International Journal of Business and Development Studies **Vol. 5, No. 1,** (2013) pp . 5-22

Macroeconomic Factors Affecting Happiness

Esmaiel Abounoori[•] Donya Asgarizadeh[••]

Abstract

This paper examines factors affecting happiness using panel data concerning 58 countries during 2003-2011. Happiness data come in the form of answers to questions such as "How happy are you as a whole in your life?" and the answers range from 1 to 5transformed to obtain a 1-10 scale. Macroeconomics data are from MIT and World Bank 2012 tables. Including 215 total pool observations indicate the negative and significant effect for Inflation and Unemployment while positive and significant for Growth of GDP Per Capita and the Government Expenditure. Controlling these variables Islamic countries are relatively less happy.

Keywords: Happiness, Unemployment, Inflation, GDP, Government Expenditures, Panel data.

JEL Classification: I31, C23, C33, D60

1. Introduction

Human beings always behave in a way to seek happiness. A good government should therefore pursue policies that raise people's happiness. Happiness should be the ultimate target of development. However, happiness is complex in its condition, hard to quantify, and involves many factors.

Economic performance is not intrinsically interesting. No one is concerned in a genuine sense about the level of gross national product last year or about next year's exchange rate. People have no innate interest in the money supply, inflation, income, unemployment, inequality and the rest. The relevance of economic performance is that it may be a means to an end. That end is not the consumption of foods, nor the accumulation of television sets, nor the vanquishing of some high level of interest rates, but rather the enrichment of mankind's feeling of happiness. Economic factors matter only in so far as they make people happier. Most people agree that

[•] Professor of Econometrics & Social Statistics, Department of Economics, University of Semnan, Semnan-Iran E-mail: esmaiel.abounoori@gmail.com

[••] Department of Economics, Islamic Azad University, Firoozkooh Branch Department of Social Science, onbad University, Gonbad-Iran, E-mail: Donya.asgarizade@gmail.com

it is better to enjoy life than suffer and endorse public policies that aim at creating greater happiness for greater number of people.Happiness has been a subject of discussion since at least the earliest western philosophy suggests high levels of national income are not necessary for happiness. Nonetheless, itis posited in much of the literature on economic growth that ever greater income lends to ever greater utility. If an economy expands, the goods produced in the now larger economy will satisfy conditions on a higher indifference curve than the goods produced before. The assumption that consumers derive higher utility from being on a higher indifference curve is a fundamental of economics, and has been a commonplace across the theoretical spectrum for a long time.

The main focus of the happiness and economics research has been on understanding the interconnection between economic outcomes and the resulting happiness of economic factors. The economics of happiness is an approach to assessing welfare which combines the techniques typically used by economists with those more commonly used by psychologists. Research on happiness has been one of the most stimulating new developments in economics in recent years. The pursuit of happiness is a central aspect of human behavior. It follows that economics is or should beabout individual happiness. In particular, the question is how economic growth, unemployment, and inflation, as well as trade, government expenditure and other factors affect Individual Happiness.

This research therefore aims to examine the happiness index in a group of selected countries with available data, focusing on macroeconomics variables as affecting factors of happiness. It gives information on the weight of different factors that affect people's happiness, enabling us to answer how much effort we should put into each economic development target. The paper is organized into 5 sections. The next section surveys literature, followed by the data and data source of different variables and method used in this study. Later, estimated results of the model are presented. The paper is wrapped up in the final section with some policy recommendations and future research direction.

2. Literature Review

Richard Easterlin (1974) was one of the first economists to study statistics over time on the reported level of happiness. His data came from the United States. The paper, first, suggested that individual happiness appears to be the same across poor countries and rich countries, and second, argued that economic growth does not raise happiness (Easterlin

Paradox). Easterlin suggested that we should think of people as getting utility from a comparison of themselves with others close to them. SoHappiness is relative. The modern stress on the benefits of higher total national income is then misplaced, because individuals all move up together. A similar theme is taken up in Hirsch (1976) and Scitovsky (1976). McCracken et al (1977) calculated a misery index by considering deflation as a factor that harms an economy as much as does inflation, therefore his misery index was calculated from the summation of the absolute value of the rate of price index change and the unemployment rate as; MI = |p| + u. Where p is the inflation or deflation rate and u is the unemployment rate.

Diener, Horwitz and Emmons (1985; 263) have used the happiness of very wealthy persons which was compared with that of a control group who lived in the same geographical area. In their research One hundred persons from list of wealthiest Americans were queried, as well as 100 control persons selected from the poorest. There were unhappy wealthy people and the average level of this group was only modestly higher than the other group. None of the respondents believed that money is a major source of happiness. It was found that the wealthy group more often mentioned self-esteem and self-actualization and less frequently mentioned physiological and security needs.

