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SPONTANEOUS ORDER AND THE COORDINATION OF ECONOMIC ACTIVITIES*

GERALD P. O'DRISCOLL, JR.
Department of Economics, Iowa State University

This paper is an essay on the coordination of economic activities. It is exploratory and speculative, connecting arguments that I have made in several other places. The essay is an attempt to give a coherent picture of some of the theoretical and practical problems facing economists, as well as society in general. As this paper is being written for a conference on Austrian economics, I propose to deal with questions specifically from the viewpoint of Austrian economics. It is not that I propose to defend the proposition that economists of this school possess a uniquely correct perspective of the issues, but merely that they have much to say on the particular questions with which I will deal. I trust that my references to economists not normally considered to be members of the Austrian School will demonstrate the universality of the problems discussed here.

Those economists who view a system of free exchange — Adam Smith's "obvious and simple system of natural liberty[1]" — as the solution of the coordination problem in economics face intellectual challenges from at least four sources: first, the continuing challenge of the Keynesian legacy; second, the challenge from what James Buchanan has termed the "modern Ricardians"; third, the challenge from the new movement for national planning; and finally, the challenge from certain economists in the Austrian school.

In previous papers, I have dealt with the Austrian Analysis of monetary theory (or macroeconomics) as it is concerned with the coordination of economic activities. Accordingly, I will begin with this general problem.

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THE KEYNESIAN LEGACY

It has become clear in recent years that Keynes' *General Theory* is a very confused work, so much that it is virtually an ink-blot test for economists: an economist's perception of its contents tells more about the beliefs of the reader than the contents of that book.[2] Indeed, Keynes' sympathetic critics are compelled to point out these confusions in their attempts to argue that he made a significant contribution to our understanding of the economic system. The best example of this is Axel Leijonhufvud's *On Keynesian Economics and the Economics of Keynes.*[3] We are told there that Keynes had important insights into coordination failures in market systems. Specifically, Leijonhufvud's Keynes argued that banking and financial systems can operate so as to impede rather than to facilitate the adjustment to a change in the equilibrium rate of interest. Securities markets are incapable of moving from a higher to a lower equilibrium rate of interest, without attendant fluctuations in income and employment. This is true whether the assumed disturbance consists of a downward shift in the marginal efficiency of investment (Keynes' marginal efficiency of capital), or an increase in the savings schedule (a decreased marginal propensity to consume out of current income). The existence of bearish speculators in securities markets impedes smooth adjustment of those markets. Keynes' bears do this by speculating against any rise in the prices of long-lived assets, real or financial.[4] Keynesian bears speculate on the basis of the historical perception that they possess of a "normal" long run rate of interest. If this normal long-rate could be taken as summarizing the real forces determining the equilibrium rate of interest, then it is quite reasonable, from a profit-maximizing viewpoint,

for speculators to treat deviations from the rate as temporary fluctuations.[5] Indeed, Keynes' speculators behave precisely the way textbook examples suggest, in that they act so as to hasten the return to the *perceived* equilibrium position (though this effect is not part of their intention, of course). But in this instance, speculative activity, following a guide that normally proves reliable, proves to be disequilibrating in its effects. Speculators are misled into identifying as but a transitory fluctuation what in fact is the consequence of a shift in parameters.

In microtheory it is customary to point out that speculators who misidentify an equilibrium position will suffer capital losses, and that, in any case, market forces will restore equilibrium. But Keynes raised an important issue: bearish speculators, in exhibiting liquidity preference, can initiate deflationary pressures.[6] Unless we assume that wage and price changes occur *infinitely* fast, then price deflation will be accompanied by quantity-adjustments.[7] In effect, the resulting speculative losses become socialized. To put a Keynesian proposition in Hayekian terms, the unintended consequences of a speculative search for liquidity generates falling income and general illiquidity. If one adopts the position — as do most Austrians — that the market *process* is a continuing search for opportunities, one cannot dismiss out of hand the possibility that speculation of the Keynesian variety could inhibit the equilibrating market forces. And unless one adopts the view that prices are always correct, which no Austrian would do, then one must confront this Keynesian information problem.

Several points need to be made here. I have been talking of "Leijonhufvud's Keynes", because of the problematical nature of *The General Theory*. Yet my paraphrase of Leijonhufvud's interpretation is a fairly straight-forward argument about discoordinating market processes. The obvious question that comes to mind in this context is why Keynes didn't say all this explicitly and simply if this is what he meant? The thesis, as I have presented it, can obviously be put very succinctly. What makes Leijonhufvud's presentation of it so difficult is the web of confusion sown by Keynes.

In order to show that his interpretation has captured the authentic Keynes, Leijonhufvud not only must do battle with conflicting interpretations, but must deal with Keynes' own imprecision and confusion. The clearest example of these problems occurs in Leijonhufvud's discussion of Keynes' views on capital. Before examining this discussion, however, one must consider the intellectual background to the treatment of capital questions in *The General Theory*.

Hayek was quite critical of Keynes' earlier book, the *Treatise on Money,* when he reviewed that work. The general tenor of this criticism is that Keynes, at the time he wrote that book, was largely ignorant of capital theory. Hayek recognized that Keynes was presenting a neo-Wicksellian theory, but without the necessary theoretical foundations.[8] And he observed that:

> It is *a priori* unlikely that an attempt to utilise the conclusions drawn from a certain theory without accepting that theory itself should be successful. But, in the case of an author of Mr. Heynes' intellectual calibre, the attempt produces results which are truly remarkable.[9]

In an amazing piece of candor, Keynes all but admitted the legitimacy of Hayek's criticism; after defending himself by observing that there was no "satisfactory theory" of capital in "completed form", Keynes stated:

> Nevertheless, substantially I concede Dr. Hayek's point. I agree with him that a clear account of the factors determining the natural rate of interest ought to have a place in a completed *Treatise on Money,* and that it is lacking in mine: and I can only plead that I had much to say for which such a theory is not required and that my own ideas about it were still too much in embryo to deserve publication. Later on, I will endeavor to make good this deficiency.[10]

Did Keynes ever "make good this deficiency"? I do not believe so, and offer the following observations in support of this judgment. Much of the confusion surrounding the nature of Keynes' message can be accounted for if one accepts the thesis that Keynes remained largely ignorant of capital theory. He had difficulty, then, in presenting his message because he did not possess the requisite technical knowledge. Of course, one could also infer that Keynes was not sure of the message that he wished to present. There is evidence for this

interpretation in the recent observation of one of his close associates at Cambridge, Joan Robinson, who noted that certain of Keynes' putative followers "sometimes had some trouble in getting Maynard to see what the point of his revolution really was".[11]

But I would offer as a final judgment of Keynes the observation of his recent interpreter, Axel Leijonhufvud. By far the most difficult chapter of the latter's book is the fourth, "The General Theory of Liquidity Preference", in which both the state of capital theory in the thirties and Keynes' own views on the subject are presented. Of this complexity, Leijonhufvud remarks: "This chapter will be a lengthy affair, partly because of the intrinsic difficulty of capital theory, partly because Keynes did not work out his ideas on the subject in much detail so that we are left with only what amounts to an unfinished sketch".[12] In short, Keynes never made up the self-admitted deficiency of the *Treatise*. But it is only by having thus demonstrated Keynes' lack of knowledge and clarity that Leijonhufvud can make it at all plausible that Keynes had a comparatively simple point to make (i.e., stickiness of interest rates), though this point is not the one commonly attributed to him (i.e., stickiness of money wage rates).

