Business ethics and economic growth: An empirical analysis for Turkish economy

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Abstract

Purpose – The roots of the science of modern economics are originated from the ideas of Adam Smith who is not a pure economist but a moralist-philosopher. Basic concepts in the Wealth of Nations which is perceived as the hand book of economics depend on the arguments that Adam Smith suggests in his Theory of Moral Sentiments. In this theory, business ethics as a part of the Law of Sympathy appears as one of the factors that provide the invisible hand to operate properly. In light of this property, it is possible to assume business ethics as one of the components of the market mechanism. In this context, this study aims to analyse the link between business ethics and economic growth in the Turkish economy.

Design/methodology/approach – The study employs bounced cheques and protested bonds for representing the degradation of business ethics and tries to show how this degradation affects economic growth in the Turkish economy for the period 1988-2013.

Findings – Either illustrative or empirical results show that business ethics is an important determinant of economic growth in the Turkish economy and damaging it negatively effects the growth rate of the economy.

Research limitations/implications – One of the most restrictive things conducting the present empirical analysis is the lack of various and longer data sets. Using different indicators in terms of business ethics with longer time span will definitely increase the reliability of the study. However, in the current form, results imply a policy that is capable of limiting the failures of business ethics may boost the Turkish economy up.

Originality/value – The results tend to support the close link between business ethics and economic growth.

Keywords: Business ethics, Economic growth, Turkish economy

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1. Introduction

The roots of the science of modern economics are originated from the ideas of Adam Smith who is not a pure economist but a moralist-philosopher. Basic concepts in the Wealth of Nations which is perceived as the hand book of economics depend on the arguments that Smith suggests in his Theory of Moral Sentiments. In this theory, business ethics as a part of the Law of Sympathy appears as one of the factors that provide the invisible hand to operate properly. In light of this property, it is possible to assume business ethics as one of the components of the market mechanism. When we come back to modern macroeconomics, it is seen that Max Weber

(1904) is the pioneering study that systematically analyzes the relationship between business ethics and economic development. According to Weber's ideas, any kind of ethics is an important component of cultural heritage and religion. In this regards, he argues that cultural endowments which stem from strong religious beliefs could facilitate economic performance. He also suggests that the basic dynamic which constituted the capitalism in northern Europe, as transforming attitudes toward economic activity and wealth accumulation, is the Calvinist doctrine of predestination (i.e. Protestant Business Ethics).

In the present time, many of the people in business sector may assume that ethical behavior is out of the range. Businessmen or women are assumed as entrepreneurs who may dare anything for profit. Customers are seen as people who are ready for doing anything in order to buy goods and services at lower prices. However, Rea (2010) rejects this and gives some examples about how people in the business environment act in ethical ways:

- It is not uncommon to observe customers who have been undercharged for goods volunteering this information to shop assistants.
- Many individual and firms pay the expected amount of tax on their income, despite opportunities to use tax loopholes and avoidance mechanisms.
- Many people go beyond what is strictly required in their employment contracts because they want to do a good job.

Although it seems as a personal decision to act ethically, business ethics generally reflects an aggregate decision and it is all about the economy. In this sense, one may entitle business ethics as one of the drivers of the continuum of economic activities. Since economic activities are among the engines of economic growth, it may be concluded that business ethics may impact on the growth performances of economies. Given this

learning, Naude (2008) put forwards two ethical guidelines for economic growth:

- Economic growth is desirable if the distributive effect increases the welfare of the poorest section in society in the medium term and creates a more egalitarian society in the longer term. If economic growth only increases the welfare of the middle and upper classes and leaves the poorest people worse off, the social cost in the long run is too high. This is a controversial point. But—following the social contract tradition and notions of prioritarian justice—strong ethical arguments can be made in favour of growth that is measured not in general terms, but by whether the position of the worse-off has improved.

Economic growth is desirable when it is sustainable in the holistic sense of the word. If economic growth is only conceptualized as empirical data and not also in terms of its social and ecological effects, we will fail the moral demands of inter-generational justice. In governance discourse one could say that economic growth should be embedded in triple bottom-line thinking. The business of business is unfortunately not business alone.

This study aims to analyze the link between business ethics and economic growth in the Turkish economy for the period 1988-2013. To this end, the study employs bounced cheques and tries to graphically illustrate the link between the degradation in business ethics and economic growth, and protested bonds and utilizes the Autoregressive Distributed Lag approach to cointegration by Pesaran et al. (2001) for the investigation of the long-run effects of the degradation in business ethics on economic growth.

2. A brief note about Turkish economy

With her 800 billion dollars GDP in 2014, Turkey is one of the 20 biggest economies of the world today. Especially after experiencing fundamental political and economic transformations in 1980's and turning her face to the world as leaving inward-oriented

understandings fully behind, the country has faced with a rapid improvement. Table 1 below illustrates some macroeconomic facts about the Turkish economy. Accordingly, GDP in 2014 is approximately five times bigger than that is in 1995. GDP per capita in 2014 is approximately 3.6 times bigger than that is in 1995. Turkey has a large and active population and thus has a large labor force. However, the unemployment is an important macroeconomic problem for the economy. It seems that Turkish policy makers have achieved to solve inflation problem. After the adoption of inflation targeting strategy, inflation rate has slightly fallen down. Turkish economy is an active trader. However, the country is a net-importer and this creates some disadvantages in terms of balance of payments.

