

Test of Pauper Labor Argument: Turkey Case

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Abstract

This paper aims to explore low cost labor advantage on export performance of Turkey. Two alternative models have been explored which shows that among the given variables there is no long term impact. Both LS and VAR technique has been adopted to find statistical significance of competitiveness determinants and the impulse-response relations. For the 1988-2006 period examined data set shows that there is a meaningful linkage as hypothesized. Findings also show that there higher wages in no way restricts international competitiveness which is very parallel with US and UK experiences.

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Introduction

Although there are serious concerns towards the national competitiveness issue, still the measure is becoming a more of a strategic issue at intergovernmental and sectorial levels. On the other hand a group of economists argue that increased economic openness holds out the promise of higher economic growth and an increasing well being of for workers, reason being high labor demand leading to efficient use of resources. The other school of economists asserts that increased economic openness present a potential threat to workers. Similar research is being conducted by (Wagner 2002), (Kandil, Mirzaie 2002) testing the effect of labor productivity, wages and exchange rates on international competitiveness. (Selwyn 2007) In his article uses the Global Commodity Chain (GCC) framework to investigate labour regimes in export grape production in the São Francisco (SF) valley, North East Brazil. A combination of strict northern retailer requirements and producers' ability to target export windows leads to an increasingly complex labour process. Selwyn found that, in the export grape branch are significantly better than at the beginning of its expansion, because of the labour boom. He saw the picture from labour side.

(Bussolo at al 2002) In their paper want to present empirical evidence on how labour market regulations might interact with expanded trade.with numerical model simulations of recent trade reform proposals for Chile. Previous researchs effort usually focused separately either on the significance of trade, or on the effect of labour market regulations as explanations for variations in the wage gap and labour demand. Their results show that interactions between labour market regulations and expanded trade may explain the Chilean widening wage gap. But as a result, (Aiginger 1998) It is inevitable that a dynamic evaluation of competitiveness of nations must be implemented to the ultimate goal of nations namely to increase the well being of a nation or its people. (Navaretti at a 2009) Transferring low tech manufacturing jobs to cheap labour countries is often seen by part of the general public and policy makers as a step into the de-industrialization of the European economies. However, recent contributions have shown that the effects on home economies are rarely negative.

(Abraham, Sasikumar, 2010) The implementation of the Agreement on Textile and Clothing (ATC) of the World Trade Organization (WTO) renders both threats and opportunities to India's Textile and Clothing (T&C) industry in the wake of liberal international trade in the Sector. Firms acquire greater international competitiveness through various cost cutting and efficiency enhancing strategies. The question they try to ponder on was, what route does Indian firms take to join the international export market in T&C. Empirical analysis, using Tobit estimation techniques, supported the view that increasing the share of low cost labour was an important route through which export performance of the Indian firms in T&C was enhanced.

There is another group of economists who deny the importance of national competitiveness especially in a world of flexible exchange regimes (Cooper, 1961; Suntum, 1986). Recent era in international globalization can be summarized as the rebirth of "pauper labor argument" Industrialized countries have rigorously used the concept as a rationale for decreasing competitiveness in international markets, while developing focused on the so what humanitarian abuse of low waged workers. This study applies to export competitiveness of Turkish Economy.

The major objective is to contribute towards wage sensitivity and its direction while also employing determinants as labor productivity and exchange rates. The first phase of the study employs least squares test to verify the statistical significance of the above cited variable interaction. While during the second phase we would like to employ VAR analysis to test long run impact of innovations on export competitiveness.

Data and stylized facts

All data comes from Central Bank of the Republic of Turkey, for the 1988-2006 period and at a quarterly form. Wages include regular pay and have been calculated as an hourly wage. All data used in the model are in dollar values. Among the data being used, availability of physical capital formation do not exist at a quarterly level thus as a proxy q/l (output per man) has been used. This variable is corrected from seasonality with X12 seasonal adjustment. X/M is the ratio of exports to imports, a measure for competitiveness, thus reflecting higher competitiveness as the X/M ratio gets bigger. Looking at the scatter diagram and the tests involved asked for logarithmic values for all variables. All data passes the ADF unit root test showing variables are first differenced stationary.

