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UNIONIZATION, UNEMPLOYMENT AND ECONOMIC GROWTH; CASE OF TURKEY

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Abstract

In this study, unions' impacts on economic growth and employment in Turkey is analysed by using unit root test with structural break, cointegration and casuality tests. Empirical findings show that there is an equilibrium relationship between growth,unionization and unemployment. Unionization affects both economic growth and employment negatively. Casuality test results show that between growth and unionization there is a unidirectional casuality to unionization from growth and birectional casuality between unionization and unemployment.

Keywords: unionization, economic growth,unemployment, cointegration, causality

1. INTRODUCTION

Detailed studies in labour economics literature revealed the relation between unions and economic performance and this has been the core theme of lots of scientific studies. (Danthine; Hunt, 1994). The mostly wondered issue in the literature is whether there is a relation between unions and economic growth and if there is, is it positive or negative. However, recent studies on the effects of unions on productivity have reached both positive and negative results. The debates intensified with Richard Freeman and James Medoff's study (1984) on the effects of unions on economic performance and these debates still continue. They pointed out that unions might cause an increase in productivity. According to authors, unions help to solve the

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administration's absence and technical unproductivity by creating a "*Voice Effect*". Freeman and Medoff's study emphasized the importance of the administration's reaction against the union's voice. Nevertheless, effect of union on economic performance is ambiguous. While some authors claim that unionism affects the growth and performance positively by causing an increase on employees' morales, some claim that its effects are negative(Freeman and Medoff ,1984).

Vedder and Gallaway (2002) investigated the effectiveness of labor unionization on the economy using U.S. data, and showed clearly why unionism together with higher unemployment and lower economic growth would cause a welfare loss theoretically. they show, workers who join labor unions are expected to ask for higher wages and benefits by using their monopoly power, which will eventually lead to reduced or even negative potential economic growth and performance with high unemployment in the labor market. According to Vedder and Gallaway (2002, 105-106);

"The unions effect on economic performance depends partially on their importance in labour markets and partially on the changes of unionization rates in time. If we try to brief the experiences witnessed in 20th century, the union membership in the first three decades of the century (generally less than %10 of employment) was low, it began to become larger in the second three decades of the century (reaching one-third or so of the labor force). As for the last-third of the century, the market share of labor unions in private sector had the continuous tendency to decrease. Therefore, if unions have negative effects on economic performance, like some claims, those effects increased when unions began to weaken in the middle of the century, but began to decrease at the end of the century."

In theory there is contradictory results regarding the unions effects on employment increase. For some, unions cause a decrease in employment by causing high wages. On the other hand, authors claiming the positive

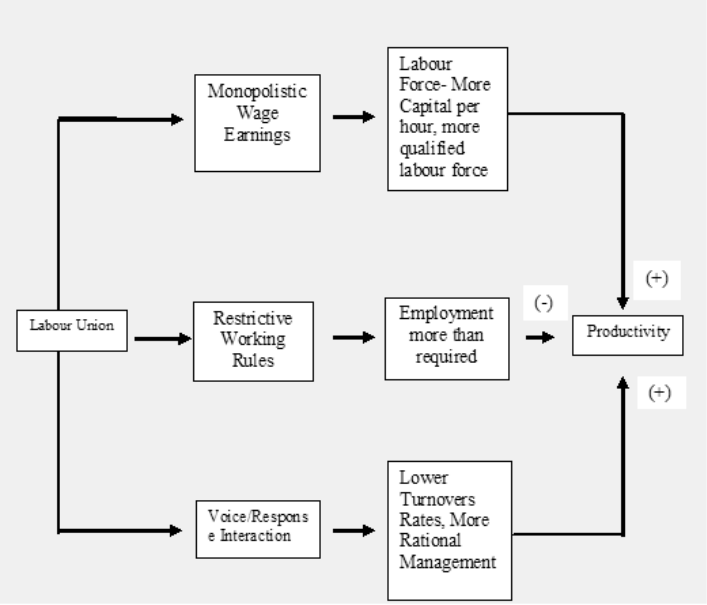

Figure 1. Trade Unions and Productivity (Source: Freeman and Medoff, 1984, p.163)

relation between unions and employment put forward the productivity increase caused by the orientation of firm to more effective methods. However, lots of studies shows that unions have negative effects on employment.

