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LAW AND MACROECONOMICS

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Abstract

This chapter argues that imperfections in the working of individual (nonfinancial) markets are not a clear source of macroeconomic instability and that better regulation of these markets is not the way to stabilize the economy. Improvement here means both increased surveillance and removing government-fostered deficiencies. The basic arguments are (1) the long-standing disarray that distinguishes macroeconomics from microeconomics greatly increased starting in the 1970s, (2) great dispute exists over the workability of different 'classic' macroeconomic measures, (3) despite at least seven decades of advocacy of microeconomic measures for macroeconomic goals, no defensible case exists, (4) support for microeconomic measures rests on a belief in a high degree of market failure about which microeconomists have become more skeptical, (5) these weaknesses imply that no clear macroeconomic benefits offset the microeconomic drawbacks of regulations of individual markets, and (6) extensive deregulation would produce substantial microeconomic and macroeconomic benefits, but the microeconomic case is much stronger.
JEL classification: K00, E00
Keywords: Macroeconomics, Keynes, Law and Economics

1. Introduction

This chapter examines contentions that imperfections in the working of individual (nonfinancial) markets are a source of macroeconomic instability and that better regulation of these markets is the most feasible way to offset these imperfections. Improvement here means both increased surveillance and removing government-fostered deficiencies. The overriding theme is the approach has little support.

The basic arguments are (1) the long-standing disarray that distinguishes macroeconomics from microeconomics greatly increased starting in the 1970s, (2) great dispute exists over the workability of different 'classic' macroeconomic measures, (3) despite at least seven decades of advocacy of microeconomic measures for macroeconomic goals, no defensible case exists, (4) support for microeconomic measures rests on a belief in a high degree of market failure about which microeconomists have become more skeptical, (5) these weaknesses imply that no clear macroeconomic benefits offset the microeconomic drawbacks of regulations of individual markets, and (6) extensive deregulation would produce substantial microeconomic and macroeconomic benefits, but the microeconomic case is much stronger.

Dealing with these points requires much effort. The prior two paragraphs not only make sweeping assertions, but use numerous ambiguous terms. The article then seeks to undertake four tasks. (1) The terms are clarified. (2) Selected parts of the debates over macroeconomics are reviewed. As the literature review below seeks to suggest, the chapter necessarily cannot even fully cover every idea encountered. Choice is limited to those that seem more relevant. Others can (and indeed in the refereeing process did) stress different viewpoints. (3) The microeconomics of market behavior are sketched. (4) Perspective is provided on the history of proposals to use microeconomic policies to secure macroeconomic goals.

2. The Nature of Macroeconomics Recalled

While economists occasionally use the term macroeconomics to describe any highly aggregative analysis, the more usual concepts relate to economy-wide instabilities, particularly in unemployment rates but also involving inflation and balance of payments problems. This clearly is the stress of the many macroeconomics texts. Since the rise of extensive formal studies of macroeconomics, the traditional concerns with the allocation of resources in markets became microeconomics.

Actually, both branches deal with the total economy. Macro concentrates on how the combined behavior produces instabilities. Micro stresses how well each component of the economy performs the task of making useful goods available to consumers.

Nothing in economics is neat, and this is true of the borders between macro and microeconomics. The banking system is both a micro and a macro concern. The role of banks in money supply is a basic concern of macroeconomics. The role of banks in serving individuals involves employing the standard tools of microeconomics. In practice, a further fuzzing arises from conventions adopted in standard texts. Economic growth, at least as conventionally modeled, is clearly a microeconomic problem, and any correction is by policies affecting individual markets. To be sure, more applied discussions recognize the impacts of alternative government tax and spending policies. For example, US political debates present, albeit in the overly loose fashion necessarily adopted in political debates, a choice between a Democratic model focusing on growth promoting government spending and a Republican view focused on making more money available for private sector investment. Conventionally, micro texts at both the advanced undergraduate and graduate level ignore economic growth. (A major exception is Mas-Colell, Whinston and Green, 1995). Macro texts, in contrast, typically cover growth.

Unemployment is central because it is harder to explain or correct than inflation and balance of payments problems. The basic causes and cures of the last two were established by the eighteenth century (as in David Hume's essays that relate to economics). In contrast, neither what causes unemployment nor what if anything can be done about it is well determined. Many explanations exists, but all have severe (and widely examined) drawbacks. This chapter argues that indeed these defects are so severe that any public policies must assume that they are dealing with a mysterious disease whose origin and untreated response are unknown.

What is most important here is that macroeconomics concentrates on monetary and fiscal policy. Increasing or decreasing control of individual nonfinancial markets has a decidedly secondary role. Macroeconomic theorists who contend that problems in nonfinancial markets or in their regulation are the main cause of instability often do not advocate cures involving directly altering control of these markets. One has to resort to nonconformist writings to find strong arguments for regulatory approaches to instability. Kelman's (1993) effort to examine the issue tries valiantly to find good rationales but only identifies drawbacks.

3. The Tools to Consider

The central policy distinction made here is between the monetary and fiscal policies that are the focus of traditional macroeconomics and regulatory initiatives. Monetary policy relates to control by various means of the supply of money in the economy. (Such financial innovations as mutual funds that invest in short-term securities and allow owners to withdraw funds by writing checks and credit and debit cards have increased the always difficult problem of distinguishing money from other financial assets. This problem is not relevant here.) Fiscal policy relates to the effects of government tax and spending policy.

Regulation here means those government policies that control the behavior of individual firms and households in the economy. The concept considered here is somewhat broader than that used in other discussions of regulation. In particular, a key element proves government policies governing the compensation and rights of workers and the treatment of trade unions. 'Regulatory' economists tend to leave most of these issues to labor economists. Stress is on good market controls; the only labor policies treated are health and safety regulation. Regulatory policies are the focus of many articles in this encyclopedia. For that reason and because of space limitations, I neither delineate in detail nor evaluate the microeconomic problems of such policies.

The formidable difficulties of producing predictable results from such policies is taken as proved elsewhere.

A more critical consideration is that the scope of proposed regulations may be greater when macroeconomic considerations are added to microeconomic concerns. The macroeconomics literature talks of incomes policy that involves controls of prices and wages throughout the economy. Microeconomic practice emphasizes concentrating on sectors in which monopoly power exists or markets fail to internalize all costs. This distinction can be interpreted in at least three different ways. First, the two arguments may be equivalent ways of stating the same view; economywide may really only mean monopoly sectors. Second, macroeconomists may see more monopoly than do microeconomists. Third, macroeconomists may feel that many sectors that cause no microeconomic problems are macroeconomic threats. Some indications arise that enthusiasts of wage and price controls, in fact, see a greater prevalence of extensive monopoly power than do microeconomists specializing on monopoly problems.

4. An Overview of the Macroeconomic Policy Debates

Stress here is on conflict between 'Keynesians' and classical economists. Both approaches encompass many different, often mutually incompatible specific analyses. For present purposes, examples of each position that seemed most germane are presented. The Keynesian position is identified with the view that real economies have features that produce large, undesired, and undesirable instability *and* that feasible 'active' public policies exist to improve on unregulated performance. Active means closely viewing economic behavior and reacting to it.

The classical position involves numerous criticisms of the Keynesian outlook. In particular, an influential new classical group of macroeconomists has dramatically expanded the demonstration of the impediments to successful government programs to stabilize the economy. A key unfluence on acceptance of the case is rejection by economists from all viewpoints of the 1930s belief that deep extended depressions are an ever present danger. The arguments are not conclusive. However, they have enough plausibility that serious consideration must be given the possibility that feasible active policies are ill-defined, if not nonexistent.

