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CONCERNING THE NATURE OF CAPITAL:
A REPLY.

NOTHING ever comes from the brilliant pen of Dr. Eugen von Bohm-Bawerk, eminent as scholar and as Finance Minister, which does not contribute to clearness of thought, and thus to an ultimate unanimity of view, on the subject treated. His recent vigorous articles on my theory of distribution have contributed to such a final agreement, not more by reason of the generous commendation which he bestows on certain parts of my work than by his acute criticism of certain other parts. The point which he has selected for the principal attack is the conception of the nature of capital which is carried thru the general theory. If his claim shall be accepted, and if that part of the work shall be discarded, the system will not, indeed, be destroyed, but will have to be restated by the use of cumbersome formulas. Comparing the system to a ship, one may say that it will not be reduced to the flotsam and jetsam of a wreck, but will merely have to be sailed somewhat inconveniently under a jury mast.

In the criticism itself this point is central, and, if it shall be so met as to enable the theory of capital to survive, the remaining criticisms must lose their principal effect, since they are all dependent upon the correctness or incorrectness of my statement of the nature of capital and its relation to instruments of production, or capital goods.

At the outset I must claim that, if the view of capital expressed in my work deserves to be cast out of theoretical thought, it should be cast out of practical thought as well; for all that this part of the theory aims to do is to put into explicit terms the idea of capital which has possession of business men's minds, and, if this is not in accordance with facts, it will be necessary to bring about a somewhat revolutionary change in the mental attitude of men of affairs. Nothing is, I venture to affirm, held more generally and expressed more constantly by the men who own and use capital and by those who labor in connection with it than the concept which is under criticism. This unanimity of practical thought will be difficult to change, and, moreover, it affords in itself more than a presumption of the correctness of the view so held.

Beyond dispute it is the duty of the economist to describe facts as they exist, and, in describing them, to use each term in a sense which is at least in harmony with the one which the evolution of popular language has attached to it. My claim is that a certain objective thing exists to which the name "capital" may be rightly applied, and that something also exists to which the name "capital goods," may be properly applied; that these two entities, which at first glance may seem to be identical, are, on a second glance, found differing in an important particular; that both of them are essential parts of an economic theory, but that one cannot in such a theory be freely substituted for the other without producing very serious confusion. In the view of my distinguished critic what I

have defined as capital is something quite apart from facts and presumably apart from practical men's idea of facts. It is, as he thinks, an unsubstantial figure, an empty form of speech and thought. It is even a "phantasm" and a "hobgoblin," belonging to the "mythology of capital." Whether this view of it is or is not correct remains for the reader to determine.

We are probably not on controvertible ground when we say that capital is productive wealth. So much, in the way of a definition, is so universally held that it scarcely requires any support from present argument. This definition may seem to involve a certain presumption in favor of a productivity theory of interest; for, if capital produces, the measure of its product would seem, off-hand, to afford a somewhat natural measure of its returns. In advance, however, of argument, I do not claim as much as this. No theory denies the existence of wealth in forms which do not directly satisfy consumers' wants, but do aid in creating products which satisfy them. In that sense this variety of wealth is certainly productive.

In distinguishing this variety of wealth from wealth devoted to consumption, we usually notice the kinds of goods which constitute each variety. On the one hand are tools of trade, hammers, wagons, engines, furnaces, iron ore, raw cotton: on the other hand are furniture, dwellings, clothes, food. Thus far the statement involves no break from common ones, and Minister von Böhm-Bawerk is correct in saying, of my reference to the processes by which capital produces, that it brings before the mind "the familiar features of capital goods,—machines, tools, buildings,"—and he is generously candid in saying, in a foot-note, "It is not to be forgotten that Professor Clark has said repeatedly, and with emphasis, that his true capital exists only so long as it is incorporated in capital goods, and has taken the form of materials, tools, merchandise,

and the like." Nevertheless, I plead guilty of saying that what is meant by capital as commonly used is "not to be confounded with" that other entity that is described by the term "capital goods." There is one important point in which the objective things suggested by these two terms are unlike, and the effect of that difference is far-reaching.

