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Cointegration and Causality Study Among Inward FDI, Economic Growth and Exports:
An Indian Perspective

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ABSTRACT

One significant feature of liberalisation for India has been a greater openness to foreign direct investment (FDI) as a means of acquiring technologies, skills and access to international markets, and of entering dynamic trade and production. The study analyses the empirical relationship between inward FDI, economic growth and exports of India from 1970-71 to 2013-2014. The objective of this article is to investigate the relationship between FDI, economic growth and exports empirically. The error correction coefficient value indicates a 15.02% movement back towards equilibrium following a shock to the model, one time period later. OLS indicate significant long-term causality relationship among the variables with high R2 value to the tune of 0.758660. The Wald Test establishes short-run causality from economic growth to inward FDI, and from exports to inward FDI. A one-way causality relationship is running from exports to inward FDI. Economic growth causes inward FDI, but, inward FDI is not causing economic growth. Exports cause inward FDI, and inward FDI does not cause exports.

KEYWORDS

Causality, Cointegration, Economic Growth, Error Correction, Exports, Foreign Direct Investment, Ordinary Least Square

INTRODUCTION

Foreign Direct Investment (FDI) occupies a special place in establishing a connection between economic development and globalisation. FDI brings scarce capital and technology from rich to developing countries. Companies in rich countries can earn high returns while accelerating growth in developing countries. The past two to three decades have seen a significant policy shift in the developing world, from inward-looking import substitution to outward-looking, market-determined strategies. The reasons for this shift are complex, but mainly to do with the inefficiencies of import substitution, the growth of globalized production and the success of the export-oriented Asian newly industrialised economies.

Remarkable features of globalisation in the 1990s for India was the flow of private capital in the form of FDI, which is an important source of development finance that contributes to productivity

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gains by providing new investments, better technology, management expertise, and export markets to our economy. Given the resource constraints and lack of investment in developing India, market forces and the private sector are increasingly relying on FDI as the engine for economic growth. One key feature of liberalisation for India has been a greater openness to FDI as a means of acquiring technologies, skills and access to international markets, and of entering dynamic trade and production systems internal to multinational enterprises (MNE).

In the context of the new theory of economic growth, FDI is considered as an engine of growth of mainstream economies. The exact relationship between foreign MNCs and their host countries varies considerably between countries. An empirical assessment of the role of FDI in a host country's export performance is important since exports have been for a long time viewed as an engine of economic growth. There is a widely shared view that FDI promotes exports of host countries by (a) augmenting domestic capital for exports, (b) helping transfer of technology and new products for exports, (c) facilitating access to new and large foreign markets, and (d) providing training for the local workforce and upgrading technical and management skills. On the other hand, however, it is also suggested that FDI may (a) lower or replace domestic savings and investment; (b) transfer technologies that are low level or inappropriate for the host country's factor proportions; (c) target primarily the host country's domestic market and thus not increase exports; (d) inhibit the expansion of indigenous firms that might become exporters; and (e) not help developing the host country's dynamic comparative advantages by focusing solely on local cheap labor and raw materials. Rich theoretical insights accompanied with empirical analyses of the issue are needed as well for a better understanding of the FDI-export link.

Literature studies indicates that there is no consistency in establishing that inward FDI is creating economic growth through an increase in gross domestic product or through an increase in exports, which necessitates a thorough examination with recent set of data. This research attempts to study the macro level dimension of inward FDI to India from 1970-1971 to 2013-2014. Reason for choosing this period is- inward FDI was allowed in India from 1970 onwards. Major policy level changes on inward FDI was undertaken by the Central government which took office on 26th May 2014. Amendments were introduced in the existing policy structure which can effect a change in the existing inward investment scenario. Author undertook this research from mid of 2015 and completed in 2017.

The study analyzes the theoretical and empirical relationship between inward FDI, economic growth and exports of India, taking the time series approach. Purpose of this research is to study and empirically investigate relationship between inward FDI, economic growth and exports. Data for inward FDI is taken from UNCTAD statistics, economic growth is proxied by Gross Domestic Product (GDP), and data for GDP is taken from Reserve Bank of India statistics of macroeconomic aggregates. GDP at factor cost constant price is taken and expressed in rupees in billions, with the base year 2004-05. Inward FDI data is taken from UNCTAD database, and it is expressed in US dollar in millions at current prices and current exchange rates. Exports data is taken from the Reserve bank of India statistics on trade and balance of payment and is expressed in rupees in billion. Author retained the statistics as mentioned by authentic sources, as the methodology of conversion of currencies can create many data conversion issues.

LINK BETWEEN INWARD FDI, ECONOMIC GROWTH AND EXPORTS-REVIEW OF LITERATURE

The diverse and significant role FDI plays in enhancing growth and exports has kindled the interest of many researchers. The pioneering conceptual insight of Hymer (1960) tried to answer the question, why is there FDI? The unique feature of FDI is the mechanism with which MNE maintains control over productive activities outside its national boundaries (Dunning & Rugman, 1985). Saltz (1992) examined the effect of FDI on economic growth for third world countries, his empirical results revealed negative correlation between level of FDI and growth during the period 1970-1980. Barrell and

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