There are several approaches that one can take to Keynes' challenge. Conceptual errors abound in *The General Theory*; and I have suggested that in the area of capital theory, Keynes is quite confused. One can fairly easily engage in piecemeal criticism of Keynes' ideas. I do not believe that the Keynesian system can stand up to such a criticism. But I am not sure that this is a fruitful approach, though I myself have adopted it on previous occasions.[13] The reasons are several-fold. First, no one, I believe, can get beyond the exegetical problem — I refer the reader again to my ink-blot analogy. No matter which Keynes one criticizes, a new Keynes is proffered in its stead. More to the point, one must consider the possibility that the most interesting recent interpretation bears scant resemblance to Keynes' ideas. Yeager has argued, for instance, that Leijonhufvud and Clower both seem prepared to credit Keynes with their own, original contribution.[14] Perhaps, then, Keynes is the wrong target of any criticism.

Nonetheless, the Keynesian *debate* does raise important theoretical issues that Austrians must confront, regardless of who is adjudged the author of particular views. And I believe that there is one unifying theme running through most, if not all versions of Keynesian economics: the self-correcting forces of the market economy cannot be relied upon to maintain full-employment and reasonable price stability. In its most extreme version, this criticism might even deny the existence of self-correcting market forces. It is to the issue of the strength of these market forces that Austrians should address themselves, for it is now becoming increasingly accepted that macro-economics is in fact concerned with the coordination of economic activities. Leijonhufvud has stated the problem as follows:

> ...The central issue in macroeconomic theory is — once again — the extent to which the economy, or at least its market sectors, may properly be regarded as a self-regulating system...How well or badly, do its "automatic" mechanisms perform?[15]

Before continuing, it would be well to consider this latter issue in detail.

THE PRINCIPLE OF SPONTANEOUS ORDER

The principle of spontaneous order — or of "undesigned order", as it might more properly be called — can be viewed as the first principle of economics. Indeed, James Buchanan has recently gone so far as to suggest that it is the *only* principle of economics. The principle is, in any case, a cornerstone of modern economics, whether we trace modern (i.e., post-mercantilist) economics back to Adam Smith and the other Scottish moral philosophers, or to the Physiocrats. With this principle, scholars for the first time could see economic phenomena as interdependent events. Indeed, this principle made it possible to reason systematically and coherently about economic phenomena. Much of nineteenth century economics can be seen as consisting of developments of this principle (along with minority criticisms of the principle and the systems of thought deduced therefrom).

On the other hand, most of twentieth century

economics has consisted of reactions against systems in which this principle plays a central role. In this, Keynesian economics is but one among a family of theories that deny the existence of a spontaneous or undesigned market order in which plans are coordinated. The reaction has been so complete, that what was taken by earlier economists to be an empirical law — the existence of a spontaneous market order — is now frequently viewed as the product of ideological bias or prejudice. If anything, modern economic discussions presuppose the absence of the very order whose existence was the cornerstone of much of nineteenth century economics.[16]

It is apparent now that the principle was not firmly enough established in economics to withstand the criticisms that were levied against it. Yet the question of the existence of a spontaneously-generated order remains the central question of economics — and of social theory in general — even though it is seldom recognized as such. Theories of the instability of investment, and of saving, and of aggregate demand, are all variants of the general proposition that the economy lacks strong forces leading to an undesigned order. These are not simply disputes of technical economics, narrowly defined, though they too long have been treated as such. The question of the necessary amount of governmental stabilization policy will not be decided by running yet another money-demand equation through a computer. Nonetheless, it is imperative that the question be addressed directly once again.[17]

As intellectual descendants of Carl Menger, most Austrian economists have defended the proposition that spontaneous market forces are capable of producing an overall order in society. Hayek, for one, is well-known for his emphasis on the role of the nonpurposive social organizations in this process.[18] Indeed, the persistence of members of this school in their views in the face of the contrary opinion of much of the profession has contributed to their isolation from the rest of the profession. In this sense, and alone among the neoclassical schools, the Austrians can today lay claim to being the inheritors of the Smithian system. In this, the bicentenary of the publication of *The Wealth of Nations,* it would be well for Austrian economists to seize the opportunity to re-establish the importance of the principle of spontaneous order — an order that, though designed by no one, emerges from the individual and independent planning of market transactors.

THE NEW RICARDIANS[19]

There is yet another tradition in the history of economics, distinct from both the Austrian and Smithian traditions, and from those that are overtly hostile to these traditions. It is a tradition epitomized by David Ricardo's general approach to economic questions. In the Ricardian tradition, attention is focused on the long run, in which full adjustment to all disturbances has occurred. Periods of transition are abstracted from.[20] It would be anachronistic to credit Ricardo with a theory of perfect information, but he wrote as though the labourers, capitalists and rentiers of his system had full access to future events. The difference between the Smithian and Ricardian traditions is a subtle, though important one; and it separates theorists even today.

In Smith's world, changes are constantly occurring, and adaptations to these changes are never complete. These changes may be of comparatively simple variety, such as variations in the corn harvest from year to year (with attendant effects on real wage rates).[21] More importantly, Smith was concerned with the continuous process of market adaptation to invention and further extensions of the division of labor. Changes in institutions and the legal structure are of prime concern.[22] It is not, of course, that Smith had nothing to say about the long run. His value theory is a long run theory, though I find it one of the least developed parts of his system.[23] Nonetheless, the emphasis in *The Wealth of Nations* is on change. Moreover, Smith's actors suffer various illusions and misunderstandings about future events, and, indeed, their own self-interest. None of this would make sense in a Ricardian world.

Whether it is a question of monetary economics, or of fiscal policy, Ricardo generally treats all disturbances as though they were fully and completely anticipated.[24] In the

Ricardian world, then, the problem of coordination disappears. It is not that Ricardo denied the principle of spontaneous order. Rather he did not treat the emergence of coordinated behaviour on the market as a problem. He in effect *assumed* that economic behavior will be coordinated. Most importantly, and unlike Smith, Ricardo generally ignored the question of what institutional arrangements are necessary for the emergence of that order upon which the soundness of his arguments depends.

