Marriage of Economy and Divorce A Time Series Analysis in Iran (1976-2006)

Payam Roshanfekr, Akbar Zaman-Zadeh, Abdol-Hossein Kalantari

M.A in Social Welfare Planning from Allameh Tabatabaei University member of strategic research in Tehran Municipality Urban Planning and Research Center

M.A in economics from Shaid Beheshti University

Assistant professor of sociology in Tehran university

Abstract: There are two universal phenomena which have occupied social scientists minds probably, the growing rate of divorce and economic crises. Does the simultaneity of the two phenomena indicate a relation between them? Examining the rate of divorce over the past three decades in Iran and its correlative socio-economic variables, this study tries to show by the vector error correction model (VECM) how the rate of divorce is a function of living costs, per capita income, income inequality, and the mean level of education in society. The findings reveal the fact that the increase of living costs and income inequality has positive impact on divorce rate while per capita income and the level of education have negative impact thereupon.

Key words: divorce rate, living costs, per capita income, income inequality, education level, VECM.

INTRODUCTION

There are two relatively universal phenomena which have occupied social scientists, namely the growing rate of divorce and economic crises. Does the simultaneity of the two phenomena indicate a relation between them? Divorce could be studied as a cause, or consequence, of other phenomena; its causes and consequences could also be the object of studies, but the main concern which lies at the heart of all examinations is its growing rate. Divorce makes social changes in morality, economic dynamics, and gender roles. This is happening all over the world almost in a relatively same way (2). Divorce has serious economic, social, psychical, and legal consequences for divorced people, their children, and society (Weiss Robert, 1975).

According to statistics, the rate of divorce in Iran has had a falling trend from 1986 to 1997, a constant steady trend from 1997 to 2004, and a rising trend since then (Mirzaei, 2001; Falahi Gilan et al., 2010). Newer figures show that 14 out of 100 marriages ended in divorce in 2009 all over the country while it was, for Tehran province, more than 26 per cent. This not only would cause psychic and personal damages to the divorced men and women, it would moreover bring about many social damages too. The researches done in Iran show that 2.5 per cent of the clients of centers for rehabilitating drug addicts (Golmohamadi, 1999), 95 per cent of runaway girls, and 26 per cent of street children (Ali Balazadeh, 2004) have been borne into families which experienced a divorce, or into stepfamilies.

A brief review of the statistics about the consequences of divorce in Iran would tell us that “behavioral and mental disorders in children” (by 26 per cent of studies), “child abuse” (by 18.5 per cent of studies), and “mental impacts on divorced people”, “social harms to children and teens”, and “economical consequences” (by other studies) are involved and demonstrated (cf. Kalantari et al., 2011).

The present paper aims at providing a clear picture of the divorce trend and its most important correlative socio-economic variables.

Background:

Considering the low salaries and high inflation in Iran, it is very likely that struggles and tensions within families increase more than ever. Although the phenomenon of divorce is regarded, as it were, as a taboo and something to be avoided, its rate is rising however (Falahi and Roshanfekr, 2011). Scholars maintain that the reductionist approach to structures and economic reformations not only make in the short run the unity of family weakens through inflation and expanding poverty, they also exert impact in the long run on the very institution of family and especially on children (Babaei, 2001: 163).

A systematic glance at studies carried out in this field over the three past decades in Iran show that if one be interested in investigating the “cause of divorce”, he/she would find that 55 per cent of questions (in interviews, questionnaires, and the like) have had a social-demographic aspect, 22 per cent of them had a psychological aspect and only 21 per cent addressed the economic aspect of life (Kalantari et al., 2011). In those studies which examine the role of economic variables in divorce take into account the economic structure, industrialization, urbanization at macro level and shortage of job opportunity, marriage-portion, and alimony at micro level (Kalantari et al., 2011).
Some of these factors are widely present in society such as unemployment, poverty, low salaries; some, although related to the macro aspects, occur in individual domain such as the amount of alimony; and others refer to changes in the role of men and women in family due to other macro phenomena like industrialization. In the following, we briefly review studies in this field.

