慶應義塾大学学術情報リポジトリ

Keio Associated Repository of Academic resouces

Title	The influence of so-called marginal rent upon the marginal expenses of production.
Sub Title	
Author	Buchanan, D.H.
Publisher	慶應義塾理財学会
Publication year	1922
Jtitle	三田学会雑誌 (Keio journal of economics). Vol.16, No.3 (1922. 3) ,p.291(1)- 308(18)
JaLC DOI	
Abstract	
Notes	論説
Genre	Journal Article
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00234610-19220301-0001

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって 保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the KeiO Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.



三田學會雜 第十六卷 第三號

論 說

The Influence of So-called Marginal Rent upon The Marginal Expenses of Production.

Ŭ. 二 Buchanan.

follows:doctrine of the subject. statement for a possible exceptional reasonable at the respective times in which they were formulated and that, both had been correct in their answers. standing.(1) relation between economic rent and the marginal expenses of production had been due to misunder-In this magazine for March 1921 I undertook to show that much of the disagreement about the I stated that In another article in May 1921 Ricardo and Jevons had discussed case, I maintained further that both the answers constituted entirely different questions and that the position thus that, with a supplementary consistent and satisfactory their questions had been

(I) Page 92 et seq..

第十六卷 (三九一) 論 觀

第三號

- went of land for a general use, such as the production of "raw tural produce", does not influence the price of that commodity, refer is no competing use for the land.

 Rent of land for a particular ... commodity, relatively material" 5 , Pr others, "agricul-others, if
- (2) and for a particular use, such of that commodity, relatively such as the production of corn or cotton, does influence ively to others, if there are other competing uses for the others, are other competing uses for the
- (3) In case a piece of land is specially fitted by nature for the production of particular commodity, so that it will produce that commodity regardless of which it may be sold, such rent as it earns has no influence upon the price of of the price of the co some one com-

"marginal rent". Such part of this land for any given use is called "marginal land" and the rent which is various uses to day literature modity includes the economic rent paid for the propositions, In the present paper I propose to examine, in the light of the theory embodied in the production of other commodities for which it drawing directly from no-rent land. referred to above this theory was stated as one of three most commonly met with in present that theory which states that the marginal expenses of production of a particular comon the subject.) which it is normally put. This theory separates land into different divisions according "marginal rent" as the next less productive use The land taken for the lowest paying use may be added But further land for most uses poorest land given to that use. already commands a rent. paid must for be d d of that 4 The drawn the March poorest

(1) Page 69 et seq..

(inferring its entirety) of the rent paid on this poorest land for the given use will be only just land from going over to the competing use. Advocates of this theory are not equally would pay is stated to be a marginal expense of producing is an expense of producing the marginal units of the explicit but it is usually stated or inferred that Hence it is commonly stated that the "marginal rent" the commodity sufficient commodity. actually ő keep furnished.

to uphold this view: producing the commodity and that the differential rents are not. "differential rents". better pieces of land for this The differences between these rents and that paid on the poorest land for the use It is claimed use receive higher rents, corresponding that the "marginal rent" The following quotations appear is a marginal expense of to their greater -o.rd

"Every piece of marginal land- that is, the poorest land in use for some particular productis worth something for the raising of a less valuable product, until we finally reach land that is worth nothing for any purpose. In the cost of wheat, therefore, there must always be included the rent which the marginal (or no-wheat-rent) land would earn if employed for the next lower use." (1)

land for some other use worth Rent in ove the margin usually of a would 0 particular

1

⁽¹⁾ Seligman: (Principles of Economics, 5th Ed. Revised.) pp. 377-8.

differential and of a marginal element. The differential element is an expense of production only to enterprisers using superior land for the given purpose, while the marginal element must be paid by all enterprisers engaged in the given branch of production and hence figures as an element in the normal expense of production." (1)

land for a particular purpose, e. g. growing wheat, market gardening, city building, in developed industrial communities, almost always pays a rent ---. The old economic theory held that the marginal land paid no rent. But this is certainly untrue of most uses of land in developed countries. --- the worst wheat-growing land pays some rent. The marginal land for market gardening pays a considerable rent, and, where we come to city building ground, the least eligible sites pay a rent far above the ordinary level for agricultural uses." marginal land (i. e. the worst land in use for any kind of service)city The

