



ELSEVIER

Contents lists available at ScienceDirect

European Economic Review

journal homepage: www.elsevier.com/locate/eer

Ageing, government budgets, retirement, and growth

Martín Gonzalez-Eiras^{a,b}, Dirk Niepelt^{c,d,e,*}^a Universidad de San Andrés, Vito Dumas 284, B1644BID Victoria, Pcia. Buenos Aires, Argentina^b CONICET, Argentina^c Study Center Gerzensee, P.O. Box 21, CH-3115 Gerzensee, Switzerland^d University of Bern, Switzerland^e IIES, Stockholm University, Sweden

ARTICLE INFO

Article history:

Received 10 September 2010

Accepted 31 May 2011

Available online 14 June 2011

JEL classification:

E62

H5

J26

Keywords:

Ageing

Government budgets

Retirement

Growth

ABSTRACT

We analyze the short and long-run effects of demographic ageing – increased longevity and reduced fertility – on per-capita growth. The OLG model captures direct effects, working through adjustments in the savings rate, labor supply, and capital deepening, and indirect effects, working through changes of taxes, government spending components and the retirement age in politico-economic equilibrium. Growth is driven by capital accumulation and productivity increases fueled by public investment. The closed-form solutions of the model predict taxation and the retirement age in OECD economies to increase in response to demographic ageing and per-capita growth to accelerate. If the retirement age was held constant, the growth rate in politico-economic equilibrium would essentially remain unchanged, due to a surge of social-security transfers and crowding out of public investment.

© 2011 Elsevier B.V. All rights reserved.

1. Introduction

The prospect of “graying” populations in many developed economies raises concerns about the sustainability of economic growth. According to these concerns, rising old-age dependency ratios translate into growing tax burdens while generous pension and health care benefits crowd out public investment spending for infrastructure or education, with negative effects for capital accumulation and productivity growth. However, the demographic transition has been ongoing for a while – developed economies have experienced a marked decrease in fertility and increase in longevity for several decades – without producing clear evidence that this transition has caused a fall in per-capita growth. Rather to the opposite, Barro and Sala-i-Martin (1995) find in growth regressions that both a decrease in the fertility rate and an increase in longevity are associated with higher growth rates.¹

* Corresponding author. Tel.: +41 31 7803101; fax: +41 31 7803100.

E-mail addresses: mge@alum.mit.edu (M. Gonzalez-Eiras), dirk.niepelt@szgerzensee.ch (D. Niepelt).

¹ Falling fertility and increasing longevity can give rise to a temporary reduction in the (young age) dependency ratio, generating a “demographic dividend” of higher growth. In developed economies, this growth dividend is predicted to be exhausted around the year 2010 (e.g., Bloom et al., 2003). Also, Acemoglu and Johnson (2007) estimate the effect of life expectancy at birth on economic growth. They find no evidence of a positive effect.

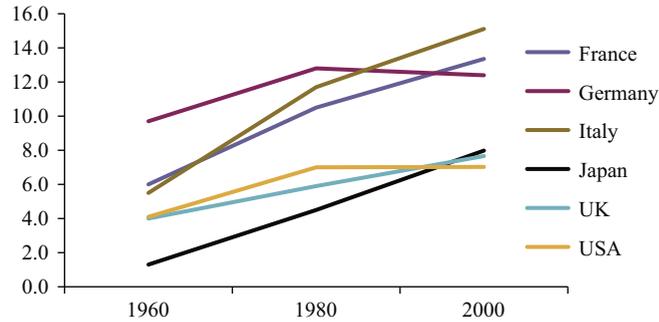


Fig. 1. Public expenditure on pensions, percent of GDP.
Source: Tanzi and Schuknecht (2000), OECD.

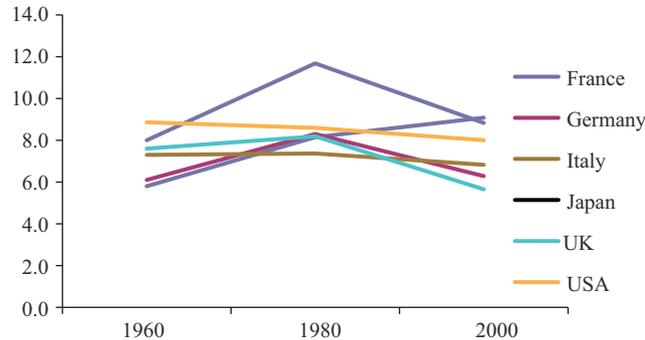


Fig. 2. Public expenditure on education and infrastructure investment, percent of GDP.
Source: Tanzi and Schuknecht (2000), OECD.

The evidence is similarly mixed as far as government budgets are concerned. While the GDP share of transfers to the elderly has increased, the share of public investment does not show a clear trend in most countries, see Figs. 1 and 2.^{2,3} Moreover, most developed countries have started to increase the retirement age or tighten the conditions for early retirement, reducing the pressure on social-security taxes.

To interpret this data and gauge likely future developments, we develop a tractable model to analyze the effects of demographic ageing on government budgets and per-capita growth. Building on a standard overlapping generations setup with private and public capital formation sustaining endogenous growth, our framework features two demographic driving forces – fertility and longevity – and a number of economic and political choices. In their role as economic agents, households in the model take prices, taxes, public investment, the retirement age and retirement benefits as given when choosing consumption, savings, and labor supply. In their role as voters, households choose among office motivated parties that offer policy platforms comprising labor income taxes, the expenditure shares for intergenerational transfers and public investment (reflecting spending components of central importance for developed economies), as well as the retirement age. The political process lacks commitment, and elections take place every period.

Policy choices in the model are of different concern to young and old voters: the exposure of households to labor income taxes changes over the life cycle; the old benefit from social-security transfers to their group but are hurt by an increase in the retirement age; and only the young benefit from the returns to public investment. When evaluating the policy platforms on offer in the political arena, voters therefore disagree as to which platform should ideally be implemented. We model the resolution of the ensuing conflict under the assumption of probabilistic voting, reflecting a small degree of randomness in voters' support for a party. In equilibrium, vote-seeking parties propose a policy platform maximizing average welfare of all voters, and changes in the economic or demographic environment give rise to a gradual adjustment of the policy instruments.

Policy choices do not only affect economic outcomes. Absent commitment, they also affect, indirectly, future policy decisions. In addition to the “economic” repercussions of their policy choices, voters internalize the “political” repercussions, reflected in the equilibrium relationship between future state variables and policy choices. We assume

² Data is taken from Tanzi and Schuknecht (2000) and OECD sources (*Society at a Glance*, 2009, old-age cash benefits, disability pensions and survivors' pensions; *Economic Outlook*, 2008, government fixed capital formation; *Education At a Glance*, 2008, direct public expenditure plus subsidies to households and other private entities). The GDP share of infrastructure investment has fallen in some countries, in contrast to the GDP share of education spending. In this paper, we do not analyze the composition of public investment.

³ In cross-section data for the United States, the fraction of elderly residents in a district was negatively associated with education spending per child (Poterba, 1997).

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ 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 هزاران 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