*Journal of Applied Economics. Vol XV, No. 1 (May 2012), 51-70*

# THE IMPACT OF FINANCIAL DEVELOPMENT AND TRADE ON THE ECONOMIC GROWTH OF BOLIVIA

**Antonio N. Bojanic***

*CENTRUM Católica, Pontificia Universidad Católica del Perú*

Submitted November 2010; accepted June 2011

The relationship of economic growth with financial development and trade openness is analyzed with annual time-series data for Bolivia during the 1940-2010 period. The analysis is an advance over previous work in several ways. First, the hypothesis of a long-run relationship between these variables is tested using bivariate cointegrated systems and employing the methodology of cointegration analysis. Second, causality tests utilizing standard Granger regressions and ECM models are carried out to determine the direction of causality between indicators of economic growth and financial development, and economic growth and trade openness. Lastly, the study comprises a period of seventy years, a first for a study of this kind on Bolivia. The empirical results demonstrate that there is indeed a long-run equilibrium relationship, and that unidirectional Granger causality runs from the indicators of financial development and trade openness to economic growth.

*JEL classification codes*: C10, E01, F43, G00, O54
*Key words*: financial development, trade openness, economic growth, cointegration test, Granger causality test

## I. Introduction

The existence of correlation between financial development and economic growth has been documented in a number of empirical studies. Some have found a positive association between these variables while others have discovered that financial development may in some cases hamper economic growth. Likewise, the relationship between trade openness and economic growth has been thoroughly analyzed, and the findings in most papers support the notion that greater openness to trade generates positive growth effects.

---

* Pontificia Universidad Católica del Perú, Centro de Negocios (CENTRUM), Urbanización Los Alamos de Monterrico, Surco, Perú; e-mail abojanic@pucp.edu.pe. I am grateful to Steve Caudill, Mariana Conte Grand and three anonymous referees for helpful comments and suggestions. The author alone is responsible for any errors that remain.

The literature on the relationship between financial development and economic growth is vast. The empirical work on the issue of causality between these variables is not as abundant. Goldsmith (1969) was the first to document a positive correlation between growth and indicators of financial development. In line with Goldsmith's findings, King and Levine (1993) demonstrate that better financial systems improve the probability of successful innovation and thereby accelerate economic growth, while financial sector distortions reduce the rate of economic growth by reducing the rate of innovation; Rajan and Zingales (1998) find that industrial sectors in countries with relatively better developed financial markets grow faster than equivalent sectors in less developed financial settings. Beck and Levine (2004), using a panel data set for the 1976-1998 period, find that stock markets and banks positively influence economic growth; and Levine (2005) concludes that the preponderance of evidence suggests that both financial intermediaries and markets matter for growth.

Representative papers that found little or no evidence of a positive correlation between financial development and growth are: Shan and Morris (2002), who for a set of nineteen OECD countries and China find meager evidence that financial development 'leads' economic growth, either directly or indirectly, which, in their view, casts doubt on claims that financial development is a necessary and perhaps sufficient precursor to economic growth; and, Boulila and Trabelsi (2004) who explore the issue of causality in the Middle East and North Africa and find little support to the view that finance is a leading sector in the determination of long-run growth in the countries of the region.

In studies that have focused on Latin America, De Gregorio and Guidotti (1995) examined the empirical relationship between long-run growth and financial development proxied by the ratio between bank credit to the private sector and GDP. They find that this proxy is positively correlated with growth in a large cross-country sample, but its impact changes across countries and is negative in a panel data for Latin America, due –they argue– to financial liberalization taking place in a poor regulatory environment. Moreover, Bittencourt (2010) analyzes the period 1980-2007 for a set of four Latin American countries, including Bolivia, and based on panel time-series data confirms the Schumpeterian prediction which suggests that finance authorizes the entrepreneur to invest in productive activities, and therefore to promote economic growth. He highlights the importance of macroeconomic stability as a necessary pre-condition for financial development.

In country-specific studies, Murinde and Eng (1994), analyzing Singapore for the period 1979-1990, find unidirectional causality from financial development to economic growth, which they thought justified the deliberate financial restructuring