Scitovsky (1992) found a positive correlation between income and the level of happiness. Blanchflower, Oswald and Warr (1993) used the USA economy and happiness data and found out slight increased happiness while the economic growth increased.

Clark and Oswald (1994; 648) tested the relationship between unemployment and happiness in England. The result showed that unemployment has anegative influence on happiness. The young are less impacted than the old. In the area of lowunemployment, unemployment lowers individual happiness more than that in the area of highunemployment. People who are unemployed for a long period of time are less impacted fromthe unemployment compared with the newly unemployed.Clark and Oswald (1994; 655) found that unemployment first of all reduces the individual happiness of those personally affected. Their summarized results for Britain is that joblessness depresses well-being more than any other single characteristic including important negative ones such asdivorce and separation.

Esterlin (1995; 35) using data on reported happiness, material norms, and income collected in surveys in a number of countries over the past half century found that, within a country at a given time those with higher incomes are, on average, happier. However, raising the incomes of all does not increase the happiness of all. This is because the material norms on which judgments of well-being are based on increase in the same proportion as the actual income of the society.

The results in Oswald (1997; 1815) concerning the United States and Europe, indicate that;1) Reported happiness in the United States has gone up only fractionally over the post-war period. 2) Reported levels of satisfaction with life in Europe are only slightly higher than it were twenty years ago; some countries show falls.3) Although the rate of suicide in Britain has fallen by approximately one third over the last hundred years, the number for men has risen in almost all western nations, since 1970s;rich countries seem to have high suicide rates. 4) Job satisfaction has not increased, over those parts of the last quarter of a century for which data are available, in the United States and the United Kingdom.

Winkelmann and Winkelmann (1998; 1) based on individual panel data, have found a negative effect of personal unemployment on life satisfaction that would require a sevenfold increase in income to compensatefor Germany.

The possibility of bidirectional causality between economic growth and happiness is first raised by Kenny (1999; 3). The empirical study of Frey and Stutzer (2000; 918)based on the survey results of more than 6,000 residents of Switzerland for the year 1992 indicated that, unemployment has a strongly depressing effect on happiness and a higher income level raises happiness, however, only to a small extent.Argyle (2001) assessed the positive correlation between happiness and economic growth but this relation is more significant in poor countries.

In a literature survey on happiness economics, Easterlin (2001; 465)illustrated that, the pattern of change in material aspirations over the life cycle explains some of the paradoxical relationships between happiness and income. At the start of the adult life cycle material aspirations are fairly similar throughout the population, but over the life cycle, aspirations increase in proportion to income and utility functions shift inversely with material aspirations.

According to, Frey and Stutzer (2002; 402),welfare policy faces the question of how much economic destitution is responsible for people's

unhappiness. To what extent can persons with low income be helped by financial support? If low income is due to unemployment, the research results suggest that providing people with higher incomes can only compensate for the pecuniary effect. In order to improve well-being, policy should rather be directed toward providing appropriate employment.

Veenhoven and Hugerty (2003; 1) indicated that happiness has increased slightly in rich nations and considerably in the few poor nations for which data are available. Since longevity has also increased, the number of happy life years has increased at an unprecedented rate since the 1950s. Di Tella, MacCulloch and Oswald (2003; 809) demonstrated that, macroeconomic movements have strong effects on the happiness of nations. It also suggests a new way to measure the costs of business cycle downturns. They used psychological well-being data on a quarter of a million people across twelve European countries and the United States. Using normal regression techniques, the paper starts by showing that happiness data have a stable structure. Microeconometrics well-being equations take the same general form in 12 European countries and the United States. In addition, based on survey data from population samples from European Union member countries between 1975 and 1992, they illustrated that high unemployment rates have non-negligible effects on people who are not personally affected by unemployment. Moreover, they showed that aggregate unemployment decreases average reported life satisfaction. The potential reasons include direct effects of unemployment on crime and public finances, but also workplace specific aspectslike changes in working hours and salaries.

Di Tella andMacCulloch (2005; 367)estimated the effect of inflation and unemployment on social happiness and have found that, the probability that an individual reports a high level of happiness is negatively correlated with inflation and unemployment, even after controlling for personal characteristics of the respondents, country and year dummies and country-specific time trends. Their results show that,both coefficients on the unemployment rate and inflation rate are negative and significant at the 5% and 1% levels, respectively.

