

THE MOST APPLICABLE SAMPLE OF PROTECTIONISM: EXPORT-ORIENTED INDUSTRIALIZATION

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A developing country may have two different paths aimed at industrialization policies according to its foreign trade perspective. The first one is import substitution industrialization based on protectionism and the second one is the policy of export-oriented industrialization aimed at integration in the international economy. Export-oriented industrialization is a strategy related to the world for connecting local economy to global economy. At the same time, countries that have to shape their allocation of resources according to foreign demand are compulsory to be open for international trade. The reason is that this strategy reaches to success if developed countries open their markets to developing or less developed countries. Whereas, it's clearly known that developed countries open their market to other developed countries. But in Turkey, when the import substitution industrialization policies that have been applied since 1963 started to be inadequate, export-oriented industrialization policy was adopted with the decision taken within the framework of the Stabilization Program on January 24th 1980 and while the significant increases were performed in Turkey's export volume as a result of positive developments created by these policies, the composition of export products has changed. The best evidence of this change is incredible progress that is seen in export item of manufacturing industry which is one of the most important industrial sectors in the economic structure.

Key words: Industrialization, Growth Model, Protectionism

Jel Classification: O40

1. Introduction

As the beginning years of Turkish Republic, the priority has been given to development strategies of industry sector and necessary steps have been taken for industrialization to be performed by the private sector within free market conditions. But, since 1930 that industrialization efforts accelerated in Turkey, industry has had a structure based on import substitution of basic consumer goods. Turkey that defended liberal applications about industrialization strategies quite after the 2nd World War implemented import substitution strategy which is formed by import bans, quotas and high import barriers with foreign exchange bottleneck in 1953. Thus, Turkish economy had a crisis and by the way a period contained unplanned growth because of the inflation and foreign payment deficit. The main cause of this crisis in economy is that Turkey was dragged into an unplanned development quest by forcing internal and external resources. Turkey that applied import substitution strategy especially in the half of the 1950s unconsciously performed inward oriented industrialization policies between 1960 and 1970 within the framework of plans and programs that has been determined. A transition to a liberal foreign trade regime has been realized for the first time in 1970 with the devaluation, but difficulties that emerged during the execution of policies relating to this regime in 1974 brought inward oriented strategies into agenda again. Inward oriented strategies applied successfully until 1977 with the help of foreign debt and foreign exchange belongs to workers abroad in those years. However industrialization policies had an evil period after oil crisis reached a global dimension in 1978. So, there were no way without applying outward oriented industrialization strategy for Turkey when it was 1980.

Essentially, Stabilization Program that represents a fundamental change in terms of industrial strategies which're applied in our country came into force on January 24th 1980. Turkey abandoned import substitution industrialization strategy and adopted to export-oriented industrialization model

with this program. Thus, approach about concentrating to just investment and intermediate goods is left for industry to focus outward and the path of liberalization on imports is followed for the country's industrial structure to be put into order. Especially some important works about the liberalization on imports after 1984, provided black market and smuggling to disappear, foreign capital inflows to increase and our country to become industrialized through the theory of dynamic comparative advantages. Also monopoly of the government was removed in the production of tea and cigarette with the decision of supporting to private entrepreneurship. Briefly, all applications were accelerated for manufacturing industry to open out. While manufacturing industry was expanded foreign markets with the implementation of applications; expansion of market volume offered an opportunity for developing to sub-sectors that have insufficient domestic demand. Producing for foreign markets caused capacity utilization rates to increase, firms to expand their scale and to be led to new investment. Thus, withdrawing of costs because of export-oriented industrialization provided competition to increase in the market and domestic quality reached a higher level with reflection of competitive environment that was formed in the international market through domestic production. But most of all, Turkey noticed existence of the world without itself (Karluk, 2004: 237).