And in another book:

garden land competing for a given market may be tolerably good wheat land, and, if so, the wheat land will be a positive rent and will enter into wheat prices; again, by paying a little more than its differential rent for grazing purposes; this rent for the several alternative uses or can contribute toward several different supplies. grazing than the worst grazing land, in which case it can only be obtained ". Though the worst grazing land may pay no rent, the worst wheat land might be "What really invalidates the Ricardian treatment is the fact that most the land for growing wheat worst Ħ, better for use marketworst has

rent which it could get for wheat forms a marginal rent for market-garden land.(1)

"If the marginal land used for gardening will yield a rent for wheat, marginal produce of garden products must equal the cost of the labor en of the land when used for wheat." (2) the labor employed plus the rent the value S.

"Take the case of a particular industry ----. The least efficient operative may be tenthe marginal operative, just as the least valuable land may be termed the marginal land. Take the case of wheat. From the supply side its price is fixed by the costs of the marginal producer on marginal land. Into these costs ex hypothessis differential rent does not enter. The least efficient operative may be termed and may be termed the marginal land. ---marginal

the rents do state of the weather. high prices ner. On the co s any more than the height of contrary it is the high prices that make the barometer the

In qualification of this statement it must be added that a rent charge comes into play in settlement of price when the marginal land for a given purpose can only be obtained by buying out somebody who requires it for another purpose. The marginal factory in the outskirts of a town has had to win its site from agriculture in all probability, and to do so it has had to pay for the land a charge equal at least to its rentable value for agriculture. This charge, in being incurred at the margin, is an unavoidable element in marginal cost, and therefore

H.

⁽¹⁾ Seager: (Principles of Economics,) pp. 234, 240.

B J. A. Hobson: (The Industrial System,) pages 94, 95.

⁽¹⁾ J. A. Hobson: The Economics of Distribution, pages 12c-121.
(2) Patten: The Theory of Dynamic Economics, p. 58. It is not easy to quote from Patten's text and show that he takes "marginal land" for a given use to be the same as the poorest land in that use. But the context reveals that this is unquestionably his supposition. I have therefore included his statement among those which uphold the theory

of

the

enters into the supply price of the article produced in the factory." (1)

"---a payment for marginal land for any purpose, if it bears a rent, is an element cost which helps to settle price." (2) And again:

vation to land that has herefofore been employed for grazing.---- That the farmer of the marginal wheat land (formerly grazing land) must pay the owner of this land an amount that is equal to its rent as grazing land must be admitted. It must also be admitted that as this is a payment at the margin of wheat production it will enter into the determination of the price of wheat -----the scarcity of any good is reflected in the fact that it yields a monopoly, or marginal surplus, or a surplus that enters into the determination of price. --- the amount which would have been paid for the land for grazing purposes is a surplus of this kind. For it is secured by the owners of the marginal land in wheat production in common with the owners of the better land employed in the producing of wheat, and thus---certainly enters into the determination of the price of wheat." (3) "Let us assume that a rise in the price of wheat it profitable to extend uzing. ---- That the fa

to what false conception of the margin of production and that it therefore arrives at a I shall now attempt to show that this theory is inadequate, are the marginal units of supply. Having selected non-marginal units as the marginal ones I believe it to false conclusion as be built noqu

(1) Chapman: Political Economy, pp. 213-218.
(2) Chapman: Outlines of Political Economy, p. 298. See also p. 288. This author objects to calling this "margical" payment for the use of land "economic rent."
(3) MacFarlane: Value and Distribution, pp. 130, 132. This author objects to calling this "marginal" payment for the use of land "rent" at all.

inadequacy of one of the best known criticisms of the theory under examination. that the theory is built upon false premises I shall make it necessarily selects non-marginal expenses of production as the taking those false premises. At the end I shall add a short suggestions section marginal expenses. calculated as ð Ó what After showing show led the