What we mean by capital is a mass of things belonging to a certain genus. They are of the kind represented by the machines, tools, and buildings, referred to. If mankind could take an inventory of all the things of this kind in its possession at a single moment of time, it would find that they constitute, for that instant, its capital. For that microscopic period, capital would consist in the identical machines, tools, buildings, which are seen and are placed on the inventory. For one mathematical instant there is no difference between capital and capital goods. Particular instruments of production, every one of which can be identified, momentarily, constitute what we designate as capital. *Not for any two instants do these particular things do this.* In another moment some of them will have gone, and others will have taken their places. At the end of a year very many will have gone, and at the end of five years the great majority of them will have done so. All the while we shall have had goods of this kind in possession, but not *the* goods with which we started. We shall have had thru the five-year period, and shall continue to have thru many more such intervals, a mass of wealth the bodily composition of which is changing. The identity of the individual things in the mass will not be preserved.

There is going on a continual expulsion and replacement of the component elements in that total which, thru any prolonged period of time, constitutes the possession of the capitalist. This permanent mass with the changeful composition is a thing to which a term of some kind must

be applied, and to which, in common thought, the term "capital" is applied. It is a body made up at each instant of some individuals belonging to a definite genus. The variety survives; the fact of a mass of goods of this kind persists; there is never a moment when there is not a body made up of material things of the kind described. But the body sustains itself, like that of a living animal, by waste and replenishment of tissue. It is this lasting body to which we are compelled to apply the term "capital," whenever we so use it as to attach to it any idea of continuance.

A river is composed of drops of water. At any particular instant we could, if we were capable of sufficiently rapid and extensive observation, identify the drops. Not for any two days is the river made up of the same drops. The body of an animal is made up of nervous, muscular, and bony tissue, but not of the same tissue for any length of time. A primeval forest is composed of trees, but not, thru the ages which its existence spans, is it composed of the same trees. The river, the animal body, and the forest are certainly not phantoms; and capital, maintained as it is thru the years and decades by a like replenishment of wasting corporeal tissue, is not so. Whatever questions may arise as to a use of terms, there is certainly no doubt of the objective existence and the continuance of such a body.

The whole claim which I have made concerning capital is established if it is conceded that it has continuance. And on this point common thought is unequivocal. As the Hudson River, which flows by my door, is regarded as the same river that the Dutch explorer discovered in 1609, so the capital, some portion of which may have been handed down from a father to his descendants for as long a period, is regarded as having a like continuance. If this mode of thinking and speaking be objectionable, it will

be necessary to speak of the Hudson River, not as a permanent feature of the topography of the State of New York, but as something which existed at the moment when Hendrik Hudson first looked thru the entrance of New York Bay, and has never been seen since. It will be necessary to speak of the Hudson of 1609, the Hudson of 1610, that of 1611, and so on. It will be necessary to use a like terminology in speaking of persons. The explorer himself was, at the moment of the discovery of the river, the Hendrik Hudson of 1609, while in the next year he was a different man. Each of us, in fact, will have to be regarded as constituting as many men as there are years in our lives. It will be a mistake to think of ourselves as fifty or sixty years old, and we shall have to substitute the idea of being a fiftieth or sixtieth repetition of our former selves. In short, the popular method of regarding bodies which are sustained by a replenishment of wasting tissue as continuous bodies will have to be given up altogether. There is no doubt that at the present time that mode of thinking is familiar to the human mind. The present Hudson is the original one, and so is the present Danube. The man has really lived for fifty years. The capital which was created fifty years ago has had the same continuity, tho there may not now be in existence any single article that helped to compose it at the outset.

