

Health and growth : exploring domestic and global channels

Abstract

Human capital has been considered an important determinant of productivity (Barro and Sala-i-Martin, 2004). However, until late 1990s, the role of human capital was considered synonymous with education alone. The role of health and nutrition in human capital formation was brought to fore during late 1990s, which consequently led to a series of papers examining the importance of health conditions in the process of economic growth.¹ This thesis is a step towards exploring some of these channels. In this context, we explore both domestic and global dimensions of these linkages. With regard to global dimensions, we find that governments can look beyond healthcare policies and leverage trade-related policies to influence health conditions.

The first chapter contrasts the impact of health expenditure on per capita income, income growth and income inequality under private and public health regimes. We contribute to the literature by investigating this issue in a theoretical setup of a two-period overlapping generations model with endogenous mortality and human capital as the engine of growth. The key linkage between generations is through parental investment in the progeny's health. We find that under the public regime, while rich countries will exhibit high income growth and low income inequality, poor countries will converge to a vicious cycle of poor health and low income. Under the private health regime, initial differences in economic and health status get exacerbated over time. The long-run income growth rate will depend on the initial proportion of poor households in the population. Our empirical results also suggest that higher public health expenditure has a negative long-run relation with income inequality.

Following the previous discussion of the health regime's effects on health and human capital accumulation, the second chapter examines the role of trade in influencing health. This is particularly important in the context of rapid globalisation, wherein economies are increasingly integrating with the world market through trade flows. We contribute by specifically looking at medical technology diffusion embodied in cross-border import of medical goods. While accounting for time invariant country-specific factors, we compare the effects on cross-country longevity and mortality indicators over 1990-2010. The findings suggest that medical imports from the rest of the world can potentially extend longevity and reduce mortality. We also find that the high income countries not only import greater amounts of medical products, they also seem to benefit more from such imports, possibly due to well-developed health systems and threshold effects that emerge once economies reach a certain level of development.

Just as health can be influenced by domestic and trade policies, we next explore how health in turn can affect an economy's integration with the world market. The mechanism is similar to the effects of improved health on physical capital accumulation. We empirically assess the effect of health outcomes on an economy's ability to attract long-term foreign investment inflows in the form of foreign direct investments (FDI). We use a sample of developing countries over 1995-2011 for the analysis. Unlike previous papers, we find significant negative effects, while using cross-sectional methods. To address endogeneity arising from either reverse causality or unobserved factors simultaneously affecting both life expectancy and FDI inflows, we propose an instrumental variable approach. Accounting for both heterogeneity and

¹ See Fogel (1994), Bloom and Canning (2000), Rivera and Currais (1999), Bhargava et al. (2001).

endogeneity, we find a significant positive effect of life expectancy on FDI inflows to developing countries. These effects are also explored for certain regional group of countries.

There are three takeaways from this thesis, which have a bearing on policy design and policy implementation. First, we confirm that health is an outcome of a complex array of healthcare policies, income distribution and medical infrastructure, among others. Thus attempts to improve health conditions need to be holistic in their approach. Second, governments can leverage the opportunities arising from globalization, such as their trade policies to influence health outcomes. Third, an improvement in health outcomes should not be viewed as an end in itself but as an additional means through which economies can augment their growth prospects and facilitate their integration with the world market.