

The Equilibrium Analysis of Mises, Hayek, and Lachmann

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ABSTRACT: Modern Austrians see market process theory as a substitute for equilibrium analysis. Mises, Hayek, and Lachmann supposedly rejected equilibrium analysis in favor of market process theory. This paper argues that equilibrium is actually central to the Austrian theory of market process. Mises' understood the of market process as a series of shifting imperfect equilibria, or plain states of rest. Hayek had views similar to Mises on equilibrium, but he added in the concept of a *personal state of rest* to Austrian theory. Lachmann accepted the basic elements of the Mises-Hayek theory of shifting equilibrium. While Walrasian equilibrium analysis is seriously defective, Austrian equilibrium analysis is indispensable in understanding private and public institutions. The Mises-Hayek theory is not a substitute for equilibrium analysis *per se*. The Mises-Hayek theory is a type of equilibrium analysis that substitutes for defective and misleading Walrasian equilibrium analysis.

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Austrians and Equilibrium

There exists a virtual consensus among Austrians regarding equilibrium theorizing in economics. Austrians favor market process theory over market equilibrium theory. Austrians reject the Walrasian equilibrium models of markets. The two aforementioned claims might seem inextricably linked, but they are not. The main purpose of this paper is to challenge the idea that Mises, Hayek, and Lachmann favored market process theory to market equilibrium theory. Mises, Hayek, and Lachmann did reject efforts to use Walrasian models of general equilibrium to explain real markets. Mises, Hayek, and Lachmann used various types of equilibrium concepts to explain the market process. Mises, Hayek, and Lachmann made more extensive and better use of equilibrium concepts in economic theory than have Walrasian economists. Equilibrium is *central* to the Mises-Hayek paradigm.

The first part of this paper examines *explicit* statements of Mises using equilibrium concepts to explain a process of shifting market equilibrium. Mises objected to the way that Walrasians apply equilibrium concepts, but he did not reject equilibrium analysis itself. Mises took equilibrium *further* than Walrasians by making fuller and more appropriate use of equilibrium concepts. The second part of this paper examines Hayek's equilibrium analysis. Hayek developed aspects of the theory of shifting equilibrium involving knowledge and perceptions. The third part examines Lachmann's equilibrium analysis. Lachmann's analysis is consistent with the Mises-Hayek theory of shifting equilibrium. The third section also addresses Kirzner (1999) and Salerno (1994) on the role of plain states of rest in the Mises-Hayek system. The fourth part of this paper examines Walrasian analysis, as defended by Sherwin Rosen. Rosen claims that Austrian economics has failed the market test, but he fails to understand Austrian theory. The final section asserts that Austrians should cease to characterize market process theory as an alternative to market equilibrium theory.

Mises and Equilibrium

Everyone seems to agree that Mises and Hayek favor market process theory over market equilibrium analysis. For example, Boettke (1997 p26) claims that Hayek and his allies seek to explain how the price system works in “real world disequilibrium ... since only an array of disequilibrium prices can set in motion the competitive process charactering real world markets, the formalistic orthodoxy, by its very nature, must ignore this process”. Boettke is correct about the limitations of orthodox conceptions of equilibrium. However, Mises and Hayek held a broader view of equilibrium than do orthodox Neoclassicals. Once we expand our conception of equilibrium, the limitations that render orthodox equilibrium analysis incapable of understanding the market process vanish, and equilibrium analysis becomes an indispensable means for understanding the market process.

Mises objected only to the condition of non-action implied by equilibrium involving indifference conditions, not with equilibrium per se. There is no reason for Mises to object to appropriate use of equilibrium concepts that do not involve the optimality implied by indifference conditions. There was no reason for Mises to object to *proper and limited* use of equilibrium involving indifference and optimality. It is generally known that Mises used a hypothetical equilibrium construct to explain entrepreneurship. Mises used his concept of an ‘evenly rotating economy’ to explain entrepreneurship. If Mises only used equilibrium in pure thought experiments, then one could argue that equilibrium played a minor role in Austrian economics. Of course, there is a measurement problem in claiming that equilibrium played a minor role in the Austrian paradigm. How does one measure the importance of the ERE-entrepreneurship insight relative to market process ideas? However, if equilibrium is central to the theory of market process itself, then the distinction between equilibrium and process disappears and Mises then must be seen as an equilibrium theorist.

Rothbard (1962 p276) sees equilibrium analysis as “permissible when used with care”. Rothbard’s attitude towards equilibrium comes close to how Mises actually saw equilibrium. Mises is thought to have rejected the idea of equilibrium in the real-world market process. However, there are many examples of Mises insisting that equilibrium prevails in actual markets. Disequilibrium derived from effective price controls.

“At the price determined on the unhampered market, supply and demand would have coincided. Now that the price was fixed lower by government decree ... The mechanism of the market, which otherwise tends to equalize supply and demand by means of price fluctuations, no longer operates.” Mises 1927[1996] p77

In the early 1930’s Mises published several short policy papers involving equilibrium. In each of these papers Mises claimed that real markets *deliver* actual equilibrium of supply and demand. Mises (1931[2002] p170) saw disequilibrium as temporary: “Through the structure of prices, wages, and interest rates the market brings supply and demand into balance ... a temporary imbalance production and demand can occur, but the structure of the market prices makes sure that the balance is reestablished in a short time. Mises (1932[2002] p191) wrote that equilibrium directs production: “Market prices bring supply and demand into balance and determines the direction and extent of production”. Mises (1933[2002] p209) saw intervention as a barrier to attaining actual equilibrium: “The changing prices of the market bring supply and demand into equilibrium... interventionist policy prevents the attainment of an equilibrium situation”. Since the above papers were short and intended for a general audience one might conclude that he accepted equilibrium conditions out of the need for brevity or simplicity. Mises did, however, refer to market equilibrium elsewhere.

