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Lotfali Agheli[1]

POLITICAL STABILITY, MISERY INDEX AND INSTITUTIONAL QUALITY: CASE STUDY OF MIDDLE EAST AND NORTH AFRICA

The Middle East and North Africa (MENA) are of various political regimes with different governance levels. This region is a multi-lingual, populous and resource-abundant area in the world, too. This paper aims to explore the determinants of political stability (instability) in the MENA over the period 2000-2014. The estimation of panel data model indicates political stability stems from natural resources rents, socioeconomic status and institutional quality. The proper allocation of these rents to productive investments, and welfare-enhancing efforts, the decrease in misery index and any increase in government effectiveness and/or rule of law result in political stability in the region. The policy makers in the region need to make sound fiscal and monetary policies in order to reduce gender and income inequalities and invest in enhancing human prosperity. Regarding civil rights and freedoms, and establishment the voluntary and nongovernmental organizations are socio-political requirements in shifting this developing bloc to high levels of development.
JEL: I32, O17, P16

1. Introduction

The Middle East and North Africa (MENA) is of ethnic and religious groups and different political regimes. This region have considerable potentials such as higher share of middle-income classes, young and educated population, strong resource base, and economic resilience, which help its members to achieve human development and economic growth.

In this area, some countries including Syria, Iraq, Libya and Yemen have been experiencing unrest and civil war since the first Arabian uprising in Tunisia, 2011. These disorders have yielded considerable human losses and destruction of infrastructures.

According to the World Bank, a tragic migration outflow threatens the lives of 15 million people, i.e. nearly 4% of total region's population, from North African section of the region, i.e. Jordan, Lebanon, Djibouti and Tunisia. Of course, there are promising trends in Tunisia

[1] *Lotfali Agheli is Faculty Member, PhD in Economics in Economic Research Institute, Tarbiat Modares University, Tehran, Iran, E-mail: aghelik@modares.ac.ir.*

Morocco, Jordan and Egypt, where political reforms and amendments in the legislation may benefit to women and protect civil freedoms.[2]

The continued historical and ideological conflicts in the region trigger the violence, which in turn results in turmoil, terrorism and forced migration. In a globalized world, the negative spill over of such turbulence influences the other regions, especially Europe, which is regarded as a heaven for refugees and displaced people.

The politically stable countries including as Algeria, Iran and the GCC minus Bahrain have economic concerns with low oil prices, which cause high unemployment rates in these group. The MENA region is of potential instability due to misinterpretations of Islam teachings and lack of democratic systems.

Most of the region members lack of democratic institutions, so they face socioeconomic and political problems. A considerable number of members is endowed with fossil resources, which forms a basis for rent-seeking parties and governments.

From economic perspective, World Bank forecasted a moderate growth rate as much as 3.1 percent for the region in 2017. This organization cites the spillovers from existing conflicts in several countries, and a heightened incidence of terrorism as risks to regional economic activity. Consequently, the rising risks would increase economic uncertainty and slow investment. The persistent of slow growth may worsen unemployment rate, which entails more instability. In other words, the macroeconomic mismanagement is reflected in internal turmoil, uprising and movements.

In a sound and democratic setting, the higher standards of life and low levels of inflation and unemployment rates are expected to prevail. More specifically, a steady and developed economy may achieve more stable society politically. Thus, there is a direct link between political stability and economic achievements.

Political stability originates from well-established and election-based political systems, which guarantee free participation and voting, and all losers and winners of the political contests respect the election results. In such circumstances, democratic forces act freely on one hand and demand for enhancing social welfare on the other hand. Hence, free media, public participation of citizens in socio-political events, accountable governments, observance of laws and regulations, and enforcement of contracts are characteristics of a typical stable community. As Zhao and Liu (2002) emphasize, "the process of political modernization is both process of political democratization and enlarging political participation". According to Jensen and Wantchekon (2004), "political economists point to the levels of economic development, poverty, and income inequality as the most important determinants of political regimes".

Currently, there is not politically stable system in absolute words, because highly democratized systems occasionally experience re-elections or early elections in order to restoration of ruling cabinet. However, the main point is that these transformations occur with little socioeconomic costs. On the contrary, nondemocratic regimes often ignore elections, or implement them in non-transparent and problematic manners. The historical

[2] http://www.worldbank.org/en/region/mena/overview#1

background of the oil-based economies in the MENA gives sufficient evidence of such practices.

Coming back to economic concepts, inflation and unemployment rates are barometers of economies. Low inflation rates stimulate the producers to produce and supply products to markets and earn profits. Thus, economic stability and low inflation are two sides of a coin. In addition, unemployment, especially involuntary unemployment, is a risk factor of a given economy. The social consequences of higher unemployment are sometimes very hazardous, in particular in the multi-ethnic societies. In the worst cases, turmoil, social unrest, theft of private and public property, addiction to drugs and murders are of unemployment outcomes.

