



Search, flows, job creations and destructions^{☆,☆☆}



Pierre Cahuc^{*}

CREST-ENSAE, Ecole Polytechnique, IZA, CEPR, France

ARTICLE INFO

Article history:

Received 15 September 2013
 Received in revised form 16 February 2014
 Accepted 18 February 2014
 Available online 15 July 2014

Keywords:

Job search
 Job flows
 Workers flows
 Unemployment

ABSTRACT

This paper presents a short overview of dynamic models of labor markets with transaction costs. It shows that these models have deeply renewed the understanding of job search, job flows, job creations and destructions, unemployment and wage formation. It argues that this renewal provides a very useful toolkit for analyzing important economic policy issues such as the optimal level of unemployment benefits, the funding of unemployment insurance and the impact of employment protection legislation.

© 2014 Elsevier B.V. All rights reserved.

1. Introduction

In 2010, The Royal Swedish Academy of Sciences has decided to award the “Nobel Prize” to Peter Diamond, Dale Mortensen and Christopher Pissarides “for their analysis of markets with search frictions”. According to the Nobel Prize Committee, their contributions shed new light on fundamental questions: Why are so many people unemployed at the same time that there are a large number of job openings? How can economic policy affect unemployment?

In 1968, Friedman argued that there is a level of unemployment that cannot be changed by monetary policy in the long run. This “natural rate of unemployment, in other words, is the level that would be ground out by the Walrasian system of general equilibrium equations, provided there is embedded in them the actual structural characteristics of the labor and commodity markets, including market imperfections, stochastic variability in demands and supplies, the cost of gathering information about job vacancies and labor availabilities, the costs of mobility and so on” (Friedman, 1968, p8). But, at that time, almost

nothing was known about the natural rate of unemployment. The dominant explanation of unemployment relied on the inflation–unemployment tradeoff in the Keynesian model enriched by the Phillips curve. As the inflation–unemployment tradeoff seemed to fade away, economists tried to go beyond the Keynesian model to explain unemployment. This led to a profound renewal of the conception of labor markets to which Diamond, Mortensen and Pissarides have been among the main contributors.

This renewal is deeply rooted in the discovery of new facts, which has shaken up the traditional conception of labor markets. The traditional conception relied on the static Walrasian model. In this framework, labor markets are efficient. This framework is useful to understand many phenomena, like the consequence of investment in human capital on wages, or the impact of taxes on wages and employment. However, it is not suitable to explain unemployment, the coexistence of unemployment and job vacancies and the consequences of the huge amounts of job and worker flows that exist in all labor markets. The renewal is more akin to the Schumpeter view, which is intrinsically dynamic and leads to the idea that labor markets are not spontaneously efficient. This created a new framework to think of the consequences about labor market institutions and labor market policies.

2. New facts

The unceasing recomposition of jobs in market economies has a strong impact on labor markets. Full awareness of the extent of job creation and destruction is relatively recent. Only since the end of the 1980s have economists had available precise data covering sufficiently long periods about net employment changes, job flows and worker flows.

[☆] This paper has been commissioned for presentation at Memorial sessions of the Congress of the European Economic Association of Labor Economists, in September 2013, in Turin.

^{☆☆} This paper owes much to the work accomplished with my co-authors, Stéphane Carcillo and André Zylberberg, when writing the textbook, *Labour Economics*, MIT Press, forthcoming, 2014. I also thank Joop Hartog, Kostas Tatsiramos and participants in the congress for their useful comments.

^{*} Laboratoire de Macroéconomie, CREST, 15 Boulevard Gabriel Péri, 92245 Malakoff Cedex, France. Tel.: +33 1 41 17 37 17; fax: +33 1 41 17 37 02.

E-mail address: pierre.cahuc@gmail.com.

2.1. Job flows and worker flows

Two kinds of data allow us to understand the dynamics of the labor market better. The first pertains to the processes of job creation and destruction, and the second to worker flows. Net variations in the volume of employment over a given period are equal, by definition, to the difference between job creations and job destructions over that period. They are also equal to the difference between workers' entries into and exits out of employment. In other words, variations in employment may be defined on the basis of the two following comparable identities:

$$\begin{aligned} \text{Net employment change} &= \underbrace{\text{Creations} - \text{Destructions}}_{\text{Job flows}} \\ &= \underbrace{\text{Hirings} - \text{Separations}}_{\text{Worker flows}} . \end{aligned}$$

A surprise for researchers was the discovery that job flows were large and of the same order of magnitude in many industrialized countries (Davis, Faberman and Haltiwanger, 2006). To put it in a nutshell, we may speak appropriately of a “15% rule,” which may be stated as follows: on the national scale, around 15% of jobs disappear every year, and every year around 15% of new jobs come into being.