There are at least four reasons why employment increase might be slower in unionized firms than non-unionized firms. These reasons are listed below (Bryson, 2004 :479-480).

First, unions set a limit to the labour supply in order to increase the wages and this causes an increase in labour costs. Consequently, unionized firms substitute much more capital instead of labour than non-unionized firms and therefore this will weaken the growth in employment.

Second, unions make unionized firms much more reluctant in largening the labour. Because of unions' wage effect and the other costs (work security, dismissal compensation etc.) which have to be undertaken by the employer, the cost of newly hired labour would be much more higher in unionized firms than in non-unionized ones.

Third, unions could obstruct the increase in employment by affecting the sales growth negatively. Because unions take some part of the incomes coming from new investments, they cause a decrease in incomes of new investments in unionized firms. Under those circumstances, the firms behave much more reluctant in making new investments because of union existence.

Fourth, restrictive applications of union could impede the efforts of firms' plan regarding usage of labour force effectively and hamper the productivity of labour.

In contrast, there are also some arguments which emphasize that the existence of a union doesn't make any effect on employment increase or affects it positively. In fact, the case regarding the unions unreconcilation with full employment and stable wage level depends on the claim that unions increase wages more than productivity when coming closer to full employment as a result of their increasing bargaining power and wage increase cause prices increase with the . But if there are some inflationist tendencies, the reason of employment increase is not only the increase in wages, especially the wage increase stemming from unions (Zaim, 1997, 434). The arguments stressing out the positive effects of unions employment mentioned below(Bryson, 2004 :480-481).

First, albeit the unions raise wages, they may cause a productivity increase at the same time. This reality known as indirect effects of unions and may occur from the increase in labours' motivation and their loyalty and consequently its effects on the productivity and performance. Indirect effects can also be provided by unions by increasing new labour standards and encouraging industrial-based training programs financed by employers. Consequently, labour unit costs may not be so high or even may be much more low when there is a union.

Second, unions and their bargaining power can extend the seniority by making it much more attractive to work in a unionized workplace(because of job security, low turnover etc.) and that also cause cost reduction by lowering turnover.

Third, it is generally accepted that unions and employers bargain for wages and therefore employers determine the employment unilaterally. Therefore, whenever employment changes, this change happens in the context of a predictable wage level. This situation is appropriate with the model called "right to manage".

Fourth, unions can function in a non-

competing market. In that kind of a market, employers can respond their wage demands without changing employment.

As a result, in a situation where higher wages are paid in organized sector compared to non-organized sector, because of an increase in alternative cost of dismissal, the turnover level decreases. Therefore, the seniority increases and because firms would have the chance to choose the best of qualified labour, the productivity increases.

2. EMPIRICAL LITERATURE

A negative relation between unionization rate and economic performance mentioned in a number of studies. Blanchflower and others (1991) found that increase in employment is 3% slower in unionized workplaces when compared to non-union workplaces without taking the other circumstances into account for Great Britain. Booth and McCulloch (1999) reached similar results for late 1980s in their analysis covering private sector workplaces. Long(1993) found out that unionized firms' growth is 4% slower than non –unionized firms(respectively 3,7% and 3,9%) both in industry and in other sectors in Canada by using private sector workplace-level data for 1980-1985 term. Leonard (1992) showed that annual growth rate in union plants is 4% lower than non-union plants by using manufacturing sector data in California for the period of 1974-1980. Wooden and Hawke (2000) found that unions have 2,5% negative effect annually on employment by using private sector data for the period of1989-1995 period in Australia. Clark (1984) also determined a negative relation between unions and productivity in his investigation about the cement industry.

