combining all three editions









David Ricardo, Αρχές πολιτικής οικονομίας και φορολογίας, επιμέλεια-μετάφραση Νικηφόρος Σταματάκης, επιμέλεια σειράς Μιχάλης Ψαλιδόπουλος. Αθήνα: Εκδόσεις Παπαζήση, 2002.

David Ricardo, Οι αρχές της πολιτικής οικονομίας και της φορολογίας : Κεφάλαια Ι έως VI, μετάφραση Θέμις Μίνογλου. - Αθήνα : Κριτική, **2000**.

David Ricardo, Αρχαί πολιτικής οικονομίας και φορολογίας, μετάφραση Νικ. Π. Κωνσταντινίδη, Εισαγωγή: Δ. Καλιτσουνάκι, Αθήνα: Εκδόσεις Γκοβόστη, 1995 (1938)

Ελληνικές μεταφράσεις



On Value

SECTION I

The value of a commodity, or the quantity of any other commodity for which it will exchange, depends on the relative quantity of labour which is necessary for its production, and not on the greater or less compensation which is paid for that labour.\(^1\)

IT has been observed by Adam Smith, that "the word Value has two different meanings, and sometimes expresses the utility of some particular object, and sometimes the power of purchasing other goods which the possession of that object conveys. The one may be called *value in use;* the other *value in exchange.* The things," he continues, "which have the greatest value in use, have frequently little or no value in exchange; and, on the contrary, those which have the greatest value in exchange, have little or no value in use." Water and air are abundantly useful; they are indeed indispensable to existence, yet, under ordinary circumstances, nothing can be obtained in exchange for them. Gold, on the contrary, though of little use compared with air or water, will exchange for a great quantity of other goods.

Utility then is not the measure of exchangeable value, although it is absolutely essential to it. If a commodity were in no way useful,—in other words, if it could in no way contribute to our gratification,—it would be destitute of exchangeable value, however scarce it might be, or whatever quantity of labour might be necessary to procure it.

Utility is a precondition but **not** a **measure of value**



Possessing utility, commodities derive their exchangeable value from two sources: from their scarcity, and from the quantity of labour required to obtain them.

There are some commodities, the value of which is determined by their scarcity alone. No labour can increase the quantity of such goods, and therefore their value cannot be lowered by an increased supply. Some rare statues and pictures, scarce books and coins, wines of a peculiar quality, which can be made only from grapes grown on a particular soil, of which there is a very limited quantity, are all of this description. Their value is wholly independent of the quantity of labour originally necessary to produce them, and varies with the varying wealth and inclinations of those who are desirous to possess them.

These commodities, however, form a very small part of the mass of commodities daily exchanged in the market. By far the greatest part of those goods which are the objects of desire, are procured by labour; and they may be multiplied, not in one country alone, but in many, almost without any assignable limit, if we are disposed to bestow the labour necessary to obtain them.

In speaking then of commodities, of their exchangeable value, and of the laws which regulate their relative prices, we mean always such commodities only as can be increased in quantity by the exertion of human industry, and on the production of which competition operates without restraint. The goods he analyses are not scarce goods, rare paintings or wines, where supply and demand applies, but those goods which can be reproduced by labour and which are sold in competitive markets.



1. Domaine de la Romanee-Conti Grand Cru 1945 - \$558,000



Salvator Mundi by Leonardo da Vinci,

1500, via Christie's

Estimate: POR

Realized Price: USD 450,312,500

Venue & Date: Christie's, New

York, 15 November 2017, Lot 9B

Known Seller: Private European

collector

Known Buyer: Mohammed bin Salman,

Crown Prince of Saudi Arabia





20 Dollar 1933 Double Eagle (Farouk Specimen) - €6,446,000



That this is really the foundation of the exchangeable value of all things, excepting those which cannot be increased by human industry, is a doctrine of the utmost importance in political economy; for from no source do so many errors, and so much difference of opinion in that science proceed, as from the vague ideas which are attached to the word value.

If the quantity of labour realized in commodities, regulate their exchangeable value, every increase of the quantity of labour must augment the value of that commodity on which it is exercised, as every diminution must lower it.

