Revisiting F.W. Taussig's *Wages and Capital*

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"Its claim to historic importance rests upon his, in great part original, attempt to graft Böhm-Bawerkian doctrine upon the 'classic' system. But it is recommended to the attention of the reader also for another reason: it is a masterly performance in a style of theoretical reasoning that has completely gone out of fashion. By perusing it, the reader, besides learning a lot, will be able to acquire an idea what this style was like at its best."
– Schumpeter, *History of Economic Analysis*

I. Introduction

Frank William Taussig's *Wages and Capital* (1896) is an underappreciated contribution to economics and the history of economic thought. It hides between Taussig's more famous works, *The Tariff History of the United States* (1888) and his general treatise, *Principles of Economics* (1911). The contemporaneous development of marginal productivity theory also eclipses *Wages and Capital*, as a work that deals with total wages or distribution of total output. But these towering works and ideas should not keep readers from enjoying and learning from Taussig's impressive contribution. The present paper seeks to shed new light on Taussig's *Wages and Capital*. In so doing, we will also examine Frank Fetter's critical remarks on Taussig's work.

In *Wages and Capital*, Taussig poured the old wages fund doctrine through a Böhm-Bawerkian sieve and collected the valuable insights, all the while discarding the useless, off-the-mark, or plainly wrong ideas of the classical economists and others before him. It is this process that makes the book shine. Taussig's objective scholarship is on display—his careful isolation of good ideas amidst a crowd of bad ideas and explanation of the reasons for each choice.

We will see that "wages fund" is not the best term for Taussig's theory, despite his own use of the term. In evaluating and reformulating the old wages fund doctrine, Taussig widened it to include all income, resolved the confusion that came from not clearly delineating real and nominal figures, and allowed for a flow conception of real income as opposed to a rigid stock. While he expanded the scope of the theory along these lines, he also ardently narrowed the scope of how the theory may be applied, especially regarding the classical economists' desire to use the theory to determine precise money wages. These changes allowed Taussig to salvage the correct parts of the old wages fund doctrine, yet also explode the clearly incorrect parts and applications of the old theory. Perhaps Taussig should have renamed his theoretical offering a "real income flow doctrine" or a "structure of production and consumption" to stave off potential misinterpretations like we see in Frank Fetter's critical review.

II. Frank William Taussig

Taussig's credentials certify his place as a central figure in the mainstream economics of his time: he graduated from Harvard, returned to Harvard for graduate studies, and eventually became a professor of economics at Harvard and President of the American Economic Association. He advised President Woodrow Wilson, chaired the United States Tariff Commission, and wrote what would become *the* standard work on tariffs which is still cited today, over 125 years later. His *Principles of Economics* was one of the most popular economics textbooks[1] from its publication in 1911 and into the 1930s. Even Paul Samuelson and his colleagues taught from Taussig's *Principles* at Harvard into the 1940s (Samuelson, 1997).

[1] "It was an immediate success and became, as it deserved to be, one of the most widely used textbooks of economics. Neither intent nor achievement, however, is adequately expressed by that phrase" (Schumpeter, Cole, and Mason, 1941).

Taussig also has a few informal Austrian credentials. His name is among some of the Austrian greats in what I call the “cloud of witnesses” in the Wolfe Lecture Hall at the Mises Institute in Auburn, Alabama. The names of great economists like Ludwig von Mises, Murray Rothbard, Frank Fetter, Frederic Bastiat, and F.A. Hayek are showcased on the wall in raised lettering along with F.W. Taussig. Taussig regarded Eugen von Böhm-Bawerk (also in the “cloud of witnesses”) as one of the “greatest economists of all times”[2] and praised the emergent Austrian school of economics in his writings.

Joseph Schumpeter, one of Böhm-Bawerk’s students, said that Taussig “was a master of the art of welding factual and theoretical analysis” (Schumpeter, 1954). *Wages and Capital* showcases Taussig’s so-called “welding” abilities, but the facts are not numbers or tariff records, like we see in his *Tariff History*. The facts in *Wages and Capital* are economists and economic ideas that came before Taussig. Indeed, the book is primarily a work in the history of economic thought, welded to original contributions to economic theory. The result is a brilliant display of scholarship and careful theoretical construction.