In some studies within the past two decades, poverty is proven to be an economic factor influencing the rate of divorce. Danesh et al (1991) argue in their study, “Causes and Factors of Divorce in Tehran”, that poverty, low salary, inflation, and lack of housing are decisive in divorce rate. Ali Esma’ili (1995) showed in a comparative study with the title of “Why 20-40 aged Women in Tehran Demand to Get Divorced?” that the economic needs and difficulties (60 per cent) may cause divorce. Based on Rahimi (2000), economic problems (16, 12 per cent) are determining factors in divorce. According to Kameli (2007), poverty and huge gap between social classes have been a main cause in divorce. It is shown in another research, “the Condition of Divorce and Factor Influencing it in Dowlat-Abad” done by Qotbi et al (2004) which is a case study with a sample of 69 individuals, economic problems (30 per cent) are recognized as a factor in divorce. Zargar and Neshatdoust (2007) in their research, “Analysis of Factors Effective in Divorce in Falavarjan City”, demonstrated the same fact. This research population was consisted of all married men and women in that city who demanded to get divorced during 2003-2005 (they were 424 people).

A study carried out by Dadashzadeh (2007) examined 150 people demanding to get divorced (30 per cent men and 70 per cent women) and came to the conclusion that 63.6 per cent of the population under study regards the economic problem as the source of divorce. Yazd-Khasti et al (2008) examined 227 people in a study, “Analysis of the Sense of Guilty, Stress, and Depression in People Demanding Divorce in Isfahan and Arak”, and revealed the fact that there is an inverted relation between the capability of husband in making money and the tendency to get divorced so that 36.5 per cent of the demanding people had a very low salary (about 200 dollars a month).

In other similar studies like those carried out by Syfolahi (1993), Sha’bani (2003), Shirzad (2004), Tabatabaei (2004), and Shekarkan (2006) it is argued that low salaries and unemployment are among the main causes of divorce.

**Theoretical Debate:**

Most mechanisms relating to the economic framework of familial behaviors are influenced by two things: relational tension and living costs. In regard to the former, if there is a high level of tension between the couples for economic reasons the probability of getting divorced heightens. Researchers have worked on the impacts of sudden and severe economic shocks which challenge specific familial standards and predetermined models of behavior for married people (Elder, 1974; Ware, 1982; Westin, 1976). Elder et al (1985 and 1986) have carried out a research which can be considered among the first studies on the economic shocks influencing familial relations at the macro level. Analyzing the impacts of economic recession of 1970s on Californian families, they realized that drastic changes in market bring changes in family structure, one of which is the increase of familial tensions which could in turn occasion divorce. Later, the scope of such studies expanded to the other macro issues of economy like inflation, gross domestic product (GDP), and male-female ratio in employment.

Examining the divorce statistics in America from 1955 to 2004, Nunley (2010) regards the impact of inflation on divorce trend as positive, determining, and constant. In his study, the higher level of education of women and the increase of GDP have a direct influence on divorce while unemployment is considered not to be a meaningful and substantial element determining the rate and trend of divorce. South, S. (1985) argues that the increase in unemployment makes the rate of divorce rise. Katawa, Y. (2008) has demonstrated that unemployment has a direct, positive impact on divorce rate, a fact which reveals the different impacts a single factor can have in different places and times. Wang and Zhou (2010) have found, by a research on the national data of China, that there is a positive relation between GDP and the rate of divorce; they also argue that the higher education has a direct impact on divorce rate and increases it.

According to the mentioned phenomenon of tension between the couples, the life of family becomes very fragile in the recession times especially in lower classes of society for husband and wife are under severe pressure if they try to maintain the unity of family. When they (esp. men) are not capable to support family because of unemployment or inadequate wages, struggles and tensions in everyday life come to the fore (Cherlin, 1992; Conger et al, 1990). They can not, in recession times, invest on common projects, like buying a house; this could be determining to staying together since such investments increase the sense of dependency on each other and the sense of community (Brines and Joyner, 1999). Most studies that analysed the influence of economic mechanisms on dissolution of families in the post-World War II period took into consideration the factor of tension and struggle; the unity of family is more likely to dissolve in times of economic difficulty. One of the most outstanding of such studies is that carried out by South (1985) which has examined different groups of people between 1949 and 1979 and concluded that the high rate of unemployment in that period gave rise to more divorces while in the growth period the rate decreased.
Other studies have discerned other elements of economic instability which relate to divorce rate: decrease of job opportunities for men (Ruggles, 1997), inflation (Nunley, 2009), decrease of consumers’ trust (Fisher & Liebrot, 2006).