The Model

The following standard model is used to derive our specification of wages, output per man and exchange rates on international competitiveness. We will show that international competitiveness is a function of productivity, wages, and exchange rates. Assume that firms in the manufacturing (tradable goods) sector assess their international competitiveness as,

$$x/m_t = f(q/l_t, w, er)$$

where,

x_t = industry specific exports in time t

m_t = industry specific imports in time t

q_t = output of the specific sector in time t

l_t = level of employment of the specific sector in time t

w_t = hourly wages of the specific sector in time t

er_t = exchange rate at time t

To test whether parameters by sign or size vary between competitive and less competitive sectors we have used the structural change test among sector groups. Towards that goal we have adapted test of structural change. In this respect we wish to investigate the relationship between x/m , q/l , real wage and the exchange rate.

$$d \ln x/m = \alpha + d \ln q/l + d \ln rw + d \ln er \quad (1)$$

Findings

Using the OLS the regression in the first formula Exchange rate variable effected the x/m variable because of the multicollinearity. Forming the regression without exchange rate, results show that there is a positive relation between x/m and the real wage index:

$$d \ln x/m = -0,02 - 0,6017 d \ln q/l + 0,26 d \ln rw$$

	t	(-0,92)	(-1,16)	(2,09)	
	p	(0,35)	(0,24)		F=4,46

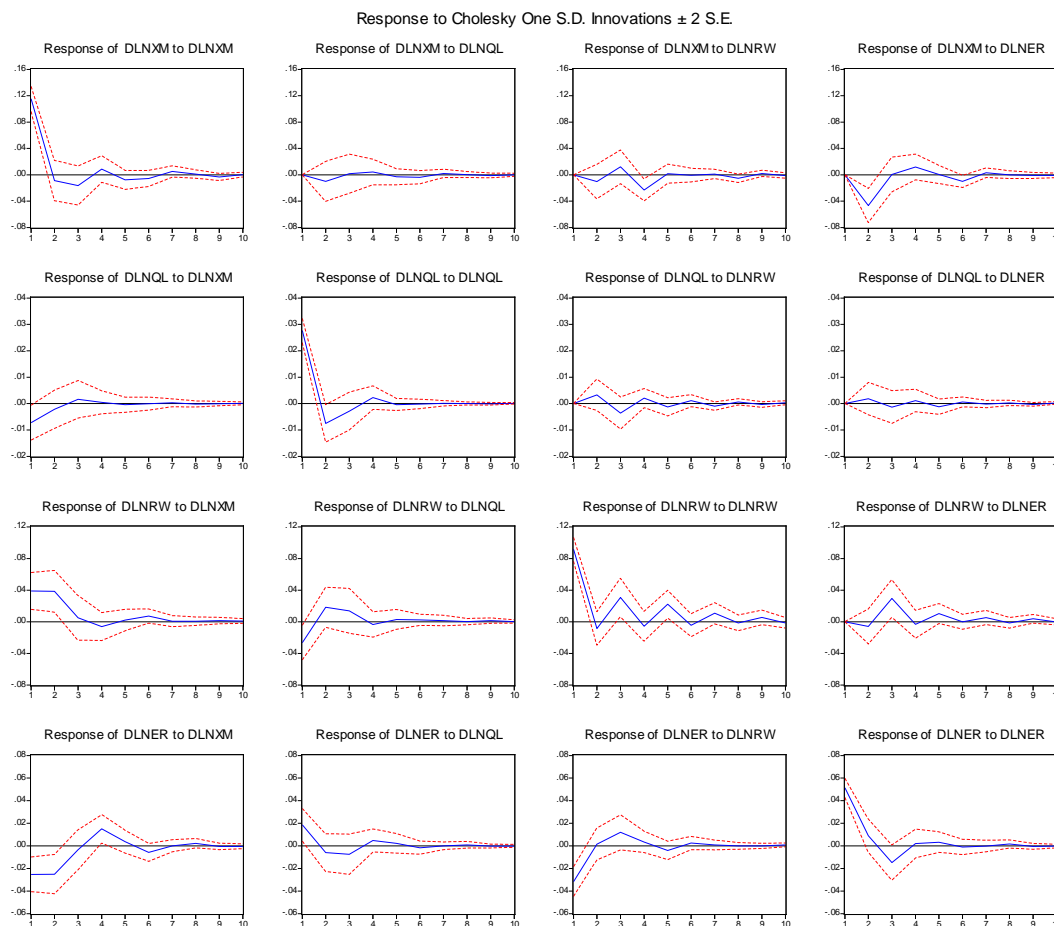
Wage variable has a positive sign showing wage increases are positively influencing competitiveness. Simply be interpreted, as labor qualifications are the key determinant to international competitiveness in Turkish economy. Thus shows the invalidity of “pauper labor argument”. Instead of low wages, rebound the economic performance and also specializing on export products effects the foreign trade. This results supports the main parts of this paper’s aim. Because it is said that there is a negative relation between the foreign trade and the wage level in developing countries.

