

## Assessment of Trade Before and After the WTO: A Case Study of India

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### **Abstract**

*This research paper analyzes the trade of India before and after the World Trade Organisation. The Indian economy has experienced a bigger transformation in trade after the implication of WTO. On January 1, 1995 when World Trade Organization (WTO) came into existence the entire economy of the world affects in respect of international trade because WTO framed the new global trade rules for international trade. This research is concerned with the implications of WTO with mention to India. How much trade has been increased by India after the implementation of the WTO? To analyze the impact of WTO on foreign trade of India the study is divided into two parts ten years before and ten years after the WTO. How much the agriculture and industrial sectors were contributing in sustaining the trade of the nations before the WTO and how it is doing after the WTO. It concluded that the trade of India has not been increased up to the expectations that results in to low gaining of benefits from world trade.*

**Keywords:** *WTO, India, Exports, Imports, International Trade, Agriculture, Industry.*

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## **Introduction**

This research paper analyses the foreign trade of India during the pre and post WTO. On January 1, 1995 when World Trade Organization (WTO) came into existence the entire economy of the world affected in respect of international trade because WTO enclosed the new global trade rules in the form of TERIFF and NONTERIFF for in international trade. This study is concerned with implications of the WTO with reference to India. How much trade has been increased by India after the implementation of the WTO? The enhance in trade can result into benefits of the WTO. To analyses the impact of WTO on foreign trade of India the study is alienated into pre-post WTO. How much the agriculture and industrial sectors were contributing in boosting the trade of the nations before the WTO and how it is doing after the WTO. Although India had adopted the process of liberalization in 1991 but with the implementation of World Trade Organization (WTO) in 1995 there increased openness in trade at global level. Establishment of the WTO was one of the motivating factors behind the open economic policy pursued by the policymakers of these countries.

## **Methodology**

The different studies forecast that due to the WTO world trade has increased in developing economies. Whether the WTO has affected the Indian economy in the same way is focus of our study. This paper analyses that trade composition and volume of trade of India during pre and post WTO using pre-post approach. The study is based on the econometric analysis through regression, t-test to see the effect of explanatory variables i.e. Value added by industry in GDP in percentage, Value added by Agriculture in GDP in percentage, World Income (US \$ Billions), Gross Domestic Product of countries (US\$ Million) on trade volume before and after the WTO. This analysis covers the data for the period 1986-2005, i.e. ten years pre and ten years post the WTO. The study is based on secondary data that has been taken from World Bank website

## **Analysis of the Results**

The trade volume in India has also continuously raised pre and post the WTO with variation. Although the compound annual growth rate of trade during pre WTO (6.72%) was higher than the growth rate in pre-WTO (6.46%). On the other hand during the post-WTO the CAGR of world trade has been increased from 1.84% to 2.25%. The trade quantity of India also increased after the WTO implementation,

though not at so good rate as compared to world trade. This is due to the new challenges faced by Indian economy imposed by WTO. For India, the imports and exports have been increasing for all the years during pre and post the WTO. The imports remained more than exports for whole of the years during pre and post the WTO, except 1991 and 1993. The growth rate of exports has fallen within 10 years after the implementation of WTO. The comparatively slower growth rate of exports as compared to imports has contributed more towards the slower growth rate of trade. It may be concluded that the WTO has affected the trade of India. It is obvious that within ten years after the WTO, there remained higher growth rate of imports as compared to exports

### India's foreign trade pre-WTO

The Econometric table-1 shows the predictable results of model of India for the data-sets of pre WTO which focus on the four predictors, whether they are statistically significant and, if so, the direction of the association. The share of industrial sector in GDP (IN.IND., t=.544) is not significant (p=0.610), but has positive impact on international trade of India. After that, the effect of agriculture sector (IN.AGRI. t=-2.063, p=.094) is significant and its coefficient is negative indicating that the agriculture sector is negatively affecting the international trade of India. India's GDP is also significant t-value (IN.GDP -2.020) but the coefficient is negative which would indicate that the negative effect. Finally, the world GDP (WD.INCOM, t=9.840, p=.000) have statistically significant values for the data set pre WTO and indicate that positive effect.

Table 1: Model Results for India (Pre WTO)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95% Confidence Interval for B		Correlations		
	B	Std. Error				Beta	Lower Bound	Upper Bound	Zero-order	Partial
(Constant)	1.374	24.999		.055	.958	-62.887	65.635			
IN.IND.	.347	.637	.060	.544	.610	-1.290	1.983	.421	.236	.016
IN.AGRI	-.659	.320	-.202	-2.063*	.094	-1.481	.162	-.846	-.678	-.062
IN.GDP	-2.190E11	.000	-.206	-2.020*	.099	.000	.000	.668	-.670	-.061
WD.INCOM	5.062E-13	.000	.948	9.840*	.000	.000	.000	.989	.975	.295

Dependent Variable: Trade (percentage of GDP) No. of Observations = 10  
 \* denotes significant at 5 percent level and \*\* denotes significant at 10 percent level.