Sanfey and Teksoz (2005) analyzed the impact of individual specific and economics variables on satisfaction. The macroeconomic variables they used are: GDP per capita, inflation, unemployment and the Gini coefficient that measures the impact of income inequality on satisfaction.

They analyzed both transition and non-transition countries in the period 1999-2002. In the transition ones, inflation, GDP per capita and the Gini coefficient exert a significant effect on the dependent variable. GDP per capita haspositive impact, whereas the Gini coefficient exerts a negative impact. The unemployment variable is not statistically significant.

Using Data from three large-scale European panels, Clark (2006) clarified that unemployment is associated with sharply lower levels of individual well-being.Relatively little is known about how this effect depends on unemployment duration. These data has let him to distinguish habituation to unemployment from sample selection. The panel results show little evidence of habituation to unemployment in Europe in the 1990's. The empirical evidence of Binswanger (2006; 366) strongly suggested that on average, people in developed countries do not actually maximize happiness. It seems that many people would be better off if they had more free time but less income. Bjornskov, Dreher and Fischer (2007: 267) investigated primarily the effect of government size on life satisfaction in a cross-section of 74, mainly developed countries. Their baseline empirical specification includes the level of GDP, social trust, the price of investment goods, country's openness and a dummy for post-communist countries. They additionally included different measures for the size of government, namely, capital expenditures, transfers and subsidies and, as a special variable of interest, the share of government consumption in GDP. They have found a negative relationship between life satisfaction and government consumption spending.Additionally, they indicated statistically insignificant effect of capital formation and, more surprisingly, welfare spending on life satisfaction. Regarding the results of other macroeconomic variables, national income proved to have insignificant effect on life satisfaction, while all other variables are found to exert statistically significant effect of theexpected sign.

Hinks and Gruen (2007; 311) used South Africa's data and indicated that, the structure of the happiness equations in developing countries do bear similarities with happiness models in developed countries. Concerning unemployment, absolute household income level, relative household income level, racial group and to some extent level of education, all influence the degree of happiness. In addition, they clarified that, marital status had no consistent impact on happiness and didnot find strong evidence of a U-shaped relationship between age and happiness.

Blanchflower (2007) analyzed both micro and macro determinants of happiness in twenty-fiveOECD countries. He utilized the macroeconomic variables including unemployment, inflation, GDP per capita and the interest rate. He finds that inflation, unemployment and interest rates affect happiness significantly and negatively. GDP per capita is found to be important only in poorer countries. The estimates also imply that a one percentage increase in the unemployment rate diminishes happiness more than that by about %1.62.

According to Easterlin and Sawangfa (2007) happiness in United States, on average, varies positively with socio-economic status with for domain of happiness such as finances, family life, work, and health.They come together in a way that explains quite well the overall patterns of happiness.

Stevenson and Wolfers (2008; 1) analyzed multiple rich datasets spanning recent decades and a broader array of countries. They established a clear positive link between GDP and levels of subjective well-being across countries with no evidence of a satiation point beyond which wealthier countries have no further increases in subjective well-being. Moreover, they showed that this relationship is consistent with the relationship between income and happiness within countries, suggesting a minimal role for relative income comparisons as drivers of happiness. Finally, they examined the relationship between changes in subjective well-being and income over time within countries, founded that economic growth has been associated with rising happiness.

Di Tella and MacCulloch (2008; 22) concerning 350000 people in 12 OECD members' countries during the period 1975-1997 obtained positive correlation between happiness and the level of income. MalesevicPerovic (2008; 519) indicated the impact of macroeconomic determinants on subjective economic well-being in a set of eight transition countries in the period 1991-1998. She has found that the effects of inflation, unemployment and GDP growth on well-beingare significant. Unemployment is found to be more important than inflation from public's point of view. In addition, both GDP per capita and GDP growth influence on economic well-being positively, indicating that improvement in national income lead to both temporary and permanent gains in national happiness in transition countries.

Kacapyr (2008; 400) investigatedthe effects of different macro and micro variables on life satisfaction concerning the cross-country sample of

63 countries in the 1990s. After testing for different specifications of the happiness function, the author found that one of the most appropriate models includes a dummy variable for war, inflation rate, unemployment rate, an indication of people's health condition, spirituality and gender equality. The ratio of government expenditures to GDP proved to be statistically insignificant and wasexcluded from the happiness regression. However, the simple correlation coefficient indicates a positive, though quite negligible, association between the share of government in the economy and life satisfaction.

Easterlin and Angelescu (2009; 40) found that there is no significant relationship between the improvement in happiness and the long term rate of growth of GDP per capita. They indicated that is true for three groups ofseparate countries (17 developed, 9 developing, and 11 transitions) and also for the 37 countries taken together.

