

I. Introduction

It is a great honor for me to have this opportunity to speak at this great institution of economic education and research, and on this occasion to honor F. A. Hayek --- a scholar who I admire greatly as a man of keen intellect and courage. Hayek's scholarly career spanned from the 1920s to the 1980s, and he had appointments at several universities, but the LSE was the school where he taught at for the longest period, and where his own ideas took shape. I want to thank the staff at LSE for coordinating my visit, Professor Tim Besley for being a gracious and welcoming host, and Mr. Toby Baxendale for his respect for the ideas of the LSE tradition of Cannan, Robbins, Plant, Hayek, Coase and P. T. Bauer, and for his vision of how these ideas can be revitalized and advanced at this great institution of higher learning to both improve our understanding and realize a freer and more economically prosperous state of affairs in Britain and abroad.

I have chosen as my topic "Hayek and Market Socialism," and I have done so for a variety of reasons:

- (1) It is in this debate that Hayek's research program in philosophy, politics, and economics emerged;
- (2) Hayek's main contributions to this controversy were written while he was here at the LSE;
- (3) The topic is not an example of 'beating a dead horse' because the subtlety of Hayek's argument is not fully appreciated and its relevance to contemporary debates in public policy is not generalized recognized.

In the interest of being completely frank, I should add that I also recently had occasion to revisit this episode in Hayek's career for a series of professional publication opportunities.²

¹ Tim Besley has informed me that the LSE can count among its students and faculty 9 individuals who have eventually been awarded the Nobel Prize in economics and that many of these individuals did their cited work while at the LSE. However, none received the prize while still in residence at the LSE. This number may in fact be the highest number of any school and would be rivaled only by the University of Chicago.

² I have been invited to write a chapter for a book that will be published by Cambridge University Press on Hayek's contribution to the debate on market socialism, I contributed to a symposium in the European Journal of Political Economy on The Road to Serfdom, contributed a chapter to Norman Barry's Elgar Companion to Hayekian

The basic argument of my talk will proceed as follows:

- (1) Hayek's critique of socialism was grounded in his scientific understanding of economics.
- (2) Hayek's ideological commitment to liberalism was a consequence of his science, and not the other way around.
- (3) Hayek's position in this debate had direct policy relevance during his life, and it still has lasting relevance today for public policy. We must resist the general consensus that appreciates Hayek as an ideological icon, rather than as the source for a series of scientific propositions. It is my contention that if Hayek's scientific contribution were understood, then economics as a discipline would be transformed in both its theoretical and empirical orientation.

II. Background and Development of Hayek's Research Program

Hayek's research program is grounded in the teaching of Adam Smith and Carl Menger that sought to understand social order not as the result of conscious design, but as the unintended consequences of individual human action. In addition to the emphasis on spontaneous order, Hayek learned from Menger that individual human action is guided by the subjective valuations of individuals, and that the relevant valuations that individuals make is on the margin unit of the good or service that is the object of deliberation. Throughout Hayek's career the puzzle of how a social system transforms individual subjective perceptions into an overall social order which yields benefits far greater than any individual in the system intended would be at the center of his research efforts. In this regard, I don't believe it is an exaggeration to say that F. A. Hayek more than any other economist in the 20^{th} century pursued the Smithian research program in political economy and refined the invisible-hand style of reasoning that is the hallmark of the economic way of thinking.

After Smith and Menger, the next major influence on Hayek was Wieser and the notion of opportunity cost reasoning, and the question of the imputation of value. Wieser is usually credited with the development of the idea that the cost of any economic decision is the next best alternative foregone in making that decision. In addition, Wieser – following Menger – saw the production process as unfolding through time where the value of producer goods are derived from the consumer goods that are employed to service. This process of valuing producer goods is referred to as imputation. The value of a pig, for example, is imputed from the value of the ham sandwich that we desire to eat. In other words, value flows up from lower order goods to the higher order goods used in producing them, and a stream of goods and services flows down from high order goods to the lower order goods we consume. Hayek's early work in technical economics was precisely on this issue and as we will see it is through studying this process of imputation that he became sensitized to the

Economics on the theme of Hayek versus Neoclassical Economics, and revisited the socialist calculation debate as a response to a critique in the pages of *Critical Review*. I draw freely from this material in this talk and I want to thank my colleagues Peter Leeson (www.peterleeson.com) and Chris Coyne (www.ccoyne.com) from whom I have discussed with, learned much from, and worked with on these issues on several occasions over the past few years.

misleading influence of equilibrium theorizing with regard to the complexity of this economic adjustment process through time.