Mises (1940[1998] p209) again insisted that intervention prevents the actual attainment of equilibrium: “The price structure of the market is characterized by its tendency to bring supply and demand into balance. If the authority attempts to fix a price different from the market price this situation cannot prevail”. Mises (1944[1985] p64) again insisted, “The

prices set on the unhampered market correspond to an equilibrium of supply and demand. If government decrees a lower price then this equilibrium can no longer prevail". Mises 1949[1998] p756-757 insisted that real markets attain equilibrium.

"The characteristic feature of the market price is that it tends to equalize supply and demand. The size of the demand coincides with the size of supply not only in the imaginary construction of the evenly rotating economy... Any deviation of a market price from the height at which supply and demand are equal is-in the unhampered market-self-liquidating. But if the government fixes prices at a height different from what the market would have fixed if left alone, this equilibrium of demand and supply is disturbed".

Mises insisted that real markets deliver equilibrium not only in policy papers, but also in several books, including his definitive treatise *Human Action*¹. Why then is he seen as having rejecting equilibrium analysis?

There is a contradiction between the modern Austrian position and what Mises actually wrote. Of course, Mises did criticize equilibrium analysis repeatedly. But Mises seems to have had considerable use for equilibrium concepts in his own analysis. The apparent tension between the popular and actual von Mises position on equilibrium is easily resolved. Mises used two concepts of equilibrium. First, the final state of rest represents an ideal situation of full *coordination* between individuals. Second, the plain state of rest represents *agreement* between individuals, based on plans formed out of incomplete knowledge of future conditions. In the absence of price controls, prices adjust so that supply and demand are equal. Entrepreneurial errors in planning the production of what is actually supplied to the market mean that entrepreneurs will end up agreeing to unexpectedly high or low prices. Market prices will never meet entrepreneurial expectations exactly, but the lack of perfect

¹ See Mises (1949 [1998]) also on: p80 "It is an undeniable fact that there prevails an irreconcilable conflict of interests between those workers who are employed at union wage rates and those who remain unemployed because the enforcement of union rates prevents the demand for and the supply of labor from finding the appropriate price for meeting"; p597 "The final wage rate is that rate at which all job-seekers get jobs and all employers as they want to hire. Its height is determined by the marginal productivity of each type of work"; p759 "The maximum price does not restrict production as long as it has not entirely absorbed the absolute rent of the marginal supplier of the absolutely specific factor. But at any rate it results in a discrepancy between the demand for and the supply of the product."

foresight in planning production does not prevent equilibration of planned supply with actual demand as a 'plain state of rest'. Plain states of rest pervade real life.

“People keep on exchanging on the market until no further exchange is possible because no party expects any further improvement of its own conditions from a new act of exchange. The potential buyers consider the prices asked by the potential sellers unsatisfactory, and vice versa... A state of rest emerges. This state of rest, which we may call the *plain state of rest*, is not an imaginary construction. It comes to pass again and again.” Mises 1949 p245-246 emphasis original

Mises (1949 p757) insists that plain states of rest are “a faithful description of what comes to pass in the market at every instant”. Plain states of rest derive from imperfect entrepreneurial plans and incomplete knowledge.

“In dealing with the plain state of rest we... restrict our attention to what has happened momentarily and disregard what will happen later ... We are dealing only with prices really paid in sales ... We do not ask whether future prices will equal these prices” Mises 1949 [1998] p246

Actual markets balance supply with demand without either optimizing allocation in the Walrasian sense, or perfect plan coordination in the Austrian sense. The plain state of rest is an imperfect and temporary equilibrium between planned supply and actual demand.

Perfect plan coordination enters into Mises' analysis of real market processes with the imaginary construct of final states of rest². With complete knowledge and perfect foresight entrepreneurial plans would involve no error and surprise. Imaginary final states of rest drive the real market process because of human efforts to realize maximum gains from trade, even if they are not fully realizable. Action is an effort to dispel all felt uneasiness, but we do not

² “We pay attention to factors which ... bring about a tendency toward price changes. We try to find out to what goal this tendency must lead before all its driving force is exhausted and a new state of rest emerges. The price corresponding to this future state of rest [is called] the *static price* ... In order to avoid misleading associations it is more expedient to call it the *final price* and accordingly to speak of the *final state of rest*. This final state of rest is an imaginary construction, not a description of reality. For the final state of rest will never be attained. New disturbing factors will emerge before it will be realized. What makes it necessary to take recourse to this imaginary construction is the fact that the market at every instant is moving toward a final state of rest.” Mises 1949[1998] emphasis original

know in advance which actions are realizable, so we commit errors by selecting options that are mutually incompatible and by misestimating the feasibility of forgone alternatives.

The market process consists of a series of plain states of rest. Given that money prices can adjust freely, markets can bring planned supply in balance with actual demand. This does not mean that market supply is fixed. Entrepreneurs who face unexpectedly low prices can withhold existing inventories for future time periods, if prices are expected to rise.

Entrepreneurs can sell more inventories than planned if prices are unexpectedly high, or if prices are suddenly expected to fall in subsequent time periods. There are two important points. First, at any particular moment entrepreneurs and consumers can reach voluntary agreements where momentary supply equals momentary demand: a plain state of rest. Plain states of rest represent a type of imperfect and temporary equilibrium.

