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RESEARCH PAPER

Market Openness, Transition Economies and Subjective Wellbeing

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Abstract This study attempts to examine the impact on subjective wellbeing (SWB) of economic openness as a social institution. The empirical testing of the liberal argument for the importance of market openness in human wellness is based on a cross-national design. Average scores of 'feeling of happiness' in 65 countries and 'life satisfaction' in 76 countries measured during the 1990s that are drawn from the World Database of Happiness overseen by Veenhoven (2006) are modeled as dependent variables. Regression analysis generates favorable results for the liberal argument in that length of being an open economy (versus closed economy) boosts the level of happiness, while transition to openness augments life satisfaction. Although the post communist countries registered less happiness in the early phase of transition towards the market economy, in general, our model specification indicates that an open market in itself was not responsible for this region's unpleasant psychology.

Keywords Market economy · Price stabilization · Wellbeing

1 Introduction

Current debate about subjective wellbeing (SWB) in cross-national researches has increasingly emphasized the importance of social institutions (Arthaud-Day and Near 2005; Ott 2005; Tsai 2008; Veenhoven 2005). An institution refers to a dominant system of interrelated informal and formal elements (conventions, shared beliefs, norms and rules) to which actors orient their actions when they seek to realize their needs. Institutions thus are social structures that provide a conduit for collective action that allows not only alignment but also facilitation of human interests (Nee 2005). In an institution that recognizes and respects rights and liberty of individuals and prevents undue policy constraints of various sorts, happiness can be greatly enhanced (Frey and Stutzer 2002). Institutional approach

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attempts a persuasion to theorize SWB on a basis of cultural and social structural factors. This line of reasoning does not challenge a prevailing argument that material progress is one major determinant of SWB (Frijters et al. 2004; Hagerty and Veenhoven 2003; Veenhoven 2005). Rather, it proposes that certain norms, conventions or regulative mechanisms that are sanctioned forcefully in a society need be considered carefully to arrive at a fuller understanding of SWB.

In light of institutional theory, recent empirical studies have focused on the potential impact of a formal[1] institution, that is, democracy (Inglehart and Klingemann 2000; Ott 2005). However, when democracy is rendered in rigorous multivariate tests, its influences dilute notably. Using a happy life index comprising level of happiness times life expectancy, Veenhoven (2005) reported that democracy's influence is greatly attenuated when income level is considered (also Inglehart and Klingemann 2000).[2] Other researches that used relevant political variables (level of governance or government size) (Bjørnskov et al. 2008; Ovaska and Takashima 2006) also indicated merely trivial impacts. Notably, Frey and Stutzer (2000) analyzed a Swiss sample and contend that direct democracy captured variation of life satisfaction within this country. Dorn et al. (2007) exploited a different sample but arrived at a conclusion that the relationship between democracy and happiness is weak at best.

Thus, despite strong calling for bringing in institutions in the SWB research, recent research on democracy did not marshal robust evidence to support the institutional viewpoint. Such frustration results for various reasons. It might be because of 'misplaced correctness,' as some authors suggest that reverse causality is probable (for instance, happiness produces democracy, rather than vise-versus). Certain cross-national design only reports correlations and does not deal with causality (Radcliff 2001). Moreover, countries differ in many ways such that control of income level is insufficient and need be practiced in a context-specific way (Frey and Stutzer 2002).

While sympathetic to these methodological critiques, the current study proposes that economic institutions exert noteworthy influences in SWB as these regulative rules impact more directly the ways and the opportunities in which people pursue their interests or satisfies their needs. The often-used measures such as economic freedom index fall short of representing the institutional characteristics of an economy as it contains elements of subjective evaluation of a country's market practices.[3] Some outcomes in favor of economic freedom (Veenhoven 2000, 2005) notwithstanding, solid evidence is needed to support the argument for the relationship between economic liberty and happiness. The current analysis has two attempts. First, it aims to mobilize an openness measure that is based on the extent of state control of the market in order to more effectively assess the significance of economic institutions in impacting SWB. Second, several comparative studies identified Eastern Europe to possess unusually low level of SWB (Ovaska and Takashima 2006; Peiró 2006; Sanfey and Teksoz 2005). Transition to market economy in

[1] The informal elements in social institutions so far receive less attention. Some authors (Inglehart and Klingemann 2000) uses religious population (protestants versus others) as a proxy of cultural values to assess different levels of happiness across countries, which can be considered as an exploration of informal aspects of institutional influences. Schwartz and Melech (2000) propose to evaluate the effects of individualist values on worries. Yet to the knowledge of the author, effective measurement of informal institutions is not available. The current study decides to not engage in necessary empirical testing.