In a social landscape, institutions refer to commonly accepted traditions in written or verbal forms. Ownership and relationship between employee and employer, marriage and so on are some instances of institutions. These are in formal or informal contracts. The enforcement of contracts is highly dependent on well-established laws and regulations, which government, in a broader concept, should guarantee them.

Regarding the above-mentioned paragraphs, this article aims to examine linkages among political stability, misery index and quality of institutions in the MENA countries. To do this, it targets the following hypotheses:

- H_1: Resource abundance entails political stability.
- H_2: Weak economic conditions trigger political instability.
- H_3: Stronger institutions result in stable political regimes.

The remainder of the article is organized in 4 sections. Section 2 devotes to review of literature. Section 3 refers to materials and methods. Section 4 gives the results and discussion. Section 5 concludes.

2. Review of literature

Although there is plenty literature on political stability in the economic researches, but there is no robust theory on political stability. It is a fuzzy concept among political scientists regarding concept formation, operationalization, and measurement. The concept of stability originates from mechanics, where a given stable system returns to its initial position after shocks. However, most political scientists look at stability from the behavioral point of view, so it can be measured through reproducible techniques. As Hurwitz (1973) argues, political stability is identified by (a) the absence of violence; (b) governmental longevity/duration; (c) the existence of legitimate constitutional regime; (d) the absence of structural change, and (e) a multifaceted societal attribute.

Margolis (2010) defines political stability as the degree to which formal roles and structures coincide with informal roles and structures within a political object. The wider gap increases the instability.

Some researchers are interested in emphasizing on specific factors/dimensions of political stability. Bah (2013) explores the linkages between military behavior in politics and political stability in Ginea and concludes that the Guinean military played a vital role in maintaining political stability during the period between 1984 and 2010. On the relation between economic equality and political stability, Posner (1997) finds that average incomes in a society, rather than the equality or inequality of the income distribution, increase political stability.

In a study on the political stability in the Northeast India, Lacina (2009) argues that local regimes of corruption and repression manage security threats. According to Kim (2010), countries with high political rights have higher FDI outflows. Also, countries with high level of corruption of government and low level of democracy have higher FDI inflows. Katz (2004) believes that the extreme concentration of authority and the sultanate unwillingness to allow meaningful political participation or dialogue are main political challenges in Oman, which are of capable public objections. In analysing factors causing the environmental degradation in the 14 MENA countries over the period 1996–2012, Al-Mulali and Ozturk (2015) find that the political stability lessens environmental damage in the long-run. Based on Schumacher (2013) study, the higher tax embezzlements and the more bribe-taking by politicians reduce the citizens' trust and re-election chance, which indicates political instability.

Agheli (2016) argues that sustainable development involves many aspects of development in human, environmental, social, political, and cultural dimensions. He uses Genuine Saving (GS), or Net Adjusted Saving, to measure weak sustainability in Iran during 1973-2012 and finds a non-linear relationship between economic growth and genuine saving rate (GSR).

Most empirical studies focus on the impacts of political stability on economic growth and development. For instance, Feng (1997) investigates the interactions between democracy, political stability and economic growth using types of political instability. His results for a panel data of ninety-six countries from 1960 to 1980 indicate that democracy has a positive indirect effect on growth through its impacts on the probabilities of both regime change and constitutional government change from one ruling party to another. In addition, economic growth has a negative effect on regime change and a positive effect on the probability of the ruling party remaining in power; and a long-run positive effect on democracy. Cebula (2011) investigates the impact of political stability on economic growth in OECD nations. Using panel data specification, the author finds that economic growth is positively influenced by political stability. Furthermore, economic growth is negatively impacted by higher long-term nominal interest rates. Thus, policies consistent with political stability promote economic expansion.

Vasileiou (2014) examines political stability in the European Union’s (EU) countries during the period 2002-2012. The Granger causality test confirms a unidirectional causality running from political stability to economic growth. In addition, the long-term recession, the increased unemployment ratios and the high levels of inflation significantly threaten political stability. However, transparency, public health care, and education may increase political stability.

MENA region is rich in natural resources and fossil fuels. Some members of MENA are heavily dependent on oil exports to finance national budgets. With regard to management of oil revenues, there are various hypotheses titled "resource curse" or "resource abundance". Depending on how to use and how to invest the natural resources rents, different countries have paced own development paths.