Even if this conclusion is rejected, it still can be inferred that whatever is done must be limited by implementation problems. Behind the bitter debates may only be a minor quarrel about exactly how *small* is the scope for action. The analysis here focuses on this narrowing of the ambitions of active monetary and fiscal policy from the more ambitious proposals of the 1936 to 1968 period. To the extent they support anything, modern Keynesians advocate restrained intervention that has been called coarse tuning (Lindbeck, 1993, p. 154) (in obvious response to the excessive prior claims that one could fine tune the economy). Much effort was devoted to arguing that active policies were desirable without indicating whether the activism significantly differed from following policy rules. Attention turns to arguing that, given these limitations and the widely known microeconomic drawbacks, increased regulation of nonfinancial markets is not an attractive alternative stabilization policy.

Unfortunately, reasonably treating these supposedly limited questions requires examination of most of the thorniest issues of both macroeconomics and microeconomics. In particular, the proposition that regulating individual markets is a desirable macroeconomic policy presumes that actual economies are best described by theories of imperfect markets. Acceptance of the empirical relevance of such theories, moreover, does not suffice to justify market regulation. It must also be shown that such regulation is a desirable way to offset the effects of market imperfections. In particular, the intervention must reduce unemployment and not produce other effects, such as increased inflation or undesirable impacts on the regulated markets, that cause harms that outweigh the employment benefits.

The issues have been major concerns in economics for nearly seven decades. All of the key questions remain unresolved and indeed often not even clearly raised. The characteristics, causes and cures of economic instability and how best to analyze them are all bitterly debated. A growing stress on theoretic prowess may have caused analysts inadequately to consider the empirical relevance of the theories. At least three issues arise about macroeconomics. The first is what comprises the theoretically sound models of instability. The second is which of these models best explains reality. The issue about theory choice stressed here is whether market imperfections are the primary causes of economic instability. It must be shown that the theoretically possible alternative mechanism prevails in practice.

The third concern stressed here is what the realistic models say about the correctability of behavior. They must show that the characteristics of the economy also allow effective stabilization policy.

5. Viewpoints

The combination of possible viewpoints produces a mass of alternative positions about problems, solutions, and the best ways to analyze them. Even without considering the many variant positions on how to analyze the issues, at least five policy postures can be delineated. Several different ways exist to reach each of the policy outlooks. Given the underlying complexity, the categories are devised as epitomes to make the discussion manageable. (The classification initially was designed to recognize distinctions made by Kelman, 1993, and overcome their drawbacks, particularly his failing to distinguish between the two radically different branches of new classical economics.) The classification is among traditional Keynesians, microinterventionists, deregulators, microkibbitzers (or Kennedy Keynesians), and skeptics about intervention.

To examine alternative routes to these policy postures, the valuable ambitious survey by Snowdon, Vane and Wynarczk (1995) distinguishes among classical Keynesians, new Keynesians, post Keynesians, monetarists, market clearing classicists, real business cycle advocates, and Austrians. As discussed below, the last four each develop somewhat different cases against active stabilization policy.

The position associated here with Keynesians, as noted, is that active monetary and fiscal policy is effective and preferable as an anti-unemployment tool. This certainly is the classical Keynesian position, and a large part of new Keynesian economics is devoted to defending against new classical criticism. Some post-Keynesian economists advocate wage and price controls.

Monetary and fiscal policy can take many forms. Thus, general approval of active stabilization involves support of many different specific practices. What is feasible is ill-discussed. The present treatment stresses the problems of any forms of activism and does not examine exactly what might be feasible. For reasons discussed below, labeling these views Keynesian is common but not necessarily universal.

The microinterventionists and deregulators believe that better government supervision of individual firms throughout the economy can contribute to reducing unemployment or at least allow the reduction to occur with less inflation than if only monetary and fiscal policy are used. Microinteventionists believe that unemployment is a serious problem originating from inherent market frictions *and* most appropriately cured by *increasing* regulation of individual markets. Deregulators, who tend to doubt the severity of economic instability, see government as creating the critical barriers to good performance and want to *decrease* regulation.

The increased regulation outlook had its height in the 1930s. The extensive thrashing about for explanation of the profound economic collapse in that decade produced many theories. A number stressed the role of rigidities in the economy. The supporters differed considerably in what they proposed. Suggestions were then made for either extensive national economic planning to regulate private market behavior or radically restructuring the economy by vigorous application of US antitrust laws (see below). Some of the advocates survived long after World War Two but attracted little intellectual support. Politicians, to be sure, have acted on acceptance of the belief. In contrast, the overregulation thesis is largely noted in passing by the most avid antigovernment economists. (Kelman gives the macroeconomic elements of these arguments greater prominence than they ever have secured in the economic literature.)

The failure of massive depressions to emerge since World War Two lessened, but did not eliminate, concerns. The question of whether more directly confronting market or government imperfections was an effective strategy persisted but never dominated. Support for such measures was limited.

At least two episodes arose in the United States. They were inspired largely by the persistent problems of taming inflation generated by the Korean and Viet Nam wars. Towards the end of the Eisenhower presidency, much discussion arose of cost inflation. The Kennedy administration devised a response, but it was the alternative option discussed next. The Nixon administration was enduring inflationary problems reflecting lingering effects of the Viet Nam War and then was hit with the 1973-74 oil price shocks. The administration adopted first a set of general price controls and then initiated what proved an extended concentration on regulating energy for many reasons including alleged macroeconomic benefits. The much explored energy experience (see Bradley's massive 1995 effort to sum up the experience) illustrated the severe microeconomic problems that can arise.

Many of those involved during the 1980s in developing more acceptable theories of how rigidities cause economic instability are cautious about making policy suggestions. The point is made in the editors' introduction to Mankiw and Romer's anthology of US writings developing such models. One author in Mankiw and Romer (Bryant, 1983, vol. 2, p. 28) notes 'almost anything can be modeled as optimizing behavior'. The Winter 1993 issue of the *Journal of Economic Perspectives* had a symposium on the work in which the new Keynesians Romer, Greenwald and Stiglitz, a leading old Keynesian, Tobin, and a new classical economist, King all express reservations about the empirical relevance of the theories. Robert J. Gordon (1990) (from a distinguished family of economists to which I am not related) has separately discussed the drawbacks. All sides argue that it is still not established what rigidities are most critical and how they operate. Thus, the latest work on imperfections at most is the basis for eventual development of policy advice.

When John F. Kennedy was elected, his official and unofficial economic advisors adopted a compromise between Keynesianism and microintervention. Recognizing the drawbacks of explicit controls, the advisers proposed a halfway house approach of wage-price guideposts to indicate to industry what would be noninflationary wage and price changes. Estimates were provided of the rates of wage and price increases consistent with overall price stability. Industry and trade unions were exhorted to keep wage and price changes within these guideposts. This was a curious, justly largely forgotten episode since economic analysis tends to scorn reliance on unenforceable pressures. Indeed, the only reason that this approach is mentioned is that Mankiw and Romer included a paper by Okun advocating among other things a return to guideposts (and proving a link, badly missing elsewhere in the anthology, to precursor work from 1935 to 1970).

6. The Skeptics

The skeptical view stressed here is that high unemployment is transitory, of ill-understood origins, and cannot be alleviated by public policy. Skepticism, as discussed below, involves various challenges to belief that instability is correctable. Objections are both theoretical and practical. It is argued that theories stressing instability have questionable theoretic basis and little empirical relevance. Another contention is that instabilities are so difficult to recognize and so transitory and policy responses are so slow and variable that intervention is likely to be harmful.

Skepticism, as treated here, is an extension of the Milton Friedman position and its development by the macroeconomists using, among other things, the assumption of rational expectations. That last assumption is compatible with many different further premises; the new classics initially concentrated on models in which policy ineffectiveness is likely. The main difference of the present discussion is its greater stress on the absence of a convincing explanation for the causes of unemployment.