I have, then, in so treating capital, done nothing but to recognize an objective fact and to accept a common term for it. On the other hand there is no uncertainty as to the existence and the nature of capital goods. Each one of them has a beginning and an end. The term suggests things which can be identified and traced from their origin to the end of their existence. We can watch any one of them, say a loom, as the materials which constitute it slowly take shape in the furnace, the foundry, and the

machine shop from which it emerges as an active aid to production. We may further watch it as it does its work, is gradually worn out, and is finally cast into the junk heap. We can ascertain what, in a mechanical way, it has accomplished in that time; and, if it has had a commercial career, we shall see that during its active life as a producer it has done enough in the way of creating wealth to enable its owner to get another one like it and have a surplus for his own use, which is the income he has gotten from it. It is this fact—that every instrument of production which is well selected puts two distinct sums of wealth, or, as the popular expression is, of “money,” into its owner’s pocket, one of which he naturally uses in getting another instrument when the first is worn out, and the other of which he treats as an income and spends as he pleases—that gives capital permanence and makes it yield a return to its owner. The vitality and the abiding power of the capital depend on the self-replacing power of the capital goods.

My critic has not accused me of forgetting the fact that capital goods wear out, and that a part of what they produce has to be used in replacing them. With the candor with which he has endeavored to treat my entire theory, he has cited passages from my work in which these facts are stated. He has accused me of failing to give the needed proof of the fact that the income is created. There is, however, in the work under criticism a table in which the manner in which a capital good provides for the making of its own successor is particularly described. On page 268 of the work referred to there is a table in which certain letters represent four different raw materials, each of which, under the manipulation of a group of producers, gradually ripens into something which is fit for final use. The first three of these finished products, termed A''', B''', and C''', are consumers’ goods, while the fourth,

H''', is an instrument of production ready to do its work in helping to produce A''', B''', and C'''.

A'''	B'''	C'''	H'''
A''	B''	C''	H''
A'	B'	C'	H'
A	B	C	H

The A's in the table now represent an article of prime necessity in process of completion. Let us say that A''' is food ready to be eaten, and that A is the rawest material that enters into it. Possibly A may be standing wheat, A' threshed and winnowed wheat stored in the granary, A'' flour, and A''' bread. B may represent the material for clothing, in the shape of wool on sheep's backs; B' may be wool washed, sorted and stored in the warehouse; B'' may be cloth, and B''' clothing. The C's may represent, successively, forest trees, saw-logs, lumber, and houses. Severely simple, indeed, would be the wants of a society that should content itself with this list of articles. It is, perhaps, heroic theorizing that creates such a society, even in imagination; but what we said before about the creating of an imaginary static society holds true here. We are putting a myriad of facts for the moment out of sight, in order that we may isolate and clearly understand certain other facts. The law that would apportion the labor and capital of a very simple society is, as we shall see, the one that actually apportions them in the most complex society that anywhere exists.

In every one of these sub-groups there is labor and capital; and, as we have seen, the material tissues of the capital—the concrete things that compose it—are in a perpetual process of destruction and renewal. How are the destroying and the renewing effected? The stock of passive goods wastes, whenever an A''', a B''', or a C''' is withdrawn for use; and it is replenished by the industry that continually goes on in all the sub-groups. So much we have already seen. The stock of active capital goods—the tools, machines, buildings, etc.—wastes by wearing out and by falling into natural decay. How is this stock replenished? There is, obviously, no power in the group of A's directly to restore the active capital goods that are used up in making A''', for the whole power of this group exhausts itself in making A'''.

Somewhere, however, there is another group, which we may

represent by a series of H's. Its function is to make tools, machines, etc. In our highly simplified table we will let this group of H's replenish all the waste of tissue that fixed capital suffers in the whole series of groups. H, H', H'', and H''' now represent the materials that go into active instruments of production, and they represent them in four stages of advancement. H is the rawest material that goes into tools, etc., while H''' is the assortment of instruments ready to be used. This succession is kept up, as in the case of the other groups; every evening finished H''''s are taken away, and every day the stock of H''''s is replenished by the transmuting of H'' into H''', H' into H'', and H into H', and by the creating of a new H. Forever intact is the series of H's, and this means that the true capital in the instrument-making group remains unchanged in amount.

