**Economic Problem of Interest**

Germany, as one of the OECD countries, ha a large public funded heath sector taking substantial portion of total GDP. Possible explanation for the increase in healthcare spending includes expanding technological and expenditure possibilities in the healthcare services, the surge in demand from the aging population, and incentive structures in public health sector not promoting efficient use of resources. One of the major reforms on the German healthcare system was the reform of 1997, in which the co-payments for prescription drugs were raised up by 200% and the reimbursements of physicians by state insurance was capped. To evaluate the effect of the healthcare reform of 1997, we want to know 1) whether the reform of 1997 is a success and effective, and 2) how the effect of reform differs among different groups of population.

Some background information needs to be elaborated before digging into the The change in co-payments (for prescription) drugs is the most eminent element of the 1997 reform, with measures like an extended exclusion list of drugs not covered at all by social insurance, price ceilings related to the availability of generics, and a binding overall annual budget for drugs and doctor service. The overall objective of this reform is to limit the heath care expenditure and its growth rate. An increased co-payment has an direct fiscal effect of reducing the proportion of cost covered by the insurer, and the increased out-of-pocket expenses would disincentivize customers from excessive use of prescription drugs and medical resources as a moral hazard. The analysis of this paper focus on the disincentivizing effect on prescription drug use by tracing the number of doctor visits by a person during a given time from. The rationale for this approach, other than the unavailability of data on drug use, is the correlation between prescription drug use and doctor visit – the implemented policy will increase the expense on drugs, and the patient might try to persuade the doctor to prescribe in larger size or to reduce their drug use while not seeing the doctor. Though the some other effects might affect the number of visits -- one might still see a doctor for diagnosis or advice on non-prescription drugs. However, the number of such visits would not be affected by the increased co-payment. Thus, an analysis of patient visit could help us to get some insights on the effectiveness and success of the 1997 Healthcare reform

Data and Variables:

The data was drawn from GSOEP, an ongoing annual household survey published by the SOEP group. The time frame of the data is 1995 – 1999. The variable related to the usage of the health service is the aggregate number of doctor visit in a year (including general practitioners, specialists, dentists, etc.). The time variables include calendar year of the observation (year) and seasonal dummies (winter, spring, fall) as the reform took place in the middle of 1997. Some variables might affect the demand for doctor visits: underlying health status, budget constraint, and preference formation. The survey of health over 1995 – 1999 provides us with the variables of health status – the two IV for “good health” and “bad/poor health”. Age and activity level (actively engaged in sports or not) might also be proxies for health status. The budget constraints could be reflected log income, household size, employment, and marital status. Other variables like education, can incorporate the effects of individual preferences.