

**FRIEDRICH VON WIESER AND FRIEDRICH A. HAYEK:
THE GENERAL EQUILIBRIUM TRADITION IN AUSTRIAN
ECONOMICS**

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1. INTRODUCTION

Bruce Caldwell has written a thoughtful and provocative critique of “selected aspects” of what he deems my “recent revisionist discussion of the history of the Austrian school” (Caldwell 2002, p. 1). I will refrain from quibbling with Caldwell’s characterization of my account of the development of the Austrian school as “revisionist.” I will note, however, that nowhere else does there exist an explicit and fully integrated interpretation of the doctrinal evolution of the Mengerian tradition through the first four generations of Austrian economists such as I attempted to delineate in my article, and the target of Caldwell’s critique, “The Place of *Human Action* in the Development of Modern Economic Thought.” (Salerno 1999) The account that Caldwell implicitly relies on and defends in his dissent from my interpretation is derived from the works of Israel Kirzner. Although Kirzner does offer a reasonably comprehensive story of how the Austrian school evolved from Menger to Hayek, he does not give it an integrated and detailed presentation in any one place. Elements of the story are scattered and repeated with varying degrees of emphasis throughout his numerous writings on economic theory as well as in his occasional forays into doctrinal history.¹

This method of presentation as well as Kirzner’s characteristic reticence in claiming originality for his own views gives the impression that his singular perspective on the development of Austrian economics somehow reflects a prevailing consensus on its intellectual evolution, a consensus that has been firmly established in the give and take of past doctrinal controversy. Immersion in the Kirznerian paradigm thus unwittingly equips one with a

very definite view of the lines of doctrinal filiation linking Menger with the three succeeding generations of the Austrian school. While this is certainly a tribute to the enormous influence Kirzner has had in shaping the ideas of many contemporary Austrian economists, it has served to place this view beyond the reach of critical examination. So my account is not so much a revisionist challenge to a long-established orthodoxy but a nascent attempt to join debate on this crucial issue. As such, I realize that it inevitably contains gaps and flaws and more than a few lapses from clarity of expression. This is why I welcome Caldwell's critique and the opportunity to respond to it.

Caldwell advances four fundamental objections against my interpretation that I shall enumerate at the outset of my response:

1. My specific claim that Hayek always considered himself an adherent of the Wieser tradition is based on "an almost willful misreading of the text" (Caldwell 2002, p. 17).
2. There is very little evidence to support my claim that Wieser was "actually an advocate of general equilibrium theory" (Caldwell 2002, p. 4)
3. Menger, Böhm-Bawerk, and Mises do not present a "seamless front" on any fundamental issue that substantially differentiates them as a group or "camp" from the Wieser-Schumpeter-Hayek camp. My claim to the contrary "offers a highly selective reading of history" (Caldwell 2002, p.13)
4. Hayek's "early fascination with general equilibrium theory" evident in his trade cycle writings was not attributable in the least to the influence of Wieser or Schumpeter, but

¹ See especially Israel M. Kirzner 1992, pp. 57-85, 100-136; Kirzner 2000, pp. 151-79; and Kirzner 2001, pp. 34-68.

was part and parcel of his effort to persuade contemporary German cycle theorists of the correctness of a monetary theory of the trade cycle that was not built on the foundations of the crude quantity theory, which they rejected. (Caldwell 2002, p. 23)

In the compass of this paper I will only be able to fully address the first, second and fourth of Caldwell's objections, although I will briefly indicate in the conclusion the lines along which, in my past research, I have traced the development of a unified perspective on market processes from Menger to Mises that constitutes a response to Caldwell's third contention. The paper is organized in the following manner. In section 2, I adduce what I believe is compelling evidence that Hayek clearly considered himself to be an adherent of a Wieserian tradition that he also believed to be separate and distinct from the Böhm-Bawerkian tradition that shaped Mises's intellectual development. I also argue that the difference of opinion between Caldwell and myself on this issue cannot ultimately be resolved with reference to doctrinal evidence. Indeed such evidence is at best of secondary importance because central to the Kirznerian interpretation adopted by Caldwell is the explicit contention that the separate Misesian and Hayekian adumbrations of the market process must be seen as complementary in order for Austrian economics to be meaningful, *whether or not the two men themselves ever understood and assented to such a view*. Section 3 seeks to demonstrate that Wieser's concept of "natural value" and his later elaboration of it into the theoretical construction of a communistic "simple economy," which he used both as a normative benchmark for appraising the efficiency of the market economy and a tool of positive economic analysis, is in fact a general equilibrium construction. In section 4, I present evidence that a key feature of Wieser's simple economy—the attribution of quotas of value to the factors of production in the absence

of exchange and money prices—was seen by Hayek as an absolutely necessary step in the formulation of the solution of the problem of factor pricing. Thus I maintain that Hayek’s initiation into the modes of thought of the general equilibrium theorist began with his attempt as a young economist to resolve the puzzle of imputation posed by Wieser’s exchange-less simple economy, which preceded by a few years his concern with problems of money and the business cycle.