Labour is the foundation of exchange value



SECTION II

Labour of different qualities differently rewarded. This no cause of variation in the relative value of commodities.²

In speaking, however, of labour, as being the foundation of all value, and the relative quantity of labour as almost exclusively³ determining the relative value of commodities, I must not be supposed to be inattentive to the different qualities of labour, and the difficulty of comparing an hour's or a day's labour, in one employment, with the same duration of labour in another. The estimation⁴ in which different qualities of labour are held, comes soon to be adjusted in the market with sufficient precision for all practical purposes, and depends much on the comparative skill of the labourer, and intensity of the labour performed. The scale, when once formed, is liable to little variation. If a day's labour of a working jeweller be more valuable than a day's labour of a common labourer, it has long

Works of different types have different qualities, but this is not a problem for the theory



SECTION III

Not only the labour applied immediately to commodities affect their value, but the labour also which is bestowed on the implements, tools, and buildings, with which such labour is assisted.²

The labour that is counted is not that of the last stage, but also that of all the previous stages of production and that which goes into the construction of tools, buildings, ships, etc. If we look to a state of society in which greater improvements have been made, and in which arts and commerce flourish, we shall still find that commodities vary in value conformably with this principle: in estimating the exchangeable value of stockings, for example, we shall find that their value, comparatively with other things, depends on the total quantity of labour necessary to manufacture them, and bring them to

market. First, there is the labour necessary to cultivate the land on which the raw cotton is grown; secondly, the labour of conveying the cotton to the country where the stockings are to be manufactured, which includes a portion of the labour bestowed in building the ship in which it is conveyed, and which is charged in the freight of the goods; thirdly, the labour of the spinner and weaver; fourthly, a portion of the labour of the engineer, smith, and carpenter, who erected the buildings and machinery, by the help of which they are made; fifthly, the labour of the retail dealer, and of many others, whom it is unnecessary further to particularize. The aggregate sum of these various kinds of labour, determines the quantity of other things for which these stockings will exchange, while the same consideration of the various quantities of labour which have been bestowed on those other things, will equally govern the portion of them which will be given for the stockings.

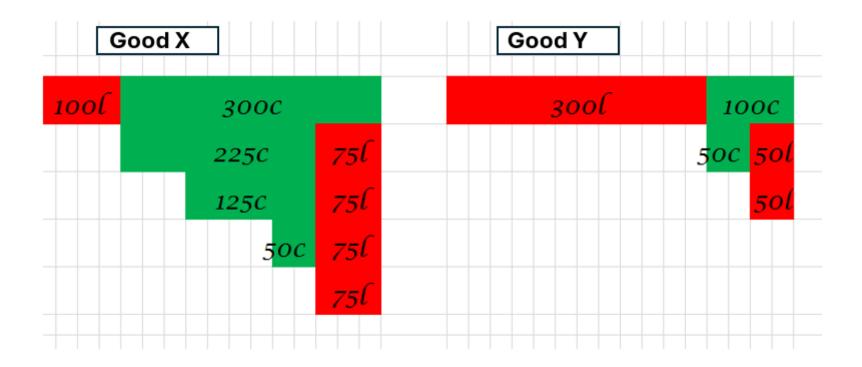


SECTION IV

The principle that the quantity of labour bestowed on the production of commodities regulates their relative value, considerably modified by the employment of machinery and other fixed and durable capital.²

The time structure of production modifies the measurement of the relative value of goods with the labour involved because profit is calculated at each stage of production





Take two goods which both contain 400 units of labour but at different stages of production. Good Y has 300 labour units at the final stage, while good X has only 100.



The labour cost wL_t entered at stage t, must have a profit $wL_t(1+r)^t$, i.e., the cost of the machinery involving labour in earlier stages must be

$$\sum_{t=1}^{T} w L_t \left(1+r\right)^t$$

So the price of a good should be

$$P_X = \left[wL_0^X + \sum_{t=1}^T wL_t^X \left(1+r\right)^t \right] \left(1+r\right)$$



Thus, the relative prices of two goods cannot express the relative quantities of labour involved, since

$$\frac{P_{X}}{P_{Y}} = \frac{\left[wL_{0}^{X} + \sum_{t=1}^{T}wL_{t}^{X}(1+r)^{t}\right](1+r)}{\left[wL_{0}^{Y} + \sum_{t=1}^{T}wL_{t}^{Y}(1+r)^{t}\right](1+r)} \neq \frac{\sum_{t=0}^{T}L_{t}^{X}}{\sum_{t=0}^{T}L_{t}^{Y}}$$

as a pure labour theory would require. For different w and r the relative values change