Jensen and Wantchekon (2004) find a robust and negative correlation between the presence of a sizable natural resource sector and the level of democracy in Africa. They argue that resource abundance not only is an important determinant of democratic transition but also determines the success of democratic consolidation in Africa. They show that post-Cold War democratic reforms have been successful only in resource-poor countries such as Benin, Mali, and Madagascar. They argue that resource-rich countries such as Nigeria and Gabon can become democratic only if they introduce strong mechanisms of vertical and horizontal accountability within the state.

Dunning (2005) believes that elites in many resource-dependent states may face a trade-off between the economic benefits of diversification and the possibility for future political competition. Using a game-theoretic model, he argues that the world market structure for the resource, the degree of societal opposition to elites, and the prior development of the non-resource private sector illustrate the different equilibrium paths in post-independence Botswana, Mobutu's Zaire, and Suharto's Indonesia. These variables shape outcomes along the dimensions of political stability and economic performance. In his view, these countries have varied paths from resource wealth to political and economic outcomes, thus resource-based economies can overcome resource curse.

The distribution of rents resulting from oil resources affects political stability. In a sample of 37 oil-producing developing states, Basedau and Lacher (2006) reveal that oil states with very high levels of oil revenue are remarkably stable. In spending oil revenues, they distinct between two types of rentier systems: the large-scale distributive state and the patronage-based system. Both types are strongly linked to political instability.

On the contrary, Caselli and Tesei (2016) show that natural resource windfalls have no effect on democracies, while they have heterogeneous political consequences in autocracies. In deeply entrenched autocracies, the effect of windfalls is virtually nil, while in moderately entrenched autocracies, windfalls significantly exacerbate the autocratic nature of the political system.

If governments cannot meet social needs, then the confidence in the government will be weakened. The low trust to public policies fuels the political unrest and instability. Conversely, people and civil institutions support an efficient and accountable government, especially if elected through democratic and fair competition between political parties. Low confidence in the government is strongly associated with social protests among those groups whose interests are promoted by visible protest movements (Useem and Useem, 1979).

The existence of patronage in bureaucratic processes is a good indicator of violation of laws and regulations and inefficient governments. In other words, family and friend ties outweigh laws in recruiting personnel and providing services. The final outcome of

patronage in public sector offices is public displeasure, and socio-political instability. In this regard, Arriola (2009) studies political conflict across 40 African countries and finds its link to the pervasive use of patronage in retaining control of the state. He shows African leaders extend their tenure in office by expanding their patronage coalition through cabinet appointments.

Concerning with corruption, Nur-Tegin and Czap (2012) examine the potential tradeoff between stability and autocratic rule for political freedoms but with transitional instability. They find that the level of corruption is lower in unstable democracies than in stable dictatorships.

According to Zhao and Liu (2002), the political participation has a positive role in political stability under normal condition, but sometimes it leads to political unstableness. Thus, accelerating the socialist modernization requires improving people's political participation and developing a socialist democratic political system.

The efficient public sector accelerates economic development. Lack of corruption, a sound legal system and transparent procedures stimulate the investment by private sector. As Adsera et al (2003) point out the degree of citizen information curbs the opportunities politicians may have to engage in political corruption and management. Lederman et al (2005) believe that democracies, parliamentary systems, political stability, and freedom of press are all associated with lower corruption. In a sample of EU and OECD countries, Votápková and Žák(2013) computed the highest institutional efficiency among countries situated in Northern Europe, which are of effective governance and low corruption.

Focusing on the Muslim world, Lust (2011) presents a more complete understanding of when and how political Islam hinders democratization. The historical experiences with Islamists in the 1970s and institutional structures established by the 1980s created a condition of uncertainty. Incumbents exploited the fear of political Islam, convincing many secularist opponents that they were better off with the current regime than with Islamist rule. In Lust's view, the Islamist movements reflected a violent Islamic doctrine.

