ANALYSING THE IMPACT OF ECONOMIC REGULATIONS AND TRADE BARRIERS ON INDIA'S ECONOMIC WELL-BEING

Shivam Raperia*

*Student
Institute- St. Xavier's College, Mumbai, INDIA
Email id: shivamraperia@gmail.com

ABSTRACT

Economic Regulations and Trade Barriers are integral ideas to the discourse of policy frameworks in various countries. The paper's objective is to discern how economic regulations affect the overall well-being of the Indian economy. The Multiple Linear Regression technique has been used for the purpose of analysis, and the time period taken into consideration is from 1995 to 2019. The study explores and collates current research to draw conclusions that help understand the impact of economic regulations on India's economic well-being. Through this analysis, it can be deduced that the easing of trade barriers and economic regulations positively impacts the GDP per capita.

KEYWORDS: *Economic Regulations, Trade Barriers, Economic Freedom, Trade Agreements.*

INTRODUCTION

Economic regulations are a never-ending process and have long been perceived to impede or facilitate a nation's growth trajectory. In order to maintain a balance between economic regulations and economic well-being, which is measured by GDP per capita, countries try to fine-tune these regulations and trade restrictions. However, the exact equilibrium required between economic restrictions and openness (freedom) cannot be surmised.

Nevertheless, without an iota of doubt, Regulations can have a positive or negative impact on the economic status of a country. Regulations like asymmetric information, externalities, etc. that aim to plateau or stabilise the market failures are believed to directly impact the economic activities carried out in an economy. Therefore, in a way supplements economic growth and efficiency. However, if executed wrongly, it could often hinder a country's economic growth by eliminating competition in the market that would give rise to the formation of cartels and monopolies.

Research on the impact the economic regulations have on a nation's economy helps gain cognisance and a balanced approach on whether 'there is any need for the regulations and barriers' and if yes 'the extent of the regulations on an economy'. It shows the overall broad trend relating

to trade freedom and economic regulations, and GDP per capita for a country. The data pertaining to the same has been retrieved from Heritage Foundation's Economic Freedom Index website.[1]

The paper starts with a review of the current and previous body of literature pertaining to the various methods used to measure economic freedom over the years, and the sub-parameters was taken into consideration, followed by multiple linear regression analysis for a time period of 25 years and a brief explanation on the scope of further study.

REVIEW OF LITERATURE

The common perception that economic freedom paves the way for focused economic growth is one of the most durable in economics. Adam Smith, in 1776 advocated the principle of the invisible hand and how the principle has yielded results by enhancing the wealth of nations. Time and again, many great economic thinkers backed the idea of free trade for greater economic development; one such as David Ricardo (1821).

The Economic Freedom Index selected for the purpose of the study is based on the premise that the central elements of measuring economic freedom are Trade Freedom, Investment Freedom, Financial Freedom and Business Freedom.

The Fraser Institute of Economic Freedom Index measures the level of regulation in a particular country. The index takes into account certain indicators such as the size of the government, legal system and property rights, access to sound money, freedom to trade and regulation of credit, labour and business, and these indices have entitled a score out of zero to ten, with zero being the most highly regulated economy.[2]

Loayza et al. (2004), this study provides an empirical estimate of the impact of regulatory policy on GDP growth and volatility in a large sample of developed and developing countries, using a cross country regression. The authors find a negative causal relationship between economic growth and overall regulation; thus, the relationship between regulation and GDP volatility is less consistent.[3]

Gorgens et al. (2003) examined a non-linear relationship between regulation and growth. Heavily regulated countries, on average, grow 2-3% less than liberal ones. However, the effect is mainly in terms of comparisons between moderately and highly regulated regimes *(Refer to Figure no.1 in Appendix),* which implies that countries with relatively low regulation levels (such as the UK) are unlikely to gain extra growth further liberalisation.[4] India, with a score of 6.53 (2018), falls in the third quartile. *(Refer to Figure no.2 in Appendix)*

DATA

For the purpose of this research assignment, I used the secondary method of data collection. References have also been made to online websites. The data pertaining to economic openness has been assembled from The Heritage Foundation for 25 years ranging from 1995 to 2019. The Heritage Foundation is a Washington D.C based policy think tank based that evaluates the data and publishes an annual economic index for every country.

