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# The Impact of Manufactured Exports on CO<sub>2</sub> Emissions: A Comparison of Developed and Developing Countries

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#### Abstract

This paper aims to understand the impact of manufactured exports on the level of carbon dioxide emissions in developed and developing countries. It uses secondary data and econometrics to analyze these two groups of countries from 2001 to 2006. It is found that the existence of the Environmental Kuznets Curve (EKC) is following: a positive or increasingly monotonic relationship occurs in developing countries between the level of manufactured exports and  $CO_2$  emissions, while the reverse occurs in the developed countries. The developing countries tend to be dominated by exporting natural resource- intensive manufactured products, while the exports of the developed countries are dominated by exporting technology-intensive manufactured products. The relevance with the Indonesian case is also discussed.

**JEL Classification**: F18; Q56

Key Words: Environmental Kuznets Curve; Export Manufacturing; Carbon Dioxide (CO2) emission.

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#### **Exports and Innovation in Indonesian Manufacturing**

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#### Abstract

In this paper we examine the bi-directional relationship between globalization and innovation in Indonesia's manufacturing sector. The lack of innovation data in the manufacturing survey has necessitated the use of R&D expenditure as an input in the innovation production function. The focus of this study is whether exporting firms do learn from their activities in export markets or firms have to be innovative first, that is, doing R&D before they can go into foreign markets. We find firms have to do R&D first to become competitive in foreign markets. The reverse causality of whether export activities encourage firms to innovations or R&D, though significant, is statistically much weaker. But this does not preclude the possibility that the relationship between exports and R&D activities in Indonesian manufacturing is indeed bi-directional.

**JEL Classification**: D21, O31, O12

*Keywords*: Indonesian manufacturing, Research and Development

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#### Measuring Financial Markets Integration: Indonesia and East Asia

Lestano

#### Abstract

This paper examines the pattern of financial integration in three financial markets (foreign exchange, money, and stock markets) in six East Asian markets using daily data over the period of 13 January 1994 to 13 January 2009. We use an asymmetric DCC-MVGARCH model focusing on financial markets relations between Indonesia and the other five East Asian economies. The results show that Singapore plays a dominant relationship with Indonesia in all financial markets, whilst Malaysia and South Korea have only marginal links. The results reveal stronger linkages in foreign exchange markets and stock markets within the region during the Asian financial crisis of 1997-1998 and a negative relationship in the money market. During the sub-prime crisis, all financial markets correlations exhibit a clear deterioration. This evidence is indicative of a strong influence of worldwide financial shocks on the region's correlations. Overall, we find that the level of integration between Indonesia and the other five East Asian financial markets are not complete but partially segmented.

*JEL classification*: F36; C58

Keywords: Financial market integration; dynamic conditional correlation; multivariate GARCH; Asian

financial crisis; Sub-prime crisis

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#### Unveiling Stubborn Inflation in Indonesia

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#### Abstract

The average inflation rate in Indonesia is one of the highest in the region. This high level of inflation raises the question whether there is a level of stubborn inflation in shaping the inflation process. It also indicates the presence of more fundamental problems, that might be related to the supply side of the economy. This paper investigates the inflation using both the cost push as well as demand pull approaches. We find evidence that four inputs: wages, transport costs, food and import prices play a significant role in determining long run inflation. We show that the price level is linearly homogeneous in all input costs. These inputs have contributed to the dynamic short run inflation. The demand side is also important. Base money keeps its key role in influencing the core inflation. A long run price homogeneity is found between nominal money and prices.

**Key Words** : Central Banking; Monetary Polic, Indonesia

**IEL Classification** : E51, E52, E58, 053

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## Causality relationship between renewable and non-renewable energy consumption and GDP in Indonesia

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#### Abstract

Recent contributions show that the world is facing serious problems with energy depletion as a result of the unbalanced availability between finite energy resources and population growth as well as industrial growth. The available amount of finite-based energy resources was predicted to last between 30-150 years (World Resource Institute 2007). Responding to that threat, an ever-expanding research has been conducted on energy consumption and renewable energy resources, leading to a large literature on this research area.

Research on the causal relationship between energy consumption and GDP has been a well established topic in the energy economics literature, yet the topic still remains debatable (Dhungel 2008). In the case of Indonesian economy, some studies have shown different results on the casual relationships between energy consumption and GDP and are mainly focusing on non-renewable energy. This paper tests the causality relationship between renewable and non-renewable energy consumption and GDP in Indonesia by applying the Toda-Yamamoto procedure as well as the Engle-Granger procedure. Two proxies of renewable energy consumption are used in this study. Granger causality is found to run only from renewable electricity consumption per capita to GDP per capita. The last part of this paper discusses the policy implications from our findings.

**Keywords**: Renewable Energy, Non-Renewable Energy, Real GDP, Granger Causality, Indonesia **JEL classification**: C32, Q43.