

Measuring precautionary savings related to the risk of unemployment

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The question of how disposable income is shared between savings and consumption involves trade-offs that take place at the household level and has direct implications at the aggregate level. For example, if the propensity to save is higher among wealthy households, a consumer stimulus will be more effective if it targets low incomes. Another example concerns how progressive the income tax system is: if the savings rate rises with income, then making income tax more progressive will have a more than proportional effect on the decline in national savings, with consequences for investment. Other issues such as tax incentive schemes to encourage savings (life insurance, Livret A accounts) or the question of the relevant tax base (work versus consumption, income versus wealth) depend on this trade-off. The measurement of precautionary savings is essential, especially to understand the implications of rising unemployment during a shock such as the 2008 crisis. So if the increase in unemployment affects all households equally, and if rich households have a stronger precautionary motive than others, then the recession will be more violent.

Historically, the models of the life cycle and permanent income, which originated with Modigliani and Brumberg (1954) and Friedman (1957), provided one of the first theoretical frameworks for thinking about savings behaviours. Friedman (1957) introduced the notion of permanent income, defined as the constant income over time that gives the household the same discounted income as its future income, and showed that the permanent consumption (and thus the savings) is

proportional to the permanent income over the lifetime. Thus, households should save during their working lives and start dis-saving upon retirement. These models have been enriched by the precautionary savings theory, which shows that savings also serves as insurance against contingencies that might affect the household, particularly with respect to income (unemployment, loss of wages, etc.). As a result, households are saving not only to offset lower future income, but also to insure against all kinds of risks, including risk to income. The main difficulty when trying to evaluate this precautionary behaviour is to find an accurate measure of the risk to income. The most convincing approach involves the use of subjective household survey data about trends in income and in the likelihood of unemployment (Guiso *et al.*, 1992; Lusardi, 1997; Lusardi, 1998; Arrondel, 2002; Carroll *et al.*, 2003; Arrondel and Calvo-Pardo, 2008). This approach quantifies the share of wealth accumulation that is related to the precautionary motive.

What is the amplitude of the precautionary motive? Do all households exhibit precautionary behaviour, or does it depend on their income? The working paper on [The Linkages between Savings Rates, Income and Uncertainty. An illustration based on French data](#) ["Les liens entre taux d'épargne, revenu et incertitude. Une illustration sur données françaises"] first seeks to test the homogeneity of savings rates empirically according to the level of income. It is also interested in the existence of precautionary savings behaviour related to income and tries to quantify this, based on the French INSEE 2010-2011 Family Budget survey. The precautionary motive is assessed by means of the subjective measure of the likelihood of unemployment that is expected by household members over the next five years.

The precautionary motive exists for all French households: the extra savings linked to the risk of unemployment is around 6-7%, and the proportion of precautionary holdings

attributable to the risk of unemployment comes to around 7% of total wealth. The precautionary motive can be differentiated according to the level of income: middle-income households accumulate the most precautionary savings. Their savings represents 11-12% of the total household wealth of the second, third and fourth income quintiles, compared with about 5% for households in the income quintiles at the extremes.