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Re-entitlement effects with duration-dependent unemployment insurance in a stochastic matching equilibrium

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Abstract

In the context of a standard equilibrium matching framework, this paper considers how a duration-dependent unemployment insurance (UI) system affects the dynamics of unemployment and wages in an economy subject to stochastic job-destruction shocks. It establishes that re-entitlement effects induced by a finite duration UI program generate intertemporal transfers from firms that hire in future booms to firms that hire in current recessions. These transfers imply a net hiring subsidy in recessions which stabilizes unemployment levels over the cycle.

JEL classification: J63; J64; J65; E32

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1. Introduction

This paper considers a matching equilibrium where the aggregate economy is subject to stochastic job-destruction shocks. Workers when laid-off are entitled to

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unemployment benefits for a fixed term, say 6 months, after which they receive no further benefits from the government. Since Mortensen (1977) we know that such duration-dependent unemployment benefit schemes generate re-entitlement effects: becoming re-employed implies the worker (eventually) requalifies for full unemployment insurance (UI). This paper considers the impact of such re-entitlement effects on hiring incentives over a (stochastic) business cycle. We show that in a non-competitive labour market, re-entitlement effects generate an intertemporal transfer from future hiring firms to current hiring firms. Such transfers are employment stabilizing over the cycle – they imply a net hiring subsidy in recessions.

An important insight for our results is that in a non-competitive labour market, the joint value of a worker–firm match is increasing in the level of UI benefits. This occurs because the UI system credibly raises the worker's reservation wage when laid-off which subsequently forces the worker's next employer to offer a higher hiring wage. By extracting more rents from an outside party (the next hiring firm) the UI system increases the joint value of a current match. The issue then is who enjoys those additional rents? Clearly if the worker has all the bargaining power, those rents go into the worker's pocket and the current employer does not benefit. Less obviously, those rents also go into the worker's pocket if UI payments are constant with duration. In that case increasing the level of UI payments is not unlike increasing the value of leisure while unemployed. This automatically leads to higher negotiated wages and all firms are worse off. But suppose instead UI payments are duration dependent – for example suppose UI payments cease after 6 months unemployment. This introduces re-entitlement effects – the unemployed worker whose UI entitlement has expired can only become re-entitled to future UI through re-employment. Re-entitlement effects allow the current hiring firm to expropriate at least part of those third party rents.

The mechanism is most easily understood by assuming firms have all the bargaining power and so hire unemployed workers at their reservation wage. Consider then an unemployed worker whose UI entitlement has expired. Having no further UI entitlement this worker can be hired at a relatively low wage. The current hiring firm offers that worker a wage which reflects that, by becoming employed, the worker also becomes re-entitled to UI. But consider what happens when that worker is laid-off at some future (random) date because of a job-destruction shock. In the next unemployment spell, UI re-entitlement implies that worker then has a relatively high reservation wage (at least at first while his UI entitlement has not expired). Thus, the next hiring firm may have to pay a relatively generous wage to compensate for any foregone UI payments. But the assumption that firms have all the bargaining power implies the current hiring firm extracts those expected future rents through a lower hiring wage. Thus, re-entitlement effects imply a transfer of rents from an (as yet unknown) future hiring firm to the current hiring firm.

Such re-entitlement effects do not necessarily reduce unemployment. When a firm hires a worker who is entitled to receive further UI, the higher wage that needs to be offered is essentially a transfer to the worker's previous employer; the previous employer paid a lower wage reflecting this potential outcome. Of course by becoming fully re-entitled to UI in the future, the current firm offers a lower wage reflecting