Some other research findings in the same field show different - yet confirming the relation of shocks to divorce - results; for example Ogburn and Thomas (1922) argue that the divorce rate is decreased in recession times. In order to explain this case, Fisher and Liebrot (2006) who have used data of Netherlands and found the trivial negative connection between the consumers sense of trust and family dissolution, hold that the increase of socio-economic uncertainties which are brought about by factors like low salary, sudden shocks in house price, or growing unemployment undermine the stability of marriage; the impact of such uncertainties are however relative in regard to the context in which they occur. More detailed account of this could be pursued where the “relative costs” issue is discussed.

“relative costs” refer to the fact that the dissolution of family in recession periods happens less that in other periods because getting divorced in the time of high rate of unemployment and low salaries would certainly prove too costly. In fact in a situation where one or both of parents have lost the job or have inadequate salary the economy of family cannot stand the separation; it needs both of them to work and make money (Becker et al, 1977; Becker, 1981). The negative aspect of economy, a characteristic of recession period, could convince the couples (esp. those who are economically more interrelated) to remain within the framework of marriage (Cherlin, 1992; Peters 1993).

If the family can not make a lot of money the couples are less likely to separate for the simple reason that they cannot afford it. Similarly if there is a common property, say a building or house, with a loan to be repaid by both of them, they would be less tended to get divorced, for the repayment would cause much difficulties for a single man or woman. That is the reason why the couples postpone or even ignore separation in such cases (Leland, 2008). If we suppose, on the other hand, that losing jobs increases the divorce rate, then the shortage of money alone could not be a decisive factor in determining the time or duration of divorce since loosing the job causes a severer shortage of money.

An eclectic approach is worked out here to include aspects of both “relational tension” and “relative costs” which also takes into account the more embracing economic contexts which determine the effectiveness of either of them.

Analytical Model:
Based on the theory of Family’s Economy which was first put forth by Becker (1973, 1974, 1977, 1981) and considering some studies such as Elder et al (1985, 1986), Katawa (2008) and Nunley (2010) which are mentioned above, the socio-economic factors affecting the rate of divorce in Iran are as follows:

\[ DIV = F(\text{LICO, Q, EDU, INEQ}) \]

In this equation, LICO refers to living costs; Q to per capita income; EDU to the mean level of education in society; and INEQ to income inequalities.

About these variables, it should be admitted that with an increase of living costs and socio-economic inequalities (with other variables being constant) the familial crises and struggles intensify (cf. Elder et al, 1985), hence these factors influence the rate of divorce positively. On the contrary, factors like per capita income and level of education would affect it negatively (cf. Nunley, 2010; Wang and Zhou, 2010).

It is worth noting that, since the divorce rate and per capita income are obtained through the division of the number of registered divorces and gross domestic product by the number of population, the impact of a variable such as population is adjusted, a fact that is in agreement with other indexes used in divorce function like the mean level of education and income inequality.

In should furthermore be added that, in determining the function of divorce, some economic variables like inflation rate (cf. Nunley 2010) or unemployment rate (cf. Katawa 2008; South 1985) were taken into account; it was however demonstrated, by carrying out statistical tests, that such variables not only have not been capable of explaining divorce rate over the past thirty years, they also make other elements in the function confused and problematic. Put it other way, the mentioned variables do not imply a meaningful, long-term relation to divorce function (which be in accordance with socio-economic theories) in our model. They are, therefore, discarded in our study.

On the other hand, considering the significance of sensitivities of the divorce rate in relation to each explanatory variable in model, which provide more understandable interpretations of coefficients in economic policy-making, the divorce function in Iran, is articulated as a logarithm which is in agreement with a special type of a nonlinear function.

Empirical Results:
Statistics used in the present study cover the period of 1976 to 2006 and are extracted and collected from official sources: the data about production, living costs, and the mean level of education are obtained from Central Bank of the Islamic republic of Iran; divorce rates from Statistical centre of Iran(SCI) and National
Organization for Civil Registration; and index of class gap showed by gini coefficient from Iran Expediency Council(MAJMA).