Another major influence on Hayek's economics was Wicksell and the Swedes, who at the same time as the Austrians, were focused on explaining the performance of the economic system through time, and in this regard emphasize the role of individual expectations in realizing economic coordination. Ex ante expectations guide individual decisions, and ex post realization lead to a realignment of behavior. Within a capitalist economy, intertemporal coordination is guided by the interest rate, and thus if the interest rate mechanism is distorted malcoordination will result and the economic system will underperform. Production plans will not mesh with consumption demands.

The final significant influence on Hayek, and the most significant I would argue, was Ludwig von Mises. The best way to understand Hayek, I have argued, is to see him as following up on the questions that Mises first posed about the economic system, clarifying those questions and providing more subtle answers to those questions. Mises's work on monetary theory and the trade cycle, the problems of socialism and interventionism, and the examination of alternative political and economic systems, all served as the impetus for Hayek's research program. The relationship between Mises and Hayek is misunderstood by friend and foe as they had intertwined research programs, but separate professional fates. But tonight is not the occasion to go into detail on this curious fact and its reasons.

So we have laid out the basic economic building blocks for Hayek's contribution to economic science by reference to the works of Menger, Wieser, Wicksell and Mises. In Hayek's hands, the various propositions that were developed by these thinkers were merged and led to a research program that emphasized three major points:

- (1) Economics must be conceived of as a science which studies <u>coordination problems</u>. It is the dovetailing of plans by economic actors that must result so that the complex social order can emerge as it unfolds through time. Incentives must be aligned between economic actors, and they must come to know not only what are the best opportunities currently available for mutually beneficial exchange, but continually discover new possibilities for mutual gain from exchange with others in the economic system.
- (2) Knowledge in a social system of exchange and production is dispersed among diverse and socially distant individuals and the ability of the system to achieve complex coordination is a function of its ability to mobilize this <u>dispersed knowledge</u>. The division of labor in society implies a division of knowledge, Hayek argued, and the private property market economy is the best means available for mobilizing and utilizing the dispersed knowledge in society to realize the complex coordination of economic plans that is the hallmark of advanced commercial society.
- (3) A market economy in order to be effective must operate within a <u>framework of liberal institutions</u> of governance that provide security of contract and stability of the legal framework. The rule of law is an essential component for economic progress, and the generality of law (as opposed to special privilege) provides the predictability required of economic activity to achieve an advanced state.

The common-thread in Hayek's research program is how economic actors learn how to coordinate their actions with one another to realize their plans in the most effective manner possible. In other words, not only does the market system align the incentives of economic actors to allocate scarce resources efficiently, it also is a learning system that prods economic actors to adjust their behavior to realize their plans in an ever more efficient manner as they proceed through time.

Hayek's debate with the market socialists was an ideal setting for these ideas to be brought into sharp focus.

III. Hayek's Contribution to the Economics of Socialism

The first point that must be made clear is that Hayek's starting point in the analysis of socialism is the acceptance of Mises's argument that rational economic calculation under socialism is impossible. But once we recognize this basic point, I want to suggest that we have to look at the subsequent development of Hayek's writings as a consequence of his recognition that despite the fundamental correctness of Mises's argument, it was not going to deter attempts by (a) economists inspired by socialism to answer Mises in theory, and (b) those in political power who are inspired by socialism to realize socialism in policy practice. In theory, this led to Hayek's essays on knowledge and competition as a discovery procedure (see Hayek 1948). In the realm of practical policy, Hayek was led to emphasize the unintended undesirable consequences of pursuing socialism and interventionism (Hayek 1944).