Table 1: Some Macroeconomic Facts about Turkish Economy

|	1995	2000	2005	2010	2014
GDP (Bio)	169	266	483	731	800
GDPPC	2896	4219	7129	10135	10404
Population (Mio)	58.5	63.2	68	72.1	77.7
Labor Force (Mio)	20.8	21.3	22.3	25.6	28.7
Unemployment Rate	7,6	6,5	10,6	11,9	9,9
Inflation (Consumer Prices)	88,10	54,90	10,13	8,56	8,85
Exports (Bio)	33.7	53.5	105.5	155	157.7
Imports (Bio)	41.2	61.5	122.4	195.6	242.2

Source: World Bank, World Development Indicators.

Since Turkish economy has a large body, problems faced in it are also big. In parallel with the subject of the present study, there are some ethical issues that force markets not to operate properly. In these circumstances, channels of market mechanism may be broken down and the whole economy is affected.

Bounced cheques are one of the most common offences plaguing a market. They are among the failures that reduce the level of business ethics in that market. These failures are dangerous either for the improvement of the market or the whole economy. Figure 1 shows the relation between bounced cheques (per 1000 people) and GDP growth in Turkish economy for the periods 2000-2013. Statistics are in natural logarithms. It is clearly seen that there is a strong negative correlation between two indicators. Given this learning, we can simply suggest that bounced cheques in Turkish economy are among the factors that negatively affect the growth rate of the economy.

Figure 2: Bounced Cheques and Economic Growth Nexus in Turkish economy
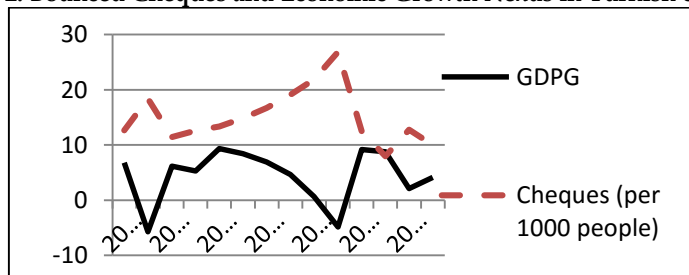
Source: Author's own

3. Data, methodology and results
3.1 Data

The study is based on annual time series data covering the time period 1988-2013. Data set includes annual GDP growth (GDPG), gross fixed capital formation in current US dollars (GFCF), total employment (EMP) and the value of protested bonds (PB) in current Turkish Liras. Data related to GDPG, GFCF and EMP were obtained from World Bank, World Development Indicator database, whereas PB is sourced from Turkish Statistical Institute.

3.2 Methodology

For investigating the long-run relations (cointegration) among the time-series variables, several econometric approaches were developed over the last three decades. For instance, while Engle and Granger (1987) uses two-step residual-based procedure for testing the null of no-cointegration, Johansen and Juselius (1990) uses the system-based reduced rank regression approach. But all of these methods concentrate on the cases in which the underlying variables are integrated of order one. This situation inevitably involves a certain degree of pre-

testing, thus introducing a further degree of uncertainty into the analysis of level relationships.

Pesaran et al. (2001) developed a novel cointegration method which is known as Autoregressive Distributed Lag (ARDL) approach (i.e. the bounds testing approach) to cointegration. Pesaran et al. (2001) pointed out the advantages of this approach over other cointegration tests (e.g. Engle and Granger (1987), Johansen and Juselius (1990)). While other cointegration methods concentrate on the cases in which the variables are integrated of order one, the bounds testing approach is applicable irrespective of whether the underlying variables are purely I(0), purely I(1) or mutually cointegrated. Finally, Pesaran and Shin (1999) indicate that the ARDL approach performs better in small sample size and yields consistent estimates of the long-run parameters asymptotically distributed as standard normal irrespective of the underlying variables are I(0) or I(1).

The bounds testing approach requires estimating the following ARDL representation:

$$\Delta \ln GDPG_t = a_0 + \sum_{i=1}^{p} a_{1i}\Delta \ln GDPG_{t-i} + \sum_{i=0}^{p} a_{2i}\Delta \ln GFCF_{t-i} + \sum_{i=0}^{p} a_{3i}\Delta \ln EMP_{t-i} + \sum_{i=0}^{p} a_{5i}\Delta \ln PB_{t-i} \quad (1)$$

$$+ \theta_1 \ln GDPG_{t-1} + \theta_2 \ln GFCF_{t-1} + \theta_3 \ln EMP_{t-1} + \theta_4 \ln PB_{t-1} + u_t$$