2. Theoretical Study

Countries have preferred to apply a development policy for purposing to realize exportation of goods that have had a comparative advantage. Clearly this policy that is named as the export-oriented industrialization strategy means that available sources have to be used in manufactured goods for exporting rather than goods for consuming domestically (Alkin vd., 2006: 474).

The basic purpose to implement export-oriented industrialization strategy is to increase the exportation of goods manufactured domestically by shifting important parts of the country's sources to export-oriented manufacturing sectors (Yılmaz, 1985: 72). In this context, goods that will be imported, exported and had a comparative advantage by the country have to be determined in details for implementing this strategy in a healthy way. Because the most important thing in this strategy is the selectivity, in other words this application has been supported just for industries with growth potential. Also underlying philosophy of this strategy is to get an excess from supply of goods manufactured in industries with comparative advantage and to sell this excessive of supply in the international markets (Çelebi, 1990: 24). Thus, both the barrier of narrow domestic market will be removed and the production will be realized in optimum scale. In this way, manufacturers will have production facilities in accordance with factor endowments by obtaining cheaper inputs from foreign market and therefore they'll separate the great part of their source to R & D with aim to investigate the methods that will provide quality to increase and costs to decrease.

Export-oriented industrialization is a strategy related to the world for connecting local economy to global economy (Carbaugh, 2002: 251). But countries that have to shape their allocation of resources according to foreign demand are compulsory to be open for international trade. The reason is that this strategy reaches to success if countries open their markets to others.

2.1. Policies Of Export-Oriented Industrialization Strategy

2.1.1. Application Of A Realistic Exchange Rate

Exchange rate policy is one of the most applicable policies for the countries that have chosen the path of export-oriented industrialization. Because the main condition of outward is to be abandoned of fixed exchange rate system that is the source of excessive assessment in the external value of national currency and to be moved to a flexible exchange rate system (Meier, 1980: 319). In this way, both exchange rate flexibility is provided and a single exchange rate system is adopted rather than the multiple one. Also, high exchange rates that is formed in the free market with the transition to a flexible exchange rate will provide a protective effect to import-competing industries. In other words, exchange rate will protect domestic production rather than high tariffs.

2.1.2. To Be Taken Measures For Increasing Efficiency Of Production

Although financial measures such as exchange rate adjustments have a big importance for encouraging exports, but also reel measures that increase production and return have to be taken in foreign trade sectors. In this regard, steps taken by governments are as follows; selecting appropriate technology, training workforce, completing infrastructure, using optimum capacity and finally realizing necessary institutional arrangements (Dülgeroğlu, 1988: 82). But production in a country that have higher production costs and have no marketing channel yet will not able to catch an international standart from the way of quality and packaging. Therefore, governments have to inform exporters about international quality, packaging and norm.

2.1.3. Liberalization Of Foreign Trade

Export-oriented industrialization is not only to increase exports, but also is the liberalization of all goods and service markets; in a sense is to ensure integrity with the outside world. So, the necessary work should be realized for emphasizing the importance of outward oriented industrialization and accordingly all kinds of goods and services that can make the country to earn foreign exchange should be determined immediately. Primarily, protectionism based on quotas is more dangerous than protectionism based on tariffs. For that reason, abolition of quotas is known as a first step of liberalization of import. Tariff reductions follow this movement in an appropriate time period. Thus, the first movement towards liberalization of foreign trade is realized with these decisions taken by government. But, foreign exchange regime and international capital flows should be taken place within the scope of liberalization as well as foreign trade for strictly mentioning from liberalization. Otherwise, flow of international capital will become difficult for the countries that do not expand the scope of liberalization.