[2] Rather, Inglehart and Klingemann (2000) suggest for a reverse causality that sharp declines in SWB might precede major institutional change (p. 177; also Inglehart and Siemienska 1988).

[3] The index designed by the Heritage Foundation had been used in the cited studies of Ruut Veenhoven (2000, 2005; see also Ott 2005; Ovaska and Takashima 2006).

this region may constitute a 'specific case' that demonstrates potential deviations from the above-proposed relationship. A carefully anatomy of this region's psychology helps provide evidence for evaluating our main hypothesis that market enhances happiness indiscriminately across countries.

2 The Theoretical Argument

2.1 Market, Liberty and Subjective Wellbeing

The liberal school contends that a market unconstrained by government is key to social progress and human wellbeing (Hayek 1991). A market economy can be defined as a form of economic organization in which private individuals or firms determine which goods and services shall be provided and in what quantities (Baumol and Blinder 1982, p. 786). Foregrounded in the liberal conception of a market economy is an individual's freedom in economic decisions and transactions that is generally not allowed in a planned economy. A free market can be functioning in itself to meet various needs of the people. As a natural outgrowth, the market constitutes 'a coordination mechanism whose existence results from the interactions of individuals in their attempt to meet their *subjective needs* through exchanges of various commodities' (Perlman 1997, p. 232, emphasis added). The market thus characterizes a spontaneous order. Yet this ideal 'liberal order' can be threatened when the government becomes interventionalist, when a ruling political party uses it powers to support particular interests, or when the majority exercises its influence through the sovereign legislature to drive the economy to fulfill their special interests (Hayek 1991). Under such centralized control, 'whoever controls the means for all our ends and much therefore decide which are to be satisfied and which not…. And whoever has sole control of the means much also determine which ends are to be served, which values are to be rated higher and which lower' (Hayek 1944, p. 101). Such political control is a source of severe discontents, as 'the welfare and the happiness of millions cannot be measured one a single scale of less and more' (Hayek 1944, p. 64). For Hayek, in a situation of centralized planning, power not only is unconstrained but becomes unproductive as well as unpleasant. In light of this liberal critique, Hayek sees human progress essentially as one of human striving for liberty (Kukathas 1989).

Some authors suggest that the market in Hayek's conception have no purpose—it is neutral in outcome (Perlman 1997). Such interpretation might miss a central point for the liberals–market liberty as such is a social project to achieve 'the greatest happiness of the greatest number.' The market satisfies needs of which we have no knowledge of and the ends of which we might not approve, but the market as exchange processes of goods and services is capable of reconciling differences in knowledge and purposes that an overall order can emerge superior to deliberate planned organization.

Some researchers are much vigilant about the potential threats the market generates on SWB. By way of demonstrating the hedonic yield of increased income in rich countries to be declining, Lane (2000a) offers critical explanation for this ironical trend. He maintains that the market economy has generated two critical "negative externalities." First, the market tends to rob workers of "free time" for family life, which he argues to be an extremely important source of human happiness. That is, a market tends to encourage excessive pursuit of material goods to the sacrifice of other values and goals (companionship and social justice) that comparably contributes to human happiness (Lane 2000b). Second, the market invites a consumer culture that forcefully stresses commodities to be a

major source of SWB. Lane (2000a, p. 180) ardently maintains that what consumption generates is temporary pleasure, a fetish that has no 'philosophical support.' In contrast to the eulogized saying of 'I consume, therefore I am,' the dark side of defining self in terms of winning in 'consuming races' is that people feel inadequate and unsatisfied if they do not possess certain image-enhancing products (Lane 2000a, p. 179). Lane concludes that rather than guarantee SWB, a 'market society' and its inclination of maximization of material gains at the expense of social relationships have forcefully diverted people away from happiness.

2.2 Eastern Europe's Transition and its Discontents

Eastern Europe's (EE hereafter) 'unhappy transition' toward a market economy has been depicted as moving on a track different from what Lane (2000a) describes as 'loss of happiness in a market.' In terms of SWB, EE indeed faired poorly during the 1990s. Either in the early period of transition or more recently, researches reported remarkably lower scores of life satisfaction for the region in comparative statistics (Hayo 2007; Bjørnskov et al. 2007). Despite some observations (Sanfey and Teksoz 2005) of a recovery of life satisfaction in this region, numerous studies that used data from the first few years of this century concluded that the gap in happiness as well as specific domain satisfaction between Eastern Europe and the rest of the world remained large (Dorn et al. 2007; Hayo 2007; Hayo and Seifert 2003; Peiró 2006).