Ram (2009; 483) using a wide cross-country sample of transition, developed, African and Latin American countries showedstatistically significant positive relationship between government consumption and happiness. In addition the results indicate a positive association between national income and happiness.

Selezneva (2010; 19) with particular attention on transient country delineates the positive correlation between happiness and income with both cross section and time series data. He also showed the negative relation between unemployment and happiness and that self-employed people are happier than their employees.

Torshizian and et all. (2011) regarding the case of the Kish Island in Iran determined components on happiness. What makes the paper different in contrast to similarstudies is Islamic ideological structure of society and being a free economic zone.Method used to estimating happiness isa Structural Equation Modeling (SEM) with latentvariables. Results do not confirm presence of the Easterlin Paradoxandthat the religious variables are not significant.

Chaiprasit and Santidhirakul (2011; 189) studied the Happiness at Work of Employees in Thiland.They estimated factors which affect the happiness of employees at work in SMEs (Small and Medium-sized Enterprises) and measured the level of happiness at work. A total of 300employees were considered using structured questionnaires. The conceptual framework was developed concerning five factors of happiness in the workplace; job inspiration, organization's shared value, relationship,

quality of work life, and leadership. Theresults shown that, the level of happiness of SMEs employees in Chiang Mai was at the high level and the level of opinion towards the five factors affecting happiness at work was also at the high level. Relationship, quality of work life, and the leadership were three factors causing happiness at work and able to predict happiness at work. The prediction ability was at 59.4%.

Happy Income is introduced as an indicator of physical and socio-psychic wellbeing by the study of Prinz and Bunger (2011). It is constructed on the assumption that socio-economic well-being is based on objective circumstances, such as personal income as well as on a subjective evaluation of life. In combining these factors, Happy Income is a cardinal measure of overall well-being in European countries. The Happy Income concept is employed to measure social well-being in various different European countries. It is argued that Happy Income is a valuable complement to other indicators of well-being at an aggregated level. Delhey and Kroll (2012; 201) using data for 34 OECD societies from a happiness perspective, demonstrated that there is surprisingly little wrong with the GDP, and most alternative quality of life (QOL) measures do not outperform GDP. But, they showed that a happiness perspective can add important insights along the way to facilitate the search for a new, widely accepted and internationally comparable measure of well-being.

Becchetti, Marini and Murgea (2012) proposed a simple model to explain the relationship among life dissatisfaction, Google happiness search and the level of the spread between the 10-year yields of Italian and German government bonds. They empirically find a strongly significant and positive correlation between the spread and happiness, net of the impact of confounding controls, as predicted by their model. When testing the direction of the nexus, they found that the spread Granger causes the Google happiness search, showing that financial crises reduced well-being. Clark, Fleche and Senik (2012)examined countries that have experienced continuous income growth over an extended period of time, between 1970 and 2010, whose happiness profile over time is flat. They showed that there is an inverse relationship between GDP per capita and happiness inequality over time. This inverse relationship also holds in cross-section correlations across the countries in the World Values Survey(1970-2008); greater income per capita is associated with smaller standard deviations in happiness. They also focused on developed countries for which have available long annual series on happiness from

surveys such as Australia, Germany, Great Britain and the United States. These data confirm the fall in happiness variation over time (except in more recent years in the US).

Literature reviews show that the economic factors can boost or lessen the overall happiness direct/ indirectly thoughthe impression and the interpretation of this effect are different among the nations. This paper intended to examine the factors affecting happiness in selected 58 countries throughout the world using the framework of a dynamic panel data method over 2003-2011. The main hypothesis of the paper is that economic variables such as Unemployment rate, Inflation rate, Government Expenditure and GDP Per Capita Growth are the factors that can affect the overall happiness. The two first economic variables can reduce happiness while the last two can increase happiness.

3. Method of Research

3-1. Happiness Dataset

This research considers personal happiness as the overall happiness of one's life, not happiness in some specific aspect; therefore happiness is the aggregation of happiness and misery from many aspects of life. This is based on the idea that happiness and misery are able to compensate for each other, that is, a person who is very happy may be regarded as one who has little misery; on the other hand, a person who has little happiness could be regarded as one who has much misery.