The absence of such an explanation strengthens skepticism. Thus, this article stresses the defects of business cycle theories with a clear message of any type on both causes and policies. I read Friedman as saying only that passive monetary is the least worst available alternative. The wildly implausible idea that all problems will vanish under a monetary rule has its supporters, but Friedman does not seem one of them. Similarly, I note with no enthusiasm efforts of real business cycle theorists to suggest business fluctuations are not a policy issue because they arise from voluntary changes in the willingness to work.

7. The Rise of Macroeconomics

Historically economics concentrated on attainment of efficiency in the marketplace. Disturbances such as unemployment, inflation and problems with international balances of payments were considered secondary. Textbooks prior to the end of World War Two I hardly mentioned the issues. Writings existed, but they apparently commanded limited attention. (The impression about earlier textbooks is based on sampling made over many years. Here, Samuelson's complaints (for example 1977, p. 770) that the issues were ignored when he was an undergraduate in the 1930s should be contrasted with the mass of material cited in Haberler's *Prosperity and Depression*.) The persistence of massive unemployment in North America and Europe in the 1930s shattered the prevailing beliefs. Economists struggled to devise better explanations of economic instability. The result of all this was the emergence of macroeconomics.

The new realm of macroeconomics was dominated for a long time by models inspired by the work of John Maynard Keynes in the *General Theory* *of Employment, Interest, and Money*. Keynes presented an exposition on the causes of instability (or at least of a depression as prolonged as that in the 1930s) that secured wide acceptance as the needed answer. Given the ambiguity of Keynes's work and the need to deal with circumstances radically different from those of the 1930s, enormous explanation, refinement and revision have occurred.

Keynes-inspired economics has at least three major components - a framework for analyzing economic instability, a vision about the nature of the instability, and views on stabilization prospects given the instability. Much controversy appropriately arises about what is the correct view of each area. A more unusual aspect of the debate is the preoccupation about whether a given interpretation is one advocated by Keynes. This contrasts with the excessively short memory of many microeconomists who often write as if general equilibrium theory leaped from Walras to Arrow and Debreu without the intermediate assistance of even Hicks and Samuelson. For most purposes, the debate about interpreting Keynes is a distraction from the fundamental questions about what is the most useful way to model the economy.

The difficulty of determining what Keynes meant arises from the loose, often ambiguous, exposition in the *General Theory*. Examining the mass of Keynes's other writings apparently increases the uncertainty about his beliefs. Similarly, those who differ with some possibly quite substantial part of the Keynesian position as defined here may or may not still identify themselves as a Keynesian in a looser sense.

The greatest consensus exists about the basic analytic framework. That used generally is an extension of J.R. Hicks's pioneering 1937 effort to provide a systematic formulation of what Keynes meant. The accord, however, consists only of agreement to employ a few equations dealing with, among other things, the supply and demand for four goods - production as a whole, labor, money and an interest bearing security.

Considerable variation prevails in the specification of equations in different theoretic exercises. In many cases, these alternatives are presented as one providing a superior view of actual economic conditions. Others are simply efforts to test the sensitivity of results to the assumptions. (Hicks's version of Keynes was one of the earliest to argue that the *General Theory* did not assume imperfect competition. Hicks concentrates on differences between Keynes and the classics about the sensitivity to interest rates and the level of income of demands for money and investment goods and the supply of savings. The labor and good production market are absent from Hicks's models but appear in Modigliani's widely cited 1944 effort to summarize the debate.)

As discussed more fully below, many macroeconomics models of persistent unemployment long have assumed some departure from the (idealized) assumptions of the microeconomic theory of competitive markets. Some observers, notably Patinkin (1965), correctly argue that this approach trivializes and misrepresents Keynes and thus that an alternative view of Keynes was needed. (Patinkin makes this case tacitly.) The implications of major departures from the core assumptions of the theory of competitive markets are too obvious to justify terming the consideration of imperfections a revolution. The attacks on classical economics in *General Theory* are deemed to suggest flaws in the old analysis less obvious than neglect of market imperfections.

Patinkin focused on an issue that then and now traditional theory cannot treat, the speed of adjustment. He suggested that this adjustment might be too slow, where too slow means slow enough that governmental intervention could effectively speed the process. This viewpoint, however, has received few adherents. Economic rigidity models of various forms discussed below remain the mainstay of theories of persistent unemployment. Keynes's exposition is too fuzzy to resolve definitely whether he postulated a more subtle problem, overstated the newness of his theory, or both. Validating Patinkin's view of Keynes or the similar contentions of Clower (1965) and Leijonhufvud (1968) is not feasible or essential. The observation that the implications of market imperfections is (better) treated by classical economics remains valid whatever Keynes believed.

Haberler's (1958) study of economic instability largely written before the appearance of the *General Theory* anticipates the concern over stress on market imperfections: 'It might therefore just as well be maintained that rigidity of our economic system, or its financial or monetary organisation, or particular features of the latter, are the causes of the cycle as that inventions or crop changes or changes in demand are responsible' (p. 6).

By itself, this debate over what comprises the most relevant macroeconomic models and how consistent that model is with that of Keynes could be and often is a mere intellectual exercise. The germane concern is about the practical implications of whatever is the right model. In particular, the central issue is whether the characteristics of actual macroeconomics justify and permit effective countercyclical policies.

8. Alternative Views on the Stability Problem

While many different models exist, the number of possible outcomes is limited. The basic possibilities are stagnation (unemployment that inspires no market generated corrections), a business cycle sufficiently prolonged that public policy can lessen its impacts, and a business cycle so transitory that public policy cannot lessen the impacts. Feasibility depends upon the comparative length of the cycle and of policy response.

The stagnation idea was one that arose in the depression of the 1930s and died with the boom after World War Two. Whatever Keynes believed, some of those whom Keynes inspired initially argued that unemployment was chronic. The original Keynesian approach, therefore, stressed the existence of inherently correctable persistent demand deficiencies in the economy. Fears of massive persistent unemployment faded and with them interest in equally massive and slow moving programs of government spending.

The alternative view that temporary periods of unemployment, the problem often called the business cycle, arise now predominates. The ‘Keynesian’ position is that public policy can fruitfully counteract these transitory downturns. The ‘classical’ approach stressed here is essentially an attack on the legitimacy of this extension to short recessions of claims plausible to persistent depressions. (In fact, such concerns have been raised within the Keynesian traditions, see Phillips, 1950, 1954, 1956 and Allen, 1956.)

Inflation proved a more persistent problem than many Keynesians (but not Keynes himself) expected. Reflecting these changes, Keynesian economics greatly altered its focus from 1936 to its ‘crisis’ in the 1970s. The revised belief was that the fluctuations that did occur had characteristics that should and could be counteracted by active government policies. The initial successes in the 1960s produced faith (indeed in the worst cases arrogance) that this view had been vindicated.

9. The Return of Classical Macroeconomics

During the years immediately after World War Two, only a few economists, most notably Milton Friedman, argued that the problems and the ability to deal with them had been overstated. To be sure, there were a substantial number of older economists, of whom Haberler is an example, who were unimpressed by Keynes’s analysis when it appeared and never recanted. Paul Samuelson’s fascination (for example 1977, p. 878) with Kuhn’s concept of scientific revolutions undoubtedly involved appreciation of Kuhn’s concept of a recalcitrant old guard who refused to recognize the truth. Long before Kuhn provided supporting rationales, the Keynesians were quite successful at dismissing older critics as obdurate. The revival of more classical approaches implies the dismissals may have been premature. The old school lived to see their earlier doubts gain support that attracted new disciples. Snowdon, Vane and Wynarczk (1995, p. 21) suggest that indeed Kuhn’s analysis is generally inappropriate for economics because no outlooks are abandoned.