The table 2 is the Model outline of the variables. The R value is .998, which represents the simple correlation. It indicates a high degree of correlation. The R<sup>2</sup> value indicates how much of the dependent variable, “India’s trade as a percentage of GDP”, can be explained by the independent variable, “of explanatory variables i.e. Value added by industry in GDP in percentage, Value added by Agriculture in GDP in percentage, World Income (US \$ Billions), Gross Domestic Product of countries (US\$ Million)”. In this case, .99.6% can be explained, which is very large. The F-test \*(F=276.755) is statistically significant, which means that the model is statistically significant.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.998(a)	.996	.992	.31235	.996	276.755	4	5	.000	2.803

a Predictors: (Constant), WD.INCOM, IN.INDUS, IN.AGRI, IN.GDP

b Dependent Variable: IN.TRAD

India’s foreign trade post-WTO

The table 3 shows the analysis of India’s foreign trade post-WTO. The t-test for industrial sector in GDP .953 have predicted positive value, but not statistically significant, meaning that the regression coefficient for industrial sector in GDP affect the India’s trade but not significant. Note that t-value for agriculture sector is (-.965) which is remained negative effect even after post WTO. There is pragmatic change in India’s GDP during post WTO with significant t-value (IN.GDP 2.097). The fourth, explanatory variable the world GDP is not statistically significant after WTO and indicate that negative effect.

Table 3: Model Results for India (Post WTO)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
	B	Std. Error				Beta	Lower Bound
(Constant)	17.440	56.802		.307	.771	-128.575	163.455
IN.IND.	.704	.739	.110	.953	.384	-1.195	2.603
IN.AGRI	-.761	.788	-.347	-.965	.379	-2.786	1.265
IN.GDP	3.441E-11	.000	.756	2.097**	.090	.000	.000
WD.INCOM	-1.000E-13	.000	-.170	-.283	.789	.000	.000

Dependent Variable: Trade (percentage of GDP) No. of Observations = 10

\* denotes significant at 5 percent level and \*\* denotes significant at 10 percent level.

The table 4 reflects the Model outline of the variables after post WTO. “R” column represents the value of R, the multiple correlation coefficients. R can be considered to be one measure of the quality of the prediction of the dependent variable i.e. India Trade. A value of (.995, in this example, indicates a good level of prediction. The “R Square” column represents the R<sup>2</sup> value (also called the coefficient of determination), You can see from our value of 0.990 that our independent variables explain 99% of the variability of our dependent variable. The F-test (130.015) is statistically significant, which means that the model is statistically significant.

**Table 4:** Model Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin - Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.995(a)	.990	.983	.84991	.990	130.015	4	5	.000	2.207

a Predictors: (Constant), WD.INCOM, IN.INDUS, IN.AGRI, IN.GDP

b Dependent Variable: IN.TRADE

## Conclusion

On the basis of econometric and non-econometric analysis of the study shows the impact of the WTO on international trade of India has diverse results. The WTO has affected the trade somewhat positively, but not as expected. The ending of the study is summarized below:

- : The trade volume of India has increased after the WTO implementation, though not at so good rate as compared to world trade. This is due to the new challenges faced by Indian economy imposed by WTO.
- The ratio of industrial sector in GDP is not significant but has positive impact on international trade of India. The industrial sector in GDP after WTO have predicted positive value, but not significant.
- The rate of increase in imports of India is greater than rate of increase in exports even after the WTO, which shows that India still face the deficits in their balance of trades. The effect of agriculture sector is negatively affecting the international trade of India because the WTO caused serious concern to the performance of agriculture sector and food security. The negative effect of agriculture sector remained continue even after WTO.
- The world GDP has positive impact on India’s trade during pre WTO but it has negative effect after WTO. The imports remained more than exports for whole of the years during pre and post the WTO, except 1991 and 1993.

The relatively slower growth rate of exports as compared to imports has contributed more towards the slower growth rate of trade. It is obvious that within ten years after the WTO, there remained higher growth rate of imports as compared to exports.

- India's GDP is also significant t-value but the coefficient is negative which would indicate that the negative effect. There is pragmatic change in India's GDP during post WTO and positively affect the trade of India.
- The trade volume of India was rising before the WTO. The country has not only maintained the trend but rate of growth in also increased. India is the only country, who has gained advantage of the WTO in the perspectives of international trade.
- For India, both the growth rate of exports and imports has risen after the WTO. The contribution of industrial sector to the nation's international trade has been increased after the WTO.

Thus ,WTO has been playing a very important role in India's foreign trade. It needs further research to see why India has not benefited from the WTO as per expectation while the major speculated beneficiaries of the WTO were the developing countries. As concerned the econometric results, we have to wait for some years to have the robust results about the impact of different variables on international trade of the nations before and after WTO. It is suggested that being a part of the WTO, India enjoys the most-favored nation position instead of accepting the agreements which are against the national interest. The other implications of WTO which are concerned with India must be study for research. However as mentioned in the above analysis there is serious and urgent need to re-analyse the policy followed by India in the circumstance of increasing competition and directness at global level

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