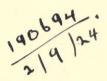
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## A

## THEORY OF INTEREST

BY

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which an investment of the same amount in land might bring the investor, and that he regards the net revenue which the investment in land would yield as caused by the spontaneous fertility of the soil.

This theory of interest is just as good as that which explains interest as due simply to the "productivity" or usefulness of tools or machines—and no better. Both theories are plausible enough until the fatal question is asked, Why can the land, or the machine, be bought at a price lower than the sum of the prices of all its future services? But when that question is asked, both theories fail utterly.

§ 94. More than a hundred years after the publication of Turgot's theory, a similar one was advanced by Henry George in his *Progress and Poverty*.<sup>1</sup> The net revenue or surplus of which interest is a reflection is due, in George's thought, to "the active power of nature, the principle of growth, of reproduction, which everywhere characterizes all the forms of that mysterious thing or condition which we call life." The following passage from *Progress and Poverty* <sup>2</sup> expresses George's theory, which is clearly summed up in a few lines, near the end, which I have printed in capitals.

"Why should interest be? Interest, we are told, in all the standard works, is the reward of abstinence. But, manifestly, this does not sufficiently account for it. Abstinence is not an active, but a passive quality; it is not a doing—it is simply a not doing. Abstinence in itself produces nothing. Why, then, should any part of

<sup>&</sup>lt;sup>1</sup> Written in 1877-1879, published in 1879.

<sup>&</sup>lt;sup>2</sup> Edition of Doubleday, Page and Co., N.Y., 1906, pp. 175-182.

what is produced be claimed for it? If I have a sum of money which I lock up for a year, I have exercised as much abstinence as though I had loaned it. Yet, though in the latter case I will expect it to be returned to me with an additional sum by way of interest, in the former I will have but the same sum, and no increase. But the abstinence is the same. If it be said that in lending it I do the borrower a service, it may be replied that he also does me a service in keeping it safely — a service that under some conditions may be very valuable, and for which I would willingly pay, rather than not have it; and a service which, as to some forms of capital, may be even more obvious than as to money. For there are many forms of capital which will not keep, but must be constantly renewed; and many which are onerous to maintain if one has no immediate use for them. So, if the accumulator of capital helps the user of capital by loaning it to him, does not the user discharge the debt in full when he hands it back? Is not the secure preservation, the maintenance, the re-creation of capital, a complete offset to the use? Accumulation is the end and aim of abstinence. Abstinence can go no further and accomplish no more; nor of itself can it even do this. If we were merely to abstain from using it, how much wealth would disappear in a year! And how little would be left at the end of two years! Hence, if more is demanded for abstinence than the safe return of capital, is not labor wronged? Such ideas as these underlie the widespread opinion that interest can accrue only at the expense of labor, and is in fact a robbery of labor which in a social condition based on justice would be abolished.

"The attempts to refute these views do not appear to me always successful. For instance, as it illustrates the usual reasoning, take Bastiat's oft-quoted illustration of the plane. One carpenter, James, at the expense of ten days' labor, makes himself a plane, which will last in use for 290 of the 300 working days of the year. William, another carpenter, proposes to borrow the plane for a year, offering to give back at the end of that time, when the plane will be worn out, a new plane equally as good. James objects to lending the plane on these terms, urging that if he merely gets back a plane, he will have nothing to compensate him for the loss of the advantage which the use of the plane during the year would give him. William, admitting this, agrees not merely to return a plane, but, in addition, to give James a new plank. The agreement is carried out to mutual satisfaction. The plane is used up during the year, but at the end of the year James receives as good a one, and a plank in addition. He lends the new plane again and again, until finally it passes into the hands of his son, 'who still continues to lend it,' receiving a plank each time. This plank, which represents interest, is said to be a natural and equitable remuneration, as by giving it in return for the use of the plane, William 'obtains the power which exists in the tool to increase the productiveness of labor,' and is no worse off than he would have been had he not borrowed the plane; while James obtains no more than he would have had if he had retained and used the plane instead of lending it.

"Is this really so? It will be observed that it is not affirmed that James could make the plane and William

could not, for that would be to make the plank the reward of superior skill. It is only that James had abstained from consuming the result of his labor until he had accumulated it in the form of a plane — which is the essential idea of capital.

