

IMPACT OF TABBACO INDUSTRY IN THE PERFORMANCES OF US ECONOMY

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ABSTRACT

Automotive industry is playing an important role in the US economy. We analyze the production of passenger cars in US during the period 1947-2016. The impact of oil price on the number of passenger cars produced is evaluated. Influence of automotive industry on GDP and unemployment rate is evaluated. Regression models are designed and used to generate analysis and conclusions.

Keywords: tobacco industry, GDP, regression models, correlations.

1. INTRODUCTION

According to the World Health Organization (WHO) in their report from 26 July 2019 finds that more countries have implemented tobacco control policies, ranging from graphic pack warnings and advertising bans to no smoking areas. About 5 billion people – 65% of the world's population – are covered by at least one comprehensive tobacco control measure, which has more than quadrupled since 2007 when only 1 billion people and 15% of the world's population were covered. According to WHO about 1.1 billion people smoked tobacco in 2015. WHO estimates smoking leads to 6 million deaths a year. Thanks to public health initiatives, taxes and other regulations smoking is on the decline in many parts of the world but WHO points out that smoking is on the rise in the eastern Mediterranean region and across much of Africa.

In this condition we see an opportunity to evaluate the impact of tobacco industry in US economy in the circumstances of the new trend by the fact that cannabis is now legal in Canada and fully legal in 10 US states and the District of Columbia.

In the analyses below to develop our conclusions we are using some statistical tools like those used when other industries were analyzed in accordance with GDP (Iustin Atanasiu Pop, 2017). We used tools like: regression models, significance test, and adjusted determination coefficient. The software package Statgraphics is used to perform the analysis. Based on the sample data, regression models are developed. Several models are available in the software package. The logic behind the models designed, is based on the natural behavior and correlation of the variables and on the impact of input variable on the output variable. Significance test is performed in order to analyze if models designed based on sample data might be extended. Determination coefficient shows the percentage from the variation of output variable which is explained based on the variation of input variable. Adjusted value of this coefficient is eliminating the impact of sample size, making it more reliable.

2. SAMPLE DATA AND PRELIMINARY ANALYSIS

In case of tobacco industries we used data since 1866 and in case of GDP we are using data since 1960. This long period of time covers several cycles of economic growth and crisis. Thus our analyses have a high probability of modeling the reality in a reliable manner and our conclusions have a solid base.