# AUSTRIAN ECONOMICS AND THE MARKET TEST REEXAMINED

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he efficacy of the decentralized market process is perhaps the foremost contribution of Austrian economics. But if Austrians are correct about the performance of spontaneous order processes, the paucity of Austrian economists in academic positions seemingly undermines their methodological critique of neoclassical economics. Whether Austrian economics has faced a valid market test remains an issue of continuing controversy, as the exchange between Rosen (1997) and Yeager (1997) illustrates.<sup>1</sup>

In this paper I examine when a market can be appropriately said to offer a "test" of products and whether Austrian economics has faced a meaningful market test. In essence this paper explores the question of inefficiency in spontaneous orders. Do all spontaneous order processes perform well? Economics catalogues causes of "market failure," but the catalogue is based on end state or equilibrium theorizing, that is, comparing the end state attained by the market with Pareto efficient states. The theory of market failure has been criticized by many; from an Austrian perspective, end state welfare economics is irrelevant when the economy does not reach an equilibrium. But this leaves unanswered whether all spontaneous order processes perform well. If spontaneous orders necessarily perform well, the conclusion that the profession has judged Austrian economics inferior to neoclassical economics seems unavoidable.

I begin by discussing when markets offer a test, since as Yeager (1997) points out, markets have never been defended as arbiters of truth or beauty.<sup>2</sup>

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<sup>&</sup>lt;sup>1</sup>Alternatively Austrian economics' market share might be due to the limits of the Austrian approach, as stated by Cowen and Fink (1985) and Caplan (1999). Thus whether Austrian economics has faced a valid market test takes on greater significance.

<sup>&</sup>lt;sup>2</sup>I follow previous writers in using the term market test and recognize that the term is used metaphorically, since the market is nothing more than the aggregation of many human actors. The market test refers to these choices in the aggregate.

A market test applies best in a common value setting, or when the value in question has an objective component as opposed to being purely subjective. I argue that economic research meets this criterion. Academic research is a decentralized process, with over 100 departments granting Ph.D.'s in the U.S. alone, and hundreds of journals. No government board certifies curricula or establishes the reputation of journals.<sup>3</sup> Instead the interaction of thousands of economists determines what is published and taught. Thus Austrian economics seems to face a market test.

Careful examination of the common value framework identifies three important assumptions which must be met for Austrian economics to have faced a powerful market test: Economists must make informed, independent choices among methodologies with knowledge or understanding of the economy as their research goal. An economist's choice of neoclassical over Austrian methodology is a strike against Austrian economics only when all three of these conditions are met. I then discuss whether a significant portion of the economics profession meets these conditions. I conclude by returning to the question of inefficiency in spontaneous order processes generally. I offer one characteristic which might distinguish academic and economic spontaneous orders, the lack of property rights to methods or schools of thought. The lack of ownership of the superior method might explain why the economic research market might remain locked into a poor state of affairs longer than an economic market.

#### IS ECONOMIC RESEARCH A MATTER OF TASTE?

Can economic research validly be subject to a market test, or equivalently, does society learn anything of value from the choices of economists among schools of thought in economics? Yeager argues that the market does not arbitrate truth or beauty:

Since when, anyway, was the market, even the actual business market, the arbiter of excellence in consumer goods, literature, art, music, science, or scholarship? Since when does the market decide truth or beauty? A particular good or service passes a rather literal market test if the quantity produced finds buyers willing to pay at least its full costs. . . . Success in a market niche, even a large one, has no deeper significance. (Yeager 1997, p. 161)

<sup>&</sup>lt;sup>3</sup>Although no government board certifies economists, government grants can assist an economist's career and improve prospects for tenure. The role of grants in economics is much diminished in economics as opposed to engineering or the natural sciences where grants sustain labs and allow research. Most research in economics can be done without grant support, and the majority of papers published do not acknowledge government grants.