The institutional setting and the allocation mechanism matter in economics precisely because behavior in a changing world is not automatically coordinated. Laws and institutions have a significant impact on human behavior precisely because some facilitate and some inhibit the flow of information that is necessary for adaptation in a changing world. This realization is certainly contained in *The Wealth of Nations* — Smith's emphasis on the importance of these matters suffuses that work. Not so with Ricardo's *Principles.*

Professor Lachmann has recently reminded us that the problem of economic coordination is intimately involved with the twin problems of acquisition and diffusion of knowledge among transactors. In dealing with the characteristic assumption that the state of knowledge is among the data of the system, he queries:

> Do we assume that all market actors know all the tastes and resources in all markets in which they, actually or potentially, do or might operate? But if so, equilibrium should at once be attained in all markets. If we were to make this assumption there could be no disequilibrium, no dealings at "false prices". Walras' auctioneer would become superfluous. If, on the other hand, we do not make it, how do we delimit the extent of each actor's knowledge at each point of time, and how do we deal with the flow of knowledge between actors over time?[25]

All this talk about the importance of information may seem prosaic to economists at this point. But the radical implications of imperfect knowledge have simply not been generally absorbed in economic theory. For, *inter alia,* imperfection of knowledge means that prices do not necessarily coordinate economic behavior, as those prices are influenced by the inconsistent expectations on the basis of "false" price signals. To justify one's faith in the coordinating function of markets, one cannot simply assume that prices are coordinating, or at their (*ex ante*) equilibrium level. Rather, one must be concerned with the institutional environment of economic systems, and the appropriateness of these institutions for the emergence of a spontaneous market order. One must be concerned, then, with specifying the situations in which prices will coordinate, and those situations in which prices will not coordinate economic activity. By his attention to the long run, in which, *ex hypothesi,* all such problems disappear because full adjustment to all changes has occurred, Ricardo (and his followers) ignored these difficulties.

The problem of economic coordination is a theoretical and practical issue not merely because decision-making is decentralized, though this is an important aspect of the problem. Of even more importance is the fact that we live in a world of constant change. Were there decentralized decision-making, but an unchanging environment, it might be reasonable to suppose that economic activity could be coordinated under a wide variety of institutional and allocational arrangements. Learning would occur due to the repetition of events, with adjustments made as past errors were revealed.[26] A price system and appropriate market institutions are of practical significance precisely because of the need to register the effects of continuous changes in the data, changes which are given to no one in their entirety. On the other hand, it is doubtful whether money, prices or the market system would exist in the stationary state. Those who ignore this aspect of imperfect information are caught in the dilemma of dealing with phenomena, most of which would not exist in the world as they assume that world to exist — a world of perfectly coordinated plans.[27]

Ricardo and his epigones thus obscured the basic questions of social order that Smith had raised. They shifted the emphasis away from these questions to the theorems and lemmas of value theory. Their legacy is still with us today. Walras and Lausanne School introduced the concept of *general* equilibrium into economics. But in other respects the Walrasian system is

quite similar to the Ricardian: both are perfectly coordinated systems. By the sheer logic of these systems, neither is obviously concerned with the coordination of economic activities — this coordination is implicitly assumed to take place. In such systems laws and institutions cannot matter. Monetary disturbances can have no significant effects — for the transition periods in which money clearly matters are de-emphasized or ignored in the Ricardian system.[28] In such systems, the market would not be viewed as a process in which continual adjustment to continual change occurs, but a state of affairs in which this process was at an end.

The Chicago School can be fairly described as the modern Ricardians. In Kirzner's terminology, the transactors in the Chicago world are nothing but Robbinsian maximizers.[29] Chicago economists are Ricardian in their approach to questions of tax and expenditure policy and monetary policy, to cite two examples previously mentioned for Ricardo. The Ricardian bent of the Chicago School is important to the Austrian School for at least two reasons.

First, the time has passed when members of the Chicago School were articulate, but minority members of the profession. Increasingly, economic discussions and debates are influenced by their approach. Second, on issues involving coordination questions, their Ricardian leanings *re-enforce* the Walrasian approach of the dominant mathematical, general equilibrium theorists. This is an important point because economists are beginning to recognize the distinctiveness of the Marshallian approach (*vis à vis* the Walrasian approach) of Chicago School economists. And the differences between Chicago School economists and the rest of the profession are important for a wide variety of issues, such as the role of empirical research, partial vs. general equilibrium analysis, etc. But as regards the coordination of economic activities, the new Ricardians and the neo-Walrasians are more of one mind. They tend to take for granted that markets coordinate economic activities. By doing so, they ignore the complex questions of economic coordination, upon the solution of which depends the degree of economic coordination. This approach is objectionable because of the conclusions it engenders when markets demonstrably are not coordinating economic activity. The "market failure" mentality is an effect of this approach.[30] "The market system" is adjudged a failure in such cases, with scant recognition that " the market" is a metaphor for a complex of interrelationships and institutions, any one of which may be the source of the problem. That members of the Chicago School are generally more sanguine about the efficacy of this system hardly mitigates against the methodological point being made here.

Austrian economists and other adherents to the principle of spontaneous order will receive little support, and should generally expect overt hostility from the Chicago School on a wide range of economic questions.[31] Austrian economists tend to view most economic questions as issues involving the principle of spontaneous order. Accordingly, they take characteristic positions on these questions. Two of the areas where disagreement between the two schools is particularly intense are monetary and capital theory. Quite apart from their differences over the determination of the *equilibrium* values of interest rates, the two schools are sharply divided over the approach to questions of capital and interest theory, as well as those of monetary theory. Being Ricardians, members of the Chicago School naturally keep questions of monetary theory and capital theory quite distinct, since these are distinct problems in long run equilibrium analysis. As did Ricardo, they treat deviations from the equilibrium rate of interest as temporary fluctuations. The transitional periods in which monetary disturbances influence the accumulation of capital and the level of rate of interest are typically ignored or at least de-emphasized.

On the other hand, many of the twentieth century members of the Austrian School have dealt with the interface between monetary and capital theory. Mises and Hayek were most persistent in their analysis of the interrelation between monetary and capital questions, precisely because of their interest in adjustment problems. Hayek, for instance, has been consistent in treating economic fluctuations as

manifestations of economic discoordination, brought on by monetary disturbances.[32] For Hayek, monetary disturbances change entrepreneurial expectations, and lead to capital accumulation that, *ex post,* is revealed to have been malinvestment. These malinvestments cause real scarcities, whose existence become manifest in subsequent price changes. The price changes compel entrepreneurs — because of the capital losses that they are then incurring — to revise their investment plans. It is in this sense that modern Austrians view cyclical expansions brought about by monetary and credit inflation as self-reversing and inherently unstable.[33]

Hayek and Mises thus deal with phenomena virtually ignored by monetary theorists of the Chicago School — the transition period between a monetary disturbance and complete adjustment to its effects.[34] To the extent that Professor Friedman, for instance, deals with the transition period, it is only in terms of one, comparatively narrow problem — anticipation of future price levels.[35] As a practical matter, monetarists generally view inflation as synchronized inflation, with all prices rising *pari passu.* For Hayek and Mises, synchronized inflation is a fantasy, so long as monetary disturbances impinge at specific points.[36] And full adjustment to inflation would be all but inconceivable, as it would involve each actor's anticipating correctly the precise changes in each relative price that will occur in each future period, due to the assumed monetary disturbance.[37]

Once again, the Ricardian approach to monetary questions blinds its users to the issues considered paramount by the Austrians. In so doing, this approach inhibits an understanding of important issues confronting market economists. For the Ricardian — quantity theory approach is one in which prices continue their coordinating function even in an inflation. Yet, the point at issue is whether spontaneous market forces operate as usual in an inflation. If monetary disturbances not only generate pure price inflation, but also interfere with the coordinating mechanisms in an economy, then the quantity theory approach ignores an important research programme in economics — the study of the monetary framework necessary for prices to fulfill their coordinating function.[38] In the words of one expositor of Hayek's ideas:

> [Hayek] regarded prices...as empirical reflectors of specific circumstances and price changes as an *interrelated* series of changes in these "signals", which produced a gradual adaptation in the entire price structure (and hence in the outputs of different commodities and services) to the constant, unpredictable changes in the real world. Pricing, in short, is seen as a continuous information-collecting and disseminating process, but it is the institutional framework that determines both the extent to which and the degree of success with which, prices are enabled to perform this potential signalling or allocative function.[39]

PLANNING[40]

That nonpurposive social organizations will naturally evolve, and that an undesigned order can be the product of self-regarding acts are radical ideas in Western thought. These ideas run counter to the dominant approach to social questions, and were in ascendancy for only a brief period in Western intellectual history. It is not, then, entirely surprising that in economics these ideas have not gained complete acceptance; and that among the general public, even the so-called educated public, they are scarcely understood at all. But there is danger that because of essentially reactionary developments in social thought, the insights that were the product of the Enlightenment will be all but lost in practice. Adam Smith has aptly characterized the far older conception of social order:

> The man of system...seems to imagine that he can arrange the different members of a great society with as much ease as the hand arranges the different pieces upon the chessboard; he does not consider that the pieces upon the chessboard have no other principle of motion besides that which the hand impresses upon them; but that, in the great chessboard of human society, every single piece has a principle of motion of its own, altogether different from that which the legislature might choose to impress upon it. If those two principles coincide and act in the same direction, the game of human society will go on easily and harmoniously, and is very likely to be happy and successful. If they are opposite or different, the game will go on miserably, and the society must be at all times in the highest degree of disorder.[41]

The liberal conception of society of Adam Smith and the classical economists stands in sharp contrast with this older view. Yet once again in the United States, we see evidence of this older conception's becoming prominent, under the guise of national economic planning.

Proposals for planning are embodiments of the chess-game conception of social affairs, adapted to the problem of economic allocation. These proposals implicitly or explicitly deny that market forces guide decision making, so as to produce an overall, yet undesigned order; and they virtually ignore the function and role of nonpurposive economic organizations.

It is not that the arguments for national (i.e., central) economic planning constitute a direct *intellectual* challenge to opponents of such planning. As Professor Hayek has recently demonstrated in a devastating rebuttal of these proposals, modern exponents of "planning" possess as naïve and ill-thought out an approach to the problem as did the Bolsheviks and European socialists in the immediate post-World War I period. As he notes:

> The conception [collectivist economic planning], originally developed by some of the organizers of the German war economy during World War I, was thoroughly discussed by economists in the 1920's and 1930's; and all those familiar with that discussion will agree that it greatly contributed to the clarification of concepts and that one ought today to be entitled to assume that no competent economist who lived through that discussion would ever again talk about the issues in terms of the vague and confused concepts initially bandied about.[42]

Indeed, if this debate were being carried out in the scholarly arena, I doubt that the proposals put forth by those in favor of central planning would survive Hayek's recent criticisms. Unfortunately, the debate is not being carried forth in learned journals, or, generally, by learned men; rather, the proposals are being developed in the pages of the *New York Times,* and are being presented by politicians, businessmen and labor union leaders. This is an instance where those who accept the Smithian insights have won the intellectual battle, but are in danger of seeing their arguments lose out in practice. This situation surely represents a dilemma for economists. Economists generally disdain polemics, but they now face a situation in which influencing important political questions depends on their ability to present economic ideas in a polemical fashion. Certainly those economists who have chosen, for whatever reasons,[43] to ally themselves with the misleading arguments of the "planners" have not eschewed polemics.[44]

Hayek has done an admirable job of marshalling the chief arguments against central planning in his recent article. I do not intend to repeat these arguments here. But it is worth reminding ourselves of the central confusion of the early advocates of central planning, as it is the central confusion of the current advocates. The confusion concerns the very concept, "planning". If nothing else developed from the earlier debates over the question, it was the realization that a market economy is characterized by *continual* planning and plan-revision, albeit on a decentralized level.[45] As Hayek put it over thirty years ago, and recently repeated:

> The dispute between the modern planners and their opponents, is, therefore, *not* a dispute on whether we ought to choose intelligently between the various possible organizations of society; it is not a dispute on whether we ought to employ foresight and systematic thinking in planning our common affairs. It is a dispute about what is the best way of so doing. The question is whether for this purpose it is better that the holder of coercive power should confine himself in general to creating conditions under which the knowledge and initiative of individuals are given the best scope so that *they* can plan most successfully; or whether a rational utilization of our resources requires *central* direction and organization of all our activities according to some consciously constructed "blueprint". The socialists of all parties have appropriated the term "planning" for planning of the latter type, and it is now generally accepted in this sense. But though this is meant to suggest that this is the only rational way of handling our affairs, it does not, of course, prove this. It remains the point on which the planners and the liberals disagree.[46]

The challenge of "planning" confronts liberal economists with both the necessity and the opportunity of once again entering the popular debate over the trend of society that we will shape for the future. For it must be remembered that in constructing economics upon the principle of spontaneous order, earlier economists were ultimately interested in the problem of social and poltical organization. In part, then, I am proposing a return to an earlier conception of our task as engaging in political economy, though we now recognize a specifically scientific part of this field, *viz.*, economics. If economists do not conceive of their task thusly, it is doubtful whether there will be any practical opportunity in the future for the *scientific* pursuit of the implications of the principle of spontaneous order.

In order to pursue this goal, however, Austrian

economists in particular must settle among themselves certain theoretical and seemingly purely scientific issues. I have argued above that among the neo-classical economists, the Austrians have most consistently adhered to Adam Smith's conception of the economic problem. Ironically, recent debates indicate anything but agreement among living members of this school. The positions of some could be construed as an implicit attack on the idea that there is a spontaneous market order in the economy. It is thus that I am led into a final section, involving a discussion of the Austrian approach to the question of the operation of spontaneously-generated forces in a market economy.

THE AUSTRIAN SCHOOL AND SPONTANEOUS ORDERING FORCES

In a recent paper, Professor Kirzner speculates about the exact status of the proposition that profitable opportunities have a tendency to be exploited.[47] He concludes that the propensity to discover opportunities is "inseparable from our insight that human beings act purposefully".[48] In fact, he even suggests a sympathetic reinterpretation of the perfect knowledge assumption of neoclassical price theory. Though orthodox use of the assumption is "carefree",[49] it does reflect a real insight: our "instinct" is seen as assuring us that profitable opportunities will be discovered. He then concludes that: "The perfect knowledge assumption of neoclassical economics carried this instinctive assurance to altogether unjustified lengths. In rejecting this dangerous assumption, we must take care not to expunge the entirely healthy instinct on which it rested".[50]

Kirzner's approach to the issue of profit exploitation in a market economy differs markedly from Lachmann's. Nonetheless, this proposition is not easily demonstrated, for two, interrelated reasons. First, Lachmann nowhere to my knowledge *explicitly* asserts the contrary proposition, *viz.*, that we have no grounds for believing that market participants will discover and exploit profitable opportunities. Second, though the figure of Professor Lachmann lurks in the background throughout the second-half of Kirzner's paper, the latter never brings this figure into the foreground.