"Now, if James had not lent the plane, he could have used it for 200 days, when it would have been worn out, and he would have been obliged to take the remaining ten days of the working year to make a new plane. William had not borrowed the plane, he would have taken ten days to make himself a plane, which he could have used for the remaining 200 days. Thus, if we take a plank to represent the fruits of a day's labor with the aid of a plane, at the end of the year, had no borrowing taken place, each would have stood with reference to the plane as he commenced, James with a plane, and William with none, and each would have had as the result of the year's work 290 planks. If the condition of the borrowing had been what William first proposed, the return of a new plane, the same relative situation would have been secured. William would have worked for 290 days, and taken the last ten days to make the new plane to return to James. James would have taken the first ten days of the year to make another plane which would have lasted for 200 days, when he would have received a new plane from William. Thus, the simple return of the plane would have put each in the same position at the end of the year as if no borrowing had taken place. James would have lost nothing to the gain of William, and William would have gained nothing to the loss of Tames. Each would have had the return his labor would otherwise have yielded — viz., 290 planks, and James would have had the advantage with which he started, a new plane.

"But when, in addition to the return of a plane, a plank is given, James at the end of the year will be in a better position than if there had been no borrowing, and William in a worse. James will have 201 planks and a new plane, and William 289 planks and no plane. If William now borrows the plank as well as the plane on the same terms as before, he will at the end of the year have to return to James a plane, two planks and a fraction of a plank; and if this difference be again borrowed, and so on, is it not evident that the income of the one will progressively decline, and that of the other will progressively increase, until at length, if the operation be continued, the time will come when, as the result of the original lending of a plane, James will obtain the whole result of William's labor — that is to say, William will become virtually his slave?

"Is interest, then, natural and equitable? There is nothing in this illustration to show it to be. Evidently what Bastiat (and many others) assigns as the basis of interest, 'the power which exists in the tool to increase the productiveness of labor,' is neither in justice nor in fact the basis of interest. The fallacy which makes Bastiat's illustration pass as conclusive with those who do not stop to analyze it, as we have done, is that with the loan of the plane they associate the transfer of the increased productive power which a plane gives to labor. But this is really not involved. The essential thing which James loaned to William was not the increased

power which labor acquires from using planes. To suppose this, we should have to suppose that the making and using of planes was a trade secret or a patent right, when the illustration would become one of monopoly, not of capital. The essential thing which James loaned to William was not the privilege of applying his labor in a more effective way, but the use of the concrete result of ten days' labor. If 'the power which exists in tools to increase the productiveness of labor' were the cause of interest, then the rate of interest would increase with the march of invention. This is not so. Nor yet will I be expected to pay more interest if I borrow a fiftydollar sewing machine than if I borrow fifty dollars' worth of needles; if I borrow a steam engine than if I borrow a pile of bricks of equal value. Capital, like wealth, is interchangeable. It is not one thing; it is anything to that value within the circle of exchange. Nor yet does the improvement of tools add to the reproductive power of capital; it adds to the productive power of labor.

"And I am inclined to think that if all wealth consisted of such things as planes, and all production was such as that of carpenters — that is to say, if wealth consisted but of the inert matter of the universe, and production of working up this inert matter into different shapes, that interest would be but the robbery of industry, and could not long exist. This is not to say that there would be no accumulation, for though the hope of increase is a motive for turning wealth into capital, it is not the motive, or, at least, not the main motive, for accumulating. Children will save their

pennies for Christmas; pirates will add to their buried treasure; Eastern princes will accumulate hoards of coin; and men like Stewart or Vanderbilt, having become once possessed of the passion of accumulating, would continue as long as they could to add to their millions, even though accumulation brought no increase. Nor yet is it to say that there would be no borrowing or lending, for this, to a large extent, would be prompted by mutual convenience. If William had a job of work to be immediately begun and James one that would not commence until ten days thereafter, there might be a mutual advantage in the loan of the plane, though no plank should be given.

"But all wealth is not of the nature of planes, or planks, or money, which has no reproductive power; nor is all production merely the turning into other forms of this inert matter of the universe. It is true that if I put away money, it will not increase. But suppose, instead, I put away wine. At the end of a year I will have an increased value, for the wine will have improved in quality. Or supposing that in a country adapted to them, I set out bees; at the end of a year I will have more swarms of bees, and the honey which they have made. Or, supposing, where there is a range, I turn out sheep, or hogs, or cattle; at the end of the year I will, upon the average, also have an increase.