"food" or "raw produce" and undertake to find the marginal expenses penses The first thing to be noted about this theory is that it attempts to of producing a particular commodity. It undertakes to discover the marginal expenses of producing such particular commodities "garden products", live-stock and uses of city building sites. It does not consider the land discover of, producing that æ the used marginal merely for com-

particular piece of land for the production of a particular commodity. tinguishes between the rents which different particular commodities will pay The second thing to be noted is very closely related to the first, hich is considered is not simply the "income received by land" by received by land" but is the income received by a and is that the economic This theory for a given piece carefully rent dis

the land will be taken for that use whose value allows it to pay the highest rent. different commodities are competing for the use of certain pieces of land. The third, and perhaps most important, thing to be noted is that this It further assumes theory assumes that that

and not Ricardo's. (1) It is clear, then, that the proponents of this theory are endeavoring to solve Jevons' problem

(1) Compare with the March article above referred to.

第十六卷 (三九七) 論

ti

classical economists did and suppose, use,—that it must be taken for that purpose or return to Nature. These writers assume, contrary, that different products with different marginal expenses of production and different are actively competing these writers do not assume that the land is taken from Nature and that it has only one produce" but attempt to cover any and all commodities whether rural or urban. It is also clear that expenses of producing one among many particular articles which, hich the normal price of a particular commodity will allow that particular commodity to pay for particular piece of land under consideration. They attempt, moreover, to discover the marginal They do not look at rent as merely "the price paid for the use of land" but as They do not even limit its range to for some of the land. These writers do not do as "corn" or "raw produce" or "agricultural moreover, to discover the Marshall or "agricultural says the possible marginal on the prices price

of corn; and building sites "-- that all kinds of agricultural produce can be regarded as equivalent to certain quantities corn; and that all the land will be used for agricultural purposes, with the exception of illding sites which are a small and nearly fixed part of the whole."

ing. He said that, added that even the rotation of these different particular commodities did not invalidate the On the other hand they do as Jevons did. He spoke of potatoes and clover and turnips and reason-

"each portion of land should be applied to that culture or use which yields the largest total of utility, as measured by the value of the produce; if otherwise applied there will be a loss." (2)

(1) Marshall: Principles of Economics, 7th Ed., p. 434-5.
(2) Jevons: The Theory of Political Economy, 4th Ed., Preface, p. xlix.

No. 3, where a part of the hypothesis is that the land has one use to which it will be less of the price of its product. 1921, article, and this one? at issue between our theory as embodied in proposition No. 2 above, such products for the use of the same land, that it must be considered. proposition No. 1 at the head of this paper. These things make it clear, I trust that this theory is not to be compared to Ricardo's, embodied in which considers particular products and particular rents and the competition And it will be clear, I trust, that it is as a substitute for proposi-Also that it is not to be compared elaborated What, then, Þ. he is the put regardof several proposition March,

for the given use constitutes a margin on all the poorest land of most countries. and intensive no-rent margins while the third was a margin on which economic from going to the next lower use. marginal expense of producing the commodity, because it must be marginal expense of production.(1) being produced at all on three different margins; and that two of these were these same extensive They differ as to which pieces of to the two no-rent margins. Most advocates of this theory recognize an extensive, no-rent, margin for products produced on But they disagree as to where this third, rent-paying land. It was stated there that units of a particular commodity were on the margin of not And they agree as to the existence of the third margin where third margin; upon this last margin economic Then, they state that the poorest, though it land in This seems decidedly like the theory stated The theories really appear to be much alike. e this third, or "product-changing margin" is found a given use it is whose rent is a marginal expense paid in order to keep the the margin" rent is paid and is a be rent-paying, intensive, rent Ħ. They agree as my becomes no-rent March,

(1) Pages 119-120.