The best way of elucidating this issue is to turn to Lachmann's own recent paper. Toward the end of his paper, Lachmann notes that:

> ...Skepticism about equilibrium need not deter us from appraising the relative strength and weakness of the equilibrating forces in various situations. In fact, it must encourage us to do so. To make confident use of the notion of equilibrium means to imply that the equilibrating forces will always be of sufficient strength to triumph over all obstacles. A skeptic mignt readily admit that such situations may exist, but he will probably doubt whether they occur with sufficient frequency to warrant our treating them as the norm. The more skeptical we are about general equilibrium as the central notion of economic analysis, the more encumbent on us it becomes to examine each situation individually with respect to the balance of strength of equilibrating and disequilibrating forces.[51]

It must be noted here that Kirzner's position is *not* that we should admire neoclassical price theory for its treatment of general equilibrium as "the central notion of economic analysis" or as "the norm". Rather, he suggests that we accept the proposition that equilibrating tendencies are strong. If the propensity to discover opportunities is "inseparable from our insight that human beings act purposefully", then we must likewise acknowledge a *tendency* toward equilibrium in all markets. *A fortiori,* there exist strong tendencies toward an overall, or general equilibrium *at each moment.* Individuals are, then, constantly revising their plans in a way that brings them into greater uniformity. This latter proposition, when thus phrased in dynamic terms, does seem to embody the principle of an undesigned order. It remains questionable, however, whether Lachmann wishes to embrace this principle. Thus he argues that:

> Experience shows that in the real world of disequilibrium different persons will typically hold different expectations about the same future event. If so, at best one person's expectation can be confirmed and all other expectations will be disappointed. Hence the "assumption that all other expectations are confirmed" cannot possibly hold. Nobody can take his equilibrium bearings if he does not know how others will act. In such a situation, which we have every reason to regard as normal, his equilibrium, as Hayek admits, cannot serve as a source of a "feedback mechanism". *The beacon that had been designed to keep entrepreneurs from straying from the narrow path of convergent expectations turns out, on most nights, to be rather dim.*[52]

Lachmann makes much of "the autonomy of

the human mind" (as must all Austrians):

> This source of...new knowledge may well be past experience, but the latter requires interpretation by a discerning mind, and optimists will interpret it differently from pessimists. The human mind is a filter of experience, but each individual's filter is different from every other filter. Divergent expectations are thus as "natural" a feature of the social landscape as are divergent tastes. Changes in the constellation of knowledge are an inevitable concomitant of the passing of time, and changes in the constellation of expectations are bound to follow them.[53]

There is no denying the autonomy of the human mind, but one is reluctant to follow Lachmann in his apparent conclusion that we can say nothing about the likelihood that individuals will make consistent and coordinated decisions in the face of new knowledge. If anything, he seems to be saying that they will not coordinate plans. Yet, one always supposed it was an Hayekian insight that prices facilitate the diffusion of information and the coordination of plans.[54]

We are faced here with an important question: Do different and disparate individuals have a common reaction to shared experience? We certainly would not want to say they always do, or there would be little sense in referring to "individuals". Yet, there are obvious cases in which people do react to shared experiences in the same or similar ways: the perception of a fire in an enclosed room will lead to virtually everyone's making for an exit. Each person could form a reasonable expectation about what the others will do.

Moreover, many events are implicit demonstrations of the degree to which expectations do coincide. Changes in clothing fashion might be cited as an example. The "agreement" among separate manufacturers of apparel can be amazing, though clearly retail customers do not register their preferences for new fashion in a clothing futures market. Apparently individual entrepreneurs, experiencing the same signals and trends, will often form similar expectations.

None of these considerations are decisive, of course, but they are suggestive. Lachmann has clearly done a great service in pointing out forcefully the absurdity of an approach in which expectations *always* prove consistent. It is an essential feature of markets that not everyone reacts equally quickly to the continual changes in the data.[55] But it is true of at least some changes that they occur only because actors share a unanimous opinion about the future course of events.

Having eschewed the approach of assuming consistency among expectations at all times, one is not justified, without further argument, in arguing that we economists can make no assumptions about a tendency toward such uniformity, where this tendency is based on a universally recognized "propensity to discover opportunities". To do so would involve a nonsequitur. Again, to assume that all opportunities are at any moment fully exploited (and thus do not really exist as opportunities) would be, to paraphrase Kirzner a "carefree" use of concepts. But we must surely accept the existence of the propensity, or foresake the principle of spontaneous order. This point can be elaborated by recounting an event that happened at a recent (December, 1975) conference on Austrian economics.

Professor Lerner argued that without the concept of general equilibrium, defenders of the market system have no basis with which to carry on their defense. His criticism was in response to Lachmann's approach to the question of general equilibrium. I confess that I rose to the latter's defense at the time, by pointing out that we need only assume that there is market-day equilibrium. If prices clear existing supplies, then markets can operate successfully. "That is all we need." I am now not sure that I did not err. Lerner may have been raising an important issue for Austrians.

We must distinguish two functions of markets. The first consists simply in a method of allocating existing supplies peacefully. Without prices and free markets, society requires guns and dictatorship. Examples of the latter type of social allocation of resources are numerous. But I am not sure that defenders of the market system can be satisfied with demonstrating that free trade is an alternative to the "war of all against all", however important this insight may be. For if supplies of goods are autonomous, if not gratuitous, it is dubious in what sense it can be said that prices coordinate activity. Indeed, I suspect that there is no coordination in the conventional sense in Lachmann's system.

For him apparently, *ex ante* plans bear no relation to *ex post* reality. Nor is there reason to believe that actors will move in the right direction in correcting past errors.

Lachmann does feel that the market "cannot make bulls and bears change their expectations, but it nevertheless can coordinate these". He continues:

> To coordinate bullish and bearish expectations is, as Keynes showed, the economic function of the Stock Exchange and of asset markets in general. This is achieved because in such markets the price will move until the whole market is divided into equal halves of bulls and bears. In this way divergent expectations are cast into a coherent pattern and a measure of coordination is accomplished.[56]

"Coordination" is being used here in a highly ambiguous sense. As Lachmann notes subsequently, he is talking not about *ex ante* consistency, but a Marshallian *ex post,* market day equilibrium.[57] This usage of coordination is in sharp contrast to the more conventional usage, and the usage that Austrians have traditionally employed.[58] "Coordination of plans" in traditional usage means there is *ex ante* consistency among transactors' plans. It is certainly scant comfort for one interested in this problem to be informed that there will be "coordination" *ex post.* Though related, *ex ante* and *ex post* "coordination" are conceptually dinstinct issues. To conflate the two issues is scarcely to contribute to the solution of either problem.[59]

It is certainly not the case that Austrian economists maintain that there ever exists *ex ante* consistency among all transactors' plans. But they have traditionally maintained, as Lachmann himself notes, that there is a tendency ("a strong tendency") toward diffusion of knowledge and increased consistency of plans. In other words, Austrian economists have always viewed the problem of economic coordination in dynamic terms. Do plans become more consistent over time? Lachmann apparently sloughs over the distinction between two very different propositions:

1. Economic activities are coordinated in the sense that all plans are successfully executed ("general equilibrium").
2. Economic activities are coordinated in the sense that a mechanism exists (i.e., the price system) that facilitates rational plan revision *and* leads to greater consistency of plans over time.