The data on cross-country happiness levels for countries those which have had the required data available for during 2003-2011 are extracted from the World Database of Happiness[1] (2012), compiled by Ruut Veenhoven and his team. They have used happy-life index to measure average happiness. They are aggregated from cross-country surveys that ask residents about their levels of subjective happiness. Three similar wording patterns and corresponding numerical scales are used in the surveys over time. The first one is a three-scale question, asking people in general, how happy would you say you are. And the answers range from 'very happy" (3) to "not happy" (1). The second one is a four-scale question, asking people taking all things together, what would you say you are? And the answers range from "very happy" (4) to "not at all happy" (1). The third one is a five-scale question, asking people "all things

[1]. Detailed descriptions of the variables are available at:http://worlddatabaseofhappiness.eur.nl/hap_nat/nat_fp.php?mode=1

together how happy do you feel as you live now? The answers range from "very happy" (5) to "very unhappy" (1) Then the researchers conduct transformation on the answers to obtain a 1-10 scale as it used in this study.Onaverage among the selected 58 countries Denmark is the happiest at 8.09. Succeeding that is Finland at 7.87 and following that are Ireland and Switzerland akin at 7.81. Also the three saddest countries are Iran, Bulgaria and Bolivia at 5.49, 4.50 and 5.65 respectively.

A person's evaluation of his/her average happiness level is relatively stable over time, because the common factors that affect or associate with average happiness level, such as income, marital status, health, and education change very slowly over time.

Researchers may have a concern over the reliability of subjective measures due to the transient fluctuations in human feelings. Krueger and Schkade (2007) did an experiment with a random sample of 229 women, finding that average subjective well-being measure, such as the life-satisfaction index or happiness index exhibit sufficiently high correlation over time to support much of the research that has been undertaken on subjective well-being. Prior to their study, Lyubomirsky and Lepper (1999; 137)reached a similar conclusion with a sample of 2,732 college students. Moreover, researchers such as Sandvik, Diener and Seidlitz (1993; 317), Costa, McCrae and Robert (1988; 853) as well as clinical experts (Goldings-1954; 300) find that self-reported happiness is highly correlated with that reported by friends and family members.

Researchers have found that macroeconomic factors can powerfully explain people'soverall happiness. The happiness equation of previous researchers have been showed that people's happiness is an increasing functionwith their income, having the same characteristic as the utility function in economics, having thesame structure across countries, and being stable.As such, in this study GDP Per Capita Growth, Unemployment (% of Total Labor force), Inflation Rate (CPI % annual) and General Government Total Expenditure (% of GDP)are the economic variables that focused. Inflation Rate (CPI % annual) as measured by the Consumer Price Index (CPI) reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly and the Laspeyresformula is generally used is derived from World Bank tables 2012. GDP Per Capita Growth data which are extracted from the World Bank2012 tableare annual percentage growth rate of GDP per capita based

on constant local currency. Unemployment Rate (% of total Labor Force) data and General Government Total Expenditure (% of GDP) data are extracted from IMF tables 2012. This database is composed of 58 selected countries around the world in the period of 2003 to 2011, including Islamic and Non-Islamic Countries. The summary statistics of the data used is presented in Table 1.

Table 1. Descriptive Statistic

	HAPPINESS	GGDPPC	UNEMPLOYMENT	INFLATION	GOVERNMEN TEXPENDITURE
Mean	6.831949	3.24722	7.290740	4.293032	36.16404
Median	6.960000	2.87000	6.810000	2.960000	36.15100
Maximum	8.700000	13.6100	22.22800	28.19000	56.66400
Minimum	4.100000	-6.8100	1.380000	-0.720000	12.29900
Std. Dev.	0.852486	2.92587	3.583526	4.216481	10.90117
Sum	1892.450	899.480	2019.535	1189.170	10017.44
Sum Sq. Dev.	200.5783	2362.76	3544.297	4906.925	32798.62
Obs.	277	277	277	277	277
Cross Sec.	56	56	56	56	56

As shown in Table 1, the happiness level of 56 countries in this paper ranges from 4.1 to 8.7. The average level of happiness is about 6.83 out of 10. Half of the countries during 2003-2010 have level of happiness more than 6.96 which is almost equal to the mean with standard deviation of about 0.85.

3-2. Model

Happiness is regarded the ultimate goal in life. In general an Unemployed is not happier than Employed. When there is Inflation, both rich and poor are less happy, since the poor is losing income and welfare while the rich is anxious of balancing the assets in order to be less affected. According to the most fundamental utility concept, higher indifference curve due to higher GDP can reflect higher utility and happiness. Government expenditures can increase the happiness. Moreover, considering religious Ceremony during each year concerning Islam has been suspecting Sadness; in order to estimate the possible effect we have included a simple dummy variable to control the effect. Due to the data available concerning Happiness during relatively short period (2003-2011) and about 58 countries we have to apply a panel approach. In general, the following model has been considered in this paper;

$$H_{it} = \delta_i + \Gamma_t + (X_{it})\Phi + \Psi_{it} \quad (1)$$

Where H_{it} is the overall Happiness of country i at year t, and X_{it} is a vector of the explanatory variables such as growth of GDP per capita Growth, Unemployment (% labor force), Inflation, General Government total Expenditure as Percent of Gross Domestic Product for country i = 1, 2, …, 58 and at time t= 2003, 2004, 2005, …, 2011.

