



## Impact of exports on economic growth: an empirical evidence from Indonesia

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### ABSTRACT

Objectives of the present study are to investigate empirically the impact of exports on economic growth of Indonesia. For empirical estimation of export function, simple log linear regression equation and the method of least squares have been utilized. Empirical results revealed that the impact of export is significant with positive sign during the study period. It means that due to promotion of exports, economic growth of Indonesia would increase. The findings of this study suggest that the policy makers need to expand volume of exports in order to achieve higher level of economic growth and improve social well-being of the community.

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### Introduction

Significance of exports in the process of economic growth is clear right from the neoclassical trade arguments would postulate a substantial positive impact of exports and trade on economic performance because of better allocation of resources. The Marxist and neo Marxist are of the view that trade as one mechanism for exploitation of the developing countries by the industrialized West. Moreover, the two gap model of development would propose an important positive role of exports in economic development due to an attenuation of the foreign resource gap (Ram, 1985).

Indonesian economy's GDP growth recorded 6.1% in 2008 and 4.5% in 2009, and it is stated that it was the highest growth rate among in G20. The Government of Indonesia is forecasting economic growth rate of 5.5% in 2010. Trade relations between the UK and Indonesia are commendable. Exports from UK to Indonesia estimated £ 350 million in 2009, while it was £ 391 million in 2008. According to Indonesian official statistics report, UK contribution in Foreign Direct Investment in Indonesia with worth US\$ 119.9 million in 2009 was comparatively high (IMF, 2010). Economists usually emphasize that trade liberalization that is, moving towards a free trade regime through reductions of tariff and other barriers, is generally the major driving force behind globalization. It reduces poverty, as trade liberalization provides opportunities to create jobs, fosters economic growth and improves consumer choice and living standards of the inhabitants.

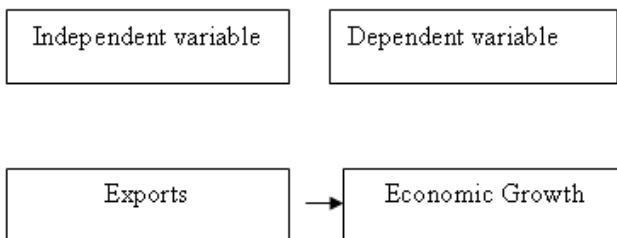
Serhan, Comert and Demir (2003) utilized data from 1980-2001 and tested various hypotheses about the impact of saving rate, investment rate, export and volatility of export growth on the growth rate of real GNP in Turkey. The study found no significant results but however explained that even the hypothesis that enhanced level of saving rate, higher investment rate and higher export growth rate affects individually economic growth of Turkey positively and augmented volatility of export growth affects it negatively cannot be skipped, from statistical point of view results are not clear. Ruppel (1997) found positive relationship between exports and both per capita gross domestic

product (GDP) and foreign exchange reserves. Key factors responsible for the speedy economic growth rate by East Asian economies are like, augmented level of savings rates, augmented level of investment rates, augmented level of ratios of export to GNP and export oriented growth policies, allocating capital to high-yielding investments and catching-up technology of the industrial economies, educational investments and existence of competitive markets. Both the theoretical and empirical literature emphasized that there is a positive relationship between the "degree of international openness" of an economy and economic growth (Chang, 2000; Serhan et al., 2003). Rubina (2001), analyzed the role of export-growth linkage in India, Pakistan, Philippines, Malaysia, and Thailand for the period from 1973-1993 and found that exports have a positive significant impact on economic growth. Abou-Stait, (2005) reported that there are large numbers of empirical studies that confirm the strong association between exports and economic growth. Liwan and Lau (2007) examined the relationship between export, inflation, investment and economic growth for three ASEAN countries includes Indonesia, Malaysia, and Thailand. The result showed that exports have a positive impact on economic growth in general. According to the review of various theories regarding the relationship between trade and economic growth reported by Huan (2009), Marx described that the depth, breadth and the way of exchange are decided by the development and structure of production. The classical school of economics believed that foreign trade improving economic growth in two ways; first, foreign trade promote the best distribution of resources and productivity certainly and then encourage the economic growth; second, one country could gain raw materials and equipments which it could not produce. For instance, exports of surplus theory of Adam Smith, comparative advantage of Ricardo, the interests of the trade development of Mueller and "trade is the engine of economic growth" of Morrison. Romer and Lucas the representatives of the new-growth school, introduced technology as the key factors to increase productivity. This theory pointed out that the growth of developed countries would be attributed to the improvement of