Where do the H''''s go, and what do they bring to the man in the H group? They go everywhere throughout the system, replacing instruments that are worn out. Some of them go to A, some to B', some to C'', etc. Some of them go back into the different sub-groups of the H series itself, to replenish the stock of instruments that are worn out in the making of instruments. The income which comes to the men in the sub-group H''' must, it is clear, come in the form of A''', B''', and C'''. The men in the last group in the table cannot eat the looms, the threshing-machines, the flouring mills, etc., that they are themselves making; but they must eat the bread represented by A'''. They cannot wear their machines or dwell in mills; but they must have clothing and dwelling-houses. These they must get by taking some part of the product of the first three groups.

In view of this statement, which is further elaborated in the text, is it accurate to say that I have dodged any issue connected with the waste which instruments undergo, with the mode of replacing them and with the fact of the surplus which they yield, and which, as yielded by an endless series of similar instruments, constitutes the interest on capital? Is it accurate to say that I have established the fact of a perpetual income from the abiding stock of capital goods by resorting to "necromancy" or by introducing a convenient "hobgoblin"? Is it accurate to say that,

according to my theory, or any portion of it, that part of the product of a capital good which is not a net income for its owner, but is required for the replacement of the good itself, must go "presumably to labor"?¹ It goes to reward the labor and the capital which preserve a stock of capital goods from wasting away, or, in other words, for keeping capital permanently intact.

The part of my work in which I am accused of having avoided this important issue is that in which I have traced interest to its source in the marginal productivity of social capital. In this part of the work the assumption is made that a quantity of labor is available at the beginning of a period and continues to be so, without increasing or diminishing, and that capital is set working in a succession of increments. The product imputed to each increment of capital is measured by the difference which its presence makes in the total output of industry. If we have had nine units of capital at work in connection with ten units of labor, and now add a tenth unit of capital, what we wish to know is to what extent the presence of that last increase enlarges the consumable income of society. There are two minus quantities and a plus quantity to be taken into account. Because of the presence of the tenth unit of capital, the nine units which were there before, and which had all the labor of the society working in connection with them, are less intensively used. The labor must now apply itself to ten units of capital instead of nine, and the yield that is now secured in connection with the original nine units is somewhat less than it was.

There is a second minus quantity to be taken into account, in that the tenth increment of capital consists of goods—or of those additions to goods which I have termed "capital elements"—and that these wear out in the using. The wasting tissue of the final increment of

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capital is negative product,—an outgo instead of an income.

As against these two minus quantities we offset the entire plus quantity which the presence of the new capital elements insures, and we find that it surpasses the sum of the two other quantities, and affords a net income, which is the product of a marginal unit of capital. It is not the gross product of marginal capital goods, for the reason that a part of that product is a mere offset for a waste, and is not a net product at all. The product of an instrument may be described as a gross amount which the presence of it brings into existence, regardless of the fact that during the use of the instrument a certain amount goes out of existence. When we turn our attention to the abiding stock of such instruments, we naturally find only a net product. Out of the stock something is going, into it something is coming, and in so far as the quantities are equal, the result is simply the maintenance of the stock. There is a further amount which comes into existence which is not offset by any loss, and may be taken for consumption without rendering the permanent stock smaller. It is by reason of this simple and obvious fact that the product of the permanent stock or of capital may always be regarded as net. It is measured by the resultant effect which the presence of a unit of it has on the total product of industry.

Having in view the essential points concerning the waste and replenishment of the substance of capital, one may say that a product available for consumption must be a new creation, something not taken out of a stock of wealth already in existence. Whatever waste the mass of capital undergoes must be made good before such a product as this can emerge. If we pump water into a leaky conduit in order to get for use the stream that is made to flow out of the farther end, whatever is lost by

the way must first be supplied before any overflow whatever will occur. Anything which is put in, in addition to what is required for such replenishment, will overflow and be available for use. The income that emerges from the workshops, in excess of what is required to keep the shops and their contents intact, is the only product available for consumption; and that is the one with which in the present study we are concerned. It is the only product that we can impute to the self-perpetuating mass of capital goods. Both waste and replenishment of the material of the stock are antecedent facts,—prerequisites which are fully understood.