第十六卷 (二九九) 翰

第三第

reasons for believing that it is the rent paid on whatever piece of land is on the margin of leaving only by the fact that the normal price of the article produced the poorest land for the given use. The theory which I uphold states that it is on whatever pieces of land now in that use are "on the margin of going over to another use" and are held in place production for the given commodity. The theory under examination for the given use. The theory which I uphold states that it is on whatever pieces the production of that commodity rather than that paid on the poorest piece of land for the use or it may be the best for the use, or it may be some piece between these e main task of the present paper. They can be given, however, in a very short space. The central facts which make it certain that this third, or "product-changing," margin of or slightly better than they could earn otherwise. The land may be the poorest for the is such as to give them a rental as extremes. Giving the

a wage which will keep him from going over to the building of aeroplanes or to other particular product of the highest paid laborer in the automobile industry is a ma of producing automobiles if the going price of the product is only barely sufficient whole matter rests upon potential influence upon the normal supply of the particular commodity duction of a particular commodity is not only on the poorest land for that mitter depends upon whether or not those units would be produced if the price were to poorest or from the best piece of land in that use affects the case not in the least. Absolutely nothing else from the supply side can affect it. expense of production affects the order to keep that supply at its normal amount is a marginal expense of producing it. and (b) any expense of producing the supply of a commodity which exchange value of a commodity except as it operates upon its Whether certain units come a marginal expense must be are: (a) to allow him fall. from the paid that work. -ord The

which "changed relations of supply and demand manifest themselves".(2) His share of the product is on the margin of not being produced at use which has come to pay less to one which promises to pay more. It is one of those points at which productive power is "on the margin of shifting" all. (1) This is It is a place at marginal

the pieces of land half way between the poorest and the best for garden products might go over product and say, making it impossible for garden products. of going over" to use to that use rather than that the poorest land should go over to wheat. Exactly the same thing is true of land. or, if an increasing demand for dairy produce should arise, it is quite possible that some of And if the price of garden products should fall, through a change in And if the price of garden products should fall, through a change in And if the price of garden products should fall, through a change in And if the price of garden products should fall, through a change in for building sites it is in a position to If the best land in market-gardening is "on the margin influence directly the Ħ, supply demand

modity, garden produce, is needed to satisfy the normal demand for it. community and the uses to which they can be put, profitably (i. e., under the general conditions of demand and supply) about so many units of productive power in the form of land is needed. of that amount, with the supplies of all the different kinds of productive power as they are in the If the demand for the commodity falls, the rewards paid for the powers used, or for them, must fall or the supply must be curtailed by some of the agents used for that going out of that line of production. The entire matter depends upon the fact that so many units of supply of the particular com-Now just as it is not the lowest-paid laborer who will leave And for the production that some purpose

(2) Ibid. p. 522. This is the principle which locates the "marginal shephered" for Marshall. Prins. pages 516-517 and note.

第十六卷 鼢

productive power, are applied to all their different uses as far as it is profitable. As Marshall puts it, negligible error that the rent actually paid on the land thus on the margin another use is a marginal expense of producing the commodity grown upon it. of producing marginal units of the supply of the this land which would fail to be brought to market if the price of the particular commodity should of the commodity, is the land which will leave that line of production first. rental will be made equal to the rental it can earn in another use by the smallest fall in the price a given work first upon a fall of wages, so it is not the lowest-paid piece of land which leaves with the smallest fall in the price of the commodity will leave first. cause, as already stated, units of a given grade or labor, of land and of It is necessary to pay this land its normal rent if its part of the supply is to be et. The normal pay for the use of non-land agents plus the rent for this land is oducing marginal units of the supply of the commodity in question. It may be whose wage in that line will become equal to what he can get in And the piece of land whose every It is the product of of. may be said with This is go:ng other be kept on the another line an expence true beover ð

it from uses, value ---" (v --equality is maintained between its values for each use by the constant tendency to shift om uses, in which its services are of less value to others in which they are of greater

different "grade" of land is required for the production of each kind of commodity. That is, it is an artificial and inexact description of the facts of production which insists that a

And, just as many laborers of a given grade tend to earn the same amount in the work of the same grade is applied to many different kinds of production. Land is likewise

(1) Principles of Economics, 7th Ed., page 522.

