# ARTICLE IN PRESS

HOSTED BY

Available online at www.sciencedirect.com



Review of DEVELOPMENT FINANCE

Review of Development Finance xxx (2018) xxx-xxx

www.elsevier.com/locate/rdf

### Financial development and intergenerational education mobility

Annalisa Russino

University of Palermo, Department of Economics, Finance, and Statistics (SEAS), Italy

#### Abstract

Using years of education as a measure of status, we study the relationship between financial development and intergenerational mobility, focusing on human capital investments boosted by financial deepening. We consider a set of indices to capture different components of the overall intergenerational education mobility. Using a sample of 39 countries, we find that financial development is related to structural mobility but not to exchange mobility. In particular, while we detect an inverted U-shaped relationship between financial development and structural mobility, we do not find any significant relationship with exchange mobility.

© 2018 Africagrowth Institute. Production and hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Keywords: Intergenerational mobility; Financial development; Human capital investments; Equality of opportunities

### 1. Introduction

It is widely recognized that capital market imperfections constitute a potentially important mechanism affecting intergenerational status persistency. In particular, financial imperfections arising from informational asymmetries and transaction costs produce credit constraints that can affect the investment choices in human and/or physical capital. By easing financial frictions and hence improving the access of individuals and entrepreneurs to external finance, financial development may improve the allocation of capital through efficient investment and equalize opportunities (Heckman and Mosso, 2014; Jeong and Townsend, 2008; Galor and Moav, 2004; Galor and Zeira, 1993; Banerjee and Newman, 1993; Greenwood and Jovanovic, 1990). The final effect in terms of inequality will depend on which part of the population is more financially constrained. If credit constraints are particularly binding for small enterprises and the poor that lack collateral, credit histories, and connections, the easing of financial frictions will allow more poor people and entrepreneurs to obtain external finance and will decrease inequality. However, the presence of constraints is not necessarily synonymous with subotpimal level of investment of the poor. As an example consider the case of human capital investment. In this setting, parents must choose the optimal level of investment in education for their children. Optimally, parents should invest more when their investment is more productive. If children skills are affected by parental skills and, more generally, by environmental factors, more educated parents may face a steeper expected income growth (higher investment productivity) and thus a higher probability of being financially constrained. That is, their high optimal level of investment in education might not be affordable given the family current resource level. In this case, a relaxation of financial constraints will increase intergenerational income dispersion (Heckman and Mosso, 2014). Accordingly, the empirical evidence on the link between financial development and income inequality is controversial (negative effect: Beck et al. (2007), Clarke et al. (2006); positive effect: Gimet and Lagoarde-Segot (2011), Rodríguez-Pose and Tselios (2009), Roine et al. (2009); non monotonic effect: Jauch and Watzka (2016), Kim and Lin (2011).

In this paper we focus on the more primitive concept of equality of opportunities (Chetty et al., 2014; Corak, 2013; Roemer, 2009) analyzing the relationship between financial development and intergenerational mobility. Intergenerational mobility refers to the relationship between the socio-economic status of parents and that of their adult offsprings. The socioeconomic status can be measured in a variety of ways: by family income, individual earnings, education, and composite occupation-based indices.

Traditionally, in the sociological literature, intergenerational status transmission has been studied using composite measures of class standing. Starting from Duncan (1961) a variety of com-

https://doi.org/10.1016/j.rdf.2018.05.006

1879-9337/© 2018 Africagrowth Institute. Production and hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Please cite this article in press as: Russino, A., Financial development and intergenerational education mobility. Rev. Dev. Finance (2018), https://doi.org/10.1016/j.rdf.2018.05.006

E-mail address: annalisa.russino@unipa.it

## **ARTICLE IN PRESS**

#### A. Russino / Review of Development Finance xxx (2018) xxx-xxx

posite indices have been proposed, but there has generally been no consensus on the best measure of occupational status. More recently, economists have been focusing on long-run average income or earnings.<sup>1</sup> Ideally, earnings mobility should be measured in terms of permanent or long run earnings, but most survey data-sets covering two generations do not provide information allowing the calculation of lifetime earnings for both parents and children. Since lifetime incomes for both generations are rarely observed, proxies such as single current earnings or average earnings over multiple years have been used. Consequently, cross country income mobility comparisons made using income proxies are affected by measurement errors. Thus, it is difficult to distinguish if the empirical findings are the result of data reliability or reflect true differences in mobility patterns (Savegnago, 2017).