Salerno (1993) denies that plain states of rest are equilibrium prices. While plain states of rest differ from *Walrasian* equilibrium, they do represent equalization of supply and demand, as well as a temporary contentment based on agreement and exchange. The full importance of plain states of rest becomes clear only after considering Hayek's equilibrium analysis, as is done in the next section of this paper. We will return to Salerno's analysis later.

Second, the profit motive prompts entrepreneurs to realign production and inventories to avoid costly errors. Entrepreneurs use foresight to shift inventories and adjust production to sell in future time periods. Entrepreneurs use price data acquired in each plain state of rest to adjust production towards final equilibrium. Since economic conditions always change we never attain final equilibrium. The market process can therefore be seen as an endless series of shifting plain states of rest. Kirzner (1999 p225) claims that the plain state of rest is not central to Mises' understanding of the market process. Mises stressed the plain state of rest because respect for actual market clearing prices translates into respect for consumer

sovereignty. Kirzner is correct in his assertion that Mises saw consumer sovereignty as important. However, the concept of the plain state of rest matters more to the theory of market process than Kirzner realizes. Money prices inform entrepreneurial action. Plain states of rest therefore play a significant role in the market process. The informational role played by prices is obviously important to Hayek's work on the knowledge problem.

Consequently, we will return to this point in the next section of this paper.

Austrians have often claimed that mainstream economists use equilibrium analysis excessively. Walrasian economics is defective because it makes too *little* use of equilibrium concepts. While Walrasians use the idea of equilibrium only to explain an ideal situation of full coordination, Mises took equilibrium analysis further. Mises used of a Walrasian type of equilibrium to explain entrepreneurship. Mises found further use for equilibrium concepts in using plain and final states of rest to explain the market process. Mises explained the market process as an open-ended process of *shifting* exchange equilibrium, driven by human action³. The theory of shifting equilibrium is important because it focuses on vital elements of the real market process. Markets are not supposed to deliver ideal conditions, but market equilibria do tend to improve over time. The Walrasian theory of equilibrium is misleading because it holds markets to an unattainable, and therefore unreasonable, standard. While Mises made excellent use of equilibrium concepts in his explanation of the market process, he did not sort out every detail. Hayek explained the informational role of plain states of rest in the market process further.

³ One might attribute the idea of equilibrium based on agreement Carl Menger in his book Principles of Economics. Menger (1871 p179) asserted that anyone who recognizes the reverse valuation of goods and has the power to transfer these goods can provide better or more completely the satisfaction of economizing individuals "by mere agreement". Menger's idea of reverse valuation fits with the idea of action based on felt uneasiness. Reverse valuation of goods implies that one perceives a better possible future allocation of goods. A situation where trading on reverse valuation ends with agreement is a plain state of rest because Menger saw this only as delivering more complete satisfaction, not complete satisfaction.

Hayek and Equilibrium

It is generally known that Hayek used equilibrium concepts in his early work. Hayek's early work on equilibrium culminated in his seminal and formative 1937 paper "Economics and Knowledge". Hayek is thought by many scholars to have become harshly critical of equilibrium analysis in his later work. What really mattered to Hayek is not equilibrium, but "spontaneous order" and competitive "discovery procedures". However, Hayek's later work is consistent with the von Mises theory of shifting plain states of rest. Hayek also made explicit and highly insightful use of equilibrium in his later work.

Hayek rejected Walrasian equilibrium theorizing, as did Mises. Mises and Hayek agreed that Walrasians misused equilibrium analysis. For example, Mises (1949 p697) saw that "The equations solving approach creates false impressions because it focuses on "the study of economic equilibrium and the static state [that] removes the entrepreneur as a mover and shaker". Hayek agreed with Mises on this issue on numerous occasions⁴.

Hayek began working out the details of intertemporal equilibrium early on in his career. The complete coordination of many individuals is possible only in an imaginary world, and with static economic conditions, or if all future changes are anticipated (Hayek 1928 p76). We conduct all economic activity through time, but the methodological fiction in which all individual processes take place simultaneously still explains part of activity in a real economy (Hayek 1928 p71). Hayek saw that a general competitive equilibrium cannot explain equilibration, but he also insisted that any legitimate economic theory must employ some

⁴ "Static competition "leaves no room for the *activity* called competition" (Hayek 1977 p182 emphasis original). Market Socialists (i.e. Lange 1938, Lerner 1938) arrived at erroneous conclusions regarding socialism because of "an excessive preoccupation with problems of pure theory of stationary equilibrium" (Hayek 1940 p188). Static analysis assumes away the essential characteristics of competition as a dynamic process, where individual interaction among many drives acquisition and changes in the in data (Hayek 1948 p94).

notion of equilibrium (Caldwell 1988 p524). Hayek also saw that individuals are always in *personal* equilibrium, given their own knowledge and perceptions, but *societal* equilibrium requires identical perceptions of reality (ibid p526).

Hayek's insight about personal equilibrium is critical to our understanding the market process. We attain personal equilibrium after we choose between imagined alternatives. We make choices that maximize the *expected* utility in order to dispel felt uneasiness regarding future events. In the interval between the moment of a choice and the moment when we discover the consequences of that choice action ceases and a state of *personal state of rest* exists: an imaginary balance between our actions and the actions of others emerges. This personal state of rest is an equilibrium that concerns capital because any good used in an interval between a decision and its results must be a good of higher order.