Stagflation (high unemployment, inflation, and slow growth) in the 1970s caused greater attention to Friedman’s views. A group of economists termed the new classical economists developed models that raised the possibility that Friedman’s criticisms understated the drawbacks of intervention.

Friedman and similar critics stress the existence of long and unknown lags in the recognition of problems, design of response, and reaction to the response. Given all these lags, active public policy cannot clearly produce improvement and might even be harmful. This position has been enormously influential. Many fully accept the arguments. More importantly, those who defend active stabilization policy advocate actions far less ambitious than those proposed in the 1960s.

After the disastrous performance in the 1970s, Friedman's argument that instability was not necessarily inherent and definitely was not correctable received increased attention. This encouraged economists too young to be influenced by the experiences of the 1930s to examine what lay behind the earlier beliefs. In particular, economists such as Lucas and Sargent developed an alternative, more formal analysis to deal with Friedman's assertions. (At least three major anthologies are available on new classical economics: Lucas and Sargent, 1981, a large collection of pieces by many writers who deal with economics principles, statistical techniques, and empirical evidence; Lucas, 1981a, a collection of work authored or co-authored by Lucas; and Miller, 1994, a collection stressing later work, all associated with the Federal Reserve Bank of Minneapolis.) The new analysis showed that under some conditions intervention was totally ineffective.

10. Market Clearing Rational Expectations Models

Since this result depended on introducing expectations into macroeconomic models and the developers relied specifically on a theory of expectations developed by Richard Muth, one name given the application to macroeconomics was based on the term 'rational expectations' which Muth used to describe his approach.

Since the theory also insisted that it should be assumed that markets clear rapidly, the alternative name of market clearing macroeconomics was also used. The meaning of market clearing used by the group seems widely misunderstood. Lucas's formulation seems to indicate nothing more than an analytic strategy (1981a, p. 226). He felt that assuming perpetual disequilibrium was too permissive. However, he adds that equilibrium states are not always desirable. One way of interpreting him is by recalling Alfred Marshall's period analysis. In Marshall, markets always clear but not all the ultimately desirable responses are made immediately. Reality consists of a successions of ever better adjustments to underlying conditions. Nevertheless, the new classical economists tend to see a rapid full adjustment.

Finally, the approach was dubbed new classical since it in many ways suggested that classical competitive theory was still the most practically relevant model. One of the critical ways was to assert that prior models lacked 'microfoundations'. By this was meant that no plausible microeconomic theories existed to justify many parts of the prior interventionist macroeconomic models. This applied at least to the assumptions about expectations, the specification of equations in econometric models of the economy, and the assertions of price rigidities.

In the most dramatic applications, the approach showed cases in which active policy would be ineffective. (Lucas's work provided a starting point, but the fullest developments were in papers in Lucas and Sargent, notably those authored by Sargent and Wallace.) These new classical economists contended that Keynesian arguments, particularly those associated with the Lipsey (1960) and Samuelson and Solow (1960) developments of Phillips's 1958 analysis of an inflation unemployment trade-off, depended on assuming that the public was irredeemably stupid. The new classical economists argued that, if the public anticipated that monetary expansion would occur, they would neutralize its output effects by inflating prices by the amount of the monetary expansion. The result is an immediate consequence of the key assumptions of competitive markets that adjust slowly but not interminably and of decision makers capable of anticipating public policy. The essence of the case is that the models assume enough flexibility in the economy to rule out any output of monetary expansion except that resulting from failure to anticipate.

Another key contention was that statistical analysis could not establish which theory was correct. The new classical argument was extended to remind macroeconomists of the classic econometric problem of observational equivalence (see, for example, Sargent, 1976b). In many cases including those of concern here, observable behavior can be consistent with many radically different theories. (The basic idea is that we only observe the interaction of supply and demand. An approach called identification is used to move backward from the observed results to determining the equations that produced the equilibrium. However, models tend to be overidentified, that is, consistent with an infinite number of conditions.)

The new classicists also adopt Friedman's concerns about the enormous data needs for successful stabilization. Much effort has been devoted to showing the imperfection of the models and how to develop models in which active stabilization works. This seems an inadequate response. The new classicists are challenging the empirical validity of faith in active instability. A response must include convincing factual evidence to the contrary.

While the new classical economists described their work as supporting Friedman's arguments, he was not pleased. He joined many Keynesians with concerns over the allegedly high degree of rationality assumed (see his comments to Snowdon, Vane and Wynarczk, 1995, p. 175). He felt that his arguments were more plausible than the assumptions of rationality made by the new classical economists. These complaints may exaggerate the differences. Friedman had suggested the idea that real effects of monetary policy were possible only if people were temporarily fooled.

The new classical economists made the sensible extension of specifying what was required to eliminate surprise. The analysis leaves some room for temporary surprise. More critically, however, the approach at least implicitly warns that *all* theories of the business cycle, particularly the monetary, rely to various degrees on the assumption of transitory, potentially ultimately correctable confusion over what the monetary authorities are doing. Lucas himself relies on such a lag. The minimum contribution of a rational expectations benchmark is warning that the magnitude and duration of effects depends upon precisely what economic analysis cannot treat, the precise degree to which reality differs from idealized conditions.

A further implication is that, as is surely true in 1997, after decades of active monetary policy the private sector will better understand and anticipate the actions of the monetary authorities. In short, monetary policy can create disturbances, but their nature is too unclear and so subject to eventual erosion to permit counteraction. Attacks on rationality, moreover, have overstated what one must know. What is involved is knowledge about what the monetary authorities are doing and what it implies. The leading newspapers and television networks have managed to grasp such information.

Houthakker's (1957) research on the operation of futures markets suggested that the few full-time professionals with knowledge of market conditions dominated the markets and made them efficient. (This is an implicit application of Hayek's arguments about how markets economize on knowledge acquisition.) Similar specialists could operate in other markets to ensure they two were guided by the best possible knowledge.

11. Further Challenges

Friedman in collaboration with Anna Schwartz (1963, 1982) added another element to the anti-intervention case. They examined the monetary record in first the United States and then the United Kingdom and observed a high correlation between money supply movements and economic instability. They concluded that monetary policy seemed the cause rather than merely reacting. A major part of the analysis was a detailed description of policies before and during the great depression. The review led them to attribute the depression to overly aggressive monetary restriction in the late 1920s and failure to expand money in the 1930s by the US Federal Reserve Board. Two leading subsequent commentators, Kindleberger (1986) and Temin (1989), disputed Friedman and Schwartz's explanation of why the Federal Reserve acted improperly but agreed that bad monetary policy was the critical cause. A symposium in the Spring 1993 *Journal of Economic Perspectives* (C. Romer, Margo, Calomiris and Temin) reinforced this viewpoint.

These conclusions dispute the central premise of Keynesian economics stressing inherent, correctable instability in the economy. Clearly, as Friedman and Schwartz know, strong associations simply suggest linkages. Ultimately, we rely on our judgments about the plausibility of different explanations. If Friedman and Schwartz are right, the Keynesians identified the disease (bad policy) as the cure. This is an ultraclassical (almost Austrian) conclusion that in macroeconomics as well as microeconomics government is better thought of as a threat than as an all knowing benevolent force. This, in turn, hits at a main weakness of the neoclassical synthesis, the inconsistencies between its views of government in microeconomics as opposed to macroeconomics. It is possible that macroeconomic problems are so much more serious or more tractable that government can be trusted more in macroeconomics than in microeconomics. It also is possible that the drawbacks that arise in microeconomic problems also occur in macroeconomics. These conclusions become muted but still relevant if less classical explanations are more valid. We are left with concerns that, as already noted, all responsible observers share, about the severe limits to active intervention.

