

IIB INTERNATIONAL REFEREED ACADEMIC SOCIAL SCIENCES JOURNAL

*Nisan-Mayıs-Haziran 2014 Sayı: 14 Cilt: 5 İlkbahar Dönemi
April-May-June 2014 Issue: 14 Volume: 5 Spring Semeşter*



www.iibdergisi.com

ISSN: Print 2146-5886 Online 2147-172X



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Ayhan AYTAÇ

Distinguished Readers.,

This volume of our journal incorporates 9 valuable publications. We thank all esteemed professors who took part in evaluation of the papers. Our journal has started to be indexed by 5 different international indices as of this volume. Our journal has become well-known on international arena thanks to the agreement made with these indices. Moreover, publications in our journal have started to make literature contribution for lots of scientists. Concerning the publications of this volume prepared with delicate efforts of esteemed scientists, the study by Arva reviews the general structure of firms and businesses within the framework of market structure. The study will make great contribution to those making research about manufacturing sector and to working readers in addition to literature contribution. Exchange rate relation within the last ten years and foreign trade has been discussed in the study by Aytaç et all., and it gives value to the field of money economics. The study by Akçacı concerns inflation practices of the Central Bank and monetary policies. Özyön discusses main concerns of existence regarding Pincher Martin of William Golding and The Stranger of Albert Camus in the study and the effect factor was evaluated. In the research study by Tezel et all., a literature study concerning domestic communication and cooperation scale was carried out. This study contributed to literature and particularly to those making research on preschool area and domestic relations. Studies and researches conducted by Sadegh et all were discussed by these authors. In the study, particularly the dimension of family was evaluated and it was focused on the factors about maintaining marriage. In the study by Toker, the main focus was on the current status of health sector and the developments between 2003-20113, and the satisfaction levels of those receiving health service was assessed. The study was an applied one and contributed a lot to those making research in health sector and it is a source of literature. In the study conducted by Atalay, esthetic particulars were evaluated. It was emphasized on the esthetics needed especially in public sphere, general status of works of art and kitsch objects in public sphere were evaluated in terms of esthetics and current problems were uttered. In the study by Sunar et all., international relations between Russia and China were discussed and petropolitical information was given. This study contributing to the field of international relations is getting high attention. This volume has been completed with valuable publications prepared by esteemed author and authors. We give our endless thanks to all individuals, institutions and participants that give us all kinds of support, hope to meet you in the next volume. Best regards...

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SUNK COSTS, INDUSTRY HETEROGENEITY, EXPECTED PROFITABILITY AND DECISION TO EXPORT: EVIDENCE FROM TURKISH MANUFACTURING

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Abstract: This paper tests both the role of sunk costs which are sources of barrier to entry and future expected profitability on exporting using a panel data set of Turkish manufacturing industries for the period 2003-2008, allowing for sunk costs to be different for small and large industries. To obtain consistent estimates for sunk costs, all other sources of persistence are controlled for through dynamic multivariate probit model. Results show that sunk costs matter for decision to export and small industries face significantly higher sunk costs than large industries. It is also found evidence that capital accumulation and increasing labor quality lead industries to tend to less export, while productivity and industry size have positive impacts on exporting.

Key Words: Sunk Costs, Industry Heterogeneity, Turkish Manufacturing, Dynamic Discrete Choice Models

INTRODUCTION

Advance theoretical and empirical developments in game-theoretical literature on market structure in recent decades (i.e. Dixit & Stiglitz, 1977; Shubik & Levitan, 1980; Spence, 1981; Shaked & Sutton, 1987, 1990; Fisher, 1989; Sutton, 1991, 1998; Pelzman, 1991) have shed a light on well understanding of firms/industries' performance, conduct and behavior in an environment where crucial strategic decisions on investment, research and development (R&D), product differentiation, price discrimination, quality of labor force, managerial abilities and so on are critically important. The common points of much of these studies formulate the framework of games within multi-stages. Therefore over a series of stages, firms make choices that involve the expenditure of fixed and sunk costs, whether by entering a

market by structuring a plant, by introducing new products or building additional plant capacity, or by carrying out advertising or R&D. In the final stage of the game, all the results of such prior actions shape the payoff function of final stage, determine the final configuration of plants and/or products that emerges and drive the market to be more or less concentrated or the competition inside or abroad to be tougher or low-intensive.

Export performance reflects success or failure of all the efforts of a firm, industry or nation to sell domestically produced goods and services on international market and undoubtedly decision to export is associated with facing some costs that may be sunk in nature. For instance, while non-exporting firms do research for capturing foreign demand, tastes and competition, establishing effective marketing and distribution channels in

order to meet foreign tastes in terms of price, product quality, whereas exporting firms experience that existence of sunk costs substantially affects their conduct, performance, competition and product quality since the high level of sunk costs creates barrier to entry into international market and forces firms to scrutinize their decision to export and how much to export in addition to i.e. past export trajectories, trade policy, legal and practical conditions.

Basically, the theoretical literature on sunk costs and exporting was developed by Dixit (1989a, 1989b), Baldwin (1988, 1989), Baldwin & Krugman (1989) and Krugman (1989). They begin from the assumption that non-exporters must incur a sunk entry cost in order to enter foreign markets. This makes the current-period export supply function dependent upon the number and type of producers that were exporting in previous periods. Further, it means that transitory policy changes or macro shocks can lead to permanent changes in market structure, and thus that trade flows may not be reversed when a stimulus is removed. That is, sunk entry or exit costs produce hysteresis in trade flows (Roberts & Tybout, 1997). Finally, when future market conditions are uncertain, sunk costs make patterns of entry and exit dependent upon the stochastic processes that govern variables such as the exchange rate. Therefore, under sunk cost hysteresis, a firm will find it advantageous to enter a foreign market once there is, for instance, a temporary exchange rate shock that leads to an appreciation of the foreign currency, which results in profits greater than zero. After the shock reverses itself the firms' profits will start dropping, but as long as profits are non-negative the firm finds it cheaper to stay in

the market because of the already incurred sunk cost. If the firm were to exit and re-enter in good times, it would have to re-incur the sunk entry cost (Sinani & Hobdari, 2010).

Even though, it seems that everlasting persistence in exporting status might be caused by some threshold level of sunk costs, some underlying observed and unobserved firm heterogeneity or serial correlation in endogenous or exogenous shocks to exporting profits might also be other leading factors. Therefore in an econometric analysis, econometrician needs to control for all competing sources of persistence. In this context, Robert & Tybout (1997)¹ claim that under plausible conditions, greater uncertainty makes trade flows less responsive to changes in market conditions. Consequently, none of these implications of sunk costs is captured in standard empirical export supply functions, and all could contribute to the instability of empirical relationships. They, *inter alia*, criticize that since most studies treat asymmetries in the response of trade flows to exchange rate appreciation versus depreciation, analysis based on this framework will be misleading because of some external driven factors which are not directly related to sunk costs such as changes in expectations, tastes, adjustment costs and pricing to market behavior. To test for sunk cost hysteresis, they directly analyze entry and exit pattern in plant-level panel data, and then develop and estimate a dynamic discrete-choice model that expresses each plant's current exporting status as a function of its previous exporting experience, observable characteristics that affect its future

1 Their study is the first paper which attempts to test the sunk cost hysteresis hypothesis in exporting for the case of Colombian manufacturing.



profits from exporting, and unobserved serially correlated shocks. The importance of sunk cost on export persistence is captured by the conditional effect of a plant's exporting history on its current exporting status. According to the results, it is thought that sunk costs might cause persistence in exporting, as the hysteresis models suggest. It is also pointed out that persistence might be caused by underlying plant heterogeneity for which differences in gross profit from exporting across plants can be a source of why some exporters enter or some exit the market, a situation for incumbents becoming persistent in exports.

More recent empirical evidence on decision to exports are, for example, Bernard and Jensen (1995, 1999a, 1999b, 2004), Wagner (2002), Eaton, Kortum & Kramarz (2004), Greenaway & Kneller (2004, 2007, 2008), Farinas & Martin-Marcos (2007), Lawless (2009), Schmeiser (2011), Bastos & Silva (2012), Yang & Chen (2012), Yi & Wang (2012), Yi (2014). In these studies, it is showed that exporters are more productive, larger, more capital intensive, and pay higher wages in different countries and different time periods. It is also argued that decision to enter the export market and future profitability are determined by a range of factors, i.e. heterogeneity across firms, differences in productivity, sunk costs, technological, spatial or geographic spillovers, exchange rates, government policies, legal conditions in countries under consideration².

2 The majority of studies have investigated the export decision of firms from developed countries, while few have examined the developing or emerging markets' experience (e.g. Roberts & Tybout, 1997; Clerides, Lach, & Tybout, 1998; Yang & Chen, 2012).

In the one of the first attempts, investigating the role of plant characteristics and sunk costs in the entry decision, Bernard & Wagner (1998) present a dynamic model of the export decision by a profit-maximizing firm using a panel of German manufacturing plants over the period of 1978-1992. They find evidence for substantial sunk costs in export entry meaning that exporting today by a plant increases the probability that the plant will export tomorrow by 50%, but then falling by two thirds in a year. They also find evidence that plant success, as measured by size and productivity, increases the likelihood of exporting. In addition, plants intensive in skilled workers are more likely to export. They finally conclude that while exporters have desirable performance characteristics when compared to non-exporters in almost every industry and country, the growing consensus, confirmed in their results, is that essentially success leads to exporting rather than exporting leading to success.

Bernard & Jensen (2004), using a panel of U.S. manufacturing plants for the period of 1984-1992 and yielding 94902 observations, test for the role of plant characteristics, spillovers from neighboring exports, entry costs and government export promotion expenditures, presenting a dynamic model of the export decision by a profit maximizing firm. They show that entry and exit in the export market by U.S. plants is substantial, past exporters are apt to reenter, and plants are likely to export in consecutive years. However, they find evidence that entry costs are significant and spillovers from the export activity of other plants negligible, and state export promotion expenditures have no significant effect on the probability of exporting. They conclude that plant characteris-

tics, especially those indicative of past success, strongly increase the probability of exporting as do favorable exchange rate shocks. But in their study, the question of how firms obtain the characteristics that allow them to easily enter the export market is remained unanswered. Further they deliver a warning so that their results on spillovers and subsidies might result from their sample selection criteria which limits the analysis to large plants.

Campa (2004), on the other hand, investigates the responsiveness of a country's export supply to exchange rate changes and measures its quantitative importance by breaking down export adjustment between changes in output levels by existing exporters (intensive margin) and movements due to changes in the number of exporters (extensive margin). Using data on a representative sample of Spanish manufacturing firms over the years 1990-1997, the paper finds that sunk costs hysteresis in entry and exit to be an important factor in determining export market participation, but unrelated to exchange rate uncertainty. The sunk costs of entering the market appear to be much larger than the costs of exiting the market. A 10% home currency depreciation results in an increase in export volume due to the increases in the number of exporting firms of only 1.4% of export volume.

Blanchard, Huiban & Mathieu (2011) estimate the unobserved individual productivity of firms using a semi-parametric approach. Productivity is estimated from the Olley-Pakes estimation method and then introduced in a model of firm exit. They also introduce the firm's level of sunk costs as an expected barrier to exit. By using an

unbalanced panel of 4818 firms in French food industries from 1999 to 2002, they find that a significantly negative relationship between the probability of exit of the firm and its individual efficiency in an industry increases the propensity to exit for firms in that industry. As for the role of sunk costs, it is pointed out that sunk costs appear to play a significant and negative role: the higher the level of sunk costs, the lower the exit rate.

In his well-prepared study, Yi (2014) develops a dynamic discrete-choice model to analyze the exporting decisions of Chinese firms in Zhejiang province, the fourth largest economy and exporter in China, using the data for the years 2001-2003. According to the results, sunk costs are found to be significant and prior export experience, productivity, scale, FDI, export spillovers, coastal area and economic zones are all positively related with the propensity of exporting while state ownership concentration has a negative impact. In conclusion, the export behavior of firms varies with country-specific characteristics.

What one can find evidences from the previous and recent empirical works are briefly as follows: (i) there are efficiency differences between exporting and nonexporting plants or industries, (ii) heterogeneity across firms substantially matters for export decision, (iii) exporting firms enjoy high levels of profitability, and finally (iv) sunk cost creates a barrier to entry (low or high) for export markets.

The 1980s saw important developments that might be described as a turning point for both the Turkish economy. The decisions of 24 January 1980 sparked a structural transformation in the Turkish economy. Price controls were abandoned so that



prices would be formed within the framework of market mechanisms, and a policy of free trade was adopted. With the launch of the financial liberalization process, important steps were taken to ensure the necessary infrastructure for implementation of monetary and exchange rate policies in compliance with the market economy. In the same period, it was decided that interest rates on deposits and loans would be determined by market conditions. Furthermore, the fixed exchange rate regime was abandoned and the Turkish currency devalued against foreign currencies. In 1983, the Central Bank was empowered to manage gold and foreign exchange reserves effectively. In addition, it was incorporated into the law that the bank would carry out its fundamental duties in compliance with the basic requirements of the economy and with the objective of achieving price stability.

Turkey pursued export promotion policies in the 1980s along with efforts to liberalize imports. As part of the export promotion policies the government implemented direct export subsidy, tax rebates and export credit schemes, simplified export procedures and maintained a competitive real exchange rate throughout the 1980s. In the 1980s total export subsidies were quite high, reaching as high as 33.8% in 1989. The reliance on the export incentive schemes have been reduced over time in order to comply with the provisions of the GATT agreement in 1988, the WTO agreement of 1994 and the customs union agreement

with the EU in 1996. Despite this downward trend in subsidies in the second half of 1980s, total subsidies through direct payments, export credits, duty and tax allowances had never fallen below 20% until 1994. While some of the major incentive schemes have been marginalized over time from 1996 to 2001, the subsidized export credits remained as the most significant scheme in implementation. Another important dimension of the export promotion policies was the competitive real exchange rate policy. Vigorously pursued in the first half of 1980s, the competitive exchange rate policy was gradually subdued due to the government's efforts to keep the inflation under control while facing a souring government budget deficit (Özler, Taymaz & Yılmaz, 2007: 4-5).

The booming in Turkish economy came into being after a political change in 2002. This was largely thanks to the availability of abundant international capital ready to flow into emerging markets and therefore Turkey led to the real appreciation of the Turkish Lira since 2002. As domestic market resumed growth exports continued to grow in 2002, 2003 and 2004 (15%, 31% and 34%, respectively). But this ever-growing rates remained below the levels that achieved in the previous years (approximately around 16%). The remarkable export performance is in part due to the newly acquired international competitiveness of the Turkish manufacturing industries that was forced by the increased competition after Turkey joined the Custom Union.

Table 1. Turkey's Trade Pattern, 1970-2013.

	1970-79	1980-1995	1996-2001	2002-2007	2008-2013
Trade Balance (billion\$)	-2.0	-6.0	-18.8	-38.7	-78.3
Exports /Imports (%)	47.3	64.0	59.7	65.0	62.6
Imports / GDP (%)	6.8	15.8	20.8	24.4	29.3
Exports / GDP (%)	3.0	10.2	12.3	15.8	18.3
(X-M)/GDP (%)	-3.8	-5.6	-8.5	-8.6	-10.9
(X+M)/GDP (%)	9.7	26.0	33.0	40.1	47.6
Imports: Ann. Avg. Change (%)	22.6	14.8	4.4	26.8	9.1
Exports: Ann. Avg. Change (%)	17.1	16.2	6.5	23.0	7.2

Source: İzmen and Yılmaz (2009) and author's calculations.

Table 1 depicts trade profile of Turkey since 1970. Before 1980, the economy was characterized by heavy protection which can be seen from figures belong to the 1970-79 period. The ratio of exports to GDP more than tripled while the ratio of imports to GDP increased more than twice in the 1980-2013 period. The integration process gained momentum after the Customs Union decision with the EU in 1996 and once again after the 2001 crisis which is followed by macroeconomic stability and sustained growth in the 2002-2007 period. As a ratio of GDP, imports and exports rose to 24% –16% in 2002-2007 period, and 29% –18% in 2008-2013 period, respectively, and the ratio of trade volume has reached to 40% from less than 10% before 1980 (Table 1). The average annual rate of change in imports has been slightly higher than in exports, 26.8%, and 9.1%, respectively in 2002-2007 period and 2008-2013 period.

On the imports front, after the implementation of the Customs Union in 1996, the penetration

of imports from the EU increased from 17% to 22%. China's accession to the WTO in September 2001 led to an even more dramatic change in the structure of Turkey's imports. Total imports (over a 12-month period) surpassed USD 207 billion in November 2008. The share of imports from East Asia, and especially from China, increased dramatically to 7.8% in the post-2001 period, at the expense of the EU. Besides the Customs Union and China's accession to the WTO, the real appreciation of the Lira since the end of 2001 has been the third critical factor behind the rapid increase in Turkish imports over the last decade. Monthly CPI based exchange rate index published by the CBRT, shows that Turkish Lira appreciated by 66% in real terms from the end of 2001 to August 2008, when it reached its climax. The rapid increase in imports was not the only major development in

Turkey's trade relations with the rest of the world. Despite the appreciation of the Lira, Turkish exports quadrupled since 2000, reaching USD 134 billion (over a 12-month period) in November 2008 (İzmen *et al.*, 2009).

As for the 2008-2013 period import value has increased to USD 1257 billion at the end of 2013 with a 9.1% annual increase rate. On the other hand export volume has increased from USD 132 billion to 151.8 billion, with a 7.2 annual growth rate.

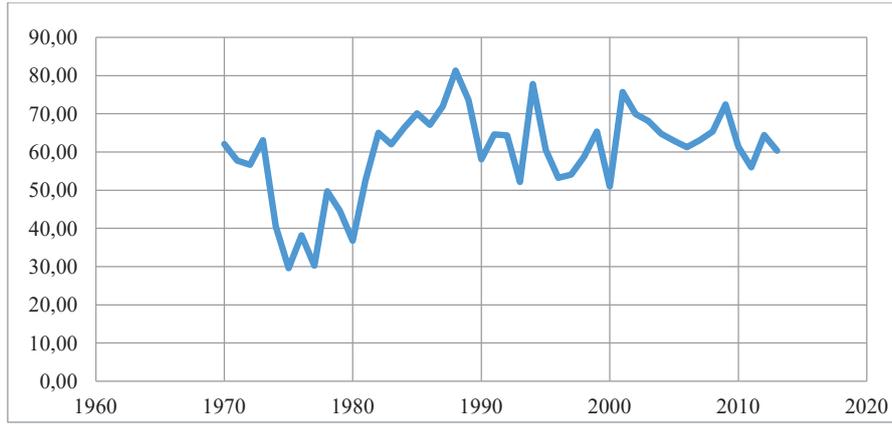


Figure 1. Export / Import Ratio (1970-2013)

According to Figure 1, one can see that the import coverage ratio of exports is highly volatile during the period. After reaching 75.7% in 2001, the export/import ratio steadily declined since then to 61.3% by 2006 before increasing slightly to 63.1%. Compared to the unstable period of 1996-2001, the average export/import ratio during the 2002-07 period has increased slightly to 66.5%. However the export and import have substantially been increased over the last decade, but the import coverage ratio of exports has been remained high by an average rate of 60% over the last three decades, leading to a chronic trade deficit ever-lasting (99.7 billion dollars in 2013).

To test the effect of sunk cost on entry decision to export markets, few empirical analysis have been done. Notable among them, for example, Özler *et al.* (2007) investigate the factors influencing

the export decision of the Turkish manufacturing plants over the 1990-2001 period using plant level data. Their results support the presence of high sunk costs of entry to export markets, as well as the hypothesis that the full history of export participation matters for the current export decision. Aldan & Günay (2008) use firm-level data applying matching and difference-in-difference techniques. They find that; first, larger and more productive firms self-select into export market, second, starting to export further increases labor productivity and employment. The first attempt to separating sunk cost industries into two categories, as endogenous and exogenous sunk cost industries, and to analyze the effect of sunk costs on market structure and competitiveness is made by Arvas & Mıhçı (2014) using industry level data for Turkish manufacturing over the 1992-

2001 period. Applying stochastic frontier method, they find that if an industry is import-intensive it is more competitive in foreign markets than export-intensive industries and the level of sunk costs create barrier to entry on domestic and international markets.

This paper is designed to address to lack understanding and advancing prior works on export studies at industry level analysis for the 2003-2008 period. In this study, it is aimed to assess the importance of sunk costs examining the decision of industry export participation and to test whether sunk costs differ between large and small industries using panel data for Turkish manufacturing. In addition, whereas Roberts & Tybout (1997), Bernard & Wagner (1998), Bernard & Jensen (2004), Campa (2004) and Özler *et al.* (2007) impose a structure on the serial correlation of transitory shocks, following Manez, Barrachina & Sanchis (2008) and Yi (2014), it is allowed for a free serial correlation. Another novelty in this study is that while previous studies cover pre-2002 period, this study focuses on a more stable and recent period in Turkish economy.

The rest of paper is organized as follows: Section 2 describes modelling, estimation issues. Section 3 presents the sample data, variable definition and summarize the characteristics of exporter. Estimation results are summarized in section 4, and finally section 5 concludes the paper.

AN EMPIRICAL MODEL OF EXPORT MARKET PARTICIPATION

The Estimating Model

Following Robert & Tybout (1997), export market participation by a profit maximizing firm

is summarized by the dynamic discrete-choice equation as:

$$Y_{it} = \begin{cases} Y_{it} = 1 & \text{if } \pi_{it}^* - F_{it}^0 \cdot (1 - Y_{it-1}) \geq 0 \\ Y_{it} = 0 & \text{if } \pi_{it}^* - F_{it}^0 \cdot (1 - Y_{it-1}) < 0 \end{cases} \quad (1)$$

where Y_{it} is the exporting status, i.e. $Y_{it} = 1$ if the firm i exports in period t while $Y_{it} = 0$ when exporting is not profitable, π_{it}^* is the latent variable representing the increment to expected gross future profits for firm i if it exports in period t , and F_{it}^0 is the firm's entry cost. For simplicity, following Yi (2014), its entry involves one-time entry costs once it decides to enter the export market, and these costs are assumed to recur in full it exists the export market for any amount of time, i.e. the firm does not pay the entry cost if it exported in the previous period, $Y_{it-1} = 1$.

In order to estimate equation (1), this paper uses a reduced-form equation proposed by Roberts & Tybout (1997) to approximate π_{it}^* as a linear function of exogenous firm-specific characteristics X_{it} (i.e. productivity, size, and wage) and market characteristic Z_{it} (i.e. spillovers, location and industry-group dummies) that are observable to producers in period t . However the model, alternatively, could be estimated developing a structural representation of the participation condition. In principle, this approach allows identification of the parameters of the profit function and provides a complete description of the dynamic process. Its main disadvantage is that very restrictive parameterizations are required to make structural estimation feasible. Consequently, this problem is particularly acute in this model because the dependence of sunk entry costs upon the length



of time out of the export market implies a participation series that is J th-order Markov process, conditioned on exogenous variables.

To isolate the importance of sunk costs, it is critical that we control for all other sources of persistence (Roberts & Tybout, 1997). Much of this task is accomplished by including the vector of observable firm and market specific characteristics. However, it is very likely that some characteristics, such as managerial abilities, perception of output quality, will remain unobserved and their presence will induce serial correlation in the error term, ε_{it} . If we use an estimator that ignores this serial correlation, the model will incorrectly attribute the persistence it induces in exporting status to sunk costs. Thus, variation in π_{it}^* might arise not only from sources of observable firm characteristics X_{it} and market characteristics Z_{it} , but also from the sources of unobservable firm characteristics α_i ³ and exogenous random disturbances η_i ⁴. Therefore, the term $\pi_{it}^* - F_{it}^0 \cdot (1 - Y_{it-1})$ in equation (1) is expressed

as;

$$Y_{it} = \begin{cases} \pi_{it}^* - F_{it}^0 \cdot (1 - Y_{it-1}) = \beta X_{it} + \gamma Z_{it} \\ \quad + \theta Y_{it-1} + \phi Y_{it-1}^\tau + \varepsilon_{it} \\ \varepsilon_{it} = \alpha_i + \eta_{it} \end{cases} \quad (2)$$

where ε_{it} is the error term and assumed to be sum of two components; unobserved α_i which independently and identically distributed nor-

3 Such as; managerial efficiency, foreign contacts and other factors that induce persistent firm-specific differences in the returns from exporting.

4 Exogenous random disturbances may include unobserved transitory shocks to the returns from exporting, demand shocks or climate effect.

mal across firms, and η_i that independently and identically distributed normal across firms and time. Y_{it-1}^τ is included in the equation so as to isolate export decision between large and small industries. τ is an indicator variable taking value 1 for large firms and 0 for small ones.

Substituting equation (2) into equation (1), the basic estimating equation of export participation is obtained as:

$$Y_{it} = \begin{cases} Y_{it} = 1 & \text{if } \beta X_{it} + \gamma Z_{it} + \theta Y_{it-1} + \phi Y_{it-1}^\tau + \alpha_i + \eta_{it} \geq 0 \\ Y_{it} = 0 & \text{if } \beta X_{it} + \gamma Z_{it} + \theta Y_{it-1} + \phi Y_{it-1}^\tau + \alpha_i + \eta_{it} < 0 \end{cases} \quad (3)$$

As stated out by Bernard & Jensen (2004) and Li (2014), firms switching exporting status either from non-exporter to exporter or from exporter to non-exporter will have substantial contemporaneous changes in characteristics of firms, i.e. size and wages. In the meantime, changes in characteristics of firms, i.e. productivity, may also induce firms to switch their exporting status. To avoid possible simultaneity problems, all observed variables are lagged one period. Finally, the estimating participation equation is specified as:

$$Y_{it} = \beta X_{it-1} + \gamma Z_{it-1} + \theta Y_{it-1} + \phi Y_{it-1}^\tau + \alpha_i + \eta_{it} \quad (4)$$

Some Econometric Issues

If using a model that ignores serial correlation in the error term, the parameter θ that measures sunk costs will absorb the effect of omitted variables and thus, the model will improperly attribute the persistence it induces in export to

sunk costs. Therefore, the study uses a model that allows for serial correlation in the error term and assumes that it is a sum a permanent, firm specific component α_i that remains unobserved to control for this effect and a transitory exogenous disturbance component, η_i . Following the approach in Li (2014), the estimation strategies for the dynamic binary discrete-choice model with unobserved heterogeneity may include linear probability models with fixed or random effects, probit models with fixed or random effects, and conditional logit models. Therefore Roberts & Tybout (1997), Bernard & Jensen (2004) and Li (2014) propose to use fixed or random effects probit models since the unobserved heterogeneity of a firm (industry) could be better modeled by the both methods. However, Bernard & Jensen (2004) show that fixed effects models may produce biased and inconsistent parameter estimates, especially for the coefficient on the lagged dependent variable. On the other hand, random effects models require that the unobserved firm (industry) effects be uncorrelated with the regressors in the model. In conclusion, this study chooses to work with random effects specification ($Cov(Z_{it}, \varepsilon_{it}) = 0$) employed by Roberts & Tybout (1997) and Li (2014). Another motivation for choosing the probit model with random effects lies under the fact that linear probability models are problematic as they fail to properly capture the curvature of the regression function in the proximity of 0 and 1.

There remains an additional problem which is called as “initial conditions” problem⁵. In order

5 A problem according to which that it needs to be correctly specified that at what lag length of dependent variable should be. As known, export decision or profitability of an industry is partially correlated with its past performance.

to choose the lag length of export status as a proxy for sunk cost, following Li (2014), one lag of dependent variable is incorporate. On this issue, Roberts & Tybout (1997) and Manez *et al.* (2008) incorporate three lags of dependent variable, while Bernard & Jensen (2004) include two lags of dependent variable.

This model is a dynamic probit random effect model and is estimated using the *mvprobit* Stata program developed by Cappellari & Jenkins (2003)⁶. This program uses simulated maximum likelihood techniques (SML) to solve the computational problem of evaluation T-dimensional integrals.

THE SAMPLE DATA AND DEFINITION OF VARIABLES

The analysis in this paper is based on four-digit data collected by Turkey’s State Institute of Statistics from the Annual Surveys of Manufacturing Industries, and classified based on the NACE Rev. 1.1 over the 2003-2008 period. Since the data covers i.e. number of establishments, capital, output, value added, employment structure, investments items, expenditure on labor and materials, value of exports and imports, we are not able to work with variables such as age, ownership structure, geographic location all of which suit well to plant level studies. The data in this study partially well suited to analyzing export-market participation model. In conclusion, the observations for 2003 are treated as the $J=1$ presample year⁷ and are

6 To use this program, inside STATA, type “ssc install mvprobit”.

7 Limited time-series only allow for inclusion of one lag of dependent variable in the estimation while more lags of dependent variable (such as in Roberts & Tybout, 1997) tend to reduce the persistence of exporting.



used to control for the initial conditions problem, and the observations for 2004-2008 are used to estimate the parameters of interest in equation (4).

Industry and Spatial Characteristics

The measures of industry success under consideration include productivity and industry size. Industries of higher productivity are more competitive in both domestic and foreign markets. In the literature, there have been different methods of estimating productivity from a range of estimators. The most common measures by researchers are labor productivity or total factor productivity (TFP) or both. This study uses TFP (in logs), measured by the Olley-Pakes estimator and provided by Arvas & Uyar (2014). Larger industries are associated with economies of scale and lower average or marginal costs, allowing for the role of size in raising the likelihood of exporting. Therefore industries of past success tend to grow relative to others. The study uses the number of establishments (in logs) for industry size.

Labor quality is also of significance in an industry's decision to export. Exported products of higher quality tend to be associated with the workforce of higher quality and become more competitive in international markets. To proxy for workforce quality, natural logarithms of average wages (wages / number of employees) are used.

Spillovers, as a distinguishing factor of spatial character of an industry, between the activities of other neighboring firms in the same industry group and export behavior of the firm reduce the cost of access to the export markets. Bernard & Jensen (2004) consider three separate forms of spillovers: region-specific, industry specific,

and local to the industry and region. This study, following Manez, Barrachina & Sanchis (2008), focuses on the role of industry-specific spillovers; measured as the proportion of the number of establishments to two-digit NACE industry classification where they are operated.

Sunk Costs

The literature on sunk costs and exporting decision has explained the stylized fact by demonstrating that sunk costs produce persistence in the patterns of export market participation. In this study, the one lagged values of dependent variable Y_{it-1} is used to proxy for sunk costs. The coefficient of Y_{it-1} isolates the importance of sunk costs. If we find that Y_{it-1} has positive sign then we can conclude that the last year's exporting has a positive effect on the probability of exporting this year. That is, the level of sunk costs can be incurred by incumbents who exported in the past, but for potential firms it creates barrier to entry since they were non-exporter in the past and have no prior exact profit expectations from exporting because of varying level of sunkness.

Ultimately, Y_{it-1} is a dummy variable taking value one if the industry is a net-exporter in year $t-1$ and zero otherwise. Y_{it-1}^r is dummy variable taking value one if the industry has more than 300 establishments⁸ (a large industry) and the industry is a net-exporter in year $t-1$, and zero otherwise.

⁸ Adapting the approach in Manez *et al.* (2008), large industry criteria is determined as follow: first the median number of establishments is calculated being 275, and then an industry is assigned as "large" if it has 300 establishments which is greater than 275; while industries whose number of establishments are smaller than 275 are assigned as small-sized.

Market Characteristics

Time effects are included in order to capture macro-level changes in export conditions that are common across industries, such as the business cycle, market conditions, exchange rate movements, trade policy, overall changes in demand for Turkish exports and other time-varying factors. Hence, year dummies take value one for the corresponding year, and zero otherwise.

Industry dummies are also included to control for unobservable characteristics of markets where firms compete, such as use of technology, market concentration, and industry specific behavior for 20 sectors of the NACE Rev. 1.1 classification⁹ which take one if the industry belongs the same industry group (division), and zero otherwise.

The vector Z_{it} also includes the log of capital stock variable (calculated as perpetual inventory method) to account for efficiency differences across industries.

ESTIMATION RESULTS

In Table 2, the coefficient on lagged export status as a proxy for sunk costs is highly significant in the export decision. Last year's export decision has a strong positive effect on the probability of exporting this year. This result supports the hypothesis that entering the export market leads

to incurring substantial sunk costs for Turkish manufacturing. That means that in Turkey, higher sunk costs raise the level of protection for incumbent exporters and reinforce industry-level persistence of being a net exporter.

For small industries, the estimated coefficient for the $Y_{i,t-1}$ is positive (0.866) and significant, indicating that exporting in the previous year has a positive impact on the probability of exporting this year. For large firms, the coefficient of $Y_{i,t-1} + Y_{i,t-1}^{\tau}$ is significantly smaller (0.079) than the one of small industries, but still positive and significant (with a p-value approximately 0). That is, sunk costs incurred before entry are higher for small industries than larger industries.

The time dummies indicate there is a variation over time, but only the 2006 and 2007 coefficients are significantly different from zero. The estimate of the dummies for 2006 and 2007 is probably capturing the Turkish Liras appreciation or some macroeconomic shocks (uncertainty) lead to a less probability to export decision.

As for two out of four variables included to proxy for industry past success have a statistically significant impact on net export profitability: size and labor quality. Larger industries are more likely to become exporters and it may reflect the scale economy-based exporting approach by Krugman (1984). But, the coefficient of labor quality shows that Turkish manufacturing industries are not more competitive with respect to labor quality and hence lowering the probability of future profits that is in contrast sharply to those Bernard & Jensen (2004) (for US) and Greenaway & Kneller (2004) (for UK) that high wages are positively associated with the probability of entering export

9 1. Food and beverages, 2. Tobacco, 3. Textiles, 4. Wearing apparel, 5. Leather and shoes, 6. Wood and wood products, 7. Pulp and paper products, 8. Publishing and printing stuff, 9. Chemical products, 10. Rubber and plastic products, 11. Non-metallic mineral products, 12. Basic metals, 13. Fabricated metal products, 14. Machinery and equipment, 15. Office machinery and computers, 16. Electrical machinery, 17. Radio-TV staff, 18. Medical instruments, 19. Motors and cars, 20. Furniture



market. This heterogeneity regarding the role of labor quality across different countries' samples might be the case for developed countries but not the case for developing countries (the same result is obtained for China by Li, 2014). However, the coefficient of the labor force quality does not necessarily mean that a better quality of the labor force will not help to succeed in the export market. A more qualified labor force may

contribute to vertically differentiate the firm's product (Manez *et al.*, 2008: 286) On the other hand, even though its coefficient is insignificant, productivity has a positive value (0.666) and indicates that more productive industries are become stronger incumbents and more likely to become exporters. Clearly total factor productivity has more influences than labor quality.