If we use the numerical example of goods X and Y, then for a wage equal to 1 euro and a profit rate of 50% the prices will be respectively

		Good X				Good Y	
	rate of profit	50%			rate of profit	50%	
	wage	1.00 €			wage	1.00 €	
Period	Labour Units	Cost of labour	Cost of capital	Period	Labour Units	Cost of labour	Cost of capital
		Labour units x wage	Cost of labour x (1+r)^t			Labour units x wage	Cost of labour x (1+r)^t
1	100	100.00 €	150.00 €	1	300	300.00 €	450.00 €
2	75	75.00 €	168.75 €	2	50	50.00 €	112.50 €
3	75	75.00 €	253.13 €	3	50	50.00 €	168.75 €
4	75	75.00 €	379.69 €				
5	75	75.00 €	569.53 €				
Labour Units	400	Price	1,521.09 €	Labour Units	400	Price	731.25 €



Whereas for a wage equal to 2 euros and a profit rate of 10% the prices will be respectively

		Good X				Good Y	
	rate of profit	10%			rate of profit	10%	
	wage	2.00 €			wage	2.00 €	
Period	Labour Units	Cost of labour	Cost of capital	Period	Labour Units	Cost of labour	Cost of capital
		Labour units x wage	Cost of labour x (1+r)^t			Labour units x	Cost of labour x (1+r)^t
1	100	200.00 €	220.00 €	1	300	600.00€	660.00 €
2	75	150.00 €	181.50 €	2	50	100.00 €	121.00 €
3	75	150.00 €	199.65 €	3	50	100.00 €	133.10 €
4	75	150.00 €	219.62 €				
5	75	150.00 €	241.58 €				
Labour Units	400	Price	1,062.34 €	Labour Units	400	Price	914.10 €



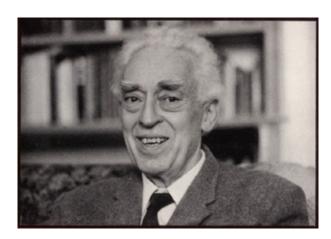
rate of profit	50%	10%
wage	1.00 €	2.00 €
Price of Good X	1,522.59 €	1,062.34 €
Price of Good Y	731.25 €	914.10 €

So the relative prices are 1,522.59/731.25 in the first case and 1,062.34/914.10 in the second, while the two goods contain the same amount of labour

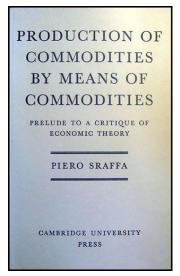


Ricardo searched for an absolute measure of value that would be invariant to changes in the distribution between profit and wages, looking for a good that would reflect the average time structure of production throughout the economy

The "solution" was given in 1960 by Piero Sraffa, however, eliminating, however, labour from the "labour" theory of value.



Piero Sraffa (1898-1983)



1960



Under a system of perfectly free commerce, each country naturally devotes its capital and labour to such employments as are most beneficial to each. This pursuit of individual advantage is admirably connected with the universal good of the

whole. By stimulating industry, by rewarding ingenuity, and by using most efficaciously the peculiar powers bestowed by nature, it distributes labour most effectively and most economically: while, by increasing the general mass of productions, it diffuses general benefit, and binds together by one common tie of interest and intercourse, the universal society of nations throughout the civilized world. It is this principle which determines that wine shall be made in France and Portugal, that corn shall be grown in America and Poland, and that hardware and other goods shall be manufactured in England.

The virtues of international trade: England will produce manufactured goods and the rest will produce agricultural goods.



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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.

Even if Portugal is more productive than England in the production of both wine and cloth, it is still in her interest to export wine and import cloth if she has a comparative advantage in wine.

Hours of labour needed to produce wine and cloth in England and Portugal

	England	Portugal
Wine	120	80
Cloth	100	90



The criticism of the theory of comparative advantage argues that in the long run the terms of trade are to the detriment of agriculture, so a specialisation in agriculture hinders the development of a country. Instead, countries should protect their infant industries until they mature.



Theory of National Debt



Ricardo, like most classical economists, is opposed to public borrowing to finance government spending. But he observed that from a purely theoretical point of view there is no difference whether the expenditure is financed through taxes, borrowing to be repaid over a certain period, or through bonds that will never repay the principal but will pay interest in perpetuity. This analysis later became known as "Ricardian equivalence".

