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Phillip J. Bryson  
phil\_bryson@byu.edu

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## HENRY GEORGE: THE THEORY OF DISTRIBUTION IN PROGRESS AND POVERTY

Phillip J. Bryson, Brigham Young University, Provo, Utah, USA

### ABSTRACT

*The core of Henry George's economic theory appeared in his most widely-read book, *Progress and Poverty*. On the basis of his dramatic "single tax" theory, his work became widely known and gained some avid followers who endeavored to base policy on it. But the work was also of value in George's day and of interest in our day because of its economic content. George was not a part of the academic economics establishment of his day and his theory was of strictly classical methodology, but it still had much to commend it. A simple model to present his concepts in more modern form is developed. On the basis of the diagrammatic techniques involved, George's theory of distribution is presented and evaluated.*

**Keywords:** Theory of distribution, classical economics, economic growth, wages fund, wages, interest, rent, poverty.

### INTRODUCTION

Henry George's contribution to economics was impressive. His impact on an international reading public was powerful and he even affected the political developments of his place and time. Henry George also was an important actor, perhaps even the final one, in the field of classical economics. Self-taught and gifted in its written expression, he might have been viewed as the father of classical economics in America. The field at the time featured mostly British and European figures. But because he was not associated with the American academy, he was alienated from it both by his own choice and because it generally rejected his work. Part of the motivation of this study is to make clear why George is not the father of American economics when his work was so strong among the more gifted, early-American economists.

As George was writing, Marshall was constructing the bridge from the classical world to the neo-classical and contemporary worlds of economics. George never made it across that bridge himself and Mark Blaug writes of *Progress and Poverty* that it was a wonderful example of old-style classical economics," but "thirty years out of date the day it was published" (Blaug, 1978, 88). That is true of George's methodology, but the substance of his work and the flare with which it was presented made it very attractive to readers. One suspects that very appeal was a large part of the negative reaction of the academy in America to Henry George.

### THE ROLE OF THE WAGES FUND THEORY

According to classical theory, the "political economy" of George's time, wages were seen as fixed by the ratio of laborers to the amount of capital devoted to the employment of labor, the so-called "wages fund." Classical economists conceived of production as a problem of setting workers to work before there was any output to pay them with. Current wages were perceived to be drawn from advances of capital accumulated before the production cycle began. The actual wage depended on the size of the fund divided by the number of workers to be employed. Wages were also believed to exhibit a tendency to the "lowest amount on which laborers will consent to live and reproduce" (Blaug, 1978, 36).

But if wages were a function of the quantity of labor employed and the capital devoted to its employment, the classical mind would infer that high wages, the product of scarce labor, must be accompanied by low interest, the product of abundant capital. Or if abundant labor produced low wages, high interest would arise from the scarcity of capital inherent to that situation. George completely rejected this conclusion and the wages fund theory. He wrote of "a general truth that interest is high where and when wages are high, and low where and when wages are low?" (George, 1879, 37).

George's attempt to disprove the classical position and to reject the wages fund theory led him to the conclusion that wages, rather than being derived from a wages fund, *i.e.*, an advance provided by capital, are actually paid from the output which labor itself produces.

On this point, George wrote with very practical simplicity:

Make an exact inventory of his capital on Monday morning before the beginning of work, and it will consist of his buildings, machinery, raw materials, money on hand, and finished products in stock. Suppose, for the sake of simplicity, that he neither buys nor sells during the week, and after work has stopped and he has paid his hands on Saturday night, take a new inventory of his capital. The item of money will be less, for it has been paid out in wages; there will be less raw material, less coal, etc., and a proper deduction must be made from the value of the buildings and machinery for the week's wear and tear. But if he is doing a remunerative business, which must on the average be the case, the item of finished products will be so much greater as to compensate for all these deficiencies and show in the summing up an increase of capital. Manifestly, then, the value he paid his hands in wages was not drawn from his capital, or from any one else's capital. It came, not from capital, but from the value created by the labor itself. There was no more advance of capital than if he had hired his hands to dig clams, and paid them with a part of the clams they dug (George, 1879, 71-2).

Some have seen in George's criticisms of the wages fund an important insight that production is a continuous process in opposition to the traditional view of classical economics that it is a point-input, point-output process. Naturally, the inflexible "yearly harvest" notion of the earlier classical economists is not an inalienable requirement of wages fund theory. Some economists have historically appeared more understanding of the fumbling analysis of the earlier wages fund economists than upon George's early insight that production theory should be based upon a continuous production function (Hebert, 2003).

Some later economists were prepared to supply a beating to George for failing *mathematically* to prove the inadequacy of the wages fund doctrine. The debate continued for some time after J.S. Mill made an initial recantation of the wages fund and others came to the defense of the theory. Contemporary evaluation is contributed by Samuelson (1994), who suggests that modern economists should understand that the wage fund should not be "confused with the totality of "circulating capital" and that it is the malleable *result* of the equilibrium process and not a *causal* determinant of the level of the real wage in any meaningful long run, intermediate run, or short run."