Although the negative effect of unioniziation on economic growth and employment is generally accepted in many studies, there are also some studies showing the positive effects of unionization. For instance, Kruger and Summers (1998) and Altenburg and Straub (1998) claimed that unions affect workers' morales in a positive way. Consequently, unionization can cause higher productivity and growth. Machmin and Wadhwani (1991, p.851) explored that employment increased faster in union workplaces than non-unionized workplaces in 1977-1978 term, but slower in 1979-1984 term by using firm-level panel. In this way, the authors reached the result of there is no systematic relation between employment increase and unions. Therefore, discussions about unionization and its effects on economy namely employment and growth have been going on.

However, those studies summarized above estimated union effect on growth and employment by using the ordinary least squares method (OLS). There is almost no studies investigating long term relations and casuality between variables by using the techniques developed recently. A similar study using these techniques has been held in Korea. Kim (2005) investigated the long term relations and casuality between unionization, unemployment and economic growth for 1970-2000 term. Findings show that there is a relation between unionization, unemployment and economic growth in long term. In other words, unionization is the meaningful granger cause of both economic growth and unemployment.

To our knowledge, there is hardly any empirical study analysing unionization, unemployment and economic growth in Turkey. The study done in 1956 by Sabahattin Zaim titled "Structure of İstanbul

Textile Industry and Wages" is the first study about unions. Zaim investigated the relation between wages and employment in that study(Özkaplan, 1994, 94). In this study, effects of unions on unemployment and economic growth in Turkey has been investigated by using unit root test with structural break, cointegration and casuality tests. The paper consists 3 sections. In the second section, data and methodology will be explained and the empirical findings will be assessed in the last section.

3. DATA AND METHODOLOGY

All the data used in this study are annual observations that cover the period of 1984 to 2004. Number of union workers' data is taken from the web site of Labour and Social Security Ministry 2004. Unemployment and GDP data is obtained from web site of IMF. GDP variable are converted into real values by dividing them with the consumer price index (2000=100)

Firstly, the stationary properties of the data using the Augmented Dickey-Fuller (1979) test and the Phillips–Perron (1988) test are investigated. Many authors have pointed out that standard ADF tests are not appropriate for variables that may have undergone to structural changes. For example, Perron (1989, 1990) has shown that existence of structural changes tends to bias the standard ADF test towards nonrejection of the null of a unit root. It might be misleading to conclude that the variables are nonstationary just on the basis of results from standard ADF test. Perron (1990) developed a procedure to test hypothesis that a given series (Yt) has a unit root with an exogenous structural break which occurs at time TB. However, Perron's method has received some criticisms because his breaking point is chosen based on pretest examination of the data which leads his procedure to overstate the likelihood of trend break alternative hypothesis. Zivot and Andrews (1992) introduce methods to endogenously search for breakpoint and test for the presence of a unit root when the time series process has a breaking trend. The Zivot-Andrews (henceforth, ZA) tests are represented by following regression equations:

Model A:

$$\Delta d_t = \mu_0^A + \mu_1^A d_{t-1} + \mu_2^A t + \mu_3^A DU_t + \sum_{i=1}^{k} \varphi_j^A \Delta d_{t-j} + \varepsilon_t \quad (1)$$

Model B:

$$\Delta d_t = \mu_0^B + \mu_1^B d_{t-1} + \mu_2^B t + \mu_3^B DT_t + \sum_{i=1}^{k} \varphi_j^B \Delta d_{t-j} + \varepsilon_t \quad (2)$$

Model C:

$$\Delta d_t = \mu_0^C + \mu_1^C d_{t-1} + \mu_2^C t + \mu_3^C DU_t + \mu_4^C DT_t + \sum_{i=1}^{k} \varphi_j^C \Delta d_{t-j} + \varepsilon_t \quad (3)$$

t ţ TB if DUt =1 and 0 otherwise; and DTt=t-TB and 0 otherwise. Here TB denotes the break point. Model A allows for break in the intercept. Model B allows for a break in the trend function. Model C combines the constant and the break in the trend functions slope, in other words reflects both effects (constant and slope). The null of a unit root is rejected if the coefficient of Yt-1 is significantly different from zero. Since the choice of lag length (k) may affect the test results, the lag length (kmax = 4) was selected according to the procedure suggested by Perron (1989).