The region's economic reform, generally, can be conceptualized as an evolution from a shortage economy towards market liberalization (Aldcroft 2001). In the early 1990s the new regimes encountered several economic and governance problems including currency conversion, price shocks, abolition of central planning, and creation of legal and financial infrastructure to stimulate private industry. These countries implemented various market-oriented adjustments in a context that socialist legacies still carried effect. The shortage of government revenue and consumer goods still lingered while debt services continued to accumulate since the 1980s. Paralleling the transition was high inflation that derived from massive budget deficit, lack of external aids, among other things. Moreover, income inequality increased, with the former state technocrats to become winners but numerous cadre members and the workers to become losers (Szelényi and Kostello 1996).

Widespread dissatisfaction in this region reflects not merely unhappiness with material life but with life in general (Inglehart and Siemienska 1988). Indeed, a society trapped in economic stagnation for quite a length of time is not very likely to yield happiness among the masses (Bjørnskov et al. 2007). It is noted that such widespread dissatisfaction is also attributed to social comparison that follows greater exposure to outside worlds–exposure to higher living standards in Western Europe (Aldcroft 2001, pp. 246, 263–265) particularly yields extreme disappointment. As the EE had experienced economic hardships during the analyzed decades, the discrepancy between hope and capabilities can be measurable, leading to pessimism in assessing individual life conditions. In short, EE might represent a special case in which transition toward market institutions fails to bring more happiness. The modeling of SWB during the 1990s should consider the particular experiences of Eastern Europe in order to understand more fully potential variations of paths towards happiness via the market.

To summarize, this study suggests considering market openness as a potential factor in explaining SWB. Our theorization proposes three hypotheses: (1) an open market economy is more likely to enhance SWB than is a state-controlled one; nested in the first hypothesis

is another regarding market transition's effect: (2) a country that evolves from a closed to open economy is more likely to increase SWB than does a country that remains closed; and (3) SWB in Eastern Europe benefits less from market transition due to this region's particular legacy of socialist economy (a counter hypothesis hereof is that market enhances SWB indiscriminately from a cross-country perspective). By operating a cross-national design, the following sections are devoted to testing the three hypotheses.

3 Data and Methods

The World Database of Happiness (WDP) (Veenhoven 2006) is employed as the source of country information in cross-national design. Two measures of SWB from this database were adopted: (1) mean level of happiness; (2) mean level of life satisfaction. These two dependent variables were originally collected by the World Values Survey during the 1990s. The two dependent variables were transformed into a scale of 1–10, with higher scores indicating "happier" or "more satisfactory." Information of happiness is available for 65 countries as samples, and that of life satisfaction available for 76 countries.[4] Note that developing countries are under-represented as the average gross national income per capita of the sampled countries was proximately US$10,230 (as of the 1990s). Many low-income countries, particularly in Africa, are not included. Yet the analyzed 76 countries comprise approximately 84% of the world population, indicating adequate if not ideal representativeness in sampling.

3.1 Openness and Market Transition

In evaluation of the effect of exercising market institutions, this study used as proxy the classification of 'open' and 'closed' economies designed by Wacziarg and Welch (2003). According to Wacziarg and Welch (2003), a country is classified as closed if it displays at least one of the following characteristics: (1) average tariff rates of 40% of more; (2) nontariff barriers covering 40% or more of trade: (3) a black market exchange rate that is depreciated by 20% or more relative to official exchange rate; (4) a state monopoly on major exports; (5) a socialist economic system. An economy otherwise is considered open. A closed economy implies strong state intervention into market transactions, resultantly restricting the freedom in ways an individual chooses to satisfy needs.

In order to comprehensively measure the influence of openness, additional operationalizations of it are practiced. First, we measured the *experience of openness* by calculating how many years a country had implemented uninterrupted openness policy according to

[4] The analyzed countries are listed as follows: Albania*(a), Algeria*(c), Argentina(a), Armenia(a), Australia(b), Austria(b), Azerbaijan(a), Bangladesh(a), Belarus(c), Belgium(b), Bosnia(NA), Brazil(a), Bulgaria(a), Canada(b), Chile(b), China(c), Colombia(b), Croatia(a), Czech(a), Denmark(b), Egypt*(a), El Salvador(a), Estonia(c), Finland(b), France(b), Georgia(c), Germany(b), Ghana(b), Greece(b), Hungary(a), India(c), Indonesia*(b), Iran*(c), Ireland(b), Israel(b), Italy(b), Japan(b), Jordan*(b), Latvia(a), Lithuania(a), Luxembourg(b), Macedonia(a), Malta(c), Mexico(a), Moldavia(a), Morocco*(b), Netherlands(b), New Zealand(a), Nigeria(c), Norway(b), Pakistan(c), Peru(a), Philippines(a), Poland(a), Portugal(b), Romania(a), Russia(c), Serbia(c), Singapore(b), Slovakia(a), Slovenia(a), South Africa(a), Spain(b), Sweden(b), Switzerland(b), Taiwan(b), Tanzania*(NA), Turkey(a), Uganda*(a), Ukraine(c), United Kingdom(b), United States of America(b), Uruguay(a), Venezuela(c), Vietnam*(b), Zimbabwe*(c). Countries with an asterisk are not used in analysis of happiness. With regards to classification of countries by market openness, (a) denotes "close to open," (b) "open to open," and (c) "close to close"; (NA): not applicable due to lack of information.