The independent variables are taken as:

[*Note:* Each of these variables is measured on a scale from 0-100, with 100 indicating a perfectly free market and 0 indicating a completely regulated or unfree market.]

❏ **Trade Freedom score (units):** Trade freedom evaluates "the extent of tariff and non-tariff

barriers that affect imports and exports of goods and services" and is calculated based on trade-weighted average tariff rate and rate of non-tariff barriers.[5]

❏ **Investment Freedom score (units):** Investment freedom which refers to obstructions related to the flow of investment capital within a country, is calculated as a composite of a country's behaviour towards foreign investment, foreign investment code, restrictions on land ownership, capital controls, and other factors related to investment.[6]

❏ **Financial Freedom score (units):** Financial freedom is a "measure of banking efficiency as well as a measure of independence from government control and interference in the financial sector."[7]

❏ **Business Freedom score (units):** Business freedom measures the "extent to which the regulatory and infrastructure environments constrain the businesses efficient operation". It is generated from a variety of related subfactors from each country, including the number of procedures needed to start a business, the cost and time of obtaining a business license, and 11 other factors.[8]

The dependent variable is:

❏ **GDP per capita (USD)**

MODEL & EQUATION

Multiple Linear Regression Analysis was used to examine the impact of Trade Freedom, Investment Freedom, Financial Freedom and Business Freedom on India's GDP per capita. This study involved organising data from the sources stated above for a period of 25 years from 1995 to 2019. The estimated equation is:

GDPperCapita = β0 + β1Trade Freedom + β2 Investment Freedom + β3 Financial Freedom β4 Business Freedom + u

The data satisfies the **assumption one of Gauss-Markov, i.e., condition of linearity**. The dependent variable, GDP per capita, is assumed to be a linear function of the four indices that have been selected as independent variables.[9]

Assumption two of Gauss-Markov is also satisfied because the data collected is of the entire population of possible data points and, therefore, also an **adequate random sample**.[10]

Assumption three, which states that no two variables exhibit perfect correlation, has been satisfied. In order to prove this assumption, the **Variance Inflation Factor** (VIF) method has been performed. For two variables to be highly correlated, the VIF exceeds 5 or 10, indicating high multicollinearity. It is important to note here that it is permissible to have a high correlation but not perfect linearity. *(Refer to Figure no.3 in Appendix)*

Assumption four states that the model must exhibit **exogeneity** (i.e., the expectation of the error term u conditional on each regressor is equal to 0); thus, if the explanatory variables are deemed to be endogenous, they are therefore correlated with the error term, and the assumption is violated.[11] The variables are not endogenous and are determined outside the model; thus, satisfy assumption four of Gauss-Markov.[12]

The **final assumption** of Gauss-Markov is homoscedasticity (the error term has the same variance across all values for all independent variables), and the consistency of the error term across all variables satisfies this condition.[13]

Upon entering the results:

GDP.PC = -2495.989 + 19.371TradeFreedom + 11.727InvestmentFreedom + 44.869FinancialFreedom + 13.662 BusinessFreedom + u

RESULTS

Dependent Variable	GDP Per Capita		
	Coefficient	Std. Error	P-value
Intercept	-2495.989	496.575	6.47e-05
Trade. Freedom	19.371	2.364	8.02e-08
Investment. Freedom	11.727	4.043	0.008849
Financial. Freedom	44.869	11.607	0.000963
Business. Freedom	13.662	4.465	0.006185
Adjusted R	0.9527		

INTERPRETATION

Trade freedom's coefficient was found to be statistically significant at 5 percent level of significance, indicating the positive significant impact of Trade Freedom on India's GDP per capita. Thus, a 1 unit increase in Trade Freedom score increases the GDP per capita by 19.37 USD, holding other factors constant.