Following this, existence long term relationship, or cointegration, between the series is searched to check appropriateness of

the standard Granger causality test. Cointegration can simply be defined as a systematic simultaneous change between economic variables. Technically, according to Engle-Granger (1987), when each variable is integrated at I(1) level, however much series may be non-stationary their linear combination can be stationary. Because standard Granger causality conclusions will be invalid when series aren't stationary but their linear combination is, an error correction model must be developed. Therefore, before being tested for Granger causality cointegration properties of the original series must be tested.

Secondly, on the basis of the results obtained in the first two stages, relations in the long run are investigated by using Johansen (1991) cointegration method. Johansen (1991) method helps determine the number of cointegrating vectors and the appropriate error correction terms. Let us consider an unrestricted vector autoregressive (VAR) model below.

$$X_t = \Pi_1 X_{t-1} + \ldots\ldots + \Pi_k X_{t-k} + \varepsilon_t \quad t=1\ldots\ldots,t \tag{7}$$

$$\Delta X_t = \Gamma_1 \Delta X_{t-1} + \ldots.. + \Gamma_{k-1} \Delta X_{t-k} + 1 - \Pi_1 X_{t-k} + \varepsilon_t \tag{8}$$

Here, $\Gamma_i = -I + \prod_1 + \ldots + \prod_i \quad i=1,\ldots\ldots..,k-$

$\prod = -I - \prod_1 - \ldots\ldots\ldots - \prod_k$

This specification allows the model to capture the short run and long run adjustment to changes in Xt where Xt is a matrix of the variables. This captured by the matrix. The rank of describes the linearly independent and stationary combinations of variables. The formal test for number of cointegrating variables involves testing the eigenvalues of the matrix . When the rank of matrix of p.p dimension is zero (r=0) then all elements of Xt are nonstationary. Here there exist no cointegration relationships between the variables in Xt. On the other hand, when the matrix has full rank (r=p), then matrix Xt has I(0) variables. Therefore any combination of the variables will give a stationary series (cointegration). If r < p, there are r cointegrating vectors different from zero and p-r shared stochastic trends. matrix can be divided into αβ' multipliers. Here "α"is the vector of adjustment coefficients and "β" is the vector of cointegrating relations and both are pxr matrices.

Finally, short and long term causality relations between unionization, unemployment and economic growth are analyzed by using Granger (1969) causality test. Causality can run in both two ways.Unemployment and economic growth may affect unionization as well as unionization may affetct unemployment and economic growth.

Technically, according to Engle-Granger (1987), when each variable is integrated at I(1) level, however much series may be non-stationary their linear combination can be stationary. Because standard Granger causality conclusions will be invalid when series aren't stationary but their linear combination is, an error correction model must be developed. Error correction models are estimated to investigate causality between GDP and oil consumption in the below:

$$\Delta GDP_t = \mu_1 + \sum_{i=1}^{k} \beta_{i1} \Delta GDP_{t-i} + \sum_{i=1}^{l} \lambda_{i1} UNE_{t-i} + \sum_{i=1}^{m} \varphi_{i1} \Delta UNI_{t-i} + \omega_{i1} ect1_{t-1} + \varepsilon_t \tag{9}$$

$$\Delta UNE_t = \mu_2 + \sum_{i=1}^{k} \lambda_{i2} \Delta UNE_{t-i} + \sum_{i=1}^{l} \beta_{i2} GDP_{t-i} + \sum_{i=1}^{m} \varphi_{i2} UNI_{t-i} + \omega_{i2} ect2_{t-1} + \varepsilon_t \tag{10}$$

$$\Delta UNI_t = \mu_1 + \sum_{i=1}^{k} \varphi_{i3} \Delta UNI_{t-i} + \sum_{i=1}^{k} \beta_{i3} GDP_{t-i} +$$

$$+ \sum_{i=1}^{m} \lambda_{i3} \Delta UNE_{t-i} + \omega_{i3} ect3_{t-1} + \varepsilon_t \qquad (9)$$