The point thus raised illustrates exceedingly well the importance of distinguishing between a treatment of a stock of instruments of production which abides in spite of waste and particular instruments which are continually going to destruction. In a complete study it is necessary to include both of them, as I have endeavored to do; but it is never necessary or admissible to confound the two sets of problems, and it is eminently undesirable to try to discuss both in the same breath.

My critic raises the question how we know that there is any net profit whatsoever. Why may it not be that all that capital goods produce is required as a mere offset for what they lose in the course of production? It can scarcely be that he questions the fact that capital itself does thus yield a net product; and it can hardly be that he questions the conclusiveness of such evidence of this fact as common experience and observation afford. If I may venture to refer to a bit of my own experience, I would say that, as a partial owner of a plough factory, I once discovered that it was necessary to restore certain emery wheels after three or four days of use, belts for conveying power after a year or two, and various machines after periods varying from ten years to a man's lifetime.

In a rude way it was as though, from the money received for ploughs made in a day, it was necessary to buy one emery wheel, a half of a belt, the one-hundredth part of a power hammer, a two-thousandth part of a drop press, and so on. And I further discovered that, after this and all other necessary replacements had been made, there were ploughs enough in the warehouse and ready for sale, as the product of the day's industry, to provide, in case they should all be sold, wages of labor, including the labor of superintendence, and a return to capital besides. I venture to claim that such citations as my work contains of facts of this kind may be adequate to support a claim the correctness of which will nowhere be questioned. A day's use of capital normally provides for the day's waste and pays interest besides.

In an extended passage my critic claims that I have made a grave omission in that, in settling the problem of dividing the present accruing fruit of industry between the capital and the labor at present utilized, I have not also gone into the past, and raised and settled the question as to how that labor of the past which created the goods now in use received its reward. Of course, it is necessary, at some point in the study, to consider the manner in which making of instruments of production receives its reward, and I am not able to see that I have omitted that point from consideration. In the passage I have cited, in which the function of the group which produces goods described as H''' is referred to, it appears to me that I have indicated the manner in which instruments are made and the manner in which their makers get their pay. My critic, indeed, has, in a spirit of fairness, refrained from accusing me of a total disregard of this problem, but intimates that I have not adequately treated it. The point really in question, however, is not whether I have adequately discussed the manner in which the making of in-

struments in the present, with a view to replacing those which are at present wearing out, gets its reward. My critic asserts that I have not studied at one and the same moment the industry of two different periods and thrust into the midst of a study of the manner in which the product of to-day's industry is divided a study of some income accruing to the labor of yesterday or of last year.

It may fairly be said that it is legitimate for any one to discover and state the manner in which the present stock of capital goods gets its return out of the present outflow of useful goods from the mills and shops. A certain income is now in process of accruing in consequence of something that is now in process of going on; and the question how that is actually divided between different claimants is the one in which industrial classes in the whole world are at loggerheads. The socialists think that labor should have the whole of it, and laborers generally think that they should have more of it than they get. There is a lack of clear perception as to how much capital gets, and why it is entitled to a share. All this has to do with the claims of a present force of laborers as compared with those of an existing stock of capital goods, or, as it is more briefly and commonly expressed, existing capital. In this problem, we have not to do with past functions or past claims, tho these also may be and, at the proper point, should be satisfactorily studied. It is the division of the constantly accruing outflow of consumers' wealth which troubles the world, has troubled economists, and is not only a legitimate, but an extremely necessary subject of separate investigation. If the isolating method of study which removes some things from the field, in order that other things may be considered by themselves, has ever an opportunity of revealing its excellence, it is in avoiding such confusion as must come from injecting into the problem of the present, as just described, another problem taken from the past.