### Anderson takes the argument further:

Instead, as noted above, there are numerous models [of cars] built to satisfy a myriad of market demands. Ford does not fail the "market test" because not everyone wants to purchase a Taurus. Likewise, Austrian economics has not "failed" because there are many in the profession who reject the praxeological paradigm. There is an active group of economists and other scholars who accept Misesian thinking, which demonstrates that Austrian economics has at least some appeal in this "market." (Anderson 2000, p. 69)

Some product choices inform us only about consumers' preferences. The distribution of sales of ice cream does not reveal the best flavor. Sales of music or books tell us nothing about which of today's music or novels will ultimately be judged the best. These products, however, merely satisfy consumers' tastes. Some products have an objective component of quality, and the choices of consumers, particularly knowledgeable consumers, convey information about their experience with the product. If I were to go skydiving, I would want a parachute that would work. My subjective preference to skydive with a parachute made out of tissue paper will not make this parachute work. That many consumers continue to ship overnight packages with Federal Express reveals that they have found their service satisfactory, and I can use this information the next time that I have a package to ship. That few people travel across the United States today via rickshaw or passenger train provides would-be travelers relevant information.

Is economic research like ice cream or parachutes? I contend that it is more like parachutes, and that the choices of economists about how to do research provides society with some potentially useful information. The performance of economies is objective. Thus if we undertake economic research with the goal of understanding how economies function, this understanding can be correct or incorrect. Central planning does not work well, whether in the former Soviet Union, China, North Korea, Cuba, or the Bureau of Indian Affairs. Would it be valid to say that Marxist economics has passed a market test because as long as some economists still happily research in this tradition and believe that they understand why central planning is superior to markets? Would citizens be wise to accept Marxist policy advice just because the school of thought had not totally gone out of existence? Should Marxist economics be put on an equal footing with all other schools of thought for policy purposes? The objectivity of the performance of economies endows economic research with an element of objectivity. By contrast, many consumer goods produce only subjective satisfaction of the consumer. Pure consumption goods involve only the satisfaction of consumer preferences and there is no disputing taste (Stigler and Becker 1977), even if somebody prefers Britney Spears to Beethoven.

Economic research is more like medicine, nutrition, and transportation, where nature affects utility. A person may want to cross a river on a raft made

of bricks, and she may buy a brick raft for this purpose, but wishing will not keep the raft afloat. For these goods customers' purchases, and in particular repeat purchases, reveal information about their objective quality. Citizens seeking guidance on matters of economic policy can learn from economists' choices about how to study economics and their conclusions, just as consumers can learn about the performance of brick rafts by examining their share of the market.

Research for the individual economist has a substantial element of pure consumption, and many of us do research in part for enjoyment. Austrian economists may be perfectly happy to continue their research. But this does not eliminate the dual goal of trying to understand the economy. To the extent that knowledge is the goal, economists will do research within the Austrian, neoclassical, or Marxist School only if they believe this approach will produce knowledge. Economists' choices about how to do research reveal whether they think Austrian economics (or other schools of thought) helps them understand the economy. To demonstrate the value to society of these choices, suppose a billionaire decides to leave \$5 billion to support economic research, and she cares only that the research actually advance our understanding of how economies perform. Thus the donor wants to give the money to the school of thought most likely to advance our knowledge. If the donor has no knowledge of economics herself, the number of adherents of various schools provides some information on how to direct the gift.

#### Information Aggregation and the Market Test

Information aggregation from imperfect yet informed choices provides the ultimate basis for the market test of Austrian economics, and also the value of peer review. As Laband and Tollison (2000, p. 43) put it, "To be relevant in any meaningful sense to a community of scholars, scientific truth cannot simply be self-evident. It is not enough for the individual *qua* scientist to maintain that he has been enlightened and *knows* the *truth*." The insight applies to both pieces of scholarship and the choice between methodologies. Members of the lay public cannot uncritically accept any economist's claim to fully understand how the economy works.

Assume that every economist seeks to understand the economy and chooses the method of inquiry which he or she thinks is most likely to produce understanding. No one knows for certain which method will work best, or at least the economist who does know cannot credibly signal this knowledge. Any one economist may fail to choose the best method—no one will know all the recent progress others have made with a certain method of inquiry, or some economists might place idiosyncratic value on certain types of insights. Each economist's judgment in selecting a method is imperfect, but the evaluations are also expert in that a professional economist's probability of selecting the best exceeds the noneconomist's probability.