2.1.4. To Be Brought Domestic Markets To A Level That Can Compete With Foreigners

Governments provide assistance for being successful in industrialization breakthrough about training to exporters, creating an export awareness in economy, introducing goods in foreign markets and supporting exporters to open foreign markets (Seyidoğlu, 2001: 607). Sometimes facilities such as making an exception about tax refund, tax and duty, exempting imported inputs from customs duty, allocating foreign exchange and supplying cheap loans are provided to export industries. But World Trade Organisation (WTO) as an example has shown a reaction to these applications for causing a huge revenue loss in countries' budgets and importantly for damaging the competition among countries. Also, bureaucratic processes are tried to be minimized for domestic markets which wish to compete with the outside world and so that both exports are accelerated and also waste of resources are prevented too.

2.2. The Advantages Of Export-Oriented Industrialization Strategy**2.2.1. Positive Impacts On Economic Growth**

Encouragement of exportation of intermediate and investment goods creates significant impacts on economic growth particularly in the context of this strategy because of the export-oriented industrialization is mainly based on the relationship between foreign trade and economic growth. It is possible to count some of these effects such as shift of resource to areas that have the comparative advantages, the increase in employment in countries where the labor factor is abundant, the usage of new technologies by firms for foreign competition and scale expansion (Krueger, 1974: 286-287).

2.2.2. To Be Gained A Dynamism To The Country's Economy

Countries that adopted this strategy need to diversify export products and markets for intending to produce according to foreign demand and consequently they change their economic structures. Primarily, countries tending to more advanced production techniques and this situation allows them to have more production. Countries that meet to large markets with the expansion of export capacity increase their foreign exchange income and accordingly purchase investment goods from foreign countries easily too. As a result, economy has a dynamism while the condition were being provided for establishment of new industries (Serin, 1971: 37).

2.2.3. Resistance Against External Shocks

One of the advantages of export-oriented industrialization strategy is that the country can maintain its resistance against shocks. Because domestic production of many products from consumer goods to intermediate and investment goods is realized in economies that apply this strategy. Thus, when these economies meet to external shock, they can restrict imports of goods that compete with domestic production easily for overcoming this shock.

3. Research Methodology

The aim of this research is to examine the effects of changes occurred in Turkey's industrial strategies on Manufacturing Industry Export after 1980. In this respect, variables that taken place in our research model are listed below under three headings:

- Industrial Production Index (IPI) for representing industrial strategy,
- Total Export Value (TEV) for representing export intensity,
- Manufacturing Industry Export (MIE) values for representing exportation of manufacturing industry.

The natural logarithms of all variables in our econometric model are taken for providing a flexible interpretation of these variables. The data related to the variables in our model was obtained from TUIK official web site (Turkish Statistical Institute, 2014) and Turkish Republic Central Bank Annual Reports

(Central Bank of Turkish Republic, 2014) and it has seen that the use of "E-views-7" software package for econometric analysis is appropriate for analyzing this data (See Appendix).

Econometric methodology examines the stability properties of time series at first. This series should be stable for searching statistically significant relationship between variables. The series that have a different mean and variance within a time period are called as 'non-stationary or unit root' series. It is possible to have a spurious regression matter in the case of studying with non-stationary time series. That's why, results from regression analysis won't reflect the real relationship between variables. Regression analysis with non-stationary time series can reflect a real relationship if there is a co-integration relationship among time series data. Although several methods are available for searching the stability properties of time series, two tests are widely used from the way of literature: the first one is Augmented Dickey-Fuller (ADF) Test and the second one is Phillips-Perron (PP) Test. Both ADF and PP unit root tests were used for time series stability analysis of these variables. Zero hypothesis states that unit root is available, that means the series aren't stationary and alternative hypothesis states that unit root isn't available, that means the series are stationary for ADF and PP tests. If test statistics are smaller than critical values, zero hypothesis is rejected for both of these tests. Consequently, ADF and PP tests were applied by using a model that have both constant trend and no constant trend in unit root test taken place in application part.

