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Interaction between economic and financial development ☆

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Abstract

This paper presents a model of financial and economic development which assumes the consumption of real resources by the financial sector. Financial development occurs endogenously as the economy reaches a critical threshold of economic development. Compared to financial autarky, financial intermediaries allocate savings, net of their costs of operation, to more productive investments. Whenever the technology financed by intermediaries is more capital-intensive than that operated in financial autarky, the growth effect of financial development is ambiguous. As a result, financial development may be unsustainable. However, when financial development is sustainable, the credit market becomes more competitive and more efficient over time, and this could eventually contribute to economic growth. Nonetheless, given monopolistic competition in the financial sector, the level of entry into the credit market is generally inefficient. For instance, with diminishing returns to specialisation, entrants might be too few at the early stages of economic development and too many later on.

JEL classification: E44; O16; O14

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1. Introduction

Beginning with the cross-country analysis of King and Levine (1993a,b), several econometric studies based on linear methods have provided empirical support for the leading view that finance promotes growth.[1] However, additional empirical work indicates that, while being strongly positive at relatively high levels of per-capita income, the relation between financial development and growth is generally weak or insignificant at relatively low levels of per-capita income, as is the case in the cross-section analyses by Deidda and Fattouh (2002) and Harris (1997), or even negative, as in Xu (2000).[2] Moreover, historical country-studies such as Cameron (1967, 1972), Goldsmith (1969), and McKinnon (1973, 1989) suggest that whether financial development effectively drives subsequent economic growth or not depends ultimately on the efficiency of the financial institutions and other related conditions in the economy.

The recent theoretical literature on finance and growth concludes that financial development induces faster long run growth.[3] Various models, for example Greenwood and Jovanovic (1990), Saint-Paul (1992), Zilibotti (1994) and Blackburn and Hung (1998), explain the endogenous emergence of a financial sector at some critical level of economic development by assuming a fixed cost of financial transactions. These models, and also others which take the existence of a financial sector as given, such as Bencivenga and Smith (1991), all conclude that financial development is generally growth-promoting.

In contrast to this existing literature, this paper develops a model where (i) the effect of costly endogenous financial development on economic growth is ambiguous, (ii) financial development itself may be unsustainable, and (iii) the equilibrium level of financial intermediation in the competitive economy may be inefficient. These results help to reconcile theory with the empirical evidence that financial development does not always lead to faster economic growth and its growth effect varies with the state of economic development.

The model introduces costly financial intermediation into a simple overlapping generations economy populated by households and firms. Households may produce directly by self-financing investment or they may use financial intermediaries to finance production through firms. Households' production technology is less productive than that of firms. Lending is a costly activity and, as in Sussman (1993), it is characterized both by economies of scale and specialization.[4] This justifies the existence of financial intermediaries, called banks in this paper. Banks pool savings in the form of deposits and use the proceeds to finance firms in a monopolistically competitive credit market. Given these assumptions, financial intermediation develops endogenously at some critical level of economic development.

The main finding is that the endogenous transition from financial autarky to financial intermediation has a generally ambiguous impact on the economy's growth rate whenever firms operate a technology that is both more productive and more capital-intensive than that available to households. The intuition behind such a result lies in the crucial

[1] See, for example, Rajan and Zingales (1998), Rousseau and Wachtel (1998) and Levine et al. (2000).

[2] Other time series studies on developing countries, such as Demetriades and Hussein (1996), find no evidence of the leading role of finance in the process of economic development.

[3] Pagano (1993) and Levine (1997) survey this literature. More recent contributions include Boyd and Smith (1998) and Khan (2001).

[4] Empirical evidence in support of the existence of economies of specialization is provided by various authors. With reference to the US economy, see Sussman and Zeira (1995).