Let us admit, however, that, when the main problem is solved and all present labor, including the labor of making instruments, has been fully taken into account, it is legitimate to ask how the labor of making the instruments already in existence has received its reward. We shall then find it necessary to notice a number of points, one of which is that the instruments now in existence were made not altogether by labor, but by labor aided by capital, and that the wealth represented by these instruments had to undergo, in its day, exactly the kind of distribution between different claimants that the wealth accruing in the present undergoes. My critic speaks as tho the problem of present distribution had to do with three factors, namely: labor in the present, which is using instruments; secondly, instruments in the present; and, thirdly, labor of the past which made the instruments of the present. The labor of the past, however, used instruments of the past, and, if we should resign ourselves to so much confusion as would come from considering two different periods at once, we should find that we had four factors to consider instead of three. It is proper, as an independent study, to trace present effects to their remote causes; but it is evidently undesirable to do it in the very act of solving that problem of to-day with which we are directly concerned.

In a full study of distribution it is necessary to take account, not only of the replenishment of the waste of substance which capital undergoes, but of the creation of new capital. It is a practical fact that capital is increasing in amount; and this means that new instruments, or capital elements, are coming into existence which are not designed merely to replace others which are wearing out, but are intended to serve as an addition to the number of instruments, or capital elements, which are hereafter to be maintained. That, however, is a phenomenon of

economic dynamics, and the work which is under criticism has restricted itself entirely to problems of economic statics. The assumption made in this latter department of the theory is that neither capital nor labor is increasing in quantity, and that the sole problem which has here to be solved in connection with them has to do with the productive activities and returns of these two agents as they now exist, and on the supposition that, in amount, they neither increase nor shrink. It is necessary to see how each of them is made safe from shrinkage by the renewing of whatever wastes away. Net additions to the abiding force of men or the abiding stock of instruments are, for the time being, not in sight.

My eminent critic takes very strong issue with my claim that it is the function of capital to synchronize industry and its fruits, to enable the laborer of to-day to get finished products of to-day in consequence of his present labor. The issue affords another illustration of the importance of making a distinction between what is true of a self-perpetuating fund of instruments and what may be asserted of the particular instruments which enter into that fund. "Is the coat which the tailor delivers to me to-day," asks my critic, "fashioned with the co-operation of a shepherd who is *to-day* driving sheep to pasture, of a spinner who *to-day* is spinning yarn, of a weaver who *to-day* is weaving cloth on his loom? The undeniable fact is that my coat has been fashioned with the co-operation of the shepherd of a past period. He alone supplies the wool for *my* coat: so of the spinner, the weaver, and the like. Society does not enjoy, in the shape of completed coats, the product of the laborer who is now tending sheep. Society must wait as many days, months, or years as are inevitable in the processes of production which transform the raw material, wool, into the completed coat."¹

¹ At p. 268.

Must society, *in order to get what it wants*, actually wait as many days, months, or years as are inevitable in the processes of production which transform wool into the completed coat? If what society wanted were the particular coat that will, at some time, be made out of the wool that is now on the back of sheep at the present time roaming over the hills, it would have to wait for it. It certainly will be some months before what now clothes the sheep in the form of wool can clothe a man in the form of a coat. If society does not insist on the coat made of that particular wool, but wants a coat made of some wool equally good, it can have it to-day, and that, too, in consequence of the labor of to-day. If I pump water into a conduit for the sake of getting water from the remote outflow, I shall certainly have to wait some time *if what I want is the particular drops of water which I am now putting into the upper end of the conduit*. If I am not particular as to the identity of the drops, I can have the water I need at once. Pumping water in at one end will cause an outflow at the other. And this is a sufficiently accurate picture of what takes place in industry. Raising wool to take the place of the wool that is used in making my coat has the effect of keeping a stock of wool always intact. It keeps, as it were, the industrial conduit full, so that there need be no breaks in the supply,—no pausing to wait when somebody needs to be clothed. The full conduit of water is an essential condition of an uninterrupted outflow; and a perpetual supply of wool is in like manner an essential condition of perpetual supply of coats. I am able to see no conflict between the two sets of facts here stated. If we want the water at this moment pumped into the conduit, we shall have to wait for it. If we merely want water, we shall not have to wait for it. If we want the coat that will at some time have been made out of the wool that is now on the sheep's back, we shall have to wait for it; but,