where Δ is the difference operator, p is the lag length, and u is the serially uncorrelated error term. The ARDL procedure involves two stages. In the first stage, the null hypothesis of no-cointegration relationship in the long-run is tested against the alternative hypothesis of cointegration. Testing cointegration relationship is based on the F-statistic. Since the asymptotic distribution of this F-statistic is non-standard irrespective of whether the variables are I(0) or I(1), Pesaran et al. (2001) therefore tabulated two sets of critical values. One set assumes that all variables are I(0) and other set assumes that all variables are I(1). This provides a bound covering all possible classifications of the variables. If the calculated F-statistic lies above the upper level

of the bound, the H0 is rejected, supporting cointegration relationship in the long-run. If the calculated F-statistic lies below the lower level of the bound, the H0 cannot be rejected, indicating lack of cointegration. If the calculated F-statistic falls between the bounds, then the test becomes inconclusive and the error-correction term in this case is used to determine the existence of cointegration. If a negative and significant error-correction term is obtained, the variables are said to be cointegrated.

Once a long-run relationship is established, the second stage of the ARDL procedure is to estimate the error-correction model (ECM) from equation (1). The ECM can be written as follows:

$$\Delta \ln GDPG_t = \alpha + \sum_{i=1}^{p} \omega_k \Delta \ln GDPG_{t-i} + \sum_{i=0}^{p} \lambda_k \Delta \ln GFCF_{t-i} + \sum_{i=0}^{p} \phi_k \Delta \ln EMP_{t-i} + \sum_{i=0}^{p} \gamma_k \Delta \ln PB_{t-i} \quad (2)$$

$$+ \psi EC_{t-1} + u_t$$

where is the error correction parameter and EC is the residual obtained from equation (1).

Since cointegration among the variables does not ensure the stability of the parameters, one should provide that the cointegration parameters are stable over the time. In this regard, cumulative sum (CUSUM) and cumulative sum of squares (CUSUMSQ) tests for parameter stability developed by Brown et al. (1975) are widely utilized with the ARDL modeling framework. These tests are based on the recursive regression residuals. The CUSUM and CUSUMSQ statistics are updated recursively and plotted against the break points of the model. If the plot of these statistics falls inside the critical bounds, one decides that the coefficients from the estimated model are stable over the time.

3.3 Results

ARDL estimation results presented in Table 2 show that protested bonds are cointegrated to the growth rate of GDP and all coefficients are stable over the time. Analysis has no failure in terms of serial correlation, heteroscedasticity, normality and functional misspecification. The long-run coefficients take place under Panel B indicate that a percent increase in the value of protested bonds decreases the growth rate of GDP by 2.41 percent. The coefficient of PB is statistically significant even at 1 percent level of significance. Finally, negative and statistically significant error-correction parameter reveals that the model has stable equilibrium in the long-run.

Table 2: Results of Empirical Analysis (Dependent Variable: lnGDP)

Panel A: Cointegration		
F-stat		25.98
Error-correction Parameter		-1.28 [0.000]
Panel B: Long-run Coefficients		
Constant	-578.35 [0.090]	
lnGFCF		16.85 [0.001]
lnEMP		13.96 [0.427]
lnPB		-2.41 [0.006]
Panel C: Diagnostic Checking		
Adjusted-R^2		0.42
Serial Correlation[a]		3.453 [0.063]
Heteroscedasticity[b]		1.683 [0.195]
Normality[c]		0.124 [0.940]
Functional Form[d]		1.704 [0.192]
Panel D: Stability Checking		
CUSUM		Stable
CUSUMQ		Stable

Note: The critical values for F-statistic are (2.72-3.77) for 10 percent, (3.23-4.35) for 5 percent, and (4.29-5.61) for 1 percent level of significance, obtained from Table CI(iii) Case III in Pesaran *et al.* (2001: 300).

a: The Breusch–Godfrey LM test statistic for no serial correlation.
b: The White's test statistic for homoscedasticity.
c: The Jarque–Bera statistic for normality.
d: The Ramsey's Reset test statistic for regression specification error.
Numbers in brackets are p-values.

4. Conclusion

In this study, the link between business ethics and economic growth was investigated in terms of the illustrative link between bounced cheques and the growth rate of GDP by using time series data covering the time period 2000-2013, and cointegration relationship between protested bonds and growth rate of GDP by using time series data covering the time period 1988-2013. For the latter purpose, the study has utilized the ARDL approach to cointegration.

Either illustrative or empirical results showed that providing business ethics positively affects the growth rate of the Turkish economy. Proxies that corrupt business ethics (i.e. bounced cheques and protested bonds) are among the factors that decrease the growth rate of GDP. For instance, there exists a very strong negative correlation between bounced cheques and the growth rate of GDP, and the long-run relation between protested bonds and the growth rate of GDP is statistically significant and negative. These results imply a policy that is capable of limiting those failures may boost the economy up.

One of the most restrictive things conducting the present empirical analysis is the lack of various and longer data sets. Using different indicators in terms of business ethics with longer time span will definitely increase the reliability of the study. Thus, if this problem is solved, it would be a good opportunity for the future researches.

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