Lachmann switches back and forth between discussions of "the relative strength and weakness of the equilibrating forces", and "general equilibrium as the central notion of economic analysis" as though he were talking about the same problem (see p. 20 above). Surely the statement that "the market produces strong equilibrating forces" is fundamentally different than the assertion that "the market is always in (general) equilibrium". Does Professor Lachmann acknowledge the difference? It is certainly not clear that his arguments against the second class of statements are telling against the first. It is true that elsewhere Lachmann apparently acknowledges the existence of a tendency toward equilibrium in some areas: "A tendency toward the integration of the [capital] structure does exist".[60] But even there, he seemingly takes back what he has just granted.[61] I am afraid his occasional concessions to the existence of a tendency to greater consistency of plans in markets only confuse matters.

What I find most disturbing about Lachmann's position is that he criticizes a *static* general equilibrium model, but concludes that the modern Austrian approach to coordination, in a *dynamic* sense, is thereby called into question. I am not at all clear what he thinks "the general equilibrium perspective" is. The reader is told that Hayek's "early work was clearly under the influence of the general equilibrium model".[62] Elsewhere the reader is reminded that as early as 1933 (in "Price Expectations, Monetary Disturbances and Malinvestments") Hayek dealt with expectations. It was in 1936 ("Economics and Knowledge") that Hayek launched his attack on the static, general equilibrium models of mathematical economics. From this one must conclude that Lachmann is critical even of theories espousing a tendency toward overall equilibrium (i.e., he denies the principle of spontaneous order). I can draw no other conclusion.

It also seems that what Kirzner treats as the "equilibrating market process", Lachmann treats as a "disequilibrating" process. At first, I thought there was a mere semantic confusion.

I now believe the apparent semantic confusion is masking real conceptual differences. Kirzner sees any disturbance as developing equilibrating market forces. Lachmann sees change as disequilibrating.[63] The only reason that I can adduce is that Lachmann does not see market forces as being equilibrating in nature. If this is his position for markets as a whole, then he is generalizing the position taken by Keynes about securities markets to markets as a whole, *viz.*, that we cannot rely on spontaneous market forces to bring us to an equilibrium position after a disturbance. And if this be the case, then Lachmann's views represent a radical challenge not only to his fellow Austrians, but to all those who accept the existence of an undesigned market order. For it certainly seems that the only effective answer to the challenges with which I have been concerned lies in Kirzner's characterization of the entrepreneurial role.

As a final note, if I have misread Lachmann, I hope this section will at least serve to clarify issues and develop implications of the principle of spontaneous order. If the paper succeeded in nothing else, it would have served its purpose.

CONCLUSIONS

I would like to remind the reader that my original task was to demonstrate that seemingly diverse and particular problems are really instances of a more general theoretical disagreement. For it is only be directly addressing this general theoretical disagreement — disagreement that I have identified as devolving around the existence of an undesigned market order — that a fruitful search toward solutions of these individual problems can be begun. It is in the nature of an endeavor to demonstrate the interconnections between such seemingly disparate (but really connected) issues that no one of them is adequately treated. If the reader feels that each section calls for a separate paper on its topic, the author can only agree, and express the hope that more papers on these subjects will be forthcoming, albeit papers informed by the realization of the overall problem being studied.

NOTES

1. Adam Smith, *The Wealth of Nations,* ed. by Edwin Cannan (New York: The Modern Library, 1937), p. 651.
   It is frequently forgotten that Smith's defense of a relatively unhampered market is partly based on considerations of justice. Cf. Smith, pp. 141, 308 and 497. The ethical basis of Smith's system is emphasized in a paper by Joseph Cropsey, "The Invisible Hand: The Moral and Political Background", delivered as part of the Harry Girvetz Memorial Lecture Series at the University of California, Santa Barbara. Also, cf. James M. Buchanan, "The Justice of Natural Liberty" (Blacksburg, Virginia; Xerox, 1976).
2. My colleague, Roy Adams, first suggested this very apt analogy to me. Also: "...You can find in Keynes, as in Marx, almost anything..." F. A. Hayek, "No Escape: Unemployment Must Follow Inflation", in *Full Employment at Any Price?* (London: Institute of Economic Affairs, 1975), p. 43.
3. New York: Oxford University Press, 1968. Leijonhufvud's "Keynes and the Classics" (London: Institute of Economic Affairs, 1969) is also of importance here.
4. Leijonhufvud has argued that, contrary to contemporary practice, Keynes aggregated assets according to their term to maturity, and not according to whether they are real or financial. Cf. Leijonhufvud, *Keynesian Economics,* pp. 130–157.
5. Sir John Hicks has demonstrated the remarkable stability of the return on British consols in the nineteenth century. If the yield of consols can be taken as proxy for the long-rate, then his findings give some empirical basis to Keynes' hypothesis. See John R. Hicks, "The Yield on Consols", in *Critical Essays on Monetary Theory* (Oxford: The Clarendon Press, 1967), pp. 83–102.
6. It would be well to recall why speculators seek liquidity in this hypothetical situation; or, more precisely, why they attempt to shift their holdings from long-lived to short-lived assets. If long-rates are falling, but are expected to rise once again, then wealth-holders have a double incentive to sell long assets and purchase short assets. By selling at the long end of the yield spectrum, they can capture capital gains. By "going short" in the interim, they can purchase these assets back at lower prices and higher yields, once interest rates have risen again.
   All this assumes, of course, that in the aggregate, transactors seek to avoid capital uncertainty. On this point, cf. Leijonhufvud, *Keynesian Economics,* pp. 45–46; 282–314.
7. Cf. Leijonhufvud, *Keynesian Economics,* pp. 49–109.
8. See F. A. von Hayek, "Reflections on the Pure Theory of Money of Mr. J. M. Keynes, Part I", *Economica,* XI (August, 1931), 279.
9. Hayek, *Economica,* XI, 279.
10. J. M. Keynes, "The Pure Theory of Money. A Reply to Dr. Hayek", *Economica,* XI (November, 1931), 394–395. Of course, the question of whether the issues with which Keynes dealt could be treated without reference to capital theory was one of the points of dispute.
11. Joan Robinson, "What has become of the Keynesian Revolution?", in Milo Keynes (ed.), *Essays on John Maynard Keynes* (Cambridge: Cambridge University

Press, 1975), p. 125; quoted in F. A. Hayek, "No Escape: Unemployment Must Follow Inflation", in *Full Employment at Any Price?* (London: Institute of Economic Affairs, 1975), p. 43.