The increase in probability of selecting the best method for experts may be small, which creates value in aggregating the choices of experts. Suppose economists choose between Austrian and neoclassical methods. An expert may have only a .52 probability of selecting the correct method, compared to a .50 probability for a nonexpert or coin flip. With a large enough sample size, though, the probability that a large majority would choose the inferior method quickly approaches zero. For example, suppose that 90 percent of 10,000 professional economists subscribe to neoclassical methods. The probability that 9,000 out of 10,000 experts choose neoclassical economics when each is more likely to choose Austrian economics is essentially zero. While not necessarily correct, expert consensus is less likely to be wrong than any one economist.

This statistical framework provides the underlying logic of the market test. The minority position of Austrian economics seemingly demonstrates that economists do not find its method of value. Rosen (1997, p. 151) implies this when observing, "What is the fact that neoclassical economics has scored higher than Austrian economics on the evolutionary/survival test telling us?" Austrian economics' minority position should cause the benefactor described above or a young economist beginning her career to think carefully if leaning toward Austrian economics.<sup>4</sup> If an overwhelming majority of economists choose neoclassical economics, it would seem that Austrian economics has failed the market test.

Austrian economics may not have faced a very powerful test. The market test for academic research is based on assumptions, like any economic model. The market test views economists' choice of method as Bernoulli trials. In practice this analogy will be valid only if an economist's choice of method meets three conditions: (1) the choice must be informed, meaning the economist must be reasonably knowledgeable about both Austrian and neoclassical economics; (2) the choice must be the economist's own independent judgment and not merely parrot a colleague's dismissal of Austrian economics; and (3) the choice must be based on which method is more likely to bring understanding about how economies operate, as opposed to professional rewards. If one (or more) of these assumptions is violated, an economist's choice of methods carries no weight. If only a small percentage of economists' methodological choice satisfy these conditions, Austrian economics will have faced a modest test. But if Austrians cannot convince any of their peers of the value of their method, this is a strong indictment.

<sup>&</sup>lt;sup>4</sup>I do not disagree with Yeager's (2000) point that the market's judgment is no substitute for individual judgment. Market judgment is just the aggregation of individual judgments, and if each of these judgments is poor, the aggregate choice is poor as well. A difference of opinion with a majority of professional colleagues, however, suggests the wisdom of double checking your reasoning.

#### RESEARCH FOR UNDERSTANDING OR REWARD

I wish to discuss the third assumption above, whether a search for the truth motivates research, first. Clearly understanding how the economy operates is not the only goal for research. As Yeager (2000, p. 52) writes, "Scientific or scholarly or academic life has at least two strands. First is trying to find and communicate truth or knowledge. Second is the academic game itself—the pursuit of prestige, admiration, and money." Academic standing involves both monetary and career goals, the value of publications in prestigious journals as a means to land academic positions, earn tenure, and a higher salary as well as esteem and respect from other economists. The components of academic standing often coincide, with highly respected scholars more likely to earn tenure and receive high paying job offers; but the correlation is not perfect. Academic standing is an extrinsic or external goal, while knowledge or understanding is a personal or internal goal.

Research for external goals succeeds only if favorably received by other economists, particularly journal editors, referees, and hiring committee members. In the terminology of network goods, the academic standing of research has synchronization value (Liebowitz and Margolis 1999). Its value depends on the number of other economists who attach value to this research. If the vast majority of economists value model building and econometric testing, research for extrinsic rewards must be synchronized accordingly. Nonconforming research will bring fewer of the intended external rewards. Continued domination of the top journals by neoclassical economics, once established, can be stable, and research performed to earn tenure and salary increases (the "tenure articles" Boettke [1994] discusses) can serve its purpose even if the author does not believe it advances our understanding of how the economy operates.<sup>5</sup>

