Three Contibutions in Development Economics

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Maybe an abstract here?

Some Abstract text.

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What this thesis is about, replicability, R, etc.

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Male/Female Income and Child Growth

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Abstract

In this paper we look at variation in the health of young children driven by the gender of the household income recipient. We do this by comparing z-scores of anthropometrics of South-African children living in the same household as state pension recipients.

This paper exploits the lowering of the state-pension eligibility-age of men, to the same age as women (60, previously 65). This takes place between two waves in the South-African National Income Dynamics Survey. This enables us to perform a Difference-in-Difference estimation on the panel data set.

Our finding is that policy change had a negative effect on long-term growth metrics of young children and the general male pension income had a negative effect on young children's BMI.

These results provide support for the idea that it is preferable to use female recipients in poverty-relief projects such as CCTs.

3.1 Introduction

This paper looks at the effect of the gender of pension recipients on the growth of children in the same household. The study is based on South-African data and the approach is very similar to Duflo 2000, 2003, and originally based on the work of Thomas 1994. The difference from international standards de Onis 2006 for anthropometrics are computed as z-scores. Using these standardised metrics, we compare children living in household with pension recipients of different gender.

This study deviates from the Duflo study in several ways. The core contribution of this paper is the analysis of exogenous change in men's pension eligibility age, which is the main explanatum. The pension eligibility age for men was lowered from 65 to 60 between mid 2009 and 1-1-2011. This brought the pension eligibility age for men at par with women. There are two reasons why this warrants a further look at this topic in this dataset.

Firstly, life expectancy is South Africa is substantially below the pension eligibility age. Around the end of the first decade of the century, which is when our data was collected, the average life expectancy at birth was only slightly above 50 years old. In the year 1993, when Duflo 2000, 2003 are analysed, the average life expectancy at birth was somewhat higher (slightly above 55 years old). A further discussion of this can be found in Results. However, in both cases, there is a substantial selection bias in the pension recipient base. Moreover, the fact that men receive pension only at 65, and women at sixty, causes an even more pronounced selection bias in the male pension recipient base. This also makes the comparing of the effect of male pension recipient and female pension recipients, on the anthropometrics of children in the same household problematic, since much more attrition will have take place in the male pension base. The drop in life expectancy also aggravates the issue of attrition, and the associated selection bias. However, since pension eligibility becomes equal, for both men and women, at least, provides us with effects which internally more comparable. We say more, because the difference in attrition between the male and female pension base in our sample has not entirely been eliminated. Throughout the evolution of the average life expectancy at birth in South Africa, female life expectancy has been higher than male life expectancy by about one year. Bearing in mind that the difference between average life expectancy and pension eligibility is around 9 years, this additional selection bias effect, should not be underestimated. Furthermore, is seems likely that a healthy lifestyle, which increases the chance of becoming a pension recipient, also has an effect on the lifestyle of household members. In this is so, then our observed attrition will be an actual cause of a selection bias effect.

Secondly, we employ a Difference-in-Difference (or Fixed Effects) analysis of this change. Under then assumptions of the Difference-in-Difference model, this enables us to make a causal inference on the policy variable.

The other deviations are of a more practical nature. Firstly, the data from the Southern Africa Labour and Development Research Unit 2008, 2012, 2013 surveys contains actual information on income, including pension recipient sta-

tus, whereas Duflo uses age as a proxy for recipient status. Secondly, another minor deviation is the usage of de Onis 2006, in stead of Kuczmarski 2000, since these have superseded the CDC charts. As long as all observations are held against the same standards, this should not be of any consequence.

The impetus for this paper lies in the optimal design of cash transfer schemes such as CCTs and UCTs. The lack Pareto optimal allocation of resources within households as discussed in i.a. Udry 1996; Udry et al. 1995 and Duflo and Udry 2004, indicates the necessity of optimal design in such schemes. Based on this lack of Pareto optimal allocation, we have to reject the idea of households acting as a unit in an economic sense. For the design of cash transfer schemes it is therefore necessary to determine the preferred recipient within the household [1].

As mentioned above, we follow Duflo 2000, 2003 general design. Looking at the gender of pension recipients gives a reasonably clean analysis, because of it's relative exogeneity. We therefore use these pension receipts as the Right-Hand Side variables, or explanata. Anthropometrics for children are used, since these capture well, the effects of both malnutrition and disease, the two most common health impediments that we are addressing.

The South African pension system is an interesting object of study because of its eligibility criteria. The primary criterium is the age of the recipient. In addition to this there is a maximum income threshold. Outside of this, there are very few criteria. The relative general applicability of the program makes that there are few selection bias issues when studying this. A thorough, though a points somewhat dated, discussion can be found inCase and Deaton 1998. Although the pension system was intended as a form of poverty relief for the elder population, it has also become that for the South-African rural populationTangwe and Gutura 2013. Average household income in rural area is much lower than in urban areas. Pension receipt have therefore formed a large share of household income. Upon the initial expansion to include the black population, in 1991, this was a much as twice the mean monthly income.

The anthropometrics taken in the NIDS are useful for computing z-scores. We distinguish between Age Based Z-scores (ABZ) and Height-Based Z-scores (HBZ). We use two types ABZs and two types of HBZs, for a total of four types of z-scores. This is described in further detail in World Health Organization.

These z-scores are considered a good representation of short-term or long-term health issues, respectively. This relation is especially well observed for children between 6 and 60 months old. We therefore stay with the best practice and only include those observations in our analysis.

We formulate three models. One model without the treatment dummy, one model with the treatment dummy, and finally one model with the treatment dummy, and an interaction term with male pension recipient status. Each of these models is estimated with all four types of z-scores, which gives a total of twelve estimation equations. All twelve equation are estimated as fixed-effect panel models, with, where included, a time effect. We have only one data period before the policy change, which means that we cannot test for a common trend.

[1] For a good overview see e.g. Haddad et al. 1997

The implicit assumption here is thus that the effects are level over the time period studied here.

Our main finding is a negative effect of the policy change on the age-based growth metrics on children (HAZ and WAZ). In the height-based metrics we find a negative effect of the state pension income of men on the body mass index (though not on the WHZ). Our results seems to indicate that the policy change had a negative impact on the long-term growth of children. Furthermore, we see a negative effect of the mens pension income on the BMI of children. These results provide support for the theory that exogenous incomes in a poverty relief context, such as CCTs and UCTs are best transfered to women in the households.

3.2 Methods

3.3 Data

3.3.1 World Health Organization

3.4 Results

3.5 Conclusions and Limitations

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Chapter 4

Global Value Chains

Nothing here yet.

Chapter 5

Final Remarks