II. *Wages and Capital*

Taussig’s wages fund doctrine vs. the old wages fund doctrine

From the start, we see Taussig adopting a Böhm-Bawerkian view of capital and production. He conceived of production as existing in stages, and even drew a rudimentary proto-Hayekian triangle (p. 23). Taussig also immediately recognized that consumption is the end of all production in two senses: (1) a consumer purchasing some final good at a retail store

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[2] This is implied by his laudatory treatment of Böhm-Bawerk at the end of *Wages and Capital*, and independently verified by an anecdotal footnote in Schumpeter’s *History of Economic Analysis*: “That eminent man (Taussig) told me once (I *think* it was in the spring of 1914) that he considered Böhm-Bawerk the greatest economist of all times, excepting Ricardo alone (or even that he considered Ricardo and Böhm-Bawerk, on a par, the two greatest economists: I do not remember which)” (Schumpeter, 1954).

and enjoying it marks the end of the production process for that good, and (2) the goal or ultimate purpose in engaging in production is to consume ("consumption is the object of all production", pp. 35-36).

For Taussig, then, the wages fund was the final consumable output of all the various production processes. He realized that "*wages* fund" may not be the best term for this concept, as all real income, including what is earned in wages, rent, profit, or interest, must come from what has already been produced. The old wages fund doctrine of the classical economists held that capitalists and hired laborers consumed separate, mutually exclusive sets of goods, but Taussig put this aside, saying, "The members of the community, whether capitalists or landowners, headworkers or handworkers, […] all form one body of consumers […] and the whole fund or flow of enjoyable things constitutes their real income" (p. 36).[3] This is just one of many differences between Taussig's wages fund[4] and that of earlier economists.

The wages fund doctrine of Smith, Ricardo, and Mill held that total wages are fixed by the amount capitalists have saved and allotted to pay for labor. As such, wages are dependent on only two factors: capital and the number of laborers—dividend and divisor, respectively. The theory, then, was used to combat unions and collective bargaining for higher wages, because, as the theory was explained, capitalists are constrained by their accumulated money funds. Also, one group of laborers attaining higher wages would only decrease the wages for their fellow

[3] See also pages 48-49: Since the goods that make up real wages are of the same set of produced consumer goods bought by the receivers of other sorts of income, "all forms of present income alike, while made up of enjoyable goods, were capital but a moment before." Taussig contrasted this to the classical economists, who only applied their theory to wages and held that capitalist profit or rent came from a separate source. However, "Past product, existing for any season mainly in the form of unfinished goods, is the source whence all laborers, hired or not hired, and all capitalists, and all the members of the community, get the income of the present and of the immediate future."

[4] Unfortunately, Taussig did not offer a new name for his theory, but instead kept the term "wages fund". The present paper will seek to separate the two versions by using "old" or "classical" to refer to the wages fund doctrine of the classical economists.

laborers in another industry. Even if all laborers successfully attained higher nominal wages, their real wages would remain the same or even decrease with the capitalists' profits. Wages are fixed and determined by factors outside the control or characteristics of the laborers, according to the classical theory. As Taussig described the old wages fund doctrine: "Not only […] are wages paid out of capital, and determined by a bargain in which the demand for labor comes from employers' capital; but the amount of that capital, compared with the number of the laborers, fixes wages definitely" (p. 168).

Wages and Capital, Part I

Taussig deliberated on the source of real income right at the start: "the active controversy [is] whether wages come from the current product of labor or from a past product" (p. 1). Taussig immediately recognized that production takes time: "We naturally picture the various sorts of productive effort […] as taking place in succession" (p. 2). Taussig acknowledged that the relative shares going to different groups of laborers depend on productivity, but also that the source of all wage goods is the same: the structure of production. Real wages, or the goods that are bought by laborers with their money wages, must come from previously undertaken productive processes.

This distinction between real and nominal wages proved useful for Taussig when analyzing other assertions from the classical economists, especially on the futility in unions bargaining for higher wages. Taussig also considered a flow of consumption goods emerging from the structure of production as opposed to a rigid money fund somehow destined to be wages, as the classical economists described the wages fund. It was said that the advancement of wages in one industry must be made to the detriment of laborers in another industry, since the wages fund was fixed for all laborers. Taussig admitted that there may be small elements of truth to this, or at least a small possibility that such a situation could arise, but only in rare circumstances. The circumstances that would lend to such a zero-sum outcome include low or no savings throughout the economy, a completely and immediately perishable pool of final goods, and no surplus inventory in retail. In his words, "no stretching of the commodities available" is possible (p. 103). Besides, there is a steady "flow of finished goods from goods partly finished" (p. 22) which is dependent on the production decisions and efforts of the past, but it is "certainly not without some degree of flexibility at any given moment, and certainly not an accumulated or rigid fund" (p. 22), according to Taussig.