Network effects provide one potential defense of Austrian economics against the market test. The majority of economists might agree that Austrian economics provides the superior method but remains locked in to inefficient neoclassical economics. Austrian economics would be like the Dvorak keyboard in the conventional view of network effects (David 1985; Arthur 1989), unable to supplant the QWERTY keyboard despite its superiority.<sup>6</sup>

I do not find the lock-in argument persuasive, for two reasons. First, it downplays the quest for knowledge as motivating any economists other than Austrians. Lock-in requires that synchronization value be large relative to intrinsic value for the majority, or that most economists value academic

<sup>&</sup>lt;sup>5</sup>Conforming to neoclassical economics could provide economists with additional external benefits. For instance, neoclassical economics provides rationales for more government interventions than Austrian economics, increasing the policy relevance of one's research. Neoclassical research might also be more amenable to consulting activities.

<sup>&</sup>lt;sup>6</sup>Of course Liebowitz and Margolis (1990) demonstrated that the conventional view of the efficiency of the Dvorak keyboard was incorrect.

rewards more than knowledge. The minority of Austrians in the profession, 3 percent if we accept Vedder and Galloway's (2000) estimate, are those who value knowledge and understanding over professional rewards. This is a presumptuous assumption, and one not likely to lead to productive exchanges of ideas in the future.<sup>7</sup>

The assumption also seems highly questionable. While publishing in top journals brings financial rewards, the rewards are modest compared to alternative career paths open *ex ante* to top academic economists. These persons could have chosen careers in business, law, medicine, architecture or other fields and likely earned salaries far in excess of top academic economists. A career in economics must have prospectively offered comparable satisfaction as these more remunerative careers. Lifestyle and the opportunity to influence students would be part of the equation, but intellectual curiosity must also motivate many. On the margin career incentives might push one to synchronize research, but many non-Austrian economists will want to understand the economy as well.

Second, lock-in discounts the role of tenure as well as the support and rewards for research that many colleges and universities, and not just top research universities, offer. These characteristics of the academic market support iconoclastic scholars seeking understanding against the prevailing intellectual tide. Tenure has long been defended on grounds of academic freedom which might be a smokescreen to facilitate shirking by faculty (Sykes 1988)—but a professor upon receiving tenure still has the majority of his or her career remaining. Job security and little possibility of downward salary adjustment reduce the cost of pursuing dissident research, including Austrian economics. And while top ranked departments offer the most prestige, many universities have modest teaching loads and endowed professorships for research. The superstars of the economics profession might find the financial cost of drifting from the mainstream quite considerable, but this is not the relevant standard. The median tenured professor at a research university—an economist who is unlikely to be the object of bidding wars between departments—faces a much lower cost of pursuing dissident research. Surely if many economists thought neoclassical economics was a dead end, some would value knowledge enough to pursue Austrian research.

Indeed, Austrian economics offers its own rewards, including endowed professorships. At many universities, including even some research universities, quantity of scholarship can substitute for quality as measured by publications in "top" journals. Austrian economists tend to be very productive, undoubtedly due to the value Austrians perceive in their research. The median

<sup>&</sup>lt;sup>7</sup>If Hayek (1944) could grant that socialists had the well-being of humankind as their motivating goal, modern day Austrians should grant (at least for debate) that neoclassical economists care about truth and understanding.

economist, if truly dissatisfied with neoclassical economics, might attain both academic standing and understanding by embracing Austrian economics.

#### INFORMED CHOICE OF METHODOLOGY

The market test requires informed judgments. An economist must know about Austrian economics for their choice of neoclassical methodology to reveal something about its relative value. The market test certainly loses much power due to uninformed judgments. Very few U.S. Ph.D. programs offer even one class on Austrian economics, and thus a large percentage of economists lack sufficient information to have made an informed choice. An economist who has never heard of Mises or Hayek cannot be said to have judged Austrian economics inferior to neoclassical economics.

