




Quarterly Journal of Quantitative Economics

Journal Homepage:
www.jqe.scu.ac.ir
Print ISSN: 2008-5850
Online ISSN: 2717-4271



Investigating the rate of transfer of regime in the asymmetric effect of exchange rate on Iran's non-oil exports

Moslem Ansarinasab, * Parisa Pas **

* Assistant Professor of Economics, Department of Economics, Faculty of Administrative Sciences and Economics, Vali-E-Asr University of Rafsanjan, Iran (Corresponding Author).

Email: M.Ansarinasab@vru.ac.ir



[0000-0002-3491-7461](https://orcid.org/0000-0002-3491-7461)

Postal address: Rafsanjan, Kerman, 7718897111, IRAN.

** MSc of Economic, epartment of Economics, Faculty of Administrative Sciences and Economics, Vali-E-Asr University of Rafsanjan, Iran.

Email: parisa.pas@yahoo.com

ARTICLE HISTORY

Received: 24 October 2019
Revision: 08 August 2020
Acceptance: 4 Desember 2020

JEL

CLASSIFICATION

C58, F31,F12,H30

KEYWORDS

Non-oil exports,
Exchange rate, Rate of
transfer of regime,
Markov Switching (MS)
model, Smooth Transition
Regression (STR) model

ACKNOWLEDGMENTS: Acknowledgments may be made to individuals or institutions that have made an important contribution.

CONFLICT OF INTEREST: The authors declare no conflict of interest.

FUNDING: The author(s) received no financial support for the research, authorship, and publication of this article.

How to Cite:

Ansarinasab, Moslem & Pas, Parisa. (2022). Investigating the rate of transfer of regime in the asymmetric effect of exchange rate on Iran's non-oil exports. *Quarterly Journal of Quantitative Economics*(*QJE*), 18(4), 93-124.

 [10.22055/QJE.2020.31521.2166](https://doi.org/10.22055/QJE.2020.31521.2166)



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EXTENDED ABSTRACT

INTRODUCTION

The main objective of this study is to analyze the impact of changes in the real exchange rate on the export performance of the non-oil sector. Export earnings are assumed of vital importance not only for developing but also for developed countries. Developed countries mainly export capital and final goods, while the main part of developing countries export consists of mining-industry goods especially natural resources. In this context, there are some challenges for countries with natural resource abundance, such as oil, in comparison with other countries. The main point is that in parallel with the windfall of oil revenues these countries have to pay more attention to the development of the non-oil sector as well as its export performance ;because in most cases oil-driven economic development leads to some undesirable consequences such as Dutch Disease in oil-rich countries. In oil-dependent countries, the export of other goods can help reduce the effect of oil revenues on the country's trade basket. Several factors affect non-oil exports, one of which is exchange rate variable. exchange rate which is the price of a foreign currency in terms of domestic currencies, has an important effect on macroeconomic variables; Such as production, exports, the balance of payments, etc. By affecting the relative prices of domestic and imported goods, this rate can also affect other economic sectors of the country. Accordingly, exchange rates and shocks of this variable are one of the main factors affecting non-oil exports.

METHODOLOGY

Today, because many countries are experiencing continuous changes in politics and economics, it is expected that modeling macroeconomic variables

with linear models and fixed parameters are not appropriate, so nonlinear models and temporal parameters have a comparative advantage. This study examines the impact of the exchange rate on non-oil exports in Iran from 1978-2017 by using nonlinear Markov-switching (MS) and Smooth Transition Regression (STR) models. Therefore, these two models are used to estimate the regime transfer rate due to the asymmetric exchange rate on non-oil exports. The studied variables have been collected from the websites of the Central Bank of Iran and the Bank of Commercial Partners. They include non-oil exports, exchange rates, Iran's GDP, GDP, and price index.

FINDINGS

The results of a sudden change of Markov-switching model (MS) show that the effect of exchange rate in the first regime is about 8.6 times the second regime, both of which have a positive effect on non-oil exports. So, the results of this method show the nonlinear, asymmetric, and positive effect of exchange rate on non-oil exports in Iran. However, in the Smooth Transition Regression model (STR), exchange rate coefficients showed different effects in the two regimes in a way that exchange rate in the first regime has a negative, insignificant effect on non-oil exports, but in the second regime it has a positive and significant effect on non-oil exports.

CONCLUSION

Overall, the results show that the effect of exchange rate on non-oil exports is nonlinear and asymmetric and this effect changes with the change in transfer rate of the regime; i.e. if the rate of transfer from a regime to another is immediate, the effect of exchange rate on non-oil exports changes rapidly, but if the transition rate is slow, it can reverse the effect of exchange rate on non-oil exports and even completely change the effect. In addition, the findings of this study can be useful for policymakers in the monetary and real sectors in Iran, especially in terms of exchange rate policy implementation and its impact on non-oil exports.

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