Even in a zero-sum case with one group of laborers successfully winning higher wages, the "losers" are not necessarily their fellow laborers in another industry. Taussig astutely noted that the actual losers depends on the particular circumstances: "Who would lose, would thus depend on the kind and amount of commodities which are bought with their new money means by the fortunate laborers, and on the response of prices and supplies to their new demand" (p. 103). Thus the classical theorists were over-eager in applying the old wages fund doctrine to declare winners and losers after a wage renegotiation. Taussig put the theory in its place, saying that these results are "hopelessly inexact" and would disappoint those looking for precise answers and "concrete application" (p. 103).

Taussig also dispelled Ricardo's iron law of wages, which claimed that wages would be permanently stuck at a level of bare subsistence for those in the laboring class.[5] Without naming

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[5] Richard von Strigl also stressed the biological needs of laborers over the economic conception of wages as something laborers prefer to less-valued alternatives, found in his own attempt at reviving the wages fund in *Capital & Production* (2000). This led him to the view that consumption and investment are one and the same if the consumption is done to sustain a laborer through roundabout production (Strigl, p. 32). Mises briefly makes a similar point in Human Action (1998):

> Accumulation of capital begins with the formation of stocks of consumers' goods the consumption of which is postponed for later days. If these surpluses are merely stored and kept for later consumption, they are simply wealth […]. They remain outside the orbit of production. They become integrated—

it, Taussig called on Menger's imputation theory and he anticipated marginal productivity theory in the process. When he deliberated on the actual causal factors in determining particular wages, he included, first and foremost, consumer demand for the product of the laborers' efforts: "in the end, the wages which any particular group of workmen can get depend on what the consumers are able and willing to pay for the commodities produced" (p. 106). Also, productive "inventions and improvements" directed toward the production of goods demanded by consumers will result in increased real wages (p. 121). Thus Taussig concluded that Ricardo underestimated laborers' ability to emerge from mere survival.[6]

Taussig also commented on the residual theory of wages, which was fashionable at the time (p. 111). According to the theory, laborers received their share of total income last, after shares for profit and rent were carved off. Taussig reminded the reader that the money wages of hired laborers are set in advance of the actual sale of the good they are hired to produce: "They take no chances; they have been promised so much, and so much they receive" (p. 111). If any

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> economically, not physically—into production activities only when employed as means of subsistence of workers engaged in more time-consuming processes. [p. 488]

However, Strigl maintained that the "form" in which the wages or subsistence get to the laborer is the only part of this discussion that is related to "the organization of the economic system." This is in contrast to the bulk of other Austrian capital theorists' method of building economic theory on preset assumptions of private property, unhampered markets, and exchange. Mises, for example, pointed out that the "ventures and processes" just described "are intellectually controlled by capital accounting," which "starts with the *market prices* of the capital goods available for further production" (p. 488, emphasis mine).

Of course, Strigl was not a proponent of the iron law of wages, but the language he uses when developing his capital theory refers to laborers merely being biologically sustained through a production process; e.g., they receive "rations" from the subsistence fund, these rations "secure their nourishment". We can hardly call this a wage, in the economic sense of the term, because it is no different than the grease applied to a machine in a factory, or the fuel pumped into a shipping truck. On this, Taussig would have responded:

> After all, the commodities which go to one and another sort of laborers, whether necessaries or comforts or luxuries, are immediate sources of satisfaction. They are consumed, not to enable work to be done, but as the result of work being done. They represent, not a stage in the production of wealth, but the consumption and enjoyment of wealth. Men are not to be regarded as cattle, fed and tended as a means toward an end. [p. 35]

[6] "In the first place, the situation of the laborers in general is not so desperate as Ricardo and his followers were apt to assume" (Taussig, p. 32).

component of total income is to be considered residual, Taussig suggested that profits are "the true residual sharer" (p. 111). Entrepreneurs, sometimes called "active capitalists" or just "business men" by Taussig, are truly in the dark about their own pay. So, for Taussig, the entrepreneur was the uncertainty-bearer, "for how much he is finally to secure, depends on the outcome of operations still in progress" (p. 112). The entrepreneur "wins or loses, according as the industrial venture turns out well or ill" (p. 112).