Investment Freedom's coefficient also has the smallest positive impact compared to other indices on the response variable. Hence, a 1 unit increase in Investment Freedom score increases the GDP per capita by 11.72 USD, holding other factors constant.

The financial Freedom coefficient has the most significant positive impact on India's GDP per capita, with a 1 unit increase in its score bringing about a 44.869 USD increase in GDP per capita, holding other factors constant.

Business Freedom's coefficient was also found to be statistically significant at a 5 percent level of significance, connoting a positive impact of Business Freedom on GDP per capita of India. Thus, a 1 unit increase in Business Freedom score increases the GDP per capita by 13.662 USD, holding other factors constant.

LIMITATIONS

Regulations implemented with the objective of achieving social welfare may have a negative impact on economic growth. Nonetheless, it does not mean that the government should not introduce regulations that seek to maximise equality and public welfare. It essentially connotes that when economic growth is quantified, the positive effects of these regulations are not accounted for. For instance, if more regulations translate to increasing the population's greater safety, this impact is not captured while calculating the Gross Domestic Product. Another example would be Rent-seeking regulations which hinder economic growth.

ANALYSIS

Free trade barriers and government regulations are some factors that hinder a nation's ability to grow and prosper economically, and thus, the objective of this paper has been to shed light on the statistical relationship between economic regulations and India's economic well-being while taking into account the recent advances in the empirical analysis. We can conclusively determine

the existence of a directly proportional relationship between economic prosperity (GDP per capita) and relaxed governmental policy and trade restrictions.

The positive coefficient of different independent variables such as Trade Freedom (19.37), Investment Freedom (11.73), Financial Freedom (44.87) and Business Freedom (13.63) reflects the strong explanatory positive effect of the different dimensions of economic freedom on GDP per capita. It is viewed that the potential economic growth can be achieved at the behest of free trade and a business-friendly environment regime without which India could struggle to achieve prosperity.

As per the Indian economy's scenario in 2020, imports and exports equal 43.1% of its GDP. Thanks to the 1991 economic liberalisation, post which the tariff rates show a downward trend, as seen in the adjoining figure. India has also signed multiple trade deals, including Free Trade Agreements (FTA) and Preferential Trade Agreements (PTA).

Source: World Bank
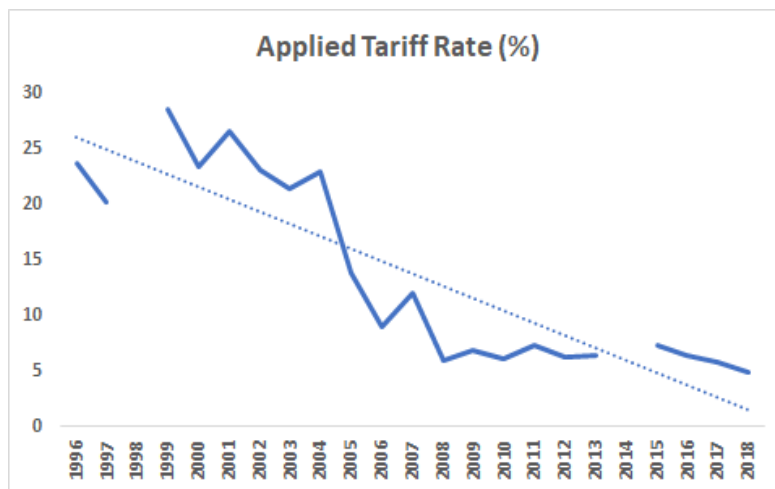
These agreements include the Asia Pacific Free Trade Agreement; a series of India–Africa Agreements with 19 African nations, the Agreement on Trade in Goods between Indian and the Association of SouthEast Asian Nations (ASEAN, which consists of Brunei Darussalam, Burma, Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand, and Vietnam), and the South Asian Free Trade Area (SAFTA), which includes Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, Pakistan, and Sri Lanka. India also has trade agreements with the European Free Trade Association (Iceland, Liechtenstein, Norway, and Switzerland) and a PTA with MERCOSUR (Argentina, Brazil, Paraguay, and Uruguay).[14]

