ERI
EURASIAN RESEARCH INSTITUTE
AKHMET YASSAWI UNIVERSITY

Eurasian Research Journal

ISSN: 2519-2442

ARTICLES

BOOK REVIEWS

JANUARY 2019 VOLUME 1 • NO 1

Eurasian Research Journal

EURASIAN RESEARCH INSTITUTE

January 2019 Volume 1 • No. 1

EURASIAN RESEARCH JOURNAL

Editors:
Nevzat SIMSEK
Vakur SUMER

Eurasian Research Journal Volume 1, No. 1

ISSN 2519-2442

This edition is published by Eurasian Research Institute
Almali district Mametova 48, 050004, Almaty, Kazakhstan

Phone: +7 (727) 279 97 94 Fax: +7 (727) 279 24 26
www.eurasian-research.org • e-mail: info@eurasian-research.org

© Khoca Akhmet Yassawi International Kazakh-Turkish University
Eurasian Research Institute (ERI), 2019 (print and electronic)

All rights reserved. Except for brief quotations in a review this journal, or any part thereof, may not be reproduced, stored in or introduced into a retrieval system, or transmitted, in any form or by any means, electronic, mechanical or photocopying, recording or otherwise, without the prior permission of the publisher.

Distributed by Eurasian Research Institute
Almali district, Mametova 48, 050004, Almaty, Kazakhstan

Typeset in Almaty by
Printed and bound in Kazakhstan by, Almaty

Vol. 1, No. 1: January 2019

The views expressed in the analyses are the authors' own and do not necessarily reflect the Institute's editorial policy.

ERI
EURASIAN RESEARCH INSTITUTE
AKHMET YASSAWI UNIVERSITY

Eurasian Research Journal

EURASIAN RESEARCH INSTITUTE

January 2019
Volume 1 • No. 1

SCIENTIFIC BOARD

Elshan BAGIRZADE
Azerbaijan State University of Economics/Azerbaijan
Vugar BAYRAMOV
Center for Economic and Social Development/ Azerbaijan
Sabri CIFTCI
Kansas State University/USA
Carole FAUCHER
Nazarbayev University/Kazakhstan
Anastassios GENTZOGLANIS
Université de Sherbrooke/Canada
Osman HORATA
Hacettepe University/Turkey
Lars JOHANSON
University of Mainz/Germany
Sunatullo JONBOBOEV
University of Central Asia/Tajikistan
Markus KAISER
Kazakh-German University/Kazakhstan
Hasan Ali KARASAR
Cappadocia University/Turkey
Ulvi KESER
Girne American University/Turkish Republic of Northern Cyprus
Mehmet Akif KIRECCI
Social Sciences University of Ankara/Turkey
Recep KOK
Dokuz Eylul University/Turkey
Jonathon MAHONEY
Kansas State University/USA
Erica MARAT
National Defence University/USA
Firat PURTAS
TURKSOY/Turkey
Li-Chen SIM
Zayed University/UAE
Muhittin SIMSEK
Marmara University/Turkey
Oktay Firat TANRISEVER
Middle East Technical University/Turkey
Cengiz TOMAR
Akhmet Yassawi University/Kazakhstan
Musa YILDIZ
Gazi University/Turkey
Salih YILMAZ
Yildirim Beyazit University/Turkey

Address: Almali district, Mametova 48, 050004 Almaty, KAZAKHSTAN
Tel: 7(727) 279 97 94; Fax: 7(727)279 24 26; e-mail: info@eurasian-research.org

CONTENT

ARTICLES

BOOK REVIEWS

Eurasian Research Journal is a refereed journal of international standards aiming to publish scientific articles in a wide range of fields including economics, finance, energy, international relations, security, transportation, politics and sociology in the Eurasian region that covers the territory from the Balkans to Mongolia with particular focus on Turkic – speaking countries. It is published biannually in January and July. Contributions and articles submitted to Eurasian Research Journal are first evaluated by the Editorial Board with the regard to their compliance with the publishing principles, and those found acceptable are forwarded to the referees well-known for their scholarship in the relevant field. The names of referees are kept confidential, and their reports are kept in record for a period of five years. The authors are responsible for opinions stated in the articles published in the journal.

Eurasian Research Journal
January 2019 Vol. 1, No. 1

Owner
On behalf of
Akhmet Yassawi University
Acting Rector
Prof. Dr. Cengiz TOMAR

Editor-in-Chief
Prof. Dr. Nevzat SIMSEK
Co-Editor
Assoc. Prof. Vakur SUMER

Editorial Board
Prof. Dr. Nevzat SIMSEK
Assoc. Prof. Vakur SUMER
Prof. Dr. Gulnar NADIROVA

Managing Editor
Zhengizkhan ZHANALTAY
Zhandos RANOV

Technical Redaction
Albina MURATBEKOVA

Secretariat
Kanat MAKHANOV

Management Center
Almali district, Mametova 48, 050004
Almaty, Kazakhstan
Tel: +77272799794
Fax: +77272792426
Website: erj.eurasian-research.org
e-mail: info@eurasian-research.org
subscription: erj@eurasian-research.org

ARTICLES

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

THE EFFECT OF GENDER DIFFERENCES ON EDUCATION DEMAND IN TURKEY: ORDERED PROBIT MODEL

Recep KOK*
Ramazan EKINCI**
Seren SAVACI ***

ABSTRACT

The aim of the paper is to analyze the factors that affect education demand with regard to gender differences and determine main determinants of education demand. In this study, beyond the relation between education and welfare, by showing the effect of demographic and socio-psychological characteristics of the households on education demand, it is expected to contribute to the development of education policy. The data is taken from Turkish Statistical Institute's Household Budget Survey for 2014 and policy recommendations are developed by comparing the results of ordered probit model with marginal effects with the findings in literature.

Key Words: Education demand, gender, ordered probit model, education demand, welfare.

* Prof. Dr., Dokuz Eylul University, Kultur Mahallesi, Cumhuriyet Blv. No: 144, Izmir, 35220, Turkey, e-mail: recep.kok@deu.edu.tr

**Prof. Dr., Dokuz Eylul University, Kultur Mahallesi, Cumhuriyet Blv. No: 144, Izmir, 35220, Turkey, e-mail: ramazan.ekinci@deu.edu.tr

***PhD, Dokuz Eylul University, Kultur Mahallesi, Cumhuriyet Blv. No: 144, Izmir, 35220, Turkey, e-mail: ramazan.ekinci@deu.edu.tr

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

INTRODUCTION

Education plays an important role in the development of society besides economic development. Education is closely related to the development of countries; the productivity of the workforce, the likelihood of education for future generations, and income distribution. Policies aimed increasing the level of education of a society aim primarily raising the level of education and at the same time eliminating gender-related differences in educational attainment. In countries like Turkey, the gender of the child is important in education. Girls are known to have a lower literacy rate than boys.

Knowing the factors that the households consider when deciding on the education of the child in terms of the efficiency of the educated investments will enable the education investments to be done in an accurate and impartial manner. For this reason, the aim of this study is to open up the factors determining the primary and secondary education demands of girls and boys in Turkey to discuss and to reveal the similarities and differences between previous studies. The first part deals with the studies on the determinants of education demand in Turkey. Data set and method are explained in the second part, descriptive statistics in the third part, and application results in the last part.

LITERATURE REVIEW

Tansel (2002) investigated the main determinants of gender differences in educational demand using the Household Income and Consumption Expenditure Survey published by the Turkish Statistical Institute (TURKSTAT) in 1994. In the study in which the individual probit model for boys and girls was estimated, it was observed that the low educational level was positively related to distance to a metropolitan city. The distance to Istanbul leads to lower education levels for girls and boys at primary education level. This study deals with spatial effects.

Smits and Hosgor (2006) investigated the family characteristics determining the status of primary and secondary education enrollment by using the 1998 Turkey Demographic and Health Survey Questionnaire. In the study conducted by multiple logistic regression analysis; household income, father's employment status, number of siblings and mother's ability to speak Turkish were expressed as the main determinants of registration to the school.

Rankin and Aytac (2006) determined the causes of gender differences in education by using the data obtained from the 1988 Turkish Family Survey. According to the results of the study with multiple logistic regression analysis, cultural characteristics and gender differences in post-primary education were identified as the most important factors affecting the schooling rate.

Using the 1998 Turkey Demographic and Health Survey Questionnaire, as Smits and Hosgor (2006) did, Dayioglu et al. (2009) investigated the effect of the number of siblings, the order of birth and the gender of siblings on the schooling rate in Turkey's cities. The analysis was carried out using the instrument variable estimator method. According to the results, the number of siblings has no effect on the schooling rate. According to the results, obtained from the order of birth, it is determined that the median siblings have the worst schooling rate.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

Kilic (2012) investigated the determinants of education demand according to gender difference in Turkey by using data of 2003 TURKSTAT Household Budget Survey. Four separate samples were drawn up to determine the characteristics of parents and households determining primary and secondary education requirements for girls and boys. The independent variables that determine educational demand are; the education level of the family, the employment status, whether or not they have agricultural activities, monthly household expenditures, housing as wealth indicator, living in large family, number of people in the household, having small brother between 0-5 years and whether or not being the biggest child in the household. In addition, since the 2003 Household Budget Survey includes regional data, the distance to a metropolitan city of the living area of the household is included as an independent variable giving regional characteristics. Dependent variable for primary education request is divided into three categories: 1 if the child is illiterate, 1 if literate but no graduation, and 2 if he/she has completed primary education. Secondary dependent variables consist of four categories: 1 if the child is not literate, 0 if literate but no graduation, 1 if he has completed five years of compulsory education, 2 if he has completed eight years of compulsory education, and 4 if he has completed secondary education. Ordered probit model was used as the method. According to the results of the study, the most important determinant of the education demand for boys and girls is the education level of the parents. When the marginal effects are examined, the level of education of the father on the educational request has a greater influence than that of the mother.

DATA AND METHODOLOGY

The data used in this study were obtained from the 2014 Household Budget Survey prepared by the Turkish Statistical Institute. The survey covers 10,123 households and 36,845 individuals in Turkey. In accordance with this analysis, the survey includes information on the employment status, income, education status, occupation of parents. There are also data that reflect the characteristics of households such as homeownership, number of rooms in the house, sibling presence, household type that can affect the education demand. In this study, in which the child's primary and secondary demands were examined according to gender, a new data set was created in which the children and their parents were matched. In this data set, children are defined as children of the household head, regardless of whether they are female or male.

Primary education refers to compulsory education for eight years and secondary education refers to high school education. A child graduated from primary or secondary education in 2014 is subject to eight years of compulsory education and there is no primary school graduation option in the datasets but there is an option of primary school student because the questionnaire includes open education information as well as considering that reading out is common in Turkey. Since a student who graduated from primary school in 2014 will be 14 years old, the data set is limited to 14-17 age range. Due to the prevalence of late start-ups and retention in Turkey, the data set has been expanded to cover the age of 17 years. A child graduated from secondary school in 2014 will be 18 years old and this data set has been extended to 20 years due to the reasons described above.

Primary dependent variable is 0 if the child is not graduated from any school,

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

1 if primary school student, 2 if he has completed primary education. Secondary dependent variable is 0 if the child is not graduated from any school, 1 if he has completed primary school, or 2 if he has completed secondary school.

Independent variables were collected in two groups as parental and household characteristics. Parental characteristics include the education status of the mother and father, the status of employment, whether they work for their own accounts in agriculture, whether they are paid or employers. Household characteristics include household expenditure, the number of people living in the household, the number of rooms in the house, the type of household, and whether or not the child has a sibling aged between 0-5.

In contrast to the two-valued (zero or one) logit or probit models, the ordered probit model in which the dependent variable is formed in ordered form is preferred. Because the response options used to determine the level of education consist of options such as primary school, junior high school, high school and university in ordered form.

The ordered probit model is constructed as a hidden variable regression model, such as a two-result probit model. In the equation below:

$y^*=x'b+e$

y^* is the hidden variable and is defined as:

$y=0$ if $y^* \leq 0$

$y=1$ if $0<y^* \leq \mu_1$

$y=J$ if $\mu_{j-1} \leq y^*$

μ's indicating the threshold values are unknown parameters that can be estimated with the ordered probit model. The following probabilities can be obtained with the assumption that the faults are normally distributed in the ordered probit model (Greene, 2002). All of these possibilities are positive and they should be in the form of $0<\mu_1<\ldots<\mu_{J-1}$:

Prob(y=0|x)=$\theta(-x'\beta)$

Prob(y=1|x)= $\theta(\mu_1 - x\beta) - \theta(-x\beta)$

Prob(y=J|x)=1- $\theta(\mu_{J-1} - x\beta)$

In this model, the marginal effects of the independent variables are not equal to the coefficients. The marginal effects can be expressed as follows for the three categorized ordered cases with a threshold parameter. The marginal effects of the change in the independent variables are calculated as follows (Greene, 2002):

$$\frac{\partial \text{Prob}(y=0|x)}{\partial x} = -\theta(-x'\beta)\beta$$

$$\frac{\partial \text{Prob}(y=1|x)}{\partial x} = [\theta(-x'\beta)\theta(\mu - x'\beta)]\beta$$

$$\frac{\partial \text{Prob}(y=2|x)}{\partial x} = \theta(\mu - x'\beta)\beta$$

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

In the ordered probit model, the coefficients show the direction of the relationship, but the marginal effect of a change in the independent variable on the dependent variable of the model can not be interpreted over the forecast results. For this reason, marginal effects are obtained for each possibility of the dependent variable.

DESCRIPTIVE STATISTICS

According to the descriptive statistics included in Annex Table 1, there is no significant difference between the primary and secondary school samples classified by gender in terms of continuous variables. The educational status of parents differ in primary and secondary education for both genders. When we look at the educational level of the parents, it is seen that the primary school graduates are predominant, followed by illiterate mothers. The rate of mothers who graduated from university varies between 2% and 7%, and the sample with the highest university graduation in mothers is examined for girls of primary school with 7.9%. When the education level of the father is examined, it is seen that the majority of the primary school graduates are in the majority, but the ratio of the illiterate father is very low compared to the illiterate mother. The share of university graduates is between 4% and 13%. Illiterate mothers in all samples are more than percent of literate mothers. It can be said that the education levels of parents are not balanced for all samples.

According to father's employment status, it can be seen that unemployment is quite high. The sample with the lowest rate of unemployment for the father is the primary education demand for males. Generally, the percentage of paid employees and business owners are close to each other. Unemployment rates are particularly high for the mother and are not considered to reflect the general picture of Turkey. Working mothers seem to be mostly business owners, while the rate of paid work for mothers is around 5-6% and the rate of having a job is between 40-44%. The ratio of self-employed mothers and fathers in agriculture is very close to each other and varies between 15-21%.

Looking at the household characteristics, it is seen that the majority of the households are home to all samples. There is an increase in primary education from secondary education to boys from girls and boys. 24% of the girls and 21.8% of the boys live in large families. This ratio increases to 28.2% for girls and 28.4% for boys in the secondary education sample.

Table 1 shows the distribution of education levels of children by gender. In all samples, it is seen that there are more girls than boys who do not graduate from any school. In addition, children were mostly finished primary school. The proportion of non-graduates from any school is increasing in the transition from primary to secondary education regardless of gender.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

Table 1. *Education Levels by Gender.*

Primary Education (Eight Years) Age 14-17		
Education Level	**Girl (%)**	**Boy (%)**
Did not graduate from any school	8.25	3.27
Primary school	54.36	57.28
Finished primary education	37.39	39.45
Secondary Education (High School) Age 18-20		
Did not graduate from any school	11.39	7.59
Finished primary education	48.43	55.42
Finished secondary education	40.19	36.98

Source: All the data are gathered from World Development Indicators (WDI) database.

ESTIMATION RESULTS

According to the results in Annex Table 2, education level of mother and father is among the most important determinants of primary education claim. These variables are statistically significant in the samples in which primary school demand is examined have a positive effect on primary school demand. In the model in which the demand for primary education for girls is examined, variables such as the number of the parents, the number of the rooms of the mother and the father, the number of the rooms and the household characteristics and the siblings of the child are statistically significant. Household expenditure positively affects primary education demand. The education level of the parents is also significant in the model in which the demand for primary education is examined. The fact that the father is unemployed by his / her parent characteristics does not have any significant effect on the household demand, the household income, the number of households, the household type, the type of household and the primary education requirement of the child's brother.

If we look at the marginal effects of the primary education requirement in Annex Table 3, the education level of the mother and the father for girls is very important. For example, the probability of a girl completing primary education is 21% for parents and college graduates. The probability of a male child completing primary education is 14% for parents and university graduates. In general, the fact that your father is educated on the primary education request has greater influence than the mother is educated. This result is not surprising for a developing country like Turkey, which has a patriarchal family structure. The marginal effects of a mother's and father's education when the girl completes her primary education are higher than those of the boy's completion of primary education. This result, which is consistent with the available literature (see Tansel (2002) and Kilic (2012)), is linked to two factors: low educational level families may be living in areas where they are obstructed by girls 'education, or these families may be unaware of the social value of girls' education. The factor that most influences the probability of a girl completing primary education is the education level of her father. The fact that the mother is a primary school, junior high school and high school graduate has an effect on the likelihood of girls completing primary education. It seems that the fact that her mother is a university graduate has greatly increased her willingness to read girls.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

Looking at the employment situation, there is no significant effect on the probability that the mother is unemployed or paid worker, but the possibility of the boy finishing primary education is increased by 6% if the mother is unemployed or paid. While being a paid worker has no significant effect on the probability of completing her primary education, she negatively affects the likelihood of completing her primary education. This can be attributed to the fact that the gap between the minimum wage and the poverty line is quite high. A father and a son working at a minimum wage, to work in business. The opportunity cost of studying a male child who can make income for a child can be quite high for a paid father. The fact that parents work in their own accounts in agriculture is significant in all samples; but the fact that the mother works on her own in agriculture raises the likelihood of completing her primary education without any gender by about 6-8%, reducing the father's own working in agriculture by about 3-5%. This can be explained by the increase in the ability of a mother working in agriculture to read the child, and the tendency of the father to direct the child to work in agriculture.

Looking at the household characteristics, the probability of girls' finishing primary education increases by 7% as household expenditure increases. The positive relationship between expenditure and educational demand is one of the consistent results in the literature. As the number of inhabitants increases, the probability of completing the primary education of the girl is 2.9%. This result can be explained by the fact that the girls are directed to domestic affairs. Household spending and the number of people living in the household are statistically insignificant when the boy completes primary education. Girls living in large families are 8% more likely to finish primary education than those living in large families.

According to Annex Table 4, where the ordered probit model estimation results for secondary education are included, it is seen that the educational level of parents is the most important factor determining education demand. Household characteristics were statistically significant except for the siblings for girls. In the sample for male children, it is insignificant to be living in a large family and being a brother from household characteristics. The number of people in the household affects the education demand of the girl especially at a very high level.

Annex Table 5 shows marginal effects for secondary school children and boys. The level of education of the father has a greater influence on the likelihood of children completing the school than the educational level of the mother. The level of education of the father is generally regarded as a direct measure of the level of income and influences the child's educational demand through income. The level of education of the mother has a direct effect on the personality traits and abilities of the child and refers to the labor that is spent in the child's work (King and Lillard, 1983). While the mother's university graduation increases the likelihood of the girl completing secondary education by 12%, the boy increases the likelihood of completing secondary education by 24%. Whatever the level of education of the mother, the girl has more influence over the possibility of the child completing secondary education than the completion of the male child. The level of education of the father is more influential than the level of education of the mother when the boy completes secondary education.

For girls, the unemployment of the mother increases the likelihood of completing secondary education. It may seem that the mother who does not

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

work is motivated to send the child to school and at the same time, it may not be seen as an individual (girl child) who can be employed at home after the girl has passed the elementary education threshold. The fact that the father is unemployed, on the contrary, reduces the probability of the girl child finishing secondary school, this situation can be interpreted as the fact that for the unemployed father, the education costs of the girl child in the age of secondary school is heavy, or under these circumstances, education for the girl child at the primary education level may be sufficient. When a mother is a paid worker, the probability of the girl completing secondary education increase by 21% with the consciousness of being put into business life. The fact that the mother is unemployed for boys does not have a significant effect on educational demand. The fact that the father is a paid worker increases the probability of a boy finishing secondary education by 6.8%. The wage worker variant, which had a negative effect on the possibility of completing the primary education of the boy when the primary education request was examined, was explained by directing the child to marginal jobs. At the completion of secondary education, there is no such orientation for a child between the ages of 18-20.

The fact that the mother works on her own in agriculture is insignificant on the possibility of the girl finishing secondary school. The fact that your father works on his own in agriculture reduces the chances of the girl finishing secondary education by 9%. This can be explained by the support of the girls' families as unpaid family workers in an agricultural laborer's family, as described by Rankin and Aytac (2006). For male children, these variables are statistically insignificant.

According to the household characteristics, the probability of finishing secondary education is 7% and the possibility of finishing secondary education is 36% when the household expenditure is increased. Increasing the likelihood of household spending being educated is an indication of the increase in household income. The number of people in the household reduces the chances of completing secondary education regardless of gender. Especially for girls, the reduction effect is higher, which can be explained by the fact that girls are working at home in crowded families. While housekeeping and the number of rooms in the home do not have a significant impact on compulsory primary schooling, girls are increasing the likelihood of finishing secondary education. This can be explained by the higher education costs of children at secondary level and the financial support of their families by the state or various institutions during eight years of compulsory education. Such support at the secondary school level may decline greatly, which may make the demand for education dependent on the wealth of the families.

CONCLUSION

According to the results of the 2014 Household Budget Survey prepared by TURKSTAT, the factors affecting the demand of primary and secondary education in Turkey were examined by gender. Four separate samples for girls and boys between the ages of 14-17 for elementary school students and boys and girls between the ages of 18-20 for secondary education were created. The socio-economic and cultural factors affecting the child's educational status are independent variables, which are education, employment status, home ownership, sibling presence of the child, household expenditure, number of people living in the household, number of rooms in the

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

house and living as a large family member of the child. The educational status dependent variable was conducted from the predictors of the ordered probit model, since it was more than one categorical in the ordered form. The probability effects on the educational status of the independent variables are interpreted as follows from the estimators explaining the marginal effects.

Without gender discrimination, the most important determinants of primary and secondary demand are the education level of parents. When the effect of the education level of the parents is compared, the level of education of the father mainly has a great influence on the educational demands. This results in the generational dimension of the level of education and the need to raise the level of education for future generations. Therefore, it imposes the responsibility to establish social peace by abolishing the obligation to invest in human beings and discriminatory approaches.

When the factors determining primary and secondary education demand are compared in general, the employment situation of mother and father for primary education request is mostly unchanged and it is meaningless in terms of model findings. Again, since the primary education is implemented as compulsory education for eight years, the income level of the family is ineffective on educational demands. The fact that the household is the homeowner and the wealth figures expressed by the number of rooms in the house are generally meaningless, show the ineffectiveness of the financial situation for the primary education request.

In the case of secondary education, it is seen that both the employment status and the wealth indicators are effective. When evaluated in terms of agricultural efficiency, it is seen that primary school students are affected because they work for their own account in agriculture and this effect is not observed in secondary school. This can be a factor for a self-employed father in agriculture to reduce the likelihood of finishing primary education by directing their children to work in agriculture. Policy makers and decision-makers have important tasks when we consider the need to identify children who work as unpaid family workers in agriculture to prevent this, and that these children should be directed to education.

From the point of view of the household characteristics, it is seen that the number of people living in the dwelling reduces the demand for education without regard to gender and primary and secondary education demands. In crowded families, it is noteworthy that girls are seen as helping households, while boys are regarded as individuals who provide additional income to the crowded family. In this case, it is necessary to develop support policies for educating children living in crowded families.

If the results of this study are compared with the results of Kilic's (2012) study, especially in terms of method similarity, predictors were obtained in accordance with expectations in terms of gender education determinants in Turkey. However, no comparison was made in this area due to lack of regional data in the 2014 TURKSTAT Household Budget Survey. The results of this study are also consistent with the literature. In summary, according to the descriptive and model estimation results of this study; The most important development is that the increase in the proportion of secondary education in girls is more than the increase in the proportion of boys in secondary education. This result can be considered to be the most important sign of the decrease of the negative factors lead-

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

ing to the social and cultural conflicts arising from the gender difference in education in the mid-term. Indeed, if we take into account the transformation process of the closed glance that has emerged in recent years from the gender differences and the causes of the active questioning of women's traditional cultural subjects (the subject of sociology), it is very important to participate in the work life, including the public sphere. The improvement of the educational orientation of girls by gender differences can be considered a key indicator supporting the efforts of women to broaden their freedom of expression and to synthesize traditional culture and modern lifestyle. This can be interpreted as a gradual decrease in the potential loss of human capital in the country and a positive development in socio-psychological change in society.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

REFERENCES

Dayioglu, Meltem, Murat G. Kidar and Aysit Tansel (2009). "Impact of Sibship Size, Birth Order and Sex Composition on School Enrolment in Urban Turkey". *Oxford Bulletin of Economics and Statistics* 71(3): 399-426.

Greene, William H. (2002). *Econometric Analysis*. Upper Saddle River, New Jersey, United States: Prentice Hall, 5th Edition.

Kilic, Dilek (2012). *Empirical Analysis of Health and Educational Attainment in Turkey*. Doctoral Thesis, Sheffield, UK, University of Sheffield for the Degree of Doctor of Philosophy in the Department of Economics.

King, Elizabeth M. and Lee A. Lillard (1983). *Determinants of Schooling Attainment and Enrolment Rates in the Philippines*. RAND Santa Monica, CA 90406.

Rankin, Bruce H. and Isik A. Aytac, (2006). "Gender Inequality in Schooling: The Case of Turkey". *Sociology of Education* 79(1): 25-43.

Smits, Jeroen and Ayse G. Hosgor, (2006). "Effects of Family Background Characteristics on Educational Participation in Turkey". *International Journal of Educational Development* 26(5): 545-560.

Tansel, Aysit (2002). "Determinants of School Attainment of Boys and Girls in Turkey: Individual, Household and Community Factors". *Economics of Education Review* 21(5): 455-470.

Tansel, Aysit (1997). "Schooling Attainment, Parental Education and Gender in Cote d'Ivoire and Ghana". *Economic Development and Cultural Change* 45(4): 825-856.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

APPENDICES

ANNEX Table-1

Continuous Variables				
	Primary Education (eight years) Age 14-17		**Secondary Education (High School) Age 18-20**	
Variables	**Girl**	**Boy**	**Girl**	**Boy**
Household Expenditure (Log)				
(St. Dev.)	.2708	.2438	.2503	.2375
(Min.)	2.001	2.391	2.6231	2.8347
(Max.)	4.596	4.151	4.2890	4.4457
The Number of People Living in the Household				
(St. Dev.)	2.3387	2.6754	2.7657	2.5194
(Min.)	3	3	3	3
(Max.)	25	25	16	16
The Number of Rooms				
(St. Dev.)	.9194	.9652	.9012	.8438
(Min.)	1	1	1	1
(Max.)	11	11	9	8
Categorical Variables (Percent)				
Educational Status of Father				
No educational qualification	9.36	9.49	13.04	14.87
Primary school (5 years)	49.39	54.85	54.48	58.05
Primary school (8 years)	11.16	13.36	13.48	10.88
Secondary school	16.12	13.13	12.11	11.33
University	13.97	9.17	6.89	4.87
Educational Status of Mother				
No educational qualification	28.59	33.25	38.78	40.69
Primary school (5 years)	47.01	50.08	48.28	47.97
Primary school (8 years)	5.24	6.06	4.39	4.21
Secondary school	11.24	7.21	6.45	5.04
University	7.92	3.40	2.10	2.09
Employment Status of Father				
Unemployed	21.22	12.64	16.82	17.38
Paid	39.47	47.25	39.10	40.12
Owner	39.31	40.11	44.08	42.5
Employment Status of Mother				
Unemployed	67.98	63.82	64.12	61.87
Paid	4.99	5.82	5.48	6.01
for	27.03	30.36	30.4	32.12
Mother Works for Her Own Account in Agriculture				
Yes	14.30	17.85	19.46	21.69
No	85.70	82.15	80.54	78.31
Father Works for His Own Account in Agriculture				
Yes	16.01	17.96	19.75	21.58
No	83.99	82.04	80.25	78.42
Home Ownership				
Yes	62.8	66.63	71.51	72.12
No	37.2	33.37	28.49	27.88
Large Family				
Yes	24	21.8	28.23	28.40
No	76	78.2	71.77	71.60
Sibling Presence (Age 0-5)				
Yes	9.17	4.75	4.35	4.10
No	90.83	95.25	95.65	95.90

Source: All the data are gathered from World Development Indicators (WDI) database.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

ANNEX Table-2

Primary Education Demand Estimation Results for the Ordered Probit Model		
Dependent Variable: Education Status		
Independent Variables	**Girl**	**Boy**
Parental Characteristics		
Father primary (5 years) school graduate	.4970*** (.0529)	.2749*** (.0586)
Father primary (8 years) school graduate	.6583*** (.0670)	.2993*** (.0727)
Father secondary school graduate	.5223*** (.0713)	.2934*** (.0758)
Father university graduate	.5217*** (.0847)	.3574*** (.0906)
Mother primary (5 years) school graduate	.2610*** (.0395)	.1903*** (.0421)
Mother primary (8 years) school graduate	.2606*** (.0743)	.3972*** (.0784)
Mother secondary school graduate	.3192*** (.0769)	.3413*** (.0790)
Mother university graduate	.5258*** (.1146)	.3756*** (.1147)
Father unemployed	.0876 (.0566)	.0238 (.0591)
Father paid	-.0211 (.0403)	-.0697* (.0421)
Mother unemployed	.0071 (.0749)	.1807*** (.0735)
Mother paid	-.0446 (.0771)	.1543*** (.0759)
Mother works for her own account in agriculture	.2343** (.0800)	.1552** (.0795)
Father works for his own account in agriculture	-.0974* (.0551)	-.1526*** (.0593)
Household Characteristics		
Household expenditure (Log)	.1628** (.0721)	.0007 (.0737)
The number of people living in the household	-.0785*** (.0075)	-.0017 (.0080)
Homeownership	.0077 (.0345)	.0288 (.0362)
The number of rooms in house	-.0210 (.0182)	.0937*** (.0183)
Living in large family	.2261*** (.0415)	.0358 (.0430)
Sibling presence (age 0-5)	.0865 (.0618)	.0223 (.0746)
_cut1	-.8055	-1.0610
_cut2	1.067	1.1541
Log-likelihood	-5310.71	-4568.79
Pseudo R squared	0.054	0.022
LR chi2 (20)	606.09	205.33
N	6238	5912

Source: All the data are gathered from World Development Indicators (WDI) database.

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

ANNEX Table-3

Marginal Effects for Primary Education Demand						
Dependent Variable: Education Status						
	Girl			**Boy**		
Independent Variables	Did not graduate from any school	Primary school student	Finished primary education	Did not graduate from any school	Primary school student	Finished primary education
Parental Characteristics						
Father primary (5 years) school graduate	-.0657*** (.0077)	-.1171*** (.0119)	.1829*** (.0188)	-.0172*** (.0039)	-.0876*** (.0184)	.1049*** (.0221)
Father primary (8 years) school graduate	-.0568*** (.0043)	-.1998*** (.0224)	.2566*** (.0258)	-.0147*** (.003)	-.1026*** (.0260)	.1173*** (.0288)
Father secondary school graduate	-.0476*** (.0048)	-.1563*** (.0237)	.2040*** (.0280)	-.0145*** (.0031)	-.1005*** (.0271)	.1150*** (.0300)
Father university graduate	-.0465*** (.0054)	-.1575*** (.0284)	.2041*** (.0333)	-.0164*** (.0032)	-.1242*** (.0329)	.1407*** (.0359)
Mother primary (5 years) school graduate	-.0327*** (.0051)	-.0650*** (.0099)	.0977*** (.0148)	-.0115*** (.0026)	-.0614*** (.0136)	.0730*** (.0161)
Mother primary (8 years) school graduate	-.0271*** (.0064)	-.0738*** (.0231)	.1009*** (.0294)	-.0172*** (.0025)	-.01393*** (.0288)	.1566*** (.0310)
Mother secondary school graduate	-.0319*** (.0061)	-.0922*** (.0246)	.1241*** (.0305)	-.0156*** (.0028)	-.0118*** (.0288)	.1344*** (.0314)
Mother university graduate	-.0445*** (.0062)	-.1619*** (.0392)	.2064*** (.0450)	-.0162*** (.0035)	-.1319*** (.0422)	.1482*** (.0455)
Father unemployed	-.0103 (.0063)	-.0229 (.0153)	.0332 (.0217)	-.0014 (.0034)	-.0077 (.0193)	.0091 (.0228)
Father paid	.0026 (.005)	.0053 (.0107)	-.0079 (.0151)	.0042* (.0025)	.0226* (.0136)	-.0268* (.0162)
Mother unemployed	-.0008 (.0093)	-.0018 (.0188)	.0026 (.0281)	-.0115** (.0049)	-.0573** (.0228)	.0688** (.0277)
Mother paid	.0056 (.0100)	.0110 (.0186)	-.0166 (.0286)	-.0084** (.0037)	-.0515** (.0261)	.0600** (.0298)
Mother works for her own account in agriculture	-.0261*** (.0080)	-.0636*** (.0232)	.0898*** (.0311)	-.0085** (.0040)	-.0517** (.0272)	.0603** (.0312)
Father works for his own account in agriculture	.0126* (.0075)	.0235* (.0127)	-.0362* (.0202)	.0101** (.0042)	.0475*** (.0170)	-.0577*** (.0211)
Household Characteristics						
Household expenditure (Log)	-.0202** (.0089)	-.0409** (.0181)	.0612** (.0271)	.0000 (.0044)	.0002 (.0238)	-.0002 (.0283)
The number of people living in the household	.0097*** (.0009)	.0197*** (.0019)	-.0295*** (.0028)	.0001 (.0004)	.0005 (.0026)	-.0006 (.0030)
Homeownership	-.0009 (.0043)	-.0019 (.0086)	.0029 (.0129)	-.0017 (.0022)	-.0092 (.0116)	.0110 (.0138)
The number of rooms in house	.0026 (.0027)	.0052 (.0046)	-.0079 (.0068)	-.0056*** (.0011)	-.0303*** (.0059)	.0360*** (.0070)

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

Table 3 continued

Living in large family	-.0256*** (.0043)	-.0607*** (.0118)	.0864*** (.0160)	-.0021 (.0025)	-.0116 (.0141)	.0138 (.0166)
Sibling presence (age 0-5)	-.0101 (.0068)	-.0227 (.0167)	.0329 (.0237)	-.0013 (.0043)	-.0072 (.0244)	.0086 (.0288)

Source: All the data are gathered from World Development Indicators (WDI) database.

ANNEX Table-4

Secondary Education Demand Estimation Results for the Ordered Probit Model		
Dependent Variable: Education Status		
Independent Variables	**Girl**	**Boy**
Parental Characteristics		
Father primary (5 years) school graduate	.5649*** (.0774)	.3689*** (.0723)
Father primary (8 years) school graduate	.7865*** (.1006)	.7443*** (.1025)
Father secondary school graduate	.9376*** (.1126)	.9607*** (.1056)
Father university graduate	1.014*** (.1553)	1.350*** (.1661)
Mother primary (5 years) school graduate	.5439*** (.0624)	.3163*** (.0602)
Mother primary (8 years) school graduate	.5007*** (.1293)	.3460*** (.1308)
Mother secondary school graduate	.7484*** (.1433)	.6444*** (.1375)
Mother university graduate	.3108 (.2224)	.6362*** (.2404)
Father unemployed	-.2995*** (.0831)	.1807** (.0812)
Father paid	-.0514 (.0641)	.2314*** (.0627)
Mother unemployed	.3544*** (.1256)	-.0982 (.1341)
Mother paid	.5210*** (.1258)	-.6011*** (.1314)
Mother works for her own account in agriculture	-.0898 (.1304)	-.0105 (.1328)
Father works for his own account in agriculture	-.2553*** (.0851)	.1254 (.0767)
Household Characteristics		
Household expenditure (Log)	.1993* (.1105)	.9863*** (.1122)
The number of people living in the household	-.1820*** (.0122)	-.0858*** (.0126)
Homeownership	.2233*** (.0581)	-.1262** (.0584)
The number of rooms in house	.0762*** (.0299)	.0550* (.0294)
Living in large family	.4892*** (.0668)	-.0623 (.0598)

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

Table 4 continued

Sibling presence (age 0-5)	-.1036 (.1151)	-.0019 (.0115)
_cut1	-.4119	1.8438
_cut2	1.5602	4.0025
Log-Likelihood	-2088.11	-2135.13
Pseudo R squared	0.2227	0.1661
LR chi2 (20)	1196.70	850.45
N	2759	2877

Source: All the data are gathered from World Development Indicators (WDI) database.

ANNEX Table-5

Marginal Effects for Secondary Education Demand						
Dependent Variable: Education Status						
	Girl			**Boy**		
Independent Variables	Did not graduate from any school	Finished primary education	Finished secondary education	Did not graduate from any school	Finished primary education	Finished secondary education
Parental Characteristics						
Father primary (5 years) school graduate	-.0670*** (.0103)	-.1385*** (.0182)	.2055*** (.0271)	-.0323*** (.0069)	-.1022*** (.0193)	.1346*** (.0257)
Father primary (8 years) school graduate	-.0568*** (.0057)	-.2478*** (.0342)	.3047*** (.0379)	-.0375*** (.0040)	-.2515*** (.0365)	.2891*** (.0390)
Father secondary school graduate	-.0614*** (.0057)	-.2992*** (.0374)	.3607*** (.0405)	-.0433*** (.0041)	-.3257*** (.0359)	.3690*** (.0377)
Father university graduate	-.0580*** (.0055)	-.3292*** (.0500)	.3873*** (.0530)	-.0423*** (.0038)	-.4469*** (.0440)	.4893*** (.0448)
Mother primary (5 years) school graduate	-.0610*** (.0076)	-.1395*** (.0164)	.2006*** (.0225)	-.0259*** (.00519)	-.0912*** (.0175)	.1172*** (.0222)
Mother primary (8 years) school graduate	-.0388*** (.0068)	-.1567*** (.0450)	.1955*** (.0511)	-.0214*** (.0060)	-.1125** (.0461)	.1340*** (.0519)
Mother secondary school graduate	-.0501*** (.0060)	-.2412*** (.0496)	.2913*** (.0541)	-.0320*** (.0043)	-.2196** (.0499)	.2517*** (.0532)
Mother university graduate	-.0273* (.0149)	-.0930 (.0736)	.1203 (.0883)	-.0306*** (.0061)	-.2182** (.0875)	.2488*** (.0930)
Father unemployed	.0392*** (.0127)	.0671*** (.0157)	-.1063*** (.0279)	-.0133** (.0054)	-.0549** (.0258)	.0683** (.0312)
Father paid	.0057 (.0072)	.0133 (.0165)	-.0191 (.0237)	-.0190*** (.0052)	-.0667*** (.0181)	.0857*** (.0231)
Mother unemployed	-.0431*** (.0168)	-.0853*** (.0277)	.1284*** (.0442)	.0079 (.0106)	.0286 (.0395)	-.0365 (.0501)
Mother paid	-.0439*** (.0082)	-.1576*** (.0418)	.2016*** (.0493)	.0712*** (.0213)	.1286*** (.0177)	-.1998*** (.0377)

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

Table 5 continued

Mother works for her own account in agriculture	.0104 (.0159)	.0225 (.0314)	-.0330 (.0473)	.0008 (.0110)	.0030 (.0381)	-.0039 (.0491)
Father works for his own account in agriculture	.0323*** (.0121)	.0593*** (.0175)	-.0916*** (.0293)	-.0096* (.0055)	-.0374 (.0236)	.0471 (.0291)
Household Characteristics						
Household expenditure (Log)	-.0222* (.0124)	-.0517* (.0288)	.0740* (.0410)	-.0810*** (.0104)	-.2848*** (.0338)	.3659*** (.0416)
The number of people living in the household	.0203*** (.0017)	.0472*** (.0037)	-.0676*** (.0045)	.0070*** (.0011)	.0247*** (.0037)	-.0318*** (.0046)
Homeownership	-.0270*** (.0077)	-.0542*** (.0132)	.0812*** (.0206)	.0098** (.0043)	.0373** (.0177)	-.0472** (.0220)
The number of rooms in house	-.0085*** (.0038)	-.0198*** (.0078)	.0283*** (.0111)	-.0045* (.0024)	-.0159* (.0085)	.0204* (.0109)
Living in large family	-.0467*** (.0060)	-.1396*** (.0207)	.1864*** (.0256)	.0052 (.0051)	.0177 (.0168)	-.0230 (.0219)
Sibling presence (age 0-5)	.0124 (.0149)	.0252 (.0262)	-.0377 (.0411)	.0001 (.0095)	.0005 (.0332)	-.0007 (.0421)

Source: All the data are gathered from World Development Indicators (WDI) database.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

POLITICAL STABILITY AND ECONOMIC DEVELOPMENT IN TURKIC COUNCIL: A DYNAMIC PANEL DATA ANALYSIS

Ilhan EGE*

ABSTRACT

Many studies have examined the relation between political stability and economic performance. Despite the long-lasting academic debate on this issue, there is no consensus on this relation. Political instability which is defined as the deviations from normal pattern or a change or challenge to the current political governance and economic growth are mainly interrelated. Many empirical studies show that weak economic performance is likely to deteriorate the political decision making process and may lead to emergence of macroeconomic imbalances. The aim of this paper is to examine the causal association between economic development and political stability by employing panel data analysis for members of Turkic council (Azerbaijan, Kazakhstan, Kyrgyzstan and Turkey) for the period 2005-2014. Since there are not many econometric studies to analyze the relation between political stability and economic performance of Turkic nations, this study contributes to the limited literature.

Key Words: Turkic council, political stability, economic development, panel data analysis, governance.

* Assoc. Prof., Mersin University, Department of Economics and Administrative Sciences, Mersin 33110, Turkey, e-mail: ilhanege2005@hotmail.com

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

INTRODUCTION

Political stability is accepted to be one of the main factors affecting economic growth. Political instability, institutional weakness play major roles in formulating the public policies which may in turn stimulate economic performance.

Political stability is accepted to a quite complicated notion. It is widely argued that political stability consists of unexpected and regular political power shifts (Jaouadi et al. 2014: 20). It is argued that political stability and economic performance are reciprocally related. In this manner, political stability is sometimes the outcome, and sometimes the source of economic performance (Feng, 1997: 2). It is known that political instability may cause poor economic performance by preventing effective economic decisions and deteriorating the investment climate (Alesina et al. 2006: 191). It is argued that political instability may cause investors to avoid making investments and entrepreneurs to hesitate to going into new projects which in turn hamper the economic performance (Zablotsky, 1996). In this respect, political instability give harm to the economic performance. On the contrary, poor economic performance may generate political instability since lower economic performance of country may decrease the confidence to the policy makers (Alesina et al. 1996: 191). It is also shown that political instability may increase the use of seigniorage which in turn result in higher inflation and poor economic performance (Aisen and Veiga, 2008).

Two different hypothesis are developed for explaining the effects of economic performance on political stability. The first is "good growth hypothesis" which argues that increasing economic growth leads to recovering contents towards regimes and public policies through the channel of growing income per capita. The second is the "destabilizing growth hypothesis" which asserts that increasing economic growth causes complicated shifts in social structure which in turn results in political instability (Paldam, 1998: 171).

Besides these arguments it also seen that many countries achieve higher growth rates within unstable political environment. Many Central and Eastern European (CEE) transition countries experienced higher growth rates frequent government changes (Kouba and Grochová, 2011: 305). In this manner, it is seen that the relation between political stability and economic performance is ambiguous. The aim of the analyses is to examine the long-run relation between economic performance and political stability.

The applied model in this study is tested against data covering three countries for the period 1999-2013. The remainder of this study is organized as follows. Section I reviews the literature for the relation between political stability and economic performance. Section II gives information about the data used in this study and outlines its methodology. Section III presents the results of the dynamic panel data analysis. Section IV provides conclusions and policy implications.

LITERATURE REVIEW

Though there is a vast literature on the relation between political stability and economic performance, there is no common point of view. As one of the earliest studies, Barro (1991) examined the relation between economic growth and political stability for 98 countries for the period 1960-1985. He reports a negative association between economic growth and political in-

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

stability.

Fosu (1992) examines this relation for 31 Sub-Saharan African countries for the 1956-85 period, and report that political instability reduce the GDP growth by 33% on average of the Sub-Saharan African countries. Examining the Sub-Saharan African countries with the simultaneous equations and dynamic panel estimation approaches, Gyimah and Traynor (1999) find that political instability lead to the lower growth rates via the transmission channel of lower capital formation.

Alesina et al. (1996) examine the relation for 113 countries for the time period 1950-1982, and find that political instability give harm to the economic performance. It is found in this study that economic performance of the countries where political environment is unstable is lower than that of in other countries.

Using the data of 100 countries for the time period between 1960 and 1999, Aisen and Veiga (2006) find that political stability is associated with poor economic performance. Examining the relation between political instability and the economic performance of United Kingdom for the time period between 1961 and 1997, Asteriou and Price (2001) report political instability has negative effects on economic performance. In particular, it is found that political instability reduces economic performance. They also find that political stability also cause an increase in the ambiguity of the expected growth rates.

Ozler and Tabellini (1991) examine the relation between political instability and external debt and conclude that political stability results in higher external financing for the developing countries analyzed for the time period 1972-1981. Examining the cross section of 79 countries, Cukierman et al. (1992) report that inflation is positively related to the economic instability. In particular, political instability induce poor economic performance. Investigating the relation between fiscal policy and budget deficits Roubini (1991) finds that higher levels of political instability generates higher budget deficits in developing countries.

Examining the data of 169 countries procedure for the time between 1960 and 2004 within system GGM estimation, Aisen and Veiga (2010) report negative association between GDP growth and political instability. In particular, they conclude that political instability reduces GDP growth via decreasing productivity growth and intellectual capital formation. The common point of the many of the above studies is that they find unidirectional causality running from economic performance to political stability. In other words, they report that good economic performance cause political stability. However, they could not find significant causality from political stability to economic performance. Contrary to the findings of the above studies Zablotsky (1996) reports bidirectional causality between political instability and economic performance. In this manner, not only political instability cause poor economic performance but also lower growth rates induce political instability.

On the other hand, there are also studies reporting no significant relation between these factors. As one of these studies, using the data of 25 developed and developing countries for the time period 1985-2002, Zureiqat (2005) finds no supportive finding for the bidirectional causality association between economic performance and political stability. Okafor (2015) examined the impact of political stability in Economic Community of West African States (ECOWAS) using the fixed effects and generalized method of mo-

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

ments panel data approaches for the period 2005–2012, and find that poor governance is negatively related to the economic growth in these countries.

Using different measures of political stability Qureshi et al. (2010) report negative association between political instability and economic performance. They argue that political instability causes reductions in investment and export which in turn result in poor economic performance. Though majority of the studies aforementioned above induce negative relation between political instability and economic growth, there are also some studies reporting positive association between political instability and economic growth. As one of these studies, Younis et al. (2008) find that political instability boot the economic growth. Similarly, Ahmed and Pulok (2013) conclude that political instability give harm to the economics growth in the long term whereas, contribute to the economic performance in the short run.

DATA AND METHODOLOGY

In this study, we use three different measures of political stability for the time period between 2005-2014. We use government effectiveness (GE) and rule of law (RL) for the measures of political stability. In addition, we also calculate the political instability measure (PI) using the data of absence of violence/terrorism. All the data are gathered from World Development Indicators (WDI) database. We use GDP per capita as the measure of economic performance. GDP data is also obtained from WDI database. Natural logarithms of the all data are used in the analysis. We use a relatively new approach of dynamic panel estimation technique to examine the relationship between political instability and economic performance. It is well known that fixed effect and random effect estimators might be biased due to the endogeneity problem which in turn result in inconsistent estimates. In order to deal with this problem instrumental variables approach or the Generalized Method of Moments (GMM) estimation procedure is developed (Arellano and Bond, 1991; Arellano and Bover, 1995; Blundell and Bond, 1998). It is possible to start with the error components model with the equation below:

$$u_{it} = v_i + \varepsilon_{it}$$

(1)

$$GDP_{it} = \alpha_1 GDP_{it-1} + \sum_{k=1}^{n} \beta_{1k} iP_{it-k} + u_{it}$$

It is possible to eliminate the country specific effect by taking the first difference as below;

$$\Delta GDP_{it} = \Delta GDP_{it-1}\alpha_1 + \sum_{k=1}^{n-1} \beta_{1k} \Delta iP_{it-k} + \Delta\varepsilon_{it}$$

Where Δ, P and GDP represents first difference, P political instability and GDP growth, respectively. This approach helps to overcome the problem of unobserved effects.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

EMPIRICAL RESULTS

We estimate the above generalized method of moments (GMM) equation using the Eviews 9 software though the instructions of Arellano and Bond (1991). The results of our estimation are presented in Table 1 below.

Table 1. *Panel Dynamic GMM Estimation of the Dependent Variable (GDP).*

	1		2		3	
	Coeff.	P-value	Coeff.	P-value	Coeff.	P-value
GDP_{t-1}	0.536	0.00	0.607	0.00	0.475	0.00
PI	-0.227	0.02				
GE			0.005	0.93		
RL					0.32	0.00
AR(1)		0.022		0.036		0.035
AR(2)		0.799		0.675		0.792

Source: Authors' estimates.

In the first column of the Table 1, political instability (PI) is the measure used in analysis. In column 2, the measure for political stability is government effectiveness (GE). Finally, in column 3 rule of law (RL) is used to measure the political stability. Columns 1 displays the results when political instability is used as the measure. It is seen that political instability negatively affect economic growth of the Turkic council. This result is consistent for the majority of the relevant studies in literature (Fosu, 1992; Gyimah and Traynor, 1999; Alesina et al., 1996; Aisen and Veiga, 2006; Asteriou and Price, 2001; Aisen and Veiga, 2010). This finding indicates that political instability gives harm to the economic growth in Turkic council.

When government effectiveness is used as the measure of political stability, it is seen that it has a positive significant coefficient indicating a long run positive association between economic growth and political stability. This empirical finding indicates that effectiveness of the governance in Turkic council boosts the economic performance in these countries.

The empirical results presented in column 3 are similar to those in previous columns. The results show that there is a long run positive association between rule of law and economic growth in Turkic council. This implies that that rule of law has positive effects on economic performance. Among the measures of political stability, rule of law is the one that has the highest effect on economic performance. We think that this finding is quite important especially for policy makers.

CONCLUSION

This study re-examines the association between political stability and economic growth in Azerbaijan, Kazakhstan, Kyrgyzstan and Turkey namely the Turkic council for the period 2005-2014. We use three different measures of political stability. In particular, we use the governance effectiveness and rule of law as the measures of political stability. In addition, we calculate the political instability measure using the using the data of absence of violence/terrorism. We use the system GMM approach in order to analyze the

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

dynamic relation between political stability and economic growth. The advantages of this approach are the improved efficiency of the estimates, ability to account for dynamic relationships, and reduced possibility of omitted variables and measurement errors problem (Hsiao, 2007). Using the panel data approach of Arenallo and Bond (1991) we find that political instability hampers economic growth in Turkic council. In addition, it is also shown that effectiveness of governance policies also positively affect the economic performance in these countries. Furthermore, it is seen that there is long run association between rule of law and economic growth in Turkic council. We think that these results are crucial especially for policy makers in Turkic council. Policy makers should take precautions to prevent the rise of political instability to account for the negative effect of political instability on economic performance.

Since it is also shown that rule of law has significantly positive effect on economic performance, policy makers should develop regulations which are clear, publicized and stable. It is shown in this study that well developed rule of law may boost the economies of Turkic council. Finally, the results indicate that effectiveness of the governance has little but significant effect on the economic performance of the council.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

REFERENCES

Ahmedi, Uddin M. and Mohammad H. Pulok (2013). "The Role of Political Stability on Economic Performance: The Case of Bangladesh". *Journal of Economic Cooperation and Development* 34(3): 61-100.

Aisen, Ari and Francisco J. Veiga (2006). "Does Political Instability Lead to Higher Inflation? A Panel Data Analysis". *Journal of Money, Credit, and Banking* 38: 1379–1389.

Aisen, Ari and Francisco J. Veiga (2008). "The Political Economy of Seigniorage". *Journal of Development Economics* 87: 29–50.

Aisen, Ari and Francisco J. Veiga (2013). "How Does Political Instability Affect Economic Growth?". *European Journal of Political Economy* 29: 151–167.

Arellano, Manuel and Stephan Bond (1991). "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations". *Review of Economic Studies* 58: 277-298.

Arellano, Manuel and Olympia Bover (1995). "Another Look at the Instrumental Variable Estimation of Error-Components Models". *Journal of Econometrics* 68: 29-51.

Asteriou, Dimitrios and Simon Price (2001). "Political Instability and Economic Growth: UK Time Series Evidence". *Scottish Journal of Political Economy* 48(4): 1-24.

Barro, Robert J. (1991). "Economic Growth in a Cross Section of Countries". *The Quarterly Journal of Economics* 106(2): 407-443.

Blundell, Richard and Stephen Bond (1998). "Initial Conditions and Moment Restrictions in Dynamic Panel Data Models". *Journal of Econometrics* 87: 115-143.

Cukierman, Alex, Sebastian Edwards and Guido Tabellini (1992). "Seigniorage and Political Instability". *The American Economic Review* 82(3): 537-555.

Feng, Yi (1997). "Political Stability and Economic Growth". *British Journal of Political Science* 27(3): 391-418.

Fosu, Augustin K. (1992). "Political Instability and Economic Growth: Evidence from Sub-Saharan Africa". *Economic Development and Cultural Change* 40(4): 829–841.

Gyimah-Brempong, Kwabena and Thomas Traynor (1999). "Political Instability, Investment, and Economic Growth in Sub-Saharan Africa". *Journal of African Economies* 8(1): 52–86.

Hsiao, Cheng (2007). "Panel Data Analysis-Advantages and Challenges". *Sociedad de Estadística e Investigación Operativa* 16(1): 1-22.

Jaouadi Said, Lumia Arfaoui and Azza Ziedi (2014). "Political Instability and Growth: Case of the Developing Countries". *International Journal of Social Science Research* 2(1): 19-28.

Kouba, Ludek and Ladislava Grochova (2011). "Financial Crisis, Political Instability and Economic Growth". Working Paper.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

Godwin: Muhammad, Younis, Xu Xiao Lin, Yahua Sharahili and Selvarathinam Santhirasegaram (2008). "Political Stability and Economic Growth in Asia". American Journal of Applied Sciences 5(3): 203–208.

Okafor, Godwin (2015). "The Impact of Political Instability on the Economic Growth of Ecowas Member Countries". *Defence and Peace Economics* 28(2): 1-22.

Ozler, Sule and Tabellini Guido (1991). "External Debt and Political Instability". NBER Working Paper No. 3772: 1-44.

Paldam, Martin (1998). "Does Economic Growth Lead to Political Stability?" Borner, Silvio and Paldam, Martin (eds.), *The Political Dimension of Economic Growth*, Macmillan, London: 171 – 190.

Qureshi, Muhammad, Ali K. Naadem and Imran R. Khan (2010). "Political Instability and Economic Development: Pakistan Time-Series Analysis." *International Research Journal of Finance and Economics* 56: 179–192.

Roubini, Nouriel (1991). "Economic and Political Determinants of Budget Deficits in Developing Countries". *Journal of International Money and Finance* 10(1): 49-72.

Zablotsky, Edgardo (1996). "Political Stability and Economic Growth. A Two Way Relation". Universidad del CEMA. CEMA working papers No. 109.

Zureiqat, Hazem and College Macalester (2005). "Political Instability and Economic Performance: A Panel Data Analysis". Working Paper.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

THE POLLUTION HAVEN HYPOTHESIS AND FOREIGN DIRECT INVESTMENTS: EVIDENCE FROM THE CENTRAL ASIAN TURKIC REPUBLICS

Nalan ISIK*

ABSTRACT

In recent years, the Central Asian Turkic Republics have started to become centers of attraction for the foreign direct investments of multinational companies. In the literature, it is a matter of debate whether the relocation of multinational companies with low environmental standards increases environmental pollution associated with foreign direct investments. In this context, this study aims to investigate the relationship between carbon dioxide (CO_2) emissions and foreign direct investments in the Central Asian Turkic Republics. For that purpose, a panel co-integration test was applied to the CO_2 emission rate and foreign direct investment data in six Turkic Republics (Azerbaijan, Kyrgyzstan, Kazakhstan, Turkey, Turkmenistan and Uzbekistan) in the period between 1995-2016. The long-term co-integration coefficients of variables were examined with the panel dynamic least squares method across the panel. The empirical estimation results demonstrate that foreign direct investments and CO_2 emissions have a long-term positive and significant relationship.

Key Words: pollution haven hypothesis, foreign direct investments, Turkic republics, panel data analysis, CO_2 emissions.

* Asist. Prof. Gaziantep University, Osmangazi, University Blv., Gaziantep 27310, Turkey, e-mail: isiknalan@hotmail.com

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

INTRODUCTION

Investments are made in a country on the condition that the country has sufficient savings. If its savings are not sufficient, foreign direct investments (FDIs) are considered an attractive source of financing and investment contribution in order to ensure the inflow of foreign currency with export and production increase in the host country, enable technology transfer, provide employment and transfer new management information to the host country (Weigel, 1997: 12-13). Historically, the liberalization of international trade has triggered the removal of capital controls between countries. According to the World Investment Report 1991, global FDIs grew three times as much as global trade and twice as much as the global gross national product between the years 1983–1989 (World Investment Report, 1991: 4). Up until the 2008 global crisis, FDIs continued to grow thanks to reasons such as globalization, technological innovations, steady economic growth rates, ease of financing, the increasing number of multinational companies and their search for new markets, and increased company values due to mergers. Global FDIs, which were worth USD 53.3 billion in 1985, reached a value of USD 1.8 trillion in 2007. Following the global financial crisis of 2008, the shrinkage of the world economy also had an impact on FDIs. According to the World Investment Report 2017, global FDIs were worth USD 1.7 trillion in 2016 (World Investment Report, 2017: 4).

Even though it falls behind the mobility seen before the global crisis of 2008, today FDI still seems to be a mandatory choice for developing countries which have structural bottlenecks, suffer undercapitalization or are trying to make economic reforms in order to comply with the market economy. However, free movement of capital through the liberalization of trade brings about environmental problems. CO_2 and greenhouse gas emissions are the most significant causes of global warming and climate change. Originating with the industrial revolution and continuing to rapidly rise today, CO_2 emissions increase in relation to the production of sectors that cause pollution in the manufacturing industry (Mi et al., 2015: 455). Within this framework, the fact that the production activities of FDIs in host countries increase greenhouse emissions and damage the environment and thus biological diversity has been frequently discussed in the literature lately. In developing countries, new international regulations are being agreed to and environmental protection standards are being raised with the increased sensitivity to environmental pollution. In such cases, the costs for multinational companies also increase as they become obliged to fulfill their production without harming the environment and they lose their competitive edge. Thus, FDIs are turning away from the developed countries which enforce strict environmental regulations towards the developing countries that have less strict environmental regulations (Taylor, 2004: 2-3). In consequence, the developing countries which desire to enhance their production have become havens of the sectors that cause environmental pollution in the world due to FDIs. In the economic literature, this situation is defined as the "pollution haven hypothesis". According to the pollution haven hypothesis, it is alleged that the more the amount of foreign direct investments increase, the more carbon emissions will increase.

Pollution haven hypothesis is three-dimensional. The first dimension is relocation of the industries causing intense pollution from the developed countries to the developing countries where strict environmental policies and similar policies do not exist, are loose or are not enforced. The second dimension is disposal of hazardous waste produced (industrial and nuclear energy generation) in the developed countries into the developing ones.

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

And the last dimension is the extraction by multinational companies of non-renewable natural resources, such as oil and petroleum products, lumber and other forest resources, etc. without any restrictions in the developing countries (Siebert et al., 1980: 6). These dimensions suggest that the host countries requiring foreign investments should make conscious decisions in terms of their environmental policy and support such decisions via technological implementations.

Empirical studies have tested the pollution haven hypothesis on Turkey alone or alongside other country groups; however, the lack of research involving the Central Asian Turkic Republics and the investment need in this area through economic progress in recent years have encouraged us to focus on this region as a subject. The Turkic Republics of Azerbaijan, Kyrgyzstan, Kazakhstan, Turkmenistan and Uzbekistan have initiated the process of transition to market economies since the dissolution of the Soviet Union in 1991. From 1995 onward, these country economies started to recover and reached positive growth figures (in spite of negative growth in certain years). Defined by the OECD (1987) as the "magic diamond", the ratios of gross domestic product (GDP) to growth, unemployment, inflation and current deficit develop positively despite imbalances from time to time (Eyuboglu, 2017: 333-335). Additionally, these countries have basic energy resources, such as oil and natural gas, that may encourage FDIs, and they need the investments of foreign countries in order to develop (Tunay, 2017: 178). Having been integrated with the global system through economy policies since 1980, Turkey gained its highest levels of foreign direct investments after the 2000s and then entered a slowdown period with the global crisis of 2008 (Yildiz and Karan, 2016: 129).

In this study, we aimed to investigate the relationship between carbon dioxide (CO_2) emissions and foreign direct investments in Central Asian Turkic Republics. In this context, analyzing whether FDIs cause pollution in the developing Central Asian Turkic Republics or not may provide a projection according to which economic and environmental policies can be made by taking FDIs into account. Within this framework, previous studies on the pollution haven hypothesis will be evaluated after the introduction section. In the second part of the study, the data set and methods used will be explained, while the third part will provide an interpretation of study findings. Finally, the study will be completed with an overall assessment and suggestions.

LITERATURE REVIEW

Empirical and theoretical studies investigating the environmental impacts of foreign direct investments started to increase after the 1990s upon the liberalization of foreign trade and discussions about its potential impacts on the environment. Grosman and Krueger's study (1991), which analyzed the environmental impacts of free trade in North America on 42 countries using the Environmental Kuznets Curve[1] (EKC), was among the first studies of its kind in the literature. In the analysis that used the countries' environmental pollution and per capita income data it was concluded that in the beginning the quality of life deteriorated because of environmental pollution, but that this re-improved later on in these countries. Even though Eskeland and Harrison

1 *Kuznets (1955) states that per capita income increases in accordance with economic development, but that income inequality also increases in the first phase of development. Moreover, he suggests that income inequality starts to decrease after a certain turning point, depending on the continuation of economic development. Known as the Kuznets Curve, this shape that reveals the relationship between per capita income and income inequality is in the form of a bell curve or an inverted U.*

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

(1997) found some evidence that foreign investors were involved in sectors having the high levels of air pollution, they mentioned the weakness of such evidence. They concluded that foreign companies used cleaner energy types than local firms. Mani and Wheeler (1998) confirmed the "pollution haven hypothesis", but they asserted that it is temporary. This is because they suggested that production may become cleaner over time through restrictions that are later made and the development of know-how. They also concluded that the pollution rate was very high in capital- and energy-intensive manufacturing sectors (iron-steel, chemistry, paper, non-metallic minerals, etc.), while relatively labor-intensive sectors (textile, electrical machine, non-electrical machine, etc.) were the cleanest ones.

Until the 2000s, the environmental impacts of foreign trade were focused on in the literature and empirical evidence was relatively weak. After that date, variables that represented foreign direct investments in models testing the pollution haven hypothesis started to be frequently used. There are also several studies that test the pollution haven hypothesis in China, as after the 2000s, multinational companies started to choose to direct their investments to China due to low-cost labor and China has thus become the factory of global markets (Zeren, 2015: 6443). Within this framework, some examples of empirical literature that have prioritized the impacts of foreign direct investments on pollution since the mid-2000s are as follows:

Hoffman et al. (2005) tested the pollution haven hypothesis for 112 countries. They determined that carbon emissions were the cause of foreign direct investments in low-income countries. While it was the other way around for middle-income countries, no causal relationship was encountered for high-income countries.

In their studies covering 33 countries, Cole et al. (2006) suggest that foreign direct investments affect environmental conditions negatively if there is increased corruption. When the corruption decreases, the increase in foreign direct investments lowers the pollution.

Temurshoev (2006) examined how free international trade impacted the environment in developed and underdeveloped countries. He tested the pollution haven hypothesis and factor endowment hypothesis for the USA and China using an input-output analysis. He concluded that CO_2, SO_2 (sulfur dioxide) and NO_3 emissions decreased due to increased trade in China and the USA, and the fact that the USA did not export capital-intensive goods. In this way, both the pollution haven hypothesis and factor endowment hypotheses were rejected.

Kearsley and Riddel (2010) estimated the pollution haven hypothesis for seven oft-studied pollutants using the Environmental Kuznets Curve. They obtained little evidence that pollution havens played an important role in shaping the EKC. Also, as they found that confidence intervals around the turning points of EKC, including values that were generally highly above the data interval, were very broad, they expressed their suspicion that economic growth caused developments in environmental quality.

Based on the panel data of 30 provinces of China between the years 1998-2008, Xian-Gang (2010) analyzed the relationship between foreign direct investments, environmental regulations and other factors in China. Estimation results show that environmental regulation has a certain negative influence on the flow of foreign direct investments. However, this influence is insignificant. The economic scale, infrastructure and the cumulative effect

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

of investment have more important impacts on foreign direct investments. Also, as they concluded that Granger-based fluctuations did not exist in the inflow of foreign direct investments, they could not support the pollution haven hypothesis for China.

Shabaz et al. (2012) examined the relationship between CO_2 emissions, energy consumption, economic growth and trade openness in Pakistan during the period of 1971-2009. Co-integration and Granger causality tests were used in the empirical analysis. They demonstrated a long-term relationship between the variables and the EKC hypothesis was supported. According to estimation results, energy consumption increases CO_2 emissions in both the short term and long term, and trade openness is insignificant in the short run, in spite of decreasing CO_2 emissions in the long run. Additionally, the long-term change in CO_2 emissions is corrected by approximately 10% per year.

Al-Mulali and Tang (2013) investigated the validity of the pollution haven hypothesis in the Gulf Cooperation Council (GCC) countries using a multivariate framework. They applied panel data analysis using data from the 1980-2009 period. The results of Pedroni's co-integration test showed that the data was cointegrated. FMOLS results provided evidence that energy consumption and GDP growth increased CO_2 emissions and that the inflow of foreign direct investments had a negative relationship with CO_2 emissions in the long term. Also, based on the results of the short-term Granger causality test, they stated that FDI had a short-term causal relationship with CO_2 emissions and energy consumption, while energy consumption and GDP growth had a positive causal relationship with CO_2 emissions.

Akin (2014) questioned the impact of foreign capital investments on the level of CO_2 emissions. The study analyzed this relationship with the system GMM method using the data of 12 countries in the high-income group between the years 1970-2012. In the analysis, energy consumption and per capita income were used as auxiliary explanatory variables. The analysis results demonstrate a statistically significant, negative relationship between foreign capital investments from the countries in the high-income group and the levels of CO_2 emissions. Furthermore, while supporting the opinion that there is a positive relationship between energy consumption and the level of CO_2 emissions, the findings propose that the increase in per capita income decreases CO_2 emissions in high-income group countries.

Based on the panel data of 2000-2010 period, Ren et al. (2014) tested the impacts on FDI, trade openness, exportation, importation and CO_2 emissions per capita through two-step GMM estimation. The estimation results highlight that China's trade surplus is among the important causes of rapidly increasing CO_2 emissions, FDI inflows continue to worsen CO_2 emissions in China, and the relationship between the industrial sector's per capita income and CO_2 emissions indicate an Environmental Kuznets Curve. Therefore, they expressed that in order to achieve an environmentally sustainable development of the economy, China should make efforts to modify its trade growth model and foreign direct investment structure, strengthen energy efficiency and develop a low-carbon economy.

Kesgingoz and Karamelikli (2015) analyzed whether foreign trade, energy consumption and economic growth in Turkey between the years 1960-2011 had an impact on CO_2 emissions or not. The study used the ARDL limit test approach. According to the test results, CO_2 emissions were concluded to

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

have a long-term relationship with foreign trade and growth. In other words, it was found that foreign trade, energy consumption and economic growth increased environmental pollution in the long term and the pollution haven hypothesis was confirmed.

Seker et al. (2015) examined the impact of foreign direct investment, gross domestic product and energy consumption on carbon dioxide (CO_2) emissions in Turkey during the period of 1974-2010. They used the Hatemi-J test, which takes structural breaks into account in the integration analysis with a limit test approach (ARDL) that is superior, especially in minor examples. While the long-term coefficients of the ARDL model show that the impact of foreign direct investments on CO_2 emissions is positive but relatively minor, the impacts of GDP and energy consumption on CO_2 emissions are highly notable. In addition to this, short-term coefficients obtained by the error correction model (ECM) were found to be similar to those in the long-term model. The findings support the validity of the EKC hypothesis. The results of the Granger causality test reveal a causality between all explanatory variables and CO_2 emissions in the long term. In general, the findings suggest that Turkey should encourage energy efficiency through sustainable growth, as well as more inflow of foreign direct investments in technology-intensive and environmentally-friendly industries in order to increase environmental quality in particular.

Polat (2015) tested the relationship of CO_2 emissions in Turkey with economic growth, power generation and foreign direct investments for the period of 1980-2013. The study applied the Zivot-Andrews unit root test with a structural break allowing for single break. Whether a long-term relationship between the variables existed or not was examined with the Gregory-Hansen co-integration test for structural breaks. According to the Gregory-Hansen co-integration test results, a long-term co-integration relationship was determined between the CO_2 emissions and gross domestic product, power generation and foreign direct investments. The long and short-term relationships between the variables were tested with FMOLS and CCR co-integration coefficient estimators in which structural breaks could be included in the analysis as dummy variables. According to the estimation results, gross domestic product and power generation in Turkey influence environmental quality in a negative manner. Also, the coefficient was found to be insignificant, while the country's foreign direct investments decrease CO_2 emissions. Consequently, it was stated that the pollution haven hypothesis suggesting that foreign direct investments in a country increase CO_2 emissions was not valid for Turkey.

Milimet and Roy (2016) assert that production in polluting industries shifts towards the locations with environmental regulations. While simple, the existing empirical literature is inconclusive due to two deficiencies. Firstly, unobserved heterogeneity and measurement error are typically ignored because of the lack of a reliable, traditional, instrumental variable for control. Secondly, geographical spread was not included in the PHH tests sufficiently. Two new identification strategies within a model involving spread were used for these problems. Using USA state-level data, it is seen that their own environmental regulations impact inbound foreign direct investments negatively.

Solarin et al. (2017) examined the pollution haven hypothesis in the period of 1980-2012 by taking CO_2 emissions as an indicator of air pollution in Ghana. They also used gross domestic product (GDP), GDP square, energy con-

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

sumption, renewable energy consumption, fossil fuel energy consumption, foreign direct investment, corporate quality, urbanization and trade openness as basic variables. They created a different time series model using an autoregressive distributed lag (ARDL) method. As a result of the analysis, a co-integration revealing a long-term relationship between the variables was demonstrated. Furthermore, while GDP, foreign direct investment, urban population, financial development and international trade influence CO_2 emissions positively, corporate quality decreases the emissions in Ghana. This situation proves that the pollution haven hypothesis applies to Ghana.

Kocak and Sarkgunesi (2018) investigated the potential impacts of foreign direct investments in Turkey on CO_2 emissions during the period of 1974-2013 using the Environmental Kuznets Curve model. In order to do this, they used the Maki structural breaks co-integration test, the Stock and Watson dynamic ordinary least squares estimator (DOLS), and the Hacker and Hatemi-J bootstrap test for causality method. The investigation results showed a long-term balance relationship between FDI, economic growth, energy consumption and CO_2 emissions. According to this relationship, the potential impact of FDI on CO_2 emissions is positive in Turkey. This result demonstrates that the pollution haven hypothesis applies to Turkey. They furthermore determined that changes in CO_2 emissions also influenced FDI inflows and that the Environmental Kuznets Curve hypothesis was valid in Turkey.

ECONOMETRIC ANALYSIS

In the econometric analysis, the purpose of the estimated model is examining the relationship between foreign direct investments and carbon emissions rates. Within this framework, panel data analysis was used and panel unit root, panel co-integration and PDOLS tests were applied. After the econometric model and the variables of the study are introduced, the tests used with panel data analysis will be briefly explained.

Econometric Model and Data Set

In the empirical analysis, the Turkic Republics (Azerbaijan, Kyrgyzstan, Kazakhstan, Turkey, Turkmenistan and Uzbekistan) were chosen as the sample group. These countries, which constitute the sample group, endeavor to attract foreign direct investments in order to ensure contribution to their economic developments.

Foreign direct investment and gross national product data was obtained from World Development Indicators (WDI) and data on CO_2 emission rates was obtained from the WDI and Global Carbon Atlas (GCA) data set. The data is annual and covers the 1995-2016 period. The variables used in the models and the sources where they were obtained are given in Table 1.

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

Table 1. *Variables Lists.*

Variables	Unit of Measure	Symbol	Data Source
Period: 1995 -2016			
Foreign direct investment	Real FDI inflows (USD)	LnFDI	WDI
Pollution indicator	Metric tonnes of CO_2 emissions per capita (t)	$LnCO_2$	WDI, CGA
Economic growth	Gross domestic product per capita (USD)	LnGDPP	WDI
Crisis dummy variable		Dmy	Made by us

Source: WDI and GCA.
Note: The symbol "Ln" refers to the logarithm of variables.

In this study, the FDI variable was used by applying dollar-based GDP deflators[2] (2010=100) of net inflow for foreign direct investments in USD on the sample countries . The economic growth variable was represented by gross domestic product data per capita. It was applied using dollar-based gross domestic product deflators (2010=100), such as foreign direct investments data. The values of CO_2 emissions in metric tons per capita of carbon dioxide were used as pollution indicators. Carbon dioxide emissions result from the burning fossil of fuels and cement production. Carbon dioxide is emitted through gas radiation during the consumption of solid, liquid and gas fuels. A crisis dummy variable was added to analyze the impacts of the global economic crisis that started in mid 2007. Accordingly, the crisis periods of 2008, 2009 and 2010 were assigned the value of 1 and other periods were assigned the value of zero to produce a dummy variable which is represented by the "Dmy" symbol. In the analyses, the logarithms of all variables except for the dummy variable were taken and Model 1 was estimated. The "i" and "t" sub-indices in the model show cross-sections and time, respectively.

$LnCO_2it = f (LnFDIsit, GDPPit)$

$LnCO_2it = \beta1 + \beta2LnFDsIit + \beta3\ LnGDPPit + \beta4Dmy + \mu it$
(1)

(i = 1,.....,6) and (t = 1995,....., 2016)

In the estimation of the model in Equation 1, a panel unit root analysis will be primarily carried out for each variable. Later, parameters will be obtained through panel co-integration tests. Finally, long-term parameters will be estimated via the panel dynamic ordinary least squares (PDOLS) test.

Econometric Model

Panel data analysis is a method used to estimate economic relations by bringing together the horizontal cross-sectional observations of units such as countries, individuals, firms and households that have a time dimension. The panel data consists of an N number of units and a T number of observations corresponding to each unit. The valuation of both sections in panel data analysis provides the researcher with more data to work with. In this case, the number of observations and therefore the degree of freedom increase. Thus, the degree of the multiple linear link between the explanatory variables decreases and the efficiency and reliability of the econometric estimates increase. In general, the basic panel data model is as follows (Baltagi, 2008: 12-13; Tatoglu, 2013: 9):

2 *Taken from the WDI database.*

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

$Y_{it} = \alpha it + \beta k_{it} X k_{it} + u_{it}$ i = 1,.....,N (cross-section) ; t =1,.....,T (time)
(2)

In Equation 2, Y is the dependent variable, X_k is the independent variable, α is the constant parameter, β is the slope parameter, and μ is the error term. The i represents the sub-index units (individuals, firms, countries, etc.) and the t sub-index represents time (day, month, year, etc.). The fact that variables and parameters and the error term have i and t sub-indices indicates that they have a panel data set. In this model, constant and slope parameters adopt values according to both units and time.

Before analyzing the existence of a relationship between variables in the panel data analysis method, it is necessary to test the stationarity of the variables. According to Granger and Newbold (1974), the relationship between the variables studied cannot be reliable when one works with non-stationary data. For this reason, the stationarity must be checked before regression analysis is conducted. Fisher ADF (Maddala and Wu, 1999), Breitung (1999), Fisher PP (Choi, 2001), Levin, Lin and Chu (LLC, 2002), and Im, Peseran and Shin (IPS, 2003) are the most well-known examples of panel unit root tests. These tests assume that there is no correlation between the units and are based on the dynamic fixed effect model, which is generally similar to the Augmented Dickey Fuller (ADF). In Equation 3, the μi and τi parameters are used to show the fixed effects and trend parameters, respectively. The existence of stationarity can be examined by testing ρ with the appropriate methods.

Yit=μi + τit + ρYit - 1 + δiθt + εit
(3)

There are two kinds of assumptions about ρ. The first of these assumes that ρ does not change from unit to unit, in other words, that there is a general unit root process. This is called the First Group Panel Unit Root Test. LLC (2002) and Breitung's (2000) tests take on this assumption. In these tests, the basic hypothesis is "there is at least one unit root".

In the Second Group Panel Unit Root Test, ρ is assumed to change from unit to unit. IPS (2003), Fisher ADF (Maddala and Wu, 1999) and Fisher PP (Choi, 2001) are examples of these tests. Here, each unit is allowed to have its own auto-correlation coefficient. In these tests, the basic hypothesis of "no unit is stationary" is tested against the alternative hypothesis that "at least one of the units is stationary". The linear combinations of these series can be stable if the series belonging to the variables contain a unit root as a result of the applied unit root tests. In this case, the existence of a long-term relationship can be investigated through panel co-integration tests.

Kao (1999) and Pedroni's (1999, 2004) co-integration tests are commonly used for panel co-integration analysis in the literature. These two tests were also used in the empirical application of the study. The Kao Panel Co-integration Tests are Dickey Fuller (DF) and Augmented Dickey-Fuller (ADF) based tests. The basic hypothesis of "there is no co-integration" is tested. The tests developed by Pedroni are based on the remnants (error term) obtained from an equation (Equation 4) as follows. For this reason, the first step is to calculate the remnants from the co-integration regression (Pedroni, 1999: 656).

Yit = αi + δi, t + β1i x 1i,t + β2i x 2i,t +.....+ βmi, x mi,t + εi, t
(4)

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

t = 1,...,T; i = 1,...,N; m = 1,...M

Pedroni (1999, 2004) suggested seven different tests (Panel-ν, Panel-ρ, Panel-PP, Panel-ADF, Group-ρ, Group–PP, Group-ADF) whose hypothesis is "there is no co-integration" (H0 : Φi = 0). Heterogeneity is allowed under an alternative hypothesis. The rejection of the basic hypothesis implies that a sufficient number of units have statistics that diverge from their individual average value. The first four of these are panel co-integration tests within sections, and the other three are panel co-integration statistics between sections. The comparative advantages of these statistics vary greatly depending on the data generation process. The significance of the panel-ν statistic is an important indicator of co-integration as the group-ρ statistical sample size begins to grow in small samples (Pedroni, 2004: 614).

Long-term parameters can be estimated using the PDOLS (Stock and Watson, 1993) method if there is a long-term relationship between the series of variables. The PDOLS Estimator (Kao and Chiang, 2000) is obtained by estimating the regression in Equation 5 below by using the values of the leading and lagging variables of the differentiated I (1) variables.

$$LnYit = \beta 0i + \beta 1i\ LnK1i + \beta 2i\ LnX1i + \sum_{k=-Kii}^{Kii} \alpha ik\ \Delta LnKit + \sum_{k=-Kii}^{Kii} \lambda ik \Delta\ Xit + \varepsilon it \quad (5)$$

The -Ki and Ki here represent the leading and lagging variables. The PDOLS method is a method that is capable of removing deviations in the static regression by incorporating dynamic elements into the model.

EMPIRICAL FINDINGS

In order to examine the validity of the pollution haven hypothesis in Central Asian Turkic Republics, the primary investigation tested through panel unit root tests whether CO_2 emission rates and the variables of FDI and GDP were stationary or not. The Unit root tests of the LLC, Breitung, IPS, Fisher-ADF and Fisher-PP models were used in the study. The definitive statistical values of the variables are provided in Table 2 in detail.

Table 2. *Descriptive Statistics on Variables.*

	CO_2	**FDIs**	**GDPP**
Medium	5.87	3.440	3.528
Median	4	1.139	1.571
Maximum	16	22.047	13.891
Minimum	1	2.360	258
Standard Deviation	4.06	5.039	3.689
Number of observations	132	132	132

Source: Author's estimates, WDI and GCA.

Table 3 shows the result of applying the unit root tests of the variables on stationary and trend panel data, as well as the t-statistic and probability val-

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

ues in the first differences. According to the results of the LLC, Breitung, IPS, ADP and PP tests, the null hypothesis is accepted, which argues that the level values of the series contain unit roots. In other words, the series are not stationary between levels. As the presence of the series' unit roots in the level was insufficient for the co-integration test, a stationary and trend unit root test was applied after performing a difference operation. It was understood that all variables were stationary in the first degree (1).

Table 3. *Panel Unit Root Test Analysis Results*.

Test	LLC	Breitung	IPS	ADF	PP
Variable	**Individual intercept and trend**	**Individual intercept and trend**	**Individual intercept and trend**	**Individual intercept and trend**	**Individual intercept and trend**
CO_2	1.0165	0.967	2.159	2.042	3.478
	(0.845)	(0.248)	(0.984)	(0.996)	(0.967)
FDIs	1.650	0.258	0.050	10.022	21.088
	(0.950)	(0.601)	(0.520)	(0.614)	(0.149)
GDPP	-0.008	2.645	0.607	6.909	3.729
	(0.496)	(0.995)	(0.728)	(0.863)	(0.987)
ΔCO_2	-4.56437***	-3.07201***	-4.95258***	45.0831***	115.950***
	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)
ΔFDIs	-2.039**	-2.707***	-4.146***	37.874***	303.793***
	(0.020)	(0.003)	(0.000)	(0.000)	(0.000)
ΔGDPP	-3.267***	-0.943*	-1.318*	19.305*	18.914*
	(0.000)	(0.071)	(0.093)	(0.081)	(0.090)

Source: Author's estimates.
*Note: * (**) *** symbols imply significance at the levels of 10%, (5%) and 1%, respectively. Those in parentheses ( ) are p-values.*

$LnCO_{2it} = \beta 1 + \beta 2\ LnFDIs_{it} + \beta 3 LnGDPP_{it} + \beta_4 Dmy + \mu_{it}$

Pedroni test statistic	**Individual intercept and individual trend**
Panel-v	-0.1033
	(0.5411)
Panel-rho	0.2570
	(0.6014)
Panel-PP	-2.0900**
	(0.0183)
Panel-ADF	-1.6472**
	(0.0498)
Group-rho	0.7281
	(0.7668)
Group-PP	-2.8529***
	(0.0022)
Group-ADF	-2.693017***
	(0.0035)
Kao test statistics	Constant
ADF	-1.6453**
	(0.0499)

Source: Author's estimates.
*Note: * (**) *** symbols imply significance at the levels of 10%, (5%) and 1%, respectively. Those in parentheses ( ) are p-values.*

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

According to the findings obtained by the analysis of the PDOLS model in Table 5, the coefficients of per capita income variables, which were included in the model as control variables, and foreign direct investments in the model for the overall panel are statistically significant. On the other hand, the crisis dummy variable was not found to be statistically significant. The coefficients of both foreign direct investments and per capita income variables are marked positively. In the PDOLS analysis where carbon dioxide emissions were dependent variables, estimation results validate the pollution haven hypothesis. The long-term estimation findings obtained show that a 1% increase in foreign direct investments causes a 2.7% increase in carbon dioxide emissions, and a 1% increase in per capita income causes a 0.03% increase in carbon dioxide emissions in the Turkic Republics chosen for the overall panel. R^2 value represents 0.93 in the model.

Table 5: *PDOLS Long Term Coefficient Estimation.*

$LnCO_2$(Dependent Variable)			
	LnFDIs	**LnGDPP**	**Dmy**
Panel	2.7110***	0.0362***	-0.0291
	(5.0856)	(0.0054)	(-0.0396)
Diagnostic	R-squared: 0.93		
Statistics	Number of observations (except dummy variable): 396		
	Mean depend. var.: 5.8712		

Source: Author's estimates.
*Note: * (**) *** symbols imply significance at the levels of 10%, (5%) and 1%, respectively. Those in parentheses ( ) are t-statistics.*

This result is an evidence that foreign direct investments in the Central Asian Turkic Republics have negative impacts. The control variable (per capita income), which represented economic growth in the model, also has a negative impact on carbon dioxide emissions even though such impact is proportional. However, it can be considered insignificant compared to the coefficient of foreign direct investments. The coefficient of the crisis dummy variable is marked negatively, but it is statistically insignificant. Consequently, the findings of the empirical analysis support the pollution haven hypothesis in the Central Asian Turkic Republics.

CONCLUSION

While foreign direct investments were tending towards the developed countries, they started to focus on the developing countries after 1980. However, owing to lax environmental standards in the developing countries, there has been a debate in recent years in the literature within the framework of the pollution haven hypothesis as to whether FDIs increase the CO_2 emissions of production activities in the host countries and damage the environment and therefore biological diversity. According to this hypothesis, multinational companies face increased costs and lose their competitive edge in developed countries where environmental awareness is high. For that reason, FDIs turn away from the developed countries enforcing strict environmental regulations towards the developing countries that have less strict environmental regulations.

Gaining independence upon the dissolution of the Soviet Union in 1991, the

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

Turkic Republics were willing to attract foreign investments in their efforts to adapt to the global liberal market and overcome the structural bottlenecks impeding economic growth and development, lack of sufficient capital accumulation, etc. At the same time, the fact that they are rich in terms of resources such as petroleum and natural gas was influential in attracting the investments of multinational companies. During this process, Turkey also steered towards policies that could attract foreign direct investments, with the expectation of transmitting new and/or developed production know-how to local firms, enhancing employment opportunities and contributing to the economic growth (Karagoz, 2007: 933). In this context, investigating whether FDIs harm the environment in these developing Central Asian Turkic Republics and Turkey (Azerbaijan, Kyrgyzstan, Kazakhstan, Turkey, Turkmenistan and Uzbekistan) may help contribute to the planning of economic and environmental policies. From this point of view, the main purpose of this study was to investigate the relationship between CO_2 emissions and FDIs in Central Asian Turkic Republics with an empirical approach. The relationships were assessed using annual data for the period 1995-2016 with panel co-integration tests, and long-term coefficients were estimated via the PDOLS method.

The empirical estimate findings confirm a long-term relationship between variables made up of data from the Central Asian Turkic Republics. The variable of per capita gross national product was added as a control variable representing economic growth into the model where CO_2 emissions were defined as dependent and FDIs were defined as independent variables. Moreover, a crisis dummy variable was produced in order to evaluate the impact of the 2008 global economic crisis. According to long-term estimation findings, a 1% increase in FDIs within the Central Asian Turkic Republics corresponds to a 2.7% increase in CO_2 emissions for the overall panel. A 1% increase in the economic growth, on the other hand, corresponds to a 0.03% increase in CO_2 emissions although it is a low rate compared to the FDI coefficient. The crisis dummy variable was found to be statistically insignificant.

The empirical analysis findings confirm the pollution haven hypothesis. In other words, the estimation results can be interpreted as evidence that FDIs in Central Asian Turkic Republics increase CO_2 emissions and that environmental quality is damaged by the impact of multinational companies. In the light of the study's findings, if policymakers in the relevant countries discuss and evaluate the following suggestions, this may contribute to eliminating the negative impact.

One of the suggestions to be emphasized primarily is the need for analysis of the sectors on which FDIs focus and/or may focus in the Central Asian Turkic Republics. It is then important that the environmental protection and audit regulations which are in effect be reviewed, that the compliance of the effective ones with international standards be examined, that new regulations in the areas with shortcomings be made and that they be put into practice. Another suggestion is to implement regulations by incorporating sustainable development strategies that combine economic, social and environmental dimensions in long-term development plans. In developed countries, a deterrence effect is created by applying high environment taxes. However, such taxes are not preferred in developing countries because they could discourage foreign investors. Therefore, it can be recommended that these countries allow only FDIs that take aspects of environmental protection into account and that will contribute to the development of the country, as well as create respective systems.

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

Finally, among the limitations of the study are the fact that environmental pollution is represented by rates of CO_2 emissions due to difficulty in accessing data in some of the Central Asian Turkic Republics and that the results of the overall panel are shared. Thus, improving the study with various variables applied on a country basis and/or that represent the environmental pollution, energy use and location choice of multinational companies will help policymakers take more rational decisions.

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

REFERENCES

Adebola Sakiru, Usama Al-Mulalib, Ibrahim Musaha and Ilhan Ozturk (2017). "Investigating the pollution haven hypothesis in Ghana: an empirical investigation". *Energy* 124: 706-719.

Akin, Serhat C. (2014). "Yabanci Sermaye Yatirimlarinin CO_2 Emisyonu Uzerine Olan Etkisi: Dinamik Panel Veri Analizi" (The Effect of Foreign Capital Investments on CO_2 Emission: Dynamic Panel Data Analysis). *Akademik Bakis Uluslararasi Hakemli Sosyal Bilimler Dergisi* 44: 465-475.

Al-Mulali, Usama and Chor F. Tang (2013). "Investigating the validity of pollution haven hypothesis in the gulf cooperation council (GCC) countries". *Energy Policy*. 60: 813-819.

Baltagi, Badi (2008). *Econometric analysis of panel data*. New York, NY: John Wiley & Son.

Breitung, Jork (1999). "The local power of some unit root tests for panel data", Discussion Paper, Berlin: Humboldt University.

Choi, In (2001). "Unit root tests for panel data". *Journal of international money and Finance* 20(2): 249-272.

Cole, Matthew A., Robert J. R. Elliott and Per G. Fredriksson (2006). "Endogenous Pollution Havens: Does FDI Influence Environmental Regulations". *The Scandinavian Journal of Economics* 108(1): 157-178.

Copeland, Brian and Scott M. Taylor (2004). "Trade, growth, and the environment". *Journal of Economic Literature* 42(1): 7-71.

Eskeland, Gunnar and Ann Harrison (1997). "Moving to Greener Pastures? Multinationals and the Pollution Haven Hypothesis". Washington: World Bank working paper.

Eyuboglu, Kemal (2017). "Turk Dunyasinda Yer Alan Ulkelerin Makro Performanslarinin Karsilastirilmasi" (Comparing the Macro Performances of the Countries in the Turkic Region). *BILIG Turk Dunyasi Sosyal Bilimler Dergisi* 834: 331-350.

Granger, Clive W.J. and Paul Newbold (1974). "Spurious regressions in econometrics". *Journal of Econometrics* 2(2): 111-120.

Grossman, Gene M. and Alan B. Krueger (1991). Environmental Impacts of a North American Free Trade Agreement (No. w3914). National Bureau of Economic Research.

Hoffmann, Robert, Chew G. Lee, Bala Ramasamy and Matthew Yeung (2005). "FDI and pollution: a granger causality test using panel data". *Journal of International Development* 17(3): 311-317.

Im, So Kyung, M. Hashem Pesaran and Yongcheol Shin (2003). "Testing for unit roots in heterogeneous panels". *Journal of Econometrics* 115(1): 53-74.

Kao, Chihwa (1999). "Spurious regression and residual-based tests for co-integration in panel data". *Journal of Econometrics* 90(1): 1-44.

Kao, Chihwa and Min-Hsie Chiang (2000). Testing for structural change of a cointegrated regression in panel data. Syracuse University. Manuscript.

Karagoz, Kadir (2007). "Turkiye'de Dogrudan Yabanci Yatirim Girislerini Be-

lirleyen Faktorler: 1970–2005" (Decisive factors on foreign direct investment inflow into Turkey: 1970-2005). *Journal of Yasar University* 2(8): 929-948.

Kearsley, Aaron and Riddel, Mary (2010). "A Further Inquiry into the Pollution Haven Hypothesis and the Environmental Kuznets Curve". *Ecological Economics* 69(4): 905-919.

Kesgingoz, Hayrettin and Huseyin Karamelikli (2015). "Dis Ticaret-Enerji Tuketimi ve Ekonomik Buyumenin CO_2 Emisyonu Uzerine Etkisi". (The effect of trade-energy consumption and economic growth on CO_2 emission). *Iktisadi ve Idari Bilimler Dergisi* (9): 7-17.

Kocak, Emrah and Aykut Sarkgunesi (2018). "The Impact of Foreign Direct Investment on CO_2 Emissions in Turkey: New Evidence from Co-Integration and Bootstrap Causality Analysis". *Environmental Science and Pollution Research* 25(1): 790-804.

Levin, Andrew, Chien-Fu Lin and James C. Chia-Shang (2002). "Unit Root Tests in Panel Data: Asymptotic and Finite-Sample Properties". *Journal of Econometrics* 108(1): 1-24.

Levinson, Arik (1996). "Environmental Regulations and Manufacturers' Location Choices: Evidence from the Census of Manufactures". *Journal of Public Economics* 62(1-2): 5-29.

MacDermott, Raymond (2009). "A Panel Study of the Pollution-Haven Hypothesis". *Global Economy Journal* 9(1): 1524-5861.

Maddala, Gangadharrao S. and Wu Shaowen (1999). "A Comparative Study of Unit Root Tests with Panel Data and a New Simple Test". *Oxford Bulletin of Economics and Statistics* 61(1) : 631-652.

Mani, Muthukumara and David Wheeler (1998). "In Search of Pollution Havens? Dirty Industry in the World Economy 1960 to 1995". *Journal of Environment and Development* 7(3): 215-247.

Mi, Zhifu, Pan Su-Yan, Yu Hao and Wei Yi-Ming (2015). "Potential Impacts of Industrial Structure on Energy Consumption and CO_2 Emission: A Case Study of Beijing". *Journal of Cleaner Production* 103: 455-462.

Millimet, Daniel and Roy Jayjit (2016). "Empirical Tests of the Pollution Haven Hypothesis When Environmental Regulation is Endogenous". *Journal of Applied Econometrics* 31(4): 652-677.

Pedroni, Peter (1999). "Critical Values for Co-Integration Tests in Heterogeneous Panels with Multiple Regressors". *Oxford Bulletin of Economics and Statistics* 61(1): 653-670.

Pedroni, Peter (2004). "Panel Co-Integration: Asymptotic and Finite Sample Properties of Pooled Time Series Tests with an Application to the PPP Hypothesis". *Econometric Theory* 26: 597-625.

Polat, Melike A. (2015). "Turkiye'de Yabanci Sermaye Yatirimlari ile CO_2 Emisyonu arasindaki Iliskinin Yapisal Kirilmali Testler Ile Analizi" (Investments in Turkey with foreign capital in the long relationship between CO_2 Emissions Testing and Analysis quinine structural break). *Journal of International Social Research* 8(41): 1127-1135.

Ren Shenggang, Baolong Yuan, Xie Ma and Xiaohong Chen (2014). "Interna-

tional Trade, FDI (foreign direct investment) and Embodied CO_2 Emissions: A Case Study of China's Industrial Sectors". *China Economic Review* 28, 123-134.

Seker, Fahri, Hasan Murat and Ertugrul Murat Cetin (2015). "The impact of Foreign Direct Investment on Environmental Quality: a Bounds Testing and Causality Analysis for Turkey". *Renewable and Sustainable Energy Reviews* 52: 347-356.

Shahbaz, Muhammed, Lean Hooi Hooi and Shahbaz Muhammad (2012). "Environmental Kuznets Curve Hypothesis in Pakistan: Co-Integration and Granger Causality". *Renewable and Sustainable Energy Reviews* 16(5): 2947-2953.

Siebert, Horst, Ralf Gronych, Jurgen Eichberger and Rudiger Pethig (1980). *Trade and Environment: a Theoretical Enquiry*. Amsterdam: Elsevier Scientific Publishing Company.

Solarin Adebola S., Usama Al-Mulalib, Ibrahim Musaha and Ilhan Ozturk (2017). "Investigating the pollution haven hypothesis in Ghana: an empirical investigation". *Energy* 124: 706-719.

Stock, James and Mark Watson (1993). "A Simple Estimator of Cointegrating Vectors in Higher Order Integrated Systems". *Econometrica: Journal of the Econometric Society* 61(4): 783-820.

Tatoglu, Ferda (2013). *Panel Data Econometrics*. Istanbul: Beta Yayinevi.

Taylor, Scott (2004). "Unbundling the Pollution Haven Hypothesis". *Advances in Economic Analysis and Policy* 4(2), Article 8, 28s.

Temurshoev, Umed (2006). "Pollution Haven Hypothesis or Factor Endowment Hypothesis: Theory and Empirical Examination for the US and China". CERGE-EI Working Paper No. 292.

Tunay, Batu (2017). "Yukselen Ekonomilerde Makro Ekonomik Dengesizliklerin Etkilesimi: Turk Cumhuriyetleri Ornegi" (The Effects of Macroeconomic Imbalances in Upward Economies: A Case of Turkic Republics). *Bilig Turk Dunyasi Sosyal Bilimler Dergisi* 834: 171-199.

Weigel, Dale (1997). *Foreign Direct Investment*. Washington: World Bank Publications.

World Investment Report (1991). United Nations, New York, (Accessed on 11.03.2018).

World Investment Report (2017). United Nations Conference on Trade and Development, Unctad, New York: United Nations, (Accessed on 11.04.2018).

Xian-Gang, Zeng (2010). "Environmental Regulation, Foreign Direct Investment and Pollution Haven Hypothesis". *Economic Theory and Business Management* 11: 65-71.

Yildiz, Yilmaz and Baha M. Karan (2016). "Firm Level Determinants of Foreign Portfolio Investments in Turkey: A Dynamic Panel Regression Analysis Approach". *Journal of Economics Finance and Accounting* 3(2): 126-141.

Zeren, Feyyaz (2015). "Dogrudan Yabanci Yatirimlarin CO_2 Emisyonuna Etkisi: Kirlilik Hale Hipotezi mi? Kirlilik Cenneti Hipotezi mi?" (CO_2 Effect of Foreign Direct Investments on CO_2 Emission: Pollution Hypothesis? The Pollution Heaven Hypothesis?) *Journal of Yasar University* 10(37): 6381-6477.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

REGIONAL SECURITY IN CENTRAL ASIA: ADDRESSING EXISTING AND POTENTIAL THREATS AND CHALLENGES

Dauren ABEN*

ABSTRACT

After the collapse of the Soviet Union, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan confronted a number of serious internal and external security threats and challenges of political, military, economic, ethnic, religious and social nature, some of which have materialized or expired during the subsequent 27 years, while others still persist or are looming on the horizon. In this analytical article, the author reviews the main perceived regional security threats and challenges in Central Asia that can be categorized in several ways, but whatever classification is used it is important to understand that they are interrelated and influence each other. As many existing security threats have a transnational nature, the Central Asian states need to pool together their limited resources to effectively address them.

Key Words: Central Asia, Regional Security, Afghanistan, Russia, China, Terrorism, Transnational Crime, Regional Cooperation.

* Senior Research Fellow, Eurasian Research Institute, Mametova 48, Almaty 050004, Kazakhstan, e-mail: dauraben@gmail.com

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

INTRODUCTION

The five post-Soviet states of Central Asia – Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, more commonly known to the outside world as "stans" – are strategically located at the crossroads of the Eurasian continent. The region is bounded by the Caspian Sea in the west, Russia in the north, China's Xinjiang province in the east, and Iran and Afghanistan in the south. Together, the five countries have some 70 million people and an area of 4 million sq. km, with the diverse topography including vast, sparsely populated steppes of Kazakhstan, the densely populated Fergana valley that traverses Uzbekistan, Kyrgyzstan, and Tajikistan, large deserts in Turkmenistan and Uzbekistan, and rugged mountains of Kazakhstan, Kyrgyzstan, and Tajikistan (Encyclopaedia Britannica, 2018).

When the existence of the USSR formally ended in December 1991, the Central Asian states suddenly found themselves independent actors facing an uncertain future in the international scene. In fact, none of the regional leaders wanted or was prepared for independence; most of them did not oppose the August 1991 Communist coup attempt in Moscow (Najibullah, 2011). From that moment, however, they had to start forming their independent economies, domestic policies and sovereign state institutions, as well as begin determining their foreign policy orientations. Maintaining internal stability and searching for an appropriate place in the global community became a top-priority task and important test for the Central Asian leadership for a number of reasons, including the unexpected rapidity of the Soviet Union's collapse and the lack of preparation among the national elites to enter the difficult international environment of that time. The post-Soviet "stans" confronted a number of serious internal and external security threats and challenges of political, military, economic, ethnic, religious and social nature, some of which have materialized or expired during the subsequent 27 years, while others still persist or are looming on the horizon.

In this analytical article, the author reviews the main perceived regional security threats and challenges in Central Asia that can be categorized in several ways: existing and potential, traditional and non-traditional, internal and external, military and non-military, hard and soft, and so on. Whatever classification is used, it is important to understand that these threats and challenges are interrelated and influence each other. As many security threats have a transnational nature, the Central Asian states need to pool together their limited resources to effectively address them. Any search for adequate collective responses and solutions to ensure long-term security and stability in the region should be based on a comprehensive and timely analysis of threats and challenges, which is the task of this article.

AFGHANISTAN – A MAJOR SECURITY THREAT?

The unstable situation in Afghanistan remains a primary perceived extra-regional threat to security of Central Asia. Since the early 1990s, the protracted Afghan civil war and post-9/11 invasion of Afghanistan by the United States have contributed to the uncertainty of the regional security environment and undermined prospects for the region's economic cooperation with South Asia, at the same time making the U.S. military presence in Central Asia a reality. In the mid-2000s, when the U.S.-led Western coalition declared that it had defeated the Taliban and ousted Al-Qaeda from Afghanistan, it seemed that a major security threat to the Central Asian governments

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

was removed. The declaration, however, turned out to be premature, with the Taliban bolstering its capacity and regaining ground in the war. As the military campaign intensified, Washington and its NATO allies promoted the idea that increased regional interconnectivity and economic integration of Afghanistan into Central Asia would serve as a pledge of security, stability and prosperity of both Afghanistan and post-Soviet Central Asian states, calling on the latter to play a meaningful role in resolving the decades-long conflict on their neighbor's territory and reconstructing the Afghan economy (Laruelle, 2017). To supplement the unreliable Pakistan route for non-military supplies to the International Security Assistance Force, NATO established the Northern Distribution Network partnering with the Central Asian states, which, in their turn, were interested in political and commercial gains from providing transit rights (Lee, 2012).

Following the completion of the NATO combat mission and the withdrawal of most foreign forces from Afghanistan by the end of 2014, the Taliban began its new resurgence exploiting the inefficiency of the Afghan security forces, internal political divisions in the Western-backed central government in Kabul and its inability to control the whole country (Azami, 2016). The security environment has been severely exacerbated by the presence of the Islamic State in Iraq and Syria (ISIS) in Afghanistan in recent years (Mehrdad, 2018). Currently, the Central Asian governments fear that a further weakening, or even collapse, of the central Afghan government following an apparently imminent withdrawal of the remaining U.S. troops that should follow a recent temporary surge in troop numbers would lead to a rise of homegrown radicals with links to various terrorist organizations based in Afghanistan and, in the worst-case scenario, to the invasion of militants to their territories, as it was the case in the late 1990s (Trofimov, 2015). The related challenge that may have potential security implications and demands concerted efforts of the regional governments is the ongoing return of Central Asian nationals from Afghanistan, Iraq, Syria and other "hot spots", where they fought for ISIS and other extremist groups. Even if returning militants do not engage in direct confrontation with the governments of their home countries, they can set up sleeper cells that could be brought to life for terrorist activity at any time (Botobekov, 2016).

Therefore, increased counter-terrorism and counter-extremism cooperation between the regional law enforcement and security agencies, as well as a more active involvement of the Central Asian countries in the reconstruction of Afghanistan, may serve to minimize the destabilizing impact of negative developments in the neighboring country on the region. Kazakhstan and Uzbekistan lead efforts to enhance Central Asia's security by contributing to the development potential of Afghanistan through the promotion of regional infrastructure, energy, trade, investment, transit and transport projects. While Astana prioritized Afghanistan and the nexus between security and development on the agenda of its January 2018 chairmanship in the UN Security Council (Altynsarina, 2018), Tashkent held an international conference on Afghanistan titled "Peace Process, Security Cooperation and Regional Connectivity" in March 2018. Kazakhstan organized a visit of the UNSC delegation to Afghanistan, first since 2010, while Uzbek President Mirziyoyev announced that Uzbekistan was ready to create all necessary conditions for hosting direct peace negotiations between the Afghan government and the Taliban (Putz, 2018; Reuters, 2018). Nevertheless, the declaration adopted at the Tashkent conference emphasized that the future national reconciliation in Afghanistan should be "Afghan-led and Afghan-owned" (UN, 2018). Amidst an increasingly volatile security situation in

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

Afghanistan, it remains to be seen if expanded cross-border cooperation between Central Asia and Afghanistan, including via new railway, power transmission, and gas transportation initiatives, will help achieve a peaceful settlement of the Afghan conflict and lead to positive mutual engagement and strengthened regional security.

RETURN OF JIHADISTS: IMPLICATIONS FOR THE REGION

As noted above, the threat posed by foreign terrorist fighters returning to Central Asia is also significant, especially taking into account the fact that the region was the third largest place of origin for Salafi jihadists in Syria and Iraq. More than 4,000 Central Asian nationals sympathizing the cause of ISIS, Al-Nusra Front and other terrorist organizations joined their ranks since 2012 (INSS, 2016). Their domestic radicalization and subsequent recruitment were caused not only by economic deprivation and poor social conditions, including low-paid jobs, but also by injustice, corruption, political repression and limitations on religious freedom imposed by the Central Asian governments. At present, as the ISIS is largely defeated, many surviving fighters are returning home, and some of them are determined to spread extremist ideas and continue jihad in their respective countries. Using strong ties with their fellow multiethnic jihadists in Afghanistan, Iraq, Syria, Xinjiang, the Caucasus and elsewhere, these seasoned militants may potentially engage in violent extremism, stage terrorist acts or even wage an asymmetric and insurgent warfare. While not capable of toppling the regional governments and establishing an ISIS-like caliphate, they would generate widespread internal unrest and instability in the Central Asian states (Karin, 2017).

At the national level, along with applying punitive measures for identified culprits, the authorities need to launch credible de-radicalization, rehabilitation and reintegration programs as well as expand economic and educational opportunities for communities affected by or susceptible to fundamentalist propaganda. To reduce risk factors for further radicalization, competent government bodies should refrain from repressive-only approaches and avoid a temptation to use this security issue for curtailing civil liberties and tightening the grip of security services. At the regional level, the Central Asian governments, assisted by international and regional organizations operating in Afghanistan and Central Asia, should establish a cooperation mechanism to better coordinate their efforts and effectively counter a security threat posed by foreign combatants, including through closer interaction in information sharing, border control, and law enforcement.

TRANSNATIONAL CRIME AND TERRORISM NEXUS

Transnational organized crime is another cause of security concern for the regional governments as it has political, economic and societal consequences for the Central Asian societies. Illicit drug trafficking originating in Afghanistan and reaching all the way to Russia and Europe via Central Asia is the most dangerous transnational crime as it has implications not only for the region, but also for the entire world. Similar to Afghanistan, where the absence of viable economic opportunities pushes the local population towards opium production and trafficking, Central Asian nationals are engaged in the illicit

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

multi-billion dollar drug trade, which is facilitated by both militants and corrupt officials (Omelicheva and Markowitz, 2016). According to the UN Office on Drugs and Crime, in 2017, compared to the previous year, the area under opium poppy cultivation in Afghanistan increased by 63% to 328,000 hectares, and the estimated total production of opium grew by 87% to 9,000 metric tons (UNODC, 2017). This dramatic increase in the production of Afghan opiates creates multiple security challenges for Afghanistan, its Central Asian neighbors and other transit and destination countries.

There are other crimes that transcend the borders, such as human trafficking, sex slavery, illegal migration, illicit arms trade, smuggling of goods, etc., which not only damage economies and domestic stability but also exacerbate corruption undermining the nascent efforts to install good governance and the rule of law. Transnational organized criminal groups are linked to terrorists, extremists and other non-state actors with violent agendas, providing them with funding to support subversive activities that adversely affect government authority and threaten regional security. Therefore, the Central Asian states need to continue strengthening their law enforcement and security capabilities and engage in active international cooperation to eradicate serious non-traditional threats posed by transnational organized crime, which exerts negative influence on the Central Asian societies by weakening state institutions and hindering long-term economic development. To combat the proliferation of transnational organized crime, the Central Asian countries should adopt an integrated and comprehensive program of action and share best practices and lessons learned, with the support of the relevant UN agencies and the regional organizations such as the Shanghai Cooperation Organization (SCO) and the Collective Security Treaty Organization (CSTO).

RUSSIA – CENTRAL ASIA: LOVE-HATE RELATIONSHIP

Another potential threat is increased pressure on the Central Asian states or even interference in their domestic affairs on the part of the region's major external players, Russia and China, with Moscow trying to restore its hegemony and Beijing seeking to consolidate its economic dominance. At the end of the Soviet era, Central Asia was home to nearly 10 million Russians and other Slavs who numbered disproportionately high in the local political, administrative, technological and military elites. Two thirds of these 10 million lived in Kazakhstan, where they nearly outnumbered the Kazaks, while in the other republics the Russian population has been considerably smaller (Peyrouse, 2008). In fact, Kazakhs constituted a national minority in their homeland, and Kazakhstan was probably the most Russified Soviet republic. After the collapse of the Soviet Union, there was a fear that a separatist movement would arise in Russian-dominated northern Kazakhstan (Diener, 2015). At the same time, it should be acknowledged that both sides refrained from radical moves on this issue: despite aggressive rhetoric from domestic nationalist forces, Russia never supported, at least openly, separatist trends, while Kazakhstan was cautious in its nation-building efforts and language policy so as not to give Russia a pretext to use pressure to protect ethnic Russians.

It is worth noting that in their policy towards Russia, Kazakhstan and other Central Asian states have always tried to emphasize common interests and avoid antagonizing conflicts of interests. Nevertheless, facing uncertain

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

future and nationalist policies pursued by the new elites, ethnic Slavs left Central Asia in great numbers (Bandey and Rather, 2013). This has had a considerable detrimental effect on the economy and infrastructure of the Central Asian states, as ethnic discrimination during the Soviet days produced few local leaders in the military, industrial, legal, diplomatic or managerial fields. In the early 1990s, Russia was preoccupied with its loss of the superpower status and own domestic problems. Eventually, however, political, economic and security implications of Russia's neglectful attitude towards the region forced it to reconsider its Central Asian policy. Though the Russian efforts to deny outside participation in regional geopolitics have largely failed, Russia still considers Central Asia within its sphere of influence and believes it has special rights, interests, obligations and responsibilities in the region. While in the 1990s Moscow lacked capital to pursue an expansive policy in Central Asia, since the mid-2000s Russia has accumulated resources to put such plans in action (Laruelle, 2017).

For 27 years of independence, the Central Asian states have been pursuing, with different degrees of success, pragmatic multi-vectored foreign policies trying to maintain balanced relations with all the great powers, but recent geopolitical developments and contradictions between the West and Russia have narrowed their room for maneuver, especially that of Kazakhstan, creating preconditions for scenarios implemented by Moscow in Crimea and eastern Ukraine. Despite the fact that Kazakhs are now a majority of the population and the threat of separatism weakened with the transfer of the nation's capital to Astana, many Kazakhstani Russians are still uncomfortable with the loss of their privileged status and do not seem eager to fully accept the idea of the Kazakh statehood (Zardykhan, 2004) or learn the Kazakh language (Burkhanov, 2017). In addition, U.S. and EU sanctions against Russia that followed Moscow's involvement in Ukraine have put a significant pressure on the Russian economy, and Kazakhstan as the country closely integrated with Russia in political, military and economic terms via a network of regional organizations, including the Eurasian Economic Union (EEU), has also been affected by the growing Western sanctions (Voloshin, 2018).

In general, Central Asia resists Russia's desire to continue treating the region as its exclusive sphere of influence, but by promoting the EEU Moscow has received an upper hand in reintegrating the region as its backyard. Russia is also allergic to Central Asia's own integration initiatives unwilling to support projects not directed from Moscow. It is not obvious that Russia strives for restoring the Soviet Union in some new form, but, given the existence of politicians in Russia who wish so, Central Asia remains sensitive to any such attempts. At the same time, given geographic, historic, demographic, cultural, economic and other factors, there is no other alternative for Central Asia than close or even allied relations with Russia. Being neighbors in a strategically important and vulnerable region, Central Asia and Russia should jointly address common challenges, such as international terrorism, religious extremism, illegal migration, drug trafficking, and other threats.

CHINA – FRIEND OR FOE?

In the first years of independence, there was a great level of mistrust and prejudice toward China in Central Asia instigated by a historic fear of a Chinese invasion – the precedent seen in the 18th century. Moreover, the People's Republic of China (PRC) was considered a major source of a

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

potential military threat for Kazakhstan and other Central Asian states as there were unresolved Sino-Soviet territorial disputes (Peyrouse, 2016). Nevertheless, realities of independence dictated the need for Central Asia to engage directly with China to solve existing problems and establish mutually beneficial cooperation. It should be noted that in developing positive relations with China, the regional leaders were more inclined to show flexibility, or even amenability, while in relations with Russia they combined disobedience with conciliatory moves. The engagement with China was seen as part of the declared multi-vector foreign policy strategies of the Central Asian countries: playing the "Chinese card" was regarded necessary to balance Russia, the United States and other powers. At the same time, China itself had to be counterbalanced. The independence of the Central Asian countries led to heightened tensions in China's western Xinjiang Uighur Autonomous Region with a large Muslim population of the Turkic origin. Concerned with a potential destabilization of its territorial integrity, China was vitally interested that the newly independent states of Central Asia, in which large Uighur diasporas exist, refrained from supporting the Uighur separatist movement, and Beijing eventually succeeded in this endeavor (Fuller and Starr, 2018).

After the collapse of the Soviet Union, a major issue in the Central Asian-Chinese relations was the process of border delimitation and demarcation. Following years of intensive negotiations, the border settlement documents were signed, but it appears that China employed aggressive diplomacy during the negotiations to get the bulk of the disputed territories. All the Central Asian states had to make some territorial concessions, though they also sought to combine the border settlement process with the mutual reduction of military forces along the borders (Pannier, 2016). Despite accusations of a betrayal of national interests that surfaced domestically, the Central Asian governments hailed the outcome as a major victory: it was asserted that by solving border issues with China a major possible reason for a military conflict with China was removed. However, there was one important omission – the Central Asian states, particularly Kazakhstan, failed to link the border settlement with a critical issue of water usage on the Chinese side of the border to achieve an effective consensus on water rights (Stone, 2012). This problematic issue still remains a potential bone of contention, while China has already started to implement its plan of diverting part of water flows of trans-border rivers for domestic usage trying to convince its counterparts that water diversion would not cause significant damage to Central Asia's economies and environment (Zhang, 2017).

Central Asia's interaction with China has developed through such a regional institution as the SCO that originates from the "Shanghai Five" mechanism of confidence building and force reduction in the border regions. For Beijing, the SCO is an instrument to address new challenges and threats, including terrorism, separatism, religious extremism, drug trafficking, and illegal migration, by promoting military and intelligence cooperation, as well as to reinforce economic collaboration among the SCO member states. It is noteworthy that in addressing sensitive border and separatism related issues China preferred to engage in bilateral talks with the individual Central Asian states, but chose a multilateral forum to deal with more general issues. In the 2000s, China, like Russia, was irritated by the prolonged U.S. military presence in Central Asia, but, in the end, this presence proved to contribute to the consolidation of the SCO. Following the Tulip Revolution in Kyrgyzstan and the Andijan events in Uzbekistan in 2005, the U.S. strategic position in Central Asia weakened, while Russia, and to a lesser extent, China tried to

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

capitalize on these events and further erode the U.S. standing in the region in a renewed struggle for influence which was dubbed a new "Great Game" (Cooley, 2012). Among the three major powers, however, China succeeded the most in addressing its short and long-term interests in the region. Sharing a common border with three of the five Central Asian countries (Kazakhstan, Kyrgyzstan, and Tajikistan), China successfully resolved the issue of delineation of the entire former Sino-Soviet border. It also managed to prevent any involvement by the Central Asian states in China's own ethnic minority issues. Through the SCO, China also tries to deepen its security cooperation with the region (Pannier, 2017). By employing pragmatic approaches in its relations with the Central Asian states, Beijing has increased its economic presence, especially in the region's oil and gas sector. Therefore, China's rising influence in Central Asia comes as no surprise: strategic economic and security interests result in the increased Chinese involvement in the region. In its turn, by developing energy transportation infrastructure jointly with China, Central Asia diminished its dependence on transit options via Russia (Swanstrom, 2005).

Currently, China aggressively promotes its Belt and Road initiative by relocating its industrial capacities to the region and creating via massive infrastructure projects new supply chain routes across Central Asia that connect it with Europe (Laruelle, 2018). In the future, this may lead to the possibility of China's military involvement to protect its investments or energy-related imports. Besides, recent economic deals with China have started fierce discussions in Central Asia about implications of the Chinese expansion into the region: there are fears that the regional states compromise their economic security by borrowing heavily from China and allowing Chinese companies to acquire their strategic assets; apprehension also remains about increased Chinese labor migration. Despite all visible achievements in Central Asia-China relations, there is still a fear that China nurtures a more ambitious plan vis-à-vis Kazakhstan and the entire region. China's seemingly responsible and predictable policy is regarded as part of its elaborate strategy aimed to gradually increase the pace of its engagement in the region and patiently achieve real domination.

Notwithstanding all the above considerations, it is understood too well that the future of Central Asia is closely related to that of China. The regional leadership acknowledges that China which has already become a driving force of the global economy is set to play an even more important role in world politics, not to mention Central Asian affairs, and that there is no alternative to developing stable and friendly relations with this potential world hegemon based on trust and mutual understanding. Though China is committed to expanding its engagement in the region, it is early to say that the Chinese presence is visible in virtually all spheres of life in Central Asia. The region makes attempts to exploit its geographic advantages to improve its geopolitical perspectives; for instance, it has begun to serve as a transit corridor linking China's booming economy to European markets (Ordabayev, 2015). Being an importer of crude oil and owner of local energy assets and transportation networks, China should be interested in Central Asia's stability. In addition, for the sake of peace on its own periphery, such as Xinjiang and Tibet, it is in China's interest to maintain good neighborly and effective security relations with its Central Asian partners. At the same time, it appears that to survive between the two powerhouses such as Russia and China the Central Asian states need continued cooperation with the West as a stabilizing factor for maintaining the strategic balance in the region and promoting regional integration, but the challenge is to attract the attention

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

of Washington and Brussels, which is focused elsewhere.

CENTRAL ASIA: IS REGIONALIZATION POSSIBLE?

In the regional context, since gaining independence, Central Asia, at least in a declarative way, has strived to become a zone of security, good neighborliness and friendship. Artificial boundaries of the newly independent Central Asian states that Moscow had established during the Stalinist era without paying much attention to the distribution of ethnic groups presented a cause for concern (Freni, 2013). Therefore, the crucial challenge was to avoid bloody conflicts caused by mutual territorial claims and interethnic tensions. The ruling elites of the Central Asian states have always emphasized that their countries have much in common – in terms of their historic fate, culture, language and religion. Given these uniting factors, one should have expected much closer relations among post-Soviet "stans" after the disintegration of the Soviet Union. However, divergent interests and needs of the Central Asian nations were detrimental to regional cooperation and integration (Rosset and Svarin, 2014). Numerous reasonable integration initiatives have largely failed, prevented by persistent mutual suspicion among the regional leaders, and, in spite of many areas for cooperation, efforts to promote political and economic partnership in the region have so far led to modest progress. No visible improvements have been achieved since independence in such issues as the movement towards a Central Asian free trade area (let alone a customs union or common market) and the creation of regional consortia for hydropower and water management, transportation, construction and other sectors.

Regional integration was impeded by mutual suspicions and, not least, by Kazakhstan's and Uzbekistan's ambitions for the leadership in Central Asia and resulting fears of their smaller neighbors about a new "elder brother." In the early 1990s, two regional security initiatives were put forward by the leaders of Kazakhstan and Uzbekistan, Nazarbayev and Karimov, to compete for success and international recognition: both have been realized since but questions remain about their future viability that largely depends on support of outside powers (Laruelle and Peyrouse, 2012). Kazakhstan's idea was the Conference for Interaction and Confidence-Building Measures in Asia (CICA), which was eventually established under the Almaty Treaty of June 2002, after a decade-long diplomatic work. CICA, one of Nazarbayev's pet projects, was conceived as an OSCE-style, pan-Asian security organization, but it seems incapable to overcome contradictory interests of its participants and will likely remain only a discussion forum for security issues. The competing Uzbek project, a Central Asian Nuclear-Weapon-Free Zone (CANWFZ), was formally completed in September 2006, when the CANWFZ Treaty was signed in Semipalatinsk. Nevertheless, the potential of the CANWFZ as the only regional security initiative that unites all the five countries of the region has yet to be fully utilized due to the absence of practical implementation mechanisms and insufficient cooperation between the Central Asian states in the CANWFZ framework.

Military cooperation within Central Asia remains weak. During the Tajik civil war, Kazakhstan, Kyrgyzstan and Uzbekistan contributed small units for peacekeeping and border control activities in Tajikistan, but the effort lacked coordination and largely appeared to justify the presence of the significant Russian military contingent in the country. Later, with support from NATO,

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

the same countries created the Centrazbat, a joint regional military unit to serve as the Central Asian peacekeeping force (GlobalSecurity.org, 2011). After participating in several exercises held as part of NATO's Partnership for Peace program, however, the Centrazbat ceased to exist due to a lack of commitment from the regional leadership. Nowadays, military exercises that involve the Central Asian states are held under the CSTO, SCO and NATO umbrellas. Maintaining high military readiness in the region with a rich potential for interstate and interethnic conflicts which is also a possible target for competition and intervention by outside forces is crucial for Central Asia's security. As one of the most dangerous perceived threats is economic dominance of outside powers in the region (or even control of the national economies), as well as possible infringements on political sovereignty of the Central Asian states, more active military cooperation between them seems necessary to withstand such potential threats.

Mutual relations between the Central Asian countries have always been difficult consisting of border incidents, trade bans, railway closures, gas supply cuts and even border mining. The regional states still learn to coexist, but with the leadership change in Uzbekistan in 2016 and new Uzbek President Mirziyoyev having declared strengthening links with the neighbors as his major foreign-policy priority (Weitz, 2018), the intraregional relations are gradually improving: border issues are being addressed, and economic disputes are now solved by more civilized methods. It remains to be seen if the ongoing reforms in Uzbekistan could become the main driving force of a regional rapprochement and promote political, economic and humanitarian cooperation in Central Asia (Zakirov and Nevskaya). At the same time, a new U-turn in Uzbekistan's foreign policy, which is quite possible in the future, may restore a previous status-quo which would be unfavorable for enhanced Central Asian partnership. One of the major potential threats is a failure of the current efforts to rejuvenate cooperation among the Central Asian states and possible interstate armed conflicts in the region over territorial and border disputes or access to scarce resources, such as water. Moreover, these already serious sources of tension are aggravated by historic and ethnic animosities, which have led to escalations in the past. To avoid a war and maintain a delicate balance of interests at the regional level, the governments of the Central Asia countries will have to continue negotiations to resolve the long-standing issues between them. It appears that the most important strategic task for the Central Asian states is to ensure their unity which is based on their common historic, ethnic and cultural roots, as well as shared interests and challenges. The unity is indispensable for securing political stability, military security, and economic prosperity, and for effectively exploiting differences among major powers to guarantee that no external player has a monopoly on influence in the region.

BUILDING PARTNERSHIP FOR ENVIRONMENTAL SECURITY

With regard to other significant security threats and challenges, environmental issues remain an unresolved problem for Central Asia, which is one of the world's most vulnerable regions in terms of environmental security. Common problems include old issues inherited from the Soviet Union (desiccation of the Aral Sea, uranium and radioactive waste sites, desertification, and soil erosion) and new problems (the ecological dimension of transboundary water management, glacier ice loss, and climate change). Without closer regional cooperation in solving or mitigating these environmental

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

problems, the future development of Central Asia will be put at high risk due to potential negative ecological and socioeconomic consequences. For instance, the Central Asian countries face serious health and environmental dangers from abandoned and unprotected uranium mines, uranium tailings, and radioactive waste storage facilities. Due to the proximity of these sites to densely populated areas, the primary concern is that potential natural or intentional disasters or other emergencies in adjacent areas could critically affect the environment, economy, and public health of the entire region (Humphrey and Sevcik, 2009). Efforts of the international community to prevent health and environmental hazards have so far been undermined by the inadequacy of allocated technical and financial resources. Therefore, cross-border cooperation between the Central Asian states is needed to promote an effective and efficient remediation of such sites in accordance with international safety standards and practices. In this regard, the parties can use the provisions of the CANWFZ Treaty, the preamble of which states that one of the CANFWZ purposes is "promoting cooperation in the environmental rehabilitation of territories affected by radioactive contamination", while its article 6 specifically deals with the Soviet nuclear legacy (NTI, 2009). Establishing a cooperative mechanism in the CANWFZ framework would enable its member states to pursue a more coordinated policy in such areas as safety and security of uranium tailings and radioactive waste disposal.

Similarly, the regional governments should recognize that climate change does not recognize national borders and that, despite the differences in climatic conditions on the territory of the Central Asian states, common trends are observed in this area (World Bank, 2018). It is obvious that efforts of individual countries are not enough to make progress in addressing global warming and its consequences in the entire region. In order to achieve more or less tangible results in this direction, joint actions of all the Central Asian states are necessary, and close interaction should be carried out not only at the official interstate level, but also between their professional, academic, expert and business communities, as well as non-governmental organizations. The building of a regional dialogue on climate change issues will allow to clearly outline goals of such interaction and develop a common vision of a climate-sustainable future, making it possible to exchange information between relevant agencies of the Central Asian countries, particularly their meteorological services. In a region-wide context, it is premature to talk about the development of a consolidated strategy for limiting greenhouse gas emissions and adaptation to climate change, but the parties could explore opportunities for joint action, for example, in obtaining financial and technical assistance from the UN Green Climate Fund and other donor organizations. In addition, the countries could cooperate in raising awareness of their citizens about climate change and green economy, as well as in developing the culture of responsible and efficient consumption of energy, water, food and other goods.

CONCLUSION

Post-Soviet Central Asia opened to the world after the collapse of the USSR and found itself in a zone of intense cross-civilization influences. Several processes – of modernization, Westernization, spread of Islam and other religions, and national rebirth – began to simultaneously unfold in the region, which was historically part of the ancient Silk Road, but played no

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

role in contemporary international affairs before 1991. Because of the so-called 'power vacuum' and destabilization of regional security created by Russia's partial military and political departure from the region, Central Asia faced various security related issues having become an arena for major powers and regional players to compete for influence. Although much progress has been achieved in securing and guarding the national borders in the region, nowadays, in terms of security, Central Asia still confronts a number of serious threats and challenges, ranging from terrorism to climate change. To be able to successfully tackle them, the Central Asian states must improve their mutual cooperation and coordination. In the interest of future stability and prosperity, they should focus on their converging interests, promote mutual trust, build an equal dialogue and solve outstanding issues that prevent effective regional security collaboration. It is also important to obtain necessary assistance from interested foreign partners, as well as international and regional institutions. Such assistance would help the Central Asian governments to resolve the issues inherited from the Soviet Union and develop adequate responses to the present-day challenges and threats. Cooperation with Central Asia is also in the best interests of the leading powers because it contributes both to reducing regional security risks and strengthening their political and economic positions in the region.

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

REFERENCES

Altynsarina, Elya (2018). "Kazakhstan leads discussion of Afghanistan and Central Asia at UNSC, secures statement". Astana Times. (Accessed: 29.12.2018).

Azami, Dawood (2016). "Why are the Taliban Resurgent in Afghanistan?" BBC. (Accessed: 29.12.2018).

Bandey, Aijaz and Farooq Ahmad Rather (2013). "Socio-Economic and Political Motivations of Russian Out-Migration from Central Asia". *Journal of Eurasian Studies* 4(2): 146-153.

Botobekov, Uran (2016). "Is Central Asia Ready to Face ISIS?" The Diplomat. (Accessed: 29.12.2018).

Burkhanov, Aziz (2017). "Kazakhstan Leads Discussion of Afghanistan and Central Asia at UNSC, Secure Statement". *Cornell International Law Journal* 50(1): 1-14.

Cooley, Alexander (2012). "The New Great Game in Central Asia". Foreign Affairs. (Accessed: 30.12.2018).

Diener, Alexander (2015). "Assessing potential Russian irredentism and separatism in Kazakhstan's northern oblasts". *Eurasian Geography and Economics* 56(5): 1-24.

Encyclopaedia Britannica (2018). "Central Asia". (Accessed: 29.12.2018).

Freni, Salvatore (2013). "The Soviet Nationality Policy in Central Asia". *Inquires,* 5(3): (Accessed: 30.12.2018).

Fuller, Graham and Frederick Starr (2018). "The Xinjiang Problem". Central Asia-Caucasus Institute and Silk Road Studies Program. (Accessed: 30.12.2018).

GlobalSecurity.org (2011). "CENTRASBAT". (Accessed: 30.12.2018).

Humphrey, Paula and Margarita Sevcik (2009). "Uranium Tailings in Central Asia: The Case of the Kyrgyz Republic". Nuclear Threat Initiative. (Accessed: 30.12.2018).

INSS (Institute for National Strategic Studies) (2018). "The Return of Foreign Fighters to Central Asia: Implications for U.S. Counterterrorism Policy". National Defense University Press. (Accessed: 29.12.2018).

Karin, Erlan (2017). "Central Asia: Facing Radical Islam". French Institute of International Relations. (Accessed: 29.12.2018).

Laruelle, Marlene (2008). "Russia's Central Asia Policy Russia's Central Asia Policy and the Role of Russian Nationalism". Central Asia-Caucasus Instituteand Silk Road Studies Program. (Accessed: 30.12.2018).

Laruelle, Marlene and Sebastien Peyrouse (2012). "Regional Organisations in Central Asia: Patterns of Interaction, Dilemmas of Efficiency". University of Central Asia. (Accessed: 30.12.2018).

Laruelle, Marlene, ed. (2017). *The Central Asia–Afghanistan Relationship: from Soviet Intervention to the Silk Road Initiatives.* Lanham: Lexington Books.

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

Laruelle, Marlene, ed. (2018). *China's Belt and Road Initiative and Its Impact on Central Asia*. Washington: George Washington University, Central Asia Program.

Lee, Graham (2012). "The New Silk Road and the Northern Distribution Network: A Golden Road to Central Asian Trade Reform?" Open Society Central Eurasia Project. (Accessed: 29.12.2018).

Mehrdad, Ezzatullah (2018). "Islamic State: The Torment of Afghanistan's Shiites". The Diplomat. (Accessed: 29.12.2018).

Najibullah, Farangis (2011). "Watching the Soviet Coup from Central Asia". Radio Free Europe/Radio Liberty. (Accessed: 29.12.2018).

NTI (Nuclear Threat Initiative) (2009). "Central Asian Nuclear-Weapon-Free Zone". (Accessed: 30.12.2018).

Omelicheva, Mariya and Lawrence Markowitz (2016). "A Trafficking-Terrorism Nexus in Central Asia". The Diplomat. (Accessed: 29.12.2018).

Ordabayev, Aset (2015). *The Geopolitics of Transport Corridors in Central Asia*. Astana-Almaty: Institute of World Economy and Politics.

Pannier, Bruce (2011). "Central Asian Land and China". Radio Free Europe/ Radio Liberty. (Accessed: 30.12.2018).

Pannier, Bruce (2017). "A New Chinese Interest in Central Asian Security". Radio Free Europe/Radio Liberty. (Accessed: 30.12.2018).

Peyrouse, Sebastien (2008). "The Russian Minority in Central Asia: Migration, Politics, and Language". Woodrow Wilson International Center for Scholars. (Accessed: 30.12.2018).

Peyrouse, Sebastien (2016). "Discussing China: Sinophilia and sinophobia in Central Asia". *Journal of Eurasian Studies* 7 (1): 14-23.

Putz, Catherine (2018). "Central Asian States Step Up Afghan Diplomacy". The Diplomat. (Accessed: 29.12.2018).

Reuters (2018). "Uzbekistan Offers to host Talks between Afghan Government Taliban". (Accessed: 29.12.2018).

Rosset, Damian and David Svarin (2014). "The Constraints of the Past and the Failure of Central Asian Regionalism, 1991–2004". *Region: Regional Studies of Russia, Eastern Europe, and Central Asia* 3(2): 245-266.

Stone, Richard (2012). "For China and Kazakhstan, No Meeting of the Minds on Water". *Science* 337(6093): 405-407.

Swanstrom, Niklas. (2005). "China and Central Asia: a new Great Game or traditional vassal relations?" Institute for Security & Development Policy. (Accessed: 30.12.2018).

Trofimov, Yaroslav. (2015). "Central Asia Fears Afghan Contagion". The Wall Street Journal. (Accessed: 29.12.2018).

UNODC (UN Office on Drugs and Crime) (2017). "Afghanistan Opium Survey 2017: Cultivation and Production". (Accessed: 29.12.2018).

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

UN (United Nations) (2018). "Declaration of the Tashkent Conference on Afghanistan: Peace Process, Security Cooperation & Regional Connectivity". (Accessed: 29.12.2018).

Voloshin, George (2018). "Western Sanctions Against Russia Leave Kazakhstan Exposed". Jamestown Foundation. (Accessed: 30.12.2018).

Weitz, Richard (2018). "Uzbekistan's New Foreign Policy: Change and Continuity under New Leadership". Central Asia-Caucasus Institute and Silk Road Studies Program. (Accessed: 30.12.2018).

World Bank (2018). "The Challenging Face of Climate Change in Central Asia". (Accessed: 30.12.2018).

Zakirov, Iskander and Yuliya Nevskaya (2017). "Uzbekistan's New Foreign Policy Doctrine". The Central Asia-Caucasus Analyst. (Accessed: 30.12.2018).

Zardykhan, Zharmukhamed (2004). "Russians in Kazakhstan and Demographic Change: Imperial legacy and the Kazakh Way of Nation Building". *Asian Ethnicity* 5(1): 61-79.

Zhang, Hongzhou (2017). "Can China Solve Central Asia's Impending Water Crisis?" The National Interest. (Accessed: 30.12.2018).

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

THE ROLE OF THE CENTRAL ASIAN REGION IN CHINA'S NEW SILK ROAD ECONOMIC BELT PROJECT

Azhar SERIKKALIYEVA*

ABSTRACT

In forty years of reform and implementation of open economy policies, great changes have taken place in China. With the country's high engagement with the world, it became obvious that China did not isolate itself from the global developments. The rapid growth of China's economy and the country's growing ties with the rest of the world necessitates the development of new concepts and approaches in the Chinese diplomacy. China's emerging role in the international arena triggers a change in current international political environment and causes further rebalancing of multipolar system. Therefore, strengthening multilateral cooperation with the other regional powers and international organizations provides suitable atmosphere for development. The study explores the key factors of interest for China in Central Asian states from the point of view of implementing its outside economic strategies.

Key Words: China, Central Asia, SCO, BRI, Foreign Policy.

* Research Fellow, Eurasian Research Institute, Mametova 48, Almaty 050004, Kazakhstan, e-mail: serikkaliyeva@gmail.com

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

INTRODUCTION

Since China announced its reform and open-door up policy, the country had adopted a low profile foreign policy established by the late Deng Xiaoping. Under the leadership of Deng Xiaoping, China joined the world; with its continuous rise, it is expected by the world community to play a more important role in world affairs. Today China's grand diplomacy is featured by so-called "two fronts and one circle" strategy. The "two fronts" include a new type of great powers relationship with countries such as the US, Russia, India and major European countries, and the Belt and Road Initiative (BRI) which mainly deals with developing countries; thus, the "one circle" refers to peripheral diplomacy that is mainly related to China's Asian neighbors.

Announcement of the revival of the ancient Silk Road by the Chinese President Xi Jinping in Astana, the capital of Kazakhstan on September 7, 2013, signals underlying importance of the Central Asian countries for China and the potentially significant role played by the Eurasian region in China's much-ambitious and much talked about BRI. It was during President Xi Jinping's maiden visit to the Central Asian countries that he proposed to work closely with the Central Asian republics for jointly development the New Silk Road Economic Belt (NSREB). President Xi said that China-Central Asia should work to improve rail and road connectivity through development of strong networks of highways, airfields and bridges to establish the strategic regional thoroughfare from the Pacific Ocean to the Baltic Sea, and gradually move toward the set up of a network of transportation that connects Eastern, Western and Southern Asia. (Xinhua, 2013)

By reviving the Silk Road, President Xi Jinping has been working towards rejuvenation of old cultural as well as trade ties with countries along the Silk Road. At Nazarbayev University in Kazakhstan, President Xi delivered a speech titled "Promote People-to-People Friendship and Create a Better Future". During the speech, he stated: "In order to make the economic ties closer, mutual cooperation deeper and space of development broader between the Eurasian countries, we can innovate the mode of cooperation and jointly build the NSREB step by step to gradually form overall regional cooperation. First, to strengthen policy communication. Countries in the region can communicate with each other on economic development strategies, and make plans and measures for regional cooperation through consultations. Second, to improve road connectivity. To open up the transportation channel from the Pacific to the Baltic Sea and to gradually form a transportation network that connects East Asia, West Asia, and South Asia. Third, to promote trade facilitation. All the parties should discuss the issues concerning trade and investment facilitation and make appropriate arrangements. Fourth, to enhance monetary circulation. All the parties should promote the realization of exchange and settlement of local currency, increase the ability to fend off financial risks and make the region more economically competitive in the world. Fifth, to strengthen people-to-people exchanges". (Ministry of Foreign Affairs of the PRC, 2013)

According to President Xi, one of the major goals of BRI is to "break the bottleneck in Asian connectivity by building a financing platform" (Xinhua, 2014). To achieve this objective, President Xi has divided BRI into two components: land and maritime. While the maritime component of BRI is known as the 21st Maritime Silk Road (MSR), land component is termed as NSREB, of which the Central Asian region is a key part. Aiming to bring sixty countries on board, the Chinese government has developed a blueprint of intent,

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

which has laid out the future plans for China in terms of working towards the implementation of the NSREB. This chapter, focuses on the important component of the NSREB, seeks to analyze China's motives and intent in the Eurasian landmass with a special focus on Central Asia. The paper includes following parts: China's Interests in Central Asia; Situating Central Asia in BRI; Response from Central Asia and Conclusion.

CHINA'S INTERESTS IN CENTRAL ASIA

Central Asia lies at the heart of China's Eurasian diplomacy in general, and the NSREB in particular. Following the collapse of the Soviet Union, China has endeavored to build and strengthen its relations with the five Central Asian states of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. China established diplomatic ties with the five newly independent Central Asian Republics in January 1992. Today the established cooperation between China and Central Asian states reached the strategic partnership level. China is the fourth largest in the world in terms of size and biggest non-CIS neighbor of Central Asia. It shares a border of about 3,500 km with Kazakhstan, Tajikistan and Kyrgyzstan. While originally the main focus of its political and diplomatic activities was to settle the Soviet legacy of disputed borders, its ties with Central Asia later started to reflect a growing desire to protect broader economic and security interests in the region. One of the major priorities of China is to maintain peace and stability in the region so that its own security at the border is safeguarded. Border security and Xinjiang Uyghur Autonomous Region (XUAR), which is the most restive region in China with majority of Muslim population have always been at the helm of China's Central Asia policy. According to estimates of the leaders of the Central Asian states, almost complete understanding was reached in ensuring regional security.

Also, the neighboring countries are partners in the international large-scale projects as the New Silk Road Initiative. Most of the routes from China to Europe pass through Central Asian territory, located strategically on the crossroads between Europe and Asia. As China is expanding its economic outreach to Europe, Central Asian countries wants to benefit beyond transit fees develop its infrastructure possibilities. Therefore, the major role of China in Central Asia in terms of geopolitics and geo-economics is quite understandable. According to American expert Martha Brill Olcott, China seems to have decided to move ahead of time, mentioning that the country has surpassed the United States and Russia in terms of influence in Central Asia (Olcott, 2013).

The Kazakh expert Kaukenov (2008: 83) assesses the situation as follows. China is regarded as a reliable and generous lender in many Central Asian countries and it does not attach political or democratic strings. China has put forward a number of goals, aiming to

(i) Become a regular participant in regional economic and political cooperation;

(ii) Help Central Asian countries set up barriers against the influence from external players;

(iii) Expand its cultural presence in Central Asia, which is prerequisite for China to become a superpower.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

The SCO: Fighting Three Evils

China's security relationship with Central Asia has grown manifold since the foundation the Shanghai Five Mechanism encouraged by Beijing in 1996 in order to resolve the border issues among China, Russia, Kazakhstan, Kyrgyzstan and Tajikistan. Established in 2001 the Shanghai Cooperation Organization (SCO) requires member states to develop state-to-state relationships based on partnerships rather than alliances. The SCO now has China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan and Uzbekistan, India and Pakistan as its full members, with Afghanistan, Belarus, Iran, Mongolia and as observers, and Armenia, Azerbaijan, Cambodia, Nepal, Sri Lanka and Turkey as dialogue partners. Nowadays, the SCO brings together 18 states, which are inhabited by over 3 billion people or over 45% of the world population (RIA, 2016). In 2015, the GDP of the SCO member states amounted to over $21 trillion, accounting for 27.1% of the world's total (CGTN, 2017). The SCO hints at new regional cooperation model under which member states coordinate their actions but do not have treaty obligations on specific issues, particularly in the military field. After settling border disputes, the SCO members promoted cooperation fighting with the security treats. The official founding declaration asserted that the main objective of the organization was to combat the so-called three evil forces: international terrorism, ethnic separatism and religious extremism. Thus, the SCO maintaining the safeguarding regional security and promoting regional development. The organization has been interpreted in a variety of ways since its inception. One group of analysts agree with the views of the governments of the SCO member states that the organization is primarily focused on regional security problems (Aris, 2009). Many Chinese analysts as Yu Jianhua, Director of the Institute of Eurasian Studies of the Shanghai Academy of Social Sciences (SASS) express the same view: the SCO is a regional organization of non-traditional security (Jianhua, 2009). Moreover, the Chinese Government does not consider the SCO as an alliance or bloc that could confront any third country, regional group, or organization. Therefore, Beijing insists that the SCO refused to be shaped as an anti-NATO bloc.

By initiating and developing the SCO, China started to focus on multilateral relations in its Central Asian policy rather than bilateral relations. China's main goal is the preservation of the stability, economic well-being, political order and security of XUAR, which shares a long and common border with Russia, Mongolia and three Central Asian states of Kazakhstan, Kyrgyzstan and Tajikistan. The second aim is to creating of a friendly and secure belt of states around Xinjiang region (Pradhan, 2018). The XUAR of China, sometimes known as East Turkestan or Chinese Turkestan, is home to approximately 21.6 million people of different ethnicities. The XUAR is one of the largest region in China, its shares one-sixth of the country's territory. The XUAR is economically prospering, but instability continues to persist for a range of reasons, such as Uyghurs' desire for autonomy or independence, dissatisfaction with the government, Han migration, income disparity, employment discrimination, religious suppression and resistance to assimilation (Wong-Tworek, 2015). Thus, China is more concerned with Uyghur separatism. Along with solving border issues with the Central Asian countries two Treaties on border security were signed: the Treaty on Deeping Military Trust in Border Regions (1996) and the Treaty on Reduction of Military Forces in Border Regions (1997).

The primary target of the Chinese anti-terrorism campaign is the East Turke-

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

stan Islamic Movement (ETIM), which advocates for the independence of Xinjiang. From the Chinese perspective, in the framework of the SCO it is of particular importance for China to be able to count on the support of the other nine member and observer states in its campaign against the ETIM. Moreover, China has also been able to draw support from the SCO partners in its efforts to frustrate other conventional or non-conventional security threats and to eliminate or to ease the external factors of disruption to China's stability and development. By 2001, when the SCO was formed, Chinese leaders were fully convinced that multilateral regional organizations were significant mechanisms for China to articulate its interests, strengthen its influence, cultivate its soft power, and promote multipolarity. In less than a decade, China was transformed from a passive, defensive participant to an active organiser with a well-defined agenda and strategy (Cheng, 2013). Through the SCO China is keeping geopolitical balance in the "strategic hinterland" region as well as playing a key role in the establishment of new structure of regional security process legally. The program of cooperation on security issues began shortly after establishing of the SCO. At that period it was very important for China to prevent the foreign intervention into the Central Asian states policy and security, as well to avoid supporting of ETIM by the other newly independent Central Asian Turkic states. In this light, following documents were signed in the SCO framework: The Shanghai Convention on combating terrorism, extremism and separatism (2001); SCO Regional anti-terroristic structure (2002); Agreement on combating drug trafficking (2004); Agreement on joint anti-terrorist activities (2006); Treaty of the long-term good neighborly and friendly cooperation among member states of the SCO (2007); Agreement on combating trafficking in firearms, ammunition (2008); Agreement on cooperation in the field of ensuring international information security (2009); Joint declaration on cooperation between the SCO and UN secretariats (2010); Provision on the political, diplomatic measures and mechanisms for regulating the situations that endanger security and stability of the region (2012). Also, the Peaceful Mission – a joint anti-terroristic military exercises were first time kicked off within the SCO framework in 2002. The member-state military units practiced a joint anti-terrorist operation in the SCO territory annually. Combat units have worked out actions to confront terrorists on land, at sea and in the air. All these agreements provided legislative base for the SCO common security space and adopted political and military measures, building an unpredictable cooperative and stronger relationships within the regional community. Also, through the security cooperation the SCO passed the institutionalization process.

Energy

China's interest in the region's resources serves the primary purpose of meeting its growing domestic energy needs. Economic reforms in the 1970s and 1980s in China resulted in rapid economic growth, boosting the demand for energy and turning the country into a net importer. Although China has been importing crude oil since 1993, it has been unable to meet its gas needs on its own since 2006, and has been actively searching for alternative energy supplies. Counting on newly explored Central Asian resources, China attempted first to diversify its energy imports by sources and routes, and second to actively participate in the development of new gas fields (Aminjonov, 2018). International Energy Outlook 2016 estimates that in 2015, China's oil imports amounted to about 6.6 million barrels per day,

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

which was 59% of the country's total oil consumption (Sternberg et al, 2017). By 2035, the Energy Information Administration (EIA) projects China's oil imports will rise to about 9.7 million barrels per day, accounting for about 62% of total oil consumption (Mariani, 2013). It is necessary to note, that in the context of the global financial crisis, China has become the largest creditor and the investor for Central Asia, almost bypassing both Russia and the countries of the West. Thus, China and Central Asia share common interests in the economics and politics field. Central Asia supplies hydrocarbons so necessary for China and it is ready to become the trade bridge between China and the Western Europe. China's elite have determined Central Asia as an ultimate bridge linking the mainland with the main BRI land points, thus, positioning it as one of Eurasia's most promising centers and making it a prime location for observers. It is clear that a key goal for Chinese investors in Central Asia is to secure overland deliveries of energy resources to China by inland routes alternate to maritime shipments, which means that Beijing also has a geopolitical interest in strengthening energy cooperation with Central Asia. Therefore, China has been keen on developing energy corridors in Central Asia. Presently, China is the second consumer of oil and gas in the world and may be importing 50% of the regions oil by 2020 China's major energy partners in Central Asia are Kazakhstan and Turkmenistan with whom it shares a 1,700 km land border. As of August 2016, China is in control of 20% of the Kazakh oil production and has constructed one of the world's longest pipelines running about 2, 300 km from the Caspian Sea to the Xinjiang province (Hart, 2016). The cooperation and economic foundations between China and Central Asia are extensive and sound, and urgency for policy cooperation in energy transit can be seen. At present, transit projects between China and Central Asia include the China-Kazakhstan oil pipelines, China-Kazakhstan gas pipelines (the second phase of the China-Central Asia gas pipelines), and the China-Central Asia gas pipelines. The China-Central Asia Gas Pipeline is the most important line for importing energy to China and falls into four sub-pipelines: lines A, B, C and D.

China already has arrangements with Central Asia through three operational China-Central Asia Gas pipelines. The pipeline starts at Turkmen-Uzbek border city of Gedaim and runs through Central Uzbekistan and southern Kazakhstan before reaching Horgos Special Economic Zone and Xinjiang. Lines A and B were inaugurated in 2009 and 2010. Line C was completed at the end of 2013 and was inaugurated in May 2014. It was constructed along the same route as lines A and B, with a total length of 1,830 km. The designed capacity is 25 bcm annually, of which Turkmenistan will supply 10 bcm, Uzbekistan 10 bcm and Kazakhstan 5 bcm. In September 2013, an inter-governmental agreement was signed between China and three Central Asian states (Kyrgyzstan, Tajikistan and Uzbekistan) to start construction of Line D. Line D follows a different route compared to lines A, B and C. It will pump gas from fields in eastern Turkmenistan through Uzbekistan, Tajikistan and Kyrgyzstan to the Chinese border (Wang 2016). Therefore, the reliability of energy supplies, along with interdependencies within diversified export routes, requires an effective regional energy governance mechanism to be established either within the SCO or the BRI (Aminjonov, 2018).

China's Peaceful Co-development and Good Neighborly Policy

After the settlement of the boundary issue, China signed the good-neighborly treaties of friendship with three neighboring Central Asian countries.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

In 2002, China signed the China-Kyrgyzstan Good-neighborly Treaty of Friendship and Cooperation with Kyrgyzstan and signed China-Kazakhstan Good-Neighborly Treaty of Friendship and Cooperation with Kazakhstan. China and Tajikistan signed the China-Tajikistan Good-neighborly Treaty of Friendship and Cooperation in 2007. The Treaty of Long-term Good-neighborly Relations, Friendship and Cooperation among then the Member States of the SCO was approved in the 7th Summit of leaders of SCO members held in Kyrgyzstan in 2007 (Enyuan, 2012). China's emerging role in the international arena triggers a change in current international political environment and causes further rebalancing of multipolar system. Therefore, strengthening multilateral cooperation with the other regional powers and international organizations provides suitable atmosphere for development of China's New Diplomacy. The basis of China's New Diplomacy is formed by the New Security Concept, the New Development Approach, and the New Civilization Outlook, which were introduced in early 2000s. China's New Diplomacy has first been visible in China's diplomacy towards the Asian region, because the neighboring countries have always been crucial for Beijing to create a favorable and stable international environment. The New Security Concept encourages nations to build trust through consultations and to seek national security by means of multilateral coordination. It emphasizes: (1) multilateral ties, which stress interdependence among nations in terms of security; (2) cooperation, which replaces confrontation as the effective route to security; (3) comprehensiveness of security, which is not only confined to military and political fields alone, but also includes economic, technical, social and environmental fields; (4) institutional construction, as the legitimate road to security. The New Security Concept rejects power politics and the Cold War thinking. Proposed at the forum of the Central Committee of China's Communist Party in March 2004, by the President Hu Jintao, the New Development Approach stated that all countries should strive to achieve mutual benefit and "win-win" situations in their pursuit of development. Moreover, the New Civilization Outlook as a part of Hu Jintao's concept of the Harmonious word encourages intercivilization dialogue and aims at building a harmonious world on the basis of equality (Antonescu, 2015). The key idea of the Concept is that each civilization has the inalienable right to choose its own and independent development path, which is suitable for its own conditions. Since 1990s China sees its neighbors as partners and friends, not as adversaries and enemies; the purpose of the overall Chinese diplomacy towards its neighbors is to foster stability in the neighborhood and reduce suspicion and fear.

SITUATING CENTRAL ASIA IN BRI

The coconstruction of the BRI project is one of the major goals of Chinese Government. Despite the creation of the Eurasian Economic Union (EEU), China remains the major trade partner of Kazakhstan. Within the BRI, the two countries are developing infrastructure facilities for bilateral trade. Consequently, the EEU, a regional organization, initially created aiming to protect itself from an excessive economic influence of China, has changed its direction toward the interface with the Chinese initiative. BRI's primary goal is to create a system to facilitate Chinese outbound investment, which is necessary in order to maintain country's economic growth as it transits into a more mature and developed economy. As explained by Dr. Pang Zhongyin (2015), currently the Dean of the School of International Studies at the Sun Yat-Sen University, an ultimate impact of China is to be a "Renewed World

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

Order", where the real-sector trade would replace financial control over the world economy and where strength is returned to multilateral institutions such as the UN and sovereign states, just as it was supposed to be after the World War II. Dr. Pang added more contextual clarity by describing BRI's economic genesis as being the natural progression from interdependency to globalization and now to connectivity, which he forecasts will ultimately lead to next generational global economic governance through the creation of a worldwide free trade road map.

This project is a major initiative for China to carry out open economic policies under new geopolitical conditions and it is also the most important project that China expects to provide special benefits for the Eurasian region. Central Asia is the historic core of silk roads through time. Today, presented as an economic corridor, a BRI of pipelines, bridges, roads, etc. is imagined for Central Asia to enhance security and energy cooperation. The Chinese side could manage to set financial provision mechanisms within the framework of the BRI. Several institutions were established to finance the Chinese BRI. The first institution is the Silk Road Fund with $40 billion capital, which is planned to be increased up to $100 billion. The second institution is the Asian Infrastructure Investment Bank (AIIB), established with $100 billion fund. The third institution is the New Development Bank BRICS (NDP BRICS). The total amount of funds of these three institutions could reach $240 billion. The AIIB started operations in January 2016, and the first group of projects financed by the Silk Road Fund has been officially launched. The Economist (2015) reports that China plans to spend a total of $1 trillion in government funds through AIIB and the China Development Bank on the BRI. Nowadays, countries along the route are discussing the possibility of allocation of mentioned funds for establishment or expansion of bilateral and multilateral cooperation. The BRI have gained wide international acceptance since the number of its participants has increased gradually. About 70 countries and organizations have expressed their support and contribution to the project. This global support has exceeded the scope of the traditional BRI project and helped to form an international cooperation framework with broad influence. Meanwhile, 34 countries and international organizations have already signed a number of inter-governmental cooperation agreements with China on jointly building the BRI project. Based on these inter-governmental cooperation agreements, specified cooperation programs will be additionally formulated. The Chinese Foreign Minister, Wang Yi, and the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) Executive Secretary, Shamshad Akhtar, signed the letter of intent in Beijing on April 11, 2016. According to the document, the two sides will jointly promote regional cooperation and the implementation of the BRI initiative. The two sides will also make specific action plans and encourage relevant countries to synchronize their development strategies with the initiative. Currently the BRI is at the stage of transforming from being discussed to being accepted to a certain level both economically and politically. To date, the BRI countries could manage to avoid the direct conflict of interest formally reaching an agreement on their participation in the project. However, with transition to the implementation phase, there is an essential need for the approval of the Official BRI Action Plan, according to which the BRI funds will be allocated.

Continental infrastructure development is one of the key goals of the NSREB, a transportation network is gradually taking its final shape within the framework of the initiative.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

Why Central Asia is Important for BRI?

China has been discussing the reviving of the Ancient Silk Road with Eurasia as a main direction since the Soviet Union collapse. Eventually, Chinese government has been investing fundamentally in infrastructure development and logistics projects for the past two decades. The then Chinese Premier, Li Peng stated the concept of the revival of the Ancient Silk Road during his maiden visit to Central Asian states. He said that "it is important to open up a modern version of the Silk Road" (Karibzhanov et al, 2012). Central Asia is placed highly in China's priority with respect to BRI. The out of five Central Asian states shares a long border with China. Given its strategic location, Central Asia is one of the most important region for BRI, since BRI treats Asia and Europe as a single space. Most of the routes from China to Europe pass through Central Asian broad territory, located strategically on the crossroads between Europe and Asia. As China is expanding its economic outreach to Europe, Central Asia wants to benefit beyond transit fees as it is trying to break away from oil and gas dependence. Also, Central Asian states come under the category of countries that are (overtly) friendly towards China. Therefore, China's influence in Central Asia has been on the rise, Russia is still dominant power. BRI will allow China to increase its presence in Central Asia. Nowadays, Central Asia is one of those regions of the world where security issues are always on the agenda. In the international community the Central Asian region is still associated with drug trafficking, danger of religious extremism and terrorism, and the underdevelopment of political and civil institutions. To this day, five countries in the region are still not in the position to regulate the arising problems finally (Somzhurek et al, 2018). Thus, initiating the BRI, China not only boosting cooperation with the Central Asian countries and strengthening the political and economic links, but also contributing into stability and security in the region.

Main BRI Projects in Central Asia

The Central Asian route's popularity has origin in China's spectacular growth. China began to re-emerge as an exporting power in the 1980s, and now exports $2 trillion of products per year across all routes, with roughly $500 billion of that to Europe and $15 billion to the five Central Asian countries (Observatory of Economic Complexity, 2015). A spokesperson for the Chinese Ministry of Commerce noted in April 2017 that since 2013, $304.9 billion in contracts have been signed between China and the economies along the route (Xinhua, 2017a). Following are the two major land economic corridors proposed under the BRI for Central Asia.

The New Eurasian Land Bridge

China's rail system has long linked to the Trans-Siberian rail system through northeastern China and Mongolia. In 1990, China added a link between its rail system and the Trans-Siberian system via Kazakhstan. China calls its uninterrupted rail link between the port city of Lianyungang and Kazakhstan the New Eurasian Land Bridge or the Second Eurasian Continental Bridge. In addition to Kazakhstan, the railways connect with other countries in Central Asia and the Middle East, including Iran. Since the completion of the rail link across the Bosphorus under the Marmaray project in October 2013, the New Eurasian Land Bridge has been connecting to Europe via Central and South

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

Asia. The new Eurasian Land Bridge is a transport route linking the Pacific Ocean to the Atlantic Ocean. Unlike the Trans-Siberian Railway starting from Vladivostok through Siberia to Moscow and further to Western Europe, this new bridge operates from the coastal city of China Lianyungang to Rotterdam (Netherlands) and Antwerp (Belgium). The railway route with the length of 10,800 km will pass through Kazakhstan, Russia, Belarus, Poland and Germany and will operate in more than 30 countries and regions. At the moment, several transcontinental railway routes already started operating, showing the potential of the BRI. Including the routes of Chongqing - Xinjiang - Europe / Duisburg, Germany /, Chengdu - Xinjiang - Europe / Poland / and Yiwu - Xinjiang - Europe / Madrid/. Now, the construction of appropriate roads, power lines and ports is steadily progressing.

12875 km route, from the city of Yiwu in Zhejiang province to Madrid, is the longest continuous train route ever. Many slightly different routes have been labeled under the term of the New Eurasian Land Bridge – some link Chongqing to Duisburg, while others link Beijing to Hamburg, however it is the middle section of the route, from Kazakhstan to Poland, which seems to define it. Rail freight from China to Europe is growing. Container traffic on the Trans-Siberian railway grew by 15 % in 2013 and 22 % in 2014, with a total of 865,600 20-foot (6.1 meters) containers of freight in the first six months of 2014. The average container spent 14 days in transit, confirming industry claims on the speed of China-Europe rail freight transit (Kondapalli, 2017). While Kazakhstan might have been overly optimistic in predicting a tripling of freight traffic through Kazakhstan every year from 2013 to 2020 (Bradsher, 2013), further growth does seem likely as the early movers solve logistical problems on the route, making newer entrants' issues less pronounced (Debreczeni, 2015).

Economic Corridor China - Central Asia - Western Asia

According to the Chinese Xinhua (2017b) news agency, the Economic Corridor China - Central Asia (ECCCA) links China and the Arabian Peninsula. The vast region, which it covers, actually repeats the trajectory of the ancient Silk Road. The corridor starts from China's Xinjiang and traverses Central Asia before reaching the Persian Gulf, the Mediterranean Sea and the Arabian Peninsula. It crosses five Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan and Turkmenistan) and 17 countries and regions in West Asia (including Iran, Saudi Arab and Turkey).

Kazakhstan is one of the best examples of the BRI cooperation in Central Asia. The Lianyungang terminal, which is located at the Jiangsu Province in East China, is Kazakhstan's first exit to the Pacific Ocean. The Lianyungang joint terminal is aimed to increase the export and import, as well as transit potential of Kazakhstan by railways, providing the shortest way to the Asia-Pacific region and South East Asia. The project contributes to the development of trade relations in the region and creates the possibility of transit from these countries to Central Asia, the Gulf States, Russia, the Caucasus region and Europe through the territory of Kazakhstan. About 60% of Kazakhstan's trade with East and South-East Asia countries along the BRI is carried out through the port of Lianyungang, through the new Eurasian continental bridge. Lianyungang is a key hub for Kazakhstan's trade with the East. Chinese "Lianyungang Port" Group and "Kazakhstan Temir Zholy Express" LLC jointly participated in the construction of the logistics cooperation project,

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

where Kazakhstan shares 49% and China – 51%. In total, $ 99.4 million were invested in the project (Surganov, 2015). The construction of the first joint Kazakh-Chinese terminal was laid in 21 hectares territory on May 2014. Container terminal of 200 thousand square meters, 1763 Container Parks, warehouse-unpacking containers in the area of 23 thousand square meters and 3.8 km access road terminal were constructed. The average daily throughput is 10.2 trains. Currently the highest annual truck capacity is 410 thousands of standard containers. Moreover, it is expected that by 2020, the terminal will process over 550 thousands of containers per year. The Lianyungang logistics cooperation project was created to implement a comprehensive international transportation, unpacking of the container orders, warehousing and other international cargo transportation. From January to November 2016, import and export volume of bilateral goods between Kazakhstan and China in the amount of $7.08 billion declined by 24.7%. Thus, Kazakhstan's exports to China amounted to $3.82 billion, declining by 23.9%, averaging 12.1% of its total export; Kazakhstan's imports from China amounted to $3.16 billion, down by 31.2%, averaging 23.1% of its total import. By November 2016, China has become Kazakhstan's second largest export market and the largest source of imports (Kazakhstan Trade Newsletter, 2016). Kazakhstan mainly imports clothes, electrical and mechanical equipment, construction materials, furniture, steel, etc. from China. Kazakhstan primarily exports oil and gas, non-ferrous metals, alluvial ore, grains, live leather, cotton, etc. to China.

From January to November 2016, Kazakhstan's cargo import and export reached $4.8 billion, and increased by 21.7%. Among them, the export in the amount of $3.32 billion increased by 33.6%; imports totaling to $1.48 billion increased by 1.5%. Trade surplus amounted to $1.84 billion, increasing by 78.7%. Cargo trains have already begun running from China to Iran through the territory of Kazakhstan and Astana is hoping to modernize its own available locomotives and repair 740 km of rails. The project's total cost is to amount to $2.7 billion; by making the upgrade, Kazakhstan aims to capture 10% of the $600 billion trade volume between China and Europe. The government of Kazakhstan has launched several programs including the "2050 strategy" and the "100 concrete steps" that incorporate the Chinese investments and goals for realignment with the BRI. In effect, trade turnover between the two nations has surpassed $18 billion and keeps growing, turning China into Kazakhstan's major strategic partner (Xiao, 2018). Beijing has also already invested nearly $30 billion in the country's mining, oil, transport, and agricultural sectors. These investments add to Astana's own $9 billion stimulus plan for the nation's modernization. Furthermore, Astana is also constructing "special economic zones" that include the Khorgos "dry port" on the Kazakh-Chinese border. On November 25, 2011, the Kazakh government decided to establish the Khorgos-East Gate logistics center near the Khorgos "special economic zone**"** (Frolovskiy, 2016).

Kazakh President Nursultan Nazarbayev and Chinese President Xi Jinping attended the opening ceremony of the first stage of the Kazakhstan logistics terminal in the Lianyungang port on May 19, 2014. The first train carrying 720 tons of wheat from Kazakhstan arrived in the Lianyungang port on February 5, 2017. It was then shipped to Southeastern Asia, opening a new trade route. Transit cost of Kazakhstan's trade with East Asia significantly reduced, saving about $72 million per year. Thus, the distance to Japan shortened by 2,500 km and by 3,900 km to Singapore, comparing with the first Eurasian Continental Bridge route. Kazakhstan mainly imports vehicles and its parts, mechanical equipment, electrical appliances, plastic and rubber from East and Southeast Asia (Kulintsev, 2015). Chinese side made pro-

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

posals on joint construction of the "Integrated Bonded Area New Area in Suwei district of Lianyungang". The Bonded Suwei New Area is supposed to join Kazakhstani and Chinese producers. In particular, the processing and modification of copper products, food, household goods, electronics, second-hand goods and vehicles are exported from Kazakhstan to North-East Asia. The Bonded Suwei New Area will supply exporters with technical support. Therefore, construction of the "Business complex", the "Asia-Europe trade and exhibition center", the "trade and service street" and other projects are planned. Among them, the total area of the SCO Countries Logistics Zone terminal will cover 450 hectares, where joint "State trading complex" will be constructed. According to the "Integrated Bonded Area New Area in Suwei district of Lianyungang" plan, Special-Customs-Control-Area will be established by 2030. The Lianyungang Customs is located in harbor area of Lianyungang. Nowadays, it has set up 16 section offices, including supervision office, technological office, and customs clearance office and so on, and one functional office, one anti-smuggling branch comprised of eight offices. At present, its jurisdiction covers the whole city of Lianyungang (Lianyungang Customs District, 2014). China's elite have determined Lianyungang as an ultimate bridge linking the mainland with the maritime portions of the BRI, thus, positioning it as one of Eurasia's most promising cities and making it a prime location for observers. Since it is also anticipated to play a bimodal (land and sea) role in linking the other regions of the extended supercontinent alongside it's near limitless physical infrastructure development potential, Lianyungang is easily predicted to become the center of geo-economic gravity that holds the BRI together, and likewise, one of the world's most critical economic fulcrums in the coming decades. During the 12th meeting of Heads of Governments (Prime Ministers) of the SCO member states on November 29, 2013 in Tashkent, the Prime Minister of the State Council of China, Li Keqiang, stated that Lianyungang city, located in the eastern beginning of the new Eurasian Continental Bridge, would give the member states of the SCO an access to logistics services and warehousing (The Regional Anti-Terrorist Structure of SCO, 2013).

Response from Central Asia

China is focused on how the BRI was perceived in Central Asia and other countries directly involved in the project and how these perceptions shaped responses to the initiative. It is obvious that China is aware of, the spread in the whole world, the "China threat" thesis, which became visible after growth of China's economic power and military capabilities. Currently, China set the task to neutralize the negative reaction abroad to the grand integrative initiative – the BRI, through formation of a positive international image of the country. One of the areas of impact of the "soft power" of China in the region is the education system. Chinese investments into the education sector (including scholarships) increase the student acceptance rate into the Chinese colleges and universities, as well as the rate of sending students to study in universities of Central Asia, opening of the Confucius Institutes and active promotion of the study of the Chinese language. As a result, over the past 10 years the number of students from the Central Asian countries in China increased dramatically, and Kazakhstan is the leader among them. Chinese institutions and organizations in Central Asia are organizing and funding a variety of cultural (concerts, exhibitions, etc.) and scientific events (conferences, workshops, research projects), cooperating with local organizations and institutions aimed at discussion and clarification of the Chinese BRI initiative.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

To set some context for how BRI is and will be received on the ground in Central Asia, it is important to note key socio-cultural dynamics in the region. Kyrgyz and Kazakhs are Turkic nationalities with shared linguistic, religious, and cultural roots from across what was once called Turkestan, a vast area stretching from the Tibetan Plateau and Himalayas to the Caspian Sea and Turkey. Identity, kinship, spiritual practices, and lifestyles remain vastly different from that of the Han Chinese. In the Soviet era, there was a massive influx of other ethnic groups into the region, including millions of Russians and significant numbers of Ukrainian, German, and Korean immigrants. More than 3.5 million Russians remain in Kazakhstan and Kyrgyzstan, further differentiating the people and orientation of the region from China. Today this contributes to separation and animosity between local residents and incoming Chinese with fear of de facto economic appropriation expressed in major cities. Government to government relations are strong, but as 2016 protests of perceived Chinese land-grabs in Kazakhstan demonstrated, these may not be attuned to local sentiments. Thus, as BRI projects are initiated, citizen interest and acceptance needs to be considered and addressed (Sternberg et al, 2017).

CONCLUSION

Through BRI, China is and will certainly remain the largest investor in Central Asia. It is the only country that can mobilize huge investment in the region, far beyond what Western countries and Russia can offer. China's growing involvement in Central Asia is a long-term phenomenon and a turning point in Central Asia's post-Soviet history and economic development (Laruelle, 2018). Central Asia is a key region to ensure the economic growth of XUAR and the development of the land corridor between China and Western countries as an alternative to the sea routes. At the moment, Central Asian countries are open to Chinese investment, but how successful the implementation of the BRI in Central Asia will depend on many factors in the medium and long term.

According to Xi Jinping's statement delivered at the 19th National Congress of the Communist Party of China on October 18, 2017, the Chinese government assesses the situation as follows: "China adheres to the fundamental national policy of opening up and pursues development with its doors open wide. China will actively promote international cooperation through the Belt and Road Initiative. In doing so, we hope to achieve policy, infrastructure, trade, financial, and people-to-people connectivity and thus build a new platform for international cooperation to create new drivers of shared development" (Xi Jinping, 2017).

China's economic influence and soft power has been commendable considering the short span of time in which China has strengthened its relations with Central Asia. In conclusion, it may be argued that through BRI, China seeks to develop its western region and reap economic benefits. Also, China is concerned on ties with the Central Asian region and whole Eurasia due to its global geopolitical ambitions. Developing of infrastructure projects within the BRI in Central Asia gives logistical diversification both for Central Asia and China. Ongoing implementation shows that Central Asia figures as one of the key strategic partner of the project and hold a significant place in the China's plan.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

REFERENCES

Ai, Yan (2017). "SCO to Expand For First Time in 2017 Summit". (Accessed on 20.11.2017).

Aminjonov, Farkhod (2018): Central Asian Gas Exports Dependency, *The RUSI Journal* 163(2).

Antonescu, Madalina (2015). "The New Chinese Security Concept and the Peaceful Rise of China as Two Basic Pillars of the Contemporary Chinese Foreign Policy". *Polis* 1(1): 59-77.

Aris, Stephen (2009). "The Shanghai Cooperation Organization: "tackling the three evils". A regional response to non-traditional security challenges or an anti-Western bloc?" *Europe-Asia Studies* 61(3): 457-482.

Bradsher, Keith (2013). "Hauling New Treasure along the Silk Road". The New York Times. (Accessed: 25.10.2018).

Cheng, Joseph (2013). "China's Regional Strategy and Challenges in East Asia". *China Perspectives* 2: 53-65.

Debreczeni, Gabor (2016). "The New Eurasian Land Bridge Opportunities for China, Europe, and Central Asia". The Public Sphere.

Enyuan, Wu (2012). *China - Russia, Central Asia East Europe Relations: Review and Analysis.* Beijing: Social Sciences Academic Press.

Frolovskiy, Dmitriy (2016). "Kazakhstan's China Choice". The Diplomat. (Accessed: 05.11.2016)

Hart, Michael (2016). *"Central Asia's Oil and Gas Now Flows to the East". The Diplomat* (Accessed: 14.10.2016).

Jianhua, Yu (2009). *Studies on the Nontraditional Security of the Shanghai Cooperation Organization.* Shanghai: Academy of Social Sciences Press.

Karibzhanov, Zhanibek and Nabizhan Mukhametkhanuly (2012). *China's Foreign Policy and Kazakhstan Relationship (2000-2010).* Almaty: The Kazakh University Press: 138.

Kaukenov, Adil (2008). Features of Chinese Diplomacy in Central Asia: a view from Kazakhstan. "Central Asia - China: conditions and perspectives of cooperation" conference proceedings. Almaty, KISI under the President of the Republic of Kazakhstan.

Kazakhstan Trade Newsletter (2016). (Accessed: 24.05.2017).

Kondapalli, Srikanth (2017). *One Belt, One Road: China's Global Outreach.* New Delhi: Pentagon Press.

Kulintsev, Yury (2015). "One Belt, One Road: an initiative with Chinese characteristics". russiancouncil.ru. (Accessed: 29.01.2017).

Laruelle, Marlene (2018). China's BRI and its impact in Central Asia. Central

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

Asia Program, The George Washington University.

Lianyungang Customs, "Lianyungang Customs District of China". (Accessed: 13.12.2017)

Mariani, Bernardo (2016). "China's role and interests in Central Asia". Saferworld. Policy Brief 1.

Ministry of Foreign Affairs of the PRC (2013). "President Xi Jinping Delivers Important Speech and Proposes to Build a Silk Road Economic Belt with Central Asian Countries". (Accessed: 29.12.2017).

Observatory of Economic Complexity (2015). (Accessed: 23.10.2016).

Olcott, Martha (2013). China's Unmatched Influence in Central Asia. Carnegie Endowment for International Peace.

Ramakrushna, Pradhan (2018). "The Rise of China in Central Asia: The New Silk Road Diplomacy". *Fudan Journal of the Humanities and Social Sciences* 11(1): 9–29.

Somzhurek, Baubek, Aigul Yessengaliyeva, Zhanar Medeubayeva, Baurzhan Makangali (2018). "Central Asia and Regional Security". *Communist and Post-Communist Studies* 51(2): 161-171.

Sternberg, Troy, Ariell Ahearn and Fiona McConnell (2017). "Central Asian 'Characteristics' on China's New Silk Road: The Role of Landscape and the Politics of Infrastructure School of Geography", *Land* 6(3): 1-16.

Surganov, Valeryi (2015). "Lianyungang Port to Increase Cargo Traffic through Kazakhstan". (Accessed: 29.09.2015).