3. Material and methods

3.1. Data and Variables

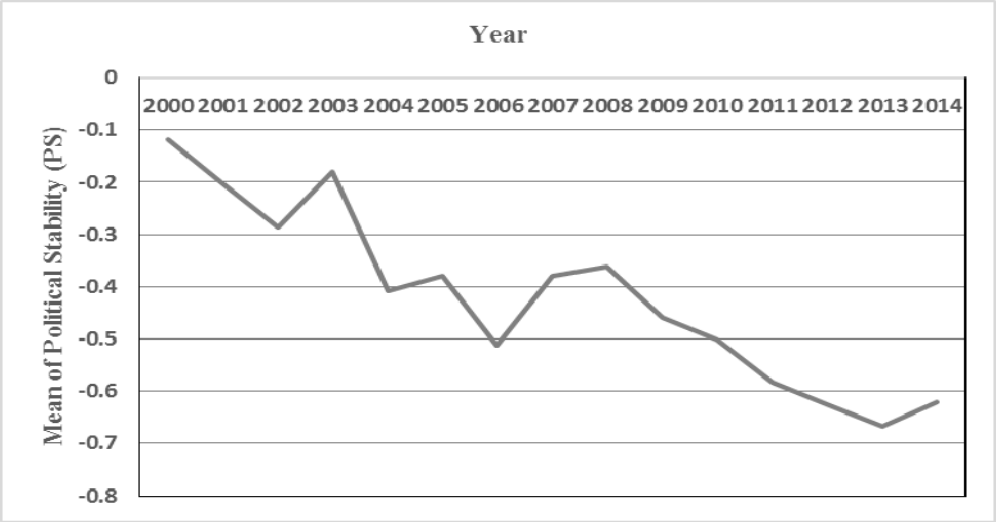
The statistical sample consists of the MENA countries, listed in the World Bank classification, including Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates, and Yemen. Gaza Strait was excluded from analysis because of missing data. This research studies the region over the 2000 to 2014 period and uses the latest data provided by the World Bank. The dependent variable is political stability, which is extracted from the World Governance Indicators. This variable measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism. It is constructed by using Kaufmann et al (2010) methodology based on the individual variables such as orderly transfers, armed conflict, violent demonstrations, social unrest,

terrorist threats, internal conflicts and so forth. The data is collected from various sources internationally.

The constructed or composite indicator is reported in units of a Standard Normal Distribution, with mean zero and standard deviation of one. It runs from -2.5 to +2.5, which higher values corresponds to more stable society. This approach is repeated for the 5 other variables, i.e., Voice and Accountability, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. The governance data are also reported in percentile rank term, ranging from 0 (lowest rank) to 100 (highest rank). The mean score of political stability in the region is depicted in Figure 1. This indicates MENA countries have become less stable from political perspective overall.

Figure 1

The mean of Political stability Score in the MENA



Source of data: Worldwide Governance Indicators (2015).

The explanatory variables are as follows:

- Total natural resources rents (as percentage of GDP)= RENT
- Misery index= sum of inflation rate and unemployment rate= MISDEX
- Government effectiveness= GE
- Rule of Law= RL

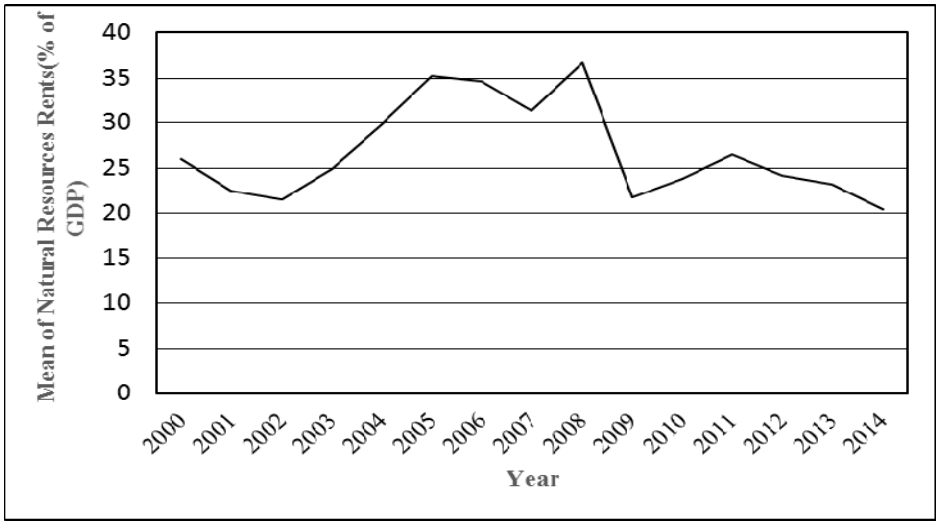
By World Bank calculations, total natural resources rents are the sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, and forest rents.

The US economist, Arthur Okun, introduced the misery index. This economic indicator measures how the "median" citizen is doing economically. It is just sum of the unemployment rate and inflation rate.[3] The simultaneous increase in rate of unemployment and rate of inflation means a worsened economic and social status. As mentioned, government effectiveness and rule of law are subcomponents of world governance indicators.

The trend of mean rents accruing to natural resources is illustrated in Figure 2. It explicitly indicates this group has recorded natural rents over than 20 percent of GDP, on average, during 2000-2014. In addition, the higher oil prices during 2008-2009 have resulted in higher rents.

Figure 2

The mean of share of natural resources rents in GDP in the MENA region



Source of data: World Bank databank (2015).