Hayek's argument, like Mises's, emphasized the evolution of the critique of socialism from incentives to information economizing, from the discovery of opportunities for mutual gain to the use of politics for predatory exploit when the rule of law is weakened. To see the evolution of the argument against socialism one has to put Hayek in the context of responding to the advocates of market socialism and the way that *they* in fact stated their argument. What Hayek sought to do was to grant his opponents as favorable a position as possible so that even if under those favorable circumstances he could demonstrate that their position would fail, then his argument would have maximum persuasive power. To a large extent, in retrospect, we must admit that this argumentative strategy had less success than what Hayek thought it would and has led some into misunderstanding his position on the multifaceted difficulties that socialism would face in practice.

The first level criticism of socialism is that <u>private property in the means of production</u> is a necessary condition for the coordination of economic activity. Private property provides economic actors with high powered incentives to husband resources effectively. Without private property, and the incentives that economic actors face will not be such to internalize the costs and benefits of decisions and as result economic decisions will not be as prudent as they otherwise would be. This argument is actually the oldest argument in the social sciences and philosophy against collective property arrangement and can be dated back to Aristotle's critique of Plato. Hayek was certainly not ignorant of this argument. But his emphasis was not placed on this because advocates of socialism sought to side-step the issue by postulating a change in the human spirit due to collectivization. Actors under socialism would not need to have economic incentives to guide their behavior their new nature would instead lead

them to make the most judicious use of resources as possible for the good of society. The incentive alignment problem, in other words, was assumed to be solved through the transformation of the human spirit. Hayek could counter this argument in one of two ways -- deny this transformation and thus have both sides talk past each other, or accept this assumption and then show that even under this assumption the means of collective ownership will not realize the ends of advanced material production. Hayek, as Mises did before him, chose this second path.

If incentives are not required for individuals to pursue the social good due to a change in human nature, then there still remains the question as to what exactly would be the correct actions required to achieve economic optimality and thus the social good. Here the argument moves beyond the incentive alignment question of coordination to the informational requirements of coordination. Once again private property plays a vital role because it is a precondition for exchange. The distinction between 'mine' and 'thine' permit the trading of goods and services and the establishment of exchange ratios. In an advanced economy these exchange ratios are expressed in monetary prices and they serve to economize on the amount of information that economic actors must process in making decisions. If the price of a good or service rises, then economic actors know that it has become relatively scarce and that they should economize on its use; whereas if the price falls, the good in question has become relatively more abundant and we can afford to use more of it. Price signals thus guide our behavior with respect to the use of resources available on the market. Relative prices economize on information and guide decision making.

At these first two stages of the debate, the main advocates of socialism were non-economists (a fact I will come back to in the next section) and Mises and Hayek were merely trying to communicate basic economic reasoning to individuals who portrayed an innocence of the subject. Informing these critics of capitalism about the problems of incentives and information seemed like a logical place to start. Both Mises and Hayek refused to battle over the ends of socialism and instead kept their argument to the claim that given the ends of socialism --- advanced material production and enhanced social harmony – that the means chosen – collective ownership of the means of production --- would be ineffective in achieving that end due to the problems of incentive alignment and information processing. Without private property in the means of production, economic actors would not have the incentive to allocate scarce resources effectively nor would they be able to rely on relative monetary prices to guide their production plans even if we assumed they were rightly motivated to achieve the goals of socialism.