Here, ect's are lagged value of error terms obtained from cointegrated equations. Using error correction models, it is possible to examine both long and short term causality between the variables According to Engle-Granger (1987), if there exists a cointegration vector between two variables there is causality among these variables at least in one direction.

4. EMPIRICAL FINDINGS

Table 1 shows stationary test results of variables. As it can be seen from the table, unit root hypothesis can not be rejected for all veriables in ADF test. However, The ADF test results suggest that series are stationary, in their first differenced form. Phillips-Peron test is also verifies ADF test results. The hypothesis that the first differenced series (with and without trend) are stationary cannat be rejected in Phillips-Peron test.

But with taking into cosideration that a structural break could happen, stationary of data is investigated by using ZA test which takes note of one structural break. ZA unit root test results are presented in table 2. ZA test results show that there is a structural break for GDP variable in 2002, for unemployment variable in 2001 and for unionization variable in 1999. In those years, Turkey witnessed two serious economic crisis (November 1999 and February 2001) The unit root hypothesis can not also be rejected at the 5% level of significance in all of three variables and confirms the results found with standard unit root test.

Unit root hypothesis has important meanings related to both economic theory and evaluating the empirical findings. Under unit root hypothesis, for example, casual shocks can have permanent effect on system. This and to say undulations in a serie are not

Table 1. ADF and PP Unit Root Test Results

	ADF		**Phillips-Perron**	
Variables	*Without trend*	*With trend*	*Without trend*	*With trend*
GDP	-0.024(-3.02) [1]	-3.66 (-3.71) [3]	0.132(-3.02)	-3.32(-3.65)
UNE	-0.612(-3.02) [0]	-1.52 (-3.65) [0]	-0.659(-3.02)	-1.52(-3.65)
UNI	-2.24(-3.02) [0]	-2.72(-3.65)[0]	-2.264(-3.02)	-2.74(-3.65)
First Differences { I(1) }				
Δ GDP	-5.650*(-3.02) [0]	-5.48* (-3.67) [0]	-5.655*(-3.02)	-5.49*(-3.67)
Δ UNE	-4.245*(-3.02) [0]	-4.15* (-3.67)[0]	-4.251*(-3.02)	-4.15*(-3.67)
Δ UNI	-5.142*(-3.02) [0]	-5.00*(-3.67)[0]	-5.397*(-3.02)	-5.29*(-3.67)

The numbers in the brackets show lag number and the number of lags used in ADF regressions was selected using Akaike Information Criterion Critical values The values between parenthesis shows 5% MacKinnon critical values. I(0) and I(1) stand for level and first differences. * shows significance at the 5% level..

Table 2. Zivot-Andrews (ZB) Unit Root Test

MODEL C							
T_B	k	μ_0^C	μ_2^C	μ_3^C	μ_4^C	μ_1^C	$t^i_{\gamma=0}$
GDP							
2002		57500.75	3625.9	-104812.7	5114.9	-1.0039	
	0	(5.1108)	(4.7532)	(-3.9271)	(3.7097)	(-4.8567)	-5.08
UNE							
2001		1158.3	11.600	-3224.7	186.3	-0.7617	
	0	(3.2944)	(1.0978)	(-2.4504)	(2.5980)	(-3.2819)	-5.08
UNI							
1999		2989.0	186.6	3346.8	-212.6	-2.1322	
	3	(4.0394)	(4.1343)	(3.3494)	(-3.5305)	(-4.181)	-5.08

Model selection is based on initial estimation of the most general specification possible,which is Model C. t %5 indicates significant at the 5% critical values taken from Zivot and Andrews (1992). k is the number of lags and was selected using Perron's (1990) method. The values in the paranthesis are t-statistics

temporary are the same things. In the existence of one and two structural breaks, unit root test findings of unionization, unemployment and GDP series in Turkey show that first differenced series are stationary and series are integrated at the level of I(1). Because series integrate at the same level, I(1), there can be a long run relationship between them.