12. Leijonhufvud, *Keynesian Economics*, p. 43.
13. Cf. "Hayek and Keynes: A Retrospective Assessment", Iowa State University Department of Economics Staff Paper No. 20 (Ames, Iowa: Xerox, 1975).
14. See Leland Yeager, "The Keynesian Diversion", *Western Economic Journal*, XI (June, 1973), 150-163.

    It should be noted that what Clower and Leijonhufvud have done is to present an interpretation of Keynes that rationalizes his doubts concerning the strength of the spontaneous forces operating to maintain or restore full employment. This in no way indicates that these two authors share these doubts. Nonetheless, it is frequently assumed, without any firm basis, that because Leijonhufvud and Clower have attempted to explicate Keynes' views that they agree with them in their entirety!
15. Axel Leijonhufvud, "Effective Demand Failures", *Swedish Journal of Economics*, 75 (1973), 28. Leijonhufvud continues, noting that this issue "lies at the heart of two of the most prominent controversies in the field over the last decade: the Fiscalist vs. Monetarist controversy...and the controversy over the long-run stability of the Phillips-curve. The volume of writings on each of these continues to mount steadily with no clear-cut resolution in sight–in large measure because this central issue is not being effectively addressed".
16. Discussions about the energy problem are a prime example of this. They almost never even consider what spontaneous market forces might exist that would lead to the discovery of a new, coordinated solution to the allocation of energy resources. One very probable solution — perhaps the most probable if market forces were permitted to operate unfettered — would involve the destruction of the international oil cartel, whose existence makes a reallocation of energy resources appear necessary. And it is not merely noneconomists who are guilty of ignoring these market forces.

    On a more sophisticated level, modern welfare economics is virtually predicated on the absence of a spontaneous order in society, though part of the problem here is the static quality of welfare analysis.

    On the general, 20th century reaction against the principle of spontaneous order, cf. Leijonhufvud, "Effective Demand Failures", 31–32. Though the principle of spontaneous order continues as a cornerstone of economics — particularly of microeconomics — this only shows the inconsistency of current micro and macro economics — a point Leijonhufvud develops at length. Cf. Leijonhufvud, "Effective Demand Failures", 30–33.
17. The reader is referred to footnote 15 and the relevant portion of the text footnoted therein.
18. As but one example, see F. A. Hayek, *The Counter-Revolution of Science* (New York: The Free Press of Glencoe, 1955), pp. 25–35.
19. I adopt here James Buchanan's terminology to describe the Chicago School. Professor Lachmann has proposed the term "Neo-Ricardian" to refer to the distinct foibles of yet another school of theorists, the Cambridge (U.K.) School.
20. As one example of this Ricardian tendency, cf. the discussion of the general glut controversy in Thomas Sowell, *Classical Economics Reconsidered* (Princeton: Princeton University Press, 1974), pp. 46ff.
21. See Smith, pp. 35–36.
22. On this point, cf. James M. Buchanan, "Public Goods and Natural Liberty" (Blacksburg, Virginia: Xerox, 1976), especially 3–10.
23. Thus, theorists disagree over whether Smith held a labor cost theory of value, an entrepreneurial cost theory, or merely a labor measure theory. Smith may also have been unwittingly articulating a factor-exhaustion theorem for the long run. Nor could he seemingly distinguish between quasi-historical observations about the role of labor in production and theoretical statements of labor's contribution. This latter difficulty reflects Smith's "speculative" or "theoretical" approach to history. On this, cf. A. Skinner, "Economics and History — The Scottish Enlightenment", *Scottish Journal of Political Economy* (February, 1965), 1–22.
24. An example of Ricardo's approach is his treatment of the effects of an increase in the money supply. On this, see Gerald P. O'Driscoll, Jr., *Economics as a Coordination Problem: The Contributions of Friedrich A. Hayek* (Ames, Iowa: Xerox, 1975), chapter 3.2.

    Ricardo is also famous for his so-called "Equivalence Theorem" for taxation and public debt. But though this may be the most famous case of the Ricardian vice, it is the one case where Ricardo was *not* a Ricardian! See *The Works and Correspondence of David Ricardo*, Vol. I: *On the Principles of Political Economy and Taxation*, ed. by Piero Sraffa (Cambridge: Cambridge University Press, 1951), pp. 247–248; *The Works*, Vol. VI: *Pamphlets and Papers, 1815–1823*, pp. 185–188; Sowell, pp. 67–68; and Gerald P. O'Driscoll, Jr., *The Ricardian Nonequivalence Theorem*, *Journal of Political Economy*, (1977) pp. 207–210.
25. Ludwig M. Lachmann, "From Mises to Shackle: An Essay on Austrian Economics and the Kaleidic Society", *Journal of Economic Literature*, XIV (March, 1976), 55. Cf. Hayek, *The Counter-Revolution of Science*, pp. 29–30.
26. Cf. Hayek, "The Meaning of Competition", in *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948), pp. 97–98.
27. An example of this dilemma is the role of money in a general equilibrium model. On this, see Hayek, *The Pure Theory of Capital* (Chicago: University of Chicago Press, 1941), p. 31.
28. Cf. Sowell, pp. 58–59.
29. Cf. Israel M. Kirzner, *Competition and Entrepreneurship* (Chicago: University of Chicago Press, 1973), 32–37.
30. Ignoring the factors that govern the emergence of a spontaneous order is in some sense more objectionable (from the viewpoint of one who accepts the principle) than denying its relevance. Failure to discuss the conditions under which a spontaneous order would emerge in an economic system prejudices the case against unhampered, decentralized decision-making. Thus, when obvious misallocations and "market failures" develop in an economy, suggestions that policy be directed toward *freer* markets will be met with incredulity.

    On Walras' assumption that markets will clear so as to produce an overall order, cf. O'Driscoll, *Economics*

as a Coordination Problem, Chapter 2.2.

31. The hostility of the Chicago School to the approach of the Austrian School is a fact. What calls for explanation is the reason, which involves far more than a "family" squabble. The divisions between the two schools antedate each in the history of economic thought.

    For a recent example of the Chicago attitude toward the Austrian conception of economics, see the *Review of Competition and Entrepreneurship* by Benjamin Klein, *Journal of Political Economy,* 83 (December, 1975), 1305–1309. For an earlier example of similar treatment, see the *Review of Capital and Its Structure* by Martin J. Bailey, *Journal of Political Economy,* LXV (June, 1957), 265–266.

32. For instance, see the discussion in Hayek, *Monetary Theory and the Trade Cycle,* translated by N. Kaldor and H. M. Croome (New York: Augustus M. Kelley, 1966), pp. 43–45.

    In what follows, I will draw on my paper, "Friedrich Hayek and the Science of Choice", Iowa State University Staff Paper in Economics No. 24 (Ames, Iowa: Xerox, 1975).

33. Cf. Friedrich A. Hayek, *The Pure Theory of Capital,* pp. 33–34.

34. "Of course, it is one thing to assert that monetary changes are the key to major movements in money income; it is quite a different thing to know in any detail what is the mechanism that links monetary change to economic change; how the influence of the one is transmitted to the other; what sectors of the economy will be affected first; what the time pattern of the impacts will be, and so on. We have great confidence in the first assertion. We have little confidence in our knowledge of the transmission mechanism, except in such broad and vague terms as to constitute little more than an impressionistic representation rather than an engineering blueprint". Milton Friedman and Anna J. Schwartz, "Money and Business Cycle", in Friedman, *The Optimum Quantity of Money* (Chicago: Aldine Publishing Co., 1969), p. 222.