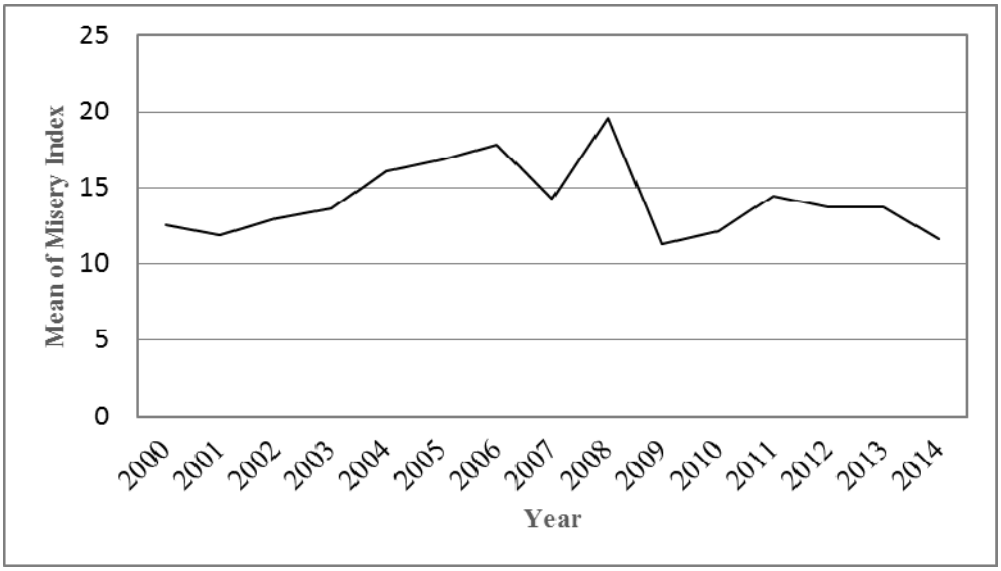
Figure 3 shows average misery index for of the MENA region over the 2000-2014. The misery index varies in the interval (10%, 20%). The worst situation is observed in 2008-2009, when the world surged into recession due to mortgage loans problem in the US.

The last figure devotes to government effectiveness and rule of law indicators on the mean basis. The solid and dotted lines indicate same movements in these indicators. The MENA region has experienced similar development in terms of effectiveness of governments and rule of law. The fall in two indicators after 2010 is accompanied with political instability in the most of MENA countries.

[3] In enhanced or augmented forms of misery index, the changes in house price, stock price, and interest rate are added to initial misery index.

Figure 3

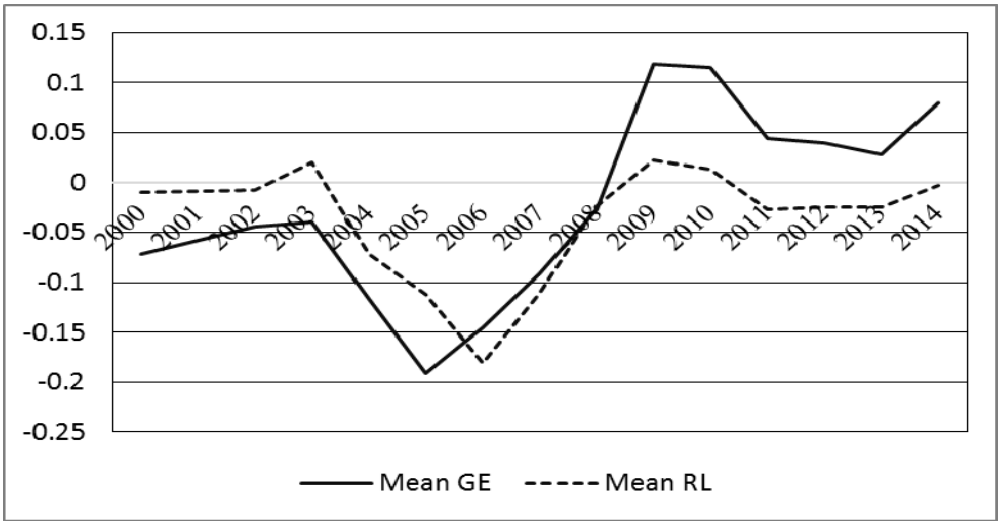
The mean of misery index (MISDEX) in the MENA region



Source of data: World Bank databank (2015).

Figure 4

The mean of government effectiveness (GE) and Rule of Law (RL) indicators in the MENA region



Source of data: Worldwide Governance Indicators (2015).

The government size, as percentage of GDP, expenditure on health, as percentage of public expenditure, GDP per capita were also considered in the model, however, they had no significant effects on political stability. This may be due to inclusion two main economic indicators in the analysis: inflation and unemployment rate.