The mainstream's lack of knowledge about Austrian economics almost cannot be overestimated. Anderson (2000) recounts a talk given by Sherwin Rosen, who authored the neoclassical side of the exchange about Austrian economics in the *Journal of Economic Perspectives*:

I was especially gratified when Rosen began his talk by saying he would be speaking about Austrian economics. However, as the speech went on, it became clear that Rosen had no idea what Austrian economics was and certainly had no grasp whatsoever of the praxeological paradigm. . . . When one person in the audience asked Rosen about Ludwig von Mises' *Human Action*, Rosen replied that he had not read the volume because it was "too difficult."

Apparently the editors of the *Journal of Economic Perspectives* could not even find a prominent mainstream economist knowledgeable about Austrian economics to engage in their debate.<sup>8</sup>

A lack of graduate course work in Austrian economics does not preclude an informed judgment. Economists might come across Austrian ideas in a variety of ways, say through the work of the Mises Institute, Hayek's Nobel Prize, discussions of the collapse of socialism, or sessions organized by the Society for the Development of Austrian Economics at the Southern Economics Association. Once tenured, economists dissatisfied with mainstream research could wander into Austrian scholarship on their own. Students might be also familiar with Austrian economics before going to graduate school. Indeed an interest in Austrian economics draws many students to graduate study in economics.

<sup>&</sup>lt;sup>8</sup>As Block (2000) points out, the editors of the *Journal of Economic Perspectives* also chose Yeager, who is only a self-described Austrian "fellow traveller," to write the counter to Rosen's article. Presumably at least one participant in an exchange on Austrian economics should be an Austrian economist.

How much knowledge of Austrian economics qualifies for an informed judgment? The threshold for informed choice could be set sufficiently high to disqualify any non-Austrian from being in position to make an informed choice. In the limit, any economist who has not spent his entire career reading and studying Austrian economics could be classified as not being knowledgeable enough to render an informed judgment. In this way, all informed choices by economists would trivially be for Austrian economics. Assuring that Austrian economics tautologically passes the market test in this fashion, however, renders the victory hollow.

Lack of information about Austrian economics weakens the power of the market test. Suppose for example that 3 percent of 10,000 economists were Austrian, but that 90 percent of economists did not know enough about Austrian economics to be said to make an informed choice. Austrians now comprise 30 percent of those who have made an informed choice, which is a much more impressive share of the market. The market test analogy is not invalid, only the number of judgments and thus the power of the test is reduced (probably very considerably) from first appearances.

#### INDEPENDENT CHOICES BY ECONOMISTS

The market test also requires that an economist's choice of methodologies must represent his independent judgment of relative value. An economist's choice of neoclassical methodology cannot merely reflect the opinion of his professors or colleagues. Clearly many dismissals of Austrian economics reflect the judgment of others. Lack of independence further weakens the power of the market test.<sup>9</sup>

Independence can be violated in another way. My discussion presumes that an economist's evaluation is independent of the order in which he or she learns about methodologies. But this may not be the case. The assessment of value of the method may depend on which school of thought one learns about first, with individuals more likely to choose the method in which they learn economics, for several reasons. People may come to believe what they learn first is *the* way to do economics or be unable (or at least be less likely) to appreciate the value of the alternative method. Economists make nontransferrable investments in human capital (reading Mises and Böhm-Bawerk or studying real analysis) which would be lost if switching methods, and these costs may subtly but inevitably bias one's judgment about the methods. Finally selection effects in the training of neoclassical (or Austrian) economists might make the individuals who acquire the training unreceptive to the alternative methodology.

<sup>&</sup>lt;sup>9</sup>Many economists sympathetic to markets and potentially interested in Austrian economics might have read or heard assessments of Austrian economics by Milton Friedman or James Buchanan and then decided not to pursue Austrian economics further.

Suppose that an economist exposed to both neoclassical and Austrian economics during his training is 60 percent likely to choose Austrian economics. Thus Austrian economics would pass a fair, informed, independent market test. But this percentage may not be the same for persons who learn Austrian economics first and then become exposed to neoclassical economics or viceversa. A person trained in Austrian economics first might be 90 percent likely to choose Austrian economics, while a person who learns neoclassical economics first might be only 20 percent likely to choose Austrian economics *if* later exposed. Austrian economics wins the "fair" market test, yet we rarely observe this category in the world.