2. HAYEK’S RELATIONSHIP TO THE WIESERIAN TRADITION

As noted, Caldwell objects to my characterization of Hayek as an adherent of the Wieserian tradition, attributing my claim to “an almost willful misreading of the text.” He then proceeds to quote a single sentence from one of the three citations to Hayek’s work that I provide in support of my thesis (Caldwell 2002, p. 17). He infers from this quotation only that “Hayek is simply pointing out that while Mises was Böhm-Bawerk’s student, he had himself been a student of Wieser’s.” And Caldwell is absolutely right—that is about all that can reasonably be concluded from this sentence taken in isolation. Had Caldwell bothered to follow my citation further to the middle of the next page, however, he would have found this statement by Hayek (1983, p. 18):

Although I do owe [Mises] a decisive stimulus at a crucial point of my intellectual development, and continuous inspiration through a decade, I perhaps most profited from his teaching because I was not initially his student at the university, an innocent young man who took his word for gospel, *but came to him as a trained*

economist, trained in a parallel branch of Austrian economics from which he gradually, but never completely won me over. Though I learned that he was usually right in his conclusions, I was not always satisfied by his arguments, and retained to the end a certain critical attitude which sometimes forced me to build different constructions, which however, to my great pleasure, usually led to the same conclusions. [Emphases are mine.]

Now what we can plainly infer from this passage is that Hayek himself perceived a dichotomy between the Wieserian and Böhm-Bawerkian traditions, was trained in the former tradition, never completely abandoned that tradition, and, consequently, disagreed with some of Mises's analytical arguments to such an extent that he was stimulated to formulate alternative theoretical constructions that presumably were derived from or inspired by the tradition in which he himself received his training as an economist.

If Caldwell followed my citations further still to a second source, then he would have discovered Hayek (1992, p. 157) *as late as 1977* reporting somewhat ruefully that the Böhm-Bawerkian tradition had eclipsed the Wieserian tradition yet holding out hope that the latter tradition would be revived and bear the fruit of its initial promise:

In today's world Mises and his students are regarded as the representatives of the Austrian school, and justifiably so, although he represents only one of the branches into which Menger's theories had already been divided by his students, the close personal friends Eugen von Böhm-Bawerk and Friedrich von Wieser. I only admit this

with some hesitation because I had expected much of the Wieser tradition that Wieser's successor Hans Mayer attempted to advance. These expectations have not yet been fulfilled, even though that tradition may yet prove more fruitful than it has been so far. Today's active Austrian school, almost exclusively in the United States, is really the followers of Mises, based on the tradition of Böhm-Bawerk, while the man in whom Wieser had set such great hopes and who had succeeded him in his chair has never really fulfilled his promise.

What makes this expression of regret and hope a more meaningful indication of Hayek's doctrinal affiliation is the fact that this passage was published originally in Hayek's Introduction to the German-language edition of Ludwig von Mises's *Notes and Recollections* (Mises 1978, pp. xi-xvi). Recall that it was in these memoirs that Mises had summarily dismissed Wieser as having misunderstood "the gist of the idea of Subjectivism in the Austrian School of Thought" and as someone whose "ideas on value calculation justify the conclusion" that he "was a member of the Lausanne School" (Mises 1978, p. 36). In this context, Hayek's remarks can be seen as defending the reputation and legacy of his master against the slights of a member of a rival tradition.

One more remark on this passage is in order, regarding Hayek's reference to Hans Mayer. Although he registered his disappointment in Mayer's ultimate intellectual sterility, Hayek revealed in a footnote to "Economics and Knowledge" that one source of his inspiration for the seminal article was the works of Mayer and his circle. Accordingly Hayek (1937, p. 47 fn. 3) wrote: "It is true that Professor Mayer has held out before us the prospect of another,

‘causal-genetic’ approach, but it can hardly be denied that this is still largely a promise. It should, however, be mentioned here, that some of the most stimulating suggestions on the problems closely related to those treated here have come from this circle.”² Hayek goes on in the footnote to cite works of Mayer and his student P.N. Rosenstein-Rodan. Given that Hayek (1994, p. 72) later told us that this article was an attempt to demonstrate to Mises himself that Mises’s a priori approach to economic theory was wrong, this is additional evidence that Hayek was intellectually molded in an alternative tradition.

My third citation, also ignored by Caldwell, was to Hayek’s 17-page eulogy of Wieser written in 1926. Written at least a half a decade after Hayek began working closely with Mises and four years after the publication of *Socialism* (Mises 1981), the book that Hayek averred affected him so profoundly, the article reveals Hayek as still a passionately devoted disciple of Wieser whose system of thought he had fully absorbed even if he did not agree with it in every detail. Indeed the introduction to the article goes beyond respectful eulogy to unrestrained dithyramb as Hayek (1992, pp. 108-109) wrote:

But neither the unrivalled depth of his insight into social development, as finally revealed to a wider audience by his last great work, nor even his contributions as a statesman and patriot can adequately explain how great an inspiration this man was for those who knew him personally. It was his singular human greatness and universality, which transpires from all his works, that elicited the boundless respect and admiration of all

² This footnote was excised when “Economics and Knowledge” was reprinted in Hayek’s collection of essays, *Individualism and Economic Order* (Hayek 1972, pp. 33-56).

those who came into contact with this magnetic personality. To those who never knew Wieser personally however, his greatness can be made comprehensible only by reviewing his entire life's work, not merely his professional accomplishments. I would fall short of the difficult task that I have assumed, namely, to portray my revered teacher, and would be greatly remiss if I limited myself to an account of his scholarly career and to his contributions as an economist.

