Social security and the rise in health spending

Kai Zhao *

Department of Economics, The University of Connecticut, Storrs, CT 06269-1063, United States

ARTICLE INFO

Article history:
Received 23 June 2011
Received in revised form
19 February 2014
Accepted 20 February 2014
Available online 4 March 2014

JEL classification:
E20
E60
H30
I00

Keywords:
Social security
Health spending
Saving
Longevity

ABSTRACT

In a quantitative model of Social Security with endogenous health, I argue that Social Security increases the aggregate health spending of the economy because it redistributes resources to the elderly whose marginal propensity to spend on health is high. I show by using computational experiments that the expansion of US Social Security can account for over a third of the dramatic rise in US health spending from 1950 to 2000. In addition, Social Security has a spill-over effect on Medicare. As Social Security increases health spending, it also increases the payments from Medicare, thus raising its financial burden.

© 2014 Elsevier B.V. All rights reserved.

1. Introduction

Aggregate health care spending as a share of GDP has more than tripled since 1950 in the United States. It was approximately 4% in 1950, and jumped to 13% in 2000 (see Fig. 1). Why has US health spending as a share of GDP risen so much? This question has attracted growing attention in the literature (Newhouse, 1992; Finkelstein, 2007; Hall and Jones, 2007, among others). Several explanations have been proposed, such as increased health insurance and economic growth. However, these existing explanations together only account for up to half of the rise in US health spending over the last half century, suggesting that there is still a large portion of the rise in health spending remaining unexplained (e.g., Newhouse, 1992; CBO, 2008). This paper is mainly motivated by this large unexplained residual.

Over the last several decades, the size of the US Social Security program has also dramatically expanded (as shown in Fig. 2). Total Social Security expenditures were only 0.3% of GDP in 1950, and jumped to 4.2% of GDP in 2000. Furthermore, several papers in the literature have shown that theoretically mortality-contingent claims, such as Social Security annuities, may have positive effects on health spending and longevity (Davies and Kuhn, 1992; Philipson and Becker, 1998). For...
instance, Davies and Kuhn (1992) argue that Social Security annuities provide people with an incentive to increase longevity through higher spending on longevity-inducing health care because the longer a person lives, the more Social Security payments she receives.

What are the effects of Social Security on aggregate health spending? Can the expansion of US Social Security account for the dramatic rise in US health spending over the last several decades? To address these questions, I develop an Overlapping Generations (OLG), General Equilibrium (GE) model with endogenous health spending and endogenous longevity. Following Grossman (1972), the concept of health capital is adopted in the model. Health capital depreciates over the life cycle, and health spending produces new health capital. In each period, agents face a survival probability which is an increasing function of their health capital. Before retirement, agents earn labor income by inelastically supplying labor to the labor market. After retirement, they live on Social Security annuities and private savings. Social Security annuities are financed by a payroll tax on working agents. In the model, agents spend their resources either on consumption, which gives them a utility flow in the current period, or on health care, which increases their health capital and survival probability to the next period. Agents can smooth consumption or health spending over time via private savings, but they do not have access to private annuity markets. Agents also have a warm-glow bequest motive.

In the model, Social Security increases aggregate health spending as a share of GDP via two channels. First, Social Security transfers resources from the young to the elderly (age 65+), whose marginal propensity to spend on health care is

---

3 The data shows that the US private annuity markets were very thin over the last several decades. According to Warshawsky (1988), only approximately 2–4% of the elderly population owned private annuities from the 1930s to the 1980s. A common explanation for the lack of private annuity markets is that the adverse-selection problem in private annuity markets reduces the yield on these annuities.
دریافت فوری
متن کامل مقاله

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاره مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات