# **COMMUNICATIONS-**

# A COMMENT ON THE SEARCH MARKET THEORY OF THE 2010 NOBEL PRIZE WINNERS IN ECONOMICS

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Abstract: Peter Diamond and two other economists have been awarded the 2010 Nobel Prize in Economics for search market theory. The Royal Swedish Academy of Sciences recognizes that their analysis of market with search frictions is a fundamental contribution to labor economics. Objectively speaking, the valuable point of such analysis lies in its anti neo-liberalism tendency and the explanation for some sort of unemployment. However, search market theory cannot interpret the unemployment problem in the general sense. It is not right to take a completely negative or idolatrous attitude towards the Nobel Prize, and we should face it with the scientific attitude of seeking truth from facts.

Key words: searching costs; great leisure; involuntary unemployment; Nobel Prize

The Royal Swedish Academy of Sciences has awarded the Nobel Prize in Economics to three professors for their contribution to labor economics analysis of markets with "search frictions": Peter Diamond of the Massachusetts Institute of Technology, Dale Mortensen of Northwestern University, and British-Cypriot Christopher Pissarides of the London School of Economics and Political Science. The purpose of this article is to give a brief introduction and evaluation of search market theory developed by this year's Nobel Prize winners.

### The Basic Content of Search Market Theory

Under the assumption of perfect competition and perfect information, neoclassical economics holds the opinion that price can guide buyers and sellers to find each other at any time, without search costs. Thereby, balance between supply and demand is available and resources can be fully utilized. Obviously, neoclassical economics is far from the reality of market economy. In real economic activities, sellers and buyers must pay search costs to find each other. Even after they have reached one another, both parties will still pay costs to search elsewhere because of the disagreement on price. For this market phenomenon, the 2010 Nobel Prize laureates in Economics have developed a theory called "search market theory." Among this year's three laureates, "Peter Diamond has made significant contribution to the fundamental theory of such markets, while Dale Mortensen and Christopher Pissarides have further developed search theory and made it applicable to the analysis of labor market. These three laureates' achievement can help us to comprehend a number of important questions in general, and the determinants and development of unemployment in particular."

In the 1960s, researchers had already tried their hands at the search behavior of buyers. In an article from 1971, Peter Diamond thought that the view of neoclassical economics only applied to monopolists in a market, which is to say, the equilibrium price of neoclassical economics is equal to the price set by monopolists on a corresponding market without search costs. Considering the search behavior, even small searching costs will produce a totally different result compared with neoclassical competition equilibrium. Several important studies on search and matching markets were published around 1980. Peter Diamond, Dale Mortensen and Christopher Pissarides examined the properties of different markets. They provided new answers to many unsolved issues. Through the above researches, they have drawn the conclusion that searchers do not take external effects into consideration, and such behavior will increase other searchers' costs. This means that an unregulated search market does not give rise to an efficient outcome, since search and matching processes are associated with real costs. So in this case, resources might be too low. In the perfect competition model of neoclassical economics, the outcome of an unregulated market is efficient. But in a world with search costs, there can sometimes be several possible market outcomes. This implies that it is reasonable for government to induce the economy towards the way of full employment.

It is worth noting that Dale Mortensen and Christopher Pissarides have already systematically developed and applied search market theory to examine the labor market—especially the determinants of unemployment. They have established a model known as the Diamond-Mortensen-Pissarides (DMP) model. "This model

COMMUNICATIONS 731

describes the search activity of the unemployed, the recruiting behavior of firms and wage formation," and it can be used to estimate the effects of different labor-market factors for unemployment, the average duration of unemployment, job vacancies and real wage. The labor market factors may include the benefit level of unemployment insurance, the real interest rate, the efficiency of employment agencies, and hiring and firing costs, etc.

It has been known for a long time that the labor market fluctuates between two situations: high unemployment and few vacancies; low unemployment and many vacancies. This empirical pattern, called the Beveridge curve, was developed by the British economist William Beveridge. The DMP model provides a theoretical explanation for the Beveridge curve. If unemployment and vacancies move oppositely, this change can reflect variations in the demand for labor which occur over a business cycle. However, if unemployment and vacancies increase simultaneously (it is more reasonable to use this change to explain the phenomenon of unemployment), the reason could be weaker matching efficiency, or more rapid structural changes that increase the rate of firing. Such changes mean that long-term unemployment will increase. The DMP model has turned the Beveridge curve into a widely used diagnostic tool for empirical labor-market analysis. Today, the DMP model is the most frequently used tool of "analyzing unemployment, wage formation and job vacancies" for Western scholars.

Search market theory does not only solve the problem of "why so many people are unemployed at the same time that there are a large number of job vacancies," but also analyzes how economic policies affect unemployment. This year's Nobel laureates have used search market theory in theoretical and empirical studies to analyze the effect of unemployment insurance. They state that more generous benefits of unemployment insurance will lead to a higher unemployment rate, because the unemployed must spend more time and more costs to search for jobs. Based on the welfare analyses of alternative designs of unemployment insurance, the laureates believe that the adjustment of unemployment insurance structure and the welfare gains provided by insurance can facilitate matching efficiency between unemployment workers and job openings.