The parameter Φ is a scalar vector of β1, …, β5; Ψ_{it} is a classical stochastic disturbance term with $E[\Psi_{it}]= 0$ and var $[\Psi_{it}] = \sigma^2$, δ_i and Γ_t are country and time specific effects, respectively. In the case where country specific effects are constant across countries and time effects are zero [i.e. $\delta_i = \lambda$ and $\Gamma_t = 0$)], the Ordinary Least Squares (OLS) method can be used. In the case where country specific effects are constant, but not equal (i.e. $\delta_i = \lambda_i$ and $\Gamma_t = 0$ which yields a one-way fixed effects mode, we can use Restricted Least Ordinary Least Squares. In case where country specific effects are not constants and time effects are not present [i.e. $\delta_i = \lambda + w_i$ and $\Gamma_t = 0$] where E [w i] = 0 and var[wi] = σ^2 and cov [ψ_i, w_i] =0, we can estimate the model using the Generalized Least Squares (GLS), which amounts to estimating random-effects model.

Concerning the panel data approach, the following model is specified in this paper:

$$H_{it} = \alpha_0 + \beta_i UNE_{it} + \lambda_{it} INF_{it} + \gamma_i GGDPPC_{it} + \eta_{it} GEX + \delta ISD + u_{it} \quad (2)$$

In which H_{it} is the level of happiness of the country I in time t, and $UNE, INF, GGDPPC$ represent unemployment, inflation and growth of GDP per capita and government, respectively. Also, we include the dummy variable indicating Islamic country (ISD=1) and otherwise (ISD=0) to see if in general the Islamic countries are generally less happy or not.Observation correspond 58 country i = 1, 2,…,58 and during 9 years, time t= 2003, 2004, 2005, …, 2011.

4. Empirical Results

The model of Happiness is estimated using Pooled EGLS method (cross-section weights), sample (adjusted): 2004-2011, included observations 8 after adjustments, cross-sections included 49, total pool (unbalanced) observations 146, iterate coefficients after one-step weighting matrix, convergence achieved after 13 total coefficients

iterations, and cross-sections without valid observations dropped. The estimated modelis as follows:

$$\hat{H}_{it} = \underset{(0.0000)}{6.8745} - \underset{(0.0490)}{0.0453}UNE_{it} - \underset{(0.0032)}{0.0558}INF_{it} + \underset{(0.0150)}{0.0364}GGDPPC_{it} + \underset{(0.0370)}{0.0133}GEPC_{it}$$

$$-\underset{(0.0019)}{1.8154}DIS_{it} + \underset{(0.0000)}{0.6197}AR(1)_{it}, \quad \bar{R}^2 = 0.9366, DW = 2.4451 \qquad (3)$$

$$i = 1,2,\cdots,58, \quad t = 2003,\cdots,2011$$

The data concerning Unemployment is as a % labor force, Inflation Rate is calculated based on consumer Price Index, Gross Domestic Product Per Capita Growth, General Government total Expenditure as aPercent of Gross Domestic Product in country i in the year t and ISD indicates Dummy variable for Islamic (ISD=1) and non-Islamic countries (ISD=0). According the results in Table 2, all the explanatory variables are significant at less than 5%. The adjusted R square indicates that about 94% of Happiness variation is explained by the estimated model. Using AR(1), the autocorrelation problem is removed.

5. Conclusion

Happiness -with the data come in the form of answers to questions such as "How happy are you as a whole in your life?"- is the result of numerous factors. The results based on annual cross-country panel data including 58 countries for the period of 2003-2011 including 215 total pool observations indicate the negative and significant coefficients for Inflation and Unemployment while positive and significant for Growth of GDP Per Capita and the Government Expenditure. Considering religious Ceremony during each year,most Islamic Ceremonies has been subject of Sadness. In order to estimate the possible effect we have included a simple dummy variable to control the effect. The result indicates a negative and significant effect on Happiness concerning Islamic countries.

In general this paper indicates less Unemployment and less Inflation Rate lead to more overall happiness.