We discover the real consequences of our decisions largely from price data that forms out of plain states of rest. Plain states of rest are unique historical moments where elements of individual plans either mesh or clash. The incongruent elements of separately formed plans are errors that become apparent in plain states of rest. Errors in our perceptions of the causal connections between scarce means and utilitarian ends imply that entrepreneurial discoveries in markets will be *genuine* discoveries, *surprising* discoveries. Surprising discoveries result in felt uneasiness that persists until we make *new* choices and form *new* plans that result in *new* personal equilibria. The existence of time *and capital* imply that moments of personal equilibrium *must* follow economic decisions, as the existence of capital necessarily implies that our decisions do not yield immediate results. Personal equilibrium is an inescapable consequence of rational action using capital, even in the absence of exchange.

Market or exchange equilibrium requires price flexibility. The institutional conditions for price flexibility make approximate equality of supply and demand at moments of agreement

and exchange certain. Felt uneasiness, the limits of reason, changing economic conditions, the passage of time, and the dispersion of practical knowledge across many minds combine to form three closely related theoretical facts: actual market prices are imperfect and *always* improvable (even in market equilibrium), the process of shifting market equilibrium is never-ending, and the final equilibrium state of complete plan coordination is impossible (though academically informative). The action-driven and unremitting interaction between personal and plain states of rest *is* the all-important process of intertemporal equilibration, or movement towards the perpetually moving target of the final state of rest.

Hayek became critical of Walrasian equilibrium because it ignores the process of adjusting perceptions and expectations towards a final state of rest, not simply because it involved equilibrium. Hayek also seems to have understood that the market process can be understood as a series of imperfect equilibria. According to Zappia (2001), Hayek implicitly rejects temporary equilibrium. Hayek is actually quite clear at this point that markets attain imperfect equilibrium based on incomplete knowledge. According to Hayek we can arrive at equilibrium in markets based on knowledge acquired “in the course of an attempt to carry out his original plan” (Hayek 1937[1948 p53]). Actual equilibrium is path dependent because the knowledge we acquire through equilibration (i.e. Competition) depends upon the plans that we make based on our initial position, and how we perceive this position. The actual results plan implementation “represents in one sense *a position of equilibrium* [but] it is clear that it is not an equilibrium in the special sense in which equilibrium is regarded as a sort of optimum position (Hayek 1937 p53 emphasis added). Hayek’s equilibrium of implemented plans differs little from a plain state of rest. Plan implementation requires agreement. People will discover errors in their plans through the implementation of their initial plans. The irreversibility of capital investment implies that people cannot fully adjust an initial set of

plans to new data. But unless discovery reveals losses entrepreneurs will arrive at some agreements to realize some gains from trade. Such agreements represent an imperfect equilibrium because they derive from limited knowledge. Such imperfect equilibria are temporary because economic conditions always change.

Hayek (1948 p103) wrote that the process of competition “is in continuous operations only where adaptation is slow as compared with the rate of change in underlying conditions”. Since Hayek thought process of competition is not in continuous operation, then temporary equilibrium must exist in some markets for significant and noticeable periods of time. Hayek focused on processes of adjustment “to explain the equilibrium that follows it” (Hayek 1948 p103). Hayek's conceived of equilibrium in terms of actual plan implementation. The idea equilibrium through plan implementation corresponds to the plain state of rest. Plans can only be implemented through a series of agreements. Since we learn of errors through plan implementation, entrepreneurs will discover opportunities to adjust their plans as these plans are executed. The adjustment of plans requires agreement of those who participate in the activity directed by the plan in question. The final set of agreements in a fully executed plan differs little, if at all, from a plain state of rest.

Hayek (1981) applied the theory of shifting equilibrium to analyze rent control. Extensive periods of rent control have serious repercussions on investment in new housing. Since rent control prevents markets from attaining a plain state of rest, the equilibrating forces that move the housing market towards a final state of rest are impaired, and intertemporal *disequilibrium* results. Consequently, the size of errors of investment in housing are unusually large. Sudden removal of rent control makes errors in housing investment apparent, but sudden removal of rent control would “cause changes in distribution ... on such a scale that the market would become utterly disorganized ... it

would suddenly become apparent that there was a serious *imbalance* between *supply* and *demand*, but also that prices for particular kinds of homes in particular localities had risen out of all proportion of their value” (Hayek 1981 p183 emphasis added). Nor is the remedy to “increase rents gradually so as to establish the critical point, by which I mean the point which would establish prices on an open market, and thus *harmonize supply and demand*” (ibid p184, emphasis added). Hayek thought that the right policy was to adhere to *laissez-faire* pricing of rents for *new* housing so that all *new* investment would be directed by the profit motive. The proportion of free to controlled housing would then fall over time through attrition. Sudden equilibration through complete decontrol would cause an intolerable level of felt uneasiness in the resulting plain state of rest. Hayek thought it better that market forces return more gradually.

Hayek saw rent control as a barrier to attaining plain states of rest in the housing market. What else could “prices on an open market” that “harmonize supply and demand” mean but equilibrium? Hayek thought that after a long period of movement *away* from a final state of rest the sudden attainment of a plain state of rest would cause serious dislocation. People attain a kind of *personal* equilibrium with rent control, so a large shift in market prices would lead to surprising discoveries of unusual magnitude. Some Austrians might find fault with Hayek’s gradualist approach to rent decontrol. But the important point is that Hayek used equilibrium concepts in his analysis of rent control. The validity of his analysis is a separate matter⁵. Hayek thought in terms of shifting equilibrium even in 1981, and this fact indicates the importance of equilibrium concepts in his conception of the market process.

As previously noted, Kirzner (1999) characterizes the plain state of rest as a device for recognizing the importance of consumer sovereignty. The plain state of rest is actually an

⁵ The idea that rent decontrol would result in “too much” felt uneasiness is an empirical claim, which Hayek did not quite prove. Yet the *logic* of Hayek’s argument is itself sound.

indispensable and central element to the Mises-Hayek theory of market process. Plain states of rest are a primary source of knowledge of entrepreneurial error (and success). The plain state of rest is therefore central to the process of intertemporal equilibration in markets, and the lack thereof in politics and public policy.