It is possible to go on multiplying examples of Hayek's self-conscious adherence to the Wieserian tradition, but I am afraid that this would not resolve the point at issue between Caldwell and myself—because the issue at bottom is not primarily doctrinal for those who adopt a Kirznerian perspective on Austrian economics. That the respective visions of the market process of Mises and Hayek are only meaningful and complete when brought into communion with one another is a view that is embedded deeply in the Kirznerian paradigm. Thus any doctrinal evidence that is at odds with this position—including the direct testimony of Mises and Hayek themselves—is trivial and beside the point. The evolution of Austrian economics can and must be explained in a way that renders intelligible the emergence of the asserted Mises-Hayek synthesis. Once allow the Misesian and Hayekian paradigms to be pried apart and a dangerous intellectual confusion is loosed upon the school and the profession-at-large that threatens the very future of Austrian economics.

This appears to be the attitude that Kirzner (2000, p. 162) himself expresses when he writes:

Whatever the differences between a Hayekian articulation of the market process and a Misesian articulation, the centrality of the notion of the corrective process for both, is the crucially important circumstance. It is this that should convince us that any talk of a Hayekian ‘paradigm’ which differs fundamentally from the Misesian paradigm *should be dismissed as not only reflecting a mistaken doctrinal judgment, but as reflecting a mistaken judgment with potentially catastrophic implications for the future of Austrian economics.*

Austrians are a beleaguered minority in the economics profession today. One of the core doctrinal issues separating Austrian economics from the mainstream is that Austrians understand the entrepreneurial character of the market process. We learned this from Mises. From Hayek we learned additional, complementary insights. *If we wish to preserve and build upon the Misesian legacy, we must not generate confusion (both among Austrians and their opponents) by exaggerating perceived differences between Mises and Hayek, to the point where the centrally shared insights of both are dangerously obscured.* [Emphases are mine.]

With all due respect to Professors Kirzner and Caldwell, their position that the work of Ludwig von Mises taken on its own merits cannot provide a foundation for the future development of Austrian economics has never been elaborated and defended. If this is indeed what they believe, then this issue should be addressed head on and the specific shortcomings marring the unadulterated Misesian vision of the market process explicitly identified. The more important point, however, is that the doctrinal development of Austrian economics must be

investigated freely and on its own terms and without the constraint of establishing a pre-reconciliation of the views of Mises and Hayek. Any deviation from this method of open and unbounded inquiry is dangerously obscurantist and undermines the scientific integrity of Austrian economics.

3. WIESER AS A GENERAL EQUILIBRIUM THEORIST

Having established that Wieser was one of Hayek's most important influences as an economist, I now turn to Caldwell's claim that there is a dearth of textual evidence supporting my thesis that Wieser was a verbal general equilibrium theorist. By focusing on Wieser's magnum opus, *Social Economics* (Wieser 1967), the case can be made in a fairly brief and straightforward manner.

Wieser carefully explicates his comprehensive general-equilibrium vision of the economy in the first part of his quadripartite treatise under the heading of "The Theory of the Simple Economy." Under the admittedly highly "idealized assumptions" of this economy Wieser sought to precisely define in verbal form the conditions under which resources would always be allocated so as to secure "the realization of the greatest possible total utility (Wieser 1967, pp. 9, 51). The simple economy therefore was to serve as the normative benchmark to assess the efficiency of the real-world market economy.³ As such, Wieser (1967, p. 10) believed that all the problems and difficulties that were involved in the theory of the simple economy "are capable of ultimate solution" and "in the near future ... will be scientifically settled." Even more

³ As Robert Ekelund (1970, p. 183) notes, "Utility calculation and maximization was the heart of the matter and value as it resulted in the simple economy was to stand as the model against which all real economic societies were to be measured."

sanguinely, Wieser (1967, p. 10) expected the theory to “lead the way for a doctrine destined to be common property of all future economic schools.”

The simple economy deals with “an ideal economic subject,” namely, mankind “treated as a unit” and “contrasted with nature,” so that questions of conflicting interests and economic justice are as irrelevant to the simple economy as they are to the economy of Robinson Crusoe. However, the idealized simple economy is far from the “scant economy of an isolated householder” and “has the breadth of a national economy with all its wealth, technical knowledge and problems of economic calculus” (Wieser, pp. 10, 19). Finally, the simple economy

. . . is guided by a single mind. It answers its purpose in an unimpeachable manner because a systematic and penetrating mind guides it. This director foresees ends, weighs them without error or passion and maintains a discipline which ensures that all directions are executed with the utmost precision and skill and without loss of energy. We shall further assume that all requisite individual forces are placed at the disposal of this social management as cheerfully as though enlisted in their individual interest (Wieser pp. 19-20).