paid to certain of these pieces (as likely to be better pieces for a given use as the poorest) they in other uses. for which they are employed as they could earn in another occupation so, many pieces of land of a given grade tend to earn the same amount in the use to which they are put as they could get will leave that line of production. The earnings of land are thus "equalized" and unless the total amount of rent

is a marginal expense of producing the commodity which it furnishes. The total rent on one of those pieces thus "on the margin" of deserting that line of production

fail to be produced if the price were to tion asked is this: "At what places do we find produced those units of the supply which is a marginal expense of production is not true to the facts of the case. being produced at all and has economic rent as one of its necessary expenses of production, but those pieces of land are as liable to be the better or best pieces for the given use as the poorest. produce from pieces of rent-paying land on the "product-shifting" margin is on the margin of not only conditions which can affect prices,- conditions which affect relative supplies. This theory which teaches that it is necessarily the rent on the poorest land for a given use This conclusion is not arrived at in any indirect manner. fall?" It finds them It is reached by going straight to the at the points of production, indicated. The only would

why writers have been led to this position. Perhaps a fuller appreciation of the position here taken may be gained if a word is added as to I believe there have been two main causes.

(1) The principal cause appears to lie in their failure to recognize clearly that they are discussing a different question from that treated by Ricardo. There is an apparently half-unconscious

attempt to apply Ricardo's reasoning to an entirely different problem.

(2) The second cause grows partly out of the first. It is an inconsistent use of "marginal". This inconsistency appears to be due partially to (a) a confusion of two the same term, "maginal" and partially to (b) a misinterpretation of Ricardo. the term usages of usages

I have stated elsewhere that,

"The term 'marginal' has frequently been used in economic literature in two distinct and unrelated senses. One of those senses makes 'marginal' mean the poorest in quality of a number of units of a good, or of a producing agent. The other makes it refer to the last of a group of units, all of which are quality and, therefore, interchangeable, which will be taken for some use." (1) of

is not true. product "on the margin of not being produced at all" tion are the marginal expenses of producing that commodity. natural to suppose that the product from it is also "marginal", and that its expenses made with great care. then to have confused the two. the second of these meanings. marginal reasoning, such as that dealing with marginal utility, marginal expenses, etc., depend upon It will be evident that these two meanings are not the same. The word "marginal" is used in senses which are different and which are not interchangeable The poorest land in a given use is "marginal" in a different sense, If the poorest land in a given use is "'marginal" These writers appear to have used this term in the two That confusion follows most naturally, unless the dual and hence only drawn out by But, as I have already Furthermore, land then that all kinds of from shown, ಲ್ಲ having senses and it seems usage is produc-

(1) This Magazine for March, 1921, Page 95.

of the Ricardian doctrine, but it seems probable. income-earning agents shifted away from the production of raw produce. "marginal" essential fact about these units was not that they came from the poorest that underlay It cannot be stated definitely but that they were the units of the supply which were just barely drawn out by the his analysis. An incident was that he found one of these places on the poorest land It was a fact that this land produced the that this inconsistent usage is also due in Ricardo undertook to find the marginal units of the supply, part to a misinterpretation land, That was the principle since often called places at which but the

commodity from the poorest piece of land in that use were believed that this incident of the earlier analysis were its essential point. only an not being produced at all". The point of Ricardo's analysis was in the fact that the produce was there "on the margin of incident. It seems difficult to explain how anyone should select the units of a The fact that it was produced on the as necessarily poorest "marginal" land was units unless in reality particular

Concerning Professor Hollander's Criticism.

his position with the one set forth here. of Professor Hollander. Perhaps the best known and most authoritative criticism of this theory hitherto published is that The following note may be found useful to readers who care to compare

the quotations criticised in the above paper and that it cannot be expected that it would necessarily apply to all of them. Quotations are given, however, It should be stated that his criticism was written some years prior to the publication of some of from Patten and Hobson.