Hayek's equilibrium of fully coordinated plans corresponds to Mises' final state of rest. If we each form plans that contain relevant and *correct* data from the plans of others, then all plans will mesh and trade will exhaust all gains from trade. Hayekian plan adjustment among individuals drives Misesian shifts from one plain state of rest to the next. Each Misesian plain state of rest of money prices disturbs the collection of Hayekian personal states of rest of personal knowledge and perceptions, and vice versa. Misesian and Hayekian equilibrium concepts focus on different aspects of the same problem within the same paradigm.

Mises and Hayek were equilibrium theorists. Hayek stressed that plain states of rest contain the seeds of their own destruction. In each plain state of rest we acquire knowledge that partially aligns our own expectations with those of everyone else. The knowledge we acquire in each plain state of rest impels us undertake actions that move us towards the next plain state of rest. While personal equilibrium is an inevitable consequence of rational choice, full intertemporal equilibrium and complete plan coordination is impossible due to the limits of human reason and the complex ever-changing nature of society. Hayek extended and refined the Austrian theory of shifting equilibrium by concentrating on the subtleties of problems with communicating knowledge and adjusting perceptions and plans. While Hayek's equilibrium analysis is insightful one issue requires further elucidation. How do we know that there exists a strong tendency towards a final state of rest? Do we know if the forces of intertemporal equilibration outweigh the forces of intertemporal disequilibration? The answer to this question lies in the equilibrium analysis of Ludwig Lachmann.

Lachmann and Equilibrium

Ludwig Lachmann is well known for his opposition to equilibrium theorizing. Yet the author of this paper insists that Lachmann was an equilibrium theorist. It would then seem that the hardest task of this paper is in this section. How can one characterize Lachmann as an equilibrium theorist? After all, the idea that Mises and Hayek rejected equilibrium analysis comes largely from Ludwig Lachmann and his followers. The evidence that Lachmann was an equilibrium theorist is actually quite strong. Lachmann's objections to equilibrium focus on Walrasian analysis. Lachmann described a process of shifting equilibrium that differs little from the Mises-Hayek theory. Lachmann's students are not as opposed to equilibrium analysis as one might think either.

Lachmann claimed that Mises was a true Austrian because he rejected the equilibrium concept. Mises exposed the inadequacy of equilibrium analysis that "disregards the whole theoretical elucidation of the market process" (Lachmann 1977 p182). Mises "replaced the notion of equilibrium with the concept of the market process" (Lachmann 1977 p183). Lachmann's disequilibrium approach to capital theory yields insights "that are not available from an equilibrium approach (Lewin 1997 p536). An equilibrium approach is untenable "in a world of unexpected changes" (ibid p531). Lachmann's process-disequilibrium approach of is particularly applicable to a world of rapid unexpected change (ibid p535). Lavoie (1985 p85) rejects equilibrium analysis because it compresses the complex of human relations into timeless simultaneous equations. Human relations actually involve causal processes that bid money prices up or down. O'Driscoll (1977 p8) insists that Austrians focus on process *instead of* equilibrium states. O'Driscoll and Rizzo (1985 p85) assert that since equilibrium cannot be a position of exact coordination we must revise the equilibrium construct to represent imperfect pattern coordination. The O'Driscoll-Rizzo project for revising

equilibrium seems quite reasonable and interesting, but we should consider the extent to which Mises and Hayek have already achieved their aims.

While Lachmann and his students appear to reject equilibrium analysis most strenuously, they actually agree with the Mises-Hayek position on plain and final states of rest. Lachmann (1978 p40) accepted the Hayekian idea of personal equilibrium: “Process analysis combines the equilibrium of the decision making units with the disequilibrium of the market”. When Lachmann referred to market disequilibrium he referred only to *final* equilibrium: “in equilibrium analysis our interest is confined to plans which are consistent with each other” (ibid p39). In the previous section we established the equivalency of the Hayekian plan coordination concept with the Misesian final state of rest.

Lachmann implicitly accepted the concepts of the plain state of rest. In the real market process the interdependency of supply and demand curves means that prices must emerge in a sequence determined by the chronological order of transactions (Lachmann 1978 p46-7). The aforementioned sequence of prices of prices appears quite similar to shifting plain states of rest. On the previous page Lachmann notes that on ‘market day’ equilibrium might prevail, but “the position is not determinate and equilibrium analysis is not applicable”. Lachmann is correct in his assertion that *Walrasian* equilibrium analysis is not applicable to a sequence of indeterminate market-day equilibria. But the Mises-Hayek theory of shifting plain states of rest is highly applicable to the idea of an indeterminate sequence of imperfect market-day prices. In fact, the interdependency of supply and demand curves, to which Lachmann refers, suggests succession of imperfect plain states of rest, provided that money prices adjust freely and rapidly.

Lachmann rejected efforts to explain real markets with the imaginary construct of *final* equilibrium. Final equilibrium analysis “can tell us whether courses of action are consistent

with each other. It cannot explain how inconsistencies are removed”. Lachmann correctly notes that *stationary* or *final* equilibrium analysis alone tells us little, but the theory of shifting equilibrium developed by Mises and Hayek, and *implied* by Lachmann, aims exactly at explaining the removal of inconsistencies.