Wacziarg and Welch (2003). The time period of consideration is between 1951 and 2000 that this variable ranges from 0 (still closed as of 2000) to 50 ('open' since 1951).

Second, to capture the effect of market transition more firmly, the analyzed countries are classified into three groups to show if transition to market economy generates impact. Since our dependent variables were measured as of the 1990s, a five year lag of openness is considered suitable for its effect to materialize. Thus three groups appears as follows: (1) the 'closed to open' economies, which adopted openness between 1986 and 1995; (2) the 'open to open' economies, in which openness was practiced throughout this period; (3) the 'closed to closed' economies, in which openness was *never* adopted.[5] The third group is designated as reference in the dummy design. Note that during this analyzed period there is no country that moved from an open to a closed economy, reflecting a global trend of deepening market institutions.

Finally, as it is suggested that Eastern Europe particularly might have suffered from transition to market economy during the 1990s, a dummy is designed especially for these former Soviet countries for observing their gap of wellbeing with other countries.

3.2 Control Variables

Several controls are considered. Besides *mean income p.c.* (the natural logarithm was taken to reduce the skewness of this variable) as well as *economic growth rates*, this study uses several potential controls. Economic *volatility* has been documented as a costly factor of wellbeing (Wolfers 2003; Tsai 2008). We used GDP deflator, a popular measure of inflation, to indicate such volatility. As such volatility implies *unpredictability* rather than *level* of perturbation inherent in a price system, the standard deviation of GDP deflator of a country during 1991–2000 is calculated as a proxy (World Bank 2004). Wider variability of this measure indicates more severe instabilities. Additionally, an index of *militarism* is computed to test if military power that predominates over the society will lead to rising discontents in the general population. Both military spending over a country's GDP and military personnel over total labor forces are transformed into standard scores and the averages of the two scores are combined into a predictor in modeling SWB. Additionally, previous studies indicated that certain region's extraordinary high subjective wellbeing should be considered. For instance, Latin America as a whole registers higher level of happiness perhaps because its culture of appreciating an up-beat attitude generates over-reported SWB (Peiró 2006).

Following preliminary analysis, several potential factors were not used in final analysis. Social inequality that was cited as a factor in affecting SWB as a large group of poor population tends to experience relative deprivation (Veenhoven 1995). However, inequality measured by percentage of income share by the lowest 40% of the population (World Bank 2004) did not show notable correlation with subjective wellbeing and thus was not exploited in further analysis. Neither did trade (export and import over gross domestic production) (World Bank 2004) nor democracy (the average score of the overall democracy index during 1991–2000 from the Polity Data) (Marshall and Jaggers 2006) produce substantial influence in columns on table with controls. They both were dropped from analysis.

[5] There are 28 countries classified as closed to open economies, 31 as 'always open' economies, and 15 as 'always closed' economies. Two countries (Bosnia and Tanzania) lack information. See footnote 4 for the detailed reports.

Table 1 Descriptive statistics of variables: means, standard deviation and correlations

	Mean	*SD*	*r* with happiness	*r* with life satisfaction
GNI p.c. logged	8.81	1.02	.46	.66
GDP Growth rates	2.69	4.46	.43	.33
Militarism index	−.15	1.33	−.14	−.17
Latin America dummy	–[a]	–	.21	.21
Eastern Europe dummy	–[b]	–	−.78	−.59
Economic openness dummy	–[c]	–	.37	.47
Years of openness[d]	18.43	17.30	.57	.62
SD of GDP deflator	2.43	2.18	−.74	−.66
Happiness	6.54	1.15	–	.82
Life satisfaction	6.83	.80	–	–

[a, b] Nine Latin American countries and 22 former Soviet Union countries are used as sample

[c] For the 74 countries in Wacziarg and Welch (2003), 58 countries are coded as open, 16 as closed

[d] Uninterrupted years of openness is dated from 2000 backwards to 1951; that is, the maximum value is assigned 50 years

Table 1 reports basic statistics of the analyzed variables. Zero-order correlations are computed to show the directions of association of happiness and life satisfaction with independent variables.

