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Title

Tariff Reduction and Its effects on the International Wine Trade: A Gravity Model Approach

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Conference Presentation

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Keywords

Tariffs, wine, international trade, gravity model,

Research Question

This paper examines the impacts of import tariff reduction on the world wine trade focusing on recent free trade agreements (FTA) among major wine exporting and importing countries.

Methods

Gravity equation with panel data

Results

Concrete results are yet obtained for the world trade but it is observed that tariff reductions due to a bilateral FTA have significant benefits for some wine exporters.

Abstract

This paper examines the impacts of import tariff reduction on the world wine trade focusing on recent free trade agreements (FTA) among major wine exporting and importing countries. Since 1990s bilateral FTA have dramatically widespread across the globe as a major trade policy. Global wine trade and competition for imported wine have been increasing significantly, a zero tariff or lower tariff have been applied to some wine exporting countries since signing of FTAs. Even though import tariff has still not been completely lifted, exports of wine from some countries have increased markedly since the signing of a FTA. Effects of tariff reduction and FTA agreements on wine trade seem to vary across countries however there is limited research on tariff reduction and its effects for world wine trade.

The rapid growth of the world wine trade is of course analysed in literature. Bianco et al.(2016) empirically investigates the impact of trade barriers on wine trade focusing on trade costs impeding exports and finds a decreasing trend for tariffs has been compensated by more technical barriers. Castillo et al. (2016) analyse changes that have occurred in the global wine export dynamics. They find that exporting and importing countries' GDP have positively related to wine trade and that an increase in income stimulates production and exports

(imports). Mariani, Pomarici and Botatto (2012) finds that France and Italy experienced a steady erosion of its market share and showed that growth of bulk wine trade is one of the characterising features in recent wine trade. Anderson and Wittwer (2015) draws on a model of global wine markets to project developments in Asia. A new path of trade liberalization process and trade barriers are discussed in Mariani et al (2014). They say compared with the importance of the topic, literature on tariff and non-tariff barriers to wine trade is still quite limited.

An extent to which import tariff reductions through FTAs are attributable to an increase in wine exports are examined in this paper. Our empirical method involves estimating an augmented-version of gravity equation with a panel dataset for 1990-2016 covering 47 major exporters and importers for both bulk and bottle wines. Our coverage of 47 countries can explain more than 95% of world wine trade. The selection of the country is based on Anderson, Nelgen and Pinilla (2017). Our wine trade data is downloaded from Comtrade Database, tariff data is from World Trade Organization and other wine related data is from Anderson, Nelgen and Pinilla (2017). Since some countries, such as Japan and the United States, impose ad valorem tariff on imported wine, ad valorem tax is translated into specific tax, using both imported quantity and value of imported wine.

The gravity equation is particularly useful for analyzing empirical trade (Feenstra, 2004) and used for empirical international trade. A gravity model is also estimated in Bianco et al.(2016) and Castillo et al. (2016) in order to analyze data on bilateral wine trade. We estimate an augmented-version of gravity equation with a panel dataset for 1990-2016 for 47 countries. The model we adopted

$$X_{ijt} = \mu \cdot Y_{(1,it)}^\alpha \cdot Y_{(2,it)}^\beta \cdot D_{ij}^\delta \cdot D_{ij}^\gamma$$

where X_{ijt} represents wine trade flow from country i to country j at time t , $Y_{(1,it)}$ stands for an exporter i 's wine production at time t , $Y_{(2,it)}$ is for importer's macroeconomic variable at time t , D_{ij}^δ proxies geographical distance and D_{ij}^γ is tariff at time t . Taking log-linearization the gravity model becomes

$$\ln X_{ijt} = \mu + \alpha \ln Y_{(1,it)} + \beta \ln Y_{(2,it)} + \delta D_{ij} + \gamma D_{ij} + \varepsilon_{ij}$$

where $\mu = \ln \mu$. We find that one percentage point tariff reduction leads to increase in annual wine exports. In the current study, the influence of tariff has been appeared strongly for some countries (Here, we could add more key findings). Our results identify wine exported from countries that have comparative advantage has gained more benefits from the reduction of the applied tariff. Effects on tariff reduction vary across countries however the overall result is that phase-out of the tariffs on wine in wine importing countries has significantly increased its import. The results suggest that export growth induced by tariff reductions through FTAs could account for (number) % of global wine export growth during 1990-2016. (We could add policy implications here as estimation is not completed yet).

