DISSERTATION SUMMARY

JUERGEN JUNG

DISSERTATION TITLE:

ESSAYS ON REFORMING HEALTH CARE AND PUBLIC TRANSFER PROGRAMS

My dissertation is focused on the effects of re-distributional policies with an emphasis on health care reform. I first investigate a tax sheltered private savings vehicle, Health Savings Accounts, which were established in the United States in 2003 to decrease total health expenditures and to decrease the number of uninsured individuals. In the second essay, I derive a measure for subjective health expectations that can be used in life cycle models. Finally, I investigate the timing of inter generational and intra generational redistribution programs. This research is important because intergenerational transfer systems have come under pressure due to demographic trends and increases in health care costs and are therefore in need of reform.

Essay 1: In *"The Macroeconomics of Health Savings Accounts"* (with Chung Tran), we analyze whether a consumer driven health care plan like the newly established Health Savings Accounts (HSAs) can reduce health care expenditures in the United States and increase the fraction of the population with health insurance. We use an overlapping generations model with health uncertainty and endogenous health care spending. Agents can choose between a low deductible- and a high deductible health insurance. If agents choose to purchase the high deductible health insurance, they are allowed to contribute tax free to an HSA. We examine the steady state effects of introducing HSAs into a system with private health insurance for young agents and Medicare for old agents. Since the model is a general equilibrium model, we fully account for feedback effects from both, factor markets and insurance markets. Our results from numerical simulations indicate that HSAs can decrease total health expenditures by up to 3% of GDP but increase the number of uninsured individuals by almost 5%. Furthermore, HSAs decrease the aggregate level of health capital and therefore decrease output. We also address possible extensions of the HSA reform that include the eligibility to pay health insurance premiums with HSA funds, the full privatization of Medicaid via HSAs, and Medicare for workers.

Essay 2: In *"Subjective Health Expectations,"* I construct subjective health expectations curves and empirically evaluate its components. Health status and health expectations play an important role in insurance choice decisions, along with institutional details about the eligibility of Medicare and other forms of health insurance. I am therefore interested in whether subjective health expectations can change the analysis of standard life-cycle models with health investment decisions under uncertainty about future health status. The literature has developed subjective mortality expectations curves that can be substituted for "objective" mortality curves that come directly from the mortality tables. These subjective expectations show some promise in improving estimation results of structural life cycle models. I expect to get similar improvements using subjective health expectations in a health uncertainty model with various insurance options. I therefore derive subjective health expectations curves using data from the Health and Retirement Study (HRS). This dataset focuses on the elderly population. In addition, I have found that (i) subjective health expectations do contain additional information that is not incorporated in subjective mortality expectations and (ii) that the rational expectations assumption cannot be rejected for subjective health expectations.

The same demographic trends that make reform of Health Care insurance inevitable also threaten pension systems and other publicly financed programs. In his defense of the U.S. Social Security system Peter Diamond argues for a mandatory retirement income system paying annuitized benefits to workers based on a progressive benefits formula and using retirement tests. He further argues that workers cannot sort out basic portfolio diversification and therefore a Social Security system offers insurance for individual income risk that is not available on the market. Finally, he claims that Social Security does not distort savings in the sense that Social Security payoffs do not depend on capital income. He thereby implicitly claims that transfers should occur late in an agent's life, after certain income and health shocks are revealed. Late transfers insure the agent against such shocks. If transfers would occur earlier in an agent's life, the individual would not be able to (a) save sufficient amounts for consumption in late life and (b) diversify these investments sufficiently to insure against risk due to market incompleteness and poor decision making. I use this statement as a start for exploring whether a late transfer schemes can dominate an early transfer scheme despite the strong savings distortion embedded in the later.

Essay 3: In *"The Timing of Redistribution",* I ask the simple question whether a redistribution program that targets older individuals can "dominate" a redistribution program that targets younger individuals in terms of output and some measure of welfare. In general, redistribution to the elderly has adverse savings effects that lower output in the long run. Redistribution to young agents, say in the form of education vouchers etc. does not have this adverse savings effect. I assume that late redistribution can be targeted because information about the income path of an agent is available for constructing redistribution programs. I then derive a series of simple two-period overlapping generations models with heterogeneous agents under five policy regimes: A laissez-faire (benchmark) model with no redistribution policy, two early redistribution (lump sum) regimes, and two late redistribution regimes. I assume that only the late redistribution regimes can target the recipients of transfers by income. Redistribution programs are financed by either a labor tax on the young or a savings tax on the old generation. I argue that late redistribution can dominate early redistribution in terms of welfare if the program is kept moderate in size by using the possibility of targeting the transfers. Late redistribution does not dominate early redistribution in terms of output. Better targeting of low income households cannot offset savings distortions.