The Chinese saving puzzle and the life-cycle hypothesis: A revaluation

Chi-Chur CHAO, Jean-Pierre LAFFARGUE, Eden YU

Article info

Article history:
Received 1 December 2009
Received in revised form 6 August 2010
Accepted 21 September 2010
Available online 8 October 2010

JEL classification:
D91

Keywords:
Life-cycle
Household saving
China

Abstract

In a stimulating paper, Modigliani and Cao (2004) concluded that most of the huge increase in the household saving rate in China since 1975, the 'Chinese saving puzzle', can be explained by the life-cycle hypothesis. Their analysis is based on the estimation of reduced form equations. However, a structural model of their hypothesis would impose constraints on these equations. For not taking them into account, their test of the life-cycle hypothesis lacks power.

In this paper, we develop a structural model of household saving behavior based on the life-cycle hypothesis for the Chinese economy. We find that the life-cycle hypothesis can explain only 35% of the surge of the Chinese household saving. We then add to the model the strong motivation of young adults for buying a home and the financial support they receive from their parent for that. In this way, the model can reproduce the high and increasing level of saving since the mid-nineties. Nonetheless the increase in household saving, which took place during the eighties, may not be explained by the life-cycle hypothesis.

1. Introduction

Modigliani and Cao (2004) computed the household saving rate in China over the 1953–2000 period (Graph 1a). This rate steadily increased from 1970 when it was equal to 2.02%, to 1994 when it reached the high value of 33.75%. It then progressively decreased and was equal to 23.55% in 2000. This sudden spurt in the saving ratio magnitude is called the "Chinese saving puzzle".

Modigliani and Cao (2004) propose an explanation of the puzzle, which rests upon the life-cycle hypothesis. The life-cycle behavior means dissaving when young (or no saving if borrowing is constrained), little saving early in adult life, high saving at the middle and the end of the working life, and no or negative saving after retirement. Thus, if the economy grows fast, the saving of active people is drawn from much higher income than the income retired people earned when they were themselves active and saved. This increases the saving ratio computed on the whole set of households. Secondly, the one-child policy has decreased the cost of rearing children for the young active adults, which means that it has increased the income available for saving. It has also reduced the support that parents will get from their children when they retire, which is a strong inducement to save in a country where the public pension system is weak.

Modigliani and Cao ran a series of econometric regressions explaining the aggregate household saving rate in China. They found that the long-term growth rate, computed as an average on the past 14 years, and the inverse of the young dependency ratio are the two most important explanatory variables. They did not present a structural model of their hypothesis and their analysis is based on econometric estimations of a reduced form equation on aggregated data. Now, the life-cycle hypothesis gives constraints on the specification of this equation. For not including these constraints in their regressions, their test of this hypothesis lacks power.
Graph 1. a. Notes: This graph was taken from Modigliani and Cao (2004). b. Notes: This graph uses the Flow of Funds data, published in the National accounts by the NBS and available on the website http://www.stats.gov.cn/english/statisticaldata/yearlydata/. It is identical to a graph given by Kuijs (2006), but includes two more years. c. This graph uses data from the urban and the rural household surveys published in the General Statistical Yearbook of the NBS and available on the website quoted above. The saving ratio is equal to 1 minus per capita annual consumption expenditure divided by disposable income. This graph and these data for urban households are very similar to those given by Kuijs (2006) and by Chamon and Prasad (2010)).
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 هزاران مقاله
امکان دانلود رایگان دو 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