Introduction [to Recent Developments in the Theory of Involuntary Unemployment]

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1 Introduction

The perfectly competitive, frictionless, complete information general equilibrium model has served as the cornerstone to modern economic theory for over 50 years. However, the Walrasian assumption that markets clear necessarily assumes away the possibility of unemployment. This is a particularly disturbing problem for anyone who wishes to consult basic economic theory for guidance. After all, much public debate concerning economic policy revolves around the expected effects of proposed policies on the unemployment rate and the welfare of the unemployed. In light of this and in light of the fact that unemployment exists and persists, it is vitally important for economists to expand their basic paradigm in a manner that would allow for the investigation of issues related to unemployment.

Prior to the 1960s, the amount of work devoted to unemployment was limited. Most studies that focused on unemployment tended to assume that it was due either to a minimum wage, rigid wages, or unions. It is by now well accepted that unions alone cannot cause unemployment as long as a sector of the economy remains nonunionized (see any standard macroeconomic text, such as Parkin 1984). Unions can cause wage differentials across sectors but cannot keep the labor market in nonunionized sectors from clearing. Minimum wages also seem to be an unlikely cause of a significant amount of unemployment, since only a small percentage of the economy’s jobs are affected by the minimum wage laws. Moreover, recent empirical evidence provided by Brown, Gilroy, and Kohen (1982) suggests that minimum wages do not contribute significantly to adult unemployment (although they can be viewed as a significant contributor to teenage unemployment). Finally, models with rigid wages are of little value unless they also provide an explanation of the cause of the rigidity; otherwise, it is impossible to predict how various policies will affect unemployment and real wages. Therefore, little, if any, success at understanding the phenomenon of unemployment was achieved prior to 1960.
In contrast, over the past 25 years the causes and consequences of unemployment have been a major focus of much research. Most of the studies have remained in the traditional paradigm, but have extended the basic model by dropping one or more of the assumptions that lead to market clearing. For example, in models with unemployment generated by search, the assumption that unemployed workers and firms with vacancies are instantaneously matched is replaced with the assumption that it takes time and effort for the trading parties to find each other. Other lines of research have introduced unemployment by allowing for incomplete information in the marketplace (the implicit contracts and efficiency wage literatures) or by assuming that quantities adjust faster than prices to clear markets (the fixed price or disequilibrium literature). In each case, however, most of the studies have tended to focus on the technical details and the theoretical aspects of the models and little has been done to make these new theories accessible to the majority of the profession and policymakers. Moreover, only recently have these theories been developed to the point that serious empirical investigations could be undertaken.

The purpose of this monograph is to provide a nontechnical summary of the most prominent theories of unemployment that have emerged since 1960: search, disequilibrium (i.e., fixed price models), implicit contracts, efficiency wage, and insider/outsider models. This is accomplished by reviewing selected articles in each of the areas and distilling their arguments to the bare essentials. In this manner, I am able to focus on the overall purpose of each line of research, its strengths, and its major weaknesses. I have attempted to keep as much of the discussion at as nontechnical a level as is possible by relying heavily on graphs and intuitive arguments, with some occasional elementary calculus. The level of technical difficulty varies with topic. For example, many of the arguments in the implicit contracts chapter are presented graphically. On the other hand, some basic calculus is required in part of the chapter on search theory. By presenting the material in this manner, I hope to make the new theories more accessible to the profession and shorten the time lag that usually exists between the development of a new theory and the empirical work that is necessary to test its implications.
The monograph consists of five chapters in addition to the introduction. Chapter 2 is devoted to the search literature; beginning with Stigler's classic article on the economics of information and proceeding gradually to the general equilibrium search models of Diamond (1981, 1982a, 1982b, 1984a, 1984b). In chapter 3, I turn my attention to the fixed price or disequilibrium literature. Coverage of this topic includes discussion of the work by Barro and Grossman (1971), Malinvaud (1977), and Benassy (1982). Since one of the major insights provided by this literature is that the most effective policy for combating unemployment depends upon which markets are out of equilibrium (in addition to the labor market), I emphasize the relationship between the appropriate policy prescription and the structure of market disequilibrium. Recent work on imperfect competition in a general equilibrium setting and the "coordination failures" that may result are also reviewed in this chapter, with careful attention given to how this work relates to the earlier fixed price models. Chapter 4 is devoted to the literature on implicit contracts. Here, particular emphasis is placed on the difficulties this line of research encountered in attempting to explain the coexistence of wage rigidity and unemployment in a contracting framework. Chapter 5 covers the newest theories of unemployment—the efficiency wage and insider/outsider theories of unemployment. Finally, in chapter 6, a summary of the important insights provided by each theory is complemented by a discussion of the important questions that remain to be addressed.

Before beginning, a brief word about the theories I have and have not chosen to review in the monograph is in order. Most notably absent is the "rational expectations" approach to macroeconomics developed by Lucas, Sargent and Wallace, among others. This line of research differs from those reviewed here in one fundamentally important aspect: it rejects the Keynesian approach to macroeconomics and unemployment while the theories that I have chosen to survey can be viewed as attempts to provide a solid microeconomic foundation for the Keynesian model. This important distinction is explained in the following passage from Diamond (1984b).

To contrast with equilibrium models, I will start with a strawman Keynesian model. Prices and wages are given. Resources are allocated on the basis of these prices and a
rationing mechanism. Prices and wages then adjust in response to the presence of rationing and past inflation rates. We can see that this model is not micro based: transactions are occurring at prices that neither clear the market nor come from an explicit micro source that might generate trade at nonclearing prices; furthermore, price adjustment is not related to any explicit consideration of self-interested price setting or price negotiations. Nevertheless, a model based on this approach can be developed to give a reasonably good fit to aggregate time series data. In addition this is a simple framework that can be readily used for macro problems and policies.

There are at least two possible reasons for constructing micro-based models as an alternative to this approach. One is a belief that the Keynesian model is basically wrong. The second is a belief that the model can be improved by reconstruction from a micro foundation. The former is represented by the rational-expectations equilibrium approach to business cycles; the latter by my search-equilibrium approach [and the other literatures surveyed here]. There is a problem of vocabulary here. The [search] model I presented in the first lecture has rational expectations, is an equilibrium model, and can be viewed as an alternative to the Keynesian model; yet it is not the type usually referred to as a rational-expectations equilibrium model. Such a description is usually applied to the models pioneered by Lucas, which I refer to as the classical market approach.

The classical market approach says that the economy may have the appearance of slow, nonclearing price and wage movements, but that actually markets clear. The combination of small price and wage movements is due to large intertemporal substitutabilities and misperceptions of relevant relative prices. Such misperceptions are necessarily present when markets are incomplete; that is, observed nominal prices are not adequate guides to intertemporal relative prices. Note that market clearance and market nonclearance are mutually exclusive views of the world.

Diamond then goes on to argue (convincingly) that his search framework provides models that are better able to explain micro data (such as price dispersion) and fit macro data than the rational-expectations
counterparts. In addition, he argues that the insights generated by his model are much more robust with respect to changes in the underlying assumptions. Although I believe that similar arguments hold for the other models of unemployment surveyed here, I will not press this issue. Instead, I will simply note that with its market-clearing framework, the rational-expectations approach only provides an explanation for fluctuations in employment and output or, at best, voluntary unemployment. In this monograph, I restrict attention to theories of involuntary unemployment, that is, theories that are consistent with or provide a rationale for Keynesian macroeconomics.