Worker flows are even bigger than job flows. Worker flows are different from job flows, for in addition to entries and exits linked to the creation and destruction of jobs, they also include rotations on the same job. A number of workers can in fact succeed one another in the same job. With data on French firms in 1987–1990, Abowd et al. (1999) estimate that over the course of a year, the creation of one job corresponds to the hiring of three persons and the separation of two. As a general rule, workers' reallocations are clearly greater than those of jobs. Workers move from job to job, from unemployment to employment, they enter and exit from the labor force.

2.2. Labor market flows and productivity

Empirical research has shown that these large workers and job flows are induced by reorganization of the apparatus of production that may take the form of the creation of firms, the destruction of firms, or the reallocation of jobs between firms or within the same firm. For example, Foster et al. (2006) have analyzed the consequences of the evolution of economic activity undergone in the retail sector in the 1990s in the United States. During that period, the information technology revolution has had a strong impact on the retail sector. The adoption of systems that electronically link cash registers to scanners, credit card processing machines, customer relationship management systems and inventory management systems allowed establishments to increase labor productivity. Foster et al. (2006) find that virtually all of the labor productivity growth in the retail sector is accounted for by more productive entering establishments displacing much less productive exiting establishments.

More generally, research on the OECD countries shows that overall the process of creation and destruction of firms, as well as reallocations of production between firms, contribute significantly to the gains in labor productivity of the manufacturing sector over the period in question (OECD, 2003). This conclusion also holds good for the service sector, and for multifactor productivity growth (i.e. the Solow residual) rather than for labor productivity.

Productivity gains within firms are also related to labor turnover because they can be achieved by improving the productivity of the workforce in place, especially through training, but also by renewing it. It appears that firms which utilize information and communication technologies most intensively have higher manpower rotation. In total, firms with the highest productivity gains adopt a more dynamic style of workforce management, relying more heavily on internal promotion, and hiring and firing more frequently. This phenomenon is well

illustrated by Bloom et al. (2012), who show that US multinationals have higher productivity from information and communication technologies than non-US multinationals, primarily due to their tougher “people management” practices, which include more intensive use of promotions, rewards, hirings and firings.

The finding of large job flows and worker flows induced economists to renew their conception of labor markets. Job creation and job destruction had to be conceptualized in a dynamic framework that accounts for and explains the unceasing movements of workers and jobs.

3. New theory

The unceasing and massive movements of workers and jobs facilitate productivity growth. But they also create unemployment, inequality, and exclusion. To a large extent, the process of job creation and destruction is at the center of the great economic and social problems of our time. The simultaneous presence of such high numbers of job created and destroyed caused economists to pay homage to Joseph Schumpeter, who, though he had only scattered data to work with, had grasped as early as the 1940s that this process, which he called “creative destruction,” was the principal driver of growth, but also one of the principal causes of unemployment. These ideas deeply renewed the conception of the labor market.

3.1. The basic job search model

The standard economic theory of labor supply pays no attention to the time and cost of looking for work. The consumption of “leisure”, even when this term is extended to cover home production, remains the sole alternative to waged work. So from this perspective there is no place for the unemployed person whose principal activity amounts to looking for work. Such a description of the labor market assumes that each agent merely has to decide the number of hours that he wants to devote to work, given the single and universally known wage prevailing in the labor market. There is no need to look for a job that would suit him. To explain that unemployed workers need time to find jobs, economists had to account for consequences of imperfect information. This is precisely the purpose of the job search theory: to study the behavior of an individual who has imperfect information about jobs and wages. The modern theory of the job search arose in the 1970s with the formalizations of McCall (1970) and Mortensen (1970). The job search model is useful to understand how the duration of the search depends on individual preferences, and the overall characteristics of the environment in which it takes place. This model is used in many applied contributions, relying on duration models that evaluate the impact of passive and active labor market policies on unemployment duration and on the quality of jobs.

3.2. The search and matching model

In the 1980s and the 1990s new models have nested the basic job search model, which represents the behavior of individuals looking for jobs, in a framework that also accounts for the behavior of firms and their interactions with that of workers. These models, developed by Diamond, Mortensen and Pissarides, account for labor market frictions, i.e. the fact that there is a lack of information which implies that workers have to search to find jobs and firms must search to fill their vacant jobs. The search process requires time. Accordingly, jobs and workers do not meet instantly. There are both job vacancies and unemployment on the labor market.

The search and matching model is the workhorse of most modern analyses in macro labor. This model envisages the hiring process as a phenomenon of matches between employers and workers. In this framework, the probability for every unemployed person to receive a job offer suited to her abilities depends on the tightness prevailing in the labor market, i.e. the ratio of the number of vacant jobs to the

Download English Version:

<https://daneshyari.com/en/article/972345>

Download Persian Version:

<https://daneshyari.com/article/972345>

[Daneshyari.com](https://daneshyari.com)