#### The Gap between Search Market Theory and Reality

In the view of the Royal Swedish Academy of Sciences, search market theory has solved the problem of "why so many people are unemployed at the same time while there are a large number of job openings" and "how economic policy affects unemployment." This theory is not only applicable to the labor market but also to other types of market. And it also enables us to analyze many other social phenomena. For this reason, search market theory has been applied to analyze the problem in

fields related to monetary theory, public economics, financial economics, regional and family economics and the housing market, etc. However, because of search theory, the above three economists have won the Nobel Prize, and some people questioned this. For example, some believed that this year's laureates were not the most important people involved in the study of search market theory. Others thought that the reason for their winning the award was associated with the fact that the labor market and housing market was the focus area of the current global economy.

In our point of view, Western search market theory is not a research achievement of one or several economists, but the result of a group. Different people have different views on who is the outstanding representative in this group. More importantly, the Review Commission is made up of people with their own value orientation, rather than computers. Therefore, it is reasonable to question the 2010 Nobel Prize in Economics. This is not the first time, nor the last. Moreover, a feature of the Nobel Prize in Economics is that it is always awarded to the theory on which economists have spent a long time to study and the theory associated with the economy background of the awards season. Based on this point of view, there is no dispute that the 2010 Nobel Prize in Economics is related to the fact that the labor market and housing market is the focus area of the current global economy. The essential question is that, in some way, search market theory is so far from reality that the Review Commission, which does not worry about unemployment, turns a blind eye to the fact because of the gap.

First of all, people should affirm that the Prize-winning search market theory has a tendency of being anti neo-liberal. Both neo-classical economics before Keynes and neo-classical macroeconomics of the rational expectations school do not recognize that there exists real unemployment in capitalist society. Under the assumption of perfect competition and perfect information, neo-classical economists hold the opinion that price can guide buyers and sellers to find each other immediately, without searching costs. For this reason, the neo-classical economists view real unemployment as frictional unemployment and voluntary unemployment. In the theory of the rational expectations school, the unwilling, helplessness and suffering of the unemployed have become a kind of "leisure activity"—a worker's preference—which is a response to flexible wages, and workers can easily and freely choose being employed or unemployed (leisure). When Nobel Prize laureate Paul Krugman commented on the theory developed by Edward Prescott, the representative of "leisure theory," he said angrily:

Put baldly like that, this theory sounds foolish—was the Great Depression really the Great Vacation? And to be honest, I think it really is silly. But the basic premise of Prescott's "real business cycle" theory was embedded in ingeniously constructed mathematical models, which were mapped onto real data using sophisticated statistical techniques,

COMMUNICATIONS 733

and the theory came to dominate the teaching of macroeconomics in many university departments. In 2004, reflecting the theory's influence, Prescott shared a Nobel with Finn Kydland of Carnegie Mellon University.<sup>3</sup>

This year's laureates' search market theory denies "voluntarily unemployment theory" of neo-classical economics and "big leisure theory" of neo-classical macroeconomics and argues that search costs lead to unemployment, thus it returns to the "involuntary unemployment theory" of Keynes (despite the fact that its explanation for the reason of unemployment is different from Keynes'). And it makes clear that the labor demand-supply equilibrium without searching cost in neo-classical economics is only applicable to a particular case in the market, namely, the monopoly of buyers or sellers. Based on their own theory, the three laureates advocate that government should strengthen management of the labor market, to ease the external effect of search behavior (such behavior increases the search costs of other searchers) and to facilitate the efficiency. Actually, it is the negation of the cornerstone of neo-liberalism—the effectiveness of the unregulated market.