India also has bilateral Comprehensive Economic Cooperation Agreements or Comprehensive Economic Partnership Agreements with Chile, Indonesia, Japan, Malaysia, Singapore, South Korea, and Thailand; the India-Sri Lanka FTA provides almost 100% duty-free access, and the parties are currently negotiating an Economic and Technology Cooperation Agreement; besides, India and Nepal have initiated discussions to update the India–Nepal Treaty on Trade. India is engaged in negotiations or formal discussions on the India–Canada Comprehensive Economic Cooperation Agreement; the India–European Union Broad Based Trade and Investment Agreement; the India–Israel FTA; the India–Gulf Cooperation Council FTA, the India–Peru FTA, and India–Ecuador FTA.[15]

Nonetheless, India's tariff rates are relatively higher than other countries and some hindrances to trade like tariff and non-tariff barriers still remain. Import Licensing on banned or prohibited items, restricted items that require an import license, "canalised" items importable only by government trading monopolies is one of the most prominent trade barriers.[16]

India has imposed anti-dumping measures on many occasions in order to protect its manufacturers at home. India has filed 16% of all global anti-dumping cases, quite disproportionate to its share in global imports (2.75% in 2011-12).[17] The intense aggression that India has shown in recent years with regards to the application of anti-dumping laws is a matter of grave concern as far as international trade is concerned.

The above factors are considered barriers to trade; however, India' transition from a protectionist state to a country that is open for international trade has been quite noteworthy. Thus, as of 2019, Trade represents 40% of India's GDP.

Source: World
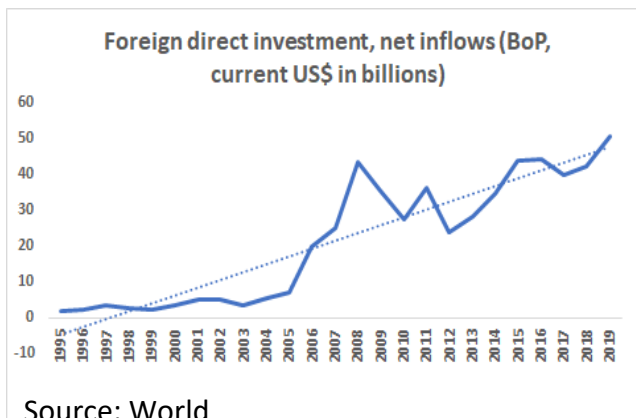
With greater investment freedom, India has become one of the most attractive hubs for foreign investment coming through FDI, FII's and other sources. Foreign inflows in the last decade have substantially increased. FDI inflows in 2019 were calculated at around 50.61 billion USD. However, there prevail some challenges, such as comparatively high tariffs rates by international standard, lack of decision-making authority with state governments, and lack of transparent sectoral policies for FDI. Access to banking services and financial markets is now excessively available in a digitised way, hence enhancing India's financial freedom index performance.

Ease of doing business is widely regarded as a tool to measure the extent of business freedom in a country. According to the World Bank Report, India jumped 79 positions in the ranking of ease of doing business from 2014 (142nd position) to 2020 to seal its place at a much better 63rd rank. Intending to create a more business-friendly working environment, the Indian Government showed a green flag to many ambitious regulatory reforms' initiatives. From transforming India into one of the most promising and attractive destinations for foreign investments, the earlier restrictions on doing business in the country were lifted.