In the process of laying out this basic argument, Mises and Hayek would be led to make stunning discoveries of the crucial features of the price system and the market economy. Mises would come to emphasize the fundamental role of economic calculation, whereas Hayek could come to emphasize how this process of economic calculation enables economic actors to discover, mobilze and utilize the dispersed knowledge in an economy. Don Lavoie (1985) argued that one must read Mises and Hayek's arguments as two sides of the same coin, and I follow him in this regard and will not dehomogenize their different contributions to the analysis of socialism.³ Mises emphasized how the ability to make rational economic

October 19, 2004 5

_

³ There is a significant literature that emerged in the 1990s attempting to sort out the important differences between Mises and Hayek on the analysis of socialism and I would recommend the reader to consider carefully

calculation is a necessary condition for coordinating the complex division of labor that constitutes a modern market economy. Hayek emphasize the knowledge that goes into these economic calculations and how economic actors come to learn of, acquire, and use this knowledge. The current array of relative prices provide *ex ante* information to economic actors that aids them in the planning of their economic activity, and profit and loss accounting provides economic actors with the *ex post* information that provides the required feedback to economic actors. The very discrepancy between *ex ante* expectations and *ex post* realizations sets in motion an adjustment process by economic actors where they learn how to better arrange their affairs. The lure of pure profit and the penalty of loss serve to direct economic activities through time, ensuring a tendency toward exchange and allocative efficiency, as well as generating economic progress through innovation. The tool of profit and loss accounting rewards and penalizes economic actors so that the gains from mutual exchange are continually being recognized and pursued by participants in the market economy.

It is important to emphasize at this moment that private property provides the institutional prerequisite for monetary prices, and monetary prices are a necessary input into profit and loss accounting. In other words, private property is not only important for addressing the incentive issues that classical philosophy and economics stressed, but is the institutional requirement which allows the dispersed knowledge in society to be coordinated and an advanced division of labor to be realized.⁴

For private property rights to be effective in serving their function as the basis of prices and thus economic calculation they have to be recognized and respected. When property rights are neither recognized nor respected, the economic system will become distorted. But in an unhampered market economy, the price system and the process of economic calculation will do all that can be reasonably expected from it to ensure the efficiency of economic arrangements and the constant prodding of economic actors to discover new and better ways to arrange their affairs. The recognition and respect of property rights is a function of the political infrastructure within which they are embedded. Politics must seek to restrain the use of power and the predatory behavior of both public and private actors. Unless the political system is so bound by strict limits on its behavior, property rights will not be sufficiently recognized or respected and thus the economic system will not be arrange as effectively as it could. Not only will economic coordination fail to materialize and thus arrangement will be less efficient than they could given the state of resource availability, technological possibilities, and consumer preferences, but the control of economic means will result in a loss of political freedom as well. Control of the economic means is not merely material control, but control over the means by which we pursue all our ends – even the lofty and spiritual ones.

the arguments by Joseph Salerno (1993) on this as I do believe he makes several valid points even if I ultimately push in a different direction. For my own position on the debate see my essay "Economic Calculation: The Austrian Contribution to Modern Political Economy" reprinted in my Calculation and Coordination (2002) and also my introduction to the 9 volume reference work Socialism and the Market (2000).

October 19, 2004 6

tl

⁴ Mises and Hayek, as we have seen, are both advocates of the private property market order and attempts to dehomogenize Mises and Hayek on the issue of private property and knowledge is mistaken.

Summing up, the argument made by Mises and Hayek can be said to progress from property right to prices to profit and loss and finally to politics. And the consequences can be summed up with the terms incentives, information, innovation and infrastructure. Without the four P's, the four I's will not emerge in a manner that would sustain an advanced economy. Secure private property rights provide the incentive to husband resources efficiently; a working price system will economize on the information that economic actors must utilize in arranging their affairs; accurate profit and loss accounting will teach economic actors about the appropriateness of their previous actions and direct them to innovate as they continually adjust their behavior to seek profits and avoid losses; and finally, a political system that wards off predation establishes a predictable infrastructure within which economic actors can realize the gains from exchange and protect their freedom to choose. The commitment to the liberal argument for limited government emerges as a consequence to their understanding of the operation of a functional market economy.