Table 3 shows the long term relations between unionization, unemployment and economic growth. Cointegration between unionization, unemployment and GDP can not be rejected at the 5% level of significance. Equilibrium relation's cointegrating vector which is reached by Johansen co-integration method is below:

$$z_{1t} = GDP_t - 20.02UNE_t - 41.9UNI_t + 40876.7$$

or

Table 3. Cointegration Test Based on the Johansen Approach

UNIONIZATION, UNEMPLOYMENT and GDP				
λ-Max Test				
H_0	H_1	λ_{Max}	*Critical Values*	
			%5	*%10*
r = 0	*r = 1*	*23.87**	*23.78*	*21.53*
r ≤1	*r = 2*	*3.49*	*16.87*	*14.84*
r ≤2	*r = 3*	*0.84*	*3.74*	*2.57*

p indicates lag number and Akaike information criterion is used while determining lag number. Critical values indicate the values taken from Osterwald-Lenum (1992) * , shows significanceat the 5% level

$$z_{2t} = UNE_t - 0.04GDP_t + 2.09UNI_t - 2041.5$$

or

$$z_{3t} = UNI_t - 0.02GDP_t + 0.47UNE_t - 973.4$$

Coefficients in cointegrating vector also indicates the direction of long term relationships between variables. The estimated relationships between variables consistent with theory. That means there is a negative relationship between economic growth and unionization. That result also supports other investigations usually reached a negative relationship between economic growth and unionization. The relationship between economic growth and organization is negative; between unionization and unemployment is positive as expected.

The causality test results based on the error correction model are shown at the table 6. While detemining the lag numbers in error correction models, Akaike's (1969) Final Predictor Error (FPE) information criterion is used. At least in one of the all equations, error correction parameter is statistically significant and verifies the existence of the long term relation between variables.

Diagnostic statistics related with error correction models are shown at the bottom of the table 6. All of estimated error correction models have passed diagnostic tests. The last column of the table shows the short term causality between unionization, unemployment and GDP. F-statistic for the null hypothesis ofno Granger causality from unemployment to GDP is 1.27, F-statistic for the null hypothesis no Granger causality from GDP to unemployment is 1.07. In short term, there isn't any causality neither from unemployment to GDP nor from GDP to unemplomyent. Both test statistics are lower than critical F-statistic which is at the 5% level of significance. In the same way, F-statistic for the null hypothesis of no Granger causality from unemployment to GDP is 0.15, and F-statistic for the null hypothesis of no Granger causality from GDP to unemployment is 0.86. Again for both test statistics are lower than critical F-statistic which is at the 5% level of significance. There is no relationship between unionization and GDP in short term.

Long term causality can be analyzed by testing the lagged values of the error term for statistical significance (t-statics) or testing joint the lagged values of the explanatory variables and error correction parameters using F-wald statistics to see if they are statistically different from zero. As can be seen from the table, the coefficients of error correction parameter are negative as expected in all of three equations. In the GDP equation, both test statistics are not statistically significant. This shows that not only in the short run, but also in the long run there isn't any causality from unemployment and unionization to GDP. While there is no causality between GDP and unemployment in long term, unionization is meaningful granger cause of unemployment. However, in the unionization equation, coefficient of the error correction parameter is statistically significant level of 5%. Moreover, F-statistic which tests the meaningfulness of error correction parameter and lagged values of the explanatory variables together is meaningful statistically at the 5% level of significance. These findings shows that GDP and unemployment is meaningful granger cause of unionization in long term.