References

1- Argyle, M., (1989),The Psychologyo f Happiness. London: Routledge.
2- Argyle, M.(2001), Personality, Self–Esteem and Demographic Predictions of Happiness and Depression. In H.Cheng & A. Farnham (Eds.), ThePsychology of Happiness.
3- Becchetti, L., Marini, G. and Murgea, A., (2012), The Spread Nightmare: Financial Crises and Happiness.
4- Binswanger, M., (2006), Why does income growth fail to make us happier? Searching for the treadmills behind the paradox of happiness, The Journal of Socio-Economics, 35: 366–381.
5- Bjornskov, C., Dreher, A. and Fischer, J. A. (2007), The Bigger the Better? Evidence of the Effect of Government Size on Life Satisfaction around the World, *Public Choice*, 130: 267-292.
6- Blanchflower, D.G., Oswald A.J. and Warr P.B., (1993), Well-Being over Time in Britain and the USA, paper presented at an Economics of Happiness Conference, London School of Economics.
7- Blanchflower, D. (2007), Is Unemployment more Costly than Inflation?, NBER Working Paper No. 13505.
8- Chaiprasit K., Santidhirakul O. (2011), Happiness at Work of Employees in Small and Medium-sized Enterprises, Thailand, Sci Verse Science Direct, Social and Behavioral Sciences 25: 189 – 200.
9- Clark, A. and Oswald A. J., (1994),. Unhappinessa nd Unemployment, Economic Journal, 104: 648-659.
10- Clark, A., (2006), A Note on Unhappiness and Unemployment Duration, IZA Discussion PaperNo. 2406, October 2006.
11- Clark, E. A., Flèche, S. and Senik, C. (2012), The Great Happiness Moderation, IZA Discussion Paper July 2012, No. 6761.
12- Costa, P., McCrae, T. and Robert R., (1988), Personality in Adulthood: A Six-Year Longitudinal Study of Self-Reports andSpouse 14- 14- Ratings on the Neo Personality Inventory. Journal of Personality and Social Psychology, 54(5): 853-63.
13- Delhey, J. and Kroll, C. (2012), A Happiness Test for the New Measures of National Well-Being: How Much Better than GDP are they?, Discussion Paper (June 2012), pp. 201.
14- DienerE., Horwitz J. and Emmons R. A. (1985), Happiness of the Very Wealthy, Social Indicators Research, 16(3): 263-274.
15- Di Tella, R.,MacCulloch R., Oswald, A. J., (2003), Macroeconomics of Happiness,TheReview of Economics and Statistics, 85(4): 809-827.

16- Di Tella R. and MacCulloch, R.(2005), "Gross National Happiness as an Answer to the Easterlin Paradox?," Macroeconomics 0504027, EconWPA.
17- Di Tella R, MacCulloch R, (2008), Economics Gross national happiness as an answer to the Easterlin Paradox?,Journal of Development 86: 22–42, Harvard Business School, Boston MA02163, USA and Imperial College London, London SW7 2AZ, UK.
18- Easterlin, Richard, A. (1974), Does Economic Growth Improve the Human Lot? Some Empirical Evidence", in Nations and Households in Economic Growth: Essays in Honor of Moses.
19- Easterlin, Richard, A., (1995), Will Raising the Incomes of All Increase the Happiness of All? Journal ofEconomic Behavior and Organization, 27(1): 35-47.
20- Easterlin, R. A. (2001), Income and Happiness: Towards a Unified Theory, The Economic Journal, 111(473): 465-484.
21- Easterlin, R., Sawangfa, O., (2007), Happiness and Domain Satisfaction: Theory and Evidence, IZA Discussion Paper No. 2584, January 2007.
22- Easterlin,R., A.Angelescu L., (2009), Happiness and Growth the World Over:Time Series Evidence on the Happiness-Income Paradox,Discussion Paper No. 4060,March, University of Southern California, IZA DP No. 40-60.
23- Frey, B. S. and Stutzer A., (2000), Happiness, Economy and Institutions, The Economic Journal, 110 (466, October), 2000, pp. 918-938.
24- Frey, B. S. and Stutzer A., (2002), What Can Economists Learn from Happiness Research? Journal of Economic Literature, 40(2): 402-435.
25- Goldings, H. J., (1954), On the Avowal and Projection of Happiness, Journal of Personality, 1954, 23(1): 30-47.
26- Hinks, T. and Gruen C., (2007), What Is The Structureof South African Happiness Equation? Evidence Fromquality of Life Surveys, Social Indicators Research, 82(2): 311-336.
27- Hirsch, F., (1976),The Social Limits of Growth, Harvard University Press, Cambridge, Mass.
28- Kacapyr, E. (2008), Cross-country Determinants of Life Satisfaction with Life, International Journal of Social Economics,35(6): 400-416.
29- Kenny, C., (1999), Does Growth Cause Happiness, or Does Happiness Cause Growth? Kyklos, 52(1): 3-25.
30- Krueger, A., B., and Schkade, D. A. (2007), The Reliability of Subjective Well-Being Measures, National Bureau of Economic Research Working Paper 13027.