- On the Principles of Political Economy and Taxation
- [as E.E.E.] "Funding System", An article in the Supplement to the Fourth, Fifth and Sixth Editions of the *Encyclopaedia Britannica*, 1820
- James Buchanan, "Barro on the Ricardian Equivalence Theorem", *Journal of Political Economy*, 1976, 84 (2): 337-342.
- Andrew B. Abel, "Ricardian equivalence theorem", in J. Eatwell, M. Milgate & P. Newman (eds), *The New Palgrave: A Dictionary of Economics*, London, Macmillan, 1987, vol. 4: 174-179.



Taxes which are levied on a country for the purpose of supporting war, or for the ordinary expenses of the State, and which are chiefly devoted to the support of unproductive labourers, are taken from the productive industry of the country; and every saving which can be made from such expenses will be generally added to the income, if not to the capital of the contributors. When, for the expenses of a year's war, twenty millions are raised by means of a loan, it is the twenty millions which are withdrawn from the productive capital of the nation. The million per annum which is raised by taxes to pay the interest of this loan, is merely transferred from those who pay it to those who receive it, from the contributor to the tax, to the national creditor. The real expense is the twenty millions, and not the interest which must be paid for it.* Whether the interest be or be not paid, the country will neither be richer nor poorer. Government might at once have required the twenty millions in the shape of taxes; in

* "Melon says,1 that the debts of a nation are debts due from the right hand to the left, by which the body is not weakened. It is true that the general wealth is not diminished by the payment of the interest on arrears of the debt: The dividends are a value which passes from the hand of the contributor to the national creditor: Whether it be the national creditor or the contributor who accumulates or consumes it, is, I agree, of little importance to the society; but the principal of the debt-what has become of that? It exists no more. The consumption which has followed the loan has annihilated a capital which will never yield any further revenue. The society is deprived not of the amount of interest, since that passes from one hand to the other, but of the revenue from a destroyed capital. This capital, if it had been employed productively by him who lent it to the State, would equally have yielded him an income, but that income would have been derived from a real production, and would not have been furnished from the pocket of a fellow citizen." - Say, vol. ii. p. 357. This is both conceived and expressed in the true spirit of the

1 Essai politique sur le commerce, 'nouvelle édition', 1761, p. 296.

which case it would not have been necessary to raise annual taxes to the amount of a million. This, however, would not have changed the nature of the transaction. An individual instead of being called upon to pay 100*l*. per annum, might have been obliged to pay 2000*l*. once for all. It might also have suited his convenience rather to borrow this 2000*l*., and to pay 100*l*. per annum for interest to the lender, than to spare the larger sum from his own funds. In one case it is a private transaction between A and B, in the other Government guarantees to B the payment of interest to be equally paid by A.

On the Principles of Political Economy and Taxation



SUPPLEMENT

410

TO THE

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1824.

FUNDING SYSTEM.

UNDER this head we propose, first, to give an account of the rise, progress, and modifications of the SINKING FUND, accompanied with some observations as to the probability of its accomplishing the object for which it was instituted; and, next, briefly to consider the best mode of providing for our annual expenditure both in war and peace,-an inquiry necessarily involving the policy of that SYSTEM OF FUND-ING of which the Sinking Fund has long been considered as one of the principal recommendations and

I. On the subject of the Sinking Fund, we shall have frequent occasion to refer to the statements of Professor Hamilton, in his very valuable publication, surplus duties, which, according to the original plan, Fundas ought to have been appropriated to the sinking System

" Soon after, the principle of preserving the sinking fund inviolable was abandoned. In 1733, L. 500,000 was taken from that fund, and applied to the services of the year."-" In 1734, L. 1,200,000 was taken from the sinking fund for current services; and, in 1735, it was anticipated and mortgaged." The produce of the sinking fund, at its commencement in 1717, was L. 323,437. In 1776, it was at its highest amount, being then L.3,166,517; in 1780, it had sunk to L. 2,403,017.

" The sinking fund would have risen higher, had it not been depressed, especially in the latter period,

"if our sinking fund should accumulate, in time of peace, to so large a sum that I can take five millions per annum from it; I can spend L.100,000,000 in a new war without coming to you for fresh taxes: the disadvantages of my plan are, that by now taking L. 7,000,000 per annum from it, and making a

provision for speedily, and at regular intervals, appropriating more of this fund to present objects, the sinking fund will be so much diminished, that I cannot so soon, by a great many years, avail myself of the five millions for the purpose which I have stat-



End of lecture