If we try to summarize the explanations above about error correction models, there is no casuality relationship between unionization, unemployment and economic growth in short term. In long term, however,

Table 4. Granger Causality Test Results Based on the Error Correction Model

Dependent variable	Independent variable	Variable	Coeff.	t-value	p-value	Source of causality: long term	Source of causality: short term
						$\sum_i \beta_{2i}, \lambda_{2i}, \varphi_{2i}$, ect F-sta	$\sum \lambda_i$ $\sum \beta_i$ $\sum \varphi_i$
ΔGDP_{t-1} [a]	Constant	μ	3596.8	2.133	0,051 **		
	ECT	$Ect1_{t-1}$	-0,24	-1,20	0,24		
	lagged variables	ΔGDP_{t-1}	-0,07	-0,26	0,79		
		ΔUNE_{t-1}	-0,007	-0,049	0,960	1.43[0.27]	1.27[0.27]
		ΔUNI_{t-1}	-0,44	-2.19	0,04*	0.81[0.46]	0.15[0.70]
ΔUNE_t [b]	Constant	μ	41.90	0.70	0.49		
	ECT	$Ect2_{t-1}$	-0,35	-1.67	0,12		
	lagged variables	ΔUNE_{t-1}	0,40	1,41	0,18		
		ΔGDP_{t-1}	0,009	1,41	0,18	1.90[0.19]	1.07[0.32]
		ΔUNI_{t-1}	-0,24	-1,07	0,30	4.08[0.03]*	2.66[0.11]
		ΔUNI_{t-2}	-0,44	-2.19	0,04*		
ΔUNI_t [c]	Constant	μ	29.16	0.51	0.61		
	ECT	$Ect3_{t-1}$	-0,66	-2.34	0,03*		
	lagged variables	ΔUNI_{t-1}	0,23	0,97	0,34		0,178 [0,676]
		ΔGDP_{t-1}	0,008	0,92	0,36	4.96[0.02]*	0.86[0.36]
		ΔUNE_{t-1}	-0,01	-0,08	0,93	2.78[0.09]**	0.007[0.93]

[a] $R^2=0,29, DW=1,78, F=1.45, \chi^2_{NORM}=0.20[0,902], \chi^2_{WHITE}=4,30[0,828], \chi^2_{SER}=1.07[0,582]$

[b] $R^2=0,50, DW=2,33, F=2,48, \chi^2_{NORM}=1,13[0,565], \chi^2_{WHITE}=7,53[0,674], \chi^2_{SER}=2,58[0,275]$

[c] $R^2=0,43, DW=2,11, F=2,73, \chi^2_{NORM}=3,82[0,147], \chi^2_{WHITE}=11,89[0,155], \chi^2_{SER}=0,65[0,721]$

*The values in brackets show p-values. In Diagnostic tests, numbers in brackets is p-values. χ^2_{NORM} is the Jarque-Bera normality test. χ^2_{WHITE} is the White's heteroscedasticity test. χ^2_{SER} is the Breusch-Godfrey autocorrelation test. * and ** indicate that the null hypothesis is rejected significantly at the 5% and 10% level respectively.*

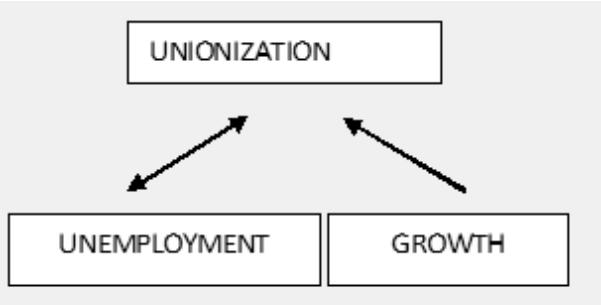

Figure 2. Casuality Relationship Between Unionization, Growth and Unemployment

there is an unidirectional causality from economic growth to unionization and bidirectional causality between unionization and unemployment.