Throughout Part I of *Wages and Capital*, Taussig stressed the distinction between real and nominal wages, the fact that production takes time, the relationship between consumable output and "inchoate wealth", and the role of the entrepreneur. His wages fund is not the wages fund of the classical economists. Indeed, Taussig's revised wages fund theory bears a striking resemblance to Austrian capital theory[7]—he saw production existing in stages and he realized that the returns for various factors depend on their aid in producing valuable goods in the minds of consumers. Taussig also stressed that the wages fund doctrine is incapable of explaining or predicting individual wage rates, as the classical economists hoped to be able to do with the old theory. Taussig recognized that "What takes place in fact in the dealings of workmen with their employers is a succession of isolated bargains" (p. 101).[8] Most modern readers would be surprised to see an economist acknowledge the limitations of the model or theory before them. Taussig sees a place for a wages fund doctrine, but understands that "it does not tell the whole story" (p. 123) regarding wages and their determination.

[7] This is not a coincidence. Taussig had a high regard for Böhm-Bawerk and his *Positive Theory of Capital*. He even declined to fully summarize Böhm-Bawerk's work in Part II because "much of the analysis […] has been accepted in the first part" of *Wages and Capital* (p. 312).

[8] This is roughly in line with Böhm-Bawerk's (explicit) and Menger's (implicit) *Preiskampf* theory of the price-determining competitive bargaining process. See Joseph Salerno's "Böhm-Bawerk's Vision of the Capitalist Economic Process: Intellectual Influences and Conceptual Foundations" in *New Perspectives on Political Economy* (2008).

Wages and Capital, Part II

The second part of the book traces the history of thought on the wages fund doctrine, definitions of capital, and theories of distribution. Taussig started with pre-Smithian discussions on the relationship of capital to wages, focusing on a few scant passages from Turgot.[9] He moves on to Adam Smith and finds the first bits of what might be called a wages fund doctrine—phrases like "funds destined for the maintenance of labour," and "funds destined for the payment of wages" (p. 145). At the beginning of Chapter VII, Taussig provided an instructive outline of which contributions were originally Smith's and which were "borrowed" from earlier writers.[10]

Taussig then devoted almost 100 pages to David Ricardo, John Stuart Mill, the period between them, and Mill's famous recantation of the doctrine. These authors were the primary exponents of the classical wages fund doctrine. According to Taussig, Ricardo's version had some rough edges and gaping holes, but he did at least apply some crude form of supply and demand analysis to the determination of wages: the demand for labor comes from capitalists and their capital, and the supply of labor is simply determined by the population—hence the popular formalization of Ricardo's wages fund, $\overline{Wage} = \frac{Capital}{Population}$.

The theory did not fare much better under Mill. Taussig noted that Mill's writings are inconsistent and "give unmistakable evidence of Mill's failure to revise his [writing] in cool blood, and so to give coherence to the scattered discussions" (p. 217). Mill's most definite statement regarding wages is as Ricardian as Ricardo himself: "Wages (meaning, of course, the

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[9] That Taussig even considered pre-Smithian thought on wages and capital shows how comprehensive his undertaking is, especially considering that some authors unfortunately have "the custom to treat all earlier contributions to economic thought as of little account, and to begin the history of the subject with the *Wealth of Nations*" (p. 131).

[10] The reader may be reminded of Murray Rothbard's (2006) take on Adam Smith: "The problem is that he originated nothing that was true, and that whatever he originated was wrong; that, even in an age that had fewer citations or footnotes than our own, Adam Smith was a shameless plagiarist, acknowledging little or nothing and stealing large chunks, for example, from Cantillon."

general rate) cannot rise, but by an increase of the aggregate funds employed in hiring labourers, or a diminution in the number of competitors for hire; nor fall, except either by a diminution of the funds devoted to paying labour, or by an increase in the number of labourers to be paid."[11]

After tracing through Mill's unexpected recantation of the wages fund doctrine in 1869, Taussig arrived at more recent discussions on wages and capital, including Carl Menger and Eugen von Böhm-Bawerk. Taussig favorably reviewed both Menger and Böhm-Bawerk and heralded them as having the clearest ideas on the subject. Here, Taussig explained Menger's significant contribution of imputation theory, and came close to seeing the connection to laborers and wages that we know as marginal productivity theory today. He also compared Böhm-Bawerk's subsistence fund to his own wages fund theory and only finds a difference in focus. Taussig focused on distribution ("the concrete mode in which the fund reaches laborers", p. 317) and Böhm-Bawerk focused on defining capital, interest, and the length of the production process. Nevertheless, Taussig concluded that "on these topics economic theory will gain by following the main trend of the exposition which has finally resulted from the labors of the Austrian school" (p. 318).