productivity. Based on this fact, the theory made a series of models to study the relationship among international trade, technological progress and economic growth. They viewed that international trade could promote economic growth through technology spillover and external stimulation. Such as the new-trade theory economists, like Haierpoman and Krugman believed that there are two ways for foreign trade to augment economic growth. One is the effects of economies of scale brought by trade, and the other is that foreign trade could improve economic growth through improving the best allocation of resources between materials production sector and knowledge production sector Huan (2009). Khaled et al., (2010), analyzed the relationships between export and economic growth in Libya. Annual time series data used for the period from 1980- 2007 and an econometric model has been developed. The results found reveals that income, exports and relative prices are cointegrated and further the study result indicates that the export promotion policy contributes to the economic growth.

The present study aims to understand the significance of exports in the process of economic growth, to investigate empirically the impact of exports on economic growth in Indonesia and to suggest some appropriate measures in light of the study findings.

#### Theoretical Model



#### Methodology

The following simple linear regression model uses in this study.

In symbolic form export function can be written as;

$$Y = \alpha_0 + \alpha_1 X + \varepsilon \quad (1)$$

Where Y, and X denotes economic growth (annual GDP growth rate), and exports respectively.

Equation (1) states that the impact of exports on economic growth of Indonesia expected to be positive.  $\varepsilon$  is error term and represents effects of the other factors.

#### Data Sources and Estimation Techniques

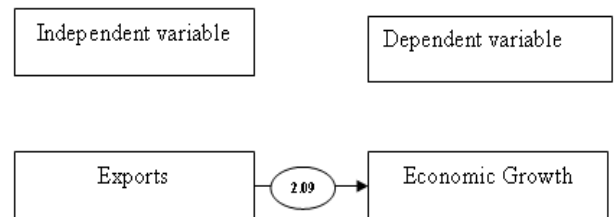
This study is based on secondary data ranging from 1990 to 2009 and therefore, the study consists of total 20 numbers of observations. Simple log linear regression model and the method of least squares technique have been used. The data for empirical analysis have been transformed into natural log form for overcoming non-linearity problem. ManiTab statistical software has been utilized for computation analysis.

#### Results and Discussion

Results of the study are presented in table 1 and table 2 respectively. Overall results found are statistically significant and strongly support study hypotheses. Adjusted R-squared value is 90.7% which shows that almost 91% variation in dependent variable (economic growth) can be accounted for by the variability in exports of the country. Further, results revealed that the impact of export is significant with expected positive sign at 1% level of significance. The coefficient size of export is 2.0946, in this case one percent change in export will change economic growth by 2.0946 percent accordingly. It means that

due to promotion of exports, economic growth of Indonesia would increase. The positive relationship between exports and economic growth, found in our study is consistent with the findings of other studies by Liwan and Lau (2007); Rubina (2001); and Serhan et al., (2003). It is pertinent to mention that results of the previous studies strongly support results of the present study.

#### Theoretical Model



#### Conclusion and Suggestions

The main objectives of this study are to investigate the impact of exports on economic growth of Indonesia during the period from 1990-2009. Indeed, trade is considered as an engine of growth and many economists usually emphasize that trade liberalization that is, moving towards a free trade regime through reductions of tariff and other barriers, is generally the major driving force behind globalization. It alleviates poverty, as trade liberalization provides opportunities to create jobs, increase per capita income, accelerates economic growth and improves consumer choice and improving social welfare. Empirical results of this study revealed that the impact of exports statistically significant with expected positive sign. It has been concluded that enhanced level of exports are imperative for boosting economic growth of Indonesia. The findings of this study suggest that the management authorities need to increase the volume of exports on the basis of its importance in the process of economic growth of Indonesia through formulating suitable policies with in the available resources. Thus, expansion in export will certainly increase productivity, creates job opportunities, increase government revenue and will improve living standard of the people of Indonesia up to desirable extent.

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**Table 1: OLS Estimates**

The regression equation is				
$Y = -9.06 + 2.09 X$				
Predictor	Coef	StDev	T	P
Constant	-9.062	1.681	-5.39	0.000
X	2.0946	0.1532	13.68	0.000
S = 0.3209    R-Sq = 91.2%    R-Sq(adj) = 90.7%				

**Table 2: Analysis of Variance**

Source	DF	SS	MS	F	P
Regression	1	19.259	19.259	187.02	0.000
Error	18	1.854	0.103		
Total	19	21.112			