Consumption Risk and Family Labor Supply (A more elaborated abstract)

The link between household consumption and idiosyncratic income changes has been the focus of a large body of recent economic research (see Blundell et al., 2008; Heathcote et al., 2009). This literature usually relates movements in consumption to predicted and unpredicted income changes as well as persistent and non-persistent shocks to income.

In testing the theory, however, most papers ignore the role of *family labor supply* in explaining adjustments in consumption to changes in economic resources of various nature and duration. Do households respond to shocks by cutting the consumption of goods or working harder and longer? Do spouses share the brunt of the adjustment? Does the secondary earner's labor supply increases in response to negative wage shocks faced by the primary earner? We develop a life cycle framework with two individuals within the family (husband and wife) making decisions about household consumption and their individual labor supply, subject to uncertainty about offered market wages.

The extensions we propose are substantial. For example, estimating a single earner model when two earners are present potentially yields biased estimates for the level of self insurance and for the elasticity of intertemporal substitution of consumption. Studies of the "added worker effect" that disregard self-insurance through savings may find little evidence for an added worker effect if couples have plenty of accumulated assets to run down in case of negative shocks to resources.

Using approximations of the first order conditions and of the lifetime budget constraint, we derive intuitive expressions for the dynamics of consumption, hours and earnings of the two earners in the presence of wage shocks. The response of consumption to permanent wage shocks depends on two "smoothing" channels: smoothing through savings and smoothing through the two earners' labor supply. We derive an econometric model that shows how the Frisch elasticities of labor supply, the intertemporal elasticity of substitution and a self insurance parameter can be identified from second and cross moments of wages, earnings and consumption growth. We apply this framework to 1999-2007 PSID waves which include detailed consumption data in addition to earnings and hours worked. Our findings highlight three key features of household insurance and family labor supply. First, The Frisch elasticity of labor supply of the second earner (in our case the wife) is at least twice as large as the Frisch elasticities of labor supply of the household head (in our case the working male). Second, estimates of the self insurance parameter suggest that the household is more insured than the insurance implied by a single riskless asset model. Third, the second earner is much more responsive not only to its own permanent wage shocks, but also to the second earner permanent wage shocks, implying a large average increase in labor supply of the second earner in response to an adverse permanent shock to the first earner's wages.