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IS THE EXPORT-LED GROWTH HYPOTHESIS VALID FOR DEVELOPING COUNTRIES? A CASE STUDY OF COSTA RICA

by

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NOTE

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ABSTRACT

The export-led growth hypothesis (ELGH) postulates that export growth is one of the key determinants of economic growth. This study goes beyond the traditional neoclassical theory of production by estimating an augmented Cobb–Douglas production function. The inclusion of exports as a third input provides an alternative procedure to capture total factor productivity (TFP) growth. The study tests the hypothesis by analysing the case of Costa Rica, using annual data for the period 1950–1997. In using several procedures to test for cointegration, it goes beyond the traditional time series studies by examining empirically the short-term as well as the long-run relationship. The study finds that the ELGH is valid in this particular case; however, the empirical results show that physical investment and population mainly drove Costa Rica's overall economic performance from 1950 onwards. From a review of the literature we find that the empirical evidence regarding the relationship between exports and growth is not robust, and although the results of the study suggest that exports have a positive effect on the overall rate of economic growth and could be considered an "engine of growth" as the ELGH advocates, their impact was quantitatively relatively small, in both the short and the long-run. The evidence presented clearly supports the neoclassical theory of production and, to a lesser extent, the so-called new-fashioned economic wisdom. Moreover, it challenges the empirical literature regarding the ELGH and expresses serious doubts with regard to promoting exports as a comprehensive development strategy. The ELGH is probably beneficial only for a limited number of developing countries, and only to a certain extent.

Keywords: export-led growth hypothesis (ELGH); economic growth; neoclassical theory of production; cointegration; Costa Rica

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CONTENTS

Tables

I. INTRODUCTION

It is widely accepted among economists that economic growth is an extremely complex process, which depends on many variables such as capital accumulation (both physical and human), trade, price fluctuations, political conditions and income distribution, and even more on geographical characteristics.

The export-led growth hypothesis (ELGH) postulates that export expansion is one of the main determinants of growth. It holds that the overall growth of countries can be generated not only by increasing the amounts of labour and capital within the economy, but also by expanding exports. According to its advocates, exports can perform as an "engine of growth".

The association between exports and growth is often attributed to the possible positive externalities for the domestic economy arising from participation in world markets, for instance from the reallocation of existing resources, economies of scale and various labour training effects. However, these mechanisms are frequently invoked without any theoretical support or any empirical proof.

A substantial amount of research concerning the ELGH in developing countries (DCs) has been carried out during the past 30 years. In fact, during the 1990s a new series of empirical studies has been conducted on a number of divergent lines of research, methodologies, time periods and countries.

A key aspect concerning early studies is related to both the methodology and the econometric technique used. The theoretical benchmark can be considered in general weak and based on bivariate and ad hoc production functions, while the empirical results derived from traditional econometrics have been highly criticized for being spurious. Therefore, early studies could have been misleading in that they advocated export expansion in an indiscriminate way. In fact, the evidence available is far from conclusive and this situation explains to some extent why this debate still exists in the economic literature.

Consequently, the purpose of this study is to examine and test the ELGH, using the case of Costa Rica. The study has three distinctive features, in contrast to the hundreds of empirical studies on growth that have been published. First, we have gone beyond the traditional neoclassical theory of production by estimating an augmented Cobb–Douglas functional form, which includes exports, using annual data for the period 1950–1997. The inclusion of exports as a third input of production provides an alternative procedure to capture total factor productivity (TFP) growth. Secondly, the study focuses on a single developing country, examining empirically the relationship between export expansion and economic growth. Thirdly, it has gone beyond the traditional short-term effects, and uses extensively modern time series to examine empirically the long-run relationship, employing several procedures to test for cointegration. Thus, the final aim of this study is to quantify the importance of exports in the economic performance of Costa Rica in the second part of the twentieth century.

II. THEORETICAL REVIEW

A. Trade and growth

Although the theoretical links between trade and economic growth have been discussed for over two centuries, controversy still persists regarding their real effects. The initial wave of favourable arguments with respect to trade can be traced to the classical school of economic thought that started with Adam Smith and which was subsequently enriched by the work of Ricardo, Torrens, James Mill and John Stuart Mill in the first part of the nineteenth century. Since then, the justification for free trade and the various and indisputable benefits that international specialization brings to the productivity of nations have been widely discussed and are well documented in the economic literature (see e.g. Bhagwati, 1978; Krueger, 1978).