III. The LSE Contribution

The English language debate on the economics of market socialism largely took place between scholars associated with the London School of Economics.⁵ Of course, the debate was largely set off by Oskar Lange's response to Mises in 1936-1937, but it was published in an LSE journal and the impetus of much of the discussion was Abba Lerner. The LSE counter-reaction to the Mises-Hayek critique was to argue that socialist policy and economic and political freedom were compatible. Durbin (1945) actually stated: "We all wish to live in a community that is as rich as possible, in which consumers' preferences determine the relative output of goods that can be consumed by individuals, and in which there is freedom of discussion and political association and responsible government." He also adds that "We are socialist in our economics because we are liberals in our philosophy." Even Hayek's friend and comrade in the debate with market socialists Lionel Robbins (1947) came to argue that: "An individualist who recognizes the importance of public goods, and a collective who recognizes the desirability of the maximum of individual freedom in consumption will find many points of agreement in common. The biggest dividing line of our day is, not between those who differ about organization as such, but between those who differ about the ends which organization has to serve."

To Hayek the evolution of the argument in this direction must have seemed most puzzling and frustrating. In fact, it is my contention that the development of Hayek's research program over the next 40 years was not a consequence of him running away from economics, but of running deeper underneath economic argumentation to understand the source of the misunderstanding by his former students and colleagues. Reflecting on his research program in an essay in 1964 Hayek stated the following:

⁵ Coase (1988) has explained how his own work on the transaction cost theory of the firm emerged from the discussions in this debate, and W H Hutt (1940) actually coined the term consumer sovereignty during this time as well and points to *Collectivist Economic Planning* as one of the sources of inspiration. So the debate is important not only for the assessment of economic systems, but also forcing scholars to think creatively about the institutions of capitalism from a producer and consumer side.

Though at one time a very pure and narrow economic theorist, I was led from technical economics into all kinds of questions usually regarded as philosophical. When I look back, it seems to have all begun, nearly thirty years ago, with an essay on "Economics and Knowledge" in which I examined what seemed to me some of the central difficulties of pure economic theory. Its main conclusion was that the task of economic theory was to explain how an overall order of economic activity was achieved which utilized a large amount of knowledge which was not concentrated in any one mind but existed only as separate knowledge of thousands or millions of different individuals. But it was still a long from this to an adequate insight into the relations between the abstract rules which the individual follows in his actions, and the abstract overall order which is formed as the result of his responding, within the limits imposed upon him by those abstract rules, to the concrete particular circumstances which he encounters. It was only through a reexamination of the age-old concept of freedom under the law, the basic conception of traditional liberalism, and of the problems of the philosophy of the law which this raises, that I have reached what now seems to me to be a tolerably clear picture of the nature of the spontaneous order of which liberal economists has so long been talking.

Bruce Caldwell (2003) has argued that the development of Hayek's "Abuse of Reason" project emerged as a consequence of this debate over market socialism. The key idea being argued by Dickinson, Durbin, Lange and Lerner was that a market socialist system could through rational planning eliminate the abuse of monopoly power and the irrational production of capitalism, and yet ensure individual freedom by allowing a free market in consumer goods. The free market in consumer goods, it was reasoned, could also be used in aiding the trial and error process of coordinating production through planning because if the price of the consumer good is provided then under conditions of equilibrium the price of the producer goods which are employed in the production of this consumer good can be derived as we learned with the theory of imputation discussed earlier in this lecture.

I cannot improve upon Caldwell's discussion of the particulars of Hayek's "Abuse of Reason Project", but I want to emphasize a slightly different interpretation, one that is not inconsistent with Caldwell, but does stress Hayek's frustration with his LSE colleagues and how this frustration set him on a quest for answers in disciplines outside of technical economics.

The intellectual exercise I am asking you to undertake with me is to compare Hayek's inaugural lecture at the LSE "The Trend of Economic Thinking" (1933) with Lange's "On the Economic Theory of Socialism" (1936-37). In 1933, Hayek had argued that:

- (1) Economic was born as a discipline out of the successive examination and refutation of Utopian schemes;
- (2) Liberal economists are as concerned with the welfare of the poor as the socialist, but recognize the problems of interventionism and planning, and the power of the market to raise the living standards of the least advantage in society. In fact, in 1933 Hayek wrote that "Recent additions to knowledge have made the probability of a solution of our difficulties by planning appear *less*, rather than more, likely." In

- making this reference Hayek is pointing to the contributions of *Collective Economic Planning* that he was editing, and the problem he is referring to is the Great Depression and the problems that the least advantaged in society had to face as a result;
- (3) It is only by denying economic laws, as the Historical School has done, can you adopt the policies of interventionism and socialism. A properly trained economist would be much more skeptical about the workability of such Utopian schemes. The irony of the age, Hayek warns, is that our economic understand has been vastly improved by developments in neoclassical economics, but there was a general public acceptance of historicism.

