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Diploma Thesis Abstract

Foreign Trade in Petrochemical Industry of Iran

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Zahraniční obchod petrochemického průmyslu v Íránu

Souhrn

Íránská ekonomika je charakteristická svou silnou závislostí na ropném sektoru. Íránský petrochemický průmysl se dostal na jednu z nejvýznamnějších pozic na světě, a zároveň významně ovlivňuje íránskou ekonomiku. Existuje široká shoda na skutečnosti, že export průmyslového zboží představuje významný zdroj hospodářského růstu. Z výše uvedených důvodů má tato práce za cíl analyzovat dopad příjmů z exportu petrochemických produktů na íránskou ekonomiku. Hlavním cílem je prověření hypotézy o exportem taženém ekonomickém růstu (ELG) aplikovanou na Írán a jeho petrochemický průmysl. V práci je užito běžné metody nejmenších čtverců (OLS) pro popsání vztahu mezi HDP, exportem petrochemických produktů, směnným kurzem a inflací. Metodika vychází z časových řad pro období let 1990 – 2010. Výsledky práce ukazují pozitivní vztah mezi exportem petrochemických produktů a ekonomickým růstem, což potvrzuje hypotézu o exportem taženém ekonomickém růstu (ELG). Rovněž byl prokázán negativní vztah mezi inflací a směnným kurzem. Práce dále přináší SWOT analýzu íránského petrochemického průmyslu.

Objective of study

It is widely acknowledged that exports, particularly through manufactured components, play an important role as a potential source of economic growth, the relationship between exports and economic growth is still ongoing. With regard to the general economic importance of foreign trade for the national economy and considering the importance of petrochemical products export in Iran, hence, the aim of this research is to analysis the impact of petrochemical products export revenue on economic growth. Therefore the main objective of this study is to investigate the relationship between export of petrochemical industry and economic growth of Iran. To do this, Ordinary Least Square (OLS) model are used. In particular, the study proposes to investigate link between export of petrochemical products and economic growth in order to test the degree of meaningful effects of export promotion policies in a branch of non-oil sector on the country's economic growth through empirical investigation of the Export-Led Growth (ELG) hypothesis. In other words, the study tried to find out whether the export of petrochemical industry as one of the main non-oil sector has promoted economic growth in Iran or not? Thus the main question addressed is whether the ELG hypothesis is valid in the case of Iran's petrochemical sector. For testing the hypothesis the following manner are proceeded:

- Theoretical and empirical works on the relation of export and GDP were reviewed.
- A model was developed to examine ELG hypothesis in the case of petrochemical industry based on reviewed literature regarding the export and GDP relationship. In particular four macroeconomic variables, GDP, export of petrochemical products, inflation and real exchange rate are used.
- Ordinary lease square (OLS) model for annual time series data over the period of 1990 to 2010 was applied to investigate the relationship between export of petrochemical products and economic growth.
- The effectiveness of export promotion of petrochemical industry on overall economic growth is examined.

Research methodology framework

In responding to the aim and objective of the study, quantitative approaches with mathematical and statistical methods for the period of 1990-2010 were used. Therefore the hypothesis has been evaluated by using Gretl software and ordinary least square (OLS) method. The four variables are used for in this context which are; Gross Domestic Product (GDP), export of petrochemical products, inflation and real exchange rate. The data are collected from World Development Indicator online and Central Bank of Iran.

Furthermore, in this study the strengths, weaknesses, opportunities and threats (SWOT) analysis of the Iran petrochemical industry are presented.

Summary of Results

The result of our study shows that there is a positive relationship between export of petrochemical products and economic growth of Iran and validate export-led growth hypothesis. This shows that any increase in the export of petrochemical products can lead growth of economy, while any decreasing in the export of petrochemical products will decline economic growth. In fact growth of export can be raised by exports of petrochemical products via accessing the global markets that in turn increase economic growth.

Therefore Iran should apply policies to make non-oil exports especially in petrochemical industry more competitive in order to gain access to international markets. For this reason, joining the WTO and raising the share of and diversity of non-oil exports in total exports should be considered as high priorities. Raising the quality of petrochemical export products, stabilizing the exchange rate, deregulating the banking sector as well as reforming the public sector would also lead to non-oil export expansion. As well, in order to utilize its comparative advantages, Iran should apply oil as much as possible in the domestic industrial sector via extensive enlargement of energy-based industries such as petrochemical industries. In addition, since the price of both crude oil and natural gas fluctuates highly, the Iranian government needs to look beyond these unrefined products. More investment in other petrochemical products will be necessary in order to use Iran's comparative advantage in oil- and gas-based industries as well as support the country from the wild fluctuations of these resources in their unrefined state.

However based on our data analysis inflation rate and real exchange rate exhibit negative relationship with GDP therefore it is better to apply proper exchange rate policy in the country to maintain international competitiveness and sustainable external balance of payments, hence, exchange rate policies should be revised and eliminate exchange rate instability.

In addition it is highly recommended to control fluctuation of inflation to overcome its negative impact on economic growth to achievement of macroeconomic stability through monetary and fiscal policies reforms which target inflation. Internal and external balances are necessary for macroeconomic stability, which leads to the trade-growth nexus dynamic.

Selected References

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