

[Unemployment Dynamics and Endogenous Unemployment Insurance Extensions](#)

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This paper quantifies the impact of endogenous unemployment insurance (UI) extensions on the dynamics of unemployment and its duration structure which has an important implication on the recovery of the aggregate labour market. The focus of the paper is on the US labour market during the Great Recession when the maximum UI duration was extended from 26 to 99 weeks in most states. During the same period, the share of long-term unemployed workers (those whose unemployment duration is above 6 months) rose from 15 percent almost half of total unemployment population. As it is well known that the long-term unemployed face worse labour market outcomes than the short-term unemployed (e.g. re-employment opportunities and subsequent wages), it is important to understand the sources of unemployment duration and the role that UI extensions may have. Despite the focus on the Great Recession, the analysis in this paper applies to cyclical fluctuations in general.

I develop a general equilibrium search and matching model where the maximum UI duration depends on the unemployment rate, which is the case in the US, and the UI benefits depend on the match quality during employment and worker's productivity as a proxy for wages. Workers can either be (1) employed, (2) unemployed with UI and (3) unemployed without UI. They optimally choose their job search effort even when on the job. Workers' characteristics such as UI status, benefit level, and productivity determine their search intensity and in effect their job finding rates. UI extensions can impact the aggregate labour market in two ways: (1) they decrease the outflow out of unemployment, and (2) they increase the inflow into unemployment. First, they decrease the outflow out of unemployment as insured unemployed workers lower job search intensity and become more selective with their job offers in response to UI extensions. I call this the microeconomic effect of UI. Second, UI extensions can increase the inflow into unemployment as they induce workers who are on the margin of leaving employment to return to unemployment. I call this the general equilibrium effect of UI. As UI extensions are triggered by high unemployment, economic agents can also make predictions about future extensions by studying the evolution of unemployment.

I find that UI extensions account for 10-30 percent of the rise of total unemployment during the Great Recession and that the microeconomic effect of UI is moderate and consistent with existing empirical studies. However, UI extensions have a significant impact on long-term unemployment and the average unemployment duration. By studying the mechanisms through which UI extensions affect the aggregate labour market, the response of job search behaviour plays a crucial role on the dynamics of long-term unemployment and unemployment duration whereas the response of job separation decisions is more important in accounting for the dynamics of total unemployment. Lastly, I find that the rational expectations about the timings of UI extensions are important in quantifying the effects of endogenous UI extensions. Disregarding rational expectations implies an overestimation of the UI effects on total unemployment by over 2 percentage points during the Great Recession.