Professor Hollander states that this theory is based upon two things as follows:-

- "Denial of the existence in actual cultivation of no-rent land", and, "neglect of intensive cultivation."

that the Ricardian theory of Rent and Price does not depend upon the existence of but on the existence of the two margins, extensive and intensive, upon which labor and costs of production are equal. While these two positions are stated to be at the basis of the theory in Hollander's discussion. His principal claim is that, Most of his discussion deals with No. 2, and goes they are not no-rent land given the to show

"marginal land will be cultivated intensively until a no-rent use is reached. The cost of the increment produced by this final application of labor and capital will be the cost of the real marginal product, and into this index of normal cost rent does not enter." (2)

I shall make three criticisms of this position.

- commodity offered, or return to nature. hence upon the price, alternative use so that the witholding of its rent could have no influence Ricardo and Jevons. as I have already shown entirely inapplicable.(3) First, it fails to recognize the of its product. It undertakes to apply Ricardo's reasoning to Jevons' problem, It must be used for "raw produce", accepting the rent that existence of the two Both Jevons and the persons who uphold this Ricardo thought of the problems discussed npon land the as separately supply, having "marginal which and no
- Quarterly Journal of Economics, Vol. IX, page 175.
- Ibid, page 185.
 This Magazine for March, 1921, page III et seq...

rent" theory work upon a different problem and with a different hypothesis. not being produced at all ". supposed that the land has other competitive uses and that if the commodity usually produced fails to pay the usual, or normal, rent the land will go over to another use. the other problem normal, rent the land will go over to another use. Some pieces of land for therefore so situated that the entire product from them is "on the margin of The two cases are entirely different and Ricardo's theory 片 does

Ricardo's particular problem rather than upon his central idea. Ricardo sought to discover those points at which changes were brought about in the relative supplies of urban and rural In Marshall's words, he was "watching the marginal uses of" labor and capital. And and looking for places at which units are "on the margin of not being produced at all", Hollander places discovered by Ricardo is out of the question. there is no no-rent land for the production of the commodities occur on no-rent land and at the intensive That was the central thing in his analysis. follows the incidents of his discussion of a different question, and insists that all the marginal units shiftings can occur by which changed relations of supply and demand manifest themselves." so because, again in Marshall's words, he knew that "it is only at the margin that any Second, Hollander's position as to what is "the real marginal product" seems to me to neous. This follows logically from his failure to recognize the fact that he is not discussing overlooking of Ricardo's main principle; it is built upon an incident of the solution His criticism is ostensibly based margin on rent-paying An incident of it was that he found these upon the emodities under discussion, one of But instead of applying Ricardo's Ricardian analysis land. Since, one And shiftings hypothesis, the produce 6

⁽¹⁾ See quotation above, page 16.

margin". examples of units of particular products on the margin of not being produced at all which are not produced on either the intensive or the extensive margins, but on the "product-changing all the "real marginal product" comes from the intensive margin on these of a particular product must be found on the remaining one of the two. not produced on either this case includes all) pieces of land. the intensive or the extensive Any normal agricultural margins, community That is, he rent-paying furnishes insists which are (which numerous that

that the subject of it has already shown, is not true. that the product of this land is "on the margin of not being produced at all", which, taken as "marginal land". by the authors criticised above. to his usage of the term "marginal" in two distinct senses as I have already referred to 3 A third criticism of Professor Hollander's discussion should be made, although it appears not contributed Such usage appears to me It seems that the usage should be avoided. Throughout his discussion the "poorest land for a given use" toward his taking the position ် Ď. li-ely to lead to outlined above. assumption its refer have use z.

The End.

勞働組合に關する諸問題(三完)

堀 江 歸

ワンピッグ、ユニオン

prost prost prost

勞働組合の聯合と合併

n て、論 會 13 第十六卷 其本部を置く (三〇九) 其 勢力を大 Č 勞働組 其本部の所在 論 て、傍 合に 元來 勞働組合に関する諮問題 る 圳 13 は を及 HH 21 て、他の組 立 て、勞 72 حح す 合 闘する勞働者 ح まで τ る は、從來 合する 選す 0 0 p; 宜 O) す或る都 を吸引 に、政府 題とし V うとし 九 日を か、其 事 業