III. Fetter vs. Taussig

However, *Wages and Capital* was not received well by at least one of member of the Austrian School in the United States. Frank Fetter (another "forgotten giant")[12] wrote a critical review of *Wages and Capital*,[13] but we will see that his critical remarks are based on a misunderstanding of Taussig's task.[14] The review is the first essay in Frank Fetter's *Capital*,

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[11] *Principles of Political Economy*, by John Stuart Mill, quoted in Taussig's *Wages and Capital*, p. 222.
[12] Herbener (1999).
[13] Fetter (1977).
[14] Rothbard, who would usually act as an appellate court judge in cases like this, was uncharacteristically silent on the issue except to simply summarize Fetter's criticism about total vs. individual wages. Rothbard's comments on Fetter's criticism are purely descriptive:

Interest, and Rent. Fetter favorably reviewed the second half of *Wages and Capital*, in which Taussig presented the history of the wages fund doctrine. Fetter criticized the first half, however, in which Taussig constructed his own wages fund theory in the vein of Böhm-Bawerk and evaluated the old wages fund doctrine in light of his own.

Fetter seems to miss Taussig's point from the start, even when he introduced the task of his review essay: "This review, however, must be confined to the author's 'positive theory' as contained in the first 125 pages of the volume" (Fetter, p. 26). Although Fetter set "positive theory" in quotation marks, Taussig never did admit or imply that his purpose was to defend or promote the old wages fund doctrine, but to attempt to settle the debates surrounding the old theory and what truth, if any, resided on either side of those debates. In fact, in the preface to *Wages and Capital*, Taussig expressed that his intention for the first five chapters was to give "a statement at large of [his] own views on the relation of capital to wages, and on the wages fund doctrine" (Taussig, p. iii). At the other end of the book, Taussig restated his purpose:

> The inquiry here undertaken as to the true relation of wages to capital, and the summary of the historical development of the old doctrine, may put into truer light old views and modern criticisms, and may be helpful for that restatement of economic doctrines on which the present generation is so busily engaged. [Taussig, p. 325]

So Taussig did not write *Wages and Capital* as a defense of the old wages fund doctrine, but to criticize it while retaining what truth he could find in it.

> Frank A. Fetter's earliest article in this collection, a review of Frank W. Taussig's *Wages and Capital* […], was written in 1897 and sets the pace for the articles in the first part of this book. Here Fetter criticized Taussig's attempt to revive the classical notion of the "wage fund." Rather than attempting to explain aggregate wage payments, Fetter recommended explaining individual wage rates [Rothbard, in Fetter, p. 5].

This suggests that Rothbard never read Taussig's *Wages and Capital*. We know that Rothbard would not shy away from an opportunity to criticize Fetter or Taussig, because Rothbard did criticize Fetter later in his introduction: "Here is a vital distinction between land and capital goods that Fetter completely misunderstood" (Rothbard, in Fetter, p. 6). *Wages and Capital* is not in Rothbard's library at the Mises Institute in Auburn, AL, nor did Rothbard refer to it in his other writings.

Fetter also condemned at the outset Taussig's focus on total wages as opposed to individual wages or even the share of total wages that go to specific classes of laborers: "To suppose that one set of forces determines the total going to laborers and that another set of forces then distributes this among the different classes and individuals, is to reverse the true order of fact and of thought" (Fetter, p. 27). To Fetter's credit, aggregation problems abound in economics, and certainly Ricardo's $\overline{Wage} = \frac{Capital}{Population}$ is a prime example of this sin, but we do not see these kinds of errors in Taussig's book. Taussig did not fall into the Ricardian Vice[15] or design some model for the purpose of predicting precise outcomes.