Secondly, it should make clear to what extent the view of unemployment exclusively affected by searching cost has interpreted the unemployment problem of Western countries. The search market theory of this year's laureates divides the relationship between the number of the unemployed and job vacancies into two cases: (1) the number of the unemployed and job vacancies move in opposite directions; (2) unemployment and vacancies increase simultaneously. Search market theory focuses on the analysis of the second case. In reality, it is true that there exists the situation that unemployment and vacancies increase simultaneously, but it is not the common phenomenon of unemployment. The common phenomenon in unemployment should be, and can only be, the situation that unemployment and vacancies move in opposite directions. So, of course, in academic study, research focus can be placed on an individual phenomenon that unemployment and vacancies increase simultaneously, but the research result, the search market theory, cannot explain the cause of unemployment in general. Moreover, in addition to search costs, the factor of matching the skills of workers is at least the reason why unemployment and vacancies move in opposite directions. In summary, the search market theory can only explain the problem of unemployment partly, rather than in full. Therefore, the recognition of search market theory for its solution to the problem of "why so many people are unemployed while there are a large number of vacancies," cannot bring comfort to the unemployment in the United States. The official US unemployment rate is 9.6 percent (the real unemployment rate is as high as 17 percent). Although it is difficult to know the exact proportion of the simultaneous increase of unemployment and vacancies, the American unemployed are clearly aware of the fact that: the reduction in jobs is the direct cause for their unemployment; they are still unemployed, and such unemployment is neither the "great leisure" that they voluntarily choose to tighten their belts, nor the result of higher search costs from which workers suffer when they face a large number of vacancies. It is because even if they are willing to lower wages or pay high search costs, they still cannot find jobs. Keynes could honestly recognize that the "poverty in wealth" phenomenon in capitalist society had reached an indefensible level, but he believed that its reason is the lack of effective demand, thus he could not and was unwilling to acknowledge that the root cause of this phenomenon was capitalist private ownership. Similarly, the three economists who won the Nobel Prize in Economics this year can honestly admit that there exists real unemployment in capital society, but they argue that the reason is search costs, thus they cannot and are unwilling to confess that the cause of this phenomenon is capitalist private ownership. However, had these three economists blamed the unemployment problem in Western countries on capitalist private ownership, would they still have won the Nobel Prize in Economics?! The answer is self-evident: since 1969, it seems that all the economists who won the Nobel Prize in Economics did not hit the bottom line of Western academic freedom—"the sanctity of private ownership"; on the contrary, since 1969, no Marxist economists who advocated the eventual elimination of private ownership have won the Nobel Prize in Economics.

Finally, it should also be clear that: for the solution to the unemployment problem, what is the significance of governmental regulation on unemployment insurance structure and the welfare gains provided by insurance? The Royal Swedish Academy of Sciences has recognized that search market theory solved the problem of "why so many people are unemployed while there are a large number of vacancies," which offers the only help, namely to mislead public opinion, to the Obama Administration which has been floundering in unemployment issues. And the Royal Swedish Academy of Sciences has affirmed the role of search market theory in solving the problem of "how economic policies affect unemployment." Whether such affirmation could be proved in the economic policies implemented by the Obama Administration, one can go online to search the economic policies taken by the Administration and the answer is absolutely clear. Obviously, as far as relief of the serious unemployment problem is concerned, both Obama's "first relief operations" and the upcoming "second relief operation" are trying to implement fiscal policy and quantitative easing policy, to increase employment opportunities and to reduce the high unemployment rate. Perhaps the Obama Administration will adjust the unemployment insurance structure and the welfare gains provided by insurance, and its aim is not to solve the unemployment problem, but to reduce the fiscal deficits. In fact, American neo-liberals have been advocating that government ought to cut welfare spending (but they advocate increased military spending), to force the lazy people to choose work rather than unemployment ("leisure"). As long as US presidents accept this proposition, things do not turn out as they wish. The reason is that the cause of real COMMUNICATIONS 735

unemployment or involuntary unemployment (which in the official unemployment rate of the United States accounts for the vast majority of unemployed) has nothing to do with unemployment insurance structure and the welfare gains provided by insurance. It is obvious that the economic policies proposed by this year's laureates do not completely get rid of the impact of neo-liberal economics. Thus, in addition to acquiring the recognition of the Royal Swedish Academy of Sciences, the economic policies advocated by the laureates are not feasible.

#### Conclusion

For the Nobel Prize in Economics and in other areas, it is not right to take a complete negative or idolatrous attitude towards the Nobel Prize, and we should face it with the scientific attitude of seeking truth from facts. Especially for the Chinese, it is irrational to sell themselves short in this regard and stage a farce of "organizing a team to impact the Nobel Prize." Because even Western scholars, who win the Nobel Prize, will say: "To my surprise," or: "although I won the Nobel Prize, I will still wash the dishes tonight as usual." From a technical perspective, we have already had the strength of winning the Nobel Prize with the best example of synthetic insulin. The biggest obstacle for the Chinese to win the Nobel Prize is ideology. History has shown that even in the field of natural sciences there exists pan-ideologization, let alone in the field of social sciences. For this reason, some people think that awarding the Nobel Peace Prize to the Dalai Lama, Barack Obama and others will encourage war and support unrest, and it is contrary to the wishes of Nobel. Others believe that awarding the Nobel Peace Prize to such figures is to encourage freedom and democracy. After Milton Friedman won the Nobel Prize in Economics in 1976, people took to the streets and protested against the awards. And in 2009 and 2010, the Nobel Prize in Economics has also aroused great controversies.

#### **Notes**

- 1. Market with search costs [EB/OL]. Sweden SE Stockholm: The Royal Swedish Academy of Sciences. [2010-10-11]. http://nobelprize.org/nobel\_prizes/economics/laureates/2010/info.pdf
- 2 Ibid
- Paul Krugman, "How did economists get it so wrong?" September 6, 2009, http://www.nytimes. com/

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