The degree of integration of variables included in the divorce equation is determined by the augmented Dickey–Fuller (ADF) (1979). The results are summarized in Table 1, showing that all variables are integrated of order 1 or I (1) and thus stationary in difference.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Level ADF Test Statistic</th>
<th>Critical Value</th>
<th>Difference ADF Test Statistic</th>
<th>Critical Value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIV</td>
<td>-1.29</td>
<td>-1.95</td>
<td>-5.22</td>
<td>-1.95</td>
<td>DIV – I(1)</td>
</tr>
<tr>
<td>LICO</td>
<td>-2.19</td>
<td>-3.55</td>
<td>-3.40</td>
<td>-2.95</td>
<td>LICO – I(1)</td>
</tr>
<tr>
<td>Q</td>
<td>-1.75</td>
<td>-2.95</td>
<td>-3.31</td>
<td>-1.95</td>
<td>Q – I(1)</td>
</tr>
<tr>
<td>INEQ</td>
<td>-3.65</td>
<td>-2.95</td>
<td>-7.68</td>
<td>-1.95</td>
<td>INEQ – I(1)</td>
</tr>
</tbody>
</table>

To investigate the presence of long-run relationships among the variables, Johansen- Juselius (1990, 1992) method is used. A lag length of 1 based on Schwarz Bayesian criterion (SBC) and Hannan-Quinn information criterion (HQ), is used in the co-integration tests. The results using trace and maximum eigen-value tests are given in Table 2. The tests imply that there is one long-run relationship among the variables included in the divorce equation over the period of 1976-2006 in Iran.

<table>
<thead>
<tr>
<th>H0</th>
<th>H1</th>
<th>Test Stat</th>
<th>Critical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>r=0</td>
<td>r&gt;0</td>
<td>maximum trace test</td>
<td>84.30</td>
</tr>
<tr>
<td>r≤1</td>
<td>r&gt;1</td>
<td>51.79</td>
<td>47.85</td>
</tr>
<tr>
<td>r≤2</td>
<td>r&gt;2</td>
<td>23.12</td>
<td>29.79</td>
</tr>
<tr>
<td>r=0</td>
<td>r=1</td>
<td>maximum eigenvalue test</td>
<td>32.51</td>
</tr>
<tr>
<td>r=1</td>
<td>r=2</td>
<td>28.66</td>
<td>27.58</td>
</tr>
<tr>
<td>r=2</td>
<td>r=3</td>
<td>13.19</td>
<td>21.13</td>
</tr>
</tbody>
</table>

Notes: r represents the number of co-integration vectors and tests’ critical values are at 5%

The long-run equilibrium relationship of divorce equation estimated by applying Johansen- Juselius method is reported in Table 3. As shown in that Table, the effect of all explanatory variables on divorce rate in long term is significant at 95% confidence level. In other words, estimated long-run coefficients confirm the socio-economic variables like cost of living (CO), per capita income (Q), the mean level of education (EDU) and income inequality (INEQ) determine the behavior of divorce in the Iranian society.

<table>
<thead>
<tr>
<th>DIV</th>
<th>LICO</th>
<th>Q</th>
<th>EDU</th>
<th>INEQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficient</td>
<td>0.51</td>
<td>-1.97</td>
<td>-2.84</td>
<td>3.81</td>
</tr>
<tr>
<td>S.D.</td>
<td>0.13</td>
<td>0.30</td>
<td>1.36</td>
<td>1.60</td>
</tr>
<tr>
<td>t-statistic</td>
<td>3.82</td>
<td>-6.52</td>
<td>-2.08</td>
<td>2.37</td>
</tr>
</tbody>
</table>

The result of error correction model (ECM) is reported in Table 4. The coefficient of the error correction term (ECT) is negative and significant at 5% level. This corroborates the existence of a stable long-run relationship and points to a long-run co-integration relationship among variables. The ECM represents the speed of adjustment to restore equilibrium in the dynamic model following a disturbance. The coefficient of the ECT is around -0.23, implying that a deviation from the long-run equilibrium is corrected by about 23% after each year, so that any disequilibrium in divorce rate of Iran lasts four years to get new equilibrium. In other words, any swing or gap in economic variables considered in divorce function would lead in divorce after four years.