Of particular significance for Austrians are economists versed in Austrian economics who abandon the school and choose mainstream research methods. Boettke and Prychitko (1994, p. 291) describe the case:

Faced with tremendous—and still growing—pressure to meet the formal, positivistic canons of the mainstream, Ph.D. candidates and especially untenured economists still committed to free market liberalism tend to switch their human capital to neoclassicism, to create and maintain a relative degree of professional respectability and acceptance. For example, for all its free market aura, the Chicago School has nevertheless enjoyed much greater respectability within the profession compared to the Austrians. Time and again young intellectuals born from the ideological womb of Austrian economics mature years later as scholars in the halls of the University of Chicago or UCLA. Reswitching back to Austrian economics seems all too costly once one's professional reputation has been established.

These individuals made informed choices for neoclassical over Austrian economics and constitute the real power of the market test and the most troubling category for Austrians to explain.

Selection effects might render a fair and independent market test after people learn mainstream methods impossible. Earning a Ph.D. in economics today, particularly at a top ranked department in the U.S., requires considerable proficiency in mathematics and statistics. Students with insufficient math training prior to or during their graduate career will have difficulty earning a Ph.D. in economics. Those who make the investment may be less than enthusiastic about Austrian economics' devaluation of mathematics and statistics. Additionally economists with a background in mathematics may have different values. Instead of desiring to understand how economies operate, they might care about interesting applications of mathematics, that is, mathematical as opposed to economic puzzles. Thus selection effects can undermine the independence and pursuit of understanding assumptions of the market test.

The extent of math selection bias is an empirical question. To gather evidence on this point, I examined the backgrounds of 2004-05 job market candidates of 20 top U.S. Ph.D. programs. I noted the field of each job candidate's bachelor's degree and whether he held advanced degrees in a field other than

economics. <sup>10</sup> Students with an undergraduate or graduate degree in math or statistics might not value understanding the economy. I also tracked students with undergraduate degrees in engineering or other physical sciences since they also may lack an intrinsic interest in economics. Clearly some students with degrees in math or engineering or physics become interested in economics later in life and change their career based on their newly discovered interest. These individuals may have a greater curiosity about economics than economics majors who go to graduate school to avoid having to get a job after college. And some cross-disciplinary migration is undoubtedly valuable for economics, as well as other disciplines. Thus the percentages I calculate provide an upper bound on economists whose interest is not economics.

Examination of the web pages of these top departments identified 358 job candidates, with the number per department ranging from eight to 30. This may not be an inclusive list of all students from these departments completing their degrees that year, but it should provide a representative sample of the backgrounds of young economists who will shape the field as referees, journal editors, and dissertation supervisors in the years to come. The calculations exclude 26 job candidates who did not list their undergraduate degree or major field. Over three quarters of job candidates, 252 (75.9 percent), listed economics as their undergraduate major (or one of their majors in the case of double or triple majors). Sixty two candidates, a substantial minority, listed mathematics or statistics as their undergraduate major (18.7 percent). Half as many, 31 (just under 10 percent) reported an undergraduate major in the sciences or engineering. Twenty job seekers reported holding a master's degree or Ph.D. in math or statistics, a little over 5 percent of job seekers.

The characterization of these numbers is a matter of interpretation. The majority of new economists in this sample have an undergraduate background in economics and thus likely an interest in economics. A substantial minority have a background in math or statistics, and thus their interests may be predisposed against Austrian economics. A substantial minority have been fairly judged by these individuals.

<sup>&</sup>lt;sup>10</sup>I used Tom Coupe's ranking of economics departments, available on-line at http://student.ulb.ac.be/-tcoupe/ranking.html. The top 20 departments in his ranking in order were: Harvard, Chicago, Penn, Stanford, MIT, Cal-Berkeley, Northwestern, Yale, Michigan, Columbia, Princeton, UCLA, NYU, Cornell, Wisconsin, Duke, Ohio State, Maryland, Rochester, and Texas. The search was made in November 2004.