3.2. Model and Econometric Strategy

The different kinds of conflicts (social, internal, external, ethnic, religious or regional, civil war), violence (social unrest, violent demonstration, protest, and riot) and terroristic attacks are evidently indicators of an instable political environment. Undoubtedly, some of these socio-political responses stem from economic conditions. The higher rates of unemployment and inflation are the most sensible variables in every country, especially if there is free mass media and easy access to economic information. Therefore, political stability may negatively influenced by misery index. In addition, injection of rents from natural resources to the whole economy can increase aggregate supply and enhance social welfare, if they are mixed with good public practices. In this case, the outcomes will be higher satisfaction among people and low tendency to protest. Thus, resource rents can mitigate political instability. After all, effectiveness of government policies and enforcement of assigned regulations and laws are stimuli for political stability. Hence, the regression model is specified in the following form:

$$PS_{it} = f(RENT_{it}, MISDEX_{it}, GE_{it}, RL_{it}, X_{it}) \quad (1)$$

In Equation(1), i and t denote countries and years, respectively (i=1,2,…,18; t=2000, 2004,…, 2014). Theoretically, the sign of estimated parameters of *RENT*, *GE* and *RL* will be positive; however, the sign of parameters pertinent to *MISDEX* will be negative. *RENT* and *MISDEX* are used in percentage form, however *PS*, *GE*, *RL* are in standard normal distribution units.[4]

Model 1 is estimated by Panel Data methods. The details of the estimation are presented in section 4.

4. Results and discussion

Prior to estimate the panel data model (1) we should test the stationary of variables. In panel data, researchers may face weak or strong non-stationary. For testing the stationary in panel data, several methods have been proposed by Im, Pesaran, and Shin (2003), and Levin, Lin, and Chu (2002). The results of unit root test are reported in Table 1.

[4] The other variables such as per capita income and government size can be included in model (1), which may take different signs.

Table 1

Summary of Panel unit root test

Method	Statistic	Prob.	Cross-sections	Obs.
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t-stat	-7.13987	p<0.001	90	1203
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-2.21652	p<0.05	90	1203
ADF - Fisher Chi-square	231.978	p<0.01	90	1203
PP - Fisher Chi-square	266.068	p<0.001	90	1247

Source: Author's calculations based on Eviews 8 Output.

In 5% level of significance, the various methods proposed to unit root test indicate stationary of the series under panel. Hence, the use of variables in levels does not generate spurious regression.

After assuring stationary series, the decision is made on choose between pool or panel specification. By redundant fixed effects test, it is assumed that fixed effects are redundant. If the null hypothesis is rejected, then the panel model is run. This test uses F and Chi-square statistics. Table 2 reports the test results. The results confirm that model should be estimated in a Panel framework, since the probabilities are statistically zero and reject the null hypothesis.

Table 2

Test for Cross-Section and Period Fixed Effects

Effects Test	Statistic and probability
Cross-section F	F(17,223)=61.718; p<0.001
Cross-section Chi-square	$\chi^2(17) = 451.005$; p<0.001
Period F	F(14,223)=4.146, p<0.001
Period Chi-square	$\chi^2(14) = 59.923$; p<0.001
Cross-Section/Period F	F(31,223)=36.808; p<0.001
Cross-Section/Period Chi-square	$\chi^2(31) = 469.059$, p<0.001

Source: Author's calculations based on Eviews 8 Output.

The third test is to determine on using fixed or random effects in panel data by Hausman (1978) method. Here, the null hypothesis is the correctness of random effects. If the null hypothesis is rejected, then the fixed effects will be estimated. Table 3 supports estimating model in fixed effects.

Table 3

Hausman Test Results

Test Summary	Chi-Sq. Statistic and Probability
Cross-section random	$\chi^2(4) = 11.969$; p<0.05

Source: Author's calculations based on Eviews 8 Output.

After doing specification tests, the model (1) was estimated using Eviews 8 software. The software output is reported in Table 4.

Table 4

Model estimation with Panel Least Squares (Dependent Variable: *PS)*

Variable	Coef.	S. E.	t-Stat.	Prob.
C	-0.794	0.1024	-7.752	p<0.001
RENT	0.022	0.0036	5.983	p<0.001
MISDEX	-0.009	0.0033	-2.739	p<0.01
GE	0.819	0.1299	6.305	p<0.001
RL	0.784	0.1273	6.155	p<0.001
R-squared	0.933	Adj. R-squared		0.922
Akaike info criterion	0.368	Schwarz criterion		0.863
Log likelihood	-11.777	F(33, 221)=88.548, p<0.001		
Breusch-Pagan heteroskedasticity test obs*R-squared=18.36, p<0.01				
LM test stat. for serial correlation=166.228, p<0.001				

Note: *C , Coef, S.E, t-stat., Prob* and *Adj* refer to intercept term of regression, coefficient, standard error, t- statistic, probability and adjusted term, respectively.
Source: Author's calculations based on Eviews 8 Output.