We analyze the relationship between financial development and intergenerational status transmission measuring status in terms of education attainment as defined by the number of years of schooling. As stressed by Blanden (2013), Black and Devereux (2010), and Hertz et al. (2007) the advantages of measuring status in terms of years of schooling are multiple. First, information on education achievements across generations are much widely available. Second, education has advantages over earnings or occupational status indices in terms of estimation. In particular, the number of years of formal schooling is a relatively unambiguous concept both in terms of cross-country comparability and in terms of recall-based quality of information collected. Moreover, since formal schooling is fixed once an individual reaches adulthood, it makes possible to obtain long time-series of cohort-specific mobility estimates using survey data on a single cross section of adults. Third, there is a theoretical relationship between the intergenerational transmission of education and long-run average income that is affected by the existence of credit constraints. Specifically, starting from Becker and Tomes (1986), economists have developed models explaining the parent-child status transmission in terms of investment in children's human capital.

In this strand of literature, the existence of constraints on financing investments in children's human capital generates a positive effect of parents' earnings on children's earnings. In other words, in these models financial developments shapes the persistence of income across generations through human capital accumulation or education attainments. The theoretical connection between financial development and human capital investment reinforces our choice of a measure of educational attainment as a measure of intergenerational status in order to analyze the relationship between financial development and intergenerational status transmission.

Empirically, economists have primarily analyzed the intergenerational status transmission using estimates of parent–child long-run earnings correlations or elasticities. To better understand the relationship between income and education it is instructive to look at the relation between the intergenerational coefficient of income elasticity and the coefficient from a regression of adult off-springs education on parental education. Let  $\beta_y$  be the slope coefficient from a regression of children longrun log-earnings on parental log-earnings and  $\beta_s$  the parameter from a regression of children education against parental education. Adding a model of long-run income determination in each generation as a function of education we obtain,

$$\beta_y = \frac{p_1}{p_0} \beta_S$$

where  $p_1$  and  $p_0$  are, respectively, the regression coefficient of long-run parental income ( $y_0$ ) on parental education ( $s_0$ ), and of long-run children's income ( $y_1$ ) on children's education ( $s_1$ ).<sup>2</sup> The above relation clarifies the connection between long-run income and education regression coefficients.

In this paper, using years of education as a measure of status, we study the relationship between financial development and intergenerational mobility. Acknowledging the complexity of the mobility concept, we consider a set of indices to capture the different components of intergenerational education mobility. In particular, we employ a set of indices representing distinct concepts of education mobility. Additionally, we use a set of proxies of financial development ranging from a more simple measure of depth of financial institutions to wider measures of depth of the overall financial system. We empirically analyze the relationship between financial development and intergenerational education mobility using a sample of 41 countries obtained matching the parent–child education data on 42 countries collected by Hertz et al. (2007) with the Global Financial Development Database (*GFDD*) provided by the World Bank (Cihak et al., 2012).

Summarizing, the contribution of this paper is threefold. First, using data on years of education and acknowledging the multiple dimensions of the mobility concept, our approach allows to differentiate between different concepts of mobility through a set of indices capturing distinct components of the overall intergenerational mobility. We believe that specifying the different components of mobility is important to understand the channels through which financial development can be related to intergenerational mobility. Second, we use a wide sample of countries to analyze empirically the relationship between financial development and intergenerational mobility. Finally, we find evidence suggesting that financial development is related to structural mobility but not to exchange mobility. In particular, our analyses indicate the existence of an increasing and concave relationship between financial development and structural mobility.

#### 2. Mobility measures

Socioeconomic mobility is a multifaceted concept, difficult to define and to measure. This is in contrast with the concept of income inequality for which there is agreement on the correct theoretical procedures to measure it, and how to go from theory to empirical applications. On the contrary, there does not

Please cite this article in press as: Russino, A., Financial development and intergenerational education mobility. Rev. Dev. Finance (2018), https://doi.org/10.1016/j.rdf.2018.05.006

<sup>&</sup>lt;sup>2</sup> The reported relation can be decomposed introducing a term capturing the intergenerational transmission of abilities  $\phi = \frac{cov(s_1, u_0)}{var(u_0)}$ , where  $u_0$  is the error in the regression of parents' income on parents' education (Hertz et al., 2007). We obtain,  $\beta_y = \frac{p_1}{p_0} \beta_S R^2 + (1 - R^2) p_1 \phi$ .

<sup>&</sup>lt;sup>1</sup> See Solon (2002) and Solon (2004).

Download English Version:

# https://daneshyari.com/en/article/7388011

Download Persian Version:

https://daneshyari.com/article/7388011

Daneshyari.com