O’Driscoll and Rizzo (1985 p80) claim that Austrians think of equilibrium in terms of Hayek’s plan coordination concept. We should amend this to say that plan coordination is one type of equilibrium in Austrian theory. O’Driscoll and Rizzo overlook the Mises-Hayek theory of shifting imperfect equilibria, as well as Lachmann’s implicit equilibrium analysis. Mises conceived of a progressing economy where each plain state of rest is a step towards improvement that aims at but never achieves full coordination. Hayek (and Lachmann) saw the importance of personal equilibrium, versus market or final equilibrium.

There is a further aspect of the theory of shifting equilibrium that needs to be clarified. Mises saw human action as the ultimate source of shifting from earlier to subsequent equilibria. Deliberate action towards any goal requires forethought and imagination. We have the capacity to imagine alternative future states of the world, but action it tends towards success only within particular institutions. Entrepreneurs learn if their anticipations are correct only when consumers spend money for actual goods. Accurate entrepreneurial planning requires entrepreneurs to anticipate the future state of spot markets. Since the realization of entrepreneurial plans requires credit of some form, entrepreneurs must first enter financial markets if they are to carry out their plans to sell in future spot markets. Competition for funds in financial markets is vital to the process of shifting from one plain state of rest to the next because entrepreneurial plans will tend towards success only if financial markets operate with some degree of efficiency. Numerous quotes from Mises indicate that financial markets were central to his theory of the market process. The problem

of adjusting production to future changes in consumer demand is solved by the capitalists “who buy and sell stocks and shares, who make loans and recover them, who speculate in all kinds of commodities” (Mises 1922 [1936] p121)⁶.

Lachmann saw how speculation in financial markets regulates and directs the process of shifting plain states of rest.

“the Stock Exchange consists of a series of markets for assets ... In each market supply and demand *are brought into equality* every single day ... the equilibrium price of an asset reflects the balance of expectations. As without divergence of expectations there can be no market ... an equilibrium price that rests on the balance of expectations ... must change every time the substrate of this balance changes. For precisely the same reason for which equilibrium *is reached so smoothly and speedily* it cannot longer than one day. For expectations rest on imperfect knowledge, and not even one day can pass without a change in the mode of the diffusion of knowledge” Lachmann 1977 p161-162 emphasis added

The above passage describes imperfect shifting equilibria based on agreement, or plain states of rest. The profit motive creates equilibria, and changes in our knowledge alter them continually. Profits disappear only in the impossible conditions of a final state of rest, so the market process never ends. Lachmann recognized the absurdity of Walrasian equilibrium analysis, but also saw legitimate uses for concepts of imperfect equilibrium in explaining markets. While Lachmann openly opposed equilibrium analysis, his work is highly consistent with the Mises-Hayek theory of shifting equilibrium.

Lachmann denied an automatic tendency towards a final state of rest (i.e. the alignment of expectations). Intertemporal equilibration requires specific institutions. Price inflexibility, time intervals, and the problem of interpretation serve as disintegrating forces in the market economy (Lachmann 1978 p66-67). However, integrating institutions emerge from the market economy, out of the need for expectations alignment. The most important integrating institutions in the market process are “forward markets and the stock exchange”. Forward and stock markets “tend to bring expectations into consistency with each other”

⁶ See also Mises 1949 pp 257, 346, 514-515, 703- 705

(Lachmann 1978 p67-68). Lachmann's tendency for financial markets to bring expectations into alignment is the primary means behind the process of movement towards the final state of rest, whereby people form plans that contain more relevant data from the plans of others. While Hayek stressed the process by which personal and market equilibria cause each other to shift, Lachmann stressed how financial process guides the process of shifting equilibrium towards a final state of rest. The Hayekian process of intertemporal equilibration is driven by profit driven action in financial markets. Each successive plain state of rest in asset markets is a step towards greater economic rationality.

It is misleading to say that Lachmann took a disequilibrium approach to capital theory. Lachmann understood that the concept of capital automatically implies personal equilibrium. The passage of time between any economic decision and its consequences is a time period when a good must be a higher order good, rather than a final good, and this time period must involve equilibrium. Lachmann also understood that personal states of rest are disturbed and improved by plain states of rest, and vice-versa. Financial speculation guides the process of adjustment between personal and plain states of rest tends towards the unattainable condition of fully synchronized expectations in a complete set of markets. Lachmann understood Hayek's process of interaction between personal and plain states of rest, and he may have understood the role of financial markets in directing plain states of rest towards the final state of rest better than did Hayek⁷.

Kirzner (1976 p115) notes that Lachmann doubts the usefulness of the Walrasian general equilibrium construction, but not Marshall's idea of partial equilibrium. The idea that Lachmann accepted Marshall's concept of equilibrium makes sense. Marshall saw market-day

⁷ Hayek (1981 pp175) sees problems with public financing of construction. Hayek's critique of publicly directed investment in housing could be interpreted as an endorsement of private finance through financial markets. Hayek's views are at the very least consistent with the Mises-Lachmann theory.

equilibrium as equalization of supply and demand, and normal equilibrium as the situation where agents lack any incentive to change their behavior (De Vroey 1999 p119)⁸. Market-day and normal equilibrium therefore correspond to plain and final states of rest.

Kirzner's views on partial equilibrium are interesting because he claims that plain states of rest only relate to consumer sovereignty, and are not central to the market process.

Kirzner is correct in noting that plain states of rest generate prices that reflect consumer interests, but this is central to the market process. The process of shifting equilibrium yields greater efficiency over time in part because markets serve consumer interests, instead of the interests of bureaucrats, dictators, or political interest groups. It is wrong to see consumer sovereignty as separate from market process theory. **The market process** of shifting equilibrium represents continuous striving *in the service of sovereign consumers*.