However, in the last decade there has been a surprising and impressive resumption of activity in the economic growth literature triggered by the endogenous growth theory, which has led to an extensive inventory of models that stress the importance of trade in achieving a sustainable rate of economic growth. These models have focused on different variables, such as degree of openness, real exchange rate, tariffs, terms of trade and export performance, to verify the hypothesis that open economies grow more rapidly than those that are closed (see e.g. Edwards, 1998).

Although most models emphasized the nexus between trade and growth, they stressed that trade is only one of the variables that enter the growth equation. However, the advocates of the ELGH have stated that trade was in fact the main engine of growth in South-East Asia. They argue that, for instance, Hong Kong (China), Taiwan Province of China, Singapore and the Republic of Korea, the so-called Four Tigers, have been successful in achieving high and sustained rates of economic growth since the early 1960s because of their free-market, outward-oriented economies (see e.g. World Bank, 1993).

The extensive literature concerning the relationship between trade and growth is also the consequence of the many changes that have taken place in the fields of development economics and international trade policy in the last two decades. An example of these changes is the tremendous modification from inward-oriented policies to export promotion (EP) strategy.[1]

By the early 1980s export-led orientation and export promotion had already secured a wide consensus among researchers and policy makers, to such an extent that they had become "conventional wisdom" among most economists in the developing world (see e.g. Tyler, 1981; Balassa, 1985). This is still the case in some international organizations, the international bank community and multilateral lenders such as the World Bank and the International Monetary Fund (IMF), and among the mainstream policy makers.

The advocates of the export-led strategy and free trade point out that most developing countries that followed inward-oriented policies under the import substitution strategy (ISS), mostly in Latin America, had poor economic achievements (Balassa, 1980). Some of them showed on average a complete lack of growth, while real income declined

[1] According to Heitger (1987, p. 249), the ELGH was suggested initially by Kindelberger in 1962.

between 1960 and 1990 (see e.g. Barro and Sala-i-Martin, 1995).

These facts were partly responsible for the substantial change that occurred in the trade literature in the 1980s. For example, Bruton (1989) states that as the first stage of import substitution came to an end, those countries that continued with this strategy, particularly in Latin America, or that were unable to shift to a more outward approach became increasingly vulnerable to external events. Most of them became increasingly dependent on short-run capital inflows, in particular from private banks, in order to maintain their levels of imports and thus of consumption. This was particularly the case of most Latin American countries that were greatly affected by the debt crisis of the early 1980s.

Thereafter, many DCs were forced to stimulate their export-led orientation even more because most of them had to rely on multilateral organizations to implement adjustment and stabilization programmes to correct imbalances in their basic macroeconomic indicators. The strategy was to encourage a free market through policies that relied heavily on the export promotion approach as one of the most suitable and trustworthy mechanisms. Promoting exports would enable DCs to correct imbalances in the external sector and at the same time assist them in ensuring that their domestic economies made a full recovery.

Consequently, by the mid-1980s, the economic literature concerning development economics, economic growth, adjustment and stabilization programmes had quickly rejected the *inward-oriented approach* and was suddenly placing great emphasis on *export-led strategy*. Most macroeconomic theorists and policy makers in DCs rapidly embraced the new wisdom, in the belief that by following this scheme their countries would achieve or regain the high rates of growth of the past.

Each strategy has been subject of an extensive theoretical survey and that the literature examining the relationship between trade and growth has increased substantially in the last decade with the impetus provided by the endogenous growth theory. However, it is not the intention of the present study to participate in or contribute to the discussion concerning the advantages and disadvantages of both economic strategies, which recently gained a new impetus (see e.g. Bruton, 1998; Edwards, 1998; Frankel and Romer, 1999; Rodrik, 1999).[3]

In addition, although the theoretical literature has frequently focused on the relationship between trade and economic growth (see e.g. Adams, 1973; Crafts, 1973; Edwards, 1992; Scott, 1992), the interesting phenomenon is that "empirical examinations have typically examined the relationship