"Refusing to believe in general laws," Hayek argued, "the Historical School had the special attraction that its method was constitutionally unable to refute even the wildest of Utopias, and was, therefore, not likely to bring the disappointment associated with theoretical analysis." (1933, 125)

To someone who held this position, imagine the sheer bewilderment they must have experienced when within a few short years they were confronted with the arguments of Keynes, Lange and his students such as Lerner. His surprise would have been especially astute with Lange and Lerner because they used marginal analysis and neoclassical market theory to forge an argument for socialism.

It made sense for someone like Beveridge to be susceptible to the rhetoric of the superiority of economic planning because they didn't understand economic analysis, but for trained economists to turn economic analysis against Hayek completely blindsided him. It is my contention that this experience in the 1930s set Hayek off on his quest for understanding that led to his abandoning technical economics and branching into social philosophy and political economy.

Contrary to the model of market socialism Hayek argued that his colleagues were missing out on the unintended consequences of their model. First, Hayek argued that a free market for consumer goods would not provide the implied value of the producer goods except for under conditions of equilibrium. It is in addressing this problem that Hayek came to be suspicious of the preoccupation of equilibrium economics. Economists go astray when they assume what it is that they have to prove. Hayek stresses in this regard that the knowledge required to coordinate market activity emerges within, and only within, the competitive market process. The least cost production technology, for example, must be discovered anew and almost daily by market participants. Second, Hayek argued that the political consequences of pursuing planning will be unanticipated and undesirable from the point of view of the planners themselves. As he would write in *The Road to Serfdom*: "socialism can be put into practice only by methods which most socialists disapprove." (1944, 137) He was not challenging the intended liberalism of his market socialist opponents, he was arguing that there was an inconsistency between the goals they sought and the model they proposed for achieving those goals. The result was a tragic tale of best intentions paving the path to hell.

The "Abuse of Reason Project" would take the shape of both a critical examination of the methodology and methods that were becoming dominant in economics during the 1940s and 1950s and the ideological predispositions of the 20th century social science. In the realm

of method and methodology, Hayek was critical of formalism and positivism. Formalism explained the preoccupation of economists with the equilibrium state of affairs. Positivism led to a demand for measurement in economics and this demand was met by the development of techniques to measure aggregate economic performance. The preoccupation with equilibrium masks the discovery procedures which constitute the entrepreneurial market economy, and the aggregation techniques masks the underlying economic relationships that individuals enter into within the market process. In the realm of ideology, Hayek criticized the constructivist bias where scholars and policy makers believe that unless a social system is consciously designed it will be plagued by accident and irrationality. Constructivism, in short, is the exact opposite of the invisible-hand style of reasoning one sees in Adam Smith and David Hume's analysis of civilization. Hayek picked up the modern defense of Smith and Hume, and the Abuse of Reason project was where this defense took shape.⁶