12. Real Business Cycles

Some new classical economists, as noted, responded to discontent with the explanations given of business cycles by proposing new real (in the economic sense of non-monetary) theories of the business cycle in which variations in employment were voluntary responses to changing market conditions such as sudden changes in the productivity of the economy. This is a very different approach that, if valid, would be the ultimate challenge to Keynesian economics. Countercyclical policy would be interfering with efficient behavior.

Real business cycle theory to date is severely (and properly) criticized because it is as unconvincing as all the prior simple explanations. In particular, no plausible justifications were provided for belief in developments that would inspire massive but temporary voluntary decisions of some workers to stop working. (Even the advocates recognize the difficulty of identifying real phenomena that explain historical experience. The summer 1989 issue of *The Journal of Economic Perspectives* presents papers by Plosser, a developer, and Mankiw, a skeptic.)

Snowdon, Vane and Wynarczk note the thread in real business cycle analysis that emphasizes the cycles are random deviations from trends. The discussion fails to cite Slutsky's classic paper that deals with possibility that by its nature economic evolution will have random deviations from trends. This earlier work relies on the broad view that the complex processes involved cannot be expected to operate smoothly. This seems more satisfactory than the view that the unevenness has a cause.

13. The State of Policy

New classical economics, Austrian economics, and Friedman all effectively argue that Adam Smith's concerns about the difficulties in determining the public good applies as much to stabilizing the whole economy as to regulating individual markets. 'Keynesian' belief in the opposite presumption is challenged to provide a convincing counterargument.

The arguments were essentially a formalization of a key tacit premise in macroeconomics. It was an act of judgment, heavily influenced by the great depression, that stabilization policy was needed. Keynesian economics and the broader neoclassical synthesis in which it was embedded effectively argued that the dangers of unemployment were so severe and readily correctable that it was obvious that economists should suspend their traditional distrust of intervention. The continuation of this approach after 1945 involved a giant leap that was never well justified. What was true for a chronic depression was clearly less justified for a world of milder business cycles.

As long as the policy seemed to work, it escaped challenge. Leaps of faith seemed good enough. Once the program faltered, economists felt emboldened to restate the traditional doubts about intervention. These new classicists challenged the prevailing evaluation criteria by suggesting many reasons why this approach was suspect.

Given the strong commitment among macroeconomists to active stabilization policy, these views have been resisted vigorously. Stress is on complaints that the models assume an implausibly high degree of rationality, postulate unrealistically well functioning markets, and inadequately explain the business cycle. A striking contrast between the new classical and new Keynesian analyses is that the former involved extensive consideration of the theory and practice of statistical testing of hypotheses while the latter concentrates on pure theorizing. As suggested above, these complaints inadequately consider whether the flaws suffice to justify active stabilization policy. As discussed below, to date, the most that the Keynesians can claim is that such justification *might* exist. Thus, the attacks on new classical economics seem incomplete.

The Keynesians might have explicitly countered with what they seem to believe, that the risks of inaction were too great to allow reliance on simple rules. Probably because they recognize that the new classical economics also warns that action also poses possibly greater dangers, Keynesians have tried to refute the criticisms.

Unfortunately, the situation precludes a conclusive resolution. The situation is standard in economic policy debates. We have two radically different judgments of what constitutes the prudent strategy. One side is concerned with the perils of inaction and urges continued effort. The other side concentrates on the evils of intervention and urges radically altered less intrusive controls. This obviously cannot be settled here. What is critical is that the doubts are sufficient to justify restraint about adopting radical new measures.

14. Confronting Cyclicality

Keynesian and other widely used macroeconomic models have a flaw of dealing only with equilibrium at a specific moment. A long tradition has at least tacitly recognized that this approach ignores the expansion of the economy and the variations in expansions traditionally termed business cycles. Early Keynesians expressed their recognition by developing models explicitly treating cycles. More classical economists directly attacked neglect of cyclicality as a fatal flaw of Keynesian economics.

In its most general and useful sense, the business cycle idea suggests that increased unemployment occurs in an ever-changing economy and that economy may spontaneously generate measures to eliminate the unemployment. To understand the debate, we must recall now abandoned work in economics.

Staring in the 1930s, various economists, most notably the very young Paul Samuelson, tried to devise macroeconomic models that accounted for these cyclical forces. Samuelson and those who followed him concentrated on the existing theory most readily reduced to a manageable model. In particular, he treated an accelerator model in which investment depended on the most recent change in national output. (By modern standards, this is a hopelessly naive model since it ignore anticipations.) This effort reached a dead-end in the 1950s (see Allen, 1956). The models had become unmanageable long before they produced a plausible analysis of cyclicality. Macroeconomists abandoned not only the development but also the recollection of cyclical analysis. In the process of abandoning this approach, a critical insight was weakened. Studies, particularly those of Phillips (1950, 1954, 1956, 1957), of stabilization policies in a cyclical economy showed the difficulty of producing desirable results in a steadily moving economy. A basic problem of any interventionist strategy is that long effort has failed to produce a convincing analysis of cyclicality. It can be argued that the analysts have lost sight of the difficulties involved.

Cycle theory was followed by steady-state growth theory that traced the effects of steady increases in the ability to produce. Here too, the difficulties of analyzing complex cases long hindered progress; some signs of revival have arisen but are treated here. However, the pioneering models in this realm are widely cited in later macroeconomic models.

Shortly after the appearance of the *General Theory*, the League of Nations published a survey of business cycle economics. The review was by Gottfried Haberler, an Austrian trained economist long associated (particularly in his long career after the book was published) with anti-intervention views on the economy. (Haberler revised the book twice for the League and finally in 1957 the Harvard University Press issued a fourth edition. The last is used here. According to that edition, every edition had two main parts, the survey of different theories and a ‘Synthetic Exposition Relating to the Nature and Causes of Business Cycles’. The fourth edition omitted much material from earlier editions, retained a chapter on Keynes added to the second edition, and added reprinted of later articles.) The discussion provides a richer view of proposed explanations and their drawbacks than appears in subsequent work.

Haberler begins by discussing the problems of explanation. He suggests, for example, that some supposedly single-cause models at least tacitly postulate additional influences. Supply or demand shock-based models make presumptions about the adaptability of the economy and particularly the monetary system to shocks. Monetary theories may implicitly concern the response of the monetary authorities to external forces. His basic posture is that the theories are at best incomplete and often indefensible. Subsequent work has neither added plausible new explanations nor overcome the severe deficiencies of prior concepts.

15. The Causes Considered

Haberler's survey of views distinguishes several categories of causes - purely monetary theory (nonmonetary, monetary, and demand change), overinvestment theories, changes in costs, horizontal maladjustments, overindebtedness, underconsumption, psychology and harvests. However, over half his discussion of explanations is devoted to overinvestment.

Haberler's monetary theory is devoted entirely to the views of R.W. Hawtrey. The latter's theory holds that business cycles are due entirely to unwise fluctuations in the money supply. Emphasis is on the effects on real interest rates. (This is a stronger and thus less convincing argument against active monetary policy that the later view of Milton Friedman that stable growth has better effects than active monetary management. Hawtrey as interpreted by Haberler argues that active monetary policy is cause rather than cure or aggravating force.) As proves true of many of the models discussed, this theory involves precisely the dependence on failures of anticipation about which the rational expectations approach warns.

The alternatives to a purely monetary approach tend to involve a generic problem of imbalances among supplies, demands and prices. Haberler's discussion of specific theories thus often expands upon his initial warning that whatever problem a given theorist stresses, the analysis typically involves the interaction of several forces.

