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Economic Freedom and Emotional Well-Being

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Abstract: We explore the relationship between emotional well-being and economic freedom. Using data for a sample of 12 countries from wave 2 of the World Value Survey (WVS) and the Economic Freedom of the World (EFW) index, we find that people living in more economically free societies are more likely to report the presence of positive affect and absence of negative affect. Specifically, people who live in countries with greater economic freedom are more likely to report feeling excited, accomplished, and on the top of the world. At the same time, they are less likely to report feeling pride, restlessness, loneliness, boredom, and being upset. These results are consistent with previous studies that find a positive association between economic freedom and life satisfaction.

1. Introduction

Over the past several decades, a large theoretical and empirical literature has established that economic freedom—the mix of policies and institutions that emphasize the importance of personal freedom, voluntary exchange, protection of private property, and the freedom to enter markets and compete — is associated