4 Analysis and Results

The regression analysis on Table 2 first estimates a base-line model of happiness in which GNI p.c. and economic growth rate are estimated simultaneously (Column 1). Both factors reach significance level in estimation, thus presenting a replication of similar findings (Arthaud-Day and Near 2005; Diener and Oishi 2000; Easterlin 1995, 2005; Hagerty and Veenhoven 2003). In the second and third columns, three other predictors this study particularly proposes are considered. Inflation generates a strong negative impact, as was expected (Column 2). The increase of the explained variance due to inflation is substantial (17%). This new modeling indicates a much weaker association of income and economic growth with happiness as inflation mediates much impact of material growth. Conventionally, the influence of material progress on SWB has been attributed to significant gains in needs satisfaction as well as other advancements in education, health and technology (Eckersley 2000). It is also suggested that in rich countries non-market institutions providing substantial goods and service through the government may play a role in SWB. My further test of this welfare hypothesis generates little supporting evidence as the association of social welfare spending (as % of the central government expenditure) (International Monetary Fund 2002) with two SWB indicators did not pass the significance threshold ($r = -.04$ for happiness; $r = .18$ for life satisfaction). The findings of this study suggest an alternative explanation—it is relative price stability in rich countries that accounts for their high level of happiness in comparison to poor countries. That is, national wealth has merely *indirect* influence in happiness. Militarism, an additional control, shows only a slight influence despite the expected negative sign (Column 3). Latin America indicates a considerably higher level of happiness than other regions. However, this 'region effect' does not stand firmly enough as the compared bases shift (more explanation follows).

Table 2 Regression estimates of happiness in the 1990s

	1	2	3	4	5	6	7	8	9
GNI p.c. logged	.35*** (.08)	.07 (.09)	.08 (.09)	.03 (.10)	−.08 (.11)	−.11 (.10)	.01 (.10)	.10 (.08)	.03 (.11)
GDP Growth rates	.07*** (.02)	.02 (.02)	.02 (.02)	.04 (.03)	.05 (.03)	.05 (.03)	.04 (.03)	.02 (.02)	.03 (.03)
Inflation		−.21*** (.04)	−.22*** (.04)	−.19*** (.05)	−.15** (.05)	−.16** (.05)	−.16** (.05)	−.10 (.05)	−.09† (.05)
Militarism index			−.07 (.06)	−.07 (.06)	−.07 (.06)	−.06 (.06)	−.09 (.06)	−.07 (.05)	−.07 (.06)
Latin America dummy			.63** (.19)	.48* (.22)	.57** (.20)	1.47** (.40)	.58** (.21)	.22 (.21)	.29 (.22)
Openness (closed = 0)				.21 (.20)					
Years of openness					.02* (.01)	.02** (.01)			.01 (.01)
Latin America × Years of openness						−.08* (.03)			
Closed to open economy (always closed economy = 0)							−.11 (.18)		
Always open economy							.28 (.25)		
Eastern Europe dummy								−.75** (.21)	−.66* (.26)
Constant	3.43	6.60	6.49	6.64	7.39	7.69	6.82	6.29	6.76
Adj. R^2	.36	.53	.61	.62	.65	.68	.63	.68	.68
N	65	65	65	64	64	64	64	65	64

Standard error is shown in parenthesis

* $p < .05$; ** $p < .01$; *** $p < .001$; † $p < .10$

In testing the influence of openness (Column 4), countries that already adopted openness policy by the year of 2000 do not differentiate themselves from other closed economies in terms of overall happiness level. Neither did we find significant interaction effect of openness across regions as well as with other controls.[6] In contrast, openness measured by length of experience demonstrates notable positive impact (Column 5). Additionally, this length variable generates a negative influence for Latin America (Column 6), indicating regional difference needs special attention in generalizing the market openness' influence.[7] Some context-specific explanation is needed here. Some authors (Petras and Veltmeyer 2001) maintain that the region's long history of neoliberal changes consequently led to economic stagnation and lowed life chances of massive working classes. These findings reveal that the openness policy's wellbeing effect should be assessed in longer term as well as context-specific perspectives rather than by an either-or classification.