IV. The Relevance of Hayek Today

The story I have just told about Hayek's debate with his colleagues at the LSE is not limited to the 1930s and 1940s, but maintains its relevance today. In fact, Hayek's work was viewed as strange to his colleagues in the 1940s and 1950s, as he responded to their economic argument with forays into philosophy, political theory, legal philosophy and even philosophical anthropology. But since that time, Hayek's work has grown in stature and his ideas are being incorporated regularly in the modern development of economics and political economy. In my graduate course dealing with the Austrian Theory of the Market Process, I have used the following exercise to demonstrate how much economics has moved in Hayek's direction since the 1940s. We begin by doing a comparative reading of Paul Samuelson's Foundations of Economic Analysis (1947) and Mises's Human Action (1949) and Hayek's Individualism and Economic Order (1948), and then we look at Paul Milgrom and John Roberts's Economic, Organization and Management (1992) and compare that with these earlier Austrian works and also Rothbard's Man, Economy and State (1962) and Kirzner's Competition and Entrepreneurship (1973). The gap between Samuelson and the Austrians is so wide in the 1940s one doesn't even know how to engage the discussion between them, but by the 1990s the gap between Milgrom and Roberts and the Austrians has closed considerably and the closing of the gap is in the direction of the sort of incentive alignment and information processing arguments that Austrians have been urging economists to take since the 1930s and 1940s.

I don't have the time tonight to detail completely the major Hayekian insights that have been incorporated into the current literature. So I will restrict my comments to just a few lines on the major developments as I see them in mainstream economics. Hayek's influence can be seen in the realm of economic science, public policy analysis, and ideological commitment. In the realm of economic science, Hayek's influence can be seen in cognitive direction of research that has been taken by Timur Kuran (1995) and Douglass North (2004). Hayek's

October 19, 2004

_

⁶ Hayek would later state that his critique of constructivist rationalism was in the Humean spirit of "using reason to whittle down the claims of reason."

⁷ Hayek's rather shoddy treatment by his colleagues in the economics department at the University of Chicago during the 1950s has only been told in partial tidbits to date.

influence can also be seen in the work of Mancur Olson (2000) and Andrei Shleifer (2003) on institutional quality and the politics of predation. Finally, the recognition of the importance of entrepreneurship to understanding both Smithian and Schumpeterian growth continues to spur economists to find ways to incorporate the elusive concept of entrepreneurship into the understanding of the competitive market process (see Baumol 2002). Some of this work is amenable to standard empirical work, but there has also been a growing recognition that work that emphasizes institutions and economic change must eschew cross country data analysis and engaged in detailed micro-data analysis of specific context. This can be accomplished through an analytic narrative approach (see Bates, et. al., 1998), ethnographic analysis of underground economies (e.g., de Soto 1989), or micro-data surveys (e.g., Frye 2000). Empirical economics is going through a transformation just as drastic as theoretical economics and it is doing this in line with Hayek's focus on disaggregation and also in a manner that is consistent with the subjectivist notion of developing a political economy of everyday life that respects the meaning that individuals construct and place on their activities and the activities of others.

In the realm of public policy, arguments on institutions and institutional capacity are more prevalent today than they ever were in the past. The idea that we need simple rules for a complex world is not heretical and is much more common than the idea that because of complexity we need detailed interventions. It is now a common-wisdom that rules outperform discretion in the realm of public policy. Policy analysis has moved to the level of the rules of the game that create the institutional environment within which economic activity takes place. This is seen most obviously in the public policy discussion on development economics and the emphasis on creating an institutional environment that cultivates an entrepreneurial environment where individuals are enabled to realize the mutual gains from trade. Cooperation is encouraged, and conflict minimized due to the institutional environment that is adopted in any given society (see Ostrom et. al. 2002).

In the realm of ideological commitment, a new generation of liberal scholars have emerged who have taken up Hayek's idea and run farther with them than even Hayek dared to imagine. Kukathus (2003), for example, argues that the toleration of religious and ethnic minorities provided by liberal institutions must be pursued to its logical conclusion even in the world that we live in today. Also recent work on decentralized governance and law by Bruce Benson (1990) has developed Hayek's distinction between law and legislation in a consistent manner. Finally, the work by scholars such as Barry Weingast (1995) on market preserving federalism is another example of where the argument for decentralized governance and fiscal federalism that Hayek made is inspiring new theoretical presentation and empirical investigation.

I think we can see in this short summary just how much research Hayek's work has generated, and continues to generate, by scholars in economics and political economy that addresses the fundamental questions of social cooperation in a free society. And, as I have tried to highlight here tonight, many of the ideas that have proved so productive to further scholarly work first took shape in the debates that took place at the LSE in the 1930s and 1940s.