So Wieser’s simple economy is, in effect, a communist economy in which scarce resources are allocated by an omnipresent and benevolent central planner who possesses direct and accurate insight into the intensities of want satisfactions experienced by individual members of society, all of whom possess exactly the same tastes and utility scales and receive the same

income. Moreover, his directions are followed without question or stint by a wholly compliant labor force. Needless to say, exchange and money are completely absent from this economy. Although the simple economy thus “is completely detached from exchange” and “therefore lacks the connecting medium, money,” it is “unified in the labor of the producer” (Wieser, 1967, p. 49). In other words, labor, particularly unskilled labor, is economically allocated by the infallible central planner across all production processes and therefore constitutes the ultimate “stem” that unifies all “branches of production” of the economy (Wieser 1967, p. 50).

Now, it is at this point that Wieser introduced assumptions that he explicitly recognized as distinguishing his own general-equilibrium (henceforth, GE for short) system from the mathematical versions of Walras and Pareto that attempt “to exalt economic theory into an economic statics” (Wieser, p. 51). Unfortunately, Caldwell (2002, pp. 11-12) misconstrues Wieser’s critique of mathematical economics as a critique of GE theory in general, rather than as an attempt to differentiate and defend his own idiosyncratic brand of the theory. One of the most serious problems with economic statics, according to Wieser, is that its assumptions “allow the deduction of a condition of perfect equilibrium [which] contradicts the facts of experience” (Wieser, p. 51). For Wieser (1967, pp. 51-53, 100-102, 110), the theory of the simple economy must incorporate into its assumptions three features of the real world that are ignored in economic statics: 1. discontinuities existing in the aggregated social “scale of needs” for different consumer goods that result in varying rates of satiation of different needs; 2. differences in the degrees of scarcity of various natural resources that are specific to particular production processes; and 3. indivisibility of certain products. These assumptions result in a state of equilibrium in the simple economy in which the (cardinal) marginal utility for certain

goods per unit of nonspecific labor input exceeds the general “marginal utility of the marginal product” of labor.⁴ Thus, for example, indivisible products such as bridges, products like gold jewelry that embody an especially scarce natural input, and products whose utility declines rapidly after a certain point like food staples would all be subject to a “narrower margin of use” in production and a “narrower margin of utility” in consumption than the goods whose production establish the marginal utility of the marginal product.

To put it another way, the allocation of what Wieser calls the “cost-productive means” or “cost-means,” i.e., labor and other relatively nonspecific resources, in a manner that equalizes the marginal utility per unit of the cost-means across all branches of production in the simple economy is constrained, on the supply side, by the unequal availabilities of the “specific-productive-means” like mineral deposits or urban land sites, and, on the demand side, both by the differing structures of the scale of needs associated with individual concrete products and by the differing degrees of divisibility of these products.

It is because discontinuities and indivisibilities are not tractable to mathematical reasoning, not primarily because of any dynamic considerations as Caldwell claims, that Wieser (p. 51) concludes, contra economic statics, “No adjustment is ever effected which tends to establish a condition of strict equilibrium, a perfect level.” Nor is Wieser’s system “focused on the *constant marginal adjustments* made by agents” (Caldwell 2002, p. 12) To the contrary, Wieser purports to present “a more accurate formulation of the economic principle of the greatest possible utility” than that of the mathematical GE theorists. Wieser’s principle

⁴ Wesley Clair Mitchell (1999, p. 252) describes Wieser’s rejection of the static-equilibrium construct of the mathematical economists in similar terms.

purportedly takes account of the “actual occurrence” of economic goods and “the relative intensities of the dependent needs,” i.e., the disparate natural resource scarcities, discontinuities and indivisibilities absent from the Walras-Pareto model. Thus, Wieser (1967, p. 53) summed up the principle of optimal allocation characterizing his GE simple economy in the following terms:

The general margin of utilization is to be established so that it shall include the greatest possible number of degrees of utility. Complete satiety is to be obtained for all more narrowly bounded needs. But, furthermore, the narrower margins of use of scarcity values, as well as those of abundance, are to be indicated so as to allow for the most extensive gratification possible. The maximum total of satisfaction is the decisive factor in every individual instance. Each economic means of satisfaction is to be disposed of in such a manner as will add the greatest utility to the otherwise assured total. No use is to be countenanced as long as some alternative disposition would result in a more beneficial effect.

Now although Wieser never used the term “natural value” in *Social Economics*, it is evident from the definition he gave it in his earlier work *Natural Value* (1971) that the concept refers to the pattern of marginal utilities that would emerge in the GE simple economy, which he worked out in such painstaking detail over the course of 130 pages in the former work. Thus Wieser (1971, p. 60, 62) defines “Natural Value” as “that value which arises from the social relation between amount of goods and utility, or value as it would exist in the communist state.”