Transition towards openness does not generate substantial impacts as the 'closed to open' group does not show higher level of happiness than the group that remains closed or the group that are always open between 1985 and 2000 (Column 7). However, the former Soviet countries as a whole demonstrate significantly lower happiness level (Column 8), revealing their 'race to the bottom' in psychological terms along the road toward a market economy.[8] Note that the influence of Latin America is much attenuated in the column. Thus, the up-beat culture explanation should be used with caution as in our operation this region is now compared to areas beyond the former Soviet bloc, whose SWB appears to be upheld quite firmly in a way that parallels that of Latin America. The last column simultaneously evaluates both the experience of openness and the EE's region effect with controls—the result shows that the EE dummy nearly 'trumps' all other predictors, further confirming the unhappy post-communist society.

Table 3 represents estimation results of life satisfaction by employing the same predictors as applied in Table 2. The regression outcomes are supportive for the five controls in column 1: mean income, growth rate and the Latin America dummy demonstrate favorable influences, while inflation and militarism generate remarkable negative effects. A separate estimation for income-level and economic growth, as was conducted for happiness in Table 2, is not a necessity herein as these two factors demonstrates independent effects *net of* inflation. The open and closed economies (Column 2) once again fail to indicate difference. The length of openness does not generate strong effect, either (Column 3). In Column 4, the 'always open' countries reveal a higher level of satisfaction than that of the closed countries. The transition group, which shifted from closed to open policy, does not fare better in comparison to the always closed group, an outcome somewhat discrediting the transition argument. It is found once again that the people of the former Soviet Union express severe discontents with their life conditions. Yet the gap between them and other regions is not as large as was found in happiness, with a difference of .45 bordering on 5% level of significance (Column 5). Generally, openness variables contribute small increase of explanatory power, which is approximately 5% in Tables 2 and 3.

Our finding so far indicates that adoption of, or transition towards, a market economy carries certain positive effects on SWB. Alternatively, the 'loss from market' perspective

[6] Since Latin American countries that we sampled in this study were all classified as "open," the significant influence of this regional dummy can be interpreted as being in favor of the market openness hypothesis.

[7] Interaction effects were not found to be significant for the open year with the former Soviet region as well as with other controls. These statistical outcomes are not shown to save space.

[8] For happiness in the 1990s, EE as a whole scored 5.9, compared to 7.2 in other countries. For life satisfaction, the difference was slightly larger, with the former scoring 5.5, compared to 6.9 in others.

Table 3 Regression estimates of life satisfaction in the 1990s

	1	2	3	4	5	6
GNI p.c. logged	.55*** (.09)	.53*** (.09)	.50*** (.10)	.39*** (.09)	.59*** (.09)	.46*** (.10)
GDP Growth rates	.05* (.02)	.10** (.03)	.10** (.03)	.10** (.03)	.06** (.02)	.10** (.03)
Inflation	−.19*** (.05)	−.13* (.05)	−.10† (.06)	−.10† (.05)	−.10 (.06)	−.10 (.06)
Militarism index	−.15* (.06)	−.16** (.06)	−.16** (.06)	−.20*** (.05)	−.15** (.06)	−.18** (.06)
Latin America dummy	.99*** (.23)	.79** (.24)	.89*** (.24)	.87*** (.22)	.76** (.26)	.57* (.26)
Openness (closed = 0)		.27 (.20)				.71* (.28)
Years of openness			.01 (.01)			
Closed to open economy (always closed economy = 0)				.05 (.18)		
Always open economy				.62** (.22)		
Eastern Europe dummy					−.45† (.25)	.40 (.41)
Eastern Europe × openness						−.85* (.40)
Constant	1.84	1.55	1.83	2.70	1.45	1.86
Adj. R^2	.71	.74	.74	.76	.72	.75
N	76	74	74	74	76	74

Standard error is shown in parenthesis

* $p < .05$; ** $p < .01$; *** $p < .001$; † $p < .10$

(Lane 2000a) is not substantially supported. Yet we do find certain region-specific unfavorable influence of openness for SWB. The former Soviet bloc indeed constitutes a distinct group that registers comparatively low level of SWB (unhappiness particularly).

The above analysis had been motivated by testing the first two hypotheses of the market openness as a 'general' factor of human wellbeing. This study proposes to further examine the likelihood that market institutions operate less favorably for the post-socialist countries (our hypothesis 3). This study evaluates this 'region-specific' argument by way of examining interaction effects: the Eastern Europe dummy and the openness variables are exploited in generating various interaction terms to be estimated in regression equations that also include the same controls. In estimating happiness, all the interaction terms were found to produce only trivial influence (their results are not shown to save space). The regression outcome for life satisfaction does not lend strong support. Yet one significant finding is noteworthy: the expected negative impact produced by 'EE × openness,' which shows that openness in this region operates to decrease the feeling of satisfaction by .85 unit for this region (Column 6 on Table 3). (Other results are not displayed.) Thus, the hypothesis concerning Eastern Europe peculiarity should be specified—openness in this region impeded life satisfaction more than it did happiness.