Salerno (1993) has the basic elements Mises' theory correct. Plain states of rest "are realized prices ... they are ... market clearing prices the establishment of which coincides with the momentary situation" (ibid p121). Salerno goes on to note that changing economic conditions prevent plain states of rest from reaching a final state of rest. But Salerno is of the mark when he claims that even though plain states of rest are market clearing prices "they are also disequilibrium prices". The condition where supply equals demand *is* equilibrium in the normal sense of the term as used by economists. Plain states of rest represent temporary equality of supply and demand, as well as partial intertemporal coordination. It is quite correct to say that real markets clear without achieving complete intertemporal equilibrium. It is, however, misleading to say that markets clear without being in any kind of equilibrium. Plain states of rest represent *contentment* of market participants with the circumstances that

⁸ Marshall's concept of equilibrium is similar to that of Mises and Lachmann. Marshall's assertion that in final equilibrium we lack any incentive towards change differs little from Mises' idea that in a final state of rest action ceases due to the lack of felt uneasiness.

prevail at the moment of exchange. The fact that entrepreneurial plans are never fulfilled in the way they were originally envisioned implies that actual market prices deviate from the perfect prices of intertemporal equilibrium. However, the fact that the costs of production that led to any plain state of rest are *sunk costs* implies that actual market prices are optimal given the real opportunity costs that the entrepreneurs face just prior to the moments of agreement and exchange. Plain states of rest therefore constitute real equilibria based on satiety and the *temporary* cessation of action. Entrepreneurial action resumes at the moment when entrepreneurs start planning production for the next plain state of rest.

Kirzner (1999 p216) objects to Salerno's analysis on the grounds that Salerno implies that market prices are "the prices that ensure that resources are channeled to their most valuable uses". Kirzner notes that market prices are false compared to prices in the final state of rest. Market clearing prices are, contrary to Kirzner's claim, optimal because the losses that derive from discrepancies between plain and final states of rest consist of the *sunk costs* of previous hiring and investment decisions. Given the irrelevance of previously used capital and labor, market clearing prices are optimal *at the moment of exchange*. Entrepreneurs strive towards the unrealizable goal of final state of rest because they do not know how much of those possible gains from trade might be realized, and because they acquire knowledge in each plain state of rest. Market learning prevents repeated error, but changing conditions imply that new types of errors will emerge in each future state of rest.

There is no conflict between the ideas of *temporary* market equilibrium and striving in the market process. Of course, if we think of entrepreneurial striving as ceaseless, then there is no room for equilibrium in the market process. But the idea of *ceaseless* action is as unrealistic as is Walrasian theory. Plain and personal states of rest actually exist, so any realistic theory of market process must include these equilibrium concepts with human action.

Salerno underestimates the importance of Hayek's equilibrium analysis. Hayek's analysis of rent control also suggests a specific approach to policy analysis. In Hayek's analysis, rent control creates stable *disequilibrium* market prices and personal states of rest simultaneously. The existence of personal a states of rest without price flexibility indicates the absence of any process that improves economic conditions. Hayek posits a policy induced imperfect-persistent plain state of rest that causes intertemporal disequilibrium. Such a persistent state of rest is clearly derives from a set of *personal* equilibria. Who then can act as an entrepreneur to bring about Kirznerean price changes? Successful political entrepreneurship requires that some authority experience a *profit driven and price informed* disturbance to their personal state of rest. How does this happen? The Mises-Hayek theory of shifting equilibrium is necessary to understanding government failure, not merely in the neoclassical sense, but in the dynamic Austrian sense that is required for understanding issues of transition and reform. Hayek should be seen as taking Misesian equilibrium analysis a giant step forward by incorporating personal states of rest into Mises' theory of shifting equilibrium.

While one might disagree with what Mises and Lachmann argue about the progressive nature of shifting market equilibria, it is clear that they conceived of the market process as a discontinuous shifting of imperfect equilibria, and not as a continuous or equilibrium-free process. Observed plain states of rest are imperfect, but what matters is a tendency towards improvement. The progressive character of the market process requires institutional mechanisms that make miscalculations apparent. Entrepreneurial rivalry in *well functioning* financial markets directs the market process towards improved plain states of rest. Mises, Hayek, and Lachmann arrived at profound insights regarding the capitalist system. Austrian ideas should therefore dominate professional opinion, yet the majority of professional economists remain unaware of the Mises-Hayek theory. Why?

Testing Austrian and Walrasian Ideas

The Austrian theory of shifting equilibrium is superior to the Walrasian theory of static equilibrium, yet it has had little sway on modern professional opinion. Walrasian economists often claim to understand Austrian economics, but it is not clear that they do. For example, Rosen (1997 p139) suggests that Austrian and Neoclassical economics differ because “Austrian economics deals primarily with the process of competition” and Walrasian economics deals primarily “with the determination of economic equilibrium”. Rosen also denies that Walrasians ignore dynamics.

“The whole point of describing how an economic equilibrium depends on given conditions is to infer how changing conditions affect the data. This forces the analyst to pursue a research strategy of looking for the fundamental sources of change. Neoclassical dynamics is basically represented as a moving equilibrium process rather than as an Austrian style perpetually disturbed disequilibrium.” Rosen 1997 p150

The above passage from Rosen is remarkable. Rosen refers to the Mises-Hayek concept of moving or shifting equilibrium, but somehow believes that Walrasians think in these terms. Where exactly have Neoclassicals spelled out a theory of moving equilibrium?