There is no doubt that Wieser construed natural value as a GE concept, having written: “[W]e shall think of the communistic state as the perfect state. Everything will be ordered in the best possible way. . . . no error or any other kind of friction will ever occur. Natural value shall be that which would be recognized by a completely rational and united commonwealth.” When goods have attained their natural value, “total utility value”—defined as the marginal utility per unit of a good multiplied by its quantity and summed over all consumer goods present and future—is at its maximum.⁵

Wieser’s embrace of GE theory is also evident in his attempted solution of the imputation problem, or what he calls “the problem of the attribution of yields” (1967, p. 111). Rejecting Menger’s correct approach toward a solution, which is based on the operation of the law of cause and effect in the physical world, Wieser (1967, pp. 117-118) characterizes the solution as purely “a computation of utility.”⁶ Such a computation may take place just as easily in the priceless, communistic simple economy as in the market economy, because “there is no doubt” that “equations may be found” relating the variety of nonspecific cost-means combined in different proportions in different production processes to quantities of utility represented by the products of these processes.⁷ Such equations will be sufficient in number to permit the

⁵ According to Wieser (1967, pp. 124-26), “The fundamental law of the computation of utility states that a divisible stock of goods is to be considered economically as a sum of units each of which is computed by the marginal utility. The units of mass are at the same time units of utility; when mass is computed there is a simultaneous computation of utility. . . . When each cost-productive-means and cost-product is set down as the sum of the units of utility which it contains, one obtains the arithmetic foundation for a plan of production and management. This plan may be closely drawn for it determines the limits of productive activity as well as of consumption. The dedication to a particular type of use of even the smallest part of the total supply is included.”

⁶ On the crucial role of the law of cause and effect in Menger’s economics, see Salerno 1999b, pp. 71-100, especially pp. 88-90 on his imputation theory.

⁷ Because Wieser assumed fixed input coefficients in any given production process, Blaug (1985, p. 431) noted, “Without realizing it, Wieser had in fact stated a typical linear programming problem defined as that of maximizing a linear relationship subject to a number of linear constraints.”

simultaneous system of equations to be solved and a definite yield of utility to be attributed to each and every individual cost-means, with specific-productive-means being ascribed the residual in any process. Of course this must be a GE solution because “the entire yield realized as expected under the [utility-maximizing] scheme of operations must be attributed without a remainder in the measure of the productive contribution” (Wieser 1967, p. 119). Moreover, the entrepreneurial market process is not needed to arrive at such a solution, because “just as we are able to make these theoretical calculations, the [simple economy] producer has a basis on which he may find the solution of his particular problem through trial and error” (Wieser 1967, p. 120).

As this discussion of Wieser’s imputation theory indicates quite clearly, then, Wieser was as concerned as Walras with demonstrating that the number of equations in his system matched the number of unknowns. It is true, as Caldwell (2002, p. 12) states that Wieser did not go beyond this to “ask about the existence, or determinateness or uniqueness of equilibrium,” but to be sure neither did Walras or Pareto.⁸ Caldwell (2002, p. 12) concludes his case by stating:

Wieser on my reading is best described as a systematic marginalist, one who

⁸ As Ingrao and Israel (1990, pp. 111-12) state “the Walrasian project was left unfinished in another crucial sense: none of the analytical theses the theory undertook to demonstrate were, in fact, clearly demonstrated in the *Eléments*. Walras stated his intention of demonstrating that the equations of general equilibrium have a determinate solution but confined himself to indicating the condition of equality between the number of equations and the number of unknowns. . . . Walras passed it on to Pareto, who continued to repeat it despite his more substantial mathematical training. . . . In conclusion, none of the three analytical problems raised by general economic equilibrium theory—existence, uniqueness, and stability—received either solution or clear definition in the *Eléments*.”

understood about general economic interdependence but who thought that a focus on the multi-market equilibrium was not the best way to explore the nature of the system. I would not describe him as a general equilibrium theorist of any stripe.

Although I would not presume to describe Caldwell's conclusion as based on an "almost a willful misreading of the text," in view of the evidence adduced above, I am forced to characterize it as at best reflecting an uncomprehending reading.

Now, it is true that for Wieser, the optimal allocation of resources that yields the maximum utility and is reflected in the natural values of products in the simple economy is inevitably distorted in the social economy by the unequal distribution of wealth and income that results from exchange. This inequality gives rise to economic power, which, in turn, pervades and deforms most exchange relationships. Thus natural value "simply depends upon utility," whereas "exchange value measures a combination of utility and purchasing power" (Wieser 1971, p. 57). As a consequence of the impact of unequal wealth and income on purchasing power, production guided by exchange value

is ordered not only according to simple want, but also according to wealth. Instead of things which would have the greatest utility those things will be produced for which the most will be paid. . . . It is therefore the distribution of wealth which decides how production is set to work, and induces consumption of the most uneconomic kind: a consumption which wastes upon unnecessary and culpable enjoyment what might have served to heal the wounds of poverty (Wieser 1971, p. 58).