To find the interaction between q/l and x/m , using the OLS

$$d \ln x/m = 0,013 - 1,014 d \ln q/l$$

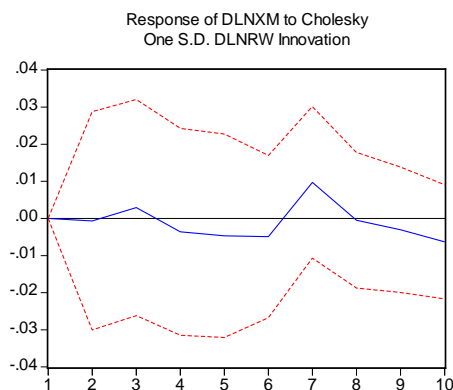
	t	(0,87)	(-2,077)	
	p	(0,38)	(0,04)	F= 4,31

Finding show that q/l has a negative sign. Showing the level of technology adapted is significantly influencing the overall competitiveness. Which could be a measure of higher technology adapted, inducing imports leading to a decrease in export competitiveness. This one more time creates evidence that absorption of technology is more important than the given technology employed. Thus unlike the classical pauper labor argument wage increases that matches with the skill differences is positively influencing the export competitiveness of sectors. Recent emphasis on higher wages leading to lower competitiveness seems to be contradicted with our findings. In an era of frequent technological changes labor capital substitutability seems to be rare case versus capital labor complementarity which is positively related by higher wages. This paper's second technique is VAR.



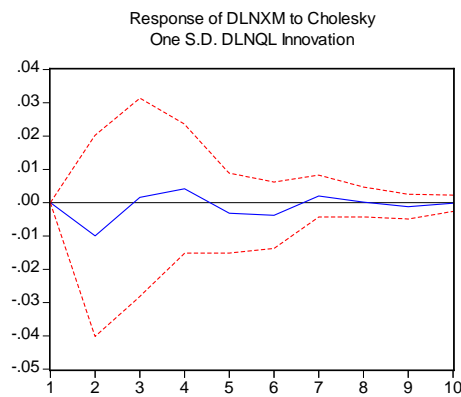
Graph: 1

There is no critical effect between the x/m , q/l and Exchange rate after getting the impulse response functions. The whole VAR's impulse-response functions are above. The response of X/M after one impulse to the real wage is graph 2. As the graph shows, there is no critical effect of real wage on export/import (x/m) ratio



Graph: 2

At the third graph the response of X/M after one impulse to the q/l ratio. In this paper q/l express the level of technology adapted. As the graph 2, we see there is no critical effect of q/l on export/import (x/m) ratio at the short run.



Graph: 3

At the third technique, Johansen cointegration a common wave is calculated between these three variables One cointegration equation fixed.

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.467338	78.39800	47.85613	0.0000
At most 1 *	0.230395	32.41768	29.79707	0.0244
At most 2	0.129290	13.30059	15.49471	0.1042
At most 3	0.042810	3.194027	3.841466	0.0739

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Normalized cointegrating coefficients:

$$\ln x/m = -1,49 \ln q/l + 0,10 \ln rw - \ln er$$

q/l variable, shows technology adopted production is connected with import and changes the trade rate negatively. Real wage effect the trade rate positively. Qualified products which produced by qualified workers have an advantage in foreign trade. Last variable exchange rate is an advantage in foreign trade. If local currency becomes more valuable export will be more expensive.

Conclusion and Recommendations

We have started with the modest goal of testing Turkish foreign trade competitiveness for the 1988-2006 period with special reference to wages, technology adaptation coefficient and Exchange rate. Both OLS and dynamic time series techniques show that higher wages are incorporated with higher export performance. An initial focus might seem contradicting while a close look will show that higher wages reflect higher labor productivity thus increasing the export competitiveness. Looking at dynamic time series analysis to verify long run consistency of our findings, we see that in the long run wage is a significant contributor to international competitiveness. Shown by very short run no responses that fade out at most within ten terms.

We have started with the modest goal of examining the export performance of the real sector in Turkey for the 1988-2006 periods. Export performance seems to be influenced by wage component. But meanwhile technology adaptation's increase changes the foreign trade negatively. This in practice shows the importance of human capital formation and knowledge spillovers among sectors.

This observation seems to be consistent with OLS, VAR and Cointegration analysis. As a policy implication it seems that Turkey at a governmental level should focus on qualified labor creation and employment versus pauper labor argument, which emphasizes low cost labor competitiveness. Similar findings in other countries, makes the case more strategic in the improvement of export performance

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