1. Introduction to Social Insurance
What is social insurance? Why does the government get involved in providing insurance? Why do we care about social insurance? What are the key questions we need to address for optimal design of social insurance programs? For an overview, read:


2. Asymmetric Information: Theory, Tests and Welfare Analysis
The key reason for the government to be involved in providing insurance is the potential market failure as a result of asymmetric information. Here we review the basic theory of how asymmetric information may lead to market failure; and the tests for asymmetric information that are derived from the theory; and finally some recent empirical methods to examine the welfare effects of asymmetric information.

The classical readings on the market failure due to asymmetric information is Akerlof’s (1970) lemon’s paper and Rothschild & Stiglitz’s analysis of competitive insurance market (1976). Arrow’s (1963) classical paper makes uncertainty and asymmetric information central focus of the economic analysis of health economics. All these papers assume one dimensional private information in the risk type of the agents.


Recently there have been some work emphasizing potential private information in other dimensions, such as risk aversion.


The most well-known empirical tests of asymmetric information is known as the “positive association property” test, first applied in Chiappori and Salanie (2000) for automobile and Chiappori, Jullien, Salanie and Salanie (2005) showed the robustness of this test. Other applications include Cawley & Philipson (1999) for life insurance market, Finkelstein & McGarry (2006) for Long Term Care insurance market, Fang, Keane & Silverman (2008) for Medigap insurance market.


However, “positive correlation property” is not the unique implication from the presence of asymmetric information. The following papers use different angles to examine the presence of asymmetric information.


The above papers do not distinguish moral hazard from ex ante adverse selection. The papers below attempted to do so.


An interesting emerging literature is a theoretical investigation regarding the general issue of identification of adverse selection in structural models. See the paper below as a starting point.


[C.] Welfare Effects of Asymmetric Information
The frontier of this research area lies in welfare analysis of asymmetric information in insurance context. The following list is almost exhaustive about the existing literature.


Health care reform is one of the most important policy issues in the US. There are numerous angles from which one can examine the issues related to the health care system. I will touch upon only two issues, reclassification risk insurance, and dynamic externalities.

Reclassification risk is the risk that consumers face in future insurance premiums. There is no long-term health insurance currently in the U.S. This could lead to significant welfare loss.


[B.] Dynamic Externalities
Health insurance in the US is mostly tied to employment. There is neither universal, nor single-payer, health insurance in the US and this leads to dynamic inefficiencies.


4. Unemployment Insurance: Theory and Evidence
For the institutional background related to the unemployment insurance system in the US, see:


[A.] Theory of Optimal Unemployment Insurance
The static models for optimal unemployment insurance are Baily (1978), extended further by Chetty (2006). Dynamic theory of optimal timing and level of unemployment insurance started with Shavell and Weiss (1979). There is also a growing literature dubbed “dynamic public finance” that addresses the mechanism design issues related to unemployment insurance, as well as disability insurance, dynamic optimal taxation etc.


[B.] Empirical Studies
Theoretical results on the optimal unemployment insurance are useful only if one has reliable estimates regarding the effect of UI benefit on unemployment duration, and the consumption smoothing from UI. Meyer (1990) and Gruber (1995) are classical studies on these two issues. Meyer (1995) summarizes. Chetty (2008) proposes using sufficient statistics, estimable using non-structural methods, to conduct welfare analysis.