    Commenting on Ricardo's inattention to transitional periods, Schumpeter has remarked: "...In matters of monetary as of general theory, Ricardian teaching is a detour and...it slowed up the advance of analysis, which would have been much quicker and smoother had [Henry] Thornton's lead been followed — had Ricardo's force not prevailed over Thornton's insight". Joseph A. Schumpeter, *History of Economic Analysis* (New York: Oxford University Press, 1954), p. 704n.

35. Cf. Gerald P. O'Driscoll, Jr. and Sudha R. Shenoy, "Inflation, Recession and Stagflation", in Edwin G. Dolan, ed., *The Foundations of Modern Austrian Economics* (Kansas City: Sheed & Ward, 1976), pp. 185–211.

    For recent statements of Friedman's position, see "A Theoretical Framework for Monetary Analysis", *Journal of Political Economy,* 78 (March/April, 1970), 193–238; and "A Monetary Theory of National Income", *Journal of Political Economy,* 79 (March/April, 1971), 323–337.

36. I am referring here to the problem of distributional, or Cantillon-effects, which have been so long ignored in monetary theory. This gap in monetary theory is not accidental, for most theories of money incorporate neutrality assumptions. If money is neutral, then indeed there are no distribution effects. It is not remarkable, then, that monetary economists generally ignore the problem of distribution effects. What is remarkable is that the almost fantastic assumption of neutrality of money generally does not give economists pause. While it would be beyond the scope of this paper to demonstrate this proposition, it does seem that an economy in which money could be neutral is one in which there would be no demand for money. For where else but in a world of correct expectations and perfect coordination would changes in the supply-demand relation of money be neutral in their effects?

    The issue of the neutrality of money and distribution effects is considered in Friedrich A. Lutz, "On Neutral Money", in Erich Streissler, Gottfried Haberler, Friedrich A. Lutz and Fritz Machlup, *Roads to Freedom* (New York: Augustus M. Kelley, 1969), pp. 105–116.

37. Cf. O'Driscoll, *Economics as a Coordination Problem,* chapter 5.4.

38. I am quite aware that to some extent Friedman has dealt with the general institutional framework necessary for economic stability. And, indeed, I find his earlier work of more interest in this regard. I would point out that even in that he focused on price *levels,* and did not develop the problem of *coordination* at length. Cf. Milton Friedman, *A Program for Monetary Stability* (New York: Fordham University Press, 1960).

39. From the editorial introduction by Sudha R. Shenoy, ed., *A Tiger by the Tail* (London: Institute of Economic Affairs, 1972), p. 8.

40. The argument appearing in the beginning of this section was strongly influenced by a talk, "Adam Smith in Theory and Practice", delivered by Thomas Sowell in the Harry Girvetz Memorial Lecture Series at the University of California, Santa Barbara.

41. Adam Smith, *Theory of Moral Sentiments* (London: Henry G. Bohn, 1853), pp. 342–343.

42. Hayek, *The Morgan Guaranty Survey* (January, 1976), 4.

43. For one reason that might attract economists to this movement, see Hayek, *The Morgan Guaranty Survey,* 11.

44. See Wassily Leontief, "For a National Economic Planning Board", *The New York Times* (March 14, 1974), 37.

45. The modern Austrians have specifically emphasized this point. The work of Mises, Hayek, Lachmann and Kirzner are notable in this respect. For a recent example of a work written in the Austrian tradition that emphasizes the role of decentralized planning in a market economy, see Kirzner's *Competition and Entrepreneurship.*

46. This quotation appears in Chaper III of Hayek, *The Road to Serfdom* (Chicago: University of Chicago Press, 1944), pp. 34f; it is cited in Hayek, *The Morgan Guaranty Survey* (January, 1976), 5–6.

    The word "liberal" refers here, of course, to classical English liberalism, and not to twentieth century American liberalism.

47. Israel M. Kirzner, "Hayek, Knowledge and Market Processes", Paper Delivered at the Allied Social Science Association Meetings in Dallas, Texas (New York: Xerox, 1975); especially 28–29.

48. Kirzner, "Hayek, Knowledge and Market Processes", p. 29.

49. Kirzner, "Hayek, Knowledge and Market Processes",

p. 32.

50. Kirzner, "Hayek, Knowledge and Market Processes", p. 33.
51. L. M. Lachmann, "Reflections on Hayekian Capital Theory", Paper Delivered at the Allied Social Science Association Meetings in Dallas, Texas (New York: Xerox, 1975), 13.
52. Lachmann, "Reflections...," 8–9. Emphasis added. Aslo, cf. Lachmann, "From Mises to Shackle", 59–61.
53. Lachmann, "Reflections...", 9. "The Future is unknowable, though not unimaginable. Future knowledge cannot be had now, but it can cast its shadow ahead. In each mind, however, the shadow assumes a different shape, hence the divergence of expectations. The formation of expectations is an act of our minds by means of which we try to catch a glimpse of the unknown. Each one of us catches a different glimpse". Lachmann, "From Mises to Shackle...", 59.
54. In his most recent work, Lachmann notes that Mises, Hayek and Kirzner have emphasized the diffusion of knowledge in the market process. But he denies that the market can diffuse expectations in the same way. Cf. Lachmann, "From Mises to Shackle", 59. I believe the distinction between knowledge and expectations is a spurious one.
55. Cf. Kirzner, "Hayek, Knowledge and Market Processes", 30–31.
56. Lachmann, "From Mises to Shackle", 59.
57. Lachmann, "From Mises to Shackle", 61.
58. Cf. Hayek, "Economics and Knowledge", in *Individualism and Economic Order,* pp. 39–45.
59. It is true that one can find recent instances in which prominent economists imply "coordination" in the *ex post* sense. For instance, cf. Leijonhufvud, "Effective Demand Failures", 29. But there Leijonhufvud is dealing, *inter alia,* with the question of whether markets clear at all. But the general issue with which Lachmann is dealing is surely the problem of *ex ante* coordination. If not, one must ask "why all the fuss?" Generally it is not denied by non-Marxists that at least output markets clear.
60. Ludwig M. Lachmann, "On Austrian Capital Theory", in E. G. Dolan, *The Foundations of Modern Austrian Economics* (Kansas City: Sheed & Ward, 1976), p. 149.
61. "...Expectations of early change in the present situation may impede the process of adjustment, and even when this does not happen, the forces of adjustment themselves may be overtaken by other forces". Lachmann, "On Austrian Capital Theory", pp. 149–150.
62. Lachmann, "From Mises to Shackle", 60; also see 58n of that article.
63. In any event, this is what I make of his public statements on the issue, made at various times. Also, note the last line of the first Lachmann quotation appearing above. Lachmann juxtaposes "the forces of equilibrium" and "the forces of change". Lachmann, "From Mises to Shackle", 61.