<sup>&</sup>lt;sup>11</sup>Some job candidates had majors in "quantitative economics" or "econometrics." I counted these as double majors of economics and math/statistics. The remaining students reported undergraduate degrees in business, social sciences, or humanities.

<sup>&</sup>lt;sup>12</sup>In addition, the high proportion of international students pursuing graduate study in economics (about 75 percent of new doctorates on the job market in recent years) undoubtedly shifts emphasis in the graduate curriculum toward math and statistics.

#### CONCLUSION: MARKET PROCESS FAILURE?

The economics profession or society at large cannot accept truth claims about economics and policy from any economist at face value. Claims by an economist, however sincere, that he or she fully understands how economies operate do not suffice to appoint this person economic policy tsar. Peer review and consensus provide indispensable means, particularly for nonexperts, by which to judge rival economic theories (Huber 1991). A lone scholar who cannot convince any of his fellow economists of the validity of his unique theories can be safely dismissed as a crank, even though the dissenter may eventually be vindicated. The same point applies to methods to study the economy.

Economists interested in learning about how economies operate should seek to employ the method that seems most likely, *ex ante*, to provide this knowledge. They will evaluate different methods based on their coherence and results others have obtained. Choices by economists to gravitate toward and remain with different schools of thought reveal the perceived value of the different approaches. This constitutes the best sense of the market test which Austrian economics is alleged to have flunked. A majority of adherents does not prove a method is necessarily best, and no economist should subjugate his or her judgment to others. Nonetheless, a majority also provides information of value to society and economists.

The market test requires that the judgment of economists among methods must be independent, informed, and based on the prospects of producing knowledge, conditions which are not often met. Austrian economics' 3 percent market share (Vedder and Galloway 2000) looks small if 97 out of 100 economists making informed judgments choose against Austrian economics. Can this market share be reconciled with a majority of economists making a fair judgment choosing Austrian economics? I hazard assigning probabilities to the above cases, but it is quite likely that only 5 percent of research economists meet all the conditions required to have exercised a valid judgment on Austrian economics. If three out of five economists making an informed judgment choose Austrian economics, Austrian economics can pass the fair market test and still have a 3 percent market share.

The larger question becomes why the economics profession remains committed to neoclassical economics and what this implies about the efficiency of spontaneous order processes. Lock-in due to network effects would be the neoclassical source of market failure that appears to plague the academic research market. The theory of market failure is based on neoclassical, end state equilibrium theorizing; market failure involves a demonstration that the

<sup>&</sup>lt;sup>13</sup>To illustrate, suppose 20 percent of economists have a background and intrinsic interest in math and will never choose Austrian economics. Of the remaining 80, 75 percent never become informed about Austrian economics, and half of the 20 who learn about Austrian economics value academic standing over understanding. Five of the remaining ten make an independent judgment.

equilibrium state does not coincide with an optimal end state. End state market failure analysis is meaningless if the economy is a process which does not reach any given end state. Network effects, though, are a more process oriented source of market failure because they do not specify a final state for the economy. Instead, lock-in explains why the process might get stuck in a less desirable state. Models of competition in markets with network effects, though, do rely on equilibrium theorizing. Thus the market failure view of network effects leaves out important elements of the dynamic market process. Liebowitz and Margolis (1999) argue that the missing dynamic component of lock-in models is entrepreneurial action on the part of the owner of a superior technological standard who profits if his technology is adopted despite lockin. Here we have perhaps an important difference between the market economy and the academic research market. In traditional markets, standards or products are owned, while in the academic market theories or schools of thought are unowned. The owner and developer of a computer operating system superior to Microsoft's Windows might end up replacing Bill Gates as the richest man in the world if lock-in effect can be overcome. Austrian economists would certainly benefit if neoclassical economics could be dethroned; indeed Austrian economists might become the object of the bidding wars for today's superstar economists (Aeppel 2005). But this would be similar to the many programmers who would benefit from learning the new computer operating system before it displaces Windows. No one economist or firm owns the Austrian brand and would be able to capture a sizeable portion of the gains. Although history matters in all types of spontaneous order processes, processes like science or language without proprietary standards might perform differently and not as well as the market economy.

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