

Zenou, Y. (2009) *Urban Labor Economics* Cambridge: Cambridge University Press, pp 524. £20.99 Paperback.

A majority of us now live and work in cities of this world. Work often accounts for most of our incomes. Housing is typically our biggest expenditure, followed by transportation whose purpose is, to a large extent, to connect home and work. It is difficult to understate the importance of the housing – transportation – labour market nexus.

How access to the workplace determines residential locations and house prices is at the core of the canonical urban model first developed by William Alonso, Richard Muth, and Ed Mills in the 1960s. That the ‘monocentric city’ model still figures prominently in our urban economics classes is a testimony to its powerful abilities to bring together core features of cities transparently in an elegant framework. Critics of this model have often focused on its arbitrary geography and much work has been devoted to justify from theory its monocentric assumption, explore cases of multiple centres, and assess its empirical relevance.

A more subtle but equally important weakness of the monocentric model is its reliance on competitive markets. While I still marvel at the insights of the monocentric model regarding how housing prices are determined, I know most housing transactions do not result from competitive auctions in a world of costless mobility. In particular, moving house is costly. Imperfections in the labour market are also pervasive.

Thinking about what imperfections in the labour and housing markets do to cities is the stuff of this book, aptly entitled *Urban Labor Economics*.

Despite the fundamental importance of the underlying questions, this book is a lone star in the literature. Nearly everything we know about what frictions in their two most important markets imply for cities is the outcome of Yves Zenou’s efforts. This makes this book all the more important. The scarcity of prior art on this issues has one simple reason. Understanding what frictions do to the functioning of the labour market is *hard*. Thinking about these frictions when workers have different locations is *really hard*. Considering also frictions on the housing market makes this book a real *tour-de-force*.

As might be guessed at this point, *Urban Labour Economics* is a demanding read. The author knows it and has done a lot to ease entry into the material. Before the action really starts, readers are directed towards technical appendices that teach them the tools that will be used throughout the book. The first two of these appendices about the monocentric model and dynamic optimisation are remarkable. I am actually using them in my own teaching.

The first three chapters consider a first major source of friction in the labour market: search. In the competitive model, workers and firms all meet ‘on the market’ and there is an auctioneer that finds a clearing price for labour. Search models are unlike this ideal frictionless world. Unemployed workers search for a job and employers post job offers. Sometimes unemployed workers match with firms with vacancies but existing matches can dissolve after some time. Hence, at any point in time, there will be workers without jobs and jobs without workers. In this world, wages are set in a subtle way. They reflect the cost for workers to remain unemployed (while searching for a better job) and the costs for firms to keep a position vacant (since low

wages are not attractive). This is arguably a better description of the labour market than the Walrasian framework.

Chapter 1 first walks the reader through this workhorse model in its bare form. Considering what different commuting frictions do to the search effort of workers is a welcome addition. However, the chapter does more than that since it also introduces a complete model of the housing market. This allows us to understand how search frictions affect location choices when, at the same time, commuting frictions also affect the search of unemployed workers. Alone, chapter 1 is already a significant achievement. In most books, the first chapter does not deliver that much. This very strong start sets the tone and the standard for the rest of the book. Chapter 2 then expands the framework explored in chapter 1 in several directions. Importantly, it allows workers to relocate when their status changes on the labour market. Chapter 3 then enriches the framework by considering a less restrictive geography within cities and by allowing workers to choose which city to go to.

The second type of friction that has been considered by labour economists are information problems at the workplace. In a standard employment relationship, workers are promised a wage by their employers in exchange for their efforts. The life of workers would be so much nicer if they could still get a wage but did not have to make any effort. Employers know this and want to monitor their workers. At the same time, monitoring is costly and imperfect. Workers know that. A well-known solution to mitigate this information problem is for employers to propose higher wages so that they shirk less since they now have more to lose if they get fired. This conceptualisation of the labour market is known as the 'efficiency wage' model. It is at the heart of the second part of Yves Zenou's book in chapters 4, 5, and 6. These three chapters actually nicely mirror chapters 1-3 but, this time, using efficiency wages instead of job search as main source of friction on the labour market.

The last part of the book in chapters 7 to 9 does two things. Chapters 7 and 8 provide an in-depth theoretical analysis of the so-called spatial mismatch hypothesis using both the job search (chapter 7) and the efficiency wage approach (chapter 8). The ghettoisation of central cities in North America and suburbs in some European countries is a first-order social issue. John Kain's original spatial mismatch conjecture builds on the fact that in North America jobs and the rich have suburbanised while the poor and minorities have remained stuck in central cities. This deteriorated access to jobs might be at the root of the worsening of their labour market situation. While seductive, the spatial mismatch hypothesis has been lacking in two respects. It did not propose a well-articulated theory and empirical support for it is lukewarm. Chapters 7 and 8 do provide clean formalisations of the spatial mismatch hypothesis. Hopefully better models will also lead to better empirics.

Chapter 9 follows up on those issues but does so using network theory. This is the part of the book that feels most novel. Most economists know very little about networks. I am no exception. The value added of this chapter is thus both about the tools it introduces and the ideas it conveys about how the job market works. For instance network approaches put with a lot of emphasis on referrals and other direct links between workers which have been so far relatively neglected. Whereas the first 8 chapters are 'definitive', this last chapter sounds more like a great introduction about how to think about networks in an urban context and a teaser for exciting new research to come.

No book review would be complete without some quibbles by the reviewer. I have only one. Since Alfred Marshall in 1890, urban labour markets are widely acknowledged to be a core component of why wages and other measures of productivity increase with the scale of cities. That is, urban labour markets might be the very source of urban increasing returns and may be the reason why we have cities. This type of idea is fundamental in urban economics and has given rise to a lively literature in the last 20 years. However it barely gets a mention in this book.

There is an interesting tension here. Urban locations and labour market evolutions are explained by Yves Zenou in terms of frictions in the labour market. In the 'agglomeration literature', the existence of cities is also explained by frictions in the labour market. But the frictions used by the agglomeration literature are different. For instance they rely more on worker (and job) heterogeneity and less on random matching and workplace incentive issues. Are several type of frictions needed to get a reasonable account of labour markets in cities? What would the frictions considered by the agglomeration literature imply in the sort of model considered by Yves Zenou? These are still open questions and one can only hope they are tackled in an interesting way in the future.

To conclude, let me say the following: more than twenty years ago, Masa Fujita wrote the definitive book about the monocentric model. It was published in 1989 by the same editor and entitled: *Urban Economic Theory: Land Use and City Size*. Yves Zenou's book is a worthy heir to its distinguished elder.

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