Table 2. Dynamic Random Effects Multivariate Probit Model

Explanatory Variables	Coeff.	Std. Error
$Y_{i,t-1}$	0.866***	(0.212)
$Y_{i,t-1}^{\tau}$	-0.787***	(0.254)
Year 2005	0.124	(0.214)
Year 2006	-0.324*	(0.198)
Year 2007	-0.486**	(0.199)
Year 2008	-0.347	(0.206)
Size	0.193***	(0.073)
Productivity	0.666	(0.945)
Labor quality	-0.283*	(0.160)
Capital stock	-0.008	(0.076)
Industry-specific spillover	0.527	(2.968)
Food and beverages	-0.563	(0.497)
Tobacco products	-0.157**	(0.015)
Textiles	-2.116***	(0.487)
Wearing apparel	-1.836***	(0.537)
Tanning and dressing of leather	-3.076***	(0.646)
Wood products	-2.002***	(0.539)
Pulp, paper and paper prod.	-0.771	(0.715)
Publishing, printing and reproduct.	-0.398	(0.571)
Chemical products	-0.568	(0.510)
Rubber and plastic prod.	-0.004**	(0.639)
Other non-metallic mineral prod.	-0.645	(0.484)
Basic metals	-1.184**	(0.544)
Fabricated metal prod.	-1.039**	(0.474)
Machinery and equipment n.e.c.	-0.540	(0.473)
Office machinery and computers	4.915	(9.033)
Electrical machinery and apparatus	4.085	(4.329)
Radio-TV	-1.433*	(0.784)
Medical and optical instruments	0.232**	(0.045)
Motors and cars	-1.453**	(0.574)
Furniture	0.248	(0.618)
Intercept	1.905	(1.839)
Observation	739	
Log likelihood	-242.382	
***, **, *, indicate significance at the level of 1, 5, and 10 percent, respectively		

The results are consistent with the prediction that more productive firms [industries] self-select into export markets in theoretical models of Melitz (2003) and Bernard & Jensen (2004). In addition, it seems likely from the coefficient of capital stock that increasing capital leads industries to more import rather than export. In conclusion, if we track the trade pattern of Turkey for the period considered, it can be seen that the import coverage ratio of exports is increasing thus increases in size and productivity drive industries to become a net exporter, and henceforth speeding up increases in exporting rather than increases in importing. Consequently, growth in exports exceeds growth in imports.

The coefficient of industry specific spillover is insignificant but positive showing that if the number of establishments is increasing in a specific industry, it also increases industry's probability to export and reinforce its persistence of exporting. This result is also consistent with Krugman (1992).

Overall, the results reported in Table 2 reveal that the export participation decision and future expected profitability are affected by time-period, macroeconomic conditions, political situations, observable industry costs and demands and unobserved time-invariant industry heterogeneity.

CONCLUSION

Beyond any doubt, a country's competitiveness on international market, basically is driven by the mutually internal and external forces in real world. Characteristic, spatial or technological heterogeneity across firms, industries and countries has generated new insights for new theories on decision to export, variations in export and role of sunk costs which topics are not well explained

by traditional models. Some recent studies, to explain persistence in becoming exporter, have focused on the fact that producers face sunk entry costs when breaking into foreign markets, provided that their expectations for future profits from exporting cover the sunk costs of entering.

Turkish economy is largely dominated by modern industries and the services sector. In terms of manufacturing, it is also one of the leading producing countries in the world for agricultural products; textiles; motor vehicles, ships and other transportation equipment; construction materials; consumer electronics and home appliances and largely Turkey imports non-auto consumer goods, production machinery and equipment, non-fuel industrial supplies, motor vehicles and parts, food, feed and beverages from partner in European Union, China, Canada, Mexico, Japan and many other countries all around the world. Being an emerging market, in Turkey, there needs to be addressed that what factors play an important role on determining manufacturing industries' insight into foreign markets.

In this study, it is tested both for existence of sunk cost in the export decision by Turkish manufacturing industries and whether they differ between large and small industries, and how the future expected profitability increases the probability to more export rather than import. A dynamic multivariate probit model that allows controlling for competing sources of persistence in terms of sunk costs, heterogeneity, and serial correlation in transitory shocks. Using panel data on a four-digit industry group of Turkish manufacturing, it is found evidence that entry costs are important for decision to export. Furthermore, it is also investigated whether sunk costs matter for small



and large industries. Results show that sunk costs matter for both industries but small ones face higher levels of these costs than large ones implying the significance of scale economies and industry heterogeneity in coping with entry barriers. Such factors as obtaining information about foreign demand, advertising, product differentiation and transportation are important sources of sunk costs of entry and many studies show that sunk costs depreciate with the past export experience of firms.

Industries' past success (as measured by size, productivity, labor quality and capital accumulation) has both positive and negative impact on the probability to export and profit expectations. For the Turkish case, while productivity leads firms to more export, on the other hand labor quality and capital accumulation might make importing more profitable for incumbents, thus causing a chronic trade balance deficit, albeit in the last decade it tends to decrease.

For the purposes of public policy implications, the combined relevance of costs and industry characteristics in the probability of exporting suggest possible export promotion policies. For example, policies directed at providing information and access to foreign markets (i.e. a handbook for foreign market profile and conditions) or providing exporting infrastructures could reduce the sunk costs of entry, which is especially crucial for small firms. Obviously, productivity-raising policies, supports to innovation and product differentiation activities, an export premium policy or a change in tax policy would have a positive impact on exporting.

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BATIK MALİYETLER, ENDÜSTRİ HETEROJENLİĞİ, KARLILIK BEKLENTİSİ VE İHRACAT KARARI: TÜRK İMALAT SANAYİ

Özet: Piyasa yapısı, firma davranışları, ihracat gibi konularla ilgili oyun-teorik yaklaşımlardaki teorik ve deneysel gelişmeler (örneğin Dixit & Stiglitz, 1977; Shubik & Levitan, 1980; Spence, 1981; Shaked & Sutton, 1987, 1990; Fisher, 1989; Sutton, 1991, 1998; Pelzman, 1991) firmaların yatırım, araştırma-geliştirme, ürün farklılaştırma, reklam, fiyat farklılaştırması vb. konularda davranış ve tutumlarının nasıl olduğunu daha iyi anlamamıza yardımcı olmaktadır. Batık maliyetler ve firmaların ihracat kararı arasındaki ilişkiyi açıklayan çalışmalarda Dixit (1989a, 1989b), Baldwin (1988, 1989), Baldwin & Krugman (1989) ve Krugman (1989), daha önce ihracat tecrübesi olmayan firmaların ihracat piyasasına giriş kararı aldıkları zaman batık bir maliyete katlanması gerektiğini ifade etmektedirler. O halde firma, kar beklentisinin batık maliyetleri karşılayacağını umuyorsa o zaman ihracat kararı alır. Diğer taraftan ihracat piyasasına giriş batık maliyetler ile engellenmişken, bu durum önceden beri piyasada bulunan yerleşik firmalar açısından bir avantaj doğurarak piyasadaki hâkim pozisyonlarını korumalarını sağlamaktadır; çünkü ihracat faaliyeti aslında yaparak-öğrenme sürecidir ve yerleşik firmanın katlanacağı batık maliyetler dönemler boyunca azalma eğilimine girer. Bu çalışma batık maliyetlerin ve gelecek kar beklentilerinin ihracat kararı üzerine etkilerini Türk imalat sanayi açısından analiz etmeyi amaçlamaktadır. Bu amaçla NACE Rev. 1.1 sınıflandırmasına tabii 4-basamaklı imalat sanayi endüstrilerine ait 2003-2008 yıllarına ait panel veri seti dinamik çok değişkenli probit modeli kullanılarak analiz edilmiştir. Bu modelin tercih edilmesindeki neden bağımlı değişken olan ihracat kararı değişkenin 1 ve 0 aralığında bir olasılık içermesinden kaynaklanmaktadır. Model analizi, T-boyutlu integral çözümlerinin simülasyon en çok olabilirlik yöntemi (SML) ile tahmin etmektedir. Modelde batık maliyetler önceki dönem ihracat kararı kukla değişkeni ile temsil edilmiştir ($Y_{i,t-1}$). Çalışmada, literatüre bir katkı olarak, giriş denklemi büyük ve küçük endüstriler için tahmin edilmiştir. Dolayısıyla $Y_{i,t-1}$ büyük endüstrileri temsil eden bir kukla değişkenidir. Başlangıç şartları sorununu çözmek amacıyla Bernard & Jensen (2004) tarafından önerilen yöntem benimsenerek 2003 yılı firmanın geçmiş durumunu veya başarısını temsilen seçilmiş ve analizler 2004-2008 yıllarını içerecek şekilde tamamlanmıştır. Diğer taraftan endüstriye has gözlemlenebilir özellikler giriş kararını önemli ölçüde etkilemektedir. Yine bunları temsilen daha tutarlı bir tahmin yöntemi olan Oley-Pakes yöntemiyle elde edilmiş toplam faktör verimliliği (TFP, log); işgücünün kalitesi (ücret / işgücü sayısı) ve yayılma etkisi (endüstrideki girişim sayısı / girişimin ait olduğu iki basamaklı endüstri grubundaki toplam girişim sayısı) değişkenleri kullanılmıştır. Ölçek ekonomilerini yansıtmak üzere "size" değişkeni modele dâhil edilmiştir. Bu değişkenin elde edilmesinde endüstrideki giriş sayısı temel alınmıştır. Piyasa özelliklerini yansıtmak üzere yıl ve endüstri kukla değişkenleri modele dâhil edilmiştir. Yıl veya zaman kukla değişkenleri ilgili yıl için "1", diğer yıllar için "0" değerini almakta ve iş çevrimi, piyasa koşulları, döviz kurundaki dalgalanmalar, ticaret politikası, talepte meydana gelen değişimler ve diğer zaman içerisinde değişen faktörleri temsil etmektedir. Endüstri kukla değişkenleri 20 adet iki basamaklı endüstriyi kapsamakta ve yine ilgili endüstri için "1", diğerleri için "0" değerini almaktadır. Endüstri kukla değişkenleri, teknoloji, piyasa yoğunlaşması, endüstriye has davranışlar gibi gözlemlenemeyen faktörlerin giriş kararı üzerine olan olası etkilerini yansıtabilme için kullanılmıştır. Yine ayrıca sermaye stoku (aralıklı envanter yöntemiyle hesaplanan) endüstriler arasındaki etkinlik farklılıklarını temsil etmek üzere modele dahil edilmiştir. Analiz sonuçları Tablo 2'de yer almaktadır. Sonuçlara göre; batık maliyetleri temsil eden değişkenin ($Y_{i,t-1}$) katsayısı küçük endüstriler için istatistiki olarak anlamlı ve pozitif çıkmıştır (0.866). Yani, önceki yıl ihracat tecrübesinin cari yıl ihracatı üzerine olumlu katkısı vardır. Büyük endüstriler için, $Y_{i,t-1} + Y_{i,t-2}$ 'in katsayısı pozitif ve istatistiki olarak anlamlı bulunmuştur (0.079). Her iki grup endüstri için sonuçlar karşılaştırıldığında, küçük endüstrilerin büyük endüstrilere oranla ihracatta daha büyük batık bir maliyete katlandıklarını göstermektedir. Dolayısıyla bu sonuç, Türk imalat sanayi açısından ihracat piyasalarında batık maliyetlerin varlığının yerleşik büyük firmaların piyasadaki durumlarının ve de hâkimiyetlerinin

devamı açısından avantaj yarattığı şeklinde yorumlanabilir. Zaman kukla değişkenlerinden 2006 ve 2007 yıllarına ait katsayılar anlamlı ve sıfırdan farklı değerler olarak bulunmuştur. Buna göre, ilgili yıllara ait katsayılar, muhtemelen dövizle karşı Türk Lirasındaki değerlenmeyi veya bazı makroekonomik şokları ifade etmektedir. Endüstrinin karlılığını veya başarısını ifade eden dört değişkenden ölçek ve işgücü kalitesi değişkenlerinin katsayıları anlamlı bulunurken, toplam faktör verimliliği ve sermaye stoku değişkeni katsayıları anlamsız bulunmuştur. Demek ki Türk imalat sanayinde büyük ölçekli endüstrilerin ihracat eğilimi artarken, bu endüstrilerdeki işgücü kalitesindeki artışlar ihracat yapma eğilimini azaltmaktadır. Bu eğilimi ise gelecek dönemlere ilişkin kar beklentilerini olumsuz etkilemektedir. Bu sonuç Bernard & Jensen (2004) (ABD için) ve Greenaway & Kneller (2004) (İngiltere için) çalışmalarından elde edilen sonuçlara zıtlık arz etmektedir. Diğer taraftan önemli bir kar beklentisi göstergesi olan verimlilik katsayısı istatistikî olarak anlamlı bulunsa da, katsayısının değeri pozitifdir (0.666). Bu katsayıyı şöyle yorumlamak mümkün: Endüstrilerin sermaye stokundaki artışlar, endüstrilerin daha çok ithalat yapma eğilimini artırmaktadır. Bu sonuç, son yıllarda ihracattaki artışlara karşın dış ticaret açığının neden kapatılamadığının bir nedeni olabilir. Sonuç olarak Türkiye gibi gelişen bir ekonomide, özellikle küçük ve orta ölçekli firmaların uluslararası piyasalara daha etkin, daha rahat ve daha rekabetçi girebilmelerini sağlamak amacıyla kamusal politikalarla bunların piyasalar hakkında bilgi edinme süreçlerinin hızlandırılıp etkinleştirilmesi, verimliliklerini artırıcı uygulamalar, vergi politikası gibi politika uygulamalarının gözden geçirilmesinin faydalar sağlayacağı tartışmasıdır.

Anahtar Kelimeler: Batık Maliyetler, Endüstri Heterojenliği, Türk İmalat Sanayi, Dinamik Kesikli-Seçim Modelleri



FOREIGN TRADE – FOREIGN EXCHANGE RATE RELATION: 2001-2011 TURKEY EXAMPLE

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Abstract: Increase in the current deficit in Turkey has been analysed through the changes in foreign trade balance. One of the most important factors on foreign trade is foreign exchange rate as well. Putting forth the effects of exchange rates changes on imports and exports is important from the point of policies to be determined. In this study the relation between foreign trade and foreign exchange rate in Turkey has been analyzed. In the analysis American Dollar (USD) effective sales prices have been used as representative of real foreign exchange rate variable, the relation between USD, imports and exports with monthly data in 2001-2011 period has been tested with Granger causality analysis. Following this long term relation between these variables has been analyzed under standard VAR model. The two ways causality relation determined between real foreign exchange rate and imports and exports as well as the one way causality relation determined from real foreign exchange rate towards exports have been supported by variance decomposition analysis results and cause-effect analysis results with the help of standard VAR model.

Key Words: Foreign Trade, Foreign Exchange Rate, Causality, VAR Analysis, Cause-Effect

INTRODUCTION

Foreign-exchange rates for developing and developed countries have been highly volatile since the abandonment of fixed exchange rates in March 1973, following the U.S. dollar devaluation in February 1973. A central question has been the effect of such high exchange-rate volatility on the growth of foreign trade (Arize, Osang and Slottje, 2000: 10)

In the Turkish economy which transitioned from an import substituting industrialization policy after 1980 to export oriented industrialization policy, with the small devaluations in the foreign exchange rates in 80s exports have been incre-

ased. By this way serious export increases have been realized. However, these policies that were not supported by export oriented manufacturing industry investments have lost their effect after a while. In the economic structure that was shaped with globalization trends which gained momentum in 1990s the foreign exchange rate changes have become important in short term speculative capital flows' getting impacted. In this period when economic growth dynamics were based on short term speculative capital movements Turkish economy encountered important crisis.

Foreign trade imbalances have a profound effect on economic stabilization by the volatility of the exchange rate. Most of literatures have focused

on these problems. “Economists pay attention to the role played by trade in financial crises for two reasons.” (Ma and Cheng, 2005: 254-255):

One of them; trade imbalance has been shown to be one of the important factors that triggers financial crises. Current deficits may decrease foreign reserves. Therefore it has a great negative effect on economic performance such as diminishing exchange reserves, weakness of economic resistance, instability on general price level, etc...

The other one; financial crises may be transmitted through trade linkages from an affected country to others despite the latter’s relatively good fundamentals.

Particularly decreases in foreign exchange rates in the post 2001 crisis period have both encouraged imports and created export decreasing effects. However, due to the fact that Turkish exports were particularly comprised of low value added assembly industry, exports have become imports dependents. Therefore, putting forth the effects of foreign exchange variability on exports and imports and drawing correct inferences from results have become quite important. Understanding effects of foreign exchange rate fluctuations on trade is important in determination of appropriate foreign exchange rate policies by developing countries. Generally speaking the idea that fluctuations in foreign exchange rates cause tightening of trade volume is dominant (Gul and Ekinci, 2006: 165-190). The changes taking place in real foreign exchange rates can significantly affect macro-economic balances. Particularly fluctuations in exchange rates in developing countries are the major determinants of countries’ competition power and hence their foreign trade movements.

IMF and significant international monetary institutions emphasize two corner solutions: floating exchange rate system and fixed exchange system (Swada and Yotopoulos, 2005: 3)

The debates on exchange regimes mainly focus on two aspects of regimes (Ertekin, 2013: 13) :

First one is “the credibility” and the other one is “the elasticity”. Credibility is the ability to foresee the future economic trends. Elasticity is the ability to absorb domestic and foreign economic fluctuations. All of the regimes are assessed in terms of “credibility” and “elasticity”. These two aspects can also be explained through two extreme exchange rate regime implementations. According to Ozdemir (2000), “In the free floating exchange rate regime, there is no central Bank intervention.... Thus, this regime results in elasticity. In the fixed exchange rate regime, policy makers cannot implement independent monetary policy, but causes high credibility”

The foreign exchange range system applied in Turkey shows differences by periods. In the period before 1980 fixed exchange rate system has been applied. In the post 1980 period transition from fixed foreign exchange rate system to flexible exchange rate system has been realized. In the 1980-1989 period however, fixed exchange rate system where frequent devaluations were made has been applied. While in the 1989-1999 period controlled free exchange rate system has been applied, in the 2000-2001 period fixed exchange rate where daily increases were determined has been applied. Starting from the second half of 2001 free exchange rate system where CBRT interventions are restricted is in use. Relatively in the 1980-2001 period where foreign exchange



rates were used as an advantage gaining instrument in foreign trade and completely in post 2001 period export oriented growth model is being applied (Barisik and Demircioglu, 2006: 71-84). Contrary to the expectation that against Turkish Lira's appreciation gradually in recent years exports would be affected adversely, a real increase trend in exports is observed. In response to this imports kept their faster increase than exports and by this way current deficit has continued to grow. This situation can be explained by the use of cheap imported intermediate goods and services in the manufacturing of goods and services subject to exports.

In this study, primarily relation between real foreign exchange rate, exchange rate volatility and foreign trade has been touched upon and situation in Turkish economy has been summarized. Besides, previous practical studies conducted in this field both in Turkey and in the world have been analyzed. Finally by discussing the methods used in the analysis the causality relation between the American dollar sales price that represents real foreign exchange rate and imports and exports has been tested with the 2001-2011 data belonging to Turkey and by the help of VAR analysis obtained findings have been interpreted. A summary of the obtained findings of the study has been presented as conclusion and suggestions.

LITERATURE

In literature, in the theoretical and practical studies analyzing the relations between exports, imports and real foreign exchange rate various opinions are being brought forward.

In their studies Arize (1998), Kumar and Dhawan (1991), Vergil (2002), Choudhry (2005) and Takaendesa, Tsheole and Aziakpono (2005), Pozo (1992), Cushman(1986), Arize, Osang and Slottje (2000) and Arize, Malindretos and Kasibhatla (2003) have presented evidences showing that foreign exchange rate volatility has negative effects on foreign trade.

On the other hand a group of economists defend the thesis that firms take the volatilities in exchange rate market as an opportunity to make the trade more profitable. This opinion has been supported by the researches of Klein (1990), McKenzie and Brooks (1997), Dellas and Zilberfarb (1993). This means that in these studies it has been concluded that foreign currency exchange rate volatility has a positive effect on foreign trade.

Some of the applied studies analyzing the relation between exports, imports and real foreign exchange rate in Turkish economy are as follows:

In his study where three monthly data for 1980-1996 period have been used Doganlar (2002) has concluded that uncertainty in foreign exchange rate has negative effects on exports.

In the study where monthly data for the 1994:1-2000:6 period have been used Sivri and Usta (2001) have concluded that real foreign exchange rate did not have significant effect on trade balance. In his study which analyzed the effects of exchange rate policies in 1980-1988 on exports Abusoglu (1990) has determined that there was no significant relation between real effective foreign exchange rate and exports.

In his study where he used three monthly data for 1988-1997 period Ozbay (1999) has found that

uncertainty in the exchange rates in Turkey had statistically significant negative effects on exports.

In their study Ozturk and Acaravci (2003) have used the data for 1989:01-2002:08 period and reached the conclusion that uncertainty in foreign exchange rate affected the exports in a negative way. In the study where three monthly data for 1981 May-2001 February period have been used Saatcioglu and Karaca (2004) have reached the conclusion that foreign exchange rate uncertainty in Turkey adversely affected exports both in the short term and long term. In the study where three monthly data for 1980-2001 period have been used Tuncsiper and Oksuzler (2006) have reached the conclusion that foreign exchange rate risk affected the total and sectoral exports in negative way.

In the study where monthly data for 1989:01-1996:12 period have been used Terzi ve Zengin (1999) have set forth the conclusion that there was no relation between exchange rate and imports and exports neither in total nor in sectoral basis. Gul and Ekinçi (2006) have reached the conclusion that there was no causality relation between the real exchange rates and imports-exports. Barisik and Demircioğlu (2006) have set forth the existence of a weak relation between foreign exchange regime and exports-imports.

METHOD

In determination of the relations between real foreign exchange rate, exports and imports firstly

$$\Delta Y_t = \alpha_1 Y_{t-1} + \sum_{i=1}^k \beta_i \Delta Y_{t-i} + \varepsilon_t \quad (1)$$

$$\Delta Y_t = \alpha_0 + \alpha_1 Y_{t-1} + \sum_{i=1}^k \beta_i \Delta Y_{t-i} + \varepsilon_t \quad (2)$$

$$\Delta Y_t = \alpha_0 + \alpha_1 trend + \alpha_2 Y_{t-1} + \sum_{i=1}^k \beta_i \Delta Y_{t-i} + \varepsilon_t \quad (3)$$

stationarity of series belonging to variables have been analyzed and series have been made stationary. Later between the variables the short term relation has been put forth by Granger causality test and long term relation has been put forth by VAR analysis method.

Stationarity (Unit Root) Test

In order to determine the most appropriate model in the analysis of data it is necessary to analyze whether the used time series are stationary or not. Because it is known that series show stochastic trends and their averages can change over time. In order for the relations between variables to be determined in econometric analyses series should not contain unit root, which means that they should be stationary. In order for a time series to be stationary its average, its variance and its common variance should not change with respect to time. Stationarity is talked about for a probabilistic process whose average and variance do not change over time and whose common variance between two periods is not dependent on the period in which this common variance is calculated but dependent only on the distance between two periods. (Gujarati, 2006: 713)

The most common approach used in testing of a stationarity of a time series is DF unit root test that was developed by Dickey and Fuller (1979-1981). The “Augmented Dickey Fuller (ADF) test regression equations used in this study are as follows:



In the equations, $i = 1, 2, 3, \dots, k$ parameters indicate the optimal lag length where autocorrelations between variables are eliminated. In the study the suitable lag lengths where autocorrelation problem is eliminated have been determined by conducting LM autocorrelation tests.

Granger Causality Test

$$\Delta X_t = \alpha_0 + \sum_{i=1}^m \beta_i \Delta X_{t-i} + \sum_{i=1}^n \gamma_i \Delta Y_{t-i} + \varepsilon_t \quad (4)$$

$$\Delta Y_t = \delta_0 + \sum_{j=1}^p \theta_j \Delta Y_{t-j} + \sum_{j=1}^q \varphi_j \Delta X_{t-j} + \varepsilon_t \quad (5)$$

In Granger causality test series need to be stationary however, condition of being stationary at the same level for series is not sought (Telatar and Terzi, 2009: 119-134). In the equations m, n, p and q indicate optimal lag lengths. In the study the optimal lag lengths have been determined by looking at Akaike Information Criterion (AIC) and

Granger causality test is a test that determines whether there is a causality between any two variables or not, and if it determines the direction of the causality. Granger causality test assumes that the information related to estimation of variables exists only in the time series data of these variables. The regression equations related to test are constructed as follows (Gujarati, 2006: 620) :

Schwarz Information Criterion (SC) for each added lag. In the model firstly lag number of dependent variable is determined and restricted regression equation is obtained. Later other variable's lag number is determined and unrestricted regression equation is obtained and F statistics is calculated.

$$F = \frac{\frac{SSR_R - SSR_{UR}}{q}}{\frac{SSR_{UR}}{T - k}} \quad (6)$$

H_0 : Is not Granger cause. H_1 : Is Granger cause.

If calculated F statistics is greater than the table value at $(q, T-k)$ degree of freedom and α significance level null hypothesis is rejected.

Vector Auto-regression (VAR) Analysis

This model which was developed by C.A. Sims uses Granger causality test as base and for example if there are two internal variables in the model each of them is associated with lagged values of both its own and other variable up to a certain period (Ertek, 1996: 404). In VAR analysis it is accepted that all the variables in

the model are internal and each of the internal variables is a function of lagged values of all the internal variables in the model and with this aspect it differs from structural models (Enders, 1995: 312).

In VAR analysis determination of lag lengths of variables is also quite important. With the assumption that variables are stationary in VAR analysis firstly optimal lag lengths of variables are determined by looking at various information criteria. In the VAR model formed in the study suitable lag lengths have been determined this

way, as well. Because time series belonging to variables used in the study are not stationary at the same degree in the VAR analysis “Standard VAR” model has been used. In VAR analysis there are two different applications which put forth the dynamic relations between variables. These are “variance decomposition” and “cause-effect functions”.

Variance decomposition separates the change in one of the internal variables as different individual shocks affecting all the internal variables. Purpose of variance decomposition is to find out the effect of each random shock on error variance of forecast for future periods (Aktas, 2010: 123-140).

Cause-effect functions reflect the effect of one standard deviation shock in one of the random error terms on present and future values of internal variables. While which is the most effective variable on an economic magnitude is determined by variance decomposition whether or not this variable found to be effective can be used as a policy instrument is determined by cause-effect functions (Sari, 2008: 1-12).

DATA

In the analyses monthly data for American Dollar (USD) effective sales price (converted to TL), imports (Total) and exports (Total) encompassing 2001-2011 period have been used. All the data have been obtained from Central Bank of Republic of Turkey electronic distribution system. However, monthly data for American Dollar effective sales

price have been formed by taking daily averages for each month. In the study logarithmic values of data have been used. For the variables LUSD (American Dollar effective sales price), LITH (imports) and LIHR (exports) identifications have been made.

ANALYSIS AND FINDINGS

In this section in order to determine the relations between foreign exchange rate, imports and exports modeling of these variables has been included. In the real effective foreign exchange rate index a methodological change has been made and calculation method of index has been changed. Accordingly CPI and PPI based real effective foreign exchange rate data have been recalculated starting from 2003. Therefore, since there was no continuous real effective exchange rate data belonging to 2001-2011 period which is the analysis period in the study as a representative of this variable American Dollar effective sales prices data have been used in the analyses. All of the econometric analyses have been made by the help of Eviews 5.1 program.

Stationarity Test: Unit Root Test

For the stationarity test in our study the (Augmented Dickey Fuller) ADF test that was developed by Dickey and Fuller (1979) has been used. The ADF unit root test results that show stationarity levels of variables to be used in the analyses are presented in Table -1.

**Table 1. ADF Unit Root Test Results**

		Level		1. Difference	
		With trend- With constant	With constant	With trend – With constant	With constant
LUSD		-5,55* (1)	-5,51*(1)		
LIHR		-5,40* (1)	-2,70 (1)		
LITH		-3,52 (2)	-2,44 (2)	-12,35* (1)	-12,24* (1)
Mac	%1	-4,03	-3,48	-4,03	-3,48
Kinnon	%5	-3,44	-2,88	-3,44	-2,88

* At 1% and 5% significance levels they are significant values with respect to Mac Kinnon critical value. Values in paranthesis are the most appropriate lag lengths without autocorrelations.

As seen in the Table-1 because the ADF-t statistics which was found for LUSD and LIHR variables at level values is more negative than Mac Kinnon critical value these series are stationary at level

values. When the first difference of LITH variable is taken it is seen from Table 1 that series are stationary.

Granger Causality Test

In this section in order to determine whether or not there is a relation between variables as well as direction of the relation Granger causality test will be applied. The tests that will be used in the causality test are as follows:

$$LUSD_t = \alpha + \sum_{i=1}^m \beta_i \cdot LUSD_{t-i} + \sum_{i=1}^n \theta_i \cdot LIHR_{t-i} + u_t \quad (7)$$

$$LUSD_t = \alpha + \sum_{i=1}^m \beta_i \cdot LUSD_{t-i} + \sum_{i=1}^n \theta_i \cdot \Delta LITH_{t-i} + u_t \quad (8)$$

$$\Delta LITH_t = \alpha + \sum_{i=1}^m \beta_i \cdot \Delta LITH_{t-i} + \sum_{i=1}^n \theta_i \cdot LUSD_{t-i} + u_t \quad (9)$$

$$\Delta LITH_t = \alpha + \sum_{i=1}^m \beta_i \cdot \Delta LITH_{t-i} + \sum_{i=1}^n \theta_i \cdot LIHR_{t-i} + u_t \quad (10)$$

$$LIHR_t = \alpha + \sum_{i=1}^m \beta_i \cdot LIHR_{t-i} + \sum_{i=1}^n \theta_i \cdot LUSD_{t-i} + u_t \quad (11)$$

$$LIHR_t = \alpha + \sum_{i=1}^m \beta_i \cdot LIHR_{t-i} + \sum_{i=1}^n \theta_i \cdot \Delta LITH_{t-i} + u_t \quad (12)$$

In these equations the most appropriate lag lengths of variables have been determined by looking at

Akaike and Schwarz information criteria. Accordingly, obtained results are presented in Table 2.

Table 2. Granger Causality Test Results

	$F_{\text{calculated}}$	F_{table}	Assessment
LIHR >> LUSD	0,0024	F(1,125)=3,89* F(1,125)=6,76**	H_0 : Cannot be rejected – Export is not Granger cause of USD
LUSD >> LIHR	5,9140	F(2,124)=3,07* F(2,124)=4,79**	H_0 : Is rejected – USD is granger cause of exports
DLITH >> LUSD	27,1410	F(1,125)=3,89* F(1,125)=6,76**	H_0 : Is rejected – Import is granger cause of USD
USD >> DLITH	3,1975	F(2,126)=3,07* F(2,126)=4,79**	H_0 : Is rejected – USD is granger cause of imports
LIHR >> DLITH	7,3411	F(12,116)=1,83* F(1,38)=2,34**	H_0 : Is rejected – Export is granger cause of import
DLITH >> LIHR	9,0408	F(13,113)=1,75* F(13,113)=2,19**	H_0 : Is rejected – Import is granger cause of export

* They are F statistics table values at 5% significance level .

** They are F statistics table values at 1% significance level

After the Granger causality test which shows short term equilibrium and whose results are presented in detail in Table-2 the long term equilibrium will be analyzed by the help of VAR analysis.

Vector Auto-regression Analysis

When one looks at the variables to be included in the model in VAR analysis it is seen that LUSD

and LIHR variables are stationary at level values and LITH variable is first degree stationary. In VAR analysis variables that are stationary at different levels can be included in the analysis. However, cointegration analysis cannot be performed with these variables. In VAR analysis firstly the VAR lag length which is determined by information criteria should be estimated correctly. Regarding this point, in determination of VAR lag length the values in Table-3 belonging to Standard VAR model will be used.

**Table 3. Information Criteria Related to VAR Lag Length**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	113.0748	NA	3.25e-05	-1.819418	-1.750101	-1.791265
1	442.6968	637.4509	1.63e-07	-7.118956	-6.841687	-7.006346
2	487.4759	84.37713	9.00e-08	-7.710346	-7.225126*	-7.513279
3	502.4951	27.55584	8.15e-08	-7.809836	-7.116665	-7.528313*
4	513.0725	18.88197	7.95e-08	-7.835909	-6.934786	-7.469929
5	527.2453	24.59750	7.32e-08	-7.921411	-6.812337	-7.470973
6	535.8882	14.57149	7.38e-08	-7.915508	-6.598483	-7.380614
7	554.3606	30.22749	6.34e-08	-8.072076	-6.547099	-7.452725
8	566.1986	18.78433*	6.09e-08*	-8.118986*	-6.386057	-7.415177
9	573.7877	11.66584	6.28e-08	-8.095664	-6.154785	-7.307399
10	580.6831	10.25759	6.56e-08	-8.060877	-5.912046	-7.188155

As is seen in Table 3, LR FPE and AIC information criteria point to 8 lags. Because there are more information criteria pointing to 8 lags, by testing the appropriateness of 8 lag VAR model analysis will be continued. The characteristics

roots of 8 lagged VAR model have been presented in Figure 1. Here it is seen that all roots of VAR model are within the root circle and there are no different variances.

Inverse Roots of AR Characteristic Polynomial

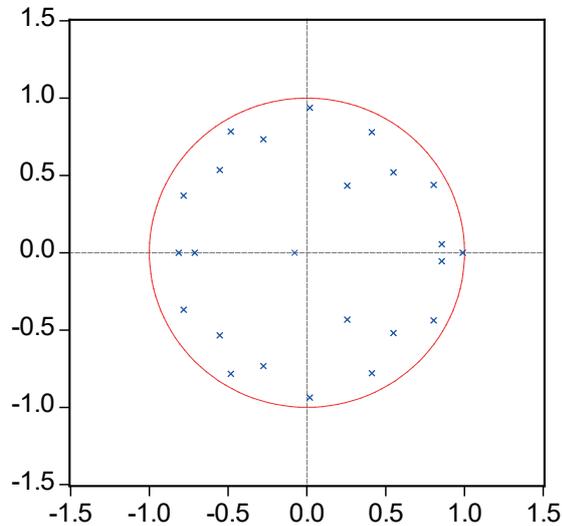


Figure 1. Characteristics Roots of VAR Model

The LM autocorrelation test outputs that show whether there is autocorrelation in the model or not are presented in Table 4.

Table 4. LM Autocorrelation Test Outputs

Lags	LM-statistics	Probability
1	12.76502	0.1735
2	10.42782	0.3170
3	17.97873	0.0354
4	19.57988	0.0207
5	25.75315	0.0022
6	9.731292	0.3727
7	4.360031	0.8862
8	13.18056	0.1546
9	9.926677	0.3565
10	14.51327	0.1052

When the values in Table 4 are analysed it is seen that it is possible to continue to the analysis with the formed standard VAR model. At this stage it is necessary to interpret the cause-effect analysis which explores long term relation.

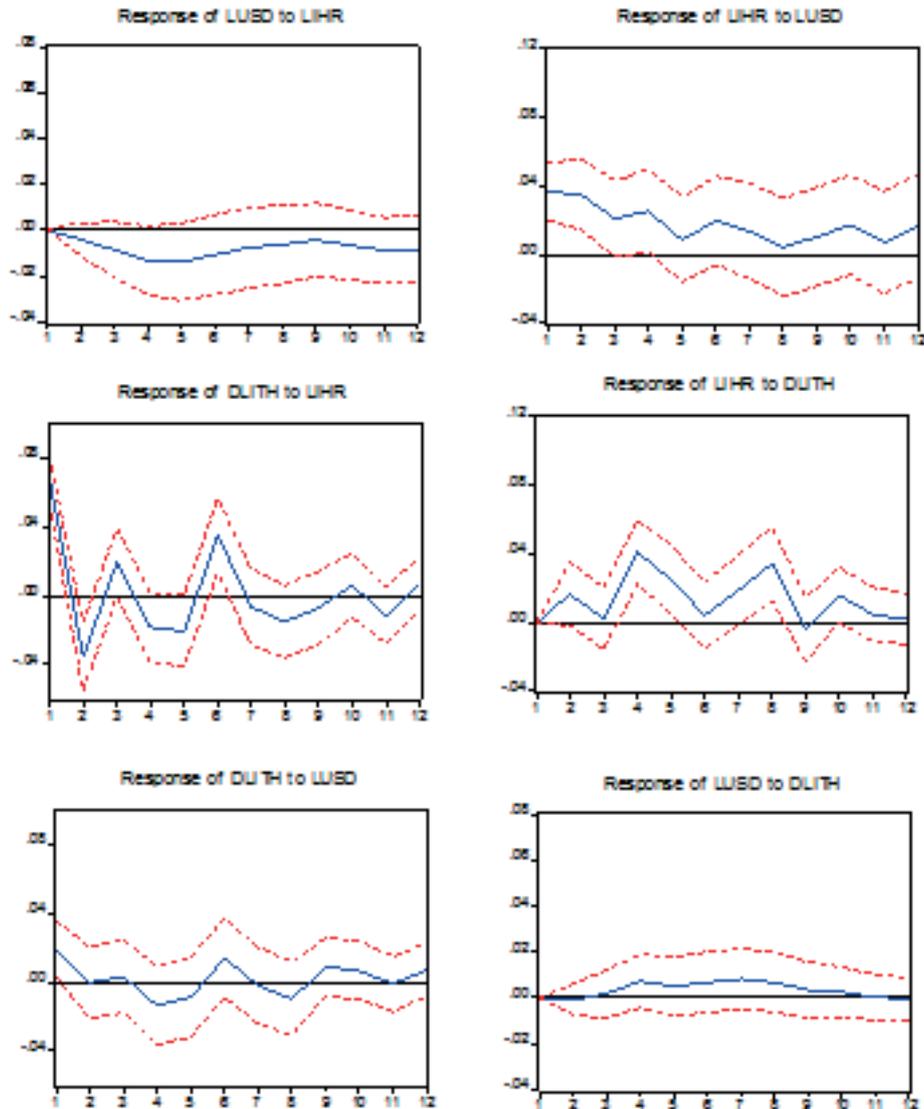


Figure 2. Cause– Effect Functions

When one looks at cause-effect functions given in Figure 2 the following results come forth:

According to the first graph showing USD's reaction against one standard deviation shock that will take place in exports a result comes forth that exports it is detected that exports have not very important negative effect on USD. In the second graph showing export's reaction against one standard deviation shock that will take place

in USD however, it is seen that USD has a decreasing positive effect on exports. These graphs that show cause-effect relations between USD and exports also present an evidence of one way causality relation between USD and exports that is determined between the two variables.

The third and fourth graphs in Figure 2 show cause-effect relation between imports and exports. In both graphs it is possible to see that impor-

tant effect of variables on each other have been changing in increasing-decreasing way during all periods. This situation can be based on two ways causality determined between the two variables. Besides, it is seen that effect of imports on exports is positive in all periods.

The fifth and sixth graphs in Figure 2 however show the cause-effect relation between imports and USD. According to the fifth graph that shows the imports' reaction against one standard deviation shock that will take place in USD it is seen that effect is positive in some periods and negative in some other periods. That means that effect of

USD on imports is changing. In the sixth graph it is seen that imports have an increasing positive effect on USD until the 4th period but this increasing positive effect gives place to a stationary positive effect after the 4th period. Likewise, these graphs support the two ways causality relation determined between USD and imports, as well.

In order for the long term relation to be analyzed sturdily, in addition to cause-effect functions, variance decomposition results of these variables should also be analyzed. Variance decomposition results for USD, imports and exports are presented below.

Table 5. Variance Decomposition of Imports

Period	S.H.	LUSD	LIHR	DLITH
1	0.092300	4.261388	53.34537	42.39325
2	0.103775	3.373898	54.04689	42.57921
3	0.105575	3.338459	55.51328	41.14826
4	0.114759	4.273469	49.58161	46.14492
5	0.118107	4.608451	49.87829	45.51325
6	0.126724	5.229478	50.89928	43.87124
7	0.126947	5.244177	51.01172	43.74410
8	0.128313	5.717359	51.34862	42.93402
9	0.129623	6.049080	50.61020	43.34072
10	0.130317	6.232642	50.27534	43.49201
11	0.131957	6.088188	49.82109	44.09072
12	0.132584	6.311448	49.62515	44.06340

According to the results in Table 5 it is possible to say that exports have important effects in all periods on change in the variance of imports and USD's effect is little if any. According to the data

in Table 45% of changes in imports in almost all periods stem from itself while 55% of changes originate from exports.

**Table 6. Variance Decomposition of Exports**

Period	S.E.	LUSD	LIHR	DLITH
1	0.095532	14.86220	85.13780	0.000000
2	0.106217	22.94335	74.62015	2.436498
3	0.113278	23.64132	74.17484	2.183840
4	0.124948	23.60183	63.72437	12.67380
5	0.128546	22.77163	61.45713	15.77124
6	0.137272	22.08544	63.98471	13.92986
7	0.147355	20.06346	66.17839	13.75815
8	0.155078	18.19567	64.48348	17.32086
9	0.157784	18.03265	65.18139	16.78596
10	0.162720	18.09335	65.14128	16.76537
11	0.163834	18.04684	65.33307	16.62009
12	0.166542	18.46234	65.43732	16.10035

According to the results given in Table 6 however, it is seen that on the change in variance of exports it is mostly itself which has effect. It is seen that on the changes in variance of exports USD has some but little effects but this effect is gradually

decreasing. Similarly, from Table 6 again it is seen that imports do not have any effect in the first 3 periods and this effect is approximately 15% in the periods after third period.

Table 7. Variance Decomposition of USD

Period	S.E.	LUSD	LIHR	DLITH
1	0.035914	100.0000	0.000000	0.000000
2	0.061583	99.58675	0.391384	0.021868
3	0.075620	98.39026	1.538783	0.070953
4	0.086081	95.70908	3.511254	0.779666
5	0.093994	93.97906	5.086294	0.934642
6	0.098417	92.86692	5.809832	1.323250
7	0.101575	92.07641	6.014396	1.909192
8	0.104732	91.77324	6.016144	2.210620
9	0.107253	91.90183	5.884178	2.213988
10	0.109359	91.80844	6.009400	2.182159
11	0.111319	91.47129	6.422424	2.106288
12	0.112985	91.20320	6.751193	2.045603

When one looks at variance decomposition results of USD, in the 1st period USD has only been affected by the changes in itself. In all the following periods it was largely USD itself which had effect on the changes in variance of USD. From Table 7 it is seen that total effect of imports and exports do not reach 10%. However, it has been clear that no matter which period it is, exports have more important contribution than imports to the changes in USD. This result does not support the result “Export is not granger cause of USD” which is one of the findings in causality analysis.

CONCLUSION AND SUGGESTIONS

In this study relations between real foreign currency exchange rate, imports and exports have been analyzed for 2001-2011 period. Under standard VAR model, causality relations between imports, exports and foreign currency exchange

rate have been analyzed by Granger Causality Analysis and between imports and exports as well as between exchange rate and imports two way and from exchange rate to exports one way causality relation have been found. Accordingly, it has been statistically put forth that changes in exchange rates had significant effects on imports and exports in the analysis period. In the long term exports increase in foreign currency exchange rate. Increase in exports causes increase in imports of intermediate goods used in exported goods hence increase in total imports, as well. That means that increase in exchange rate increases the imports, as well. In addition to that because increasing of imports facilitates foreign currency inflow it also causes an increase in foreign exchange rate. However, this effect of imports on exchange rates has been eliminating the expected effect of exports on exchange rates. All these findings set forth that



causality relations between imports, exports and foreign currency exchange rate should be analyzed from the perspective of policies to be applied in Turkey. In forming of these policies in Turkey, in order to eliminate negative effects of exchange rate changes on foreign trade and current deficit, decreasing dependency of exports on imports is one of the most important subject matters.

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DIŞ TİCARET – DÖVİZ KURU İLİŞKİSİ: 2001 – 2011 TÜRKİYE ÖRNEĞİ

Özet: Türkiye’de cari açığın artması, bunun nedenlerinden biri olan dış ticaret dengesindeki değişimlerin incelenmesini önemli hale getirmiştir. Dış ticaret üzerindeki en önemli etkenlerden biri de döviz kurudur. Döviz kurundaki değişimlerin, ithalat ve ihracat üzerinde yarattığı etkilerin ortaya konması, belirlenecek politikalar açısından önemlidir. Bu çalışmada, öncelikle reel döviz kuru, döviz kuru oynaklığı ile dış ticaret ilişkisine değinilmiş ve Türkiye ekonomisindeki durum özetlenmiştir. Ayrıca bu konuda hem dünyada hem de Türkiye’de daha önce yapılan uygulamalı çalışmalar da incelenmiştir. Son olarak analizlerde kullanılan yöntem anlatılarak, reel döviz kurunu temsil eden Amerikan doları satış fiyatı, ithalat ve ihracat arasındaki nedensellik ilişkisi, Türkiye’ye ait 2001-2011 yılları arasındaki verilerle test edilmiş ve VAR analizi yardımıyla elde edilen bulgular yorumlanmıştır. **Yöntem:** Reel döviz kuru, ihracat ve ithalat arasındaki ilişkilerin belirlenmesinde öncelikle değişkenlere ait serilerin durağanlıkları incelenmiştir. Çünkü Ekonometrik analizlerde değişkenler arasındaki ilişkilerin tespit edilebilmesi için serilerin birim kök içermemesi, yani durağan olması gerekir. Bu çalışmada serilerin durağanlığının sınanmasında, yaygın kullanılan yaklaşımlardan biri olan “Dickey-Fuller Birim Kök Testi” kullanılmıştır. Daha sonra değişkenler arasındaki kısa dönem ilişkisi, durağan seriler kullanılarak Granger nedensellik testi ile incelenmiştir. Granger nedensellik testi, herhangi iki değişken arasında bir nedensellik olup olmadığını, eğer nedensellik var ise nedenselliğin yönünü belirleyen bir sınamadır. Değişkenler arasındaki uzun dönem ilişkisi ise VAR analizi yöntemiyle ortaya konulmuştur. C.A. Sims tarafından geliştirilen bu model Granger nedensellik testi modelini temel alır ve örneğin modelde iki içsel değişken varsa bunların her biri hem kendi, hem de diğer içsel değişkenin belli bir döneme kadarki gecikmeli değerleri ile ilişkilendirilir (Ertek, 1996: 404). VAR analizinde, değişkenler arasındaki dinamik ilişkileri ortaya koyan iki farklı uygulama vardır. Bunlar, bu çalışmada da yer alan “varyans ayrıştırması” ve “etki-tepki fonksiyonları”dır. Varyans ayrıştırması, içsel değişkenlerden birisindeki değişimi, tüm içsel değişkenleri etkileyen ayrı ayrı şoklar olarak ayırır. Varyans ayrıştırmasının amacı, her bir rassal şokun, gelecek dönemler için öngörünün hata varyansına olan etkisini ortaya çıkarmaktır (Aktaş, 2010: 123-140). Etki – tepki fonksiyonları, rassal hata terimlerinden birindeki bir standart sapmalı şokun, içsel değişkenlerin şimdiki ve gelecekteki değerlerine olan etkisini yansıtır. Bir ekonomik büyüklüğün üzerinde en etkili değişkenin hangisi olduğu varyans ayrıştırması ile belirlenirken, etkili bulunan bu değişkenin politika aracı olarak kullanılabilir olup olmadığı ise etki-tepki fonksiyonları ile belirlenir (Sarı, 2008: 1-12). **Veri Seti:** Analizlerde 2001 – 2011 dönemini kapsayan Amerikan Doları (USD) efektif satış fiyatı (TL dönüşümü yapılmış), ithalat (Toplam) ve ihracat (Toplam) değişkenlerine ait aylık veriler kullanılmıştır. Çalışmada verilerin logaritmik değerleri kullanılmıştır. Değişkenler için LUSD (Amerikan Doları efektif satış fiyatı), LITH (ithalat) ve LIHR (ihracat) tanımlamaları yapılmıştır. **Analiz ve Bulgular:** Durağanlık analizinde LUSD ve LIHR serileri düzey değerlerinde durağandır. LITH serisi ise birinci farkı alındığında durağan olmaktadır. Granger nedensellik testi sonuçlarına göre ise, LUSD’dan LIHR’a doğru tek yönlü bir nedensellik ilişkisi, LUSD ile LITH arasında ve LIHR ile LITH arasında ise çift yönlü bir nedensellik ilişkisi olduğu tespit edilmiştir. Daha sonra VAR modeli üzerinden yapılan etki-tepki analizinde elde edilen bulgular şu şekildedir: İhracatta meydana gelecek bir standart sapmalı şok karşısında USD’nin tepkisine bakıldığında, ihracatın USD üzerinde önemli olmayan negatif bir etkisi olduğu görülmektedir. USD’nin ihracat üzerinde ise azalan bir pozitif etkisinin olduğu sonucu ortaya çıkmaktadır. USD ile ihracat arasındaki etki-tepki ilişkisi, iki değişken arasında belirlenen USD’den ihracata doğru tek yönlü nedensellik ilişkisinin de bir kanıtını sunmaktadır. İthalatla ihracat arasındaki etki-tepki ilişkisine bakıldığında, değişkenlerin birbirleri üzerindeki önemli etkinin tüm dönemler boyunca artan-azalan şeklinde değiştiği görülmektedir. Bu durum iki değişken arasında belirlenen çift yönlü nedenselliğe dayandırılabilir.



Ayrıca ithalatın ihracat üzerindeki etkisinin her dönemde pozitif olduğu görülmektedir. İthalatla USD arasındaki etki-tepki ilişkisine bakıldığında, USD’de meydana gelecek bir standart sapmalı şoka karşılık ithalatın verdiği tepkinin bazı dönemlerde pozitif bazı dönemlerde de negatif olduğu görülmektedir. Yani USD’nin ithalat üzerindeki etkisi değişkendir. İthalatın ise USD üzerinde 4. döneme kadar artan pozitif etkisinin olduğu, 4. dönemden sonra bu artan pozitif etkinin yerini durağan pozitif etkiye bıraktığı sonucu ortaya çıkmıştır. Bu da USD ile ithalat arasında belirlenen çift yönlü nedensellik ilişkisini desteklemektedir. Uzun dönemli ilişkinin sağlıklı bir şekilde analiz edilebilmesi için, etki – tepki fonksiyonlarının yanında bu değişkenlerin varyans ayrıştırma sonuçları da incelenmiştir. Varyans ayrıştırma sonuçlarına göre ithalatın varyansındaki değişim üzerinde her dönemde ihracatın önemli bir etkisinin olduğunu, USD’nin etkisinin ise yok denecek kadar az olduğunu söylemek mümkündür. İhracatın varyansındaki değişim üzerinde ise büyük oranda kendisinin etkili olduğu görülmektedir. İhracatın varyansındaki değişimlerde az da olsa USD’nin de etkisi olduğu, ancak bu etkinin giderek azaldığı sonucu ortaya çıkmıştır. USD’nin varyans ayrıştırma sonuçlarına bakıldığında ise, 1. dönemde USD sadece kendisindeki değişimlerden etkilendiği ve bundan sonraki bütün dönemlerde USD’nin varyansındaki değişimlerde büyük oranda kendisinin etkili olduğu, ithalatla ihracatın toplam etkisinin %10’u bulmadığı görülmektedir. **Sonuç:** İncelenen dönemde döviz kurundaki değişimlerin ithalat ve ihracat üzerinde önemli bir etkisinin olduğu istatistiksel olarak ortaya konmuştur. Uzun dönemde döviz kurundaki artış ihracatı arttırmaktadır. İhracatın artması, ihraç edilen malların üretiminde kullanılan ara malların ithalatının artmasına, dolayısıyla toplam ithalatın da artmasına neden olmaktadır. Yani döviz kurundaki artış ithalatı da arttırmaktadır. Bunun yanında ithalatın artması döviz girişini sağladığı için döviz kurunda da artışa neden olmaktadır. Yalnız ithalatın döviz kuru üzerindeki bu etkisi, ihracatın döviz kuru üzerinde olması beklenen etkiyi ortadan kaldırmaktadır.

Anahtar Kelimeler: Dış Ticaret, Döviz Kuru, Nedensellik, VAR Analizi, Etki-Tepki

HAS THE CENTRAL BANK FORGOTTEN THE MONETARY AGGREGATES WITH INFLATION TARGETING?

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Abstract: The central bank analytical balance sheet is one of the important indicators the assessment of the monetary policy. CBRT can determine central bank money directly. In this respect, central bank money shows the bank's monetary policy routing power. Since 2006, the Central Bank implements explicit inflation targeting strategy focuses on inflation directly, without using intermediate target. In this respect under a regime of inflation targeting, the existence of probable relationship monetary aggregates and inflation should be kept in mind in the control of inflation. The aim of this study is to examine whether there is a relationship between central bank money and excluding alcoholic beverages, tobacco products, unprocessed food products and gold CPI or not. In this context, two variables as proxy were used from 2006:01 to 2014:02. The causality relationship between the variables was analyzed by causality tests, based on bootstrap method applied by Hacker and Hatemi-J (2006). According to the results we have reached, the causality between central bank money and CPI is bidirectional.

Key Words: Analytical Balance Sheet of the CBRT, Central Bank Money, Bootstrap

INTRODUCTION

The Central Bank balance sheet is of significance for interpreting the monetary policy implemented and assessing changes on monetary aggregates caused by changes in the policies. In crisis periods and in periods when economy goes through some structural reformations, assets and liabilities of the central bank balance sheets may vary qualitatively as a result of the change taking place in monetary policy at the same time. The changes appear to not only allow assessing results of the policies enforced by economy decision makers but also provide preliminary information regarding how future monetary policy implementations must be.

CBRT supplies liquidity for the market by means of maintaining the balance between assets and

liabilities in the Central Bank analytical balance sheet. Thus, it is essential to interpret the changes in the balance sheet for assessing monetary policies and making sound future decisions.

In this study, first monetary policies implemented by the CBRT up to date are assessed. Then, the CBRT analytical balance sheet is analyzed under two sub periods. The relationship between monetary aggregates and inflation, not considered in the context of inflation targeting strategy though, constitutes the core of this study. To this end, the causality between the Central Bank money (CBM) as an item determined by CBRT directly and Consumer Price Index (CPI) is tested by using the Hacker- Hatemi J (2006) method based on bootstrap method. Once it is identified whether



monetary aggregates not considered in inflation targeting strategy, which does not employ an intermediate target, causes inflationist pressure, the success of inflation targeting strategy will be questioned.

AN OVERVIEW OF CBRT MONETARY POLICIES

Economy of Turkey has experienced a profound structural transformation since the expansion movement started in 1980's. After capital movements had been liberated in 1989, short-term capital inflow played an important role in financing increased government deficit and foreign trade deficit (ASE, 2012:4). Increased short-term capital inflow increased reserve amounts significantly, which in turn caused inflationist pressure by bringing along monetary expansion. Since Central Bank attempted to withdraw the fund amount in the market against even higher interest payments by means of open market operations in order to prevent inflationist pressure in the market, interest rates started to increase further (ASE, 2012: 4). Using the monetary targeting strategy implemented to decrease inflation in 1990's, the monetary authority identifies certain aggregates such as monetary base, reserve money and central bank money, and struggles to realize them in quarters or annual periods (Kalaycı, 2002:275). The purpose is to prevent time inconsistent monetary policy of the Central Banks. Because, discretionary regimes allow the monetary authority to issue more money and create more inflation than people expect. This surprise inflation may bring such advantages as expanded economic activity and reduced real value of the government's nominal liabilities (Barro and Gordon,1983:101).

The success of monetary targeting depends on the existence of adequately developed monetary and capital markets (Erdoğan, 2005:39). This policy, based on the quantity theory of money, failed due to the instabilities in money demand as a result of weakening relationship between monetary growth and inflation and claims that the case is valid in intermediate period only (Eren and Çiçek, 2009:2) and emerging financial innovations (Çolakoğlu, 2002:17). The most important reasons of failing monetary targeting in Turkey are related with the relationship between the central bank and treasury. According to the Law for the Central Bank of Republic of Turkey, the Undersecretariat of the Treasury can use advance up to 10 per cent of total budget spending. This right was used heavily in the first half of 1990's, while it was used only partially in the following half (TBB, 2008:26).

During that period, several precautions were taken in order to avoid financing of public debts out of Central Bank sources. In 1994, the use of Central Bank sources by Treasury was restricted; however, in 1998, the decision was made to close the use by Treasury of short-term advances from the Central Bank. ¹

Following failure of monetary targeting in Turkey, Exchange Rate Based Stability Program was put into effect in 2000. However, it did not become successful as an economic crisis arose in February 2001. After that, CBRT released floating and shifted to implement inflation targeting regime. CBRT took the initiative to implement the "implicit inflation targeting" strategy during the period between 2002 and 2005 with the purpose of building the infrastructure for inflation targeting

¹ (<http://www.tcmb.gov.tr>).

(Serel and Bayır: 2013: 60-61). This initiative was followed by a stable macroeconomic and financial situation. In addition, as soon as institutional and technical infrastructure of the Central Bank was ready for inflation targeting, explicit inflation targeting strategy was announced at the beginning of 2006 (BDDK, 2010:36).

Five prerequisites should be in place for the inflation targeting policy strategy. The medium-term inflation target is announced to public; The Central Bank ensures that price stability is the primary goal of monetary policy with subsequent other goals; A wide information set is formed for inflation targeting; The Central Bank increases transparency by means of communication policies; and The Central Bank needs to be held more accountable for achieving of the inflation objectives. It is worth noting that The Central Bank should be accountable throughout the regime. (Mishkin, 2001:1). In this method, Short-run trade-off between output gap and inflation volatility can be enhanced by inflation targeting by directing the public opinion about future inflation. In inflation targeting regime, the public might be mistaken to adjust upwards their estimate of the central bank's target in the face of an inflation shock. Hence, the rise in actual inflation can be limited with a larger decline in the output gap (Walsh, 2009:201). In the context of inflation targeting regime, it is common for the central bank to publish detailed assessments about the inflation on a regular basis. It also provides up-to-date forecasts about inflation along with discussions of the policy response to keep inflation under control. (Bernanke and Mishkin, 1997:6). It is expected that the ideal target is likely to be easy to control, observed at short intervals, have high

visibility, high correlation with ultimate objective, and not to interfere with the achievement of other economic goals. (Cukierman, 1996:5).

Unlike the other targeting strategies, in inflation targeting, which does not require using intermediate target, monetary policy instruments are based on anticipated inflation instead of past or current inflation and random assumptions are not made (Yiğit, 2006:24). To this end, the monetary authority guides the targeting accordingly considering economic units' views about future inflation by means of the anticipation surveys.

CBRT applies overnight borrowing rate as primary instrument of inflation targeting. In case the anticipated rates deviate from the inflation target, the Central Bank takes inflation under control by taking decisions regarding short term interest rates (CBRT, 2006:4).

Since the end of 2010, CBRT has been gradually devising a new monetary policy by rearranging the inflation targeting regime introduced in 2006 following the global financial crisis in 2008 without undermining the price stability in a way to involve financial stability (Başçı, 2012:2). To this end, CBRT has been managing the monetary policy by means of new instruments such as interest rate corridor and Reserve Options Mechanism in order to support the financial stability without waiving price stability for two years (Başçı, 2012:6).

ANALYTICAL BALANCE SHEET OF THE CBRT

The central bank analytical balance sheet is one of the important indicators the assessment of the monetary policy. The items in assets and liabilities



in the balance sheet are determined by monetary policies applied. The course of subheadings of the balance sheet over years is decisive in judging the monetary policies as successful or unsuccessful and planning policies for the future. The balance sheet published weekly by the CBRT is called weekly statement of condition from which analytical balance sheet is derived (Çolak and Aktaş, 2010:57-59). There are assets on the active side of the balance sheet, while liabilities are on the passive side. Monetary aggregates are on the passive side. Since analytical balance sheet is composed of total items, it is easy to monitor central bank money and subheadings (Serdengeçti, 1997).

The central bank analytical balance sheet aggregates also show what monetary policy instruments are used to guide economy and market conditions (Yardımcı, 2006:160). It is substantial to interpret the aggregates in the balance sheet due to the fact that changes in monetary aggregates depending on the monetary policy and policy instruments applied can be monitored via the central bank balance sheet and money supply aggregates (Kartal, 2013:186).

Whereas the active side of the central bank analytical balance sheet (Appendix-1) contains such assets as gold and foreign exchange and receivables from loan and securities as well as some other items, the passive side corresponding to liabilities includes foreign exchange and Turkish Lira liabilities (Kartal, 2013:189).

Foreign liabilities of the non-bank sector are also included in the passive side of the analytical balance sheet, and essentially indicate the public's foreign exchange deposit in the central bank.

Moreover, public deposit items implying the public sector's Turkish Lira deposits in the central bank are on the same side, both could be considered as credits to the bank by public. If the item of open market transactions on the passive side has positive value, it can be considered as a credit to the central bank by banks. If it is the opposite, it can be considered as credit to banks by the other (Çolak and Aktaş, 2010:64).

The increase in total foreign liabilities of the CBRT decreases the bank's ability of guiding the monetary policy. Conversely, increased Turkish currency liabilities strengthen the bank's controlling ability. Bearing this in mind, as CBM item is determined by CBRT directly, increasing proportion of CBM to total liabilities is a sign of increased capacity of the bank to intervene the market (CBRT, 2009:3). Net credit amount released by the Central Bank into the financial system is calculated by deducing the sum of non-bank sector foreign exchange deposit, deposits of public sector and open market operations on the passive side of the balance sheet from the sum of domestic assets on the active side (Çolak and Aktaş, 2010:64).

Reserve money, an item of monetary aggregates in the balance sheet, consists of currency issued, bank deposits, fund accounts and non-bank sector's deposits. Monetary base is reached by adding to the reserve money the central bank's cash liabilities to the bank sector or cash receivables from the same arising from the open market operations carried out by the central bank in order to regulate the liquidity in the market. CBM is calculated by adding public deposit to monetary base (Yakupoglu, 2011:25-26).

Reserve money = Currency Issued + Required Reserves + Fund Accounts + Non-bank Sector's Deposits

Monetary Base = Reserve money + Open Market Operations (OMO)

CBM = Monetary Base + Public Deposit

Reserve money indicates the central bank's liabilities to the private sector, being the monetary phenomenon having the highest correlation with foreign exchange rates (Eroğlu, 2004:46). Monetary base defines net monetary liability of CBRT to deposit banks and non-bank sector. The monetary base is affected from changes that take place in net foreign assets, total internal loans and other net items (Eroğlu, 2004:47). Though monetary aggregates comprising the CBM have varied relationships with financial system and the way such relationship is shaped, they have

the same liquidity formation capacity (Çolak and Aktaş, 2010:57-59). Hence, CBM is a reliable indicator for analyzing effects of monetary policy applications on liquidity (Çelik et al. 2006:49). CBM represents the CBRT's liabilities in TL to all other units of economy. It indicates the total monetary expansion introduced by Central Bank by means of loans or foreign exchange transactions. Of the central bank's foreign currency transactions, only foreign currency exchange affects the central bank money (Eroğlu, 2004:47). Higher proportion of OMO debt in whole CBM decreases reserve money, which in turn leads to controlling of liquidity and exchange rate (Eroğlu, 2004:46). As far as understood from long term targets of the balance sheet structure, the purpose of CBRT is to control net domestic assets so that the growth

in CBM can be limited with growth in net foreign assets (Çelik et al., 2006:49).

Analytical Balance Sheet of the Central Bank between 1990 and 2001

It is seen in the analytical balance sheet of the CBRT for the period between 1990 and 2001 (Appendix-2) that foreign assets continuously increased until 2000, so did foreign exchange assets. However, the foreign exchange assets decreased dramatically as a result of the financial crisis in 2001.

Also domestic assets, which are concerned with loans given to bank sector, have had a decreasing trend since 1994. This narrowed the loan volume opened to banking sector resulting in exclusion of the private sector as central bank finances the public sector. One of the reasons for the financial crisis in 1994 was high internal loan proportions of the Central Bank and thus high proportion of domestic assets to assets. Within the framework of the scheduled with the IMF following the crisis, the mentioned share started shrinking due to restarting of the treasury borrowing, and finally reached negative values as a consequence of the FX revaluation account as well (Serdengeçti, 1997). Implying positive and negative effects of exchange differences, revaluation account gained negative values between 1996 and 2001, marking heavy foreign exchange losses.

On the other hand, treasury debt had an increasing trend from 1990 to 1997. However, they decreased in 1998, 1999 and 2000. Underlying reason was the fact that earliest regulations took place during that period though public debts are not financed through Central Bank resources. On April 21,



1994, amendment was made on the article in the Central Bank Law regarding accounts of short term advances to the Treasury to impose restrictions on the Treasury's using Central Bank resources. Upon signing of a protocol in 1997 between Central Bank and Treasury, it was agreed that the Treasury does not use short term advance of Central Bank from 1998 on (CBRT, 2008:11).

The IMF Emergency Assistance listing our debts to the IMF was put into use in 1999. However, "IMF Emergency Assistance Loan (Treasury)" item was regarded as "Treasury Liability" as of June 21, 2002 pursuant to the protocol dated May 6, 2002 between Undersecretariat of Treasury and CBRT (CBRT, EDDS).

Among items of liabilities, foreign liabilities increased from 61% in 1990 to 84% in 2001, increasing by 37% on average. In the same period, the CBM indicating TL liabilities decreased by 58%. Reserve money comprised of subcomponents of CBM was in a trend of constant decrease between 1990 and 2001, resulting in an average decrease of 66 % during the same period. One marked reason for such decrease during that period was the constant decline in the volume of currency issued. Since high inflation rate in that period brought about currency substitution, the volume of currency issued kept decreasing. The Central Bank did not focus its attention on open market operations in that period; therefore, CBM was affected predominantly from currency issued and changes in deposits of banking sector. The downward tendency among subheadings constituting the CBM then could be due to the weakened ability of the CBRT to affect monetary policy.

Analytical Balance Sheet of the Central Bank between 2002 and 2013

It is understood from the analytical balance sheet of the CBRT for the period between 2002 and 2013 (Appendix-3) that our foreign assets increased by 65% on average from 64% to 106%, whereas domestic assets decreased by 97% from 36% down to 1%. Increased weight of foreign assets in assets and higher foreign assets than foreign liabilities is a positive sign for Turkey as a developing country with foreign trade deficit (Kartal, 2013:198). The decrease in domestic assets is caused by decreasing treasury debt, securities and loans to banking sectors. Upon cancellation of short term advance payment by Central Bank to Treasury after 2001, in other words, the amendment on the CBRT Law prohibited purchasing of debt instruments by Treasury from the primary market exported by state institutions and organizations, domestic assets placed on the active side of the balance sheet started to decrease. On the other side, higher proportion of foreign exchange reserves (also under foreign assets) to the balance sheet is of great importance for restraining negative effects to arise from excessive volatility due to the loss of liquidity in foreign exchange market (CBRT, 2009:3).

Total foreign liabilities among passive items displayed instability during that period, and its weight in the liabilities was realized as 75% at the end of 2013. 6% of the realization is due to foreign liabilities, while 69% is due to liabilities to residents. Increases in total foreign liabilities of the CBRT might weaken the bank's ability to guide the monetary policy. Thus, it is preferable to have higher Turkish currency liabilities within

the balance sheet aggregates (CBRT, 2009:3). Liabilities to residents in that period followed a far higher course than the period between 1990 and 2001. While liabilities to residents were equal to 22% of liabilities as of the end of 2001, it corresponded to 69% as of the end of 2013. Such increase seems to arise from increased FX deposits of banking sector.

Reserve money constituted by sub headings of CBM followed an unstable still higher course between 2002 and 2013 than during 1990's. The increase in reserve money derives from increase in currency issued to a large extent. During the period between 2002 and 2013, the volume of currency issued showed greater variance than in 1990-2001. The share of the currency issued in total liabilities grew as a result of the high growth rate in economy. It gained even a larger share in liabilities particularly as a result of reverse currency substitution after of 2001. Flight from Turkish Lira occurred because of the financial crisis in 2007 and 2008; consequently, the weight of currency issued in liabilities became smaller. The share decreased from 38% in 2011 to 28% in 2013. It can be explained with orientation to foreign exchange recently and delayed interest rate hike of the CBRT.

Developments regarding CBM and its subheadings during the period between 2002 and 2013 are displayed in Appendix 4. While API was approximately 10 billion TL in 2008, it was almost quadrupled to 38 billion TL in 2013. That scenario, in which reserve money exceeds monetary base, can be described as CBRT's funding the market with OMO because of the fact that increased amount of

currency issued is not sufficient to meet liquidity need of the market. (Kartal, 2013:199).

ECONOMETRIC ANALYZES

Data Set and Method

The aim of this study is to examine whether there is a relationship between central bank money and excluding alcoholic beverages, tobacco products, unprocessed food products and gold CPI or not for the period between 2003:01 and 2014:02. Study data were obtained from Electronic Data Dissemination System of Central Bank of the Republic of Turkey (EVDS).

Firstly, steady state of the sets was investigated as non-stationary time series might cause the problem of spurious regression. Steadiness of the series was tested with Augmented Dickey Fuller (ADF) (1979) unit root test.

ADF regression can be formulized as follows:

$$\Delta y_t = \alpha + \beta_t + \theta_t + \rho y_{t-1} + \sum_{j=1}^k \phi_k \Delta y_{t-j} + u_t \quad (I)$$

where ρ stands for optimal lag length. When ρ equals to zero, the null hypothesis claimed to be the unit root in the series cannot be refuted.

Steadiness test was followed by identification of optimal lag lengths in the series. Once optimal lag lengths were determined, the condition of having AR roots inside was fulfilled. Then, LM test was done to see if there is a problem of autocorrelation in series, but no evidences were found for autocorrelation.

The causality relationship between the variables was analyzed by causality tests, based on bootstrap method, applied by Hacker and Hatemi-J (2006).



The causality test of Hacker and Hatemi-J (2006) is based on the causality test developed by Toda and Yamamoto (1995). Likewise, it is not required that variables are equally steady in this method (Hacker and Hatemi-J, 2006:1490). In the methods, $k+d_{\max}$ optimal lag length is determined. k refers to the optimal lag length in the Var model, and d_{\max} to the maximum lag length of the variables in the model. Once these values are determined, a VAR model is estimated at $d_{\max} + k$ lag length, and causality analysis is done thanks to testing of the parameter limitations on this model (Yılancı and Özcan, 2010:28). Consequently, the VAR process obtained can be expressed as follows:

$$CBM_t = \sum_{i=1}^{k+d_{\max}} \alpha_{1i} CBM_{t-i} + \sum_{i=1}^{k+d_{\max}} \beta_{1i} \ln CPI_{t-i} + \varepsilon_{1t} \quad (II)$$

$$CPI_t = \sum_{i=1}^{k+d_{\max}} \alpha_{2i} CPI_{t-i} + \sum_{i=1}^{k+d_{\max}} \beta_{2i} CBM_{t-i} + \varepsilon_{2t} \quad (III)$$

For $i \leq k$ in equation (II), null hypothesis is tested as $\beta_{1i} = 0$. In the event that alternative hypothesis is accepted, there is causality relationship from CPI towards CBM variable, while null hypothesis is tested as $\beta_{2i} = 0$ for $i \leq k$ in equation (III). Similarly, if alternative hypothesis is accepted, there is causality from MBP towards CPI variable.

Unlike Toda and Yamamoto (1995), in Hacker and Hatemi-J (2006) test, bootstrap distribution is used instead of asymptotic chi-square χ^2 (Lebe and Akbaş, 2014:68). According to Toda and Yamamoto approach (1995), asymptotic

distribution theory is valid for VAR systems, regardless of the order of integration of considered variables. It is a simple method since it is just a small modification of the standard Wald test. On the other hand, the success of the approach is subject to standard assumptions. Alternatively, bootstrap method might produce better results as bootstrapping is not necessarily dependant on a specific model (Lach, 2010:168).

Hacker and Hatemi-J (2006) developed the bootstrap simulation technique to overcome challenges faced in calculating critical values for Granger causality tests. Main factors that encouraged developing of such an approach include Mwald test's producing biased results in variables covering short periods, non-spherically distributed estimated residuals and heterogeneous residuals variance (Tang and Ch'ng, 2011:6818).

Toda and Yamamoto (1995) model is applied in line with the asymptotic distribution theory; however, Hacker and Hatemi-J (2006) argue that asymptotic distribution theory would not be a strong support when sample size is small and suggest using of leveraged bootstrap simulation method in such cases. With this technique, empirical size of the causality test is improved and Mwald test approximates to its real value even in various situations (Yıldırım and Kesikoğlu, 2012:142).

In this technique, Wald principle (W) is formulated in matrix as follows (Hacker and Roca, 2005:11-14):

$$X := (x_1, \dots, x_T) \quad (n \times T)$$

$$S_U = \frac{\delta_U' \delta_U}{T}$$

$$D := (B_0, B_1, \dots, B_k) \quad (n \times (1 + n \times k))$$

$$Z_t := \begin{bmatrix} 1 \\ x_t \\ x_{t-1} \\ \vdots \\ x_{t-k+1} \end{bmatrix} \quad ((1+n \times k) \times 1) \text{ matrix,}$$

for $t = 1, \dots, T$,

$$Z := (Z_0, \dots, Z_{T-1}) \quad ((1 + n \times k) \times T)$$

matrix, and

$$\delta := (\varepsilon_1, \dots, \varepsilon_T) \quad (n \times T) \text{ matrix.}$$

Based on the formulation above, the estimated VAR (K) model with an estimated term (β_0) is expressed in the following way with the assumption of fixed initial values:

$$X = \hat{D}Z + \hat{\delta}$$

Then, $\hat{\delta}_u$ can be estimated from the $(n \times T)$ matrix of estimated residuals. Next, the variance-covariance matrix of the residuals is calculated:

$\beta = \text{vec}(D)$ is supposed in the model given above, in which vec is the column-stacking operator. As a result, the Wald test statistic testing non-Granger causality relationship between two variables on x_t is written as formula.

$$W = (C\beta)' \left[C \left((Z'Z)^{-1} \otimes S_U \right) C' \right]^{-1} (C\beta)$$

In formula, \otimes represents the Kronecker product, and C represents a $k \times n(1 + n \times k)$ indicator matrix which identifies the parameters to be restricted according to the null hypothesis indicating no Granger causality.

The null hypothesis is expressed as

$$H_0 : C\beta = 0$$

Then, the bootstrapped value for the simulated data is obtained from the equation below:

$$X^* = \hat{D}Z + \delta^*$$

$$\hat{D} = XZ'(ZZ')^{-1}$$



δ^* is the bootstrap residual terms based on T independent draws replacing the modified residuals in the regression. All of the residuals have probability of $1/T$. The mean of modified residuals are subtracted from modified residuals so that the mean value of the bootstrap residual equals to zero. The modified residuals are the raw residuals obtained from

$$X = \hat{D}Z + \hat{\delta}$$

These values are leveraged in a way to have constant variance. Before proceeding, more notations are introduced. Let

$$X_{-K} = (X_{1-K}, \dots, X_{T-K}) \text{ and}$$

$$X_{i,-K}, i = 1, 2, \dots$$

corresponding to the i th row on X_{-K} .

Let also $Y = (X_{-1}', \dots, X_{-K}')$ and

$$Y_i = (X_{i,-1}', \dots, X_{i,-K}')$$

The explanatory variable matrix for the regression is Y_1 for the equation giving. Such an equation is valid unless there is Granger causality. In the case of the equations determining X_{2t} and the explanatory variable matrix is Y . Lags of the

three variables are included in this way. Thus, the $T \times 1$ leverages factors for X_{1t} and X_{2t} , $t=1, \dots, T$ are defined as following:

$$h_1 = \text{diag} \left(Y_1 (Y_1' Y_1)^{-1} Y_1' \right)$$

$$h_2 = \text{diag} \left(Y_1 (Y_1' Y_1)^{-1} Y_1' \right)$$

$$h_3 = \text{diag} \left(Y_1 (Y_1' Y_1)^{-1} Y_1' \right)$$

h_{it} is assumed as the t^{th} element h_i of and $\tilde{\varepsilon}_{it}$ is assumed as the raw residual obtained from the regression for X_{it} , $i=1, 2, 3$. In this case, the modified residual for X_{it} is expressed as:

$$\hat{e}_{it}^m = \frac{\hat{e}_{it}}{\sqrt{1 - h_{it}}}$$

In this technique, bootstrap simulation is repeated 10.000 times by calculating Mwald statistic in each simulation for calculating critical values, and empirical distribution of Mwald statistics is created.

Empirical Findings

ADF results regarding variables' unit root test are given in Table 1.

Table 1.ADF Unit Root Test Result

	Level		First Difference		Second Difference	
	Intercept	Trend Intercept	Intercept	Trend Intercept	Intercept	Trend Intercept
(CMB)	-2.2176	-2.9108	-8.0025	-7.9653		
	(-2.8918)	(-3.4573)	(-2.8918)	(-3.4573)		
(CPI)	0.8579	-1.5935	-2.3802*	-2.5301	-11.909	-1.8760
	(-2.89358)	(-3.4599)	(-2.8935)	(-3.4599)	(-2.8935)	(-3.4599)

Note: The values in parenthesis under *t* statistical values indicate MacKinnon (1996) critical values at 5% reliability level.

For steadiness of series, *t* statistical value is required to be higher than MacKinnon (1996) critical value in terms of absolute value. In this direction, whereas MPP variable is steady in primary variable, CPI variable is found to be steady in the second difference. The optimal lag length without autocorrelation problem in the series was selected as 3 according to the SC

information criterion. Maximum lag length is found to be 2. In causality tests to be undertaken to this end, $k + d_{max}$ value was determined as 5. As probability values are greater than 5% according to the autocorrelation test applied on the data, the problem of autocorrelation was not found. As for the condition of AR roots inside, it was fulfilled.

Table 2. Hacker and Hatemi-J (2006) Mwald Test Result

H_0 hypothesis	Lag length $k + d_{max}$	Mwald Statistic	1% Critical Value	5% Critical Value	10% Critical Value
MPP → CPI	5*	10.094	14.960	9.383	7.229
CPI → MPP		7.663	15.281	9.341	7.287

Note: * refers to the lag lengths whose values were selected as regards to the SC criteria and total steadiness levels of the series. 10.000 bootstrap iterations were carried out.

In the light of the causality analysis test results, MPP affects CPI in the confidence interval of 5% and 10%, and changes in CPI affect CBM in the confidence interval of 10%. Bidirectional causality was found between the variables. The

findings in the analysis show that CBM is a monetary aggregate causing inflation.



CONCLUSION

Turkey had coped with chronic hyperinflation by 2002, when implicit inflation targeting was introduced. The hyperinflation and economic problems affected the Central Bank balance sheet to a large extent. Following a relatively lower course from 2002 to 2013, inflation resulted in notable differentiation in values of the balance sheet items.

CBRT can determine central bank money (CBM) directly. Higher proportion of CBM to total liabilities implies improved capability of the bank to lead the market. The causality between the central bank money and inflation from 2006:01 to 2014:02 was analyzed in this study. It was found that the causality between central bank money and CPI is bidirectional.

Since 2006, the Central Bank has implemented explicit inflation targeting strategy focusing on inflation directly without using intermediate target. In this respect, under a regime of inflation targeting, central bank money as one of monetary aggregates affects inflation and should be kept in mind in the control of inflation. It can also be suggested that this situation is one reason for the deviations from the inflation targeting after 2006. As a conclusion, it can be said that CBRT needs to monitor monetary aggregates closely for an effective inflation targeting.

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Appendix 1. The Central Bank Analytical Balance Sheet

ASSET	LIABILITY
A.1-FOREIGN ASSETS	P.1- TOTAL FOREIGN LIABILITIES
A.2-DOMESTIC ASSETS	P.1a-Liabilities To Non-Residents
A.2A- Cash Operations	P.1b-Liabilities To Residents
A.2Aa- Treasury Debt	P.1ba-Public Sector and Other FX Deposits
A.2Aa1a- DİBS ² prior to Nov. 5, 2001	P.1bb-FX Deposits of Banking Sector
A.2Aa1b- DİBS purchased from secondary market	P.2-Central Bank Money
A.2Aa2- Other	P.2A-RESERVE MONEY
A.2Ab- Credits to Banking Sector	P.2Aa-Currency Issued
A.2Ac- Credits to SDIF ³	P.2Aab- Deposits of Banking Sector
A.2Ad- Other Items	P.2Aba-Required Reserves in Blocked Accounts
A.3- FX Revaluation Account	P.2Abb-Free Deposits
A.2B- IMF ⁴ Emergency Assistance	P.2Aac-Extra Budgetary Funds
	P.2Ad- Deposits of Non Banking Sector
	P.2B-OTHER CENTRAL BANK MONEY
	P.2Ba-Open Market Operations
	P.2Bb-Deposits of Public Sector
	P.1- TOTAL FOREIGN LIABILITIES

2 DİBS: Government Domestic Debt Instruments,

3 SDIF: Saving Deposit Insurance Fund

4 IMF: International Monetary Fund



Appendix 2. The Central Bank Analytical Balance Sheet (Period between 1990 and 2001)

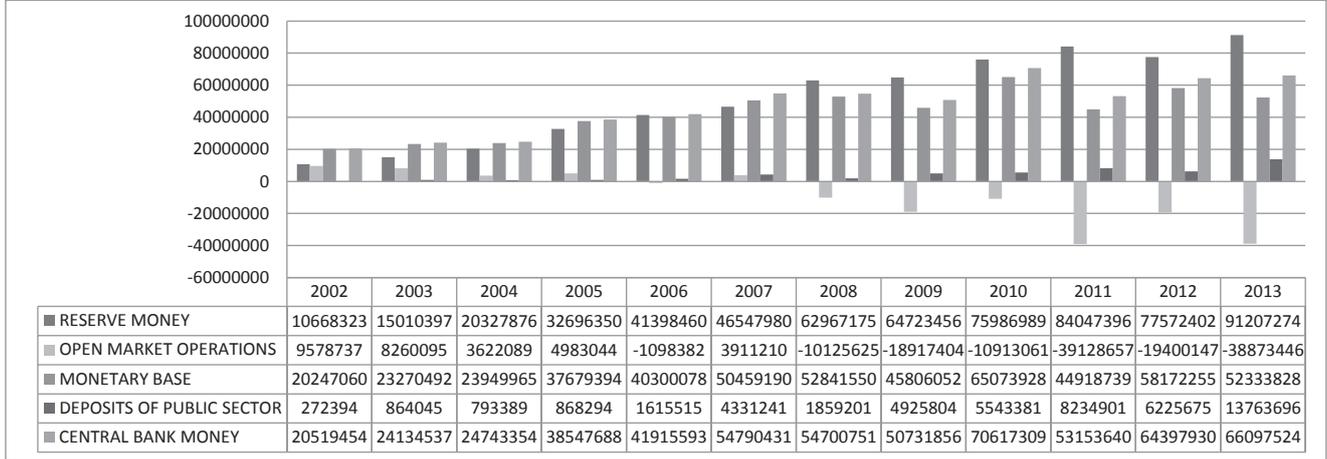
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
ASSETS	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
A.1- FOREIGN ASSETS	0.419	0.400	0.427	0.448	0.532	0.642	0.760	0.923	1.042	1.116	1.065	0.573
A.2- DOMESTIC ASSETS	0.581	0.600	0.573	0.552	0.468	0.358	0.240	0.077	-0.042	-0.116	-0.065	0.427
A.2A- Cash Operations	0.148	0.265	0.377	0.440	0.275	0.327	0.241	0.118	0.013	-0.028	-0.025	0.427
A.2Aa-Treasury Debt	0.087	0.237	0.353	0.380	0.309	0.328	0.305	0.189	0.112	0.069	0.088	0.573
A.2Aa1- Securities											0.090	0.573
A.2Aa1a- Government Domestic Debt Inst. Prior to Nov.5,2001											0.090	0.571
A.2Aa1b- Government Domestic Debt Inst. From Secondary Market												0.003
A.2Aa2- Other											-0.001	-0.001
A.2Ab-Credits to Banking Sector	0.087	0.055	0.053	0.066	0.018	0.009	0.003	0.002	0.001	0.001	0.000	0.000
A.2Ac-Credits to SDIF											0.030	0.012
A.2Ad-Other Items	-0.027	-0.027	-0.030	-0.006	-0.052	-0.010	-0.067	-0.073	-0.099	-0.097	-0.142	-0.158
A.3-FX REVULATION ACCOUNT	0.433	0.335	0.196	0.112	0.193	0.032	-0.001	-0.040	-0.055	-0.103	-0.052	-0.003
A.2B-IMF Emergency Assistance										0.015	0.011	0.003
LIABILITIES	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
P.1-TOTAL FOREIGN LIABILITIES	0.609	0.545	0.504	0.552	0.721	0.738	0.737	0.862	0.923	0.878	0.942	0.836
P.1a- Liabilities To Non-Residents	0.428	0.396	0.346	0.389	0.563	0.546	0.526	0.541	0.626	0.514	0.616	0.611
P.1b-Liabilities To Residents	0.181	0.149	0.158	0.163	0.158	0.192	0.211	0.321	0.297	0.364	0.326	0.224
P.1ba- Public Sector and Other FX Deposits	0.076	0.054	0.061	0.058	0.021	0.072	0.079	0.150	0.097	0.132	0.072	0.052
P.1bb- FX Deposits of Banking Sector	0.105	0.095	0.097	0.104	0.138	0.120	0.132	0.171	0.200	0.231	0.254	0.172
P.2- Central Bank Money	0.391	0.455	0.496	0.448	0.279	0.262	0.263	0.138	0.077	0.122	0.058	0.164
P.2A-RESERVE MONEY	0.391	0.385	0.345	0.356	0.268	0.242	0.231	0.252	0.312	0.302	0.352	0.133
P.2Aa- Currency Issued	0.231	0.220	0.208	0.221	0.173	0.158	0.142	0.161	0.193	0.184	0.223	0.088
P.2Aab- Deposits of Banking Sector	0.146	0.146	0.130	0.126	0.092	0.080	0.085	0.079	0.114	0.114	0.119	0.042
P.2Aba- Required Reserves in Blocked Accounts	0.120	0.116	0.108	0.106	0.083	0.075	0.065	0.072	0.101	0.079	0.083	0.027
P.2Abb- Free Deposits	0.026	0.030	0.023	0.020	0.009	0.005	0.020	0.007	0.013	0.036	0.036	0.015
P.2Aac-Extra Budgetary Funds	0.006	0.015	0.004	0.005	0.001	0.002	0.002	0.011	0.002	0.002	0.007	0.002
P.2Ad- Deposits of Non Banking Sector	0.009	0.003	0.003	0.004	0.002	0.002	0.002	0.001	0.003	0.002	0.003	0.001
P.2B-OTHER CENTRAL BANK MONEY	-0.001	0.070	0.150	0.092	0.011	0.021	0.032	-0.115	-0.235	-0.180	-0.294	0.032
P.2Ba-Open Market Operations	-0.015	0.058	0.123	0.076	0.002	0.011	0.019	-0.153	-0.266	-0.185	-0.309	0.021
P.2Bb-Deposits of Public Sector	0.609	0.545	0.504	0.552	0.721	0.738	0.737	0.862	0.923	0.878	0.942	0.836

Appendix 3. The Central Bank Analytical Balance Sheet (Period between 2002 and 2013)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
ASSETS	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
A.1- FOREIGN ASSETS	0.64	0.68	0.71	0.75	0.86	0.86	0.92	1.03	1.03	1.11	1.10	1.06
A.2- DOMESTIC ASSETS	0.36	0.32	0.29	0.25	0.14	0.14	0.08	-0.03	-0.03	-0.11	-0.10	0.01
A.2A-Cash Operations	0.37	0.32	0.28	0.22	0.15	0.11	0.09	0.03	0.01	-0.01	-0.01	0.00
A.2Aa- Treasury Debt	0.46	0.40	0.33	0.26	0.19	0.16	0.14	0.10	0.08	0.05	0.05	
A.2Aa1-Securities	0.46	0.40	0.33	0.26	0.19	0.16	0.14	0.10	0.08	0.05	0.05	0.04
A.2Aa1a- Government Domestic Debt İnst. Prior to Nov.5,2001	0.46	0.40	0.33	0.26	0.19	0.16	0.14	0.10	0.04	0.00	0.00	0.00
A.2Aa1b- Government Domestic Debt İnst. From Secondary Market	0.46	0.40	0.33	0.26	0.19	0.16	0.14	0.10	0.04	0.00	0.00	0.00
A.2Aa2- Other	0.0006	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0398	0.0555	0.0485	0.0000
A.2Ab-Credits to Banking Sector	0.0002	0.0002	0.0001	0.0001	0.0000	0.0000	0.0000	0.0055	0.0047	0.0092	0.0336	0.0373
A.2Ac-Credits to SDIF												
A.2Ad-Other Items	-0.10	-0.08	-0.05	-0.05	-0.04	-0.05	-0.05	-0.08	-0.08	-0.07	-0.10	-0.06
A.3-FX REVULATION ACCOUNT	-0.01	0.00	0.01	0.03	-0.01	0.03	-0.01	-0.06	-0.03	-0.10	-0.09	-0.07
A.2B-IMF Emergency Assistance	0.01	0	0	0	0	0	0	0	0	0	0	0
LIABILITIES	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
P.1-TOTAL FOREIGN LIABILITIES	0.72	0.68	0.67	0.57	0.60	0.49	0.52	0.54	0.45	0.64	0.68	0.75
P.1a- Liabilities To Non-Residents	0.50	0.46	0.41	0.25	0.23	0.19	0.20	0.21	0.16	0.15	0.08	0.06
P.1b-Liabilities To Residents	0.22	0.22	0.26	0.32	0.37	0.30	0.32	0.33	0.29	0.49	0.60	0.69
P.1ba- Public Sector and Other FX Deposits	0.07	0.09	0.08	0.15	0.18	0.11	0.13	0.14	0.06	0.06	0.04	0.04
P.1bb- FX Deposits of Banking Sector	0.14	0.13	0.18	0.16	0.19	0.18	0.19	0.19	0.23	0.43	0.55	0.65
P.2- Central Bank Money	0.28	0.32	0.33	0.43	0.40	0.51	0.48	0.46	0.55	0.36	0.32	0.25
P.2A-RESERVE MONEY	0.14	0.20	0.27	0.36	0.40	0.44	0.55	0.59	0.59	0.57	0.38	0.34
P.2Aa- Currency Issued	0.10	0.14	0.18	0.22	0.26	0.26	0.28	0.35	0.38	0.38	0.30	0.28
P.2Aab- Deposits of Banking Sector	0.04	0.05	0.09	0.14	0.14	0.18	0.27	0.24	0.21	0.20	0.08	0.06
P.2Aba- Required Reserves in Blocked Accounts	0.02	0.03	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P.2Abb- Free Deposits	0.02	0.02	0.05	0.14	0.14	0.18	0.27	0.24	0.21	0.20	0.08	0.06
P.2Aac-Extra Budgetary Funds	0.002	0.001	0.00	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P.2Ad- Deposits of Non Banking Sector	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000
P.2B-OTHER CENTRAL BANK MONEY	0.133	0.119	0.059	0.065	0.005	0.077	-0.073	-0.127	-0.042	-0.211	-0.065	-0.094
P.2Ba-Open Market Operations	0.13	0.11	0.05	0.06	-0.01	0.04	-0.09	-0.17	-0.08	-0.27	-0.10	-0.15
P.2Bb-Deposits of Public Sector	0.004	0.011	0.011	0.010	0.015	0.041	0.016	0.045	0.043	0.056	0.031	0.052



Appendix 4: Reserve Money, OMO, Monetary Base, Deposits of Public Sector, CBM (2002-2013 Period, Thousand TL)



ENFLASYON HEDEFLEMESİ İLE MERKEZ BANKASI PARASAL BÜYÜKLÜKLERİ UNUTTU(MU)?

Özet: Para politikalarının değerlendirilmesinde önemli göstergelerden biri merkez bankası analitik bilançosudur. Merkez bankası bilançosu, nasıl bir para politikası izlendiğinin yorumlanmasında, politiklardaki değişimin parasal büyüklükler üzerinde meydana getirdiği farklılığın değerlendirilmesinde büyük önem taşımaktadır. Bilançonun aktif ve pasifinde yer alan kalemler uygulanan para politikalarına göre şekillenmektedir. Bilançonun alt kalemlerinin yıllar itibari ile izlediği seyir para politikasının başarı ve başarısızlığının yorumlanmasında ve geleceğe dönük politika oluşturmada önem taşımaktadır. Kriz dönemlerinde, ekonominin çeşitli yapısal reformlar geçirdiği dönemlerde ve para politikalarında yaşanan değişimin de etkisiyle merkez bankası bilançosunun varlık ve yükümlülükleri niceliksel olarak değişebilmektedir. Bu değişimlerin görünümü ekonomik karar alıcıların uyguladığı politikaların sonuçlarının değerlendirilmesine olanak sağladığı gibi geleceğe yönelik para politikası uygulamalarının da nasıl olması gerektiğine dair bir ön bilgi sunmaktadır. Bilançoda merkez bankası parası (MBP) kalemi, TCMB'nin doğrudan belirleyebildiği bir büyüklüktür. Bu açıdan bankanın para politikasını yönlendirme gücünü de göstermektedir. 1990-2001 döneminde MBP ortalama %58 azalmıştır. MBP'nin alt bileşenlerinden oluşan rezerv para ise ortalama olarak %66 oranında azalmıştır. Söz konusu dönemde MBP'de görülen azalışın önemli nedenlerinden biri emisyon hacminde görülen sürekli düşüştür. Bu dönemde yüksek enflasyon para ikamesine sebep olduğundan emisyon hacmi sürekli azalmıştır. Merkez bankası açık piyasa işlemlerinde dönemde çok fazla ağırlık vermemiş, MBP daha çok emisyon ve bankalar mevduatındaki değişimlerden etkilenmiştir. 1990-2001 döneminde MBP'yi oluşturan alt kalemlerde görülen azalış eğilimi, TCMB'nin para politikasını etkileme gücünün düştüğü yönünde yorumlanabilir. MBP'nin alt kalemlerinden oluşan rezerv para, 2002-2013 döneminde ise istikrarsız ancak, 1990'lı yıllara kıyasla yüksek bir seyir izlemiştir. Rezerv paradaki artış, büyük miktarda emisyondaki artıştan kaynaklanmıştır. 2002-2013 dönemi 1990-2001 dönemine göre emisyon hacminin oldukça farklılık arz ettiği bir dönemdir. Emisyonun toplam pasif içindeki payı, ekonomide gözlemlenen yüksek büyüme ile birlikte artış göstermiştir. Özellikle 2001 sonrasında ters para ikamesinin gerçekleşmesi ile birlikte emisyonun pasif içindeki payı artmıştır. 2007 ve 2008 yıllarında ise, krizin de etkisiyle TL'den kaçış yaşanmış ve bunun sonucunda emisyonun pasif içindeki ağırlığı azalmıştır. 2011'de %38 olan bu pay 2013 yılında %28'e düşmüştür. Her iki dönemde yaşanan gelişmeler aynı zamanda Merkez bankasının uyguladığı parasal hedefleme stratejileri ile de ilgilidir. 1990 sonrası dönemde TCMB parasal hedefleme stratejisini kullanmış ve çeşitli merkez bankası parasal büyüklüklerini ara hedef olarak belirlemiştir. Ancak Türkiye'de parasal hedefleme stratejisinden istenilen başarı sağlanamamıştır. Bu durumun ardından yatan temel sebeplerden biri de Hazine ile Merkez Bankası arasındaki ilişkilidir. Parasal hedefleme stratejisinin uygulandığı dönemde Merkez Bankası Hazine'yi finanse etmeye devam etmek durumunda kaldığı için istenilen başarı sağlanamamıştır. Parasal hedefleme stratejisinin ardından uygulanan kur hedeflemesinde de istenilen başarı sağlanamamıştır. Söz konusu dönem, hedefleme stratejileri için hesap verilebilirlik ve kredibilitè gibi unsurların dikkate alınmadığı bir dönemdir. Yaşanan gelişmelerin ardından gerekli yasal ve kurumsal düzenlemeler yapılarak enflasyon hedeflemesi stratejisine geçilmiştir. 2006 yılından itibaren açık enflasyon hedeflemesi stratejisi uygulayan TCMB, diğer hedefleme stratejilerinde farklı olarak ara hedef kullanmadan faiz oranlarını kullanarak doğrudan enflasyona odaklanmaktadır. Enflasyon hedeflemesi stratejisinde dikkate alınmayan parasal büyüklükler ve enflasyon arasındaki ilişki çalışmanın temel konusunu oluşturmaktadır. Bu açıdan enflasyon hedeflemesi stratejisinde dikkate alınmayan parasal büyüklüklerin enflasyonist baskı yaratıp yaratmamasının tespiti enflasyon hedeflemesi stratejisinin başarısını sorgulayacaktır. Bu doğrultuda TCMB'nin doğrudan belirlediği bir kalem olan Merkez Bankası Parası (MBP) ile alkollü içecekler, tütün ürünleri, işlenmemiş gıda ürün-



leri ve altın hariç tüketici fiyat endeksi (TÜFE) arasındaki nedensellik ilişkisi bootstarp metoduna dayalı Hacker- Hatemi J (2006) yöntemi ile test edilmiştir. Bu yöntemde kritik değerler bootstrap simülasyonu ile 10.000 defa tekrarlanarak Mwald istatistiği hesaplanmakta ve Mwald istatistiğinin ampirik dağılımı oluşturulmaktadır. Bu yöntemin tercih edilmesindeki neden ise, değişkenler arasında aynı derecede durağanlık şartının gerekli olmamasıdır. Nedensellik testi için gerekli olan ADF test sonuçlarına göre MPP değişkeni birinci farkında durağan iken TÜFE değişkeni ikinci farkında durağan çıkmıştır. Hacker- Hatemi J (2006) nedensellik testi için gerekli olan gecikme uzunluğu $k + d_{\max}$ olarak belirlenir. Değişkenlerin maksimum gecikme uzunluğunu gösteren d_{\max} , TÜFE değişkeninin ikinci farkında durağan çıkması nedeni ile 2 olarak tespit edilmiştir. Var modelindeki uygun gecikme uzunluğu ise Akaike bilgi kritesine göre 3 olarak belirlenmiştir. Bu doğrultuda nedensellik testi için $k + d_{\max}$ değeri 5 olarak belirlenmiştir. Yapılan nedensellik analizi sonuçlarına göre %5 güven aralığında MBP TÜFE'yi, TÜFE'deki değişiklikler ise %10 güven aralığında MBP'yi etkilemektedir. Diğer bir ifade ile, değişkenler arasında çift yönlü nedensellik tespit edilmiştir. Bu durum, MBP'nin enflasyona neden olan bir parasal büyüklük olduğu yönünde değerlendirilebilir. Bu doğrultuda enflasyonu kontrol etmede enflasyon hedeflemesinde dikkate alınmayan parasal büyüklüklerin de dikkate alınması gerektiği söylenebilir. Aynı zamanda bu durum, 2006 sonrası enflasyon hedeflemesinde meydana gelen sapmaların bir nedeni olarak da değerlendirilebilir. Sonuç olarak, TCMB'nin enflasyon hedeflemesinde başarı elde edebilmesi için parasal büyüklükleri yakından takip etmesi ve bu doğrultuda bir para politikası oluşturması gerekmektedir.

Anahtar Kelimeler: TCMB Analitik Bilançosu, Merkez Bankası Parası, Bootstarp.

GOLDING'S *PINCHER MARTIN* AND CAMUS'S *THE STRANGER* IN THE LIGHT OF EXISTENTIALIST PHILOSOPHY¹

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Abstract: This study aims to analyse two novels; William Golding's *Pincher Martin* and Albert Camus's *The Stranger* comparatively in relation to the major concerns of existentialism. These major concerns of existentialism are respectively as follows: the individual at the centre of the world, the revolt against death and ardent desire to live, abandonment of man to his fate, man's alienation from society and nature as an outcast, suffering as a part of the world, freedom of choice and allusions to mythological characters. Thus, what is aimed to reach by this analysis particularly is to display the fact that although these two novels embody all major concerns of existentialism mentioned above, and the two authors deal with the existentialist idea in similar ways in most parts of the novel, they still have some notable differences in their approach to existentialism. And, this reflects the fact that the existentialist philosophy has been handled in two novels from rather different perspectives by two different authors, one English and the other French. These similarities and differences between the two novels, particularly between the characters of these two novels in relation to these main concerns of existentialism, will be explained and exemplified in detail in my study. As a result, it will be reached that despite the interaction between the two authors and thus their novels, Albert Camus and William Golding deal with the existentialist philosophy from very different perspectives.

Key Words: Existentialism, Revolt Against Death, Alienation, Abandonment Of Man To His Fate

¹ This study was prepared by being used the post graduate thesis of the author made in Dumlupınar University, Institute of Social Sciences in 2008 and only the abstract was published at IV. International Comparative Literature Congress, Kırıkkale in 2012



INTRODUCTION

In this study Golding's *Pincher Martin* and Camus's *The Stranger* have been analysed in terms of the major concerns of existentialist philosophy. These major concerns of existentialism are respectively as follows: the individual at the centre of the world, revolt against death and strong desire to live, abandonment of both characters into the world as poor creatures, their alienation from the society and nature as outcasts, suffering as a part of the world, their freedom to choose, and allusions to mythological characters. The similarities and differences between the two novels, particularly between the characters of these two novels in relation to these main concerns of existentialism, will be explained and exemplified in detail in this study. This study, which is a kind of "impact" research, will handle Camus's *The Stranger* as the "affecting" work and Golding's *Pincher Martin* as the "affected" work since the former work was written in 1942, and the latter in 1956.

1. INDIVIDUAL AS A CENTRE

The first existentialist concern is that the individual is at the centre of the world and everything other than him is "the other." This is the situation for both novels in which all events are centered on Pincher Martin and Meursault. In other words, the two novels give the account of lives of the two individuals. In the novels, everything other than these two characters is "the other." For the existentialists this "other" usually signifies social, moral and religious values which they regard as forms of hiding, and a kind of mask or a rock that the people or "they" try to cling to. In *Pincher Martin* for instance, the main character is called

as "the centre" which indicates his significance in the novel. Realizing this, Pincher Martin attempts to use and devour "the others" in order to keep his egoist identity alive, to keep it going. To achieve this he has affairs with Sybil, Alfred's girlfriend, and producer's wife Helen, tries to seduce Mary and eventually he achieves to keep his identity alive by killing Nathaniel. Thus, in order to stay alive he consumes all the others around him.

Samuel Hynes points out to these people in Pincher's past life and says: "(...) even the persons who people Pincher's memories and visions are not really characters, because Pincher has regarded them not as separate human beings but as things to be devoured" (130). That means these people are only a means to preserve his life, they are not different from objects in Pincher's life. The only value for him is this life in his hand, so he does everything to keep it going. Friedman supports this theme of "individual at the centre of everything" in existentialism by saying, "(...) he [Pincher Martin] had a freedom of choice which he used to centre the world on himself" (52). Thus, centering the world on himself, he wants to show his significance for this world as an individual, that he is more important than all the things around him which may be called "the other."

As for Meursault, he is not as ambitious and cruel as Martin. Yet, there are some instances where this idea of individual versus "the other" is openly presented. This "the other" in *The Stranger* are the people who represent the institutions of law, religion and society. The most striking example is the instance that occurs between Meursault and the magistrate during one of the trials as the magistrate is questioning Meursault about the

murder. When the magistrate repeats the same question about the four shots following the first one, and brandishes a silver crucifix towards him, Meursault says:

I was about to tell him he was wrong to dwell on it, because it really didn't matter. But he cut me off and urged me one last time, drawing himself up to his full height and asking me if I believed in God. I said no. (...) "Do you want my life to be meaningless?" he shouted. (...) I made it appear as if I agreed. To my surprise, he acted triumphant. "You do believe, don't you, and you're going to place your trust in Him, aren't you?" [he asked]. Obviously, I again said no (68-70).

Here, what the magistrate clings to is the silver crucifix or the religion it represents, and without that religion he thinks his life will be meaningless. It is the only value that gives meaning to his life. However, that is a totally foreign idea to Meursault. Neither the crucifix nor religion means anything to him, which more intensely reveals the two opposing points, one Meursault representing the individual, and the other is the magistrate, his crucifix and religion symbolising "the other." Therefore, Pincher Martin and Meursault emphasize the confrontation between the individual and "the other" each trying to preserve their own ideas and living against this "the other." However, what is different in their attitude is that Meursault's confrontation or struggle with "the other" is internal. He does not confront with the others externally, he does not do it by force, but only mentally struggles with "the other" by stubbornly refusing to accept what "the other" claims to be true. Whereas, Pincher Martin in his confrontation with "the others" exercises his force on the others, and consumes the others around him in order to preserve his identity and life. That is to say, both characters's ways of expression of

their feelings and thoughts are very different; one employing an internal or mental way, apparently a more passive one, and the other transforming his ideas and feelings into action that is forced upon "the others."

2. REVOLT AGAINST DEATH AND DESIRE FOR LIFE

Struggle or revolt against death is an important element for the Existential philosophy. Since death is the only limit and seal to human life, it liberates man both from life and the absurd. This idea of revolt against death is presented in both novels. As for Pincher Martin his revolt against death has three levels; the physical or elemental level, the social level, and the spiritual level, which is the most significant of three. His physical struggle is obviously the one he carries on in the water in order to survive, and it actually ends in the third page, but the reader until the last lines of the novel thinks that it is still going on. The social level of his revolt has already been mentioned in the previous part. In this level of the revolt, he destroys everyone that opposes or resists against him in order to assure his place in the society as the only superior one. Finally, in the spiritual level he is in confrontation with the "black lighting" or God that is seen in the form of a sailor. This struggle is of utmost importance among the three. Because as Wilson states: "This revolt is a revolt against the limitations of the body. Man [always wants] to be greater, to live longer, to possess more imagination and wisdom" (18). This means that Pincher Martin does not want to accept the limitations of his body, in other words, he does not want to admit that he is mortal. Therefore, he tries to find some ways of escape from death.



Especially, Camus's idea of three types of man is very significant here. Because, Pincher Martin carries the qualities of all these three types of man: The seducer, the actor and the conqueror. He is a seducer, because he has affairs with many women and still wants more, and exploits them in order to preserve his life and identity. For instance, he has a relationship with Helen, the producer's wife and goes to bed with Sybil, Alfred's girlfriend. Since he is aware of the idea of death, he tries to live this life as fully as possible when he has the chance, which also helps him get away from the idea of death, at least momentarily. Being an actor, he is able to play many roles, and even the role of God trying to create his own world in order to indicate that he is immortal. As for the third type of man, Pincher Martin is like a conqueror in his social life, he is like the "conqueror of the maggot box." He again destroys and devours all the people or symbolically the maggots to be the conqueror, and to be able to continue his life by feeding his unsatisfied, egoist identity. Since none of these ways prove to be successful, Pincher Martin desperately decides to try his last way of escape from death which is to "creep into the crevice of madness," which is perhaps the most striking of all, because even he himself believes that he is going mad due to the situation he experiences. At first, he believes that he has to remain sane and his intelligence is an important element to help him in his struggle. But, when he realizes that he has no way out, he tries to find refuge in madness against the idea of death, and he decides to use madness as a weapon in his revolt against death. As Martin himself says: "There is always madness, a refuge like a crevice in the rock. A man who has no

more defence can always creep into madness like one of those armoured things that scuttle among weed down where the mussels are" (186). After his decision, he immediately starts to pretend that he is going mad. In the end he totally accepts madness and when God wants Pincher Martin to consider, Pincher replies, 'What's the good? I'm mad.' Then, God warns him, 'Even that crevice will crumble.'" (195-196). That points out to the fact that there is no way to escape death since it is the only inevitable reality, only seal to all things and life. So it should be faced in the end, in one way or the other.

Likewise, Meursault is struggling against death. His struggle against death can be considered to have two levels; first one is the physical level and the second is the mental level. The physical level is mostly seen in the first part of the novel, especially in his struggles with the sun. The sun has a great impact on Meursault physically first during the funeral, then on the beach causing discomfort and alienation, and making him lose his conscious and forcing him to do something that changes his life. Therefore, he constantly tries to flee from the sun, and thus death in some way. For instance, he frequently sleeps while he is waiting for the funeral time. His habit of sleeping there with his mother in front of him shows that he uses sleep as a defense mechanism against death, in order to forget the idea of it. Afterwards, during the funeral he feels the excessive heat, and after some time he cannot bear the alienating and oppressive effect of the sun and cannot wait till the end of the funeral of his mother leaving there to catch the bus to the Algiers where he finds respite from the sun and feels at home. Thus, he tries to flee from the effects of the sun by sleeping and

getting away from the place, which reveals the physical level of his revolt against death.

The mental level of his revolt is displayed in the second part of the novel where Meursault is closed into the cell. After the verdict for his execution is given, he realizes that there is no chance of overturning it and begins to think of ways of escape from “the machine.” He spends his time trying to find one way, and then another. Upon being unsuccessful, he calculates the possibility of the failure of the blade, but sees that it is impossible. Being cut off from the world and realizing that there is no way to escape from death, he completely concentrates on himself; his past life, his family and Marie. Thus, his past life – especially memories about his mother– becomes another way to flee from death in the mental level of his revolt. He is also overcome by his physical needs and his desire for women, not only for Marie but any woman. Thus, in the mental level of his struggle against death he employs two ways of escape, past life and sensual life, which is revealed by his desire for women, and dreams about them.

To sum up, both Meursault’s and Martin’s revolt against death is almost the same. But there are only some differences in their ways of escape from it. For example both of them concentrate on women, but for Pincher Martin, women are sole objects to be used for satisfaction. So, he exploits them to satisfy his egoist identity. However, Meursault only has affair with Marie with her consent. He doesn’t force her for anything. But he only wants to have a good time with her by spending time with her, he wants to get away from the idea of death. There is also another point

which differentiates their physical struggle: While Pincher Martin, tries to do everything to struggle with death physically, Meursault is deprived of his freedom in the second part of the book. Therefore, his struggle is reduced to a mental one in the end since he has no chance to do anything physical. Eventually he becomes absorbed in his past life to forget the idea of death, and gives up thinking of his revolt against it. Pincher Martin also uses madness as a refuge from death. Whereas Meursault only finds refuge in sleep, which means that Meursault’s revolt is not a very active one, he only wants to get away from the idea of death. Pincher Martin, on the other hand, seems to be a more tricky man and does everything to get rid of death, even tries to cheat God by saying that he is mad. Hence, Pincher Martin seems to be more stubborn and decisive than Meursault in his struggle against death. What is similar in both novels is both characters’s realization of death as the inescapable end. So, both of them have to face it desperately in the end.

3. ABANDONMENT OF MAN

Another significant existentialist component is the abandonment or the throwness of man. According to existentialism man is a poor creature thrown into the world. There is no external force or being to help him, so he is deserted to his own fate. The world is a place of exile for man. He is totally alone in this place governed by chance. So, man’s situation in the world is one of solitariness. He is completely abandoned by God and alone in the face of everything. Therefore, he himself is responsible for all his actions, not any other thing or person.



Both Pincher Martin and Meursault are in the same situation as described above. In Golding's novel, Pincher Martin is thrown off from the ship into the sea, and for a long time he struggles to get out of the water, eventually finding himself on a small rock in the middle of the Atlantic Ocean. Being a part of the world, this rock can be interpreted as a place of exile for him. On this rock he is completely alone abandoned to his fate, and there is no external force to help him. Therefore, he has to find ways to continue his life on his own. The first thing he does is to find solutions for his physical needs like a place to sleep, sea animals to feed himself, a place to accumulate the rain water in order to drink later. In other words, he tries to satisfy his elemental needs and tries to make a home, a familiar place out of this sole rock. So, there is no one and nothing to help him even when he is very ill. But, actually this is a kind of punishment given to him as a result of his past deeds, so now he has to bear the consequences of all his acts on his own without any help from the outside.

As for Meursault, a similar scene is displayed in *The Stranger* when he is put into prison, and then taken into a cell. Likewise, he is stripped of his freedom. It is very clear from his words that in his cell he has got only the things to satisfy his basic human needs as Pincher Martin does. He says:

The day of my arrest I was first put in a room where there were already several other prisoners, most of them Arabs. (...). A few minutes later, it got dark. They showed me how to fix the mat I was supposed to sleep on. One end could be rolled up to make a pillow. All night I felt bugs crawling over my face. A few days later I was put in a cell by myself, where I slept on wooden boards suspended from the wall. I had a bucket for a toilet and a tin washbasin (72-73).

In this fragment it is obvious that Meursault's situation is not very different from Martin's. They both have merely the basic physical needs. Like Martin, Meursault is deserted to his own fate, too. Apparently, he has a lawyer and the priest thinks that he can help Meursault. However, as Pincher Martin relies on his education and intelligence to get away from that place, Meursault relies on himself, on his own mind to find a way of escape, eventually coming to the conclusion that there is actually no way out. As in the situation of Martin, this execution by the machine is the result of his killing the Arab. So, this is what he has to bear in the end as a result of his actions. However, unlike Martin's aggressive and stubborn refusal of his punishment by self-deception, Meursault does not blame anyone for his crime. Meursault mostly accepts his crime and the punishment, and waits for his death in a passive way in his cell.

Therefore, these two characters's situations are nearly the same except for a slight difference, in that, unlike Meursault who ends up in passive acceptance of his punishment, Pincher Martin refuses to accept the responsibility of his actions by blaming God for them. However, in the end both of them share the same destiny by being left alone in the face of everything, and they realize tragically that no one or nothing can save them from the inevitable end awaiting for them: one is already annihilated by the black lighting in the end, and the other is on the verge of being executed at any moment.

4. OUTSIDERS, REBELS ALIENATED FROM SOCIETY AND NATURE

The other existentialist quality is the alienation of man from nature and the society. These two

men are rebels or outsiders neither of whom lives by the rules and the norms of the society. So, they are alienated from the society and from the other people. Apart from their alienation from the society comes their alienation from the nature, which is particularly signified by the hostility of the sun towards two characters. Both men are conscious of their alienation and their being outsiders in the society.

For instance, in Golding's novel *Pincher Martin*, the main character is alienated from the society, he is an outsider, because he does not care about the rules of the society, and does not show any respect to anyone and usurps them in order to satisfy his egoist identity. He is aware that he is an outsider. Towards the end of the novel, he says: "I'm so alone! Christ! I'm so alone! (...) Because of what I did I am an outsider and alone" (181). He knows that he becomes an outsider, a rebel because of his past deeds, which are against the rules of the society. Similar to Pincher Martin, Meursault also realizes that he is an outcast, an intruder in the society. This becomes evident especially during one of the trials while he is observing the behaviours of the people in the courtroom and describing the atmosphere there. He says:

I noticed then that everyone was waving and exchanging greetings and talking, as if they were in a club where people are glad to find themselves among others from the same world. That is how I explained to myself the strange impression I had of being odd man out, a kind of intruder (84).

The sight of people waving, greeting each other, and having conversation among themselves creates a feeling of being an outcast or an outsider among the others. He feels as if it were a club, and all

the other people were the members of that same club except for him, which reveals the fact that he is alienated from the society.

These two characters are also alienated from the nature. In the fourth chapter of Golding's novel, while Pincher Martin is struggling with the stones to build a dwarf, he begins to sweat. Then, after some time he realizes that he has been exposed to the sun for so long and suffers from sunburn. Therefore, the negative and disturbing effect of the sun is very evident in the novel. It is so hostile that it gives harm to Pincher Martin like an enemy and he is so alienated that he tries to make a home, a familiar place out of this sole rock since he needs to feel at home.

In the same way Meursault is also affected negatively by the sun, which is mostly evident during the funeral, and on the beach where he kills the Arab. In these instances Meursault strongly feels the alienating and disturbing effect of the sun which makes him feel uncomfortable. So, he constantly tries to escape from the sun. After the funeral, for example, he immediately leaves the home without waiting till the end and catches the first bus to Algiers, the only place where he feels at home. In the second event the sun causes him to lose his patience and conscious on the beach and kill the Arab. Therefore, the negative impact of the sun is so strong that it totally changes the flow of Meursault's life. Thus, these examples that have been given so far reveal these two characters's alienation from the society and the nature.

However, there is another level of their alienation, which is their alienation from themselves. This means that after some time, these two characters become strangers even to themselves, which is



reinforced by particularly two elements. These are the images of mirror and the speech. In addition, in Golding's novel there is the image of the photograph. As for Golding's novel, these three elements are used as the symbols of the identity of the main character, Pincher Martin. Since he is completely alone on this rock, he is in danger of losing his identity. So, he uses these three elements to assure and preserve his identity and his existence. However, it turns out to be the opposite. Whenever he uses one of them to assure his existence, he realizes that the man in the photograph or in the mirror is not himself, and the voice does not belong to him, but it sounds completely different. He cannot recognise this "the other man," which means that he becomes a stranger to himself. For instance in chapter nine he talks about the photographs and the mirrors:

How can I have a complete identity without a mirror? That is what has changed me. Once I was a man with twenty photographs of myself—myself as this and that with the signature scrawled across the bottom right-hand corner as a stamp and seal. Even when I was in the Navy there was that photograph in my identity card so that every now and then I could look and see who I was. (...) [I] was content to wear the card next to my heart, secure in the knowledge that it was there, proof of me in the round. There were mirrors too, triple mirrors, (...) I could spy myself and assess the impact of Christopher Hadley Martin on the world (132).

Here, what he says is that he can be sure about his existence only by the help of mirrors or photographs, and without them his identity lacks something, it is not complete. Now, what he knows of his face is only "the scratch of bristles, an itch, and a sense of tingling warmth," and getting angry he cries out that it is "no face for a man." Afterwards, not having a mirror on

this sole rock, and being in danger of losing his existence, he goes to the water-hole and peers into the pool to see his own reflection. "But his reflection was inscrutable" (133). So, however hard he tries what he can see in the end is not the man he was once, but completely a stranger. In another example he tries to recognize his face in one of his photos which he finds on the rock, but he cannot achieve it since the photo is blurred. This part is related as in the following:

He peered through the cover and made out a fogged portrait. He could see a carefully arranged head of hair, a strong and smiling face, the white silk scarf round the neck. But detail had gone for ever. The young man who smiled dimly at him through fog and brown stains was distant as the posed portraits of great-grandparents in a faint, brown world (75).

Especially the phrases "arranged head of hair," "a strong and smiling face," "the young man who smiled dimly at him" give the description of a totally different man and creates the impression that the man in the photograph is totally foreign to Pincher Martin. with this image of blurred photograph Pincher Martin's alienation from himself is assured again. For Pincher Martin another proof of his identity is his voice or speech, but even this attribute of him sounds strange to him. In the sixth chapter he says: "If it [the rock] tries to annihilate me with blotting-paper, then I will speak in here where my words resound and significant sounds assure me of my own identity" (87). So, this resounding of his voice again creates a similar feeling as though another man were talking instead of Pincher Martin, and again shows alienation of him, his being a stranger to himself.

These two images, mirror and speech, are used in the same way in Camus's *The Stranger*. Likewise, Meursault cannot find a mirror in his cell,

either. Therefore, he takes a tin plate to use it as a mirror to look at himself. He says: “That day, after the guard had left, I looked at myself in my tin plate. My reflection seemed to remain serious even though I was trying to smile at it. I moved the plate around in front of me. I smiled and it still had the same sad, stern expression” (81). Similar to Pincher Martin, Meursault tries hard to see his own reflection smiling in the mirror, but it is as if he looked at a different man and saw a sad face instead of his smiling face. Then, he does not want to believe it, so goes to the window this time trying to find his smiling reflection there. He says: “I moved closer to the window, and in the last light of day I gazed at my reflection one more time. I was still serious— (...)” (81). Though he tries once more to see his smiling reflection, what he only finds is that serious face again. Thus, his alienation from himself is very evident in this example.

Following this instance of alienation comes another realization of Meursault about his own voice and his monologue to himself. He relates that: “But at the same time, and for the first time in months, I distinctly heard the sound of my own voice. I recognized it as the same one that had been ringing in my ears for many long days, and I realized that all that time I had been talking to myself” (81). In his cell, Meursault is alienated from everything and everyone so much so that he cannot recognize his own voice when he first hears it after a long time. Like Pincher Martin, Meursault becomes so alien to himself. It sounds as if somebody, another man were talking, but not Meursault himself. He spends there so long a time that not only is he alienated from the other people but also from himself. Consequently, both

Meursault and Pincher Martin are left alone for a very long time being separated from the society that they eventually turn out to be strangers to themselves.

5. FREEDOM OF CHOICE

For Existentialists, man is condemned to be free, and so he has freedom of choice. He can choose how to act and how to lead his life. Since he is condemned to be free, he has no guides to help him, he is on his own. Therefore, he is the only person responsible for his actions and must bear the consequences of them without trying to find excuses for them. In Golding’s *Pincher Martin* and Camus’s *The Stranger*, it is very evident that both main characters have freedom of choice.

Golding’s main character Pincher Martin has, as Golding himself states, a total freedom to choose. He says: “Christopher Hadley Martin had no belief in anything but the importance of his own life; no love, no God. (...), he had a freedom of choice which he used to centre the world on himself” (Friedman, 52). Thus, whatever he does and says, he decides it by his free will without being influenced by any external power. In his confrontation with God disguised as a sailor, Pincher Martin admits that he is aware of the fact that he is free to choose. Through the end of their conversation, indicating Pincher’s imaginary world God says:

‘You have created it.’ He glanced sideways along the twitching water, down at his skeleton legs and knees, felt the rain and spray and the savage cold on his flesh. He began to mutter. ‘I prefer it. You gave me the power to choose and all my life you led me carefully to this suffering because my choice was my own. Oh yes! I understand the pattern. All my life, whatever I had done I should have found myself in the end on that same bridge, at that same time, giving that same order—the right order, the



wrong order. Yet, suppose I climbed away from the cellar over the bodies of used and defeated people, broke them to make steps on the road away from you, why should you torture me? (197).

He knows that all of what he has experienced so far were his choices and the results of them, because he was given freedom of choice which he used to usurp people and to create his own world centering it on himself. So, what he normally must do is to accept the responsibility of his actions whether they are right or not, and to endure the consequences of them. But, the is that Pincher Martin does not want to accept the consequences of his actions by trying to find excuses for them, which is called self-deception or bad faith by the existentialists. Moreover, he surprisingly blames God for his own wrongdoings or past deeds. He says God Himself gave him the power to choose, so why he is the one to be blamed for using it now. But, however hard he tries to find excuses for his actions, it does not work, and he is annihilated by the black lighting, symbolically death, and reduced to a pair of lobster claws in the end, as a kind of punishment for his past deeds.

Similarly, Meursault has the freedom to choose, and he is conscious of this freedom like Pincher Martin. However, what matters is that although Meursault has both physical freedom and freedom of choice in the first part of the novel, he is shut up into a cell thus being deprived of his physical freedom in the second part of the novel. In the first part, it is implied that except for the working hours he is a very free man: he goes to have a swim whenever he wants, he spends time with Marie, he goes to the cinema with her, shortly he does whatever he likes and whenever he likes, which actually points out to Meursault's physical

freedom. As for his freedom of choice, when his boss asks him if he wants to work in Paris, he uses his freedom to refuse his offer and to stay in Algiers. Whereas, in the second part, when he is arrested for killing the Arab and put into the prison, he is stripped of his physical freedom trying to get used to this situation and expresses the difficulty of being shut up into a cell by the following sentences:

When I was first imprisoned, the hardest thing was that my thoughts were still those of a free man. For example, I would suddenly have the urge to be on a beach and to walk down to the water. As I imagined the sound of the first waves under my feet, my body entering the water and the sense of relief it would give me, all of a sudden I would feel just how closed in I was by the walls of my cell (76).

However, this of course does not mean that he has lost his freedom of choice along with his physical freedom. He still makes his own choices and has his own preferences even though he is in prison. For example, his confrontation with the magistrate about their belief in God is displayed in one part of the novel. In this scene the magistrate forces Meursault to admit that he has belief in God. But, Meursault persistently refuses to do so, and repeats that he does not believe in God. He says:

I was about to tell him he was wrong to dwell on it, (...). But he cut me off and [asked] me if I believed in God. I said no. (...). He said it was impossible; all men believed in God, even those who turn their backs on him. That was his belief, (...). "Do you want my life to be meaningless?" he shouted. As far as I could see, it didn't have anything to do with me, and I told him so. (...). I made it appear as if I agreed. To my surprise, he acted triumphant. "You do believe, don't you, and you're going to place your trust in Him, aren't you?" [he asked]. Obviously, I again said no (69).

However hard the magistrate tries, he cannot make Meursault admit that all men have belief in God. When the magistrate says “all men believe in God,” Meursault thinks that “that was his belief.” Therefore, for Meursault everyone has his own right, his freedom to choose, and the magistrate chooses his own truth. Likewise, Meursault himself has the freedom to make his own preference, to believe in his own truth and to express it freely. That’s why he constantly refuses the magistrate’s endeavours to make him accept another belief. Meursault respects his ideas and belief and so expects the magistrate to act in the same way.

Consequently, what these two characters share in common is that they are both deprived of their physical freedom. What distinguishes the idea of freedom of choice presented in both novels is that while Pincher Martin tries to find excuses for his past deeds, and even blames God for his wrongdoings, Meursault remains rather silent and accepts what comes as a punishment in the end. Thus, compared with Pincher Martin, Meursault may be considered more like an existential man since he accepts the consequences of his actions, unlike Pincher Martin’s strong resistance against such an acceptance.

6. SUFFERING AS A PART OF THE WORLD

Existentialists claim that suffering or pain is a natural part of the world, so man must suffer without any complaint. Like death, suffering is inflicted on man by nature, and likewise it is another inevitable part of the world that man is condemned to and must bear. As for Golding’s novel, throughout the novel Pincher’s suffering is exhibited in almost every part of it: in the

opening scene, his suffering in the water (p.1-2), afterwards, his suffering on his self-created island while he is trying to build a dwarf and struggling with stones (p. 61-65). Later, some other pains (p. 122,140-143). However, the greatest of his pains are related to his past, which haunts him in various parts of the novel. But, as all existentialists do, Pincher Martin admits that he has to suffer since it is a part of this world.

In chapter eleven of the novel, when Martin feels that he was poisoned, he says: “Stings. Poison. Anemones poisoned me. Perhaps mussels are all right after all. (...) Everything is predictable. I knew I should suffer and I have.”(166). He is very conscious of the fact that his suffering is the result of his past life, it is a part of this life actually, and so it must be accepted. Hence, though at times he thinks it to be unfair and accuses God for his past deeds, he still accepts the fact that he has to suffer and he does so, as he relates in the fragment above.

Although Meursault’s reaction, in the face of the idea of suffering as a part of the world, is almost the same with Pincher Martin’s, his ideas are not given directly, but are conveyed to the reader through Meursault’s attitudes. In other words, rather than direct words like Pincher Martin’s, only some implications can be found in relation to Meursault’s ideas. The first instance which reveals that suffering is a natural part of the world for him is displayed during his mother’s death. It is even seen much earlier, when he gets the news of his mother’s death from the home. Upon hearing the news, he shows no sign of sadness and does not shed a tear which may support the idea that this event, though a cause of suffering



normally, is a natural part of the world with all its pain and suffering. Therefore, he reacts to it as he does to a normal event. During the funeral he again remains indifferent to the event. In addition, there are several other examples of his similar reaction after the funeral. For instance, just the day after the funeral Meursault says: "It occurred to me that anyway one more Sunday was over, that Maman was buried now, that I was going back to work, and that, really, nothing had changed" (24). These words of him signify that his mother's death has actually made no difference in his life. This is not because he is indifferent to her death, but because he knows that death and suffering are natural parts of the world, which everyone will experience one day. Therefore, it is meaningless to fuss about it or to exaggerate it. So, he silently accepts it without making any complaints.

What bears similarity between the two novels is that the main characters of both novels are aware of the fact that suffering is a natural and inevitable part of the world like death, and so must be faced. Although both of them suffer because of what they did, Pincher Martin because of his past deeds and Meursault because of killing the Arab, their reaction to their suffering is different. Meursault, after trying to find a way to escape, becomes totally aware of the fact that this is the punishment that he has to face and accept as a result of his action. Therefore, he endures it silently and waits for his coming death sentence. Contrary to this, Pincher Martin does not remain silent before his death. In spite of the fact that he admits that he deserves suffering, he resists till the end claiming that God gave him the right to choose and thus accusing God of his own past

deeds and wrongdoings. So, at the end of the two novels these two men's attitude towards the idea of suffering bears difference: one accepting silently, the other resisting stubbornly.

7. ALLUSIONS TO MYTHOLOGICAL CHARACTERS

As is known Existentialist writers make use of myths and mythological characters frequently. Particularly these two writers, Golding and Camus in their works have employed this as a narrative technique: they have taken well-known mythological characters or stories and have used them as bases for their own works or stories. Therefore, in both of the novels there are similarities between the main characters and some mythological figures. While in *The Stranger* there is one basic allusion to the mythological figure, Sisyphus, Golding's *Pincher Martin* makes several allusions to mythological characters such as Prometheus, Atlas, Ajax and Sisyphus, and also some allusions to mythological stories like the confrontation between Zeus and Prometheus, and the story of Sisyphus's eternal punishment.

Albert Camus wrote *The Stranger* and *The Myth of Sisyphus* as companion pieces. As Camus himself says *The Stranger* does not explain anything, in other words, it is not an explanatory novel, but only describes. So, Camus writes *The Myth of Sisyphus* as an explanatory companion piece for the novel. Hence, such an influence of this mythological figure on the main character of the novel is inevitable. This influence is not seen very clearly or directly in the novel, but there are many implications of it the most significant of which is the mechanical living or routine life of Meursault, which is mostly seen in the first

part of the novel. As Meursault is an office clerk living in a succession of presents, a habitual or monotonous life is inescapable for him. To illustrate, he usually eats his meals at Céleste's restaurant, and takes the streetcar to work. This deadening repetition in his life is very similar to the one in the following example from *The Myth of Sisyphus*:

Rising, streetcar, four hours in the office or the factory, meal, streetcar, four hours of work, meal, sleep, and Monday Tuesday Wednesday Thursday Friday and Saturday according to the same rhythm (...). But one day the "why" arises and everything begins in that weariness tinged with amazement. (...) Weariness comes at the end of a mechanical life, but at the same time it inaugurates the impulse of consciousness (Camus, *The Myth of Sisyphus and Other Essays*, 1972: 12-13 qtd. in Baker).

Therefore, this fragment from *The Myth of Sisyphus* represents the idea of mechanical living and the life described in this fragment bears a great similarity to Meursault's monotonous life. In addition, if Sisyphus is taken as a mythological character and if his punishment is considered, the notion of a relationship between the two can be strengthened. Because, both men's lives seem aimless: Meursault living in a vicious circle without any goals or projects for the future, and Sisyphus rolling up the stone to the top of the mountain only to see it roll down again. Another resemblance between the two characters, Meursault and Sisyphus is that they both accept this situation without any complaint or questioning. For instance, when Meursault's boss asks him if he wants to work in Paris, he simply says "No." Then, the boss asks the reason of his refusal, and Meursault says he is happy with his life in Algiers, which means that he has no complaint about his present life. As for Sisyphus, he endures

a similar situation, which is perhaps harder than Meursault's: rolling up the rock to the top of the mountain eternally, but, he never complains or questions it. So, their silent acceptance of their situation is the second point which bears a resemblance between the two.

Similarly, Golding in his *Pincher Martin*, uses several mythological figures – such as Prometheus, Atlas, Ajax and Sisyphus – in order to reflect the situation of contemporary man. The first two of these characters are directly mentioned in the novel, however, the other two are only conveyed through some implications. Implying the punishment given to him he declares that he is a hero like Prometheus and Atlas (164). It is known that Atlas's punishment is to carry the heavens on his shoulders without being allowed to put it down. When it comes to Prometheus, he steals the fire in order to use it for the benefit of man. As a result he is punished by Zeus by being chained on a rock where a vulture tears a piece from his liver everyday. Pincher's situation is almost the same being imprisoned on that rock without food and water (188). Also, the confrontation between Pincher Martin and God through the end of the novel is the reminiscent of the confrontation between Prometheus and Zeus. Here, Pincher Martin wants to emphasize that though he is punished, he is still an eternal hero like Prometheus and Atlas, thus will survive till the end.

One of the implied mythological characters is Ajax, who rapes the virgin princess Cassandra, becomes shipwrecked on his journey from Troy, boasts that he has saved himself without help from gods, and then is killed by infuriated



Poseidon. If Martin's seduction of many women and his attempt to rape Mary are considered, his similarity to Ajax is reinforced. In addition, he is shipwrecked like Ajax when his ship is torpedoed in the middle of the ocean. Almost towards the end of the novel Pincher Martin himself declares that he is Ajax by desperately crying out: 'Ajax! Prometheus!' ” (192), and thus trying to find refuge in another mythological figure. The last mythological character, who is implied in the novel, is Sisyphus. After being imprisoned on that rock, Pincher Martin decides to build up a man with stones to use as a signal to be rescued. During his construction of the dwarf his struggle with the stones reminds the reader of Sisyphus's struggle to roll the stone up to the top of the mountain as an eternal punishment. This struggle of Pincher Martin is presented in the following fragment:

There was a broken rock below his hands, (...). He climbed down and wrestled with a great weight. He made the stone rise on an eagle; he quivered and the stone fell over. He collapsed and lay for a while. He left the stone (...). He found an encrusted boulder lying in a rock pool and pulled it up. He got the stone against his stomach, staggered for a few steps, dropped the stone, lifted and carried again. He dumped the stone on the high point above the funnel and came back. There was a stone like a suitcase (...). He put his back against the suitcase and his feet against the other side of the trench. The suitcase grated, moved. He got a shoulder under one end and heaved. The suitcase tumbled in the next trench and broke. [He] pulled and hauled. Then there were two rocks on the high part, one with a trace of blood. (...) He found a third stone but could not get it up the wall of the trench. By the time he had dragged it to the others his hands were broken. (...) He lay down across the three stones and let them hurt him. (...) He got up, put the second stone laboriously on the third and the first on the second. The three stones measured nearly two feet from top to bottom. (...) Immediately

he began to crawl away down the hill. The crawl became a scramble. (...). He put one last stone on the others, one big as his head (61-65).

As is seen above, Pincher Martin's struggle with the stones is very similar to Sisyphus's punishment. What is also common for both struggles is that they are futile. Because, Sisyphus will go on rolling up the rock eternally without an aim, likewise Pincher Martin's all efforts to make a dwarf in order to be saved will prove to be meaningless since he will in one way or another die by being annihilated by the black lighting. Sisyphus already knows his situation, and accepts it by trying to find happiness in his situation. However, Pincher Martin is not satisfied with his situation and tries everything to get out of it only to see that it is in vain. Nevertheless, he remains as a rebel almost till the end of the novel where he is annihilated and reduced to a pair of lobster claws.

Therefore, the use of mythological characters, especially the use of Sisyphus at the basis of the two novels is another significant existentialist concern that bears similarity between the two novels. Along with the similarity comes a slight difference in relation to the use of mythological figure, Sisyphus: while Camus's Sisyphus (Meursault) continues his struggle in his mind, and eventually accepts the situation he is in by trying to be happy with it towards the end of the novel; Golding's Sisyphus (Pincher Martin) refuses to endure such a situation, and so resists till the moment he dies.

CONCLUSION

Although Existentialism as a term is very difficult to define due to its unsettled principles, in different periods, in one way or another, it has

been employed by various authors from world literature, including Friedrich Nietzsche, Fyodor Dostoevsky, Franz Kafka, Jean-Paul Sartre and Albert Camus. Among these authors, dealing with Existentialism, particularly two from the twentieth century are the main concern of this study, each with a novel representing the main concerns of existentialist philosophy: William Golding's *Pincher Martin* and Albert Camus's *The Stranger*; both of which have been analysed comparatively in order to exemplify the major concerns of existentialism .from two different literary perspectives, one by an English and the other by a French author.

To sum up, when analysed comparatively it is seen that both William Golding's *Pincher Martin* and Albert Camus's *The Stranger* embody all these major concerns of existentialist philosophy, sometimes with slight differences and in most parts reflecting many affinities. Also it is evident that William Golding was affected by Albert Camus's *The Stranger* in terms of the existentialist philosophy it handled while he was creating his own novel called *Pincher Martin*. Despite the interaction between the two authors and their novels, the authors of the two novels present the same subject from two different literary perspectives.

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VAROLUŞÇU FELSEFE IŞIĞINDA GOLDING'İN *PINCHER MARTIN*'İ VE CAMUS'UN *THE STRANGER*'İ

Özet: Bir tür “etki” araştırması niteliğinde olan bu çalışma, William Golding’ın *Pincher Martin* ve Albert Camus’nun *The Stranger* romanlarını varoluşçuluğun başlıca kaygıları ile ilgili olarak karşılaştırmalı bir şekilde incelemeyi amaçlamaktadır. Etkileşim süreci açısından önem taşıyan “etkileyen” ve “etkilenen” kavramlarından hareketle ele alınacak olan iki eserin, Varoluşçuluğun temel kaygıları çerçevesinde analiz edileceğini belirtmiştik. Adı geçen bu kaygılar sırasıyla şöyledir: dünyanın merkezinde birey, ölüme karşı direnme ve aşırı yaşama isteği, insanın kaderine terkedilişi, insanın topluma ve doğaya yabancılaşması, dünyanın bir parçası olarak acı çekme, seçim yapma özgürlüğü, mitolojik karakterlere göndermeler. Tarihsel açıdan bakıldığında, daha önce yazılmış olması sebebiyle Albert Camus’nun 1942 tarihli *The Stranger* (*Yabancı*) adlı romanı etkileyen, William Golding’ın 1956 tarihli *Pincher Martin* adlı romanı etkilenen olarak ele alınacaktır. Bu anlamda, bu çalışmada amaç bir taraftan *Pincher Martin* adlı eserin, *The Stranger* adlı eserden nasıl etkilendiğini göstermekken, diğer bir amaç ise her iki eserin de varoluşçu felsefenin izlerini taşıdığını ortaya koymaktır. Karşılaştırma yönteminin kullanılacağı çalışmada ilk olarak iki eserin temelinde yer alan Pincher Martin ve Meursault adlı ana karakterler varoluşçuluk bağlamında dünyanın merkezinde yer alan iki birey olarak incelenecektir. Daha sonra varoluşçuluğun en belirgin kaygıları arasında bulunan ölümden kaçınma, ölüme karşı direnme ve bu kaygı ile paralel olarak varlığını sürdüren bireyin içindeki aşırı yaşama isteği irdelenecektir. Diğer bir varoluşçu kaygı olan insanın bu dünyada yalnız ve kaderine terk edilmiş olduğu fikri iki eser üzerinden örneklerle tartışılacak, daha sonra insanın toplum ve doğaya yabancılaşması ya da kendini bunlardan soyutlaması anlamındaki başka bir varoluşçu kaygı üzerinde durulacaktır. Bir sonraki bölümde, varoluşçuluk açısından önem arz eden, bireyin bu dünyanın bir parçası olarak acı çekmesi ve buna katlanması gerektiği yönündeki kaygı ele alınacak, sonrasında insanın her konuda seçim yapmak için özgür iradeye sahip olduğu, bu nedenle bireylerin bütün karar ve davranışlarından kendisinin sorumlu olduğu, bu sorumluluklardan kaçınamayacağı ya da yaptığı hataların sorumluluklarını kimseye yükleyemeyeceği fikri vurgulanacaktır. Son olarak, her iki eserde varoluşçu felsefe çerçevesinde özellikle vurgulanan Sisyphus, Atlas, Ajax ve Prometheus gibi mitolojik karakterlere yapılan göndermeler, eserlerden yapılan alıntılarla örneklenecektir. Böylelikle, bu inceleme ile ulaşılmak istenen, bu iki romanın varoluşçuluğun yukarıda sözü geçen başlıca kaygılarını barındırmalarına ve iki yazarın da varoluşçu düşüncüyü çoğu bölümde benzer şekilde ele almalarına rağmen yine de varoluşçuluğa yaklaşımlarında bazı belirgin farklılıklar olduğunu göstermek ve bunun yanında İngiliz yazar William Golding’ın *Pincher Martin* adlı romanını yaratma sürecinde, kendisinden önce varoluşçu kaygılar taşıyan *The Stranger* adlı romanı yazan Albert Camus’dan ve onun adı geçen eserinden etkilenmiş olduğunu ortaya koymaktır. Çalışmada bu etkileşim süreci ifade edilirken, iki eser arasındaki benzerlikler ve farklı noktalar vurgulanacak ve özellikle iki romanın ana karakterleri arasındaki ortak noktalar ve farklılıklar çalışmada ayrıntılı olarak açıklanıp örneklendirilecektir. Sonuç olarak, bir yazarın diğerinden etkilenmiş olmasına karşın, varoluşçu felsefenin iki romanda, biri İngiliz diğeri Fransız olan iki farklı yazar tarafından oldukça farklı açılardan ele alındığı gerçeği yansıtılacaktır.

Anahtar Kelimeler: Varoluşçuluk, Ölüme Karşı Direnme, Yabancılaşma, İnsanın Kaderine Terkedilişi

THE SCALE FOR TEACHER PARENT COMMUNICATION AND COLLABORATION¹

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Abstract: In every stage of education, in particular at preschool education, the strong and qualitative communication and collaboration increases the quality of education and yields positive outcomes in terms of children, families and teachers. The current research was carried out to test the validity and reliability of “The Scale for Teacher Parent Communication and Collaboration” in order to investigate the communication and collaboration between the family having a child attending an official kindergarten acting under the primary schools of the Ministry of Education and teachers depending on teachers’ point of views. The sampling of the study comprised of 240 kindergarten teachers working in the kindergartens acting under the primary schools of the Ministry of Education chosen with a supposition of Simple Random Sampling depending on the incidence, sensibility and mass size. In addition, as each kindergarten teacher filled a form for 5 families, the number of teacher forms was 1200. As validity-reliability tests, “Factor Analysis” and “Cronbach Alpha” coefficients were calculated. The reliability coefficient was taken as 0.982 for “The Scale for Teacher Parent Cooperation and Collaboration”, which was made up of 56 items.

Key Words: Early Childhood Education, Communication, Collaboration, The Scale For Teacher Parent Communication, Collaboration

¹ This study was extracted from the master thesis entitled “Validity and Reliability Study of Administrator, Teacher and Family Communication and Cooperation Instrument and Study into the Communication and Cooperation between Administrator, Teacher and Family at Preschool Education Institutions in terms of Family Perspective” (2008)

INTRODUCTION

Educators try to find out and improve the ways to increase the success of children at school and make them a good citizen. In order to achieve this goal, it is necessary that education should be realized through a collaboration of family, school and environment. When a positive link is obtained between school, family and environment, education will be realized at the desired level. Researches have shown that starting parent teacher collaboration at early ages and maintaining it throughout school period have an impact on the behaviours and academic successes and increase them in a positive way (Arslan and Nural,2004: 99-108; Akbaba and Samancı, 2004: 1432).

It is an inevitable reality to have parent school collaboration today. The role of families in education is getting more and more important. The child is a whole with his family. While determining the objectives of preschool education, we should not consider the child alone, but we should include the parents in the process by means of parent school collaboration (Kaya, 2002: 32; Karakaş, 2002: 39; Eliason and Jenkins, 2003: 58).

In order to make the preschool education more widespread and provide the sustainability of the education, there is a need for parent school collaboration. However qualitative the educational programs applied in preschool education institutions are, it would be unlikely to have permanent behavioural changes concerning children and reach the educational objectives in preschool education unless it is supported by the family. It is also required that this collaboration be given by both sides. The teachers that are able to regard families as a colleague could collaborate with

families much better (Ömeroğlu and Yaşar, 2004; Brewer, 2001: 204).

A qualitative communication should be obtained in order that both teachers and families could share their responsibilities for children, inconsistent educational attitudes adopted by teachers and families should be eliminated so that children can be prepared for a happy and successful life (Tezel Şahin and Özyürek, 2010; Kuzu, 2006).

Thanks to the parent school collaboration and communication, the teacher could get information with regard to the interests of children, their attitudes towards school, the expectations of families, the schooling/education support, home conditions supporting or preventing the school success, the attitudes of families for school and discipline, family support, the interests and talents of families, the willingness of families for collaboration. In addition, he/she can perform the program much easier, share the responsibilities and he becomes much more satisfied with his/her job (Morrison, 2002: 370; Cömert and Güleç, 2004: 135).

The school- parent collaboration could create an opportunity for the parents and teachers to get to know each other by allowing teachers to inform parents about what is going on at school and also parents to inform teachers about the things at home (Aral et al., 2002). With an educational approach comprising school, family and community together, it is likely to make children become an individual having ideas and views with regard to education for the development of the society other than himself, as well as involving in the education for his school success (Ural, 2005: 378). A great many factors play an important role in the development of the child. In this case,



it is likely to aim for a healthy development of the child through the opportunities and motivations given to the child, with the guidance and collaboration of teacher and parents in all fields (Bulut, 2000:5).

When school parent collaboration is achieved in the preschool education institutions, the likelihood of success for children is increased both at school and in real life. A well-organized school parent collaboration would increase the academic and social success of children in their future life. When children see their parents and teachers in a collaboration, they will get the message that the school is regarded as a valuable thing by their families. Positive effects of school, society and parent collaboration on the academic and social success of children have been proved by recent researches (Davies, 2000: 19-20; Carlisle et al., 2005: 161).

Being able to train inquisitive, curious and entrepreneur children to become individuals who can express their feelings and ideas freely, respectable for his own and others' rights, having the aptitude to use his skill and improving self-control will only be possible with school parent collaboration (Ömeroğlu and Yaşar, 2005).

With regard to the related literature, there is no scale assessing the communication and collaboration of parents with teachers in the preschool period from the teachers' point of views. This study is of importance in terms of developing "The Scale for Teacher Parent Communication and Collaboration" and carrying out its validity and reliability studies. It is believed that this scale would contribute to the development of the researches to be carried out in this field.

METHOD OF RESEARCH

The current research was carried out to test the validity and reliability of "The Scale for Teacher Parent Communication and Collaboration" in order to investigate the communication and collaboration between the family having a child attending an official kindergarten acting under the primary schools of the Ministry of Education and teachers depending on teachers' point of views.

WORKING GROUP

The sampling of the study comprised of 240 kindergarten teachers working in the kindergartens acting under the primary schools of the Ministry of Education chosen with a supposition of simple random sampling depending on the incidence, sensibility and mass size. In addition, as each kindergarten teacher filled a form for 5 families, the number of teacher forms was 1200.

THE PROCESS OF DEVELOPING THE SCALE

In this part, the stages in the process of scale development were given.

ESTABLISHMENT OF SUBSTANCES

A wide literature scanning was carried out with regard to school parent cooperation and communication in line with the purpose of the study. Depending on the Turkish and English field literature, the items of the "The Scale for Teacher Parent Communication and Collaboration" were formed.

SEEK EXPERT VIEWS

Five lecturers who are expert in their fields, preschool education, educational sciences, guidance

and psychological consultancy, were asked for their professional views as to the scale form for the content validity and convenience of “The Scale for Teacher Parent Communication and Collaboration”. The experts were asked to examine the scale in terms of convenience, clarity and understandability, to give their opinions over changing, correcting or excluding the items when necessary. In the evaluation of expert views, content validity rate (CVR) for each item was calculated. Content validity index (CVI) was determined by taking the means of CVRs. In line with expert views and recommendations, necessary changes were made in the items of the scale.

PRE-APPLICATION

Pre-application of “The Scale for Teacher Parent Communication and Collaboration” which was given latest form was carried out depending on the expert views and recommendations. The scale was applied to 20 teachers working for the kindergartens acting under the primary schools of Ministry of Education. As each kindergarten teacher filled a form for 5 families, the number of forms for teachers were 100 and it was seen that they could be applied to the sampling group. As a result of the statistical analysis the scale was decided.

THE SCALE FOR TEACHER PARENT COMMUNICATION AND COLLABORATION

“The Scale for Teacher Parent Communication and Collaboration” was prepared to measure the cooperation and collaboration of families with teachers from the perspective of teachers. The scale was in the 5 item likert type with the items of “Always”, “Mostly”, “Sometimes”, “Rarely”

and “Never”. The scale was made up of 4 sub-dimension of “Communication”, “Expectation”, “Cooperation” and “Family Involvement”. In the sub-dimension of communication, were 12 items like “Have a smiley face”, “Interested”, “Fair” etc.; in the sub-dimension of expectation were 6 items like “Open to talk when I want to talk”, “Willing to collaborate with me with regard to administrators and other staff” etc.; in the sub-dimension of collaboration were 19 items like “Willing to get information over child development and education”, “Try to find suitable time and space in order to participate any kind of activities to support school parent collaboration studies” etc.; and in the sub-dimension of family involvement were 19 items like “Follows the noticeboard and fulfils the requirements”, “Joins the programs containing the activities of teacher and parents”, 56 items in total. The scale was applied to the teachers working in the kindergartens by learning from the teachers (through filling in the form).

DATA COLLECTION METHOD

The two hundred and forty teachers working at the kindergartens acting under the primary schools of lower and higher socio economic levels in the central cities of Ankara were interviewed face-to-face by the researcher and informed about the purpose of the research. “Teacher Personal Information Form” and 5 separate “The Scale for Teacher Parent Communication and Collaboration” forms, on which the names of each of five children chosen randomly was written, was delivered to the teachers. The teachers were asked to answer items in the form thinking of the parents of the children whose names were written on the form and a certain date was determined



for the submitting time. On the designated time, “Teacher Personal Information Form” and “The Scale for Teacher Parent Communication and Collaboration” were received from the teachers by the researchers.

ANALYSIS OF DATA

The data obtained through “The Scale for Teacher Parent Communication and Collaboration” were transferred to computer and analyzed in SPSS 12 statistics package program. “Factor Analysis” and “Cronbach Alpha” coefficients were taken as validity and reliability tests.

FINDINGS

In this part, the results with regard to the validity and reliability of “The Scale for Teacher Parent Communication and Collaboration” were given in tables.

As given in table 1, Kaiser Olkin Sampling value was 0.956 and Barlett value was 8163.8 $p=0.000<0.05$. The fact that KMO value was high and that Barlett test was $p<0.05$ shows that factor analyses are applicable and there is a correlation between the items.

As given in table 2, the items of 7, 13, 14 in the sub-dimension of “Communication”; the items of 16, 17, 18, 20, 24 and 26 in the sub-dimension of “Expectation”; the items of 37, 38, 41, 48 and 51 in the sub-dimension of “Family Involvement” were excluded after the examination of structural validity depending on total and sub-dimension since their discriminating power was lower.

As given in table 3, reliability coefficient for total and sub-dimensions was high. The reliability coefficient of the sub-dimension of “Communi-

cation” that was made up of 12 items was 0.965; the reliability coefficient of the sub-dimension of “Expectation” that was made up of 6 items was 0.872; the reliability coefficient of the sub-dimension of “Collaboration” that was made up of 19 items was 0.963; the reliability coefficient of the sub-dimension of “Family Involvement” that was made up of 19 items was 0.950; and the total reliability coefficient of the scale that was totally made up of 56 items was 0.982. It was seen that reliability coefficient was at the sufficient level.

As given in table 4, it was seen with regard to item total correlation of “Communication” sub-dimension that item

1 had lowest correlation (0.680) while item 9 had the highest correlation (0.869).

As seen in table 5, it was seen with regard to item total correlation of “Expectation” sub-dimension that item 19 had lowest correlation (0.658) while item 22 had the highest correlation (0.775).

As given in table 6, it was seen with regard to item total correlation of “Collaboration” sub-dimension that item 39 had lowest correlation (0.593) while item 45 had the highest correlation (0.833).

As seen in table 7, it was seen with regard to item total correlation of “Family Involvement” sub-dimension that item 54 had lowest correlation (0.413) while item 64 had the highest correlation (0.843).

As given in table 8, a significant ($p<0.05$) positive correlation was found between the total scale scores and sub-dimension scores.

Table 1 The Test Results of The Scale for Teacher Parent Communication and Collaboration , Kaiser – Mayer – Olkin Sampling (KMS) and Barlett’s Test

Kaiser-Mayer-Olkin Sampling	
Measurement Value Sufficiency	=0.956
Bartlett’s Test Approximate Chi Square Value = 8163.8 sd=1540 p=0.000	

Table 2 The Analysis Results for Basic Components of the Scale for Teacher Parent Communication and Collaboration

Items	Communication	Expectation	Collaboration	Family Involvement
5	0.836			
6	0.83			
10	0.806			
4	0.803			
9	0.794			
11	0.787			
8	0.761			
2	0.757			
3	0.727			
15	0.707			
1	0.647			
12	0.578			
21		0.779		
19		0.759		
22		0.753		
23		0.634		
25		0.574		
27		0.514		
35			0.785	
46			0.772	
28			0.747	
34			0.742	
47			0.703	
45			0.671	
44			0.645	
43			0.627	
29			0.601	



50	0.599
32	0.599
42	0.597
30	0.591
39	0.574
49	0.519
36	0.516
33	0.513
40	0.508
31	0.487
69	0.825
72	0.804
70	0.79
57	0.749
68	0.715
67	0.695
62	0.658
61	0.636
64	0.584
66	0.58
63	0.577
59	0.544
52	0.522
56	0.496
54	0.461
60	0.445
58	0.418
65	0.409
53	0.364

Table 3 The Reliability Coefficient Results for Total and Sub-dimensions of the Scale for Teacher Parent Communication and Collaboration

Scale	Number of Items	Alpha
Communication	12	0.965
Expectation	6	0.872
Collaboration	19	0.963
Family Involvement	19	0.950
Total	56	0.982

Table 4 The Results of Total Item Statistics for “Communication” Sub-dimension for the Scale for Teacher Parent Communication and Collaboration

Items	Corrected Item Total Correlation	Cronbach’s Alpha After Item Exclusion
1	0.68	0.965
2	0.84	0.961
3	0.86	0.96
4	0.831	0.961
5	0.855	0.961
6	0.853	0.961
8	0.843	0.961
9	0.869	0.96
10	0.862	0.96
11	0.804	0.962
12	0.733	0.964
15	0.807	0.962

Table 5 The Results of Total Item Statistics for “Expectation” Sub-dimension for the Scale for Teacher Parent Communication and Collaboration

Items	Corrected Item Total Correlation	Cronbach’s Alpha After Item Exclusion
19	0.658	0.854
21	0.674	0.851
22	0.775	0.832
23	0.639	0.859
25	0.659	0.853
27	0.669	0.852



Table 6 The Results of Total Item Statistics for “Collaboration” Sub-dimension for the Scale for Teacher Parent Communication and Collaboration

Items	Corrected Item Total Correlation	Cronbach’s Alpha After Item Exclusion
IS28	0.741	0.961
IS29	0.783	0.961
IS30	0.721	0.962
IS31	0.792	0.961
IS32	0.759	0.961
IS33	0.815	0.96
IS34	0.74	0.961
IS35	0.69	0.962
IS36	0.722	0.962
IS39	0.593	0.963
IS40	0.654	0.962
IS42	0.786	0.961
IS43	0.818	0.96
IS44	0.826	0.96
IS45	0.833	0.96
IS46	0.772	0.961
IS47	0.707	0.962
IS49	0.782	0.961
IS50	0.74	0.961

Table 7 The Results of Total Item Statistics for “Family Involvement” Sub-dimension for the Scale for Teacher Parent Communication and Collaboration

Items	Corrected Item Total Correlation	Cronbach’s Alpha After Item Exclusion
AK52	0.68	0.948
AK53	0.616	0.949
AK54	0.413	0.953
AK56	0.717	0.947
AK57	0.624	0.949
AK58	0.708	0.947
AK59	0.815	0.946
AK60	0.793	0.946
AK61	0.535	0.951
AK62	0.634	0.948
AK63	0.781	0.946
AK64	0.843	0.945
AK65	0.749	0.946
AK66	0.679	0.948
AK67	0.796	0.946
AK68	0.814	0.946
AK69	0.807	0.946
AK70	0.76	0.946
AK72	0.758	0.947

Table 8 The Results of Total Score and Sub-dimension for the Scale for Teacher Parent Communication and Collaboration

		Communication	Expectation	Collaboration	Family Involvement
Total Score	R	0.852	0.837	0.965	0.94
	P	0.000*	0.000*	0.000*	0.000*
	N	1200	1200	1200	1200



RESULTS

“The Scale for Teacher Parent Communication and Collaboration” were grouped under 4 sub - dimensions, “Communication”, “Expectation”, “Collaboration” and “Family Involvement” and it was made up of 56 items in total, as

12 items regarding “Cooperation”, 6 items regarding “Expectation”, 19 items regarding “Collaboration” and 19 items regarding “Family Involvement”.

It was found that Kaiser – Mayer Olkin Sampling value was 0.956, Barlett value was 8163,8 $p=0.000<0.05$, and it was found that there was an applicability of the factor analysis and a correlation between the items since KMO value was high and the Barlett test was $p<0.05$.

Upon the reliability analysis in total and as sub-dimension, the items of 7, 13 and 14 items in the “Communication” sub-dimension, those of 16, 17, 18, 29, 24 and 26 in the “Expectation” sub-dimension, those of 37, 38, 41, 48 and 51 in the sub-dimension of “Collaboration” and the items of 55 and 71 were excluded as their discriminating power was low.

It was found that reliability coefficients were high at total and sub dimensions. It was found that reliability coefficient for “Communication” sub-dimension, which was made up of 12 items, was 0.965, that of “Expectation” sub-dimension, which was made up of 6 items, was 0.872, that of “Collaboration” sub-dimension made up of 19 items was 0.963 and that of “Family Involvement” sub-dimension, which was made up of 19 items was 0.950 and the reliability coefficient of the total scale that was comprised of 56 items

was found as 0.982. It was found that reliability coefficient was at the desired level.

Depending on the total item correlations for the “Communication” sub-dimension, it was found that item 1 had the lowest correlation (0.680) while item 9 had the highest (0.869).

Depending on the total item correlations for the “Expectation” sub-dimension, it was found that item 19 had the lowest correlation (0.658) while item 22 had the highest (0.775).

Depending on the total item correlations for the “Collaboration” sub-dimension, it was found that item 39 had the lowest correlation (0.593) while item 45 had the highest (0.833).

Depending on the total item correlations for the “Family Involvement” sub-dimension, it was found that item 54 had the lowest correlation (0.413) while item 64 had the highest (0.843).

A significant ($p<0.05$) positive correlation was found between the total scale score and sub-dimension scores.

RECOMMENDATIONS

The current study was carried out to test the validity and reliability of the Scale for Teacher Parent Communication and Collaboration which was developed in order to evaluate the communication and collaboration between the families with a child attending to one of the kindergartens acting under the primary schools of Ministry of Education and parents from the perspective of teachers.

The Scale for Teacher Parent Communication and Collaboration was developed for the teachers

working in the official primary schools of Ministry of Education and its validity and reliability was analysed. Studies on Validity and reliability could be carried out by adapting it to primary education.

The Scale for Teacher Parent Communication and Collaboration could be developed in order to evaluate the communication and collaboration between the families with a child attending to one of the independent kindergartens acting under the primary schools of Ministry of Education, private primary schools and institutions and parents from the perspective of teachers.

“The Scale for Teacher Parent Communication and Collaboration” could be adapted to whole Turkey.

In order to develop school parent collaboration, some seminars, conferences aiming at parents and teachers could be arranged.

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ÖĞRETMEN AİLE İLETİŞİM ve İŞBİRLİĞİ ÖLÇEĞİ

Özet: Nitelikli bir okul aile işbirliği ile eğitim ve öğretim istenen düzeye ulaşmaktadır. Bu araştırma, Ankara ilinde Milli Eğitim Bakanlığı'na bağlı resmi ilköğretim okulları bünyesinde bulunan anasınıflarında çocuğu devam eden ailelerle öğretmenler arasındaki iletişim ve işbirliğini öğretmenlerin bakış açısına göre değerlendirmek amacıyla geliştirilmiş olan "Öğretmen Aile İletişim ve İşbirliği Ölçeği" nin geçerlik ve güvenilirliğini test etmek amacıyla yapılmıştır. Literatür incelendiğinde; okul öncesi dönemde öğretmenler ile aileler arasındaki iletişim ve işbirliğini öğretmenlerin bakış açılarına göre ölçen bir ölçeğin bulunmadığı görülmektedir. Bu çalışma "Öğretmen Aile İletişim ve İşbirliği Ölçeğinin" geliştirilmesi ve geçerlilik, güvenilirliğinin yapılması yönünden önemlidir. Böylece bu alanda yapılacak araştırmalara ışık tutacağı düşünülmektedir. Araştırmanın örneklemini görülmeye sıklığı, duyarlılık ve kitle büyüklüğü dikkate alınarak, Basit Rastgele Örnekleme varsayımı altında Ankara İli'nde Milli Eğitim Bakanlığı'na bağlı resmi ilköğretim okulları bünyesinde görev alan 240 anasınıfı öğretmeni oluşturmuştur. Ayrıca her ana sınıfı öğretmeni 5 aileye ilişkin form doldurduğu için öğretmen form sayısı 1200 olarak gerçekleşmiştir. Ankara'nın merkez ilçelerinde alt ve üst sosyo ekonomik düzeyde bulunan ilköğretim okullarına bağlı anasınıflarında görev yapan 240 anasınıfı öğretmeni araştırmacılar tarafından yüz yüze görüşülerek; araştırmanın amacı hakkında bilgilendirilmiştir. Araştırmacılar tarafından "Öğretmen Kişisel Bilgi Formu" ve üzerinde anasınıfına devam eden rasgele seçilmiş 5 çocuktan her birinin ismi yazılı olan 5 ayrı "Öğretmen Aile İletişim ve İşbirliği Ölçeği" öğretmene teslim edilmiştir. Öğretmenlerden formu üzerinde isimleri yazan çocukların ailelerini düşünerek cevaplandırmaları istenmiş ve doldurulan form teslim alınmak üzere bir tarih belirlenmiştir. İlgili tarihte "Öğretmen Kişisel Bilgi Formu" ve "Öğretmen Aile İletişim ve İşbirliği Ölçeği" araştırmacılar tarafından öğretmenlerden elden teslim alınmıştır. "Öğretmen Aile İletişim Ve İşbirliği Ölçeği" ile toplanan veriler bilgisayar ortamına aktarılarak "SPSS 12" istatistik paket programı yardımı ile değerlendirilmiştir. Geçerlilik-güvenirlik testleri olarak "Faktör Analizi" ve "Cronbach Alpha" katsayıları hesaplanmıştır. "Öğretmen Aile İletişim Ve İşbirliği Ölçeği"; "İletişim", "Beklenti", "İşbirliği" ve "Aile Katılımı" olmak üzere 4 alt boyut altında toplanarak, "İletişim" ile ilgili 12 madde, "Beklenti" ile ilgili 6 madde, "İşbirliği" ile ilgili 19 madde ve "Aile Katılımı" ile ilgili 19 madde olmak üzere toplam 56 maddeden oluşmuştur. Kaiser-Mayer-Olkin Örnekleme değerinin 0,956, Bartlett değerinin 8163,8 $p=0,000<0,05$ olduğu görülmüş, KMO değerinin yüksek çıkması ve Bartlett testinin $p<0,05$ çıkması ile faktör analizinin uygulanabilirliği ve maddeler arası korelasyonun olduğu saptanmıştır. Toplam ve alt boyut bazında güvenilirlik analizi gerçekleştirildiğinde; "İletişim" alt boyutunda; 7., 13., 14. maddeler, "Beklenti" alt boyutunda; 16., 17., 18., 20., 24. ve 26. maddeler, "İşbirliği" alt boyutunda; 37., 38., 41., 48. ve 51. maddeler, "Aile Katılımı" alt boyutunda; 55. ve 71. maddeler ayırıcı gücü düşük olduğu için çıkarılan maddelerdir. Toplam ve alt boyutlara ait güvenilirlik katsayılarının yüksek olduğu görülmüştür. 12 maddeden oluşan "İletişim" alt boyutunun güvenilirlik katsayısı 0,965, 6 maddeden oluşan "Beklenti" alt boyutunun güvenilirlik katsayısı 0,872, 19 maddeden oluşan "İşbirliği" alt boyutunun güvenilirlik katsayısı 0,963, 19 maddeden oluşan "Aile Katılımı" alt boyutunun güvenilirlik katsayısı 0,950 ve 56 maddeden oluşan toplam ölçeğin güvenilirlik katsayısı 0,982 olarak hesaplanmıştır. Güvenirlik katsayılarının yeterli düzeyde olduğu saptanmıştır. "İletişim" alt boyutuna ait madde toplam korelasyonları incelendiğinde; madde 1'in en düşük korelasyona (0,680), madde 9'un en yüksek korelasyona (0,869) sahip olduğu tespit edilmiştir. "Beklenti" alt boyutuna ait madde toplam korelasyonları incelendiğinde; madde 19'un en düşük korelasyona (0,658), madde 22'nin en yüksek korelasyona (0,775) sahip olduğu saptanmıştır. "İşbirliği" alt boyutuna ait madde toplam korelasyonları incelendiğinde; madde 39'un en düşük korelasyona (0,593), madde 45'in en yüksek korelasyona (0,833), sahip olduğu görülmüştür. "Aile Katılımı" alt boyutuna ait madde toplam korelasyonları incelendiğinde; madde 54'ün en düşük korelasyona (0,413), madde 64'ün en yüksek korelasyona (0,843), sahip olduğu sonucuna varılmıştır. Toplam ölçek puanı ile alt boyut



puanları arasında anlamlı ($p<0,05$) pozitif bir korelasyon olduğu görülmüştür. “Öğretmen Aile İletişim Ve İşbirliği Ölçeği”; “İletişim”, “Beklenti”, “İşbirliği” ve “Aile Katılımı” olmak üzere 4 alt boyut altında toplanarak, “İletişim” ile ilgili 12 madde, “Beklenti” ile ilgili 6 madde, “İşbirliği” ile ilgili 19 madde ve “Aile Katılımı” ile ilgili 19 madde olmak üzere toplam 56 maddeden oluşmuştur. Kaiser –Mayer -Olkin Örneklem değerinin 0,956, Bartlett değerinin 8163,8 $p=0,000<0,05$ olduğu görülmüştür. KMO değerinin yüksek çıkması ve Barlett testinin $p<0,05$ çıkması ile faktör analizinin uygulanabilirliği ve maddeler arası korelasyonun olduğu sonucuna varılmıştır. Toplam ve alt boyutlara ait güvenilirlik katsayılarının yüksek olduğu görülmüştür. 56 maddeden oluşan ölçeğin güvenilirlik katsayısı 0,982 olarak hesaplanmıştır. Bu durumda ölçeğin güvenilirlik katsayılarının yeterli düzeyde olduğu belirlenmiştir. “Öğretmen Aile İletişim Ve İşbirliği Ölçeğinin” anasınıflarına çocuğu devam eden ailelerle öğretmenler arasındaki iletişim ve işbirliğini öğretmenlerin bakış açısına göre değerlendirmek amacıyla kullanılabilceği sonucuna varılmış, araştırmacılara ve eğitimcilere yönelik önerilerde bulunulmuştur.

Anahtar Kelimeler: Okul Öncesi Eğitim, İletişim, İşbirliği, Öğretmen Aile İletişim ve İşbirliği Ölçeği

CONCOURSE OF FAMILY EXPERT TOWARD MARRIAGE STABILITY IN TABRIZ CITY¹

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Abstract: An understanding of expert experiences and perspectives are vital to the marriage stability; thus there is a need to understand the attributes and characteristics of such individuals, and their subjectivity. Objective of this study is to investigate family experts' attitudes and the perceptions toward marriage stability. The study used a Q-method approach to collect and analyze data from a group family expert in Tabriz city (East Azerbaijan province, Iran). Each 10 participant were asked to sort 9 card related to Factors affecting on marriage stability. Individual Q-sorts were analyzed using PQ Method (statistical method factor analysis with a varimax rotation). Three distinct groups of attitudes were found: a) Viewpoint one was proposed by 4 participants of women. Effective factors include: stratification, Emotional or instrumental attitudes, control, independency, and intimacy. b) Viewpoint Two is defined by 3 participants of men. These participants emphasized that effective factors include: Control, participation, independency, stratification, and cohesion. c) Viewpoint Three is defined by 3 participants of men. These participants emphasized that effective factors include: Control, participation, cohesion, flexibility and independency. Three concourses (viewpoints) of regarding to the factors affecting the marriage stability are the skills that should be learned by the individuals, planners and couples.

Key Words: Marriage Stability, Concourse Of Family Experts, Tabriz

1. This study was prepared the doctoral thesis of the author made in 2013



INTRODUCTION

Marriage has always been regarded as one of the most important and precious issues in a man's life to the extent that psychologists regard it as one of the three major steps of life (birth, marriage, death). This event engages one's mind to itself to a great extent as a legitimate way to based on a social unit satisfy most powerful physical need (sexual desire) and the most important psychological needs (the need to have friends, be respected and loved). Then the roaring waves of puberty appeared and hit the ship of one's body and soul. Marriage is the tie of the shared life of two people with both of them having maintained their relative independence. Successful marriages create an atmosphere of kindness, devotion, forgiveness, sincerity and companionship. The pleasing relationship not only provides grounds for growth, development and elevation of their children as well as their own personality but also keeps children away from any kind of emotional dearth, having relations with corrupt friends, eloping or any other kind of perversion (Rezaean-Lange-roodi, 2010: 407). Attitudes toward marriage and divorce of Iran young adults could be influenced by the teaching of their religion. Since Islam is the official religion in Iran, it encourages its adherents to carry positive attitudes toward marriage. Islam also warns Muslims regarding irresponsible reasons for getting a divorce. Although divorce is permitted in Islam, Islamic law does not encourage Muslims to seek divorce for minor reasons. It is reported that the Prophet Mohammad said "Among Lawful things, divorce is most hated by Allah". At the same time, although marriage is regarded highly in Islam, it is not considered a religious sacrament. Muslim men are encoura-

ged to marry when they can offer emotional and financial support for potential wives. Islam views marriage as sharing between the two halves of society. The main purpose of marriage in Islam, aside from human reproduction, is love, mercy, mutual respect, justice, emotional well being, and spiritual harmony. Marriage is viewed as bringing two families together, rather than bringing two individuals together. Yunus and Ahmad (1985) in their book, *Islamic Sociology: Introduction*, defined marriage as "essentially a social contract, solemnized between the bride and the groom with their full exercise of free choice" (Alqashan, 2010: 34). Also, Family is where children love to learn and gives them a sense of security. The web's most vulnerable children, most parents' hands of family members are just as protective of their lifesaving. But unfortunately one of the most painful problems in our society is that of divorce the statistics of which is increasing day by day. In Tabriz alone, According to the Ministry of Planning of Iran(2012), Statistics show that marriages recorded during registration statistics in (2011), 4.3 percent compared to the same time last year declined, also compare the statistics recorded Divorce show that during the year (2011), 5.8 percent increase over the same period last year. To study the factors affecting the stability of marriage, there are two essential elements; the first is raising divorce rate and the second consequence of divorce. However, many studies have been done in this area it is sufficient to mention a few of them. For example, the impact of parental divorce on children was mentioned to be associated with a stressful experience for children at any age (Mahl, 2001). Some researchers have concentrate on the well-being of adults before and

after divorce, as others have studied the short-term impact of divorce on children of divorce (Amato and Cheadle, 2005). In a rare study that examined the effects of both father absence and mother absence, Heard (2007) found that father changes (e.g., father absence, single-mother home) increased the risk of school disciplinary problems, while mother changes (e.g., mother absence, single-father home) reduced college expectations of the children. Academic achievement of students from immigrant households has been attributed to numerous factors. These include gender of the student, difficulties with the English language (Suarez et al, 2009), a problematic school environment (Han, 2008), economic hardship, and reduced parental involvement in the educational process, as well as coming from a single-parent home (Suarez et al, 2010). Other researchers have discovered that children who come from a background of parental divorce often develop cautious expectations towards future relations. Further studies on sexual intimacy and marital satisfaction, suggesting the importance of this part of married life (Alahveriani et al, 2010). But, what is the cause of divorce? Most studies on this topic have used individual-level data to estimate the effects of unemployment on marital stability but, as we note below, these studies are open to numerous interpretations. Lewin (2005) and Amato (2011) found that unemployment among husbands was associated with an elevated risk of divorce. Similar results have been obtained in several European countries. For example, Jalovaara (2003) finds that unemployment among either husbands or wives was positively associated with divorce in Finland and Norway, respectively. Our results show that, in line with

early research in the United States, interethnic couples have a higher divorce risk than mono-ethnic couples (Sanne et al, 2012). Studies showed that interethnic couples are more likely to divorce than mono-ethnic couples in the United States. A large number of studies on the development of marriage stability during recent decades find a negative correlation between socio-economic position and the probability of divorce (Glenn, 2011). Researchers argue that this connection between divorce and low socio-economic position should be interpreted as an effect of the relative scarceness of resources within the marriage, which in turn puts added strain on the relationship (Ono, 2009). However, few tests have been done on Goode's hypothesis of an inverse relationship between social class and divorce during the early phase of the divorce revolution using inferential methods that control other known risk factors (Kalmijn et al, 2011).

METHODOLOGY:

Q-methodology was introduced and developed by William Stephenson, who emphasized the subjectivity of participants and the importance of a systematic research method to collect and analyze data. Therefore this study contains a number of participants with no formal education which a Q-study seemed suitable. Q-study comprises five phases (Van Exel and de Graaf, 2005): (1) definition of the concourse or theme of the study, (2) construction of the Q sample, (3) selection of the P set (the group of participants), (4) Q-sorting, and (5) analysis and interpretation of the findings. In this study, we used the PQ-Method software program and by-person factor analysis (Watts and Stenner, 2005). The way we related to the



five phases will be discussed in greater detail in the Method section. The Q-factor analysis results show the statements that are typically rated positively or negatively. In this study, we explore the subjective beliefs of family experts to Factors affecting the stability of marriage, which includes the following executive process:

Step one: Definition of concourse

Indeed a concourse is described as the flow of communicability around a topic, or any subjective statement related to the topic. Such statements

may be collected from a wide range of sources, including interviews, literature, articles, researches, and news reports. In the present study, the concourse of beliefs related to factors affecting the stability of marriage. After identifying the concourse we systematically reduced the number of statements to a representative Q-sample of 9 statements. These statements were printed on separate cards and numbered arbitrarily. The selection of statements in the final Q-sample is presented in table1.

1. Control	2. Intimacy	3. Flexibility
4. Participation	5. Cohesion	6. Empathy
7. Emotional or instrumental attitude	8. Independency	9. Stratification

Step two: Participants (P-set)

After determining Q-sample, were contacted with participants. 10 people were selected of women and men family experts. Among the participants, four men were married and university professor; tree women were married and university professor, one women family counselor, two men family court judge (and were named with letters: M1-M6 for men and F1-F4 for women).

Step three: Q-sort

A quasi-normal distribution grid with 11 categories (from 1 to 9) was created to fit 9 cards. Four pilot Q-sorts were performed. This provided the opportunity to alignment language and tests the time usage

in the study. Some cards were adjusted in order to avoid duplicates and unclear or random content. In order to explore the various viewpoints on factors affecting the stability of marriage, the 10 participants were told there were no right or wrong answers, and that we were interested in their general feelings and experiences related to this topic. They were then given general practical instructions and the following specific instruction: "Sort the cards according to highest effect or lowest effect on marriage stability. Sort the cards according to your experiences." Participants sorted the cards individually.

Step four: Q-factor analysis and interpretation

Through more by-person factor analysis, participants are included in factors with people who

define similar opinions. The researcher has little influence on the results from the Q-factor analysis. This minimizes researcher bias in the Q-analysis process, and participants do not end up in arbitrarily-imposed categories, which can be a risk in qualitative research. All 10 Q- sorts were analyzed in the PQ-Method program. Interpretation of the factors was based on characteristic statements for each factor (statements at the extreme ends of the factors), distinguishing statements (statements that were placed significantly differently on the two

factors), and consensus statements (agreement across factors on certain statements).

FINDINGS AND DISCUSSION

Table of Pearson correlation matrix shows correlation of between participants with significant levels. In other words, this table indicates which cards is sorting similarity among participants, or has a same subjectivity stability marriage (see Table 2).

Table 2 Correlation Matrix											
	M1	M2	M3	M4	M5	M6	F1	F2	F3	F4	
Sig (1-tail)	M1		.481		.053	.191		.400	.124	.043	.294
	M2	.481		.006	.117	.318	.013	.314	.004	.074	.103
	M3		.006		.032	.204		.170	.005		.001
	M4	.053	.117	.032		.107	.006	.224	.394	.412	.236
	M5	.191	.318	.204	.107		.090	.449	.113	.088	.009
	M6		.013		.006	.090		.357	.008	.006	.002
	F1	.400	.314	.170	.224	.449	.357				.004
	F2	.124	.004	.005	.394	.113	.008				
	F3	.043	.074		.412	.088	.006				
	F4	.294	.103	.001	.236	.009	.002	.004			

Also, three distinct viewpoints emerged on the basis of principal component analysis and varimax rotation. The results indicated that yielded the

clearest factors with a relatively high correlation (see Table 3).



Table 3 Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	3.763	37.632	37.632	2.901	29.010	29.010
2	1.868	18.682	56.314	2.497	24.970	53.980
3	1.205	12.045	68.359	1.438	14.379	68.359
4	.964	9.638	77.997			
5	.792	7.918	85.915			
6	.407	4.066	89.981			
7	.335	3.353	93.334			
8	.287	2.868	96.202			
9	.204	2.042	98.244			
10	.176	1.756	100			

Extraction Method: Principal Component Analysis.

Viewpoint one was held by 4 participants of women. Several statements that represent Factors affecting marriage stability among women were classified with the highest effect (see Table 4). They believed that the following factors have the greatest influence on the stability of marriage and the other factors are less important. Effective factors of the opinion women from highest effect to lowest effect include: stratification, emotional or instrumental attitude, control, independency, intimacy, flexibility, empathy, cohesion, and Participation. Two is defined by 3 participants of

men (see Table 4). These participants emphasized that Effective factors on marriage stability from highest effect to lowest effect include: Control, participation, independency, stratification, cohesion, intimacy, emotional or instrumental attitude, empathy, and flexibility. Viewpoint Three is defined by 3 participants of men (see Table 4). These participants emphasized that effective factors on marriage stability from highest effect to lowest effect include: Control, participation, cohesion, flexibility, independency, stratification, empathy, emotional or instrumental attitude, intimacy.

Table 4 Factor Arrays with statements.

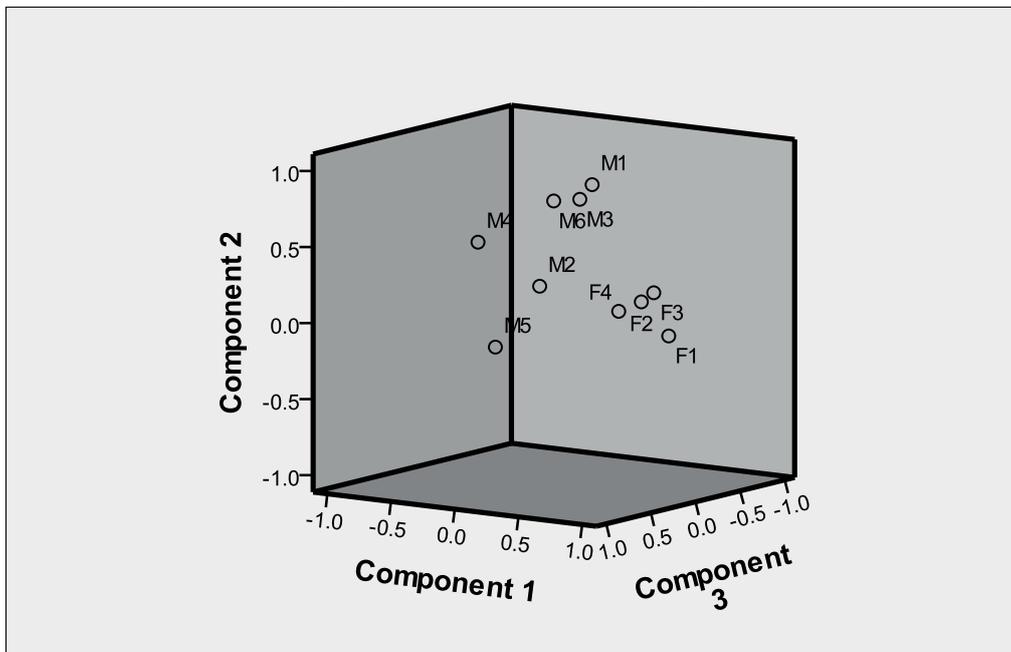
Card Number	Statements	Factor 1	Factor 2	Factor 3	R-Factor 1	R-Factor 2	R- Factor 3
1	Control	.10566	-.94591	-.99555	3	1	1
2	Intimacy	.41147	.56532	1.65596	5	6	9
3	Flexibility	.54729	1.24870	-.00548	6	9	4
4	Participation	1.31272	-.88223	-.32991	9	2	2
5	Cohesion	1.28128	-.48201	-.30950	8	5	3
6	Empathy	.85358	1.13653	.41385	7	8	7
7	Emotional or instrumental attitude	-.52963	.88418	.91407	2	7	8
8	Independency	.34960	-.63537	.00976	4	3	5
9	Stratification	-.75241	-.53156	.14931	1	4	6

Finally, three concourses of participants have shown in fig 1. Three concourses (viewpoint) regarding to the factors affecting the marriage

stability are the skills that should be learned by the individuals, planners and couples.

Fig 1 Component plot in rotated space

Component Plot in Rotated Space





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TEBRİZ ŞEHRİNDE EVLİLİĞİN SÜREKLİLİĞİ HAKKINDA AİLE UZMANLARININ SÖYLEM ALANI

Özet: Aile toplumun en temel kurumlarından biridir. Bireyler evlenerek aileler kurmakta ve bu sayede toplumda saygın bir konuma sahip olmaktadır. Evlenmek isteyen her birey başarılı ve mutlu bir evliliğin hayalini kurmaktadır. Ancak, her evlilik istenildiği gibi devam etmemekte ve bazı evlilikler ayrılıkla sona ermektedir. Öte yandan, evlilikte başarısızlığın artış oranı, sonraki nesillerin evlenmek istememelerinde önemli bir etkiye sahiptir. Ayrıca, son yıllarda Tebriz şehrinde Doğu Azerbaycan Eyaletinde evliliklerin den yüzde 4.3'e düşmesi ise 'i boşanmayla sona ermiştir. Evlilik oranının yüzde 11,2' yaklaşık yüzde 5,8 yöneticilerin endişelenmelerine neden olmuştur. Bu çalışmada, aile uzmanlarının evliliğin sürekliliği ile ilgili faktör araştırmaları ele alınmış; kontrol, samimiyet, esneklik, katılım, dayanışma, empati, duygusal tutum, bağımsızlık ve tabakalaşma gibi değişkenlerden faydalanılmıştır. Çok düşük maliyetli tekniklerden biri de alanındaki deneyimli insanların bilgilerinden yararlanmaktadır. Bu şekilde, daha kapsamlı bilgi elde edilmekte ve aynı zamanda bu amaç için daha az zaman harcanmaktadır. Bu hedefe ulaşmak için, aile alanında profesör ve uzmanların evliliğin sürekliliği ile ilgili söylemleri Q yöntemiyle değerlendirilmiştir. Q metodolojisi, ilk olarak bireysel algıların ve inançların tanımlanması ve sınıflandırılması, ikinci olarak insan kategorilerini onların algılarına dayanarak sınıflandırmayı araştırmacıya sağlayan bir tekniktir. Bu tekniğin temel amacı, farklı fikirlere sahip insanların sayısını bulmak değil, farklı düşünme kalıplarını ortaya çıkarmaktır. Bu yöntem, dört adımda gerçekleştirilmektedir: 1- Söylem alanının tanımlanması 2- Cümle örneklerinin seçimi (Q-sample) 3-Katılımcıların seçimi (P-sample) 4- Analiz ve yorumlama. değişkenle ilgili kişi seçilmiştir ve 9 toplam 10 Bu çalışmada, aile uzmanlarından 4 kadın ve 6 erkek olarak kendi fikirlerini, Q diyagramında, en azdan en fazla etkiye göre düzenlemeleri istenmiştir. Bulgular faktör analizi istatistik testi ile analiz edilmiştir. Bulgular, aile uzmanlarının Tebrizlilerin evliliklerinin sürekliliği ile ilgili faktörler hakkında üç tip algıya sahip olduklarını göstermiştir. Birinci grup(kadınlar), ilk 5 faktörden sırayla, tabakalaşma, duygusal tutumu, kontrol, bağımsızlık, ve samimiyet değişkenlerini ifade etmişlerdir. İkinci grup (erkekler), ilk 5 faktörden evliliğin sürekliliği ile ilgili faktörleri, sırayla kontrol, katılım, bağımsızlık, tabakalaşma ve dayanışmayı ifade etmişlerdir. Üçüncü grubun erkekleri ise, sırayla kontrol, katılım, dayanışma, esneklik ve bağımsızlığı vurgulamışlardır. Uzmanların faktörlere ilişkin tutumlarının ortak noktalarına bakıldığında, her üç grubun kontrol ve bağımsızlık faktörlerinin evliliğin sürekliliğinde etkili olduğunu vurguladığı anlaşılmaktadır. Çalışmada, makro düzeyde aile eğitimi .planlama politikalarında aile uzmanlarından faydalanılması önerilmektedir

Anahtar kelimeler: Aile uzmanları, Evliliğin sürekliliği, Tebriz

THE STUDY OF FACTORS AFFECTING SATISFACTION AND TRUST IN THERAPEUTIC HEALTH SERVICES IN TURKEY FOR THE YEARS 2003 AND 2013

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Abstract : In this study, satisfaction and confidence in curative health services in Turkey were examined from the point of several variables based on the years 2003 and 2013. The purpose of the study is to present the factors which have an effect upon satisfaction and confidence in curative health services in Turkey. Within the scope of the study, the data were obtained from 524 people in 2003 and 950 people in 2013. SPSS 14 was used for frequency and chi-square analyzes. Although many variables were analyzed, only the ones which had statistically significant relation with confidence and satisfaction were taken into consideration. Among the variables which had been taken into consideration; marital status, being informed about health services and having a continuously visited physician was observed to have a statistically significant relation with satisfaction and confidence both in the years 2003 and 2013.

Key Words: Health Services, Health Services Satisfaction, Trust From Health Services, Chi-Square

1.INTRODUCTION

The primary functions of the health systems are to improve health, treat the diseases and prevent them. (Rockers, Kruk and Laugesen, 2012: 406). Health services can be described as a factor that includes all activities which affect people's lifespan, strength and endurance, energy and vigor. (Orhaner, 2006: 3). The main purpose of health care is to be able to give the various health services needed by the society, with

the quality and at the time the patient asks for and with the lowest cost possible. (Papatya, Papatya and Hamşioğlu, 2012: 91).

The health service is a service that people have no pre-experience, thus, have a testing and

comparison limitation, that generally people are caught unprepared without longterm examination and yet, that is necessary and indispensable. It can also be described as a service which covers a social activity that requires the individuals to establish a dialogue between each other as well as the medical activity between the patient and the service provider (Kıdak and Aksaraylı, 2008).

Researches about patient satisfaction can be dated back to 1970s. Lots of hospitals are also doing various researches on patient satisfaction (Thomas, 2004: 14) and the Ministry of Health is carrying on studies about satisfaction, as well. Satisfaction, like the most of psychological concepts, is a concept easy to understand but difficult to describe. It is a concept which is both cognitive and emotive and



related to pre-experiences, expectations and social relations. Patient satisfaction is a variable and instantly arising matter of fact. Satisfaction can be described as the level of attainability of the targets. Patient satisfaction is a concept which consists of the people's general evaluation and perceptions about total health services and which covers the meeting of the patient's general expectations and demands. (Örgev and Bekar, 2013: 89).

The patient experience is a useful element to improve the quality of health services. The patient satisfaction is a significant indicator in evaluating the quality of national health systems. Determining the factors which provide patient satisfaction can help the managers to improve the existing health services. Generally, to establish a strong health system, which can create satisfaction in patients, can be stated as a prior condition to increase the quality of life and to ensure the public welfare. (Senic and Marinkovic, 2013: 312).

Patient satisfaction comes to the forefront as a complicated concept which is affected by various parameters. Patient satisfaction is generally based on meeting the patients expectations by the service provided or patients' perceptions of the service provided. (Kıdak and Aksaraylı, 2008). Researches about patient satisfaction focus on determining the parameters which the patients are less satisfied or more satisfied with (Otani, Waterman and Dunagan, 2012: 277). Patient satisfaction is a frequently used output in measuring the quality of health service distributions. Satisfaction is an element based on patients' positive evaluation of health services according to their targets and expectations. One of the significant aspects about how qualified the health services are can

be stated as patient satisfaction. (Janicijevic et al., 2013: 157).

Trust can be considered as one of the basic attitudes of people in social interaction process. It is a significant element in transactions among people (Gopichandran and Chetlapalli, 2013). Trust is a subjective element which is impossible to confirm directly and is based on the person's own knowledge (Nummela et al., 2009: 339). In today's world, the concept of trust is a phenomenon that is important both for people and organizations and that is needed to be researched in details (Tanase et al., 2012: 1048). The studies related to trust are realized associatively with the various disciplines such as social capital, economic progress and political progress. Despite the fact that trust is a rivalry term, it is generally considered to be associational. Trust factor is a matter of fact which paves the way for patients to turn towards health services (Radin, 2013: 47).

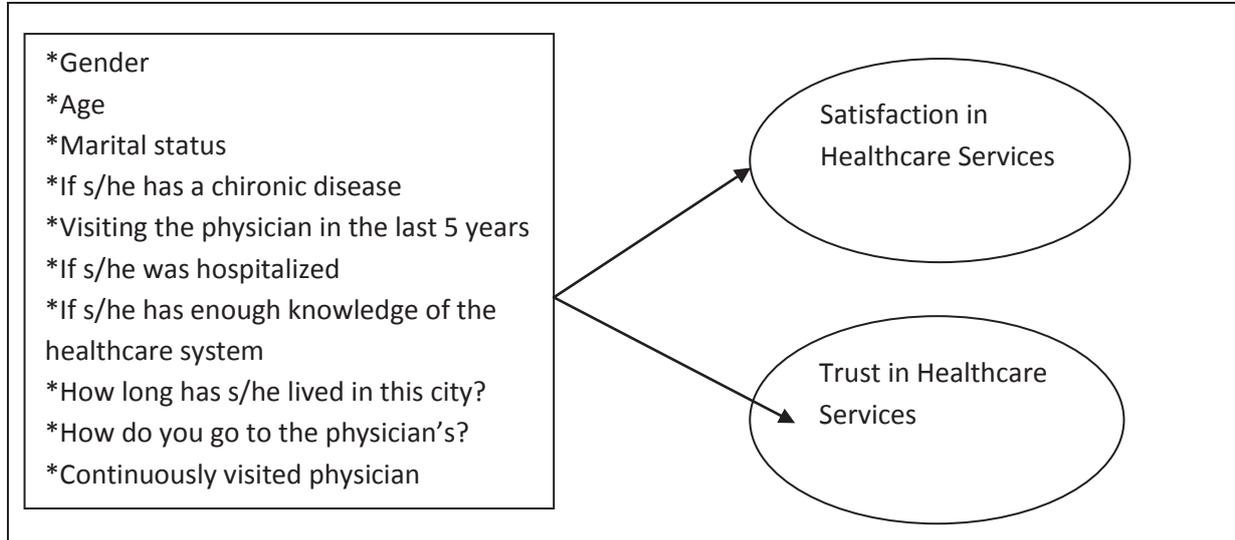
The concept of trust is generally considered to be ambiguous and vague, hence a difficult matter of fact to describe and research. Trust is the main contributory element for a field such as health system whose arrangements are mainly in an associational character (Ozawa and Sripad, 2013: 10). In health services, trust is important not only between the patients and the physicians, but also between the patients and the healthcare organization. The studies on trust in healthcare services and the studies on satisfaction carry the same functional features. Besides, whereas satisfaction is the evaluation of the events in the past, trust is the evaluation of continuous relations on a going-forward basis (Bes et al., 2013: 2).

Table 1. Frequency Distribution About Socio-Demographic Characteristics of the Participants

	2003		2013	
	n	Percentage	n	Percentage
Gender				
Female	394	75,2	493	51,9
Male	130	24,8	457	48,1
Age				
18-29			438	46,1
30-39			171	18
40-49			197	20,7
50-59			94	9,9
60 and Older			50	5,3
Marital Status				
Married	202	38,5	482	50,7
Single	322	61,5	468	49,3

2.2. Research Model

Figure 1. Research Model



2.3. Data Analysis

In the study, primarily chi-square analyses were realized in terms of data analysis based on both the year 2003 and 2013 with the “gender, age, marital status, if s/he has a chironic disease or not, visiting the

physician in the last 5 years, if s/he was hospitalized or not, if s/he has enough knowledge of the healthcare system, how long has s/he lived in this city, how do they go to the physician's,

continuously visited physician” variables related to satisfaction and trust in healthcare systems separately.

2.3.1. Analysis of Satisfaction in Healthcare Services on the Basis of Various Parameters for the Years 2003 and 2013

Chi-square test was applied for the variables which were taken into consideration in the study and the variables that are $p < 0,05$ were interpreted.

Table 2. Chi-square Test Results for the Satisfaction in Healthcare Services (2013 and 2003)

Variables	THE YEAR 2013		THE YEAR 2003	
	Pearson Chi-square	Significance (p<0,05)	Pearson Chi-square	Significance (p<0,05)
Gender	2,190	0,139	0,019	0,890
Age	2,175	0,704	4,658	0,324
Marital Status	9,096	0,003	4,011	0,045
If s/he has a chironic disease or not	0,045	0,832	0,087	0,767
Visiting the physician in the last 5 years	14,041	0,007	5,944	0,203
If s/he was hospitalized or not	12,580	0,000	1,057	0,304
If s/he has enough knowledge of the healthcare system	24,442	0,000	23,737	0,000
How long has s/he lived in this city	3,584	0,611	2,379	0,795
How does s/he go to the physician's? (Alone or with a relative)	4,203	0,240	3,300	0,348
Does s/he have a continuously visited physician?	5,659	0,017	9,535	0,002

As it is seen in the table, a statistically significant relation was obtained between satisfaction in healthcare services and *marital status, hospitalization, having enough information about the healthcare system and having a continuously visited physician* for the year 2013. For the year 2003 there is a statistically significant relation between satisfaction in healthcare services and *marital status, having enough information about the healthcare system and having a continuously visited physician*. As it is seen, excluding hospitalization, there is a statistically significant relation between satisfaction in healthcare services and the other 3 variables (marital status, having enough information about the healthcare system and having a continuously visited physician) for both years.

Whereas there is a statistically significant relation between satisfaction in healthcare services and hospitalization for the year 2013 ($p=0,000$), a statistically significant relation is not obtained for this variable for the year 2003 ($p=0,304$).

When we consider it in terms of marital status, the satisfaction rate for the married is higher than for the unmarried and it is observed that as the age increased, the satisfaction rate increased, too.

2.3.2. Analysis of Trust in Healthcare Services on the Basis of Various Parameters for the Years 2003 and 2013

Chi-square significance test was applied for the variables which were taken into consideration in the study and the variables that are $p<0,05$ were included in the model.



Table 3. Chi-square Significance Test Results for the Trust in Healthcare Services (2013 and 2003)

Variables	THE YEAR 2013		THE YEAR 2003	
	Pearson Chi-square	Significance (p<0,05)	Pearson Chi-square	Significance (p<0,05)
Gender	0,010	0,922	0,123	0,726
Age	9,519	0,049	10,041	0,040
Marital Status	11,722	0,001	4,914	0,027
If s/he has a chironic disease or not	1,287	0,257	0,497	0,481
Visiting the physician in the last 5 years	13,277	0,010	9,543	0,049
If s/he was hospitalized or not	9,771	0,002	2,565	0,109
If s/he has enough knowledge of the healthcare system	35,769	0,000	23,919	0,000
How long has s/he lived in this city	8,477	0,132	13,569	0,019
How does s/he go to the physician's? (Alone or with a relative)	6,905	0,075	4,847	0,183
Does s/he have a continuously visited physician?	5,637	0,018	11,179	0,001

When it comes to trust in healthcare services, it is observed that for both years, there is a statistically significant relation between trust and *age*, *marital status*, *visiting the physician in the last 5 years*, *having enough knowledge of the healthcare system*, and *having a continuously visited physician*. It is ascertained that age factor is important

for trust and the trust in system increases as the age increases and the trust of the married is more than the trust of the unmarried.

2.3.3. Pearson Chi-square Significance of Satisfaction and Trust in Healthcare Services with Several Variables.

Table 4. Pearson Chi-square Significance (P) of Satisfaction and Trust in Healthcare Services in Terms of Several Variables for the Years 2003 and 2013

Variables	SATISFACTION		TRUST	
	2003 (p<0,05)	2013 (p<0,05)	2003 (p<0,05)	2013 (p<0,05)
Gender	0,890	0,139	0,726	0,922
Age	0,324	0,704	0,040	0,049
If s/he has a chronic disease or not	0,045	0,003	0,027	0,001
Visiting the physician in the last 5 years	0,767	0,832	0,481	0,257
If s/he was hospitalized or not	0,203	0,007	0,049	0,010
If s/he has enough knowledge of the healthcare system	0,304	0,000	0,109	0,002
How long has s/he lived in this city	0,000	0,000	0,000	0,000
How does s/he go to the physician's?	0,795	0,611	0,019	0,132
Does s/he have a continuously visited physician?	0,348	0,240	0,183	0,075
If s/he has a chronic disease or not	0,002	0,017	0,001	0,018

DISCUSSION AND CONCLUSION

As Bes and colleagues stated, the studies on trust in healthcare services and the studies on satisfaction carries the same functional features and whereas satisfaction is the evaluation of the past and continuous relations in the present period of time, trust is the evaluation of continuous relations on a going-forward basis (Bes et al., 2013: 2) Trust is a concept which is the basis of cooperation in health systems and necessary for health procurement. Whereas Papatya, Papatya and Hamşioğlu (2012), and Kalender and Uludağ (2004) can not find a significant relation between trust factor and age, In the study carried by

Rockers, Kruk and Laugesen (2012), trust for both 2003 and 2013, as well.

In this study it is observed that in terms of both satisfaction and trust there is a statistically significant relation with the variables marital status, having enough information about the healthcare services and having a continuously visited physician both for 2003 and 2013. Whereas the age variable is observed having a significant relation with trust factor for both years (2003 and 2013), a statistically significant relation could not be observed between satisfaction and age variable in the data analyses of the both years.



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TÜRKİYE'DE TEDAVİ EDİCİ SAĞLIK HİZMETLERİNDEN MEMNUNİYET VE GÜVENİ ETKİLEYEN FAKTÖRLERİN 2003 VE 2013 YILLARI İÇİN İNCELENMESİ

Özet: Bu çalışmada Türkiye’de tedavi edici sağlık hizmetlerinden memnuniyet ve güven, çeşitli değişkenler açısından 2003 ve 2013 yılı temelinde incelenmiştir. Çalışmanın amacı Türkiye’de tedavi edici sağlık hizmetlerinden memnuniyet ve sağlık hizmetlerine güven üzerine etkili olan faktörleri ortaya koyabilmektir. Araştırma kapsamında 2003 yılında 524 kişi, 2013 yılında ise 950 kişiden veriler elde edilmiştir. SPSS 14 programı kullanılarak frekans analizi ve ki-kare analizleri gerçekleştirilmiştir. Pek çok değişken analiz edilmesine rağmen güven ve memnuniyet ile istatistiki açıdan anlamlı ilişki olduğu tespit edilenler değerlendirmeye alınmıştır. Değerlendirmeye alınan değişkenlerden medeni durum, sağlık hizmetlerinden bilgi sahibi olmak ve devamlı gidilen bir hekiminin olması ile sağlık hizmetlerinden memnuniyet ve güven arasında 2003 ve 2013 yıllarının her ikisinde de istatistiki açıdan anlamlı bir ilişki olduğu görülmüştür. Sağlık hizmetlerine güven konusundaki çalışmalar ile memnuniyet konusundaki çalışmalar aynı fonksiyonel özellikler taşımaktadırlar ve memnuniyet geçmiş ve devam eden ilişkilerin mevcut zaman dilimi için değerlendirmesi iken güven devam eden ilişkilerin ileriye dönük olarak değerlendirilmesidir (Bes vd., 2013: 2) Güven, sağlık sistemlerinde işbirliğinin temelini teşkil eden ve sağlık üretimi için gerekli olan bir kavramdır. Bes ve diğerlerinin ifade ettiği gibi Papatya, Papatya ve Hamşioğlu (2012), ile Kalender ve Uludağ (2004), güven faktörü ile yaş arasında anlamlı bir ilişki bulamazken, Rockers, Kruk ve Laugesen (2012) tarafından gerçekleştirilen araştırmada yaş değişkeni güven ile pozitif yönlü ilişkili olduğu bulunmuş olup; Bes vd. (2013) de yaş ile güven unsurunun yüksek etkileşim gösterdiğini ifade etmiştir. Bu çalışmada da yaş ile güven arasında hem 2003 hem de 2013 yılları için istatistiki açıdan anlamlı ilişki tespit edilmiştir. Bu çalışmada medeni durum, sağlık sistemi hakkında yeterli bilgiye sahip olma ve devamlı gidilen bir hekimin olması değişkenleri hem güven hem de memnuniyet açısından hem 2003 hem de 2013 yılları için istatistiki açıdan anlamlı ilişki olduğu görülmüştür. Yaş değişkeni araştırmanın yapıldığı her iki yıl (2003 ve 2013) için de güven faktörü ile anlamlı ilişki olduğunu gösterirken, yaş değişkeni ile memnuniyet arasında her iki yılın verilerinde de istatistiki açıdan anlamlı bir ilişki bulunamamıştır.

Anahtar Kelimeler: Sağlık Hizmetleri, Sağlık Hizmetlerinden Memnuniyet, Sağlık Hizmetlerine Güven, Ki-kare



ART IN PUBLIC WORKS AND KITSCH OBJECTS FROM AN AESTHETIC POINT OF VIEW

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Abstract: The main purpose of this article is to aesthetically evaluate the overall status of works of art and kitsch objects in public areas in terms of existing problems. The importance of a work of art in the formation of a culture of high aesthetic value can be seen. People who understand the difference between kitsch and aesthetic and use it in their lives can contribute the aesthetic and culture of the society and divide works which are consistent or not. The importance of public art on human life is known. When the aesthetic works are applied in public areas and the kitsch objects will be separated from each other, environmental aesthetic will have done an important duty on making the human to possess aesthetic. We can see works of plastic arts in many different channels in Turkey. The works applied or exhibited in public can be examples. These works of art - objects are applied by being selected in a competition, by a special board or by the public rating and so on. The works of art as applied to public area are naturally under many preference judgment and some of these assessments can be very negative and positive. Sometimes, applied works of art can be evaluated as kitsch objects. The objects that were evaluated as kitsch have sometimes been taken as a result of the strictures and sometimes they can't have been taken out by some excuses as the strictures are objective. An aesthetic environment and the possibility of ideal existence of human can be achieved with the aesthetic of public art works and making people aesthetic at first. Ideally, if environmental aestheticists are able to distinguish between public art works and subjects, field experts contribute actively and the users of public domain join the democratic process of choosing, public art works are determined and applied.

Key Words: Kitsch, Public Domain, Work Of Art

INTRODUCTION

Public domain is described as 'belonging to the public, a place in which public related matters are carried' (www.tdk.gov.tr: 2009). Such social agoras which are used by the public can be given as examples; squares, sidewalks, parks, beaches, markets, government buildings, public libraries, galleries and etc. A geographical place, either urban or rural could be a public domain. Likewise,

a square, a bus stop, a street could be a public domain (Özbek, 2004: 20; Eren, 2007).

There are many debates about the individual use of the public domain and these debates could be related to philosophy, geography, visual arts, culture, social sciences and urban aesthetics. Therefore, other disciplines and sciences could be involved in the definition of public domain. Public domain is based on human aesthetics as a place which is

designed and applied according to the human. In short, Erzen (2006: 80) asserts that public domain differs according to the individual's psychological, cultural and social condition.

Public art is a work of art which can take place in any place and physically displayed as a public property and a work which is shown in open spaces and can be reached by all people. 'Public art is a kind of art which is displayed in public domain that is either an open space or a building open to public' (Kurt, 2007: 49; Aksoy and Ertürk, 2008: 26). Public art could be in all forms as long as it is reached by the public and is in a public domain aside from galleries. The performing of the public art could include several small pieces or a bigger display. As public art is miscellaneous, today everything from buildings to graffiti on the walls can be accepted as public art.

There are public Works of art that are displayed to raise the importance of 'beauty', 'aesthetic' and 'public domain' (Atalay: 2013). Public art projects lie wall paintings or statues does not always exist to transfer a message. Though it is their most common kind, public art projects possess 'dimension' and 'common features'. Artists in the project determine these physical common features.

The history of public art date back to old times and pyramids in Egypt, Orkhon inscriptions and Greek statues can be given as an example. There are various architectural and artistic works in public all domains as there are in important places. All of these works served to the purposes of government and religion bearing an urge to give a certain message to the public (Şaşmaz, 2006, 47; 93, E. Beksaç and Akkaya, 1990: 96). The

most common plastic arts that can be considered as public art are statues, monuments, paintings and artistic architectures. The significance of these works stems from the historicity of the works and at the same time from the reciprocal relationship between power, religion and art.

Public domain arts fixed its position to a greater extent in the 20th century. In fact, many public art works appeared which do not serve to the interests of a certain group or an individual. Contemporary arts produced works of art that are unrealistic and ahead of the public. Henry Moore's works in Argentina, Australia, Belgium, Bulgaria, Canada and Canary Islands can be given as examples (www.henry-moore.org).

It is obvious that not all works of art are received with the same aesthetic results by people. However, debates arise as the work exists in a public domain.

Differences in dimension and perspective in public domain arts is not a surprise but a condition that shifts according to the expectations. Public domain arts could be either abstract or concrete. The aim of public art could be to beautify a place with environmental aesthetics or increase and enhance our aesthetic sensitivity. Some of them could even be subjected to our inquisition and raise open ended questions.

Collective expression could have a different statement in public domain arts as works are supposed to bear such a feature. Whether they are contemporary or not the evaluation in works of art is an answer to our common aesthetic sensitivity. Public art, which serves as a ground



for us to wander in the cultural texture, helps us to acquaintance with the identity of the public.

Public art bears a meaning apart from the usual art forms. Limits of public domain art are quite different; their appearance could be identifying with the place, belonging to the place or out of the place (Bakçay, 2007: 22).

Public domain art is an interactive process which involves artists, architects, design professionals, common people, civil leaders, politicians, notifying bodies, financial institutions and construction crews. Tools and methods vary according to the needs of the contemporary culture.¹

The participation of individuals who use that public domain to the design planning and application stages is crucial for sustainable development and increasing the beauty and quality of the public domain. According to Hill (2012), in terms of development and democratic administration, the involvement of people in public domain is a sign of civilization (www.theguardian.com).

All the subjects in the public domain have an effect on the visual view. In Turkey, places are designed with works that are constructed with different purposes and displayed in different ways. In public domains there are also corrupted and broken designs and applications apart from public domain works. These are usually called 'kitsch' which is a deformed version of the word 'sketch' in English. It is usually described as

1 In public domain arts the process that is led by professional expertise and public attendance, helps to find a bridge between the artist and public. Likewise, the artist's work should meet with unity, union, creativity and ability. With the cooperation of public and artist and juries, kitsch works could be isolated (Selvi. 2008: 5; Atar and Ergüven, 1992).

subjects which do not have aesthetic value, sold at cheap prices and leveled up² to the common taste (Lukacs, 1988: 204). 'Kitsch is not the product of wit and inspiration but of work and craft (Solhelj, 2010: 99).³

According to Stubben (2013), the existence of public art in public domain leads us to make a choice between work of art and kitsch.

Our choices, though authentic, leads us to choose according to our aesthetic and visual taste (Hume, 1997: 49). 'Aesthetic perception is an unending kind of perception which continuously explores new features of the subject and verifies the secretive force of the subject by realizing the momentary awareness in the dynamism of life. If it discovers the new dimensions that this dynamic process establishes, it is an unending perception that does not abandon its subject, nor classify it but reveal its uniqueness' (Erzen, 2006: 21).

When evaluated technically, it can be seen that Kitsch works are quite different from works of art. Ersen points out that in order to understand the condition of aesthetics it is enough to look at architectural regulations, construction, color and light (2006: 121). Most common mistakes in technical evaluation are incorrect geometrical applications, ratio-proportion problems, material,

2 'kitsch culture is the culture of the middle class and with a low degree of education in which popular taste is common and is affected by consumption industry...' (Demir, 2009).

3 'Kitsch, as is called by the German, is a blind spot in taste for the valueless, affecting every part of life from industrial products to traditional handicraft, from poetry to architecture, from art to sculpture, from music to things expressed with fake emotions' (Turani, 2009: 46).

and failure to apply in practice despite acquiring the knowledge.⁴

Other problems of kitsch are expressing emotions excessively⁵ while applying, some corrupted notions, ugly compositions, excessive use of color and expression while describing emotions. The fact that some works are kitsch, make them a 'subject' rather than a 'work'. There are two kinds of evaluation criteria of these kitsch. 'Popular taste is supported and developed in the same way as artificial aesthetics is developed in the environment. With forced designs⁶, kitsch, artificiality and a bombardment or a suppression of emotions, urban environment is evolving to a place in which perception gets lazier' (Erzen, 2006: 126). See pictures 1,2,3,4,5,6,7,8,9,10,11.

Conclusion

Public domain art is a reflection of culture, technology and the concept of contemporary aesthetics and a sign of common consciousness. Therefore it serves to urban, human and life aesthetics. Public domain works of art or public domain kitsch are constituted as a sign of the public and an inner vision and creation of the artist.

4 'Undoubtedly, apart from the functional and beautiful works of art, with the growing amount of industrial products enabling the kitsch, there are numerous 'properties' that are superficial, flamboyant and obedient to a plain comfort' (Bodei, 2008: 78)

5 'Peculiarities of the kitsch are that they are emotional and straight to the point of concern. According to Kahraman, kitsch objects carry intense emotions and cannot be expected to give convey universal messages' (Kahraman, 2002).

6 'the emotion that the kitsch evokes should be shared by the masses' (Kundera: 2012; Brüger: 2012: 18).

The existence of works that have a low aesthetic value in public domain could lead to corruption in our aesthetic taste.

Development of individual perception in public domain will help the individual to select aesthetic structures. Thus, democratic public projects can be applied in all places that are used by people. This will not only be for the aesthetic taste of the individuals in the public domain but also enable the public domain to become centre of tourism and entertainment.

Public art contributes to urban appearance with its lively character. Public art makes more green spaces, pedestrian corridors and public parks and helps to the development of the public. Public art is a variety in the city and an investment to the public identity and the future of the people.

Suggestions

In order to carry out artistic works, 'Art Boards' should be founded for the public domain in big cities. This board should have criteria with such topics; quality of the work, design, suitability for the place, sustainability, maintenance, security and variety. It should be enabled that within all public domain an artistic work could be carried out except for private property and also art lovers should be encouraged to participate in the process with the observation of a board or an artistic circle.

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1. "Sanlitun Trees Statues" Chinna



2. "Naked Woman" Chinna 4



3. "Sanlitun Beer Mug" Chinna



4. "Zhang Ziyi banyo", Chinna "



5. "Life" Chinna



6. "Niki de Saint Phalle and Jean Tinguely" Duisburg Almanya



7.“Libido, Tecnuce” Chinna



9. Clapp Pear/ Boston



8.“Three giant, metal humanoid monsters,
South



10. Ponta Grossa, Brazil.

THE RUSSIAN AND CHINESE PETROPOLITICS IN THE CENTRAL ASIA

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Abstract: Relations between the Russian Federation and People's Republic of China, the two most important powers of the Central Asia, have gone through ups and downs historically. While China, the sleeping giant, has begun to revive since the 2000s, Russia has set its priority as becoming a great power under the presidency of Vladimir Putin. Hence, these actors of middle scale have no longer remained indifferent to each other in developing a policy against the USA, a great power, and defining energy policies of their own. Although they share the rival status and pursue similar objectives in the same geography, viewing the USA as a threat to their own securities, they solved the disputes between them at first and then opted for increasing mutual cooperation around the Shanghai Cooperation Organization. Although each observes the growth of the other carefully, the USA's deploy of military bases in the Central Asia after the September 11 and possibility of staying permanently in the region urged these states to act on the same side.

Key Words: Petropolitics, Russian Federation, People's Republic of China, USA, Central Asia

INTRODUCTION

Petropolitics is a set of policies which instrumentalize energy resources in order to exert political and economic influence in international politics. These policies involve the ownership of lands with raw materials, production of technological infrastructure necessary for transforming these raw materials into energy and making their trade, and attempts for struggling over controlling pipelines needed for this trade and other systems of transmission. This policy of extracting political and economical advantages from the struggle is called petropolitics. To put it another way, the

geopolitics of hydrocarbon energy sources such as oil and natural gas is a part of geopolitics¹.

- 1 For a comprehensive analysis on struggle for energy resources, see Daniel Yergin, **Petrol: Para ve Güç Çatışmasının Epik Öyküsü**, İstanbul, Türkiye İş Bankası Kültür Yayınları, 2007; Michael T. Klare, **Kaynak Savaşları: Küresel Çatışmanın Yeni Alanları**, İstanbul, Devim Yayıncılık, 2005; Suat Parlak, **Barbarlığın Kaynağı**, İstanbul, Anka Yayınları, 2003; Ahmet Öztürk, "Bir Çatışma Alanı Olarak Enerji ve Küresel Enerji Politikaları", **Dünya Çatışmaları**, Kemal İnat, Burhanettin Duran, Muhittin Ataman (Ed.), Ankara, Nobel Yayın Dağıtım, 2010, pp. 665-701; Gökhan Ürün, "*Petrol Piyasalarının Yapısı, Petrolün Etkileşim Ağları ve Petrol Şirketleri Arasındaki Rekabet Ortamı*", **Avrasya Dosyası Enerji Özel**, Vol. 9, No. 1, Spring



Geopolitics supports that geography is the most persistent component of the world politics and a construction of political geography is impossible without considering physical geography. Geography defines the actors in international relations and sphere of their trumps (Tezkan and Taşar, 2002: 12). In this case, natural resources within a certain geography are a natural trump. The pipelines constructed by the actor in order to strengthen its hand including where to and not to come them through, alliances formed and broken in order to build up and provide security are all part of pipeline geopolitics².

In this study, the struggle between Russia and China in energy-rich Central Asia will be mentioned and the way these two powers geostrategically position each other will be discussed. This study argues that although these two giant powers of

Asia are rivals to each other in the long run, they are a part of an indispensable strategic partnership in the short and medium run.

ENERGY-RICH CENTRAL ASIA

Having rich oil and natural gas resources, Central Asia stands as one of the main geographical areas of struggle for energy. It has begun to gain popularity as an energy rich region since the late 19th century. At this time, almost half of the world oil resources has begun to be extracted around the city of Baku and the city acquired the title “capital of oil” (Pala, 2001-2002: 232). Today as well, the countries surrounding the Caspian Sea and named as Caspian Quartet, Azerbaijan, Kazakhstan, Turkmenistan and Uzbekistan, are the main energy producer countries in the region. Iran bordering to Caspian and Russia the biggest political and economic power of the region has relatively less oil reserves in the Caspian. However, as far as Central Asia and the struggle for energy is concerned, the prominent countries are as follows: Caspian Quartet, Russia, Iran, and Kyrgyzstan and Tajikistan with minor roles, and the southern countries such as Afghanistan, Pakistan and India and definitely the Asian giant China (Pala, 2003: 14-15).

In order to objectify the struggle for energy resources in Central Asia, it is important to look at the energy reserves, production and consumption levels in the regional and global level. According to the British Petroleum (BP) 2007 statistics, the region having the most oil reserve proven in the world is the Middle East (61%), while Europe and Eurasia rank the second (11%). At the bottom of the list, as it will be explained later, there are the main actors in the struggle of influence for

2003, pp. 94-132.

- 2 In this study, the struggle of petropolitics is focused on, yet, there is also a literature criticizing this struggle especially calling attention to the consequences of it for environment. Although it will not be mentioned in the article, for the examples of this literature, see John Barkdull, “Why Environmental Ethics Matters to International Relations”, **Current History**, Vol. 99, No. 640, December 2000; Miwao Matsumoto, “*The Uncertain but Crucial Relationship between a ‘New Energy’ Technology and Global Environmental Problems: The Complex Case of the ‘Sunshine’ Project*”, **Social Studies of Science**, Vol. 35, No. 4, August 2005; Paul C. Westcott, “*Ethanol Expansion in the United States: How Will the Agricultural Sector Adjust?*”, **United States Department of Agriculture Economic Research Service**, May 2007. (Online) <http://www.ers.usda.gov/Publications/FDS/2007/05May/FDS07D01/fds07D01.pdf>; Sonja Boehmer-Christiansen, “*Science, Equity, and the War Against Carbon*”, **Science, Technology and Human Values**, Vol. 28, No. 1, Winter 2003, pp. 69-92.

oil such as North America including the USA (5%) and Asia-Pacific including the China (3%). Considering oil production percentages, while the Middle East emerges as the biggest producing power, Europe-Eurasia comes (22%) in the second rank, North America (16%) in the third rank, Africa (12%) in the fourth rank, Asia-Pacific (9%) in the fifth rank and South and Central America (8%) in the last rank. The consumption data, however, is the main data which explains the struggle for energy. Considering oil consumption, Asia-Pacific comes first (30%), while North America comes second (28%), Europe-Eurasia comes third (24%) and the Middle East comes fourth (7%) (BP Statistical Review of World Energy, 2008). Examining the proven oil reserve data of the BP in 2012, it is possible to view the progress made on the said percentages. The Middle East region still preserves its first place with 48.4%. Europe and Asia falling down the 10 percentage (8.4%), North America reaches 13.2 % during this time (BP Statistical Review of World Energy, 2013).

Focusing on the reports of different years prepared by the same institution provides a fertile ground to make sense of energy policies of the said countries.

Before touching upon the struggle for energy and pipelines between Russia and China, when considering only the findings revealed by this picture, it is seen that one of the first outstanding points is the imbalance between consumption and reserve and production rates. The biggest consumers in both their own regions and world-wide, the USA (23%) and China (9%), are not able to recompense what they consumed as neither reserves nor production. The reserve rate for the

USA is 2.5%, while China's reserve rate is 1%. While the USA supplies only 8 % of the world oil production, China is able to supply 4%. Russia holding the 6% of the proven world oil reserves and producing the 12% of the world production, consumes only 3.5% of the world reserve alone (BP Statistical Review of World Energy, 2008). Adding the Russia's influence in the Central Asia to this picture, it is possible to argue that Russia is in a more advantageous position compared to the China and the USA, the two countries which leads in oil consumption.

Russia has an indisputable superiority on natural gas as well. In terms of natural gas reserves, the Middle East holding the biggest share (41%) is followed by Europe-Eurasia (33%), Asia-Pacific (8%) and North America (4%). In production, Europe-Eurasia comes first with 36%, the North America second with 26%, and Asia-Pacific third with 13%. In consumption, Europe-Eurasia (39%) comes first, the North America (27%) the second, and Asia-Pacific (15%) the third. On a state basis evaluation, while the country having the most reserve is Russia (25%), the USA's reserve is 3.5 % and China's reserve is 1%. In production, while Russia comes first with 20% and the USA comes second with 18%, China appears as a natural gas-poor country with only 2%. The biggest consumers are the USA (22%) and Russia (15%) whereas China's consumption does not go beyond 2 % by the year 2008 (BP Statistical Review of World Energy, 2008). However, when it comes to 2011, Chinese consumption reaches around 3.5 % (BP Statistical Review of World Energy, 2011). In 2012 the biggest consumers are the USA (19.8%) and China (11.7%). Chinese growth rate shows its influence here statistically.



Russian consumption, on the other hand, goes back to 3.6 %. This picture demonstrates that the USA and Russia are in rivalry concerning natural gas and China begins to take part as a new actor in energy markets. This picture also reveals that natural gas, which is deemed to be a transition from oil to renewable energy, is an important part of social life and economy in the USA and Russia.

At this point, it is worth of mentioning shale gas as a petroleum-derived energy source. Investigations on shale gas have begun in the USA at first. While 8.5 billion m³ shale gas was produced in the USA in 1996, this amount went beyond 31 billion m³ in 2006. In other words, 5.9% of the USA's total gas production was extracted from shale gas. In 2005 the USA's shale gas production rate constituted 4% of the total gas production and it reached 25% currently. In 2012 May gas prices dropped 2 \$/MMB and seasonal prices changed between 2.0 and 2.8 \$/MMB. In the USA it was calculated that the producible shale gas reserve is around 24 Tcm and there is no need to import gas from outside for approximately 100-150 years (Filoğlu, 2013). In the long run, it is estimated that the USA will meet its own needs for energy and its dependence on external resources will terminate.

Only the reserve, production and consumption amounts are not able to explain the dynamics of the energy struggle in the Central Asia. Internal problems, political relations with other states, the geopolitical assumption of states inside and outside of the region, the issues such as how and in which ways energy sources should be transported are significant components which are

to be explained in order to draw a wider picture of the regional struggle³. It is quite difficult to develop a policy over the Central Asia due the fact that it provides a ground for interstate conflicts on the basis of energy reserves and quite often ethnic reasons, the great powers' claims for gaining influence in the region and religious radicalization (Tang, 2000: 360).

Therefore, in this study, it will be approached to petropolitics of Russia and China, the two countries which are in a position of obligatory proximity in the Central Asia, in a way to create an integrated portrait as far as possible.

RUSSIA AND CHINA FROM THE COLD WAR TO THE 1990S

Although they were within the same ideological camp in the Cold War, beginning from the 1950s, relations began to get tensed up between Beijing under the leadership of Mao Zedung deviating from the Marxist-Leninist line and Moscow, the camp leader. The main underlying reasons of the tension include the Chinese desire to follow a different path from Moscow in order to reach the Communist cause due to the different circumstances of each country; the rise of Mao as a charismatic leader and his actions contrary to the unity of the Camp and territorial disagreements between the two. China also tended to view Russia as a rule corrupting and exploiting

³ In order to appreciate the significance of the region, it is useful to remember the term "heartland" H. John Mackinder proposes for Eurasia meaning the key area to dominate the world. For the "heartland theory" of Mackinder, see H. J. Mackinder, "The Geographical Pivot of History", *The Geographical Journal*, Vol. 23, No. 4, April 1904, pp. 421-437.

its society since the 19th century (Best, et. al., 2008: 336-338).

Bilateral relations of these countries had a chance to improve in the 1980s. After Mao's death in 1976, although China started to seek an alliance with the USA and cancelled the Friendship Agreement of 1950 with the Soviet Russia, Mikhail Gorbachev's reform policies changed this picture in a great extent. Gorbachev's coming to power as the General Secretary in 1985 paved the way for a revision of strategic evaluations in both countries. The dissolution of the Communist regime in Russia terminated discussions on leadership and different paths in socialism. Gorbachev's policies of "glasnost" (openness) and "perestroika" (reconstruction) changing the fate of the USSR became a turning point in Chinese-Russian relations (Menon, 2002: 96-97).

"Partnership strategy" between the two countries has begun to take shape at this stage. The dissolution of the Soviet Russia and emergence of the independent states in the Central Asia has changed the dynamics of the struggles for influence in this region. The states which were controlled by the Soviet Russia before the dissolution could not manage to form a strong and stable structure neither economically nor politically. Under these circumstances they have begun to rely in Russia and in China as a balancing power against Russia. Hence, after the end of the Cold War, Russia and China have continued to be important centers in the Central Asia. However, while the influence of the Soviet Russia was more dominant in the region during the Cold War, China has begun to shine out since the 1990s (Çolakoğlu, 2006: 38).

Nevertheless, this situation does not imply that Russia and China are two great rivals following opposite policies. As it will be discussed later, Russia and China have adverse interests which might prevent a harmonious relationship to develop between them in both short and long run. From the dissolution of the USSR in 1991 to the time they opened the way for the Shanghai Cooperation Organization in 1996, they tried to understand the new regional dynamics and adapt new circumstances avoiding taking radical steps (Çolakoğlu, 2004: 174). However, since the mid-1990s, beyond repairing the bilateral relations, Russia and China formed a "strategic partnership" and took significant steps in this regard (Wishnick, 2001: 797). Since this date, stability and security have become key concepts in the East Asia (Rangsimaporn, 2006: 477). For instance, the problem of territorial boundaries, one of the most troublesome issues, was resolved through agreements signed on May 1991 and September 1994, except several minor places. Thus, 98% of the total boundary length was defined and this issue was resolved at a great extent (Matyaev, 2004: 34).

The strategic partnership formed between Russia and China was essentially shaped by three factors. These factors are NATO's opening to the east, strengthening of the security alliance between the USA and Japan, and the uneasiness felt by Russia and China because of the unipolar world led by the USA (Tang, 2000: 361). Examining in a more detailed way, there are different types of motivation at different level of importance and urgency concerning the Russian and Chinese interest in the Central Asia. Getting an opportunity to diminish the number of soldiers being put in their own



boundaries through this new form of relationship, Russia and China acquired the potential to prevent possible security risks of the Central Asia beyond their borders (Somuncuoğlu, 2006: 18). Therefore, Russia could develop cooperative relations with the newly formed independent Turkic states and China regarding the issue of security on a common ground (Davutoğlu, 2001: 474).

RUSSIA AND CHINA'S ENERGY INTERESTS IN CENTRAL ASIA

China's Central Asian policies have necessarily a security dimension due to its minority and border problems. Particularly, China's one of the main concerns is that Xinjiang-Uighur Autonomous Region, also known as East Turkestan, may be affected by ethno-religious nationalisms in Central Asia. The presence of more than 40% of the oil, natural gas and other natural resources in the regions where minorities inhabit indicates that such an issue is also related to energy and therefore has an economic dimension. China has border disputes that have been newly resolved in an atmosphere of cooperation with Kyrgyzstan and Tajikistan, and also with Kazakhstan whose potential and proved oil reserves are at the most (Çolakoğlu, 2006: 39-41). Russia and China have been in competition with each other for a long time concerning the control over East Turkestan. East Turkestan region constituting one-sixth of Chinese territory is of vital importance for Beijing's security as well as for China's modernization plans due to its natural resources (Harris, 1993: 111).

On the other hand, it is often expressed that, China, a permanent member of the UN Security Council which also aims to become a main actor in the international organizations such as IMF, World

Bank and World Trade Organization (Sutter, 2002: 16) is a gradually growing economic actor and has the opportunity to control the USA economy through its investments there as a result of the USA's trade deficit against China. However, China draws a portrait of being almost entirely dependent on foreign energy resources despite its growing performance in the world economy in which the energy is a vital instrument (Lacoste, 2007: 179). One of the main parameters that need to be taken into account is this energy dependency of China in order to understand its interests in Central Asia. It is anticipated that China's oil imports are to be 60% in 2010 and 82% in 2023. China has no choice other than Middle East, Caspian and Russia in order to realize its energy import. At this point, China wants to diversify alternatives without being entirely dependent on none of these resources and seek for rapprochement with Central Asian countries and make bilateral energy agreements. Moreover, major part of China's investments in Central Asia is in energy sector. Its imported goods considering the trade with Central Asia are energy-related products as well (Çolakoğlu, 2006: 48-51).

Considering Russia, by putting aside China temporarily, Russia has started to pursue a different foreign policy doctrine in Vladimir Putin era. After the collapse of the Soviet Union, Russia gave priority to the West rather than Central Asia and considered that the states that were formerly under the sovereignty of Federation would still be loyal to Moscow politically and economically. Russia began to give importance to integration policy only after 1993. Although Boris Yeltsin made revisions to domestic and foreign policy as a result of Russia's being at the

brink of disintegration due to its indifference to Central Asia, drastic changes were made in only 2000s after Putin came to power. Putin regarded Central Asia as one of the foreign policy priorities of Russia on the grounds that there is the necessity of cooperation with regard to the issues such as the fight against international terrorism and drugs, common security and trade as well as the protection of Russian population living in Central Asian states. However, one of the most fundamental issues for Russia is the governance of energy resources in Central Asian states. Central Asia became important for its energy resources particularly during Putin era although it was considered to be a site of agriculture during Soviet Union. Russia intervened in the region claiming that it is in the Russia's sphere of influence (Kamalov, 2008: 119-131).

Putin did not neglect tracking the taxes of private companies in order to solve the problem of transferring income generated through oil to American banks and to abroad which is considered as a matter of domestic policy as well as the main obstacle before oil production and export that may turn Russia into a great actor (Lacoste, 2007: 156). Putin's Russia pursued a foreign policy based on the principles of realpolitik, national security, military power and geostrategy. The objectives of the policy with regard to Far East are stability, border security and cooperation. In this regard, the strategic partnership with China would be developed, the relations with Japan would be strengthened, and rapprochement with South and North Korea that was neglected for a long time would be built again (Çolakoğlu, 2004: 177). The reasons behind such rapprochement attempts are Russia's deficiencies in the

economic and military areas that hinder Russia's pursuing an independent foreign policy in the region as well as the instabilities created by newly independent states in the Central Asia and their vulnerability against the external actors, the concerns due to radical religious movements and the risk of being under economic and political influence of the USA given the fragility of the region (Çolakoğlu, 2004: 180). Because of all these reasons, China would become the biggest partner of Russia in the Central Asia beginning from Putin's era.

The cooperation among China, Russia, Kazakhstan, Tajikistan and Kyrgyzstan that was established in 1996 and called as the "Shanghai Five" was the most important step considering such an issue. The five states decided to hold regular meetings in order to deliver and exchange ideas for fighting against terrorism, separatism, religious extremism and illegal trade as well as for the economic development of the region (Lacoste, 2007: 183). Russia and China put an emphasis on strategic partnership in the multiple meetings and bilateral talks occurred in the subsequent years. Russia and China supported each other against NATO's threatening expansion policy towards the eastward concerning Russia, the Taiwan Strait crisis between the USA and China and the attempts of the USA for blocking China's efforts to be a member of World Trade Organization. They developed common policies with regard to the USA intervention in Iraq, NATO's intervention in Kosovo and Missile Defense Systems. From the mid-1990s, China and Russia opposed the interference of the USA in internal affairs by using the discourse of human rights. China supported Russia regarding Chechen problem and Russia



supported China considering Taiwan problem. In 2000, the two states objected to the development of national missile system by the USA on the grounds that this may result in the creation of unipolar military power that threatens their security (Wishnick, 2001: 800-801).

In 2001, the “Shanghai Five” took the name of “Shanghai Cooperation Organization”. Beginning from this date, the organization started to state its mission more clearly. The objection to the existence of a unipolar world order, the idea indicating that human rights violations do not provide the right to intervene in internal affairs of sovereign states and the necessity of resolving disputes through multilateral talks constitute the vision of Shanghai Cooperation Organization. The organization covered Eurasian continent after accepting India, Pakistan, Iran and Mongolia as observer states in Astana Summit held in 2005 (Çolakoğlu, 2006: 45-46). Moreover, Astana Summit is important since it called the USA for evacuating its military bases in Central Asia (Adibelli, 2006: 19). On the other hand, “The Treaty for Good Neighborliness, Friendship and Cooperation” signed in 2001 between Russia and China is of crucial importance in showing that the relations between the two states have evolved (Vnukov, 2006: 40). According to the treaty, the two states reached consensus over important issues such as acting together against the US hegemony in the region, transferring technology and the supply of energy and arms (Cohen, 2007).

In June 2005, the leaders of the two states signed the document called “China-Russian Joint Statement on 21st Century World Order” and accepted that

they have the joint responsibility for the establishment of a just world order based on international law (Rogachev, 2005: 85). During this period, 22 separate documents between the two parties were prepared in order to establish cooperation on trade, energy and finance (Gouchan, 2007: 136).

Energy resources are one of the areas for economic cooperation between Russia and China. China tries to meet oil and natural gas needs by from Central Asian countries and Russia whereas Russia wants to diversify its market alternatives. Moreover, through selling oil to China, Russia holds the opportunity to make China dependent on itself (Kamalov, 2008: 299). There are two major pipelines regarding natural gas and oil in which China involves and they need to be completed in 2009 at the earliest. One of them is Turkmenistan, Uzbekistan, Kazakhstan and China natural gas pipeline and the other is Kazakhstan-China oil pipeline. Russia and China also reached an agreement in 2006 for transporting natural gas from Western and Eastern Siberia to China through two separate lines. Siberia-Pacific pipeline project aims to provide Japan and Korea which are Asia’s major powers with natural gas through export (http://www.iea.org/textbase/papers/2008/caspian_perspectives.pdf). However, it is worth stating that Russia decided to locate the Pacific part of Eastern Siberia pipeline across Japan instead of China at the expense of extending the line.

Referring to the USA policies in the region is necessary, as mentioned above, in order to understand the dynamics behind the relations between Russia and China in Central Asia, particularly with regard to the energy dimension in their relations. However, the major effective

powers are not solely in competition with each other in a passive region. It is also important to consider how Central Asian countries respond to this competition and they are affected by such conflict. The most crucial point is that these countries are not passive any more. Rather, they emerged as actors actively manipulating the conflict of interest to their advantage. In this regard, the way Central Asian countries perceive their political, economic and security interests and develop relations with major powers gains importance. It is a misleading statement that all Central Asian countries have common interests and expectations (Torbakov, 2006: 28).

The countries such as Kazakhstan, Uzbekistan and Turkmenistan that gained their independence after the collapse of the Soviet Union and that are rich in terms of natural resources give priority to rapid economic development and aim to become important actors in the region. The easiest way for those countries that were under the sovereignty of the Soviet Union for long years is to export energy resources that may result in an increase in their revenues and their influence in the region in order to be economically and politically active. However, the states lacking such infrastructures to achieve this have two alternatives. They either build their own infrastructures that enable them to export their energy resources through the pipelines they construct themselves or make their resources available for the bigger flow of resources in the world through the initiatives of major powers, such Russia and the USA. In this context, the states that do not want to be dependent on a single source of energy manipulate the conflict between Russia and the USA while they also seek ways to build their own pipelines. Since

energy transportation and pipelines are regarded as a source of revenue and political influence, Russia and the USA are also seeking ways to distribute energy resources through their own pipelines by concluding agreements with Central Asian countries (Kamalov, 2008: 130-131). This constitutes the actual basis for the conflict among Russia, China and the USA over energy.

CONCLUSION

China wants to become the major power in Asia. China, a permanent member of the UN Security Council, aims to become a main actor in the international organizations such as IMF, World Bank and World Trade Organization. There are many reasons that motivate Russia to cooperate with China as Russia pursues the goal of becoming a dominant power again. However this does not mean that the cooperation between the two states will absolutely sustain for many years. Russia and China are both very important actors with regard to their territorial, economic and political supremacy in a geographically significant region in international politics. Therefore, through using the lens of realist paradigm, they are in rivalry with each other. The cooperation between the two states is a result of strategic and pragmatic concerns. During Putin era, the relations with China was deepened and diversified due to Russia's initiatives. However, the cooperation is still grounded on pragmatic concerns. In 2000, Putin used the metaphor of the bird referring to Russia. He mentioned that Russia is both a European and Asiatic state and in case of Russia's missing one of its wings, it could not be able to fly. Therefore, it can be claimed that Russia gives priority to its relations with the West and



utilizes the relations with China as a stabilizing force against the West. On the other hand, such a claim may result in regarding China only as a stabilizing actor rather than a growing political actor. Moreover, whether the stable progress of the relations between Russia and China may transform their relations from a strategic partnership into an alliance is often discussed.

However, it is a fact that Russia and China have conflicting interests with regard to borders, Korea and Japan. It is possible to argue that the most serious issue resulting in rivalry between the two states is the struggle for increasing political influence in the Central Asia and the projects facilitating the opportunity to benefit from the energy resources of the region at the maximum level. Russia's cautious approach towards the economic cooperation with China and being indifferent to China's long-lasting economic initiatives in the Central Asia offer a ground for understanding Russia's cooperation with China. The reason behind this is that the current relations are much more beneficial for Russia since China is dependent on Russia in terms of military technology and energy and Russia does not want such situation to corrupt against its advantage. A strict economic cooperation with China seems to be a disadvantage for Russia since as a result of this China's dependency on Russia in terms of energy will decrease. The aim of Russia is to sustain the position of "big brother" in order to regulate the routes of pipelines that provide China with energy. Moreover, through energy diplomacy, Russia established good relations with its neighbors in Asia and created status quo that may be considered to be stable. On the other hand, China has no reason to accept such status quo that is

to Russia's advantage over the long term since China has a rapidly growing economy and its dependency on energy has increased. Considering that the alliance between China and Russia is a strategic move against the USA which aims to establish a unipolar world order and become much more involved in Central Asia, an alliance between the USA and China may have a negative impact on the Russian-Chinese relationship. On the other hand, it is likely that the USA may enter into an alliance with Japan in the Pacific. Such a situation may result in closer relations between Russia and China. In this regard, Baku-Tbilisi-Ceyhan pipeline that excluded Russia is a major success for the USA and other Central Asian countries under the influence of the USA. The withdrawal of the USA from the region may lead to a change regarding the common concerns that brings Russia and China together since the two states have still unresolved problems.

Neither the USA nor Russia has gained a victory with regard to the rivalry over pipelines in Central Asia. Russia does not have entirely control over the Caspian oil flow and abolish the influence of the USA over the region. USA could not be able to convince the oil companies to build pipelines bypassing Russian territory, either. In this regard, it may be argued that the USA will not easily withdraw from the region and let Russia control energy resources in the Central Asia. Similarly, Russia will try to increase its power in the international system through making China dependent on Russia as well as developing partnership with China.

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ORTA ASYA'DA RUS VE ÇİN PETROPOLİTİĞİ

Özet: Orta Asya'nın en önemli iki ülkesi Rusya Federasyonu ve Çin Halk Cumhuriyeti arasındaki ilişkiler tarihsel süreçte iniş ve çıkışlar göstermiştir. Aynı ideolojik tutum ve benzer politik yapıya sahip oldukları için Soğuk Savaş döneminde birlikte hareket ederek Batı kampına karşı daha güçlü olabilecek iken, bunun yerine benimsedikleri Sosyalizmin nüans farklılıklarını ön plana çıkartarak birbirlerine soğuk davranan Çin ve Rusya, aslında o dönemde de liderlik yarışı içerisinde yer almaktaydı. İki ülkenin bu tavrı aralarındaki sorunları ötelemek istemelerinde somut bir şekilde gözlemlenmektedir. Rusya Gorbaçov ile yeniden yapılanmaya gidince, Çin ile ilişkilerde yumuşama dönemi başlamıştır. 2000'lere geldiğinde ise iki ülkenin benzer atılımlar yapmakta oldukları görülmektedir. Uyuyan dev Çin, 2000'ler itibariyle ekonomik açıdan önemli bir sıçrayış yaşamaya başlarken, Vladimir Putin'in başkanlığında Rusya da önceliğini yeniden büyük bir güç olmaya adanmıştır. Putin döneminde Rusya, sahip olduğu enerji rezervleri sayesinde petrolün varil başına fiyatı yükseldikçe önemli bir ekonomik kazanç elde etmiştir. Bu durum orta büyüklükteki bu iki aktörün, gerek bir büyük güç olan ABD'ye karşı bir siyaset belirlemede, gerekse de ülkelerinin enerji politikalarını tayin etmede birbirlerini dikkate almalarına yol açmıştır. Her ne kadar aynı coğrafyada birbirlerine rakip olsalar ve benzer hedefler gütseler de, ABD'yi ulusal güvenliklerine bir tehdit olarak gören bu iki ülke önce kendi aralarındaki ihtilafları çözümlenmiş, daha sonra da Şangay İşbirliği Örgütü çerçevesinde karşılıklı işbirliğini artırma yolunu seçmiştir. Her iki ülke de diğerinin gelişimine ihtiyatla yaklaşırsa da, ABD'nin 11 Eylül sonrası Orta Asya'da askeri üsler açması ve bölgede kalıcı olması tehlikesi iki ülkeyi birlikte hareket etmeye zorlamıştır. Rusya ve Çin Orta Asya'da belirgin bir şekilde güçlerini arttırmaya çabalarlarken, ABD'li stratejistler ve politik bilimciler onların bu iddialı duruşlarını analiz etmeye çalışmıştır. ABD tarafından 2000'lerin ikinci yarısından itibaren hazırlanan raporlarda hem Çin'in, hem de Rusya'nın bu hızlı yükselişlerinin bir noktada duracağı ve daha fazla yükselemeyeceği öne sürülmüştür. Bu nedenle uluslararası sistemdeki tüm aktörler, bu üç taraf arasında tek bir coğrafyada yaşanan gelişmeleri ihtiyatla izlemeye başlamıştır. Bir başka doğulu güç olan Japonya, Orta Asya'dan güvenliğine yönelik tehdit algılamaktadır. Japonya'nın 1990'lardan beri ABD ile yakın temaslarının bir diğer sebebi de budur. Çin ve Rusya'nın Orta Asya'da ittifak kurmaları bölgede yer alan diğer aktörler açısından da önemlidir. Başta Kazakistan, Özbekistan ve Türkmenistan olmak üzere bölgede varlıkları yadsınmaması gereken devletler bir büyük gücün hâkimiyetinde olmaktan ziyade, kendilerine nefes alabilecekleri bir alan yaratmak istemektedir. Dolayısıyla bu devletler Rusya, Çin ya da ABD'den birisini seçmek yerine bu devletlerarasındaki çekişmeden yararlanarak kendi başarı öykülerini yaratmak istemektedirler. Sonuçta Orta Asya sahip olduğu enerji kaynakları ile aslında tüm dünyanın ihtiyacı olan enerjiyi temin etmektedir. Fosil kaynakların kıtlığı ve insan ihtiyaçlarının sonsuzluğu göz önünde bulundurulduğunda, Çin ve Rusya'nın stratejik hamlelerinin neden bu kadar dikkat çektiği ve yakından izlendiği daha anlamlı olmaktadır. İnsanlar için hayati önemde olan rezervleri kimin kontrol ettiği, dolayısıyla boru hatları vanalarının kimin elinde olduğu mühim bir husustur. Bu durum söz konusu ülkelere sadece ekonomik kazanç sağlamamakta, aynı zamanda siyasal açıdan sistemde söz sahibi olmalarına yol açmaktadır. Bölgede yer alan ve yarattıkları güç nedeniyle nispeten küçük büyüklükte sayılan devletler kaynaklarını, kendilerini geliştirmede bir araç olarak görmektedirler. Rusya ise Orta Asya'dan batıya iletilen petrol ve doğalgaz hatlarını kontrol ederek hem Avrupa ülkelerine, hem de dolaylı olarak ABD'ye meydan okuyabilmektedir. Aynı şekilde Çin, sahip olduğu insan gücüne, ekonomik güç de ekleyince Orta Asya'ya girmeye çalışan ABD'ye kendisinin göz önünde bulundurulması gereken bir aktör olduğunu hatırlatabilmektedir. Bu tablo Çin, Rusya ve ABD arasında yaşanan enerji çekişmesinin nedenlerini sergilemektedir. Şangay İşbirliği Örgütü sayesinde uluslararası sorunlarda ortak bir tutum ve davranış benimseyebilir hale gelen bu iki önemli

güç, aynı zamanda BM Güvenlik Konseyi'nin de iki daimi üyesi oldukları için ABD açısından korku yaratmaktadır. ABD, gittikçe güçlenmeye başlayan bu iki devletin kontrol altında tutulmazlar ve sürekli beraber hareket ederlerse, sistemi kendi lehlerine kilitleyebilecekleri kaygısı yaşamaktadır. Ancak Rusya ve Çin'in sistemde kalıcı bir birlikteliği uzun süre korumalarını beklemek çok da gerçekçi olmamaktadır. Zira iki devlet temel sorunlarda attıkları adımlarla barış tesis etmişlerse de, her ikisi de istediklerini elde ettiklerine inandıkları zaman yegâne aktör olma iddiasına bürünebilecektir, tıpkı Soğuk Savaş zamanında beraber hareket edememeleri gibi... Dolayısıyla bu birlikteliklerinin ne zamana kadar süreceği aslında başta ABD olmak üzere bölge devletlerinin akıllarını meşgul eden en önemli sorudur. Son yıllarda ne ABD, ne Rusya, ne de Çin Orta Asya'ya ilişkin beklentilerini gerçekleştirebilmiş değildir. Bu nedenle Orta Asya'da üç önemli güç arasındaki ilişkiler daha uzun süre petropolitik üzerinden şekillenecek gibi gözükmektedir.

Anahtar Kelimeler: Petropolitik, Rusya Federasyonu, Çin Halk Cumhuriyeti, ABD, Orta Asya

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DR.	Emine KOLAÇ	ANADOLU UNIVERSITY
DR.	Emre YANIKKEREM	CELAL BAYAR UNIVERSITY
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DR.	Ayşen TOKOL	ULUDAĞ UNIVERSITY
DR.	Ayşen Altun ADA	DUMLUPINAR UNIVERSITY
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