Indeed, one of Taussig's recurring points was the inherent inability of the wages fund doctrine to predict precise outcomes. Taussig explicitly narrowed the scope of any wages fund doctrine for this tempting application and denied that it could be of any use in predicting or explaining particular wages. He confined his discussion to "total wages" because previous authors did so and Taussig's purpose for his book was to evaluate their claims. Either way, discussing economy-wide or "macroeconomic" phenomena is permissible in economics as long as it is realized that the causal relations in human action only exist at the individual level.[16]

Taussig explained where and to what (limited) extent the wages fund doctrine can apply as a concluding remark to Part I of *Wages and Capital*:

> The wages fund theory—if that name can be given to the form in which it has here been set forth—shows the steps by which wages get into the laborer's hands, and so points to the nearest and most obvious causes which affect them. It shows what is the process by which goods are produced in the great and complicated organism of modern society, and what are the channels by which the enjoyable commodities reach the hands of its various members. To understand that process, to follow those channels, is indispensable to truth

[15] The Ricardian Vice is "the habit of establishing simple relations between aggregates that then acquire a spurious halo of causal importance, whereas all the really important (and, unfortunately, complicated) things are being bundled away in or behind these aggregates" (Schumpeter, 1954, p. 668).
[16] "A case could easily be made that Böhm-Bawerk's superb capital-structure theory was 'macro' as well as 'micro'" (Rothbard, 2011).

> and accuracy of knowledge. *But it does not tell the whole story*. [Taussig, p. 123, emphasis mine]

Fetter's next source of disagreement involved the way Taussig "intends to retain the expression 'wages fund,' and to show that there are good reasons for looking upon such a fund as differing in some points worth the noting from the part of the social income going for rent, for profits and for interest" (Fetter, p. 28). Taussig, however, readily explained and admitted this dilemma in his evaluation of the old wages fund doctrine. He also generalized his own formulation of the wages fund to include the incomes of capitalists and entrepreneurs, as shown above.

On actually using the term "wages fund", Taussig conceded the point by 1932, when he said in a new introduction to *Wages and Capital*, "Some things which are in this volume could certainly be said in a better way. […] Especially as regards the continued use of the term 'wages fund,' I should change what I wrote forty years ago" (Taussig, 1932 Introduction).[17]

Fetter's three expectations

Finally, Fetter outlined three different expectations of Taussig in his *Wages and Capital* endeavor: (1) "real wages, and not mere money wages, shall be the subject of his discussion" (Fetter, p. 28); (2) the "capital" or "fund" that makes up real wages should not be considered owned by the employers (Fetter, p. 29); and (3) "we may justly require of the author a comprehensible explanation of the way in which the 'wages fund' is marked off from, or carved out of, the total income of the community; and […] this shall be shown to differ from the process which apportions the shares of the other factors in distribution" (Fetter, p. 29). Fetter did not hold

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[17] Taussig reformulated the wages fund doctrine based on his own discussions, but was hesitant even to call his reformulation a "wages fund theory" even in the first 1896 edition because of the evident possibility for readers to confuse his (dramatically different) take with that of other economists. "The wages fund theory—if that name can be given to the form in which it has here been set forth […]" (Taussig, p. 123).

back when he concluded that "Every one of these minimum requirements the author fails to meet" (Fetter, pp. 29-30).

It is this author's opinion, however, that for each of these, Taussig either satisfied Fetter's expectation or he explained how any wages fund theory is incapable of satisfying Fetter's expectation. Fetter's judgment was misdirected because of an admittedly confusing exposition of *two different wages fund theories* on the part of Taussig. Taussig's main error may have been calling his own theory and discussion a new (or renewed) and better "wages fund doctrine", even if he did so hesitantly, while evaluating the claims of the old wages fund doctrine at the same time. Nevertheless, Fetter's accusations can be explored.

First, on emphasizing real wages over money wages, Taussig consistently highlighted this important distinction throughout the book. Fetter focused his criticism on one chapter in which Taussig deals with money wages specifically. He particularly points out the supposedly embarrassing "announcement" at the beginning of the chapter: "Here money and money income play a vital part" (Taussig, p. 51, quoted in Fetter, p. 30). Fetter failed to cite the very next sentence: "Money wages, money interest, money rent, are the only avenues to the real income of consumable commodities" (Taussig, p. 51). And in the next paragraph, Taussig repeats, "All real income is thus derived from the use of money income" (Taussig, p. 52). Indeed, throughout the chapter Taussig continually returns to the point that nominal wages only matter in this discussion to the extent that they are a "key" to access real goods, an analogy Taussig makes at the end of Part I (p. 117).