Monetary overinvestment theories such as Wicksell's (and Hayek's as epitomized by Snowdon, Vane and Wynarczk) differ from Hawtrey's 'pure' monetary theory by stressing the influence on investment of changes in real interest rates. Haberler starts his review of nonmonetary overinvestment theories by noting that the lack of explicit consideration of money is a flaw. The theorists 'are compelled to assume an elastic currency or credit supply in order to prove what they wish to demonstrate' (p. 73).

Haberler then turns to a central ideal in business cycle theory, the acceleration principle, used in Samuelson's model (1966, vol. 2, pp.

1107-1124) and its extensions. This theory builds on the fact that investment either replaces retired capital goods or adds to productive capacity. A simple rule is that investment to add new capacity is proportional to the change in output in the recent past. While the level of economic output changes slowly, the changes and thus investment can move radically. Haberler ends his discussion of qualifications to the theory with consideration of expectations. He notes 'any investment, directly or indirectly is looking forward to, and is made in the expectation of, a future demand for consumers goods' (p. 97). His concern is more qualified than that of the 1970s. Haberler talks only of 'types of investment which look forward to their utilisation to a very distant future' (p. 98).

The cost change theory that Haberler stresses is that as a boom proceeds, firms start operating on a steeply rising portion of their cost curves. Haberler recognizes that this would not be problematic unless real wages and prices failed to adjust to these changes. Horizontal maladjustments are the lack of correspondence between demand and supply in goods and factor markets. According to Haberler (1957, p. 115), the overindebtedness theory is most satisfactory in warning that existing debt hinders response to downturns and less satisfactory in suggesting that the rise in burdens restrain activity and produce downturns. The financial organization explanation is that valuing financial assets in nominal money reduces price flexibility.

Haberler views overconsumption as a grab-bag of illformulated, often invalid theories. The valid theories, moreover, are often restatements of theories best classified under his other categories. He indicates that many theories involve economically unsound ideas that consumption is inherently unable to expand as rapidly as productive capacity. Haberler indicates that valid theories involve short-run imbalances among consumption, savings, investment and productive capacity. In some of these models, stress is on income distribution effects. A shift of income from wages to profits undesirably reduces consumption.

Haberler views psychological theories as attempting to postulate swings arising from optimism and pessimism distinct from the fluctuations observed in other theories. Haberler notes the difficulties of distinguishing these effects but does not deny their existence.

As suggested above, Haberler's leaves us with many ideas and no clear way to determine whether any of those that are theoretically sound are empirically relevant. In short, he documents the case that a satisfactory explanation is unavailable. It is argued above that little progress has been made in the last six decades at overcoming these problems.

16. Imperfect Competition and Unemployment: The Microeconomic Background

One critical controversy in macroeconomics centers on whether the traditional flexible competitive market outlook or alternative imperfect market or defective governments models best describe actual economies. The macroeconomic debates are echoes of the microeconomic debate over what is the empirically most valid model of the economy. Since the relevance of the associated macroeconomic models depends on the underlying microeconomic work, the nature of the latter must be considered.

The history of the microeconomics of imperfect markets is convoluted. A particular concern is that theory and practice may have radically diverged. The case for regulating markets arose in ill-formulated work in the 1930s. Means (1939, 1972) became the quintessence of the process due to his long-standing, diverse and often discussed efforts. His most persistent idea was that industrial prices were excessively rigid. This view was, in typical Means fashion, derived solely from observation of data. Reaction to arguments lacking either theoretic basis or proper skepticism about the problems of data interpretation clearly were a major inspiration for Edward S. Mason's efforts to encourage sounder work on the issues (as is clearly shown in the germane articles in the anthology of his writings (1957) and in his later (1982) essay reflecting on economics at Harvard in the 1930s).

The results were development of both sounder theories and better empirical analyses. The theory has produced an overwhelming number of models. By sheer count, those models that postulate market imperfections seem to dominate. Even the term is loaded in this direction. Imperfect, in practice, means a departure from the idealized assumptions used in general equilibrium models that are the primary tools of modern economic theory. However, the essence of models is deliberate simplification. Reality thus is more complex than the model. Theorists often fail to consider how these complications alter what is optimal. In addition to the attention to market failure, important work has been done on developing models suggesting the microeconomic drawbacks of regulation, government failure.

An important aspect of the evolution was the emergence starting in the 1970s (and still continuing) of theories inspired by the formalism of post World War Two economic theories. This new work displays both the strengths and weaknesses of formalism. The inadequate microfoundations displayed by those like Means have been banished. However, theory only establishes what might happen. Empirical verification is needed to determine the practical relevance of alternative visions. A tendency exists relentlessly to follow every idea without concern about relevance. The emphases in the theorizing seem better explained by the greater ease with which market imperfections can be analyzed.

The literature is too vast to treat adequately here. Among the more important overviews are the essays in Schmalensee and Willig, the treatises by Tirole, Krouse, and Spulber (who uniquely does reflect on the limits to applications), and the texts by Scherer and Ross (1990) and by Carlton and Perloff (1994). The critiques of Schmalensee and Willig by Peltzman (1991), Fisher (1991), and Klevorick (1991) all reflect the concern expressed here over inadequate consideration of empirical relevance. This, in turn, reflects a broader discord about the practical importance of monopoly that these critiques neglect.

Applied economics and even public policy has moved towards discontent with regulation that is so widespread that its nature can only be sketched here. Both regulation of individual markets and the efforts to use broad 'antitrust' policies to regulate competition are under severe challenge.

With antitrust, the 'moderate' position is that long-standing proposals massively to restructure industry lack justification for action and that policies over mergers, price fixing, and other trade practices must be administered with greater concern for promoting competition. Bork, 1978, and Posner, 1976, in their books on antitrust state well all but the first of these points. The best indicator of what has happened with restructuring is the lack of efforts since the late 1960s to promote the approach.) However, the Chicago position on flawed regulation has regularly led to conclusions that satisfactory administration is intrinsically impossible. Failure to apply this proposition to antitrust invited and ultimately received challenge (see McChesney and Shughard, 1995).

The views on more specialized policies ranges from condemnation (for example, for most agricultural, transportation, and energy intervention) to desires for radical reform (for example, for environmental regulation). The challenges involve a mixture of skepticism over both whether any of the market imperfections cause significant problems and whether public policy can make things better. No one book can do all this justice, but Viscusci, Vernon and Harrington (1995) covers much of the critical ground from a careful analytic view. The Cato Institute, a vigorous advocate of limited government, prepares more sweeping but much less analytic surveys of interventions that seem unsound.

One polar extreme is the Chicago position that monopoly is rare and transitory unless supported by government policy. Some economists (for example, Scherer and Ross, 1990, p. 541, talk of Chicago being 'fervent in advancing simplistic theories of economic behavior' and Bresnahan in his comments in Fisher, 1991, p. 227, talks of 'the too-hasty Chicago consensus') profess scorn for this outlook. However, this does not produce great concern over monopoly or enthusiasm for regulation. Scherer and Ross's attacks on Chicago, for example, preface sections absent from earlier versions extensively discussing previously neglected Chicago arguments.

The point here is that the ability of market regulation to accomplish anything is under severe challenge. Thus, a case for regulating on macroeconomic grounds must overcome three problems - (1) proving possible imperfections exist, (2) showing that they have important macroeconomic effects, and (3) devising workable policies to overcome the problem.

17. The Effort at Application

The case here is that work to date falls far short of fulfilling the requirements just set. It is suggested that all that has been done yet is produce theories that show how imperfections might produce major macroeconomic effects. Empirical verification has not been provided. Moreover, considerable evidence exists that even the developers of the theory are concerned about this limitation.

