The economic report of the president. 2004. Available at: http://www.gpoaccess
   .gov/usbudget/fy05/pdf/2004_erp.pdf.

Comment   Moshe Buchinsky

In this chapter, the authors examine one of the most pressing issues in the
United States, namely the growing medical expenditure. It has been long
documented in the literature that the Social Security Administration (SSA)
spending on Medicaid and Medicare has been increasing over the past two
decades at an unsustainable rate. If we also consider the huge increase in
related spending on the two disability programs that the SSA offers (the
Social Security Disability Insurance [SSDI] and the Supplemental Social
Security Income [SSI]), as well as the old-age program, the SSA is reaching
a catastrophic situation in which it will be unable to sustain itself. While
this is a problem that has been previously recognized in the literature, it has
been studied in a very limited way. In fact, almost all studies resort to partial
equilibrium models that capture very few of a long list of elements that are
interconnected. Examination of a multitude of problems within a unified
general equilibrium model is the main contribution of this chapter. Indeed,
the empirical results suggest that some major policy measures have to be
taken to preserve the Social Security system.

   The main features that are modeled are (a) labor supply; (b) health (and,
consequently, mortality); (c) medical expenditures (by institution as well as
out-of-pocket expenses); (d) taxation on income and capital; and (e) bud-
getary consideration by the government. This is certainly a very compre-
hensive model that addresses some of the most crucial problems in the
American society and elsewhere. I would even argue that it is the most real-
istic way of investigating such issues. Furthermore, the current model, in
principle, allows one to carefully study crucial fiscal issues that are endog-
enously determined.

   There are reasons to believe that, if anything, the authors provide a lower
bound for the potential problems to be seen in the near future, maybe even
prior to the year 2080—the end period in the current analysis. This claim is
supported by recent actions taken by the SSA. The SSA has made sincere
efforts to alleviate the situation and created study groups for potential so-
lutions.

   There are several alarming results that come out of this study. Obviously,
the results clearly indicate that there needs to be an enormous increase in
taxes to support the increased costs of the SSA due to larger than anticipated

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increase in medical expenditure. Moreover, individuals, in general, will be exposed to more idiosyncratic risks that stem from medical disasters. The authors consider two main alternative policy measures that could reduce the required increase in the tax rate, namely (a) a considerable increase in Medicare premiums; and (b) relatively large decrease in Medicare coverage. Neither "solution" is very appealing. Most of the effects that stem from these types of policies amount to some changes in the national accounting but provide no difference from the individuals' point of view. Quite the contrary, these changes simply shift the burden to the subpopulation that is relatively lower-educated, is more likely to be in worse health conditions, and is struggling to make ends meet as it is. The sensitivity analysis provided indicates some changes in the results, particularly in the required tax rate. Nevertheless, the general gleam picture does not change much. However, as I discuss in the following, this is to be expected given that some of the key behavioral variables are assumed to be exogenous, thus not allowing for the possibility of some endogenous behavioral changes.

It is clear that the chapter does a very good job at bringing to the forefront the issues that the United States will undoubtedly be struggling with. Nevertheless, there are some key assumptions that make one a bit nervous taking the quantitative results on their face value. It would be fair admitting that writing a comment on such a chapter is a lot easier than carrying out the analysis incorporating the suggestions and addressing the concerns raised in this comment. As we all know, certain things are simply "easier said than done." The main advantage of the model, namely the imposition of general equilibrium, is, in a way, also what exposes it to some criticism.

With these implied apologies in mind, there are some issues that we should be concerned about:

1. Are the assumptions made realistic enough to substantiate the results?
2. Are there features that should have been endogenously modeled? If so, what effects might these have on the results?
3. Are there "easier" policy measures that can be considered?
4. Are there modeling issues that can be strengthened?

One major drawback of the model, as I see it, is that it relies quite heavily on results obtained in the literature that are based on partial equilibrium models, or sometimes even models that can be categorized as reduced-form models. Generally, it is difficult, if not impossible, to extract the behavioral parameters, such as the ones used here in calibrating the model, from regressions that are not directly suited for estimation of behavioral parameters. While the theoretical model is a general equilibrium overlapping generations model, incorporating parameters in such a fashion, at the very least, raises some questions regarding the validity of the empirical results and their interpretations. An additional fundamental problem that makes it hard to justify

the use of parameters from previous studies is the fact that they mostly come from data collected from a nonstationary environment, while the calibrated model is assumed to be in a stationary environment.

This is not to say that a calibration model is not fit to analyze the question at hand, but putting too much emphasis on the quantitative aspect rather than the qualitative results is somewhat misplaced.