Wang, Han (2016). "Towards a cooperative framework for a China-Central Asia energy transit community". Occasional Paper Series. Energy Charter Secretariat Knowledge Centre.

Wong-Tworek, Susan (2015). *China's Economic Development Plan in Xinjiang and How it Affects Ethnic Instability.* Master's Thesis. Monterey: Naval Postgraduate School.

Xi, Jinping (2017). Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era Delivered at the 19th National Congress of the Communist Party of China. October 18, 2017.

Xiao, Zhang (2018). "Trade Turnover between Kazakhstan and China Amounted to $18 billion", (Accessed: 20.09.2018).

Xinhua (2013). "Xi Suggests China, Central Asia Build Silk Road Economic Belt". September 7, 2013, (Accessed: 10.10.2016).

Xinhua (2014). "APEC Members Agree on Connectivity Blueprint". November 18, 2014, (Accessed: 24.11.2014).

Xinhua (2017a). "Belt and Road Initiative Exceeds Initial Expectations". April

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

11, 2017, (Accessed: 04.12.2018).

Xinhua (2017b). "China-Central Asia-West Asia Economic Corridor (The Belt and Road Initiative)". April 19, 2017, (Accessed: 16.10.2018).

BOOK REVIEWS

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

EDUCATION FOR SUSTAINABILITY THROUGH INTERNATIONALISATION: TRANSNATIONAL KNOWLEDGE EXCHANGE AND GLOBAL CITIZENSHIP

Gulnar NADIROVA*

Neera Handa, Education for Sustainability through Internationalisation: Transnational Knowledge Exchange and Global Citizenship (Palgrave Studies in Global Citizenship Education and Democracy) Palgrave Macmillan, 2018, 245 pp.

The goal of sustainable higher education is to prepare responsible global citizens with the knowledge, skills, and attitudes needed in the 21st century.

This is the starting point from which Neera Handa, an Adjunct Fellow for Learning Transformations at Western Sydney University, Australia, begins her research on finding an alternative solution to existing forms of education, the current quality of which she considers inadequate to the social, environmental and ethical problems of the modern world. It is in the process of educational internationalization that the author of the book sees a guarantee of sustainability.

According to the author, the internationalization of learning and the study of sustainability can lead the flow of knowledge across national, cultural, linguistic boundaries. The main message of this book is the opposition of the non-Western humanistic tradition of altruism, goodness, compassion as the main goal of transformative knowledge and education to education system focused on values, consumer culture, the spirit of competition and individualism of the Western world. Most modern research in the field of sustainable education focuses on the need to change behaviors or tools and approaches, but few people think about alternatives and transcultural exchange as a way of opening new perspectives and differing worldviews.

The book includes eight chapters, and almost each of them contains elements of non-Western theory or concepts from classical or religious texts. The chapters are followed by References and Index.

However, the author claims that she does not have the goal of identifying contradictions or the dominance of Western values. She is much more worried about the lack of participation of other actors - passive consumers of "alien" knowledge. In these conditions, the process of transformative, transnational and transcultural exchange is an argument in favor of internationalization, while the coexistence of Western and non-Western traditions of knowledge is quite possible. By internationalization, the scholar means the exchange of theories, models, and methods for academic and practical purposes

* Senior Research Fellow, Eurasian Research Institute, Mametova 48, Almaty 050004, Kazakhstan, e-mail: gulnad@mail.ru

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

between countries.

Chapter 1 "One Dark Night of the Full Moon" reveals the richness of cultural and philosophical traditions corresponding to the balanced sustainable interaction of knowledge and the environment that exist outside of Western knowledge systems. The author criticizes colonial utilitarian attitude to nature, the distance between nature and man through the plot of a famous Australian film about insurmountable contradictions between local residents, whose harmonious coexistence and understanding of nature are not recognized and rejected, and representatives of Western civilization. This example is obviously intended to prove the need for intercultural dialogue and the opportunity to hear the voice of those who are usually silent in global discourse of western capitalist pattern. The term "sustainability" in this chapter receives an additional interpretation - changing the choice of how to live, how to consume, how to relate to each other, and changing the worldview as a whole. The reader comes to the key thought of this chapter, and the book as a whole, that we need a different type of education, built on transformative knowledge and spiritual development.

In the following chapter, "Om and Connectedness," the author allows herself to delve into a personal narrative, which naturally leads to a predominance of I-ness and My-ness that looks somewhat inappropriate. However, this non-academic style gives her the opportunity to raise the most important philosophical questions: Who are we? Where did we come from? Where are we going? What is the purpose of our life?

Dr. Handa is looking for answers to these questions in Indian"tri-vid," concept of the which constructs the notion of transformative knowledge, not the passive consumption of someone's truth, but rather the act of creation. This approach, the author believes, radically changes priorities and brings the person closer to self-development, social justice, and harmony.

Chapter 3 "Truth is Many in One" is devoted to the presentation of this idea. It looks like the text is oversaturated with notes, quotations, quotations inside the notes, links (about 100 notes and 85 references for one chapter), but first of all by ideas, sometimes original, but often common, about practical knowledge, about truth, about the role of education in society. The thought of education, which questions rather than offers answers and represents a path leading to transformation, evokes clear associations with the classical doctrines of Eastern religious and philosophical traditions.

Building on the texts of the Upanishads in Chapter 4, which is titled "Da Da Da: The Educational Imperative of Self-Control, Generosity and Compassion, "Neera Handa once again underlines the transformative goal of higher education - the achievement of higher and universal good, which is not determined by economic and market parameters, that create an atmosphere of tough competition, destruction of the environmental, class, religious and natural disasters. The pathos of this chapter consists in asserting the incompatibility of the materialist approaches and values of the current education model (competitiveness, secularism, a reference to labor markets, accreditations, standards, tests, accountability) with the great goal of education - to make the world a better place.

Another ancient Indian cultural image gave the name to the next chapter, "Sangam: A Confluence of Streams and Ideas," explaining the synergistic relationship between internationalization and sustainability as global approaches to higher education. The author continues to delve into the definition and disclosure of the terms "internationalization", "sustainability",

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

and "globalization" and their distorted use in the field of higher education. This makes it possible to once again revise the concept of education for sustainability, shift the focus on behavioral change, minimizing the impact on the environment, respecting the needs of future generations, avoiding competitive individualism, a unilateral flow of theoretical knowledge from West to East in favor of a bilateral flow of transcultural knowledge exchange. In this way, as Nira Handa believes, global citizenship should develop.

Chapter 6 "Karam YoGi: And the Highest Good" offers another concept expressing selfless action for the fulfillment of moral duty, drawn from the great Indian epic "Mahabharata". A global citizen, and every student should become such a citizen in the process of internationalization, has a big mission - to change society and the world for the better. The researcher considers the specific pedagogical approaches and methodology in the next chapter "Sarvadoya in an Internationalized Education for Sustainability" based on the philosophy of Mahatma Gandhi as a means of involving teachers and students in the formation of transformative knowledge. It is assumed that his concept, based on truth, non-violence, self-determination, and equality, challenges the neoliberal discourse of domination and inequality. Thus, the path to a sustainable future in terms of social, economic and environmental sustainability lies through a change in the attitudes and behaviors of today's global society. The parallels between Gandhi's Sarvadoya and sustainability, as well as between Arjuna and global citizen look very "Indian", although the author does not hide her reliance on the intellectual heritage of her native country, moreover, she strongly emphasizes this in every way in the search for development alternatives.

The final chapter "Punhaarambh and the New Global Citizen", while not avoiding the gloomy assessments of the present, still calls for reinterpreting and rewriting the concept of higher education, embracing internationalization as a product of transnational and transcultural knowledge exchange.

Not a rhetorical question "Who will save the world?" Nira Handa answers herself. Only people can solve all the problems they have created. But it requires a new way of thinking and acting, new meanings of old terms; another way to another world is needed. The global society needs transformation, she believes, from consumerism to social justice, from competition to cooperation and social responsibility, from materialistic values to spiritual values - sympathy, morality, generosity, harmony. Such a transformation can occur through teaching and learning.

In conclusion, the discussion of the differences between current education and the proposed alternatives is impressive. The author expands the vision of educational space and its system of values and attitudes on a global scale due to original intellectual theories and concepts that are drawn from the beliefs and practices of the peoples of the East, which were not considered before as a potential development option.

The scholar has a lot to share with readers. Maybe even too much. It is sometimes difficult to isolate the author's thought from the abundance of cited thoughts and ideas of sources used, pathos and ethos are not just present in the text, but overwhelm it. Nevertheless, the text is read and perceived easily, but still requires some preliminary reading in the field of Eastern philosophical and religious dogma. The book contains many interesting proposals and independent judgments about the fate of higher education of the 21st century on a global scale, one of the most pressing areas of concern to humanity today.

Eurasian
Research
Journal
January 2019
Vol. 1, No. 1.

EURASIA'S MARITIME RISE AND GLOBAL SECURITY: FROM THE INDIAN OCEAN TO PACIFIC ASIA AND THE ARCTIC

Kanat MAKHANOV*

Geoffrey F. Gresh (Ed.), Eurasia's Maritime Rise and Global Security from the Indian Ocean to Pacific Asia and the Arctic Palgrave Macmillan, 2018, 303 pp.

This book explores growing importance of Eurasian continent and of its maritime geography with a special focus on accelerating climate change. The melting of the Arctic Ocean would bring fundamental changes in the region's economics, politics and security. The book is intended to describe the development of the maritime Eurasia in the context of the opening of the northern sea route and rising Asian economies.

The book is rather extensive and consists of 15 chapters covering various issues around the Maritime Rise of the Eurasian continent starting from security policies of the major powers of the region and ending with the rising environmental concerns and recent changes related to this.

First of all, the authors provide fairly interesting statistical figures about Eurasian maritime trade properly highlighting the scale and relative size of the region in the global context. Such facts as over two thirds of world oil and gas reserves being deposited on the Eurasian continent, 27 of the largest 30 world's container ports being located along the Eurasian coast etc. highlights the importance of the subject of the book attracting the readers' attention.

One of the particularities of the given book is that it focuses very much on China and establishing a strong linkage between recent economic and political developments around the maritime Eurasia and Chinese policies and interests. In particular, the authors focuse on China in Chapter 3 discussing the China's Maritime Silk Route agenda and the Regional Security in the context of maritime trade. In Chapter 8, the issue of security is continued to be discussed in the context of recent manifestations of the interests of China in the South China Sea that resulted in tensions with other big regional stakeholders such as Vietnam and the Philippines with a slight future projection. This approach reveals the current timeframe in which the book was written because China really is one of the most significant factors that pushes forward the Eurasian maritime agenda. At the same time, relatively little attention is paid to other less significant "players" of the maritime rise of Eurasia, especially to the role of Southeast Asia.

* Research Fellow, Eurasian Research Institute, Mametova 48, Almaty 050004, Kazakhstan, e-mail: username1006@gmail.com

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

Chapters 5 and 7 cover recent involvement and policies of Japan in relation to the Eurasian maritime issues. Special emphasis is made on recent relations and cooperation between Japan and India in developing mutually beneficial economic relations via maritime trade and in counteracting the rising influence and dominance of China. The authors try to present Japan and India as complementary economies due to certain clear facts about demographics, bilateral trade, transfer of technologies etc. However, fear of the two very large Asian economies of the rising Chinese influence in the Eurasian maritime issues is presented as a driving force of the recent intensification of cooperation between Japan and China. At the same time, Chapter 5 clearly reflects the fact that China perceives this cooperation as a threat to its economic and political dominance in the region and, which is more important, provides economic reasoning for this. The Chinese factors appears in many other chapters of the book in various contexts.

In Chapter 7, possible tensions between Japan and South Korea and North Korea are discussed with retrospective references and belligerent relations between the abovementioned countries. North Korea is shown as a source of uncertainty and a factor of cost for maritime trade whereas Japan's recent reforms aimed at reviving and strengthening its armed forces are perceived by the authors as a sign of readiness to reclaim certain maritime areas between the three countries and to withstand against the possible threats of the North Korean regime. In my opinion, this section exaggerates the economic and military potential of North Korea and its economic dependence on China, and countries outside the region is largely ignored.

It is worth mentioning that the book thoroughly discusses the issue of security within the Eurasian maritime framework in all main dimensions. Chapters 4, 6, 8 and 14 tackle the issues of security various points of view except for environment-related security. It is important to point out that the issue of security is well defined and explained based on clear conceptual frameworks throughout the abovementioned chapters. However, in my opinion, the discussion around cybersecurity in Chapter 6 is not highly relevant and is intended mainly to shed light on information technologies rather than cybersecurity.

The book heavily emphasizes the environmental aspect of the Eurasian maritime triumph. Basically, one of the core ideas transmitted by the book is that northern sea route is eminent. Making references on the latest available studies the authors assume that the northern route would be navigable by the mid-21st century and partially navigable by 2030. Despite numerous evaluations of the effects of the climate change, the authors of this book tend to support the hypothesis that the navigable Arctic Ocean would produce significantly more positive effects in economic terms than negative. Here it is important to note that the environmental agenda is present throughout the entire book providing a good conceptual background. The environmental agenda is exposed briefly in the first chapter of the book and explained further throughout Chapters 9, 11 and 15. It is rather interesting that the authors tackle directly the maritime Eurasia in the context of environmental issues providing climate and geography related data and studies in a detailed manner, but still in an understandable way for any reader.

In conclusion, the book can be perceived as an attempt to model the development of the maritime trade of the states of the Eurasian continent. The context of climate change is set by the authors as the principal exogenous idea that must be accepted in a way it is described in the book. One of the shortcomings of the book, however, is that it over-focuses on China and

Eurasian Research Journal
January 2019
Vol. 1, No. 1.

accepts highly optimistic scenarios concerning the main Asian stakeholder. At the same time, too little attention is paid to role of Europe and throughout the book it seems to be presented as a static system in comparison to Asia.

Eurasian Research Journal
© Eurasian Research Institute

Editorial Principles

Eurasian Research Journal aims to present the cultural riches as well as the historical and contemporary realities of the Turkic world within a scientific framework. It also aims to inform the public of scientific studies of international quality focusing on the Turkic World.

Eurasian Research Journal publishes articles that approach the current and historical problems of the Turkic world from a scientific perspective and propose solutions to these issues.

Submissions to ***Eurasian Research Journal*** should be original articles producing new and worthwhile ideas and perspectives or evaluating previous studies in the field. ***Eurasian Research Journal*** also publishes essays introducing authors and works and announcing new and recent activities related to the Turkic world.

An article to be published in ***Eurasian Research Journal*** should not have been previously published or accepted for publication elsewhere. Papers presented at a conference or symposium may be accepted for publication if this is clearly indicated.

Eurasian Research Journal is published quarterly: Winter/January, Spring/April, Summer/July and Autumn/October. At the end of each year, an annual index is prepared and published in the Winter issue. Each issue is forwarded to subscribers, libraries and international indexing institutions within one month after its publication.

Review of Articles

Articles submitted to *Eurasian Research Journal* are first reviewed by the Editorial Board in terms of the journal's editorial principles. Those found unsuitable are returned to their authors for revision. Academic objectivity and scientific quality are considered of paramount importance. Submissions found suitable are referred to two referees working in relevant fields. The names of the referees are kept confidential and referee reports are archived for five years. If one of the referee reports is positive and the other negative, the article may be forwarded to a third referee for further assessment or alternatively, the Editorial Board may make a final decision based on the nature of the two reports. The authors are responsible for revising their articles in line with the criticism and suggestions made by the referees and the Editorial Board. If they disagree with any issues, they may make an objection by providing clearly-stated reasons. Submissions which are not accepted for publication are not returned to their authors.

The royalty rights of the articles accepted for publication are considered transferred to Ahmet Yesevi University Board of Trustees. Authors have full responsibility for the views expressed in their articles and for their stylistic preferences. Quotations from other articles and duplication of photographs are permitted as long as they are fully referenced and cited.

Language of Publication

The language of the journal is English.

Style Guidelines

The following rules should be observed while preparing an article for submission to *Eurasıan Research Journal*:

1. Title of the article: The title should suit the content and express it in the best way, and should be written in **bold** letters. The title should consist of no more than 10-12 words.

2. Name(s) and address(es) of the author(s): The name(s) and surname(s) of the author(s) should be written in **bold** characters, and addresses should be in normal font and italicized; the institution(s) the author(s) is/are affiliated with, their contact and e-mail addresses should also be specified.

3. Abstract: The article should include an abstract in English at the beginning. The abstract should explain the topic clearly and concisely in a minimum of 75 and a maximum of 150 words. The abstract should not include references to sources, figures and charts. Keywords of 5 to 8 words should be placed at the end of the abstract. There should be a single space between the body of the abstract and the keywords. The keywords should be comprehensive and suitable to the content of the article. The English and Russian versions of the title, abstract and keywords should be placed at the end of the article. In case the Russian abstract is not submitted, it will be added later by the journal.

4. Body Text: The body of the article should be typed on A4 (29/7x21cm) paper on MS Word in Size 12 Times New Roman or a similar font using 1,5 line spacing. Margins of 2,5 cm should be left on all sides and the pages should be numbered. Articles should not exceed 7.000 words including the abstract and bibliography. Passages that need to be emphasized in the text should not be bold but italicized. Double emphases like using both italics and quotation marks should be avoided.

5. Section Titles: The article may contain main and sub-titles to enable a smoother flow of information. The main titles (main sections, bibliography and appedices) should be fully capitalized while the sub-titles should have only their first letters capitalized and should be written in bold characters.

6. Tables and Figures: Tables should have numbers and captions. In tables vertical lines should not be used. Horizontal lines should be used only to separate the subtitles within the table. The table number should be written at the top, fully aligned to the left, and should **not** be in italics. The caption should be written in italics, and the first letter of each word in the caption should be capitalized. Tables should be placed where they are most appropriate in the text. Figures should be prepared in line with black-and-white printing. The numbers and captions of the figures should be centered right below the figures. The figure numbers should be written in italics followed by a full-stop. The caption should immediately follow the number. The caption should not be written in italics, and the first letter of each word should be capitalized. Below is an example of a table.

Table 1. *Information Concerning Publications in Eurasian Research Journal*

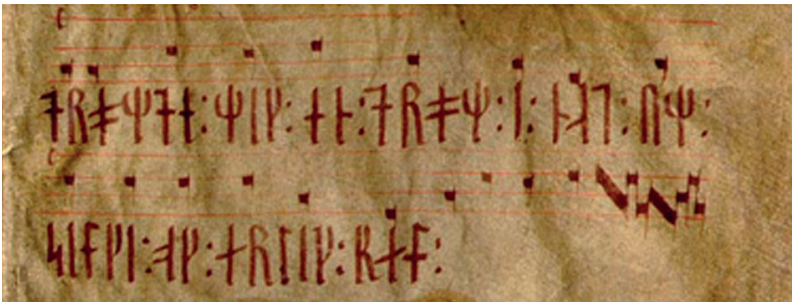
Publication type	Number of publication	Number of pages			Number of references		
		N	X	SS	N	X	SS
Article	96	2,042	21.3	7.5	2,646	27.6	15.8
Book review	4	30	7.5	4.4	31	7.8	8.3
Total	100	2,072	20.7	7.9	2,677	26.8	16.1

Source: Statistical Country Profiles

7. Pictures: Pictures should be attached to the articles scanned in high-resolution print quality. The same rules for figures and tables apply in naming pictures. The number of pages for figures, tables and pictures should not exceed 10 pages (one-third of the article). Authors having the necessary technical equipment and software may themselves insert their figures, drawings and pictures into the text provided these are ready for printing.

Below is an example of a picture.

Picture 1. *Ancient Rune script*



Source: en.wiktionary.org

8. Quotations and Citations: Direct quotations should be placed in quotation marks. Quotations shorter than 2.5 lines should be placed within the flowing text. If the quotation is longer that 2.5 lines, it should be turned into a block quote with a 1.5 cm indentation on the right and left, and the font size should be 1 point smaller. Footnotes and endnotes should be avoided as much as possible. They should only be used for essential explanations and should be numbered automatically.

Citations within the text should be given in parentheses as follows:

(Koprulu 1944: 15)

When sources with several authors are cited, the surname of the first author is given and 'et. al' is added.

(Gokay et al. 2002: 18)

If the text already includes the name of the author, only the date should be given:

In this respect, Tanpinar (1976: 131) says …

In sources and manuscripts with no publication date, only the surname of

the author should be written; in encyclopedias and other sources without authors, only the name of the source should be written.

While quoting from a quotation, the original source should also be specified:

Koprulu (1926, qtd. in Celik 1998).

Personal interviews should be cited within the text by giving the surnames and dates; they should also be cited in the bibliography. Internet references should always include date of access and be cited in the bibliography.

www.turkedebiyatiisimlersozlugu.com [Accessed: 15.12.2014]

9. References: References should be placed at the end of the text, the surnames of authors in alphabetical order. The work cited should be entered with the surname of the author placed at the beginning:

Example:

Isen, Mustafa (2010). *Tezkireden Biyografiye*. Istanbul: Kapi Yay.

Koprulu, Mehmet Fuat (1961). *Azeri Edebiyatinin Tekamulu*. Istanbul: MEB Yay.

If a source has two authors, the surname of the first author should be placed first; it is not functional to place the surname of the other authors first in alphabetical order.

Example:

Taner, Refika and Asim Bezirci (1981). *Edebiyatimizda Secme Hikayeler*. Basvuru Kitaplari. Istanbul: Gozlem Yay.

If a source has more than three authors, the surname and name of the first author should be written, and the other authors should be indicated by et.al.

Example:

Akyuz, Kenan et al. (1958). *Fuzuli Turkce Divan*. Ankara: Is Bankasi Yay.

The titles of books and journals should be italicized; article titles and book chapters should be placed in quotation marks. Page numbers need not be indicated for books. Shorter works like journals, encyclopedia entries and book chapters, however, require the indication of page numbers.

Example:

Berk, Ilhan (1997). *Poetika*. İstanbul: Yapi Kredi Yay.

Demir, Nurettin (2012). "Turkcede Evidensiyel". *Eurasian Research Journal*, *Turk Dunyasi Sosyal Bilimler Dergisi* 62: 97-117.

Translator's, compiler's and editor's names (if there are any) should follow the author and title of the work:

Example:

Shaw, Stanford (1982). *Osmanli Imparatorlugu*. Trans. Mehmet Harmanci. Istanbul: Sermet Matb.

If several references by the same author need to be cited, then the name and surname of the author need not be repeated for subsequent entries following the first entry. A long dash may be used instead. Several references by the same author should be listed according to the alphabetical order of work titles.

Example:

Develi, Hayati (2002). *Evliya Celebi Seyahatnamesine Gore 17. Yuzyil Osmanli Turkcesinde Ses Benzesmesi ve Uyumlar.* Ankara: TDK Yay.

_____ (2003). *XVIII. Yuzyil Istanbul Hayatina Dair Risale-i Garibe*. Istanbul: Kitabevi.

If **more than one work by the same author of the same date** need to be cited, they should be indicated by (a, b).

Example:

Develi, Hayati (2002a). *Evliya Celebi Seyahatnamesine Gore 17. Yuzyil Osmanli Turkcesinde Ses Benzesmesi ve Uyumlar.* Ankara: TDK Yay.

Develi, Hayati (2002b). *XVIII. Yuzyil Istanbul Hayatina Dair Risale-i Garibe*. Istanbul: Kitabevi

For **encylopedia entries**, if the author of the encylopedia entry is known, the author's surname and name are written first. These are followed by the date of the entry, the title of the entry in quotation marks, the full name of the encyclopedia, its volume number, place of publication, publisher and page numbers:

Example:

Ipekten, Haluk (1991). "Azmi-zade Mustafa Haleti". *Islam Ansiklopedisi*. C. 4. Istanbul: Turkiye Diyanet Vakfi Yay. 348-349.

For **theses and dissertations**, the following order should be followed: surname and name of the author, date, full title of thesis in italics, thesis type, city where the university is located, and the name of the university:

Example:

Karakaya, Burcu (2012). *Garibi'nin Yusuf u Zuleyha'si: Inceleme-Tenkitli Metin-Dizin*. Master's Thesis. Kırsehir: Ahi Evran Universitesi.

Handwritten manuscripts should be cited in the following way: Author. Title of Work. Library. Collection. Catalogue number. sheet.

Example:

Asim. *Zeyl-i Zubdetu'l-Es'ar*. Millet Kutuphanesi. A. Emiri Efendi. No. 1326. vr. 45a.

To cite **a study found on the Internet**, the following order should be followed: Author surname, Author name. "Title of message". Internet address. (Date of Access)

Example:

Turkiye Cumhuriyet Merkez Bankasi. "Gecinme Endeksi (Ucretliler)" Elektronik Veri Dagitim Sistemi. http://evds.tcmb.gov.tr/ (Accessed: 04.02.2009).

An article accepted for publication but not yet published can be cited in the following way:

Example:

Atilim, Murat ve Ekin Tokat (2008). "Forecasting Oil Price Movements with Crack Spread Futures". *Energy Economics*. In print (doi:10.1016/ j.eneco.2008.07.008).