



Labor market matching and unemployment in urban China



Yang Liu

Graduate School of Economics, Kyoto University, Yoshida-honmachi, Sakyo-ku, Kyoto, 606-8501
Asia Pacific Institute of Research, 6-2-27 Nakanoshima, Kita-ku, Osaka, 530-6691, Japan

ARTICLE INFO

Article history:

Received 31 March 2012

Received in revised form 23 October 2012

Accepted 25 October 2012

Available online 5 November 2012

JEL classification:

J63

J64

C51

C53

Keywords:

Unemployment

Search theory

Vacancies

Matching efficiency

Econometric models

ABSTRACT

In the traditional labor supply–demand approach, unemployment usually results from a lack of labor demand or excess of labor supply. However, in urban China, unemployment coexists with a conflicting phenomenon, shortage of workers in firms. In this study, we employ a novel approach to tackle this issue, search and matching theory, the empirical study of which has not drawn much attention in China. Our multiple model consisted of job–worker matching, job creation and destruction, rural–urban immigration and on-the-job search, and unemployment changes in China. We used non-linear estimation and the three-stage least squares analysis in this study. We found that matching efficiency declined greatly during the 1996–2008 period. The econometric model and simulation results indicated four key factors that led to changes in China's unemployment level: matching efficiency, job destruction, productivity growth, and job-search services. Finally, by using our econometric model, we identified the reasons for the shifts in the Beveridge curve.

© 2012 Elsevier Inc. All rights reserved.

1. Introduction

Numerous studies have been conducted on labor-market matching and unemployment in developed countries, their theoretical background being the widely used search and matching model, which takes into account the imperfect information and frictions prevalent in the labor market. Labor market frictions occur not only in developed countries but also in developing economies: economic transitions and technology catch-up often lead to high job rotation and worker reallocation, thus increasing friction in the job-worker matching process. Quantitative search and matching studies on the labor markets of developing countries, especially China's, are few. This study constructs an econometric model to tackle this issue.

Unlike studies that examine the unemployment determinants of individuals, such as education and gender (Knight & Li, 2006; Knight & Song, 2005; Q. Liu, 2011; Xie, 2008), we focus on the macro-level movements of the social unemployment rate by examining aggregate labor market issues, such as job-worker matching. We focus particularly on the unemployment mechanism and capture the relationships among factors by examining the various channels that lead to unemployment. For instance, productivity growth can accelerate job destruction but can also lead to job creation. We will consider these issues, especially job-worker matching, in a multi-model unemployment framework.

Despite China's high economic growth rate and many job opportunities, its unemployment rate is also rather high. For instance, the 2006 unemployment rate in Fujian province, including laid-off workers, was about 7%¹; however, a survey reported that 86% of firms in

E-mail address: liuyang9669@gmail.com.

¹ The official unemployment rate in the Fujian province of China was 3.9%, and the number of unemployed workers was 151 thousand (National Bureau of Statistics of China (NBS), 2007b). Since 129 thousand laid-off workers in Fujian province were excluded, the real unemployment rate could have been as high as 7%.