Rosen (1997 p151) suggests that Austrian economics has failed the market test. Yet he and his Neoclassical peers clearly misunderstand Austrian economics. How could Austrian economics have failed the “market” test of professional opinion when it has not been adequately explained? Also, what makes Rosen think that Walrasian theory is any kind of success? Walrasian general equilibrium theory is incapable of explaining the market process because it ignores the dynamic between personal equilibrium based on perceptions and exchange equilibria in actual markets that constitute the market process. Both of these types of equilibrium are absent from the Walrasian theory. Walrasian economic therefore fails the test of usefulness in real-world analysis. Walrasian economics fails not because it consists of equilibrium analysis, it fails because it does not carry equilibrium analysis far enough.

Walrasian theory fails because it omits the shifting equilibria that constitute the real market process. What better test is there than relevance in explaining real-world phenomena?

Yeager (1997 p 162-164) contests Rosen's claim that Austrian ideas have failed any actual market test, but he also characterizes Austrian and Walrasian economics as *complementary* theories of equilibrium and process. Yeager is correct in his rejection of Rosen's 'market test' for ideas. However, Yeager is mistaken in thinking that Walrasian and Austrian economics are complementary. The Mises-Hayek theory of shifting equilibrium is an *alternative* to the failed and misleading Walrasian theory. The Mises-Hayek theory of shifting incomplete equilibria explains real market dynamics, where an incomplete set of markets adjusts continually to changing market conditions.

Rosen's claim that Walrasians perform dynamic analysis cannot be taken seriously. Perhaps some Neoclassical economists think about "the dynamics of moving equilibrium" as they play with their models of final equilibrium, but this is a matter of no consequence. Mises, Hayek, and Lachmann established a true basis for understanding the dynamics of the capitalist system with their theory of shifting equilibrium. Of course, one might disagree with Mises and Lachmann regarding the degree of efficiency in financial markets. But the Mises-Hayek theory of shifting equilibrium driven by financial speculators is internally consistent. This theory deserves attention because it offers a consistent and insightful understanding of the market process. Furthermore, the lack of anything like the market process of shifting equilibrium in the public sector says much about the resilience of defective government programs and policies. Our understanding of markets and government affects professional and public opinion, and with it the institutional structure of society⁹.

⁹ As Hayek (1935[1948] p128) put it "it is not necessary, for the working of the price system, that anybody should understand it. But people are not likely to let it work if they do not understand it."

Summary and Conclusion

The process versus end states distinction is a meaningless distraction that has impaired the development and popularization of Austrian economics. The proper distinction is between the constructive equilibrium analysis of Mises and Hayek, and counterproductive equilibrium analysis by Walrasians. Austrians have invested much time and effort in arguing that professional economists should abandon market equilibrium analysis in favor of market process theory. This effort and time has been wasted because our past failures to interpret the Mises-Hayek paradigm correctly. It is a critical failure of the Walrasian paradigm that it ignores market processes, but we have failed to fully understand the Mises-Hayek paradigm. Walrasian optimization models underrate the importance of plain states of rest in analysis, *as does market process theory in its prevailing equilibrium-free conception.*

The prevailing form of market process theory has yielded some good insights, but the theory of shifting equilibrium has its own advantages. Neoclassical equilibrium theory cannot explain ‘market dynamics’ in the Austrian sense of that phrase, yet the idea of market clearing makes too much sense to ignore. The theory of shifting equilibrium allows for market clearing without assuming optimality or intertemporal equilibrium. Mises and Hayek were correct about the dynamic between personal equilibrium and market exchange equilibrium, as a process of movement towards final rest or intertemporal equilibrium. The Austrian theory of shifting equilibrium is a better way of thinking about markets. The idea that personal and market equilibria disturb each other in a sequence guided by financial speculation makes the details of the market process more clear¹⁰.

¹⁰ There are rhetorical advantages to the Mises-Hayek theory. Equilibrium-free theory denies the widely held idea of equilibrium itself. The popularization of equilibrium-free market theory has achieved little past success. Market process theory need not be seen as a replacement for equilibrium analysis; it can be seen as a better way of doing equilibrium analysis. Neoclassical might be more receptive to the idea that we need to think differently about equilibrium. They could hardly be *less* receptive to this Austrian idea than they have been in the past.

Austrian equilibrium analysis supercedes Walrasian equilibrium analysis in both quantity and quality. Mises, Hayek, and Lachmann made better and fuller use of equilibrium constructs than have Walrasians. So should we. Instead of attacking equilibrium analysis, we should promote more extensive use of equilibrium concepts by explaining the market process as a series of shifting equilibria. Instead of rejecting market equilibrium analysis, we should promote the superior type of equilibrium analysis performed by Mises and Hayek.

Mises and Hayek held a broader view of markets where rivalry and endogenous learning shift us from one plain state of rest to the next. Walrasian theory merely assumes learning and entrepreneurial action that forms a new equilibrium, and focuses instead on exogenous disturbances. The forces that “disturb” an initial equilibrium are the central focus of Austrian analysis. The Austrian theory entails endogenous change, whereby entrepreneurial action in financial markets disturbs equilibria successively. Walrasian theory lacks any internal mechanism for change because it focuses on *final* equilibrium. Rosen sees that we must explain prices in terms of a process of shifting equilibrium, but he overlooks entrepreneurial rivalry in financial markets as the mechanism for such change.

How can we expect positive reforms to prevail if public opinion is under the sway of professional economists who fail to appreciate the actual market process? The Austrian theory of shifting market equilibrium is *the* alternative to Walrasian theory. Milton Friedman once said that there is no such thing as Austrian economics, there is only good and bad economics. We should accept Friedman’s statement as true, but only after realizing that the Austrian theory of shifting market equilibrium is good economics, and Walrasian theory of stationary or final equilibrium is not.

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