However, if the difference among variables is stationary rather than increase or decrease over time; a co-integration relationship can exist among these variables. In such a situation 'Engle-Granger Co-integration Analysis' is used for determining relationship among series taken place in analysis. But this analysis isn't preferred in cases where variables are more than two, because of the co-integration relationship is formed more than one when the number of variable was more than two in analysis. Also studies revealed that Johansen co-integration (VAR) analysis receives more powerful results than the others. After Johansen co-integration (VAR) analysis applied in our study, Granger Causality Test is given last for determining the direction of relationship among variables.

4. Results

4.1. Unit Root Analysis

ADF test results are as follows:

In the first stage, ADF Unit Root Test was applied for determining the values of level of variables. The result of this test as it seemed from Table – 1 is like that; "H0 hypothesis suggested that series include unit root is rejected because of the values of ADF test statistics are lower than critical value of McKinnon for 5% significance level. So, it was accepted that the series are stationary.

Table – 1: ADF Unit Root Test Results

Variables	Constant	Constant & Trend
IPI	-2,977110 (0)	-3.597597 (0)
MIE	-3,562882 (0)	-3,595026 (6)
TEV	-2.981038 (6)	-3,587682(5)
DIPI	-4,945798 (0)*	-5.223135 (0)*
DMIE	-3,541616(4)*	-4,289285 (5)*
DTEV	-3,841862(4)*	-3,974044(5)*

McKinnon (1996) Critical Values

Significance Level	Constant	Constant & Trend
1 %	- 3,69987	-4,339330
5 %	-2,976263	-3,587527
10 %	-2,627420	-3,229230

* The static level is 5 %.

- 'D' is the difference processor for the first degree. Test statistics includes both constant and constant & trend values.

-According to Schwarz Information Criterion, figures in brackets for ADF test are minimum delay values that have no autocorrelation.

The results of PP Unit Root Test applied in the second stage for determining the level of stationary of series are also given below:

PP test results show us that; "H0 hypothesis suggested that series include unit root is rejected because of the values of PP test statistics are lower than critical value of McKinnon for 5% significance level. It means that the series are stationary.

Table – 2: PP Unit Root Test Results

Variables	Constant	Constant & Trend
IPI	-2,977110(7)	-3,755759(3)
MIE	-2,993730(13)	-4,273277(10)
TEV	-2,987110(9)	-3,595577(8)
DIPI	-4,918770(4)*	-6,156371(7)*
DMIE	-4.789895(1)*	-7.089366(15)*
DTEV	-4.737074(0)*	-6,501041(11)*

McKinnon (1996) Critical Values

Significance Level	Constant	Constant & Trend
1 %	- 3,69987	-4,339330
5 %	-2,976263	-3,587527
10 %	-2,627420	-3,229230

* The static level is 5 %.

- 'D' is the difference processor for the first degree. Test statistics includes both constant and constant & trend values.

- Figures in brackets for PP test are Newey-West optimal adaptation delays.

Both of these unit root tests that analyse H0 hypothesis suggested that series aren't stationary and H1 (alternatif) hypothesis suggested that series are stationary offered the result that all variables include unit root because of their level and consequently they aren't stationary. But they became stationary in first difference. Also PP Test supported to results of ADF Test. For that reason this serie was determined as serie I (1) because of the stationary is provided in first difference.

4.2. Johansen Co-integration (VAR) Analysis

Two likelihood ratios (LR) are used in test of Johansen co-integration vectors. These are Trace and Max. Eigenvalue Statistics. The hypothesis testing of these statistics is as follows:

Zero-hypothesis for Trace Statistics;

H0: Maximal 'r' co-integration test is available.

Zero-hypothesis for Max. Eigenvalue Statistics;

H0: Maximal 'r+1' co-integration test is available.

Johansen co-integration test results gotten through the hypothesis above are given in Table – 3. More clearer words, co-integration test results about whether Industrial Production Index (IPI), Manufacturing Industry Export (MIE) and Total Export Value (TEV) have a common trend in the long run are taken place in this table.