Stress here is on a group of US economists who have termed themselves new Keynesians and Europeans who have emphasized labor market imperfection issues. New Keynesian analysis is the effort of a newer generation of economists to evaluate the attacks on the Keynesian faith of the leading academics (notably Samuelson in his textbook and Tobin in his extensive writings on macroeconomics) of the immediate post-World War Two years. US new Keynesians come from leading universities, particularly those in the forefront of advancing the Keynesian revolution, and publish in the major long established journals.

The focus is governed by the high accessibility of the work, particularly in the Mankiw and Romer anthology noted above. The term new Keynesian might suggest that active macroeconomic is feasible. However, even the advocates of the concepts are more cautious. They admit that the work only suggests arguments that might lead to revival of belief in active monetary and fiscal policy. Mankiw and Romer (in their introduction) add that some of the developers of the models reach the new classical conclusion that it is infeasible in practice to implement such policies.

Whatever their influence on microeconomics, the models of imperfect markets were seized upon (in many cases by their developers such as Carlton, Stiglitz and Shapiro, all also contributors to Schmalensee and Willig) in the 1980s as the basis of more sophisticated models of the macroeconomics implications of violations of core assumptions. In the process, newer forms of disfunction were discovered (see below).

This methodology can be contrasted with the older post-Keynesian movement. As one proponent of the group (Sawyer, 1991, p. 202) notes, the term post Keynesian evolved from a umbrella for all reviews of Keynes to a description of a specific approach to macroeconomics that includes concern over the impacts of market imperfections. The post Keynesians, however, seem to revel in unorthodoxy and separation from the rest of the macroeconomics profession (see Snowdon, Vane and Wynarczk, 1995, pp. 367-380).

18. New Keynesian Models

New Keynesian economics is a collection of more traditional analyses of market imperfections. Many, but probably not all, of the proponents sought to refute the new classical approach. Stress was on models with sound microeconomic bases in which instability was inherent. Usually, these models provide microeconomic justifications for assuming good or factor price rigidities that lead to persistent unemployment. However, the models include some with characteristics that can preclude the existence, uniqueness, or stability of equilibrium. The details are not critical here. Bryant's observation strongly holds. With enough assumptions about market imperfections, theorists can develop models that inevitably lead to persistent unemployment. Mankiw and Romer divide the contributions into seven parts - costs of price change, the role of contracts, good market monopoly, 'coordination failures', labor market behavior, imperfect credit markets and cyclical behavior of the goods markets.

Costs of price changes, infelicitously termed menu costs by Mankiw (Chapter 1 in Mankiw and Romer, 1991), are the expenses of making, reporting and implementing a price change. (Except as noted, all the ideas presented here come from Mankiw and Romer and the attacks on them come from the articles noted above.) As pioneering work by Barro (1972) (a new classical economist) showed, when price changing is expensive, it is no longer optimal to respond instantaneously to price changes. The price change should occur only when the transaction costs are repaid by higher profits from operations. Between price changes, the price should be a (time-weighted) average of the prices that would clear the market under flexible pricing. A series of articles (for example, Mankiw and Akerloff and Yellen, 1985 - chapter 2 in Mankiw and Romer) examined how pursuit of such policies might increase macroeconomic instability by inadequately responding to changing market conditions.

As is standard in this literature, doubts have been raised about the theoretical and empirical plausibility of the models (see the articles noted above and Snowdon, Vane and Wynarczk). Even the menu metaphor is viewed skeptically. It is pointed out that announcing price changes often is cheap. Cheap changes such as scribbled entries or mimeographed inserts were possible long ago - for example, when I worked in my father's restaurant in the 1950s; modern technology allows cheap production of formal looking updates. The new Keynesian literature often cites an unpublished study that recognized that the large US mail order retailers issue new catalogs far more often than they change prices. It is suggested that better explanations must be provided about why frequent price changes are undesirable.

Another concern is that reliance on long-term contracts can be destabilizing. Those presenting such models clearly recognize that the problem with such contracts is that they inevitably involve incorrect specification of future economic conditions. The first work in this realm took the existence of contracts as given, and only later was a transaction cost justification developed. The theories stress the difficulties of changing contracts. Stanley Fischer's 1977 article (chapter 7 in Mankiw and Romer and also in Lucas and Sargent) on the subject examines the role of adjustment clauses in contracts but only notes that the 'right' clause would be more complex than those actually chosen. This seems too pessimistic. Actual contracts have explicit provisions to increase response to changing conditions. Bad contracts are renegotiated. (This criticism emerged from my experiences with energy contracts rather than from the literature.)

Another type of model simply considers the macroeconomic consequences of oligopoly. Most of these models examine how with monopoly labor supply, macroeconomic policy can offset the supply restriction and expand output. Examples are noted below.

Another, particularly complex, family of models deals with what are termed coordination failures. These involve situations in which the characteristics of the economy produce multiple equilibriums, the free market choice may not be optimal, and public policy can move the economy to a more efficient equilibrium. An article (Cooper and John, chapter 16 in Mankiw and Romer) synthesizing the work suggests that the problem is best viewed of one of an economy operating under the principles of the noncooperative games so beloved by new industrial organization theorists. At a minimum, this raises the problem, on which the game theorists have lavished much attention, that noncooperative behavior is not good for the decision makers and should be (but not necessarily is) abandoned when interactions regularly reoccur. Those skeptical of game theory would argue that its microeconomic limitations make it a poor basis for macroeconomics.

Another area is alternative labor market models that postulate conditions under which wages should be less flexible than traditional theory seems to suggests or reexamine the nature of unemployment. American new (and old) Keynesians focus on such ideas as efficiency wages that postulate that effort is increased by paying higher wages. A European alternative due to Lindbeck and Snower (1988) is of a conflict between insiders (the already employed) and outsiders (those not employed). Without unionization the insiders have the advantages of training, experience, and ability to ‘harass’ newcomers. Unionization furthers insiders’ advantages. Another European analysis by Layard, Nickell and Jackel (1991) relies on less traditional concepts such as mark-up prices. As discussed below, these European analyses have a much heavier policy content than models in Mankiw and Romer.

Attention also is given to why capital markets may be imperfect. Another form of imperfection involves the alleged cyclicality examined by Haberler in the relationship between price and marginal cost.

Two eminent older Keynesians, Hahn and Solow (1995) produced another, much less successful, effort to revitalize the case for intervention. They only use theoretical models (which are less transparent than those in Mankiw and Romer). Thus, Hahn and Solow too are subject to the prior criticism of inadequate testing. They conclude, ‘But whatever the answer, imperfect information is not of itself an argument for inaction’ (p. 152). This seems at best an ex cathedra argument for supporting active policy. It does not even address the question of how much activity is feasible. Their case, moreover, is not helped by the strategy employed. The bulk of their book develops a series of difficult-to-comprehend models in which instability arises and can be cured by the right policy. These models have the drawbacks of lack of clear difference in substance between those in Mankiw and Romer and considerably lesser clarity.

Snowdon, Vane and Wynarczyk's survey of the work notes the work 'has been, until recently heavily biased towards theoretical developments (p. 328), 'yielded numerous elegant theories which are often unrelated' (p. 328), and has not produced uniform policy conclusions (p. 326). On the last, Snowdon, Vane and Wynarczyk add that '*most*' new Keynesians see a need for government actions for 'coarse-tuning - policies designed to offset or avoid serious macro level problems' (p. 326). (Coarse tuning was Lindbeck's term for limited intervention, 1993, p. 154.) At least as defined by Mankiw and Romer, the new Keynesians are necessarily too diverse to form a clear approach. At least two of those included in Mankiw and Romer, Solow and Okun, are veteran traditional Keynesians. At least two others, Hall and Taylor, are skeptical about intervention.