5 Robustness Checks

Several specification checks are conducted to evaluate empirical validity of the obtained findings. First, the relatively weak statistical power of the openness factor might be owing to selection of the sample—the EE might have constitute a group of, so to speak, 'outliers' that they had confounded potential favorable influences in other countries. Our re-estimation, however, does not lend support to this consideration. When using the EE sample alone, both SWBs are found to be positively correlated to the years of openness ($r = .22$ for happiness; $r = .40$, $p < .01$ for life satisfaction). Moreover, since our variables represents observed averages rather than individual observations, we had paired countries like China and the United States of America with countries having less population in terms of effect in regression. An appropriate adjustment method is analytically weighted least squares (Johnston and DiNardo 1997), in which the total population of individual sampled countries is used for weighting.[9] The results shows that the openness and the year of openness boosted up happiness, and these two factors as well as the 'always open' dummy incurred life satisfaction ($p < .05$ or better).[10] The evidence confirms and strengthens the argument that openness enhances SWB.

Second, we can assess the likelihood that openness operates in favor of happiness more consistently outside EE. Restated, openness or market transition might generate SWB particularly in other countries where market transactions are not severely hampered by certain structural disadvantages that the EE encountered. To investigate this possibility, this study replicates Tables 2 and 3 using a sub-sample of countries that excludes EE, and displays the outcomes in Table 4.

The first three columns model happiness on the proposed predictors, with a subsample of 44 countries. The result shows that openness, the experience of openness, as well as transition to openness does not generate significant influence. Regarding life satisfaction,

[9] More specifically, weights of $\sqrt{n_j}$ were used where n_j is the population for the country j.

[10] The findings from these statistical simulations should be used not as the primary evidence, but as supporting findings. These estimation results are not shown to save space (available upon request).

Table 4 Regression estimates of happiness and life satisfaction in the 1990s (excluding the EE)

	1	2			5	6	
	Dep. var. = happiness		3	4	Dep. var. = life satisfaction		7
GNI p.c. logged	.18* (.08)	.10 (.13)	.11 (.13)	.16 (.11)	.50*** (.12)	.55*** (.14)	.40** (.12)
GDP Growth rates	.01 (.04)	.03 (.04)	.03 (.04)	.02 (.04)	.11* (.05)	.12* (.05)	.10* (.05)
Inflation		−.14 (.08)	−.13† (.07)	−.13 (.08)	−.09 (.09)	−.08 (.10)	−.08 (.09)
Militarism index		−.11† (.06)	−.11† (.06)	−.11† (.06)	−.21** (.06)	−.20** (.07)	−.24*** (.06)
Latin America dummy		.29 (.25)	.35 (.25)	.37 (.25)	.54† (.32)	.81* (.32)	.83** (.30)
Openness (closed = 1)		.15 (.38)			.68* (.31)		
Years of openness			.00 (.01)			.01 (.01)	
Closed to open economy (always closed economy = 0)				−.25 (.25)			.02 (.27)
Always open economy				−.15 (.28)			.63* (.27)
Constant	5.59	6.16	6.16	5.89	1.50	1.28	2.55
Adj. R^2	.08	.17	.17	.17	.61	.58	.58
N	44	44	44	44	53	53	53

Standard error is shown in parenthesis

* $p < .05$; ** $p < .01$; *** $p < .001$; † $p < .10$

the openness dummy (Column 5) registers a significant positive effect, a favorable outcome not found in previous analysis that used the full sample (compare Column 2 of Table 3). However, the transition economies, compared to other groups, do not reveal better subjective wellbeing (Columns 5 and 6). Countries that stayed open registers higher level of satisfaction (Column 7).

Third, the evaluation of the liberal hypothesis can also be conducted by way of decomposing the index to assess the impacts of individual economic controls by the state on SWB.[11] This study examined three original components—average tariff, black market premium and export marketing board (a dummy variable). They are used as components for identifying a closed economy, and each reveals a distinct type of political regulation of market transactions (Wacziarg and Welch 2003). The regression results are displayed in Table 5. The black market premium and the usage of export marketing boards both reduce happiness notably (Columns 2 and 3). In addition, tariff and black market premium tend to hinder life satisfaction (Columns 4 and 5), although these correlations are less substantial (p significant at 10% level). Moreover, this study did not find the interaction terms of these three variables with EE carried substantial influence on SWB.