Table – 3: Johansen Co-integration (VAR) Test Results

Variables : IPI – MIE – TEV Delay Range (In The First Differences) 1 to 1				
Zero Hypot.	Eigen Value	Trace Statistics	Critical Value	0,05 Prob.**
No*	0,823441	52,37338	29,79707	0,0000
Most 1	0,293370	9,020881	15,49471	0,3634
Most 2	0,013495	0,339671	3,84166	0,5600
There is 1 co-integration vectors in Trace test for 5 %.				
Zero Hypothesis	Eigen Value	Max. Eigen Value Statistics	Critical Value	0,05 Prob.**
No *	0,823441	43,35250	21,13162	0,0000
Most 1	0,293370	8,681210	14,26460	0,3136
Most 2	0,013495	0,339671	3,84166	0,5600
There is 1 co-integration vector in Max. Eigenvalue test for 5 %.				

* Hypothesis is rejected for 5 %.

The values obtained from Johansen co-integration test proved that a co-integration relationship is available among these three variables. There is 1 co-integration vectors in Trace test while Max. Eigenvalue test was having 1 co-integration vectors for 5 %. It means that Industrial Production Index (IPI), Manufacturing Industry Export (MIE) and Total Export Value (TEV) have a relationship in the long run. So, the presence of co-integration relationship among these three variables revealed the necessity for using Granger Causality Test.

4.3. Granger Causality Analysis

Granger Causality Test is a model of Vector Autoregression (VAR). VAR model is so sensitive to delays. For that reason VAR model should be applied as a test that include common lagged values of variables which will be applied in the Granger Causality Test. Granger Causality Test was applied to a model determined appropriate number of delay by Schwarz Criteria in the context of VAR model and test results were presented in Table – 4.

Table – 4: Granger Causality Test Results

The Main Hypothesis	Observation No	F Statistic	Prob.
TEV doesn't cause to MIE MIE doesn't cause to TEV	33	1,23863 1,18278	0,3111 0,3270
TEV doesn't cause to IPI IPI doesn't cause to TEV	33	2,96737 7,32005	0,0744 0,0041*
IPI doesn't cause to MIE MIE doesn't cause to IPI	33	7,50569 3,19548	0,0037* 0,0625

* Hypothesis is rejected for 5 %.

When Granger Causality Test results given in Table – 4 were examined; it seems that statistically significant causality relationship is available for 2 directions without directions from Total Export Value (TEV) and Manufacturing Industry Export (MIE) to Industrial Production Index(IPI) and from Total Export Value (TEV) to Manufacturing Industry Export (MIE) in the level of 0,05. Directions of causality among these three variables are shown in Table – 5 as a figure.

Table – 5: Directions Of Causality Among Variables

Variables	Direction Of Causality	Relationship
<i>IPI – TEV</i>	→	One – Way Causality
<i>IPI – MIE</i>	→	One – Way Causality

5. Conclusion

The main purpose of our study is to analyse how the changes occurred in exportation of manufacturing industry realize in the context of export-oriented growth model in Turkey in the period after 1980. For this purpose, an econometric analysis about changes observed in variables that are descriptives of industrialization strategies and changes in manufacturing industry export values was presented in this study.

According to the Granger Causality Analysis validated for Turkish manufacturing industry, export values of manufacturing industry is affected by export-oriented growth model. Because the results of causality test applied in analysis revealed the presence of interaction between industrialization strategies and variables related to the exportation of manufacturing industry. Thus, the situation of Turkish manufacturing industry that upgraded its export volume to 143 billion dollars and had 93,9 % of total exports in this way by the year 2012 while it was only 36,5 % of total value with 1 billion dollars in 1980; has confirmed the results of our analysis.

However, the presence of export-oriented industrialization strategies implemented during this period on the exportation of manufacturing industry is proved through the evidence of analysis; it is concluded that the obtained values did not occur at the expected level and the overall structure of the manufacturing industry did not show a well-established change. The main reasons for attaining to this result are; the abandonment of targets of export-oriented since 1990s, neglectfulness through the

manufacturing industry in this period and especially deep effects of 1994, 1998, 2000, 2001 and 2008 economic crises seen in Turkey on the manufacturing industry.

