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Related Literature

This paper relates to a vast literature studying different aspects of public policy and its welfare implications within an incomplete markets framework with heterogeneous agents and idiosyncratic risk.¹ Flodén and Lindé (2001) and Alonso-Ortiz and Rogerson (2010), for example, study the optimal level of public insurance in an economy with distortive taxes. Public insurance, for instance, is achieved through lump-sum transfers.

Flodén and Lindé (2001), in particular, provide a strong motivation to account for public employment in this framework. They calibrate a model without public employment to both Sweden and the U.S. economies. Given that wages are more persistent and volatile in the U.S. than in Sweden, their model concludes that taxes and transfers (i.e. the degree of public insurance) should be higher in the U.S. than in Sweden. However, these results would be biased if large transfer programs require a sizeable government to operate them. In particular, a sizeable government would further improve public insurance as public wages are less uncertain, which in turn would call for less generous transfers.² Our paper properly accounts for this extra source of insurance associated with the size of government.

Other papers study the role of policy instruments, other than lump-sum transfers, to improve welfare through insurance. To the best of our knowledge, none of them consider public employment policies. Aiyagari and McGrattan (1998) and Flodén (2001), for instance, consider the role of public debt.³ Domeij

¹ See Heathcote et al. (2009) and Guvenen (2011) for recent reviews of this framework.

² Flodén and Lindé (2001) acknowledge but do not address this possibility: "... although we look at wages before taxes and transfers, the relatively low degree of wage risk in Sweden may be a result of the big government sector. For example, a large fraction of the population work in the government sector and wage setting there seems to imply a significant amount of risk sharing." (Flodén and Lindé, 2001, p. 435)

³ To be precise, Flodén (2001) studies the interaction of lump-sum transfers and public debt.

and Heathcote (2004), Nishiyama and Smetters (2005), Conesa and Krueger (2006) and Conesa et al. (2009) study the effect of a variety of consumption, income and capital tax schedules. Berriel and Zilberman (2011) emphasize the role of targeted transfers to the poor. Imrohoroglu et al. (1995), Conesa and Krueger (1999), Huggett and Ventura (1999) and Storesletten et al. (1999) focus on the role of different social security arrangements. Finally, Hansen and Imrohoroglu (1992) explore the role of unemployment insurance.

In a different context, Rodrik (1998) and Rodrik (2000) explore a related idea to this paper. These articles argue that bigger governments might be an endogenous response to a higher level of external risk. As Rodrik (2000) points out:

"... relatively safe government jobs represent partial insurance against undiversifiable external risk faced by the domestic economy. By providing a larger number of 'secure' jobs in the public sector, a government can counteract the income and consumption risk faced by the households in the economy." (Rodrik, 2000, p.3)

Also related is Jetter et al. (2011), who develop a model to study the effect of wage volatility on growth. The crucial assumption is that public wages are not volatile, but their counterparts in the private sector are. If volatility increases, both precautionary savings and the size of government increase for insurance reasons, affecting economic growth ambiguously.

Several papers study the implications of public wage and employment policies in macroeconomic workhorse models. Finn (1998) and Pappa (2009), for example, introduce public employment in standard real business cycle and new-Keynesian frameworks, respectively. Horner et al. (2007) and Quadrini and Trigari (2008) integrate public wage and employment policies into models with search and matching. However, we are not aware of any paper that introduces public employment in an incomplete markets model that follows in the tradition of Imrohoroglu (1989), Huggett (1993), Aiyagari (1994) and Huggett (1996). This paper bridges this gap.