In addition to its direct effect in distorting production and consumption, wealth and income inequalities arising from the exchange process will also generate power on the demand and supply sides of the market. On the demand side, there will arise a “stratification of prices,” with the price of “mass-commodities” such as bread determined by the marginal demand among the lowest-income stratum, while their demands will have absolutely no influence whatever in determining the prices of either “luxuries” such as diamonds or “intermediate goods.” The prices of the latter two types of goods will be determined by the marginal demanders among the higher-income and middle-income strata, respectively. Thus price in an exchange economy is not determined by “marginal utility as such,” that is the natural value of the simple economy, but a “stratified marginal utility” (Wieser 1967, pp. 186-89). Moreover, both “the beggar and the millionaire” pay the same price for bread, which is established according to its marginal valuation or “the measure of the [beggar’s] hunger” (Wieser 1971, p. 58). The enormous consumer’s surplus reaped by the rich in the purchase of such mass-commodities then enables them to compete among themselves for luxuries whose prices are bid up near the maximum of their personal valuations of such items. Accordingly, “the more the purchasing power of the rich is spared in the purchasing of necessities, the greater are the means that they have over, wherewith to extend and increase the prices they offer for luxuries, and the more defective is the impulse given by consumption to production” (Wieser 1971, pp. 59). In the extreme, “members of the higher and highest income strata who are bent on excluding the competition of all other rivals” for luxuries possess the economic power to create a situation in which a good of

lower marginal utility attains a price that is higher than a good of greater marginal utility as these marginal utilities would emerge in the simple economy (Wieser 1967, p. 187).

On the supply side, what Wieser (1967, pp. 220-28) calls “monopoloid institutions,” especially the cartels and trusts that inevitably arise from the competitive process in decreasing cost industries, would intensify the stratification of prices and fragmentation of marginal utilities by exercising their power to artificially restrict supply and raise price. This means that the prices of even more goods are determined according to the “stratified marginal utility” of more affluent strata of the population and that economic calculation using these stratified prices causes the interconnected patterns of resource allocation, income distribution, and consumption to become further deformed in comparison with the ideal patterns that would be calculated using the natural values generated in the simple economy.

Wieser, however, did not use the simple economy construct exclusively as a normative benchmark for assessing the efficiency of the historical market economy. He quite clearly employed it also as an analytical tool for elucidating the underlying factors that determined real market outcomes. In *Natural Value*, for instance, Wieser (1971, p. 62-63) wrote:

The fact that natural value forms an element in the formation of exchange value puts our investigation in touch with reality, and gives it its empirical importance.... It will be of interest to investigate closely to what extent the phenomena of exchange value are of natural origin, and how great, accordingly, is the formative power of natural value in existing conditions of society. I believe the sequel will show that it is enormously greater than is usually supposed. . . . On this account the examination of natural value will be

useful, as well for those who wish to understand the economy of the present, as for those who wish to evolve a new [socialistic] one.

In his later *Social Economics*, Wieser (1967, pp. 235-236) portrayed the law of natural value operative in the simple economy as the primordial and dominant force shaping the actual constellation of prices generated by the social economy despite the distortions introduced by the existence of economic power.

But whatever new elements we have had to introduce into our investigation [of the social economy] have not brought with them any new forces. Even the new element, money, is merely an instrument to effect the exchange movement of natural values.

When the social resultants of prices are analyzed into their component parts we arrive at the personal valuations of the interested parties. Each such valuation obeys the law of the simple economy. The diversity of power is evidenced only in the strength with which this personal interest may be displayed. . . . The law of price is derived from the law of value of the simple economy.

4. HAYEK AS (WIESERIAN) GENERAL EQUILIBRIUM THEORIST

Hayek revealed himself to be a close follower of his master in defending and employing the simple economy as an indispensable analytical construct. In an early article, first published in 1926, Hayek (1984, p. 34) argued, “the solution of the problem of imputation has to be attempted without recourse to exchange. . . . has to be based on the assumptions of an economy based on a uniform will.” Hayek sought to justify the static Wieserian procedure of directly imputing subjective values to individual producer goods as a step logically anterior to the operation of the dynamic market process. Defending Wieser’s “direct imputation of value” theory against the marginal productivity theory of factor pricing, Hayek (1984 p. 47) argued:

[T]o demonstrate the significance of the doctrine of marginal productivity as a theory of imputation, i.e., as a derivation by the individual of the subjective value of producer goods, which can serve as a basis for the explanation of the formation of the prices of these goods, *this doctrine must be extracted from the market-economy guise in which it is usually presented. . . .* Only then does the marginal productivity doctrine become immediately suitable for the explanation of income distribution *without the intermediate step of price formation*. As long as the objective phenomena of value are regarded as the result of individual valuations, it is logically necessary to be able to explain the latter first without reference to exchange. [I have supplied the emphases in this passage.]