Marshall seems largely to have avoided the whole issue by moving beyond the wages fund and, rather than attacking the idea, quietly letting it die in his writings. The concept fails to receive mention in two chapters on a "Preliminary Survey of Distribution" and again in two chapters on "Earnings of Labor" in Marshall's Book VI on Distribution. Marshall emphasizes the labor market's forces of supply and demand as the basis of wage theory, completely ignoring the wages fund. He does, of course, dedicate a brief appendix to the wages fund theory, paying lip service to the idea that it is a foundation concept for contemporary thought on wages, although Marshall's own analysis demonstrates it does not. His relative kindness to the theory may have been in part a slap at Henry George himself, since Marshall well knew of George's objections to it. He restates the proposition simply, observing that "when anyone works for hire, his wages are, as a rule, advanced to him out of his employer's capital – advanced, that is, without waiting till the things which he is engaged in making are ready for use." He then admits that these "simple statements have been a good deal criticized" (nasty Henry!) "but they have never been denied by anyone who has taken them in the sense in which they were meant." Whether or not denied, it does make sense simply to ignore it, since production and wages can be analyzed with modern tools quite adequately without building on any wages fund foundations

## **WAGES, INTEREST AND RENT**

In George analysis, labor and capital were lumped together as recipients of a single share or proportion in national distribution, the other share accruing to rent. Labor and capital received wages and interest for their production contribution and land received rent. The market mechanism would keep the wage/interest

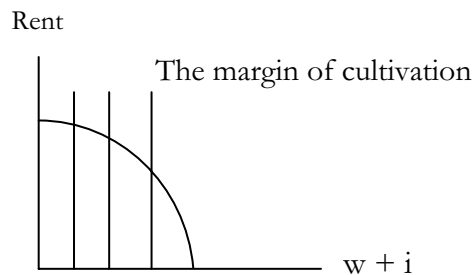
proportion of national income roughly constant and wages and interest would rise and fall together. He expressed the idea simply:

For if wages fall, interest must also fall in proportion, else it becomes more profitable to turn labor into capital than to apply it directly; while, if interest falls, wages must likewise proportionately fall, or else the increment of capital would be checked (George, p.186)

When wages are low, therefore, interest must fall as well, or producers will hire labor not only as a substitute for capital, but also to produce more of the higher-return capital. Conversely, if interest declines, wages must do so likewise, otherwise, capital would cease to be accumulated because of the lower returns it would offer investors relative to those of labor. It would also reduce the proportion of capital's share in distribution because some capital would be diverted from productive to nonproductive uses with its lower returns.

According to George, as the "margin of cultivation" declines, i.e., as wages and interest decline, or as the costs of agricultural production on the land decline, the share accruing to rent must increase. In the Georgist model, this would be seen as movement along a distribution transformation (or factor returns) curve from the right to the left, with wage and interest shares declining and rent increasing in the process. Speculation also affects this model by pushing the margin of cultivation line from the right to the left.

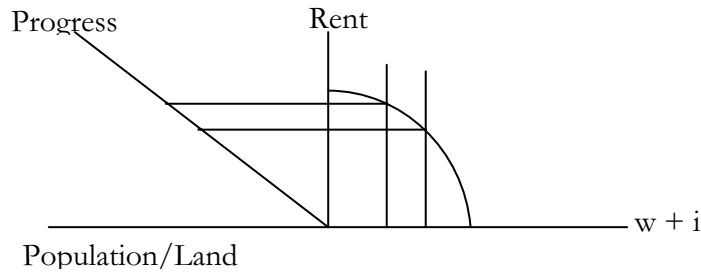
**FIGURE 1**  
**A Georgist Distribution Transformation Curve**



In George's words "the speculative advance in land values tends to press the margin of cultivation, or production, beyond its normal limit, thus compelling labor and capital to accept of a smaller return, or (and this is the only way they can resist the tendency) to cease production" (George, 1879, 238-9). Thus, in the course of "progress," wages and interest decline and rent increases beyond what would normally be the case.

George held that social progress results in both increasing population and land use. There is a functional relationship between population and the expansion of land use and the growth of rent, the return to the factor land. That can be shown in our simple model as movement along a "Progress" function, which simply denotes that social progress includes both a growing population and increasing land use, the latter both to accommodate larger populations and as a result of land-intensive social activities. In sum, as progress occurs (population and land use both increase), rent increases while wages and interest drift south.