if we merely want a coat, we shall not. Moreover, the securing of the water which flows out of one end of the conduit is "by the co-operation of"—to use my critic's term—the man who is pumping at the other end. The securing of the coat made of wool taken out of the existing stock is by the co-operation of the man who is raising other wool to take the place of it. Since the continuity of the output of coats depends on the replenishing of the stock of wool and the keeping of an undiminished amount on hand, there appears to be no doubt or disagreement as to either set of facts; and it is as scientific to treat of one as to treat of the other. What is necessary is to make very sure, in discussing either set of facts, whether what we have in mind as a productive agent is a particular instrument of production, or capital good, or an abiding stock of such goods, which is capital. In connection with a particular bit of raw material and the finished product which will ultimately grow out of it, waiting is certainly necessary. In connection with a self-perpetuating stock of such goods it is no more necessary than, in pumping water into one end of a full conduit, it is necessary to wait without drinking till that same water flows out from the other end.

There are various secondary criticisms of my work to which I may refer; tho it is my belief that a reading of the work itself and of a forthcoming one, which will include some study of the dynamic problems, will afford the answer to them. As a general criticism, Minister von Böhm-Bawerk accuses me of liking to "sow with capital goods and reap with capital." Construed as I should construe them, these words afford a good description of what practical men are doing and of what a theorist has to study and describe. The men make instruments and set them working, which is sowing with capital goods. They keep the stock of instruments intact, and thus enable

the products of all industry of to-day to emerge to-day in useful forms; and they thus reap with capital.

In the first of his articles my critic cites a statement of mine to the effect that, when one set of bodies perishes and another replaces it, we say that capital continues; and yet it is only an abstraction that has literally a continuous existence, and he brings that statement into what looks like a dangerous juxtaposition with another quotation which asserts that capital never exists as a mere abstraction. If these terms be interpreted in the generous manner in which elsewhere my critic has interpreted statements, there will not be discovered in this paradox any meaning that is inconsistent with facts. If we look at the stock of capital goods now existing, and do not include land as one of them, we shall see that not a single one has more than a transient existence; that the value embodied in them has a permanent existence, but not because it will ever exist in a disembodied state. When it doffs the present material embodiment, it will take on others, and it will exist forever, not as immaterial value, which is a mere abstraction, but as embodied value, which is something more than an abstraction. This situation introduces us to one fact, which it is well at this point briefly to notice; namely, that an abstract mode of describing capital is one which is most prevalent in common speech. There is as little danger that business men will ever, in their own minds, reduce capital to an abstraction as there is that they will reduce it to immateriality in literal fact, by destroying their mills, tools and materials. They know that such things are always on hand, and it is their very decided purpose that they shall continue to be so. Yet they describe capital as a value, a fund, a quantum of wealth, because this merely quantitative description sufficiently conveys to their minds the idea of a very literal and material thing, which abides in spite of changes in its

composition. "Money invested in" capital goods of an exceedingly concrete sort will always be present. The practical man is not deceived as to such facts; and, if we shall emerge from a period of controversy over the terms in which a recognized truth shall be described, it will be safe for a scientist to follow their example and speak of capital as a permanent value in a shifting corporeal embodiment.

Leaving detailed criticisms to be considered by such readers as may chance to see the forthcoming work, in which, perhaps, some of them may be more fully met than in the one under discussion, I would say, in conclusion, that I dissent from the view which appears to assume that because certain things connected with abstinence and the psychological valuations of present and future are true, facts concerning the productivity of capital are not true. I am far from rejecting those truths which I find in my critic's epoch-making work on Capital and Interest. I find them, indeed, affording one possible mode of approach to a productivity theory. Facts concerning abstinence supplement those concerning the productive action of the capital which is the reward of abstinence, and the facts about individual capital goods, which originate and perish, supplement in a like way truths about that continuing procession of such goods which is otherwise termed permanent capital. A theory based primarily on the one set of truths gains rather than loses by a full recognition of the other.

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