Now this passage is extremely important for what it reveals about Hayek's thought, not only doctrinally but also substantively. It demonstrates that despite having been, by his own admission, greatly influenced by Mises's *Socialism*, Hayek missed or disagreed with the central argument of the book. For Mises argued that in an industrial economy with a complex structure of heterogeneous capital goods, producer goods cannot be subjectively valued by direct imputation, they can only be objectively "appraised" in terms of cardinal prices generated by the entrepreneurial market process.⁹

His intimate familiarity with Mises's calculation argument notwithstanding, Hayek (1984, p. 42) affirmed Wieser's recourse to "the arithmetic form of utility" as necessary to devise a timeless, simultaneous equation system capable of resolving the imputation problem.¹⁰ In such a system, according to Hayek (1984, p. 40):

The equality in the value of a producer good in different uses also enables us to represent in equation form the reciprocal relationship between the values of products produced by the same factors as well as their relationship to the value of the factors of production. On the one side of these equations the same factors of production recur as

⁹ Admittedly, Mises did not fully elaborate his view of the market economy as a social appraisal process until 1940 in *Nationalökonomie*, the German-language predecessor of *Human Action*. However, Mises (1981, pp. 100-101) certainly emphasized the indispensability of the market's pricing process for economic calculation in *Socialism*, arguing, "money calculation . . . enables us to extend judgments of value which apply directly only to consumption goods—or at best only to production goods of the lowest order—to all goods of higher orders." On Mises's vision of the market as a dynamic appraisal process, see Mises 1998, pp. 324-336; Salerno 1990a; and Salerno 1990b, pp. 36-49

¹⁰ Interestingly, as Blaug (1986, p. 280) perceptively noted, given that Wieser maintained that natural values could be employed for economic calculation in socialist economies, "it was thus Wieser that Ludwig von

equal value quantities so that there exists mutual dependence between them.

Substituting concrete values either for products or for producer goods enables us to calculate the other elements.

Hayek (1984, p. 42) maintained that only by solving the imputation problem in this way could we definitively answer the question, “what share is to be imputed to the individual factors of production in a stable individual economy,” which in turn is “a precondition for the rational organization of production in an economy without exchange.” Thus Hayek (1984, pp. 52-53) rejected as theoretically “meaningless” the dynamic causal-realistic marginal productivity solution proposed by Menger and worked out in fuller detail by Böhm-Bawerk as a “one-sided derivation of the value of producer goods from that of the product” and argued that the values of products and producer goods are simultaneously and mutually determined. He also conceded, moreover, “the mathematical school, following Walras, has successfully attempted to solve similar problems [although] they have not succeeded in doing justice to the problem of imputation” (Hayek 1984, p. 53).

Granting that the foregoing reflects his early views on economic theory, which matured substantially during the 1930s, Hayek remained a proponent of GE theory throughout the decade while abandoning some elements of the specifically Wieserian variant of the theory. Thus, in his 1937 review of E.H. Phelps Brown’s primer on general equilibrium theory, *The Framework of the Pricing System*, Hayek (1937, p. 94) approvingly commented: “It is a

Mises . . . sought to refute when he developed the argument that rational economic calculations are impossible under socialism.”

pleasant reflection that the development of economics has now for once reached a stage when one expects that in such an exposition of the elementary groundwork of economic theory by a competent economist one will find nothing of substance to disagree with.”¹¹ Since Hayek (1937, p. 95) found himself in substantial agreement with the Brown on analytical grounds, he restricted his critical comments to problems of exposition, one of which was “the extraordinarily little use of graphs” made by the author. In particular Hayek (1937, p. 95) was concerned with the book’s lack of “either indifference curves or equiproduct curves,” conjecturing that Brown’s alternative expositional device would be mistaken by students for “a utility function in the old sense” based on “absolute utility concepts.” Hayek ended by commending the book as one that “will fill an important place in a well-devised course of reading” for the beginner, although he lamented the fact that it left the reader “without any guidance on further reading.”

So by 1937 it is evident that Hayek had abandoned some central concepts of Wieser’s theory such as cardinal utility and had become more open to the Lausanne school’s approach to GE theory that was beginning to catch on among Anglophone economists. Nonetheless, in 1941, Hayek (1952, pp. 95-244) still employed Wieser’s concept of a static communist economy to construct the intertemporal-equilibrium foundations of his pure capital theory, which he elaborated over the course of 150 pages in *The Pure Theory of Capital*, even retaining Wieser’s designation of the “simple economy.” Ironically, nowhere was Wieser’s profound influence on Hayek more in evidence than in Hayek’s efforts to break away from GE theory in his renowned 1945 article on “The Use of Knowledge in Society.” At the end of that famed

¹¹ I am indebted to William Butos for bringing this book review to my attention. This acknowledgement does not imply his agreement with the doctrinal inference I have drawn from it.