Many of the relevant variables are assume to be exogenous. This is the case for the individual types, which are completely characterized by the exogenously drawn education level $e \in \{0, 1\}$. This is also the case with the health transition probabilities. More crucially, the model does not permit endogenous decisions regarding family formation and investment in human capital. Consequently, the demographic structure is, essentially, assumed rather than being the results of sequence of endogenous decisions that are so widely studied in the literature.

I think it is not hard to see that selection can also play a major role in the composition of households in society because of differential decision-making across individuals with varying observed and unobserved characteristics. Changing the household composition may alter the results in ways that we cannot clearly anticipate. Even more important is the fact that the unit of observation in this study is the household rather than the individual. Consequently, there is no room for differential changes and responses between females and males.

Another point for concern is the fact that the demand for health service is formed in a somewhat ad hoc fashion because behavioral responses, such as the ones mentioned in the preceding, can easily lower the demand for health services and may consequently have a large impact on its price level (i.e., q in the authors' formulation may very well be at times lower than 1). This, in turn, can have quite sizable effects on the empirical results. A rough calculation that I performed indicates that the tax increase necessary to keep a balanced budget could be less than half the estimate provided in this chapter.

While it is more than fair to only consider differences between two steady states, there are a number of questions that come to mind regarding the transition period from one steady state to another. One particularly alarming question is whether the system will survive the transition period. What obstacles can we expect to face? Obviously, this question cannot be answered unless individuals' expectations are incorporated. Understanding the formation of individuals' expectations is obviously important but belong more in a micro-type study than the one pursued here. Nevertheless, incorporating these features, that are integral part of human behavior, may shed light on possible reform of the SSA system, providing individuals with incentives to avoid unnecessary use of Medicare, the SSDI, SSI, and so on. For example, the Clinton administration considered a proposal to change the rules that govern the SSDI and SSI programs. This proposal, termed one-for-two benefit offset, essentially reduced the implied marginal tax for individuals

who leave the disability role from 100 percent to only 50 percent, giving them more incentive to return to the active labor market.

The health literature show a very clear link between education and investment in health: more highly educated individuals tend to invest more in maintaining and improving their health. In turn, they are generally in better health and are less likely to use medical services of any kind. It would not be difficult to conclude that public investment in education, in general, and health education, in particular, may very well alter people's behavior. It seems that our tendency as economists is often to find the easy way out, that is, to deal with what amounts to an accounting exercise (on the national level), rather than examining more basic questions as to how one might change the fundamentals that govern individuals' behavior, which, in turn, lead to the increasing costs of Medicare (and, for this matter, any other social program).

Finally, I think that it would be wise to reexamine some of the assumptions that are made in this study and, in my mind, could have a significant effect on the results obtained:

1. One must admit that this chapter concentrates on the macro aspects of increased medical use and expenditures. Nevertheless, as is generally found in empirical micro studies, unobserved heterogeneity always plays a major role in explaining human behavior. This element is totally ignored in the current study.

2. The same general idea applies to other aspects of the model. For example, the employer-based health insurance that is exogenously assigned to the individuals is not random. Moreover, decisions about job mobility are tied very closely to employer provided fringe benefits. Some studies find that the choice of health coverage is the single most important aspect of fringe benefits that employees are concerned with.

3. The assumptions that allow one to restrict attention to one-sector economy might be of some concern. In particular, there is strong evidence in the literature of differential adaptation of skilled versus unskilled workers to new environment.

4. In the implementation of the government policies, there is an implicit assumption that all relevant state variables are observed by all parties. This is somewhat questionable. For example, are people that declare themselves to be disabled really disabled? There is substantial evidence that this is not the case. In fact, much of the resources of the SSA operating budget are spent on actions that are aimed at revealing the true status of individuals.

5. Productivity is assumed to be exogenously given and largely constant (up to some very small variation on the assumed parameter). A better approach might be to use regression-based specification of the productivity, whereby productivity is linked directly to observed exogenous and endogenous variables from the model.

6. Throughout the chapter, it is assumed that the government expenditure is fixed at 20 percent of gross domestic product (GDP), while public debt held is fixed at 40 percent of GDP. I think there is room for asking how much government spending should be cut to avoid any cuts in Medicare, social welfare programs, and so on.

7. Measuring welfare improvement: It is important to address issues about welfare gains or losses across different segments of the population. The poor, who are most likely to use social welfare in one way or another, are those who are most likely to lose from any program that will limit their use of Medicare, SSA-old age, SSDI, and SSI.