The new Keynesians have only demonstrated something that the new classicists never attacked, the existence of more theoretically sound models of market imperfections that cause economic instability. In the worst cases, the success of active intervention depends upon knowing what model characterizes the economy. At best, the theories have established that in principle rational expectations need not by themselves render policy ineffective. The nature and correctability of actual economic instability remain where they always have been, uncertain and controversial.

19. The Policy Failure Alternative

A curiosity here is that so little attention has been given to the possibility that bad regulation is a major cause of instability. Aspects of a bad policy model were (a secondary) part of the early classical approach to instability and at least one new theory revives this approach. The traditional arguments noted how trade union insistence on rigid nominal wages was the major barrier to effective macroeconomic adjustment. Union success was blamed on the willingness of governments to support union activity. While many expressions of this view appeared, that from Mises (1966, pp. 769-779) seems to be the only one still widely available.

This is not a central point of Austrian macroeconomics. The epitomes both by Mises (1966, pp. 538-586) and by Snowdon, Vane and Wynarczk suggest that the crux is a monetary theory involving uneven receipt of the increased money supply that produces incorrect perceptions and distortions in the behavior of real variables. Mises (p. 580) talks of 'the futile attempts to explain the cyclical fluctuations by a nonmonetary doctrine', Snowdon, Vane and Wynarczk (p. 363) view wage and rigidity arguments as elements added on to explain the severity of the great depression. It is presumably the existence of such views that caused Patinkin to criticize interpreting Keynes as postulating only market imperfections.

Among the newer work, only the European models stressing labor market defects have a strong government failure component. The microeconomic defects of regulation are clear. Skepticism about macroeconomic explanation implies that one cannot and thus should not add macroeconomic justifications to deregulation. However, glimmers of concern do arise. Snowdon, Vane, and Wynarczyk (p. 327) note that the insider-outsider approach produced numerous suggestions to increase labor market flexibility. These include easing up on existing policies such as job security legislation, laws encouraging unionization, and unemployment insurance. However, new programs are proposed to retrain, increase labor mobility particularly by making the housing market function better (without discussing whether this means more aid or removal of government controls), and profit sharing. Lindbeck and Snower (1988, pp. 260-268), Lindbeck (1993, pp. 150-169), and Layard, Nickell, and Jackman all examine some of these alternatives.

Goff (1996) has surveyed the role of regulation in the US economy and attempted to measure its impact. Such a process is hindered by lack of a clear measure of the extent of regulation. Goff, therefore, employed a standard method for dealing with the problem, statistically generating an artificial measure, that is, the weighted function of observable indicators such as that perennial **-** the size of *The Federal Register*, the US government's report on its new proposed and adopted regulations, the budgets of regulatory agencies, the ratio of lawyers to engineers and scientists in industry, litigation and state government employment. Given this index, Goff seeks to test whether changes in regulation affected performance. His tests are avowedly simple. He examines the association between changes in the trend in key measures of macroeconomic activity are correlated with increasing regulation. He is well aware that other forces may be at work, but at the simple level at which he worked, he can only introduce two alternative variables, oil prices and non-defense government spending. In any case, he concludes that regulation reduced growth in gross national (sic) product by 0.9 percentage points.

20. Conclusions

The present discussion has argued that considerable debate prevails in macroeconomics about the nature of economic instability and whether governments can act to counteract them. The policies advocated range from ones that heavily limit government flexibility to those that encourage extensive action including and possibly centering on regulation of individual industries. What seems to be the 'moderate' position at the end of the twentieth century is that governments should cautiously alter monetary and fiscal policy in response to changing circumstances. Caution is the minimum response necessitated by new classical criticisms. Market regulation remains suspect by both new classicists and the believers in the neoclassical synthesis. This suspicion arises from the presence of much evidence of the drawbacks of regulation and the absence of evidence that regulation is stabilizing. Efforts over six decades have only strengthened these doubts.

21. Background to the Chapter

The author is a specialist in applied microeconomics who examines macroeconomics mainly to determine its relevance to efforts to justify control of individual markets on macroeconomic grounds. My research activity is devoted entirely to study of markets and their regulation. This article is heavily influenced by the universal occurrence of severe government failure in everything that I have studied. My teaching included a long period teaching a graduate theory course. All this has required persistent examination of the literature in microeconomic theory. I have reviewed macroeconomics to evaluate proposals to regulate energy markets in the interest of macroeconomic stability. Prior writings that caused the invitation to write this article were inspired by recognition that energy economists were accepting macroeconomic arguments for intervention that were not well supported in the macroeconomic literature.

I am Professor Emeritus of Mineral Economics, College of Earth and Mineral Sciences, The Pennsylvania State University, University Park Pa, 16802. Since I was born in 1934, I am too young to have first hand knowledge of the 1930s, but old enough to be aware of prior work inadequately considered by the new Keynesians and their inspirations among the new industrial organization theorists.

My examination of literature, in any case, is selective. This article extends research undertaken for my 1994 book, *Regulation and Economic Analysis*. My starting points were the then current editions of several undergraduate texts in macroeconomics, the very advanced survey by Blanchard and Fischer, and four anthologies noted in the text of major articles on macroeconomic. This suggested much additional reading including a return to some old favorites remaining in my personal library. This reading has unearthed far more references than can readily be mastered. A referee alerted me to a particularly valuable survey of the work (Snowdon, Vane and Wynarczyk) and European work on imperfect labor markets.

22. Bibliographic Note

Thousands of books and articles on these issues have appeared. The books include many comprehensive textbooks and a few more specialized surveys.

Despite their mass, no single book fully covers all the issues or adequately cites the literature.

The articles appear in the many journals directed at professional economists, the various periodicals produced by banks, particularly the regional Federal Reserve Banks in the United States, and symposium volumes originating from among others again the regional Federal Reserve Banks and research institutes such as Brookings and the National Bureau of Economic Research. Numerous anthologies, some devoted to a topic and others to a specific author, have appeared. Some major articles have multiple incarnations. Among the participants in the debates for whom anthologies of relevant writings exist are Keynes, Hicks, Samuelson, Tobin, Friedman and Lucas.

Each item consulted adds references to more publications. The listings here are deliberately limited. I have selected anthologies, texts and treatises that collectively include or discuss a large part of macroeconomics from the 1930 to the 1990s. Much of the material contained is not explicitly cited. Thus, while some classics are not listed, they often are contained in what is cited. Another limitation is that no pretense was made exhaustively to examine the many texts designed for the second (in US academic jargon, intermediate) undergraduate course in macroeconomic theory. My citations of texts consist of two long extant ones that are frequently cited and one, recommended by a colleague, that I found a good alternative; the citations whenever possible are to the latest edition of which I was aware rather than to the edition actually examined.

In the process of preparing my 1994 book, I began compiling a master bibliography of works cited in summary volumes on microeconomics and macroeconomics consulted. Part of the effort was to overcome the irritating failure of many authors to provide an integrated bibliography. My bibliography became unmanageably massive as I extended its reach. The germane literature in macroeconomics alone is too extensive to treat adequately and the literature on modern industrial organization, while smaller, is still overwhelming.

The books cited here include anthologies that contain at a minimum important parts of the literature and at their best helpful guides to the rest of the literature. Miller alone of these books has a unified bibliography. Mankiw and Romer have an extensive bibliography (broken into separate parts by topic areas), but it falls far short of presenting everything cited in the book. Among surveys, Snowdon, Vane and Wynarczk uniquely provides a unified and extensive bibliography. Blanchard and Fischer prepare separate bibliographies for each chapter. Even when a bibliography exists, it does not necessarily provide all the critical information. In particular, often the reprinting in anthologies is not noted. Generally, I have provided both the original citation and at least one of the reprints of which I was aware for articles. However, I have not attempted to examine every writer's collected works. The main exception is Samuelson. So much of what is cited comes from inaccessible original sources such as symposium volumes that his collected works are the best source.

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