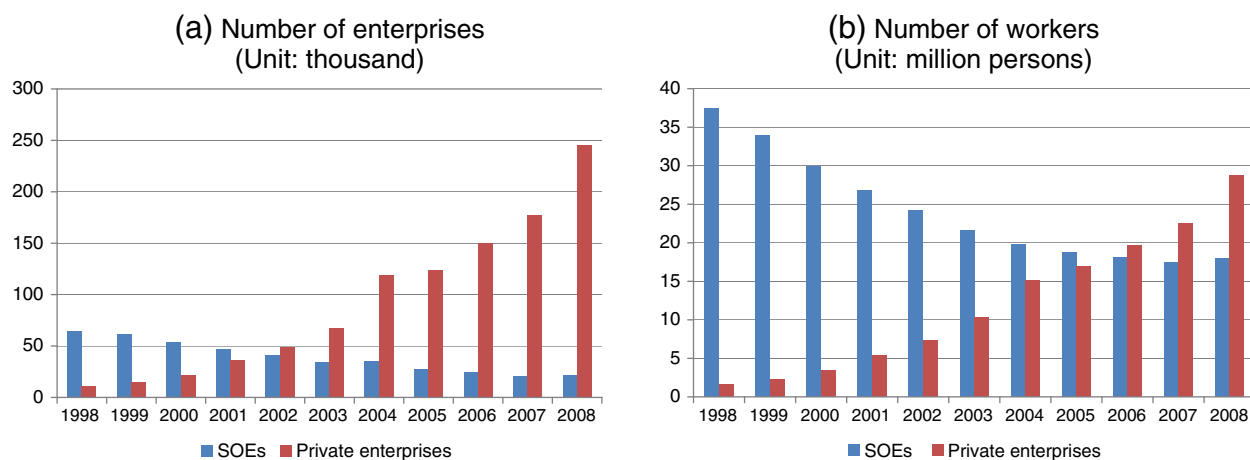


Fig. 1. Changes in the Numbers of SOEs and Private Enterprises and Their Workers (Industrial enterprises).

Source: NBS (1997–2009a).

Note: This industrial dataset, which reports both number of firms and number of workers, distinguished by industrial SOEs and private enterprises, could uncover many informal and small private firms. Hence, the increase of private enterprises could be higher and the real worker and job reallocation should be even larger.

southeast Fujian province found it difficult to recruit enough workers (Cai & Du, 2007). The labor supply-and-demand approach, the key idea of which is that unemployment is caused by excessive job supply relative to job demand, has been unable to explain this coexistence of unemployed workers and vacant jobs.

This coexistence occurs because of imperfect information, in which job seekers and job vacancies are no longer assumed to create employment immediately but, rather, experience a search and matching process during which some workers may not find work while some firms have positions vacant; this is the economic reality. This phenomenon is often caused by friction in the labor market (Cahuc & Zylberberg, 2004). China's frictions are serious because of the dramatic job rotations and worker reallocations that began in the 1990s. Fig. 1 shows the changes in the numbers of industrial state-owned enterprises (SOEs) and private enterprises and their workers. Millions of jobs in the country's SOE sector were destroyed, while many new jobs were created in the private sector. Large-scale job reallocation leads to increased worker mobility. Moreover, although many new jobs were created during the economic restructuring process, most were unlike the jobs that had been lost, and it took a long time for the workers to find suitable work. Therefore, large job rotations and worker reallocations continue to increase friction in China's labor market, which is an important factor in the country's unemployment.

A novel approach, the search and matching theory, successfully integrates imperfect information in labor market modeling. The employment process is formulated by a matching function, comprising the matching of job seekers to job vacancies on the basis of a scale of matching efficiency (Blanchard & Diamond, 1989; Diamond & Maskin, 1979; Pissarides, 2000).

Starting from the matching function idea, Pissarides (2000) constructs a series of conditions that jointly determine labor market outcomes, which are matching function, job creation determination (with endogenous wage determination), job destruction determination, and on-the-job search determination.² Those conditions define the level of job creation, the level of endogenous job destruction, and the amount of on-the-job search, indicating the final evolution of unemployment. Using this theoretical framework, we construct an empirical search-matching model for China's labor market consisting of a matching function involving heterogeneous job seekers, job creation function, job destruction function, and the determinant equations of non-unemployed job seekers (including employed job seekers and migrant job seekers); those conditions finally related to a total unemployment equation that uniquely determines the unemployment evolution throughout the channels of unemployment inflow and outflow. This is the general theoretical framework of our study.

This framework integrates labor market frictions in the analysis of Chinese unemployment. Consistent with China's increasing labor market frictions, we find a sharp decline in matching efficiency during the period under study. Furthermore, the estimated matching function leads to the following findings through our structural unemployment model and simulations: first, China's high unemployment rate is due not only to the conventionally theorized high job destruction but also to low job-worker matching efficiency; second, productivity growth leads not only to job creation but also to job destruction, and its total effect is a contribution to unemployment; third, increased rural–urban immigration does not lead to urban unemployment because it encourages firms to create more jobs; fourth, providing more job search services could reduce China's unemployment rate. Finally, our model derives a Beveridge function for China, highlighting how structural changes and economic shocks shifted China's Beveridge curve (BC) and job creation curve (JC). The result is consistent with the country's historical unemployment-vacancy (U-V) curve.

² This is the case that considers on-the-job search in Pissarides (2000).

Download English Version:

<https://daneshyari.com/en/article/5047700>

Download Persian Version:

<https://daneshyari.com/article/5047700>

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