By the way, manufacturing industry has lost competitiveness against the outside world; while it was negatively affected by economic crises in the country. During the period of our study, almost worldwide exporting of all products produced in the manufacturing industry has passed into the hands of Far Eastern countries such as China, Hong Kong, South Korea and Taiwan. Especially since 2005, some countries such as China and India where the cost of production is very low levels have become a threat for the exportation of the Turkish manufacturing industry.

Therefore, Turkey should take some measures immediately to reduce the cost of production inputs, if it wants to increase its competitiveness against these countries for the future of own manufacturing industry. So, production costs should be kept under control with some measures taken by government such as; reducing energy costs and tax credit commensurate with the rate of employment, extending maturities and lowering interest rates on loans taken place in the production and thus the effectiveness of manufacturing industry should be increased. Because, while a number of European entrepreneurs was shifting their investments into some countries such as China and India producing with lower costs; a number of European Union countries that bring constraints to products produced by so countries shifted their productions into other European countries such as Hungary, Poland, Romania and Bulgaria that is geographically closed and have lower production costs again. In this context, Turkey should use the advantage of having a good geographical location by removing the problem of high production costs with several measures mentioned above.

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Appendix

Appendix – 1: The Rate of Manufacturing Industry Export in Turkey's Total Export Volume			
Years	Total Export Value (TEV)	Manufacturing Industry Export (MIE)	The Rate of Manufacturing Industry In Total Export
	(1000\$)	(1000\$)	(%)
1980	2.910.121	1.063.236	36,54
1981	4.702.934	2.293.513	48,77
1982	5.745.973	3.442.608	59,91
1983	5.727.833	3.657.851	63,86
1984	7.133.603	5.133.156	71,96
1985	7.958.009	6.024.935	75,71
1986	7.456.725	5.312.508	71,24
1987	10.190.049	8.054.943	79,05
1988	11.662.024	8.924.376	76,53
1989	11.624.691	9.287.536	79,89
1990	12.959.287	10.503.599	81,05
1991	13.593.462	10.829.757	79,67
1992	14.714.629	12.428.546	84,46
1993	15.345.067	12.945.203	84,36
1994	18.105.872	15.674.019	86,57
1995	21.637.041	19.260.113	89,01
1996	23.224.465	20.525.760	88,38
1997	26.261.071	23.312.799	88,77
1998	26.973.951	24.064.586	89,21
1999	26.587.225	23.957.812	90,11
2000	27.774.906	25.517.540	91,87
2001	31.334.216	28.826.014	92,00
2002	36.059.089	33.701.646	93,46
2003	47.252.836	44.378.429	93,92
2004	63.167.153	59.579.116	94,32
2005	73.476.408	68.813.408	93,65
2006	85.534.675	80.246.109	93,82
2007	107.271.750	101.081.800	94,23
2008	132.024.528	125.185.258	94,82
2009	102.142.613	95.449.246	93,45
2010	113.883.219	105.466.686	92,61
2011	134.906.869	125.962.537	93,37
2012	152.461.737	143.193.911	93,92

Appendix – 2: Industrial Production Index of Turkey	
Years	Industrial Production Index
	(%)
1980	22,2
1981	24,6
1982	27,3
1983	30,3
1984	33,7
1985	37,4
1986	34,8
1987	38,6
1988	40,1
1989	41,2
1990	45,4
1991	46,8
1992	48,9
1993	51,9
1994	48,6
1995	52,8
1996	55,9
1997	61,2
1998	62
1999	59,7
2000	63,3
2001	57,8
2002	63,3
2003	68,8
2004	75,5
2005	86,1
2006	92,4
2007	98,9
2008	98,3
2009	88,6
2010	100
2011	110,1
2012	112,9