"Now what gives the increase in these cases is something which, though it generally requires labor to utilize it, is yet distinct and separable from labor — the active power of nature; THE PRINCIPLE OF GROWTH, OF REPRODUCTION, WHICH EVERYWHERE

CHARACTERIZES ALL THE FORMS OF THAT MYSTERIOUS THING OR CONDITION WHICH WE CALL LIFE. AND IT SEEMS TO ME THAT IT IS THIS WHICH IS THE CAUSE OF INTEREST, OR THE INCREASE OF CAPITAL OVER AND ABOVE THAT DUE TO LABOR. There are, so to speak, in the movements which make up the everlasting flux of nature, certain vital currents, which will, if we use them, aid us, with a force independent of our own efforts, in turning matter into the forms we desire—that is to say, into wealth.

"While many things might be mentioned which, like money, or planes, or planks, or engines, or clothing, have no innate power of increase, yet other things are included in the terms wealth and capital which, like wine, will of themselves increase in quality up to a certain point; or, like bees or cattle, will of themselves increase in quantity; and certain other things, such as seeds, which, though the conditions which enable them to increase may not be maintained without labor, yet will, when these conditions are maintained, yield an increase, or give a return over and above that which is to be attributed to labor.

"Now the interchangeability of wealth necessarily involves an average between all the species of wealth of any special advantage which accrues from the possession of any particular species, for no one would keep capital in one form when it could be changed into a more advantageous form. No one, for instance, would grind wheat into flour and keep it on hand for the convenience of those who desire from time to time to ex-

change wheat or its equivalent for flour, unless he could by such exchange secure an increase equal to that which, all things considered, he could secure by planting his wheat. No one, if he could keep them, would exchange a flock of sheep now for their net weight in mutton to be returned next year; for by keeping the sheep he would not only have the same amount of mutton next year, but also the lambs and the fleeces. No one would dig an irrigating ditch, unless those who by its aid are enabled to utilize the reproductive forces of nature would give him such a portion of the increase they receive as to make his capital yield him as much as theirs. And so, in any circle of exchange, the power of increase which the reproductive or vital force of nature gives to some species of capital must average with all; and he who lends, or uses in exchange, money, or planes, or bricks, or clothing, is not deprived of the power to obtain an increase, any more than if he had lent or put to a reproductive use so much capital in a form capable of increase."

Between this theory and Turgot's the differences are only superficial. The part played by the natural fertility of the soil in Turgot's theory is taken in George's by the vital and reproductive forces of plants and animals. And both these theories differ only superficially from the productivity theory in its simplest and crudest form, according to which interest is accounted for by the utility of tools and labor-saving devices.

The "fructification theory," in the form it takes with George as well as in that it takes with Turgot, is revealed as utterly inadequate by the single question that reveals

also the inadequacy of the productivity theory: Why can a cow, why can a young apple tree, why can a plow or a steam engine be bought at a price lower than the sum of the prices of all its future services? If a cow or an apple tree or a plow could not be bought at such a price, no interest would accrue to its owner as its services came in with the passing of time; and that a cow or an apple tree or a plow can be bought thus is not accounted for in the least by the vital forces in animals or plants, by the fertility of the soil, or by the usefulness of tools. The only productivity in connection with animals or plants, or with the soil, or with tools, that is significant in connection with the interest problem is value-productivity, and the value-productivity of anything whatever is accounted for only by the discounting of future services by particular persons or groups of persons in order that the future services received, principal and interest together, shall equal in value to those persons or groups of persons the present services advanced.

## THE "SACRIFICE CAPITALISTIQUE"

§ 95. In his L'Intérêt du Capital, M. Adolphe Landry explains, under the name of the "sacrifice capitalistique," a principle not previously suggested, so far as I know, by any economist, which he regards as accounting in part for the checking of advancing at such a point as to maintain a positive rate of interest. This principle is of special interest to me because I had hit upon it myself independently a few months before reading Landry's

<sup>&</sup>lt;sup>1</sup> Paris, V. Giard & E. Brière, 1904.