⁸ The 2004 Nobel Prize to Kydland and Prescott for, in part, their work on rules versus discretion, can be seen as consistent with this basic Hayekian point.

V. Conclusion

I have argued tonight that Hayek's research program in economics and political economy contains many substantive points which have demonstrated to be of continuing relevance in the further development of scientific economics, public policy analysis, and the ideological commitment to liberalism.

Thank you again for this opportunity and for your attention tonight.

References

Bates, R. et. al. (1998) Analytic Narratives. Princeton: Princeton University Press.

Baumol, W. (2002) The Free-Market Innovation Machine. Princeton: Princeton University Press.

Benson, B. (1990) *The Enterprise of Law.* San Francisco, CA: Pacific Research Institute for Public Policy.

Boettke, P. (2002) Calculation and Coordination: Essays on Socialism and Transitional Political Economy. London: Routledge.

Boettke, P., ed. (2000) Socialism and the Market Economy: The Socialist Calculation Debate Reconsidered, 9 volumes. London: Routledge.

Caldwell, Bruce. (2003) Hayek's Challenge. Chicago: University of Chicago Press.

Coase, R. (1988) The Firm, The Market and The Law. Chicago: University of Chicago Press.

De Soto, H. (1989) The Other Path. New York: Harper Collins.

Durbin, E. F. (1945) "Professor Hayek on Economic Planning and Political Liberty." *Economic Journal* (December): 357-70.

Frye, T. (2000) Brokers and Bureaucrats. Ann Arbor, MI: University of Michigan Press.

Hayek, F. A. (1933) "The Trend of Economic Thinking," Economica (May): 121-137.

Hayek, F. A. (1944) The Road to Serfdom. Chicago: University of Chicago Press.

Hayek, F. A. (1948) Individualism and Economic Order. Chicago: University of Chicago Press.

Hayek, F. A. (1964) "Kinds of Rationalism." Reprinted in *Studies in Philosophy, Politics and Economics*. Chicago: University of Chicago Press, 1967.

- Hayek, F. A., ed. (1935) *Collectivist Economic Planning*. London: Routledge.
- Hutt, W. H. (1940) "The Concept of Consumer Sovereignty," *Economic Journal* 50 (March): 66-77.
- Kirzner, I. (1973) Competition and Entrepreneurship. Chicago: University of Chicago Press.
- Kukathas, C. (2003) The Liberal Archipelago: A Theory of Diversity and Freedom. New York: Oxford University Press.
- Kuran, T. (1995) Private Truths, Public Lies. Cambridge, MA: Harvard University Press.
- Lange, O. (1936-37) "On the Economic Theory of Socialism." Reprinted in *On the Economic Theory of Socialism*. Minneapolis: University of Minnesota Press, 1938.
- Lavoie, D. (1985) Rivalry and Central Planning. New York: Cambridge University Press.
- Milgrom, P and John Roberts (1992) Economic, Organization and Management.
- Mises, L. (1949) Human Action: A Treatise on Economics. Chicago: Henry Regnery, 1966.
- North, D. (2004) *Understanding the Process of Economic Change*. Princeton: Princeton University Press.
- Olson, M. (2000) Power and Prosperity. New York: Basic Books.
- Ostrom, E., et. al., (2002) Aid, Incentives and Sustainability. Stockholm, SW: SIDA.
- Samuelson, P. (1947) Foundations of Economic Analysis. Cambridge, MA: Harvard University Press.
- Robbins, L. (1947) Economic Problems in Peace and War. London: Macmillan.
- Rothbard, M. (1962) Man, Economy and State, 2 volumes. Princeton: Van Nostrand.
- Salerno, J. (1993) "Mises and Hayek Dehomogenized," Review of Austrian Economics 6 (2): 113-
- Shleifer, A., et. al., (2003) "The New Comparative Economics." Working paper available online.
- Weingast, B. (1995) "The Economic Role of Political Institutions," *Journal of Law, Economics and Organization* (April).