It is also worth noting that Taussig's task, in his chapter dealing with money wages, was to provide specific points of evaluation on the wages fund doctrine as it has appeared throughout the history of thought on the topic.[18] Taussig devoted the second part of his book to this history, in which we see repeated instances of economists conceiving of the wages fund as a rigid money fund in the hands of the capitalists. John Stuart Mill notably confused himself into recanting his own theory by falling into the same trap that Fetter thought had ensnared Taussig.[19] No such errors are found in *Wages and Capital*, however.

On Fetter's second requirement, that the goods that make up real wages should not be considered as necessarily owned by the employing capitalist, we find similar results. Fetter claimed that "the capital or funds that are discussed are throughout looked upon as in the hands of the employing class, except where the conception is widened to include the great body of money lenders" (Fetter, p. 30). He went as far as to say that Taussig's

> concept of capital, or funds, fails to include all the sources of the real income that the laborers enjoy—for example, stores of goods in the hands of independent producers, and even a portion of labor itself, so far as personal services make up that real income. *There is no hint that such elements may play a part in determining the remuneration of labor*. [Fetter, p. 31. Emphasis mine]

However, Taussig *did* include personal services and goods produced by independent producers as a part of the so-called wages fund. His first task in *Wages and Capital* was to conceptually separate consumers' goods with all of the undeveloped, "inchoate" wealth (capital goods). In so

[18] In the first paragraph of the next chapter (which serves as a summary of the previous chapter on money wages), Taussig explains how the various conclusions he arrived at in discussing money wages contradict traditional claims of the wages fund doctrine.

[19] Ekelund (1976) uses Mill's own assumptions to create a point-input—point-output model with separate markets for wage goods and goods consumed by a capitalist class to show that Mill's stated reasons for recanting the classical wage fund doctrine were not consistent with his own theory:

> The lacunae in Mill's analysis of the question, then, were twofold. First, Mill identified money funds in the hands of individual capitalists with the aggregate real stock of goods produced from previous periods. Second, Mill's explanation (in the recantation) of the investment/consumption decision process of the individual entrepreneur was faulty in that he specified an elasticity to the money allocation implying an elasticity in the real allocation over a given period of production. [Ekelund, 1976, p. 72]

Ekelund, then, is in agreement with Taussig that Mill was inconsistent and most likely confused about the real versus nominal distinction, especially when comparing short- and long-run effects of exogenous nominal changes in wages.

doing, he listed personal services and the goods of independent producers as a part of the mass of consumable output: “The baker bakes bread, the tailor makes clothes. The shopkeeper sells us things necessary or convenient or agreeable, and so brings them to the point where they finally meet our desires. The servant waits on our needs or contributes to our ease” (p. 4). Taussig referred to similar examples throughout the book.

Furthermore, Taussig criticized Ricardo for committing the same error Fetter believed Taussig had committed:

> For shortness of reasoning and of statement (too often with the result of confusion in both) this stock was reasoned [by Ricardo] as if it were owned by the immediate employers and handed over by them directly to laborers who ate it. The miller and the baker were put aside; and, what was more dangerous to accurate thought, it was assumed for brevity that the capitalists who employed the laborers were the individuals who owned the grain. The source of wages was then easily conceived as a fund stored up, all ready for use, controlled by employers, limited in amount for the time being, and entirely the product of past labor [Taussig, p. 19].

Taussig then borrowed this same assumption—just temporarily—to make some first theoretical steps toward evaluating the claims of old wages fund economists like Ricardo. This is surely the source of Fetter’s confusion.

Fetter’s third requirement was that Taussig would explain the mechanisms by which specific shares of total income are distributed. Taussig, however, maintained that the wages fund doctrine is wholly incapable of such a task. Fetter even quoted Taussig admitting this: “In fact the wages-fund doctrine, or what there is of truth in it, … can tell us little … as to the fundamental causes which … determine the share of that real income which in the long run shall go to wages or interest or rent” (Taussig, p. 322, quoted in Fetter, p. 31). This was one of Taussig’s clearest points in his book, that, over the history of the old wages fund doctrine, “its truth has been misconceived, its importance exaggerated” (Taussig, p. 322).[20] It is perplexing,

[20] This statement appears directly after the one quoted by Fetter.

then, that Fetter would expect Taussig to apply the wages fund doctrine in a task that Taussig repeatedly admits is beyond the scope of the wages fund doctrine.