The number of union workers and the number of unemployed people affects each other reciprocally. Higher wage and social benefit demands of workers lead the tendency of being union with the increase in economic growth. As the the number of workers who wantto work unionized, firms try to employ fewer unionized workers and the number of union workers decrease. Firms' tendency of employing non-union workers in one hand causes a fall in registered employment and on the other hand, increases the unregistered employment because firms meet their lobourforce needs from unregistered labour. Increasing unemployment leads a fall in unionization rates by decreasing the tendency of being union.

5. CONCLUSION

In this paper, relations and causality between unionization, unemployment and economic growth are investigated in Turkey during the period of 1984-2004. The conventional unit root tests show that first differnced series are stationary. But, by taking into consideration that a structural breaking may happen and using unit root tests with a structural break before the relations in the long run and causality, integration level of series are tested. ZA test with one structural break verifies the findings found by traditional unit root tests and integration series' at the I(1) level.

There is a long term equilibrium relation between economic growth, unemployment and unionization in Turkey. There is a positive relationship between unionization and economic growth in long term but a negative relationship between uionization and unemployment, unionization and economic growth. Those relationships between unionization, unemployment and economic growth are also harmonious with the theory.

While there is a casuality from economic growth to unionization in long term, the data don't support a reverse relationship. As for between unionization and unemployment, there is a birectional causality. There is no causality between unemployment and ecenomic growth. Those findings reached between growth and unionization, unionization and unemployment imply that growth affects unemployment indirectly via unions. The increase in economic growth leads higher wage and social benefit demands of employees who want to get his share from growth. The thought and the reality of employees can achieve those rights much more easily via unions increase the number of workers prefering union work[1]. The increase in the number of wanting to work as union decreases the employing union employee demands of firms complaining about continual high labour costs in Turkey and cause a slow down in employment, so in economic growth.

Besides, the increasing tendency of employing non-union employees of employers and employees preferences of working as non-union instead of not working at all is a serious obstacle in front of controling unregistered employment by causing a faster increase in unregistered employment in our country. In addition to that, as a labour-supply limiting factor, unemployment insurance is an important factor that could obstruct working in non-unionized workplaces. However, because of the insufficiency and the short duration of

the payments, it can not be so effective as expected. The insufficiency of payments forces the unemployed worker to work and for not losing that payment they prefer to work at unregistered sector or to work as unregistered in registered sectors. An increase in payments and benefiting duration is thought as an important argument in struggling unregistered and non-union work.

Therefore, the state, employers and employees have important duties to decrease the negative effects of unionization and thus to increase registered employment. First, the labour costs that the firms take over should be decreased. It can be seen that Turkey is one of the countries that the labour costs are the highest in OECD countries according to some investigations. The fact of having high labour costs directs employers to employ non-unionized and unregistered workers. Likewise, the unregistered employment in Turkey is estimated as 50% in some investigations. Unions should demand rise in wages and social benefits by taking economic indicators into account and give up wage unionism they followed for years.

СИНДИКАЛИЗАЦИЈА, НЕЗАПОСЛЕНОСТ И ЕКОНОМСКИ РАСТ; СЛУЧАЈ ТУРСКЕ

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Абстракт

У овом раду, анализиран је утицај синдиката на економски раст и запосленост у турској. Коришћени су рут тест са структурном преломсом тачком, коинтеграција и тестирање неизвесности. Емпиријски резултати показују да постоји равнотежна релација међу растом, синдикатима и незапошљеношћу. Синдикализација негативно утиче и на економски раст и на запошљеност. Тест неизвесности показује да постоји унидирекциона случајност између раста и синдикализације и бидирекциона случајност између синдикализације и незапослености.

Кључне речи: синдикализација, економски раст, незапошљеност, коинтеграција, случајност

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