article, in a critique of Schumpeter, whose theoretical constructions were also influenced by Wieser, Hayek renounced his adherence to Wieser's imputation theory that he had struggled so mightily to perfect and defend as a young economist.¹² But Hayek rejected the theorem of the direct imputation of value on Wieserian and not Misesian grounds. That is, he did not deny that a single mind, e.g., the director of the simple economy, possessing all the relevant data would be able to rationally attribute quotas of value to the factors of production on the grounds that there could be no objective unit of economic calculation where there were no markets and prices. Rather he rejected socialism as a practical impossibility because a real-world central planner would never be able to marshal all the facts required to discover the optimal solution arrived at by the all-knowing director of Wieser's simple economy. Wrote Hayek (1972, pp. 90-91):

Implication is a logical relationship which can be meaningfully asserted only of propositions simultaneously present to one and the same mind. It is evident, however, that the values of the factors of production do not depend solely on the valuation of consumers' goods but also on the conditions of supply of the various factors of production. Only to a mind to which all these facts were simultaneously known would the answer necessarily follow from the facts given to it. The practical problem, however, arises precisely because these facts are never so given to a single mind, and

¹² It is suggestive that in the text that Hayek was criticizing, Schumpeter (1962, p. 173, fn. 2) explicitly mentioned Wieser and Pareto as among the "upward of a dozen economists [who] had hinted at the solution" of the problem of socialist calculation prior to Barone. Needless to say, this solution was based on GE analysis.

because, in consequence, it is necessary that in the solution of the problem knowledge should be used that is dispersed among many people.

Earlier in the same article, Hayek dubbed the analysis of general equilibrium in Wieserian terms as the “Pure Logic of Choice,” portraying its object as a simple economy controlled by a single mind. Here again Hayek (1972, 85) plainly accepted Wieser’s conclusion that the rational allocation of resources could be ascertained by a purely internal, intellectual operation without recourse to an external, social pricing process provided the directing mind possessed sufficient data:

Even the single controlling mind, in possession of all the data for some small, self-contained economic system, would not—every time some small adjustment in the allocation of resources had to be made—go explicitly through all the relations between ends and means which might possibly be affected. It is indeed the great contribution of the Pure Logic of Choice that it has demonstrated conclusively that even such a single mind could solve this kind of problem only by constructing and constantly using rates of equivalence (or ‘values,’ or ‘marginal rates of substitution’). . . .

5. CONCLUSION

Given the textual evidence presented above, I believe that it is eminently reasonable to affirm a number of points that have been disputed by Caldwell. First, Hayek indeed was a student of Wieser’s and an adherent of the Wieserian tradition—and considered himself to be

such—even after he had begun working closely with Mises, whom he explicitly recognized as a follower of a divergent strand of Austrian economics. In fact, Hayek’s own words clearly suggest that he retained his affinity for Wieser’s approach to economic analysis well into the 1970s and that he anticipated and welcomed its future revival.

Second, Wieser’s concept of the simple economy was a fully developed general equilibrium system, which he employed not only as a standard of social welfare but also as the central analytical tool for explaining real-world market phenomena.

Third, Hayek did not originally adopt GE theory as an expedient to persuade German cycle theorists that the monetary theory of the trade cycle was not constructed on the foundations of the crude quantity theory—which is not to deny that he may have used it for this purpose. Rather, he learnt it from Wieser at school and then as a young economist immersed himself in the task of correcting and defending his master’s solution to its most difficult problem, the direct imputation of utility to higher-order goods. Moreover, even Hayek’s later attempt to break free from GE analysis bore the impress of his Wieserian training, centering on the demonstration that the optimal factor allocation achieved by the applying the Pure Logic of Choice to the conditions of a simple economy could not be practicably replicated in an economy in which knowledge was dispersed among many separate economic agents.

Finally, let me briefly deal with Caldwell’s assertion that Menger, Böhm-Bawerk, and Mises did not present a “seamless front” on any fundamental issue that distinguished them as a camp from the Wieser-Hayek camp. First, I never suggested that these economists representing three successive generations of the Austrian school presented a seamless front on any issue. To do so would be to imply that the tradition stagnated for the roughly eight decades

between the publication of Menger's *Principles* and Mises's *Human Action*, when in fact it was characterized by intellectual ferment that yielded tremendous progress over this period. Second, in a number of my previous publications, I have attempted to show how this progress related to the development of the view of the market as a "social appraisal process." In this process, entrepreneurs competing on factor and product markets establish a structure of real money prices for all orders of goods that enables them, in conjunction with individual forecasts of future product prices, to calculate and implement a pattern of resource allocation that, given prevailing and expected technical constraints, best serves *anticipated* consumer demand in a world of constantly changing data. The central analytical focus of Menger, Böhm-Bawerk, and Mises was therefore always the explanation of the actual prices used in monetary calculation and never unrealizable equilibrium prices or natural values.¹³

¹³ For Menger's and Böhm-Bawerk's contributions to the evolution of the monetary calculation perspective in price theory fully elaborated by Mises in *Human Action*, see: Salerno 1991, pp. 367-71; Salerno 1994, pp. 97-100; Salerno 1997, pp. 25-31; and Salerno 1999b, pp. 80-100.

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