Two wages fund theories in Wages and Capital

Fetter's final comment was that Taussig had evidently aligned himself with the old wages fund doctrine in his final concluding chapter by saying, "Hired laborers are dependent on a wages fund (if one chooses so to call it), which is in the hands of the capitalist class. Their money income is derived from what the capitalists find it profitable to turn over to them" (Taussig, p. 321, quoted in Fetter, p. 32). This quote, however, was taken out of context, like some of the others in Fetter's review, as noted above. At this point in *Wages and Capital*, Taussig was summarizing his conclusions chapter by chapter, and had arrived at a point he had made in Chapter III about the restrictive assumptions needed to make the claims of the old wages fund doctrine work. The next few sentences reveal this:

> This is *a* wages fund doctrine, and a conclusion as to the relation of capital to wages, quite different from that reached in the first two chapters. *It bears not on the permanent and unalterable relation of real capital to real wages*, but on the relations of certain kinds of laborers to the capitalists of our modern communities. [Taussig, p. 321, emphasis mine]

Perhaps, then, *three* wages fund doctrines are presented in Wages and Capital, and the debate between Taussig and Fetter may be settled by giving one or the other (or both) the benefit of the doubt as to which wages fund doctrine they were either defending, developing, or criticizing.

The whole purpose of the book was to evaluate an old theory with a more rigorous treatment than it had in the past. In the process, Taussig offers new discussions on the relation of capital to real income, clumsily calling his own offering by the same name as the version on the chopping block (an error Taussig later realized and regretted). Fetter commented at the end of his review that he did see two wages fund doctrines: that of the classical economists and a revised one presented by Taussig. However, the use of the term "wages fund" for both seemed to have confused Fetter, because he mentioned that Taussig's "is the one wherein the superficial monetary aspects alone are kept in view" (Fetter, p. 31). A thorough reading, especially of Taussig's first two chapters, reveals this to be very uncharacteristic of Taussig's contribution. This confusion of terms by itself is the root of Fetter's criticisms and it is just one of many misunderstandings that have plagued this particular topic since its inception.

IV. Conclusion

There are errors in *Wages and Capital*, but most of them are due to one of three reasons: (1) Taussig had not yet adopted a marginal productivity theory of wage determination, which would have helped him parse through the classical economists' attempts at explaining particular wage rates, and clear up his own theory as well; (2) Taussig would have also benefitted by a clear distinction between capital goods and capital in the accounting sense; and (3) to Fetter's credit, Taussig did seem eager to retain certain elements of the old wages fund theory in some places. But, Taussig was also eager to connect the ideas of the Austrian school to what was then a hot debate in mainstream economics.

Taussig sought to apply Böhm-Bawerk's capital theory to the wages fund debate, especially regarding the production process and definition of capital. In the process, he was able to discard many of the erroneous claims of the classical economists regarding wages and capital. Each step of his analysis was carefully made—only proceeding once he had come to some conclusion about the validity of a claim from the classical economists or once he realized that any so-called wages fund doctrine is incapable of resolving some issue. In the latter case, Taussig did not hesitate to call out the earlier economists on over-stepping their bounds with the theory.

In a sense, Taussig's criticism of Ricardo and Mill is similar to the criticisms that economists who espouse a qualitative, causal realist approach to economics have against those who espouse a quantitative, mathematical-empirical predictive method in economics. Ricardo and Mill, in their attempt to explain particular wage rates using lofty aggregates, were the over-eager econometricians of their day. Their modern counterparts have more sophisticated techniques, but the error is the same: economic theory can only go so far in explaining the particulars of human action. The rigid quantitative relationships and poorly constructed theories of economists today and 200 years ago compel economists and scholars like F.W. Taussig to question and reject what is false in the pursuit of truth. Modern economists would do well to learn from Taussig's example of this assiduous process in *Wages and Capital*.

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[21] Taussig's *Wages and Capital* is the main reference in this paper. In-text citations to it may simply to refer a page number in *Wages and Capital* when it is clear that Taussig is the author.