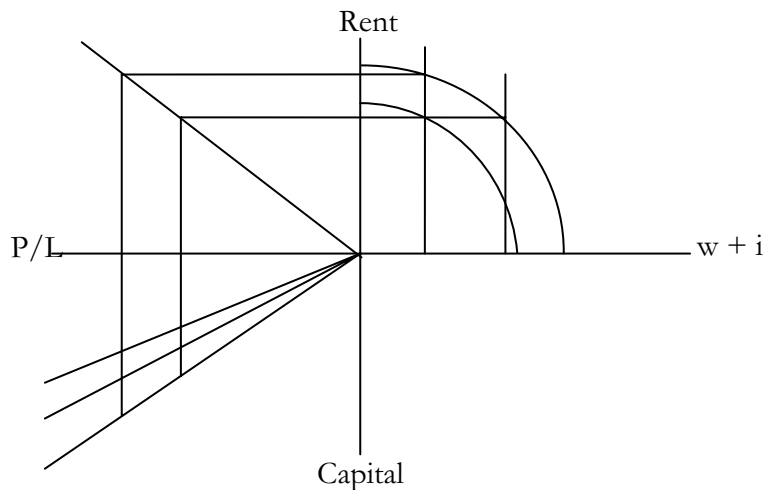
**FIGURE 2**  
**George on Land Use and Progress**



Social forces automatically push society up the population/land use curve, although more capital-intensive production, promoting greater output through the adoption of new techniques, saves labor. So population/land use is a function of increased population, but also to the adoption of labor-saving improvements.

The growth of capital-intensive production is reflected in Figure 3 as a capital curve which is expressed as a function of growth and development along with increasing population and land use. In George's words, "The effect of inventions and improvements in the productive arts is to save labor—that is, to enable the same result to be secured with less labor, or a greater result with the same labor" (George, 1879, 223).

**FIGURE 3**  
**Capital and Technology Effects in Progress**



The growth of capital-intensive production is reflected in Figure 3 as a capital curve which is expressed as a function of growth and development along with increasing population and land use. In George's words, "The effect of inventions and improvements in the productive arts is to save labor—that is, to enable the same result to be secured with less labor, or a greater result with the same labor" (George, 1879, 223).

When development and technical change encourage more capital-intensive production, managers will automatically move in that direction. Greater labor-saving investments can be seen as shifting the investment curve downward, as shown in Figure 3. Movement along the progress Line or left along the population/land use axis is a function of increasing population, but also of the adoption of labor-saving improvements. More capital working with labor causes the returns of all factors to increase, *i.e.*, it causes the factor returns curve to shift out as shown in quadrant I of Figure 3.

Continuing with the quote above on labor-saving innovations, George also writes “while the primary effect of labor-saving improvements is to increase the power of labor, the secondary effect is to extend cultivation, and, where this lowers the margin of cultivation, to increase rent. All of the progress moves society to the left on the population/land use axis and causes an increase in the capital stock and labor-saving innovations as land use increases. But the labor-saving capital shifts the factor returns or distribution transformation curve to shift out to the right. This permits workers and capital to enjoy greater factor returns as seen in Figure 3. Being better off, the workers adopt a life-style that also uses more land. Unfortunately, however, in the long run, the margin of cultivation declines again, being pulled back to the left. Wages and interest are not improved, but as we would expect in a Georgist view of the universe, rent increases. This is viewed in Figure 3 as a movement from the right to the left vertical line in quadrant I showing the renewed decrease in the margin of cultivation produced by investment and labor-saving innovations. From the higher point on the factor returns curve, the horizontal line over to the progress curve, and the vertical line extending from that point down to the investment curve all reflect greater investments, increased population and land use, but the same tendency toward declining wages and interest and increasing rent. George admits that the long run tendency for increasing land use, a tendency which does not exclude such use by successful workers, some of whom apparently become landowners as these developments produce subsequent movement up the progress curve.

George summarizes this process as follows (George, 1879, 255):

But labor cannot reap the benefits which advancing civilization thus brings, because they are intercepted. Land being necessary to labor, and being reduced to private ownership, every increase in the productive power of labor but increases rent—the price that labor must pay for the opportunity to utilize its powers; and thus all the advantages gained by the march of progress go to the owners of land, and wages do not increase.

For George, speculation was an inherent part of the process of development. His negative view of the process assumed that the share of rent in national income would increase partly as a result of the speculation that accompanies economic development and diminishes the returns to capital and labor. It is the reduction of the earnings of wages and interest that produces the down sides of the business cycle. Moreover, as speculators withhold land from productive use, they curtail production. And Marshall was basically in agreement with this point in his *Principles*, admitting that “antisocial” forms of speculation posed a potential threat to economic progress. At the same time, Marshall did not fail to see the positive, market functions of speculation (Hebert, 2003).

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## AUTHOR PROFILE:

**Dr. Phillip J. Bryson** received a Ph.D. from The Ohio State University, 1967. He is currently Douglas and Effie Driggs Professor of Economics at the Marriott School, Brigham Young University, Provo, Utah, USA.

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