# Unemployment Insurance and the Role of Self-Insurance[1]

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This paper employs a dynamic general equilibrium model to design and evaluate long-term unemployment insurance plans (plans that depend on workers' unemployment history) in economies with and without hidden savings. We show that optimal benefit schemes and welfare implications differ considerably in these two economies. Switching to long-term plans can improve welfare significantly in the absence of hidden savings. However, welfare gains are much lower when we consider hidden savings. Therefore, we argue that switching to long-term plans should not be a primary concern from a policy point of view. *Journal of Economic Literature* Classification Numbers: J65, D82. © 2002 Elsevier Science (USA)

*Key Words:* unemployment insurance; asymmetric and private information.

# 1. INTRODUCTION

An important adverse effect of unemployment insurance is the disincentive to find/maintain a job.[2] Shavell and Weiss (1979) and Hopenhayn and Nicolini (1997) suggest that a possible remedy is switching to long-term contracts where benefit payments depend on workers' unemployment history. In particular, Hopenhayn and Nicolini (1997) show, by simulating a search-theoretic model, that switching from the current U.S. unemployment insurance system to the optimal one may reduce the cost of the system by 30%. The optimal plan they propose provides a declining benefit path to create intertemporal incentives. It punishes workers (agents) for continued unemployment and creates incentives to find a job. A maintained assumption in these papers is that consumer/workers cannot save or, alternatively, that any savings they undertake are perfectly monitored and thus completely controlled by the insurance provider. The main contribution of our paper is to study long-term unemployment insurance plans by relaxing the assumption that agents' savings can be perfectly monitored. Thus, we consider "hidden savings." We believe that introducing hidden savings is important for at least two reasons. First, it is not realistic that perfect monitoring is available at zero cost. Second, and more important, if savings cannot be monitored, the incentives of consumer/workers change significantly. Suppose that we apply the unemployment insurance system suggested by Shavell and Weiss (1979) and Hopenhayn and Nicolini (1997) to our economy where agents have hidden savings. Then the agents would be tempted to cheat: they would try to get a higher net present value transfer from the unemployment insurance system and would deal with any implied increase in risk by self-insuring using their hidden savings. Thus, in an economy with hidden savings—where agents can self-insure—the government-provided insurance may be less important and may change in nature.

We find that indeed it is important to consider hidden savings in the analysis. The nature of the optimal unemployment insurance plans differs significantly from the ones suggested by Shavell and Weiss (1979) and Hopenhayn and Nicolini (1997): the benefit path is not necessarily declining. We also find that the role of history dependence of unemployment insurance plans is not as important quantitatively as the earlier studies suggest. Our analysis, in fact, also suggests that unemployment plans that are designed ignoring agents' ability to save secretly could cause an increase in unemployment and be harmful to the economy.

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[2]Hamermesh (1977), Moffitt (1985), and Meyer (1990) estimate that a 10% rise in the replacement ratio might cause a $\frac{1}{2}$- to 1-week increase in the length of unemployment spell. Meyer (1990) predicts that a 10% increase in benefits leads to an 8.8% decrease in the probability of leaving unemployment.