Fourth, as this study attempts to evaluate the psychological effects brought about by market transition, SWB can be measured as a *change score* before and after the transition to reflect the impact of policy changes. Since happiness remains stable overtime (at least during the 1990s for countries with 'two wave' data available), the usage of the 'structural score' as practiced in previous analysis is justified (Allison 1990). Yet among nine Eastern European countries that possess two wave data of happiness, only *one* country (Romania) registers a negative change score when comparing 1990–1994 to 2000. This evidence suggests that economic transition in effect might have increased happiness in this region, despite the remaining large gap with other regions. For life satisfaction, there exist noticeable differences between 1990 and 1999 for nearly 40 countries (Veenhoven 2006). The modeling of this change score by using various openness variables does not reveal substantial relationships, however.

Finally, since some countries appear to be outliers in the ordinary least squares (OLS) estimation, another check is to apply a regression model that allows heteroskedasticity in residuals (White 1980). The re-estimation, which relies on 'robust standard error' in statistical decision, however, doe not generate a notable difference. Additionally, although some high correlations among predictors were detected, the results obtained from OLS estimation were not inflicted by multicollinearity as the variance inflation factor remained low (<4) in our regression tables (Fox 1991). The above specification checks demonstrate robustness of our findings from the least square techniques.

6 Conclusion

This study conducted a cross-national analysis to examine the relationships between 'market-friendly' policy and happiness that the liberal theory expects to have an intimate relationship. By exploiting openness policy to indicate economic freedom of a country, our cross-national study provides favorable findings to support the liberal argument. Strong state control of the market indeed appears to be an obstacle to SWB. In contrast, the 'loss

[11] The data was accessed at http://www.stanford.edu/~wacziarg/downloads/liberalization.xls. Accessed 28 July 2007.

Table 5 Regression estimates of SWB and market controls in the 1990s

	1 Dep. var. = happiness	2	3	4 Dep. var. = life satisfaction	5	6
GNI p.c. logged	.04 (.13)	.03 (.08)	.12 (.08)	.45** (.13)	.54*** (.09)	.61*** (.09)
GDP Growth rates	.02 (.03)	.05 (.03)	.01 (.03)	.11** (.04)	.11** (.03)	.08* (.03)
Inflation	−.15** (.06)	−.07 (.05)	−.08 (.05)	−.14† (.07)	−.08 (07)	−.08 (.07)
Militarism index	−.12* (.05)	−.07 (.05)	−.07 (.05)	−.19** (.06)	−.15** (.05)	−.15** (.06)
Latin America dummy	.31 (.20)	.30 (.20)	.188 (.21)	.77** (.26)	.79** (.26)	.74** (.26)
Eastern Europe dummy	−.86*** (.22)	−.60* (.22)	−.80** (.22)	−.37 (.28)	−.18 (.27)	−.27 (.27)
Average tariff	−.01 (.01)			−.020† (.011)		
Black market premium		−.07* (.03)			−.057† (.033)	
Export marketing board			−.63* (.29)			−.51 (.39)
Constant	7.05	6.79	6.16	2.72	1.64	1.09
Adj. R^2	.73	.70	.70	.73	.74	.74
N	57	63	64	66	73	74

Note: Standard error is shown in parenthesis

* $p < .05$; ** $p < .01$; *** $p < .001$; † $p < .10$

from the market' theory (Lane 2000a) that proposes the market-derived harmful influence is not buttressed throughout our modeling.

National wealth, growth momentum, and price stability constitute primary factors of SWB. We particularly note that macroeconomic managements to mitigate the destabilizing effect of inflation should be stressed in policy making for improving SWB. In comparison to these macroeconomic factors, market openness is of secondary importance as it enhances SWB only slightly. Openness policy has its promise: it satisfies wants and meets expectations, particularly for people with strong finances; yet as an allocating mechanism, it encounters substantial circumventions in providing basic needs and reducing insecurity for the poor, as some authors maintain (Gough et al. 2007; Smart 2003). The favorable influence of openness and the induced resources and opportunities seems to spread unevenly, reducing somewhat its power of generalization.

This study also attempts to anatomize the peculiarity of low SWB in EE. The remarkably low happiness of this region should not be attributed to market openness. Other researchers suggest that social fragmentation, weak civil society, and legal arbitraries have been threatening this region's social and moral order (Berglund et al. 2001). Whether factors as such can help to solve the myth of this bloc's extensive discontents remain to be seen.

In sum, many countries that have embarked on 'neoliberal' transition have encountered various adjustment difficulties yet remained 'in high spirits.' Eastern Europe, which had moved from a command economy toward a market economy during the 1990s, appears to track on a route that incites widespread bad feelings. However, this empirical study indicates that openness, as a key institution indicating reduced state control of economic exchanges, is not entirely responsible for its unpleasant psychology.

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