The time-consuming and large number of procedures decreased, making it easier for businesses to obtain permits much easily and quickly. This is evident from the fact that India's ranking on the parameters such as getting construction permits and electricity connection has increased to 27th (from 184th in 2014) and 22nd (from 137th in 2014) rank in 2019. Apart from these significant improvements, among the 190 economies, India ranks 13th in Protecting Minority Investors and 25th in Getting Credit.[18]
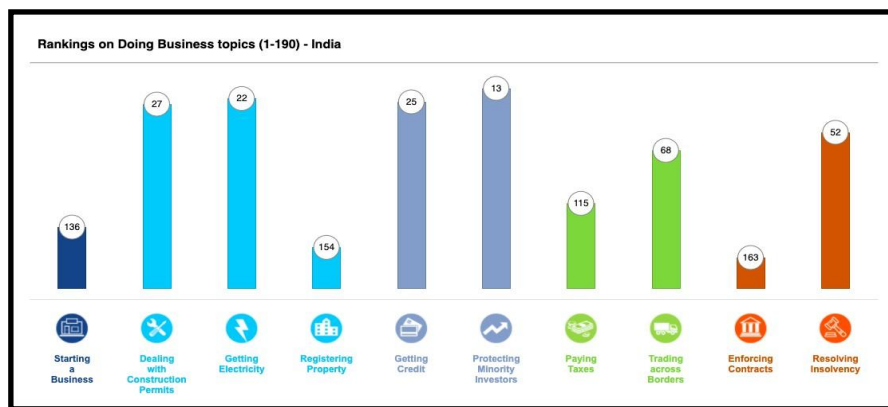
SOURCE: WORLD BANK

CONCLUSION

The final equation has an adjusted R-squared value of 0.9527, essentially connoting that the regression doesn't explain our country's economic growth in its entirety. Thus, it is essential to take into consideration the effect of omitted variables that may or may not lead to significant biases. These variables are factors that have been omitted for the present study, but they may have potentially been of higher significance for the study. Education, Natural resources, Rule of Law, Climate, Physical Capital and Political Stability, are some factors that, if incorporated, could have exhibited both a higher degree of collinearity with the stated explanatory variables and higher correlation with respect to the dependent variable.[19]

Finally, to conclude, the research that has been conducted has immense significance in formulating India's Economic Policies and decision-making processes. Thus, keeping in mind the main objective of all the government entities, i.e., maximum economic welfare, fewer barriers to trade, and economic policies promoting international cooperation, is undoubtedly a key to economic prosperity.

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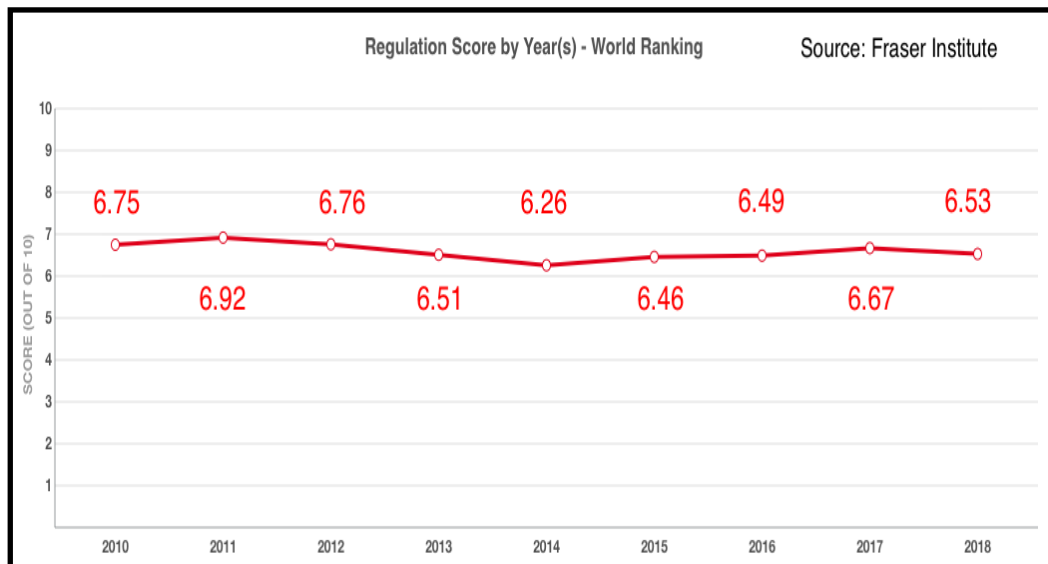
APPENDIX

Figure 1

Figure 2

Figure 3

Figure 4