31- Lyubomirsky, S., and Lepper, H. S., (1999), A Measure of Subjective Happiness: Preliminary Reliability and Construct Validation, Social Indicators Research, 46(2): 137-55.
32- McCracken, P., Carli Guido, Herbert Giersch, Attila Karaosmanoglu, Ryutaro Komiya, Assar Malesevic, P., L., (2008), Subjective Economic Well-being in Transition Countries: Investigating the Relative Importance of Macroeconomic Variables, *FinancialTheory and Practice*, 32(4): 519-537.
33- Prinz, A. and Bunger, B., (2011), The Usefulness of a Happy Income Index, CAWM Discussion Paper, No 15 April 2011, Presented at the OECD Conference "New Directions in Welfare II" Paris July 2011.
34- Oswald, A., J., (1997),Happiness and Economic Performance, T*he Economic Journal*, 107: 1815-1831.
35- Ram, R. (2009), Government Spending and Happiness of the Population, AdditionalEvidence from Large Cross-Country Samples, *Public Choice*, 138: 483-490.
36- Sandvik, E., Diener, E. and Seidlitz L., (1993), Subjective Well-Being: The Convergence and Stability of Self-Report and Non-Self-Report Measures." Journal of Personality, 61(3): 317-42.
37- Sanfey, P. and Teksoz, U., (2005), Does Transition Make You Happy? *EBRD WorkingPaper*, No. 91.
38- Scitovsky T., (1976), The Joyless Economy, Oxford University Press, Oxford.
39- Scitovsky T., (1992), The Joy1ess Economy (Revised Edition). New York: Oxford University Press.
40- Selezneva E., (2010), Surveying Transitional Experience and Subjective Well-being: Income, Work, Family, Economic System Journal G Models ECOSYS-321; No.of Pages19.
41- Stevenson, B. and Wolfers, J., (2008), Economic Growth and Happiness: Reassessing the Easterlin Paradox.Brookings Papers on Economic Activity, pp. 1-87.
42- Torshizian, E. and M. (2011), The Effects of Economy, Values and Health on Happiness in Iran: The Case of the Kish Island,MPRA (Munich Personal RePEc Archive) Paper No. 30085, posted 05. April 2011, available at: http://mpra.ub.uni-muenchen.de/30085/
43- Veenhoven R., and Hagerty M. R., (2003), Wealth and Happiness revisited: Growing National Income Does Go with Greater Happiness, Social Indicators Research, 64: 1-27.
44- Winkelmann, R. and L. Winkelmann (1998), Why Are the nemployed So Unhappy? Evidence from Panel Data, Economica,65(257): 1–15.

Appendix:

Table2. Countries Abbreviations			
Argentina(AR)	Honduras(HO	Romania (RO)	Greece (GR)
Slovenia (SI)	Thailand (TH)	Ukraine (UA)	Finland (FI)
Norway (NO)	Austria (AT)	Chile (CL)	Ecuador (EC)
Poland (PL)	Portugal (PT)	Germany(DE)	Panama (PA)
Slovakia (SK)	Brazil (BR)	Sweden (SE)	Denmark (DK)
Zealand(NZ)	Mexico (MX)	Venezuela(VE)	Philippines (PH)
Colombia(CO)	Indonesia(ID)	Uruguay (UY)	Czech Republic(CZ)
France (FR)	Ireland (IE)	Netherlands(NE)	Costa Rika (CR)
Israel (IL)	Turkey (TR)	Malaysia(MY)	Bulgaria (BG)
Peru (PE)	Italy (IT)	Spain (ES)	UnitedKingdom(GB)
China (CN)	Sweden (SE)	Peru (PE)	Korea,Republic(KR)
Bolivia (BO)	Denmark (DK)	Belgium (BE)	Switzerland (CH)
United States (US)	Brazil (BR)	South Africa (ZA)	Saudi Arabia(SA)
Russuia(RU)	Hondoras(HO)	Switzerland(CH)	Hong Kong(HK)

پژوهشگاه علوم انسانی و مطالعات فرهنگی
پرتال جامع علوم انسانی