<table>
<thead>
<tr>
<th>ΔDIV</th>
<th>C</th>
<th>ΔDIV_{-1}</th>
<th>ΔLICO</th>
<th>ΔQ</th>
<th>ΔEDU</th>
<th>ΔINEQ</th>
<th>ECT_{-1}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficient</td>
<td>0.18</td>
<td>0.06</td>
<td>-0.59</td>
<td>-0.41</td>
<td>-2.61</td>
<td>-0.33</td>
<td>-0.228</td>
</tr>
<tr>
<td>S.D.</td>
<td>0.07</td>
<td>0.17</td>
<td>0.33</td>
<td>0.28</td>
<td>1.38</td>
<td>0.58</td>
<td>0.11</td>
</tr>
<tr>
<td>t-statistic</td>
<td>2.57</td>
<td>0.38</td>
<td>-1.74</td>
<td>-1.42</td>
<td>-1.89</td>
<td>-0.56</td>
<td>-2.04</td>
</tr>
</tbody>
</table>
Conclusion:

The findings and results of this study reveal the unfortunate connection of divorce with economy; authorities and officials, if make incorrect economic decisions, could damage the institution of family. By improving the way of income distribution and the level of education, they can prevent the families dissolve. It is very likely that more educated, wealthy, consistent societies experience the lower rate of divorce than other countries.

Economic shocks can simultaneously increase and decrease the relative value of marriage for all couples and to the same extent. According to Vinokur and Price (1996), if growth or recession in economy leads to the increase of tension within family the relative value of marriage will decrease to some extent for all the couples making some of them get divorced. Some researchers have come to the conclusion that when somebody is fired and has lost his/her job the probability of divorce is higher than the time when he/she loses the job for other reasons like inability (Charles and Stephens, 2004).

The low salary could be another factor in leading a family to dissolve. The impact of the amount of salary could of course be various in view of the macroeconomic structure of society. In recession period, the mean amount of salary is more determining for divorce rate. This index is represented, as mentioned before, through per capita income. Another economic factor leading to divorce which is frequently discussed in Iranian studies (cf. Kameli, 2007; Danesh et al, 2001) is living below the poverty line, a fact which is more influential in divorce rate in recession times.

An increase in the average price of house affects the divorce rate too. It is represented through the index of living costs. In a situation where the average price of house increases the couples have the courage (in case of separation) to sell it and share the money between them, but if the price decreases they are afraid of selling it. In the recession period of housing in America in 2007-2008, the majority of house owners realized that their property is worth much less than the year before. This is called “the reversed affect of wealth”. In such situation the decrease of the property price leads to a smaller rate of divorce.

There are many studies carried out in regard to the way the increase of education level affects divorce rate; such studies should not be considered superficially. It means that the simultaneity of increase of divorce rate and the increase of education level must not lead policy-makers to short-sighted approaches and attitudes to women education, for the findings of many studies, including the present one, confirm the fact that higher education would result in a much better human capital and hence in a better economic situation and this, in turn, would influence the tendency to get divorced negatively. As mentioned above, some studies insist on the negative relation between the education level in family and divorce rate; Morgan and Rindfuss (1985) and Baumpass et al (1991), for example, show that the threat of family dissolution has a reversed relation with education level (cited by Yazd-Khasti et al 2008).

Other findings reveal the fact that success in marriage has a positive direct correlation with age and education. 81 per cent of married couples with higher education (they were aged more than 26 too) who started their common life in 1980s were still married 20 years later. 65 per cent of married couples with higher education (they were aged less than 26) who started their common life in 1980s were still married 20 years later (Luscombe, Belinda 2010). 2.9 per cent of the married (35-39 aged) people without higher education got divorced in 2009. This was for graduate people 1.6 per cent (Yen, Hope, 2010).

Becoming economically developed to provide people with a better life and welfare is a goal that is pursued or wished by governments; the two variables of economic growth and income distribution would play a significant role in fulfilling that goal. Economic growth is a variable which guarantees the high level of production and services through greater investments, and appropriate income distribution would lead in a situation where all classes of society can utilize and enjoy the facilities and resources. These two variables, together with other social, cultural, and political institutions, would cause the economic development accelerate. If this is not the case, then income inequality and gaps between classes will bring about several kinds of social damages and problems including divorce.

REFERENCES


Rahmani, N., M. Ghasim, J. Moltashami, H. Alavi Majd and Yaghmaei, 2010. Psychological, Social and Economical Causes of Divorce among Divorce Applicants at Family Courts of Tehran, Iran, in 2007, Faculty of nursing, Yasuj University, Dena quarterly 4(3&4) [in Persian]


Ware, S., 1982. Holding Their own: American women in1930s,boston MA: Twayne publishers.