Reference

- Anderson, Nelgen and Pinilla (2017), Global wine markets, 1860 to 2016: A statistical compendium, University of Adelaide Press
- Anderson and Wittwer (2015), Modeling global wine markets to 2018: Exchange rates, taste changes, and China's import growth, China Economic Review 35
- Bianco, Boatto, Caracciolo and Santeramo (2016), Tariffs and non-tariff frictions in the world wine trade, European Review of Agricultural Economics Vol43(1)
- Castillo, Villanueva and Garcia-Cortijo (2016), The International Wine Trade and Its New Export Dynamics (1988-2012): A Gravity Model Approach, Agribusiness Vol32(4)
- Feenstra (2004), Advanced international trade: Theory and evidence, Princeton University Press
- Mariani, Pomarici and Botatto (2012), The international wine trade: Recent trends and critical issues, Wine Economics and Policy Vol1
- Mariani, Napolitano, Pomarici and Vecchio (2014), Tariff and non-tariff barriers to wine exports and initiatives to reduce their effects, Agricultural Economics Review Vol15(1)

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Tariff Reduction and Its effects on the International Wine Trade: A Gravity Model Approach

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January 2019

Abstract

This paper examines the impacts of import tariff reduction on the world wine trade focusing on recent free trade agreements (FTA) among major wine exporting and importing countries. Since 1990s bilateral FTA have dramatically widespread across the globe as a major trade policy. Global wine trade and competition for imported wine have been increasing significantly, a zero tariff or lower tariff have been applied to some wine exporting countries since signing of FTAs. Even though import tariff has still not been completely lifted, exports of wine from some countries have increased markedly since the signing of a FTA. Effects of tariff reduction and FTA agreements on wine trade seem to vary across countries however there is limited research on tariff reduction and its effects for world wine trade.

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where $\mu = \ln \mu^*$ We find that one percentage point tariff reduction leads to increase in annual wine exports. In the current study, the influence of tariff has been appeared strongly for some countries (Here, we could add more key findings). Our results identify wine exported from countries that have comparative advantage has gained more benefits from the reduction of the applied tariff. Effects on tariff reduction vary across countries however the overall result is that phase-out of the tariffs on wine in wine importing countries has significantly increased its import. The results suggest that export growth induced by tariff reductions through FTAs could account for (number) % of global wine export growth during 1990-2016. (We could add policy implications here as estimation is not completed yet).

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Bianco, Boatto, Caracciolo and Santeramo (2016), Tariffs and non-tariff frictions in the world wine trade, *European Review of Agricultural Economics* Vol43(1), 31-57

Castillo, Villanueva and Garcia-Cortijo (2016), The International Wine Trade and Its New Export Dynamics (1988-2012): A Gravity Model Approach, *Agribusiness* Vol32(4), 466-481

Feenstra (2004), Advanced international trade: Theory and evidence, Princeton University Press

Mariani, Pomarici and Botatto (2012), The international wine trade: Recent trends and critical issues, *Wine Economics and Policy* Vol1, 24-40

Anderson and Wittwer (2015), Modeling global wine markets to 2018: Exchange rates, taste changes, and China's import growth, *China Economic Review* 35, 1-14

Mariani, Napoletano, Pomarici and Vecchio (2014), Tariff and non-tariff barriers to wine exports and initiatives to reduce their effects, *Agricultural Economics Review* Vol15(1)

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JEL classification: F14, F69, L66