All coefficients have the expected signs. They are meaningful at 1% level of significance. The Adjusted R-squared and F-statistic indicate the goodness of fit. However, tests for heteroskedasticity and serial correlation imply that residuals of the estimated model are heteroskedastic and serially correlated.

In Breusch-Pagan (1980) heteroscedasticity test in panel data, the squared residuals from the first-stage estimation are fitted on the explanatory variables and intercept term by OLS method. Then the R-squared of the second-stage estimation are multiplied by NT, where N and T denote number of cross-sections and periods, respectively. $NT*R^2$ has Chi-squared (Chi^2) probability distribution with degrees of freedom (df)= k, the number of regressors in the latter regression. If the computed Chi^2 is greater than critical values of Chi^2 with $df=k$, then the null hypothesis indicating homoscedasticity will be rejected. In addition, as Baltagi (2008) proposed, the LM (Lagrange Multiplier) test for serial correlation can be used in panel data with fixed effects specification. In doing such test, first the residuals (e) and one-period lagged residuals are multiplied by each other and summed up ($A = \sum_{i=1}^{N} \sum_{t=1}^{T} e_{it} e_{it-1}$).

Then the calculated value is divided over the sum of squared residuals ($B = \sum_{i=1}^{N}\sum_{t=1}^{T} e_{it}^2$). Finally, the following ratio, which follows a Chi-squared probability distribution with one degree of freedom, is calculated.

$$LM\big|_{\rho=o} = \frac{NT^2}{T-1}.\frac{A}{B} \sim Chi^2(1) \qquad (2)$$

Where ρ denotes residuals' correlation coefficient. If the LM test statistic is greater than critical Chi-squared values with df=1, then the null hypothesis indicating no correlation among residuals will be rejected. As mentioned above, the estimated residuals suffer from both heteroskedasticity and serial correlation.

To correct the heteroskedasticity and serial correlation in the residual terms, E-views software has set up weighting options for GLS (Generalized Least Squares) estimators. However, none of these options (cross-section weights, cross-section SUR and period weights, period SUR) is applicable in two-way fixed effects version of estimation. Hence, model (1) was re-estimated in two one-way fixed effects specifications: (1) fixed effects in cross-sections, and (2) fixed effects in periods. When model having cross-section fixed effects is estimated, E-views applies a feasible GLS method with cross-section weights to amend the cross-section heteroskedasticity. If the model having period fixed effects is to be considered, E-views estimates a EGLS (Estimated GLS) version in order to overcome the mentioned problems. Table 5 summarizes the results of re-estimation of model (1). For saving space and formatting Table, the column S.E. (standard error) was excluded.

Table 5

Model estimation with Panel EGLS (Dependent Variable: PS)

Variable	Cross-Sections FE		Period FE	
	Coef.	t-Stat.	Coef.	t-Stat.
C	-0.6001	-8.504	-0.642	-6.037
RENT	0.015	5.649	0.016	7.662
MISDEX	-0.009	-3.498	-0.013	-2.476
GE	0.707	6.626	0.011	0.083
RL	0.736	8.357	0.846	6.217
R-squared	0.944		*R-squared*	0.634
Adj. R-squared	0.939		*Adj. R-squared*	0.606
F(33, 221)=192.43, p<0.001			F(33, 221)=23.101, p<0.001	

Note: *C , Coef, p, t-stat* , *FE* and Adj refer to intercept term of regression, coefficient, probability, t-statistic, fixed effects, and adjusted term respectively. Except for GE coefficient in period FE version, all coefficients are statistically significant at 1% level of significance.
Source: Author's calculations based on Eviews 8 Output.

A glance at Table 5 indicates the relative goodness of fit in the cross-section fixed effects model after adjusting for heteroskedasticity. Again, all coefficients are of expected signs,

and all are statistically significant, expect for coefficient of *GE* in the period fixed effects version.

According to the results of cross-section fixed effects model, the explanatory variables under consideration describe about 94 percent of variations in political stability. As observed, if rents of natural resources (*RENT*) increase by 1%, the political stability (*PS*) will increase by 0.015 units, other things being equal. Both government effectiveness (*GE*) and rule of law (*RL*) affect directly the political stability. The importance of these two variables in explaining political stability is roughly of order 0.7. In other words, government effectiveness and rule of law contribute highly to attain a stable political society. This is crucial finding in the context of MENA region, since multi-language, religious and ethnic groups in this region have potential and hidden tendency to protest against poor and discriminating governments.

The effect of the misery index (*MISDEX*) on political stability is negative. Natural resources rents seem to play stabilizing role in the political arena in the MENA group. According to calculations by World Bank, the share of fossil fuels, i.e., petroleum, natural gas and coal, in total resources rents is high. As a result, oil-dependent countries experience higher resource rents. The rents allocated to construct physical infrastructure and to provide public services can boost social welfare. Increases in social standards hinder political unrest. According to Jensen and Wantchekon (2004), resource abundance is main determinant of democratic transition and the success of democratic consolidation in Africa.

On the contrary, if these rents are exclusively distributed among rulers and governmental bodies, it will result in political corruption, and social alienation and exclusion. For instance, in the Gulf Cooperation Council (GCC), “Because the ruling families dominate politics, many Gulf citizens correctly perceive their political systems as exclusive. Also, corruption and unaccounted for government spending levels are quite high” (Byman and Green, 1999). By Basedu and lacher (2006) argument, resource abundance encourages violent conflict. In opposition, Bahgat (1995) believes that GCC states have historically experienced a low level of political violence due to their enormous wealth.

The coefficient of misery index is statistically significant, although it is small in magnitude. Therefore, any attempt to reduce inflation and unemployment rates in the MENA region will increase the political stability. In this region, the GCC countries and other oil-based economies are of higher chances to lower the misery index, if world oil prices grow in a steady rate. As Vasileiou (2014) noted “the increased unemployment ratios and the high levels of inflation significantly threaten political stability”. In an inverse causality, Samimi and Motameni (2009) find that political instability reduce the probability of Inflation Targeting adoption.

As Hanke (2011) notes, "a large swath of MENA countries suffer from a high level of economic misery and remain ripe for upheaval". In his viewpoint, to introduce dramatic free-market reforms will reduce the cost of doing business and restrict the corruptive power of governments.

As expected, government effectiveness (GE) has significant impact on political stability. Due to historical reasons, most MENA members are of large-scale governments and some

of them are under monarchy system. In addition, the existence of various ethnic and religious groups is an intrinsic element of socio-political system of the region. Thus, the necessity of serving all groups requires efficient and accountable government. Consequently, an effective government can stabilize society politically through improving education and health systems, capacity building for civil freedoms, increasing religious flexibility, and running democratic elections. This finding is in accordance to Gramc (2007) views. In an analysis of factors affecting government transfer spending in developed countries, he found that higher level of democracy [or more degree of political stability] is linearly linked with higher transfer payments, since democratic political parties compete with each other using transfers and subsidies to various target groups.

The rule of law is another factor influencing political stability. As an indicator of institutional quality, it reduces the transaction costs in the society. In effect, social struggles are minimized. The cohesion, solidarity and strong bonds among social strata produce the social capital, which is a main determinant of political stability. The potential tensions and conflicts stemming from ethnicity and religiosity can be resolved with strong enforcement of contracts. The civil laws are national conventions which let rulers exercise justice and equity regardless of race, color, and language. If these conventions are weak, biased or discriminative, the social bonds and national solidarity will collapse. Accordingly, political stability will be out of reach.

5. Conclusions

The aim of this paper was to determine the elements of the political stability in the MENA countries with different levels of socio-economic development. Dependency on natural resources, socioeconomic status, and institutional quality are found to be effective in stabilizing the socio-political trends in this region. When the one or more components grow or weaken at the expense of the other factors, destabilizing forces will boost. These unbalancing elements emerge in the forms of ethnic and religious violence, riot and social unrest and even domestic and trans-boundary terrorism. A glance at Arabian uprisings in Tunisia, Libya, Egypt, Yemen and Syria reveal that increasing misery index, i.e. simultaneously growing rates of inflation and unemployment was a crucial factor in shaping social objection and bloody turmoil against ruling governments.

In addition, governance and institutional quality indicators are often weak in the MENA context. Subsequently, mismanagement of the settlement of social and political disputes, weak enforcement of contracts and usage of force and threat fuel and strengthen the public protests. Of course, the case of GCC and oil-producing members of MENA should be analyzed in the light of oil abundance and resource rents. Wealth flows coming from oil and gas exports have contributed to stable political systems in the GCC, Algeria and Iran. However, it should be emphasized that the shaking status of socio-political systems in most MENA countries arises due to religious and tribal disputes.

The findings of this paper imply that stability of the political system in the MENA region needs to invest the rents from natural resources in improving infrastructure, enhancing

education and health standards, and allocating rents to job creation opportunities in an equitable manner. In addition, proliferation of mass media, usage of information and telecommunication technology and making rulers and governments accountable are effective tools in empowering political system. Moreover, any reform in the legal and judicial procedures and routines in order to minimize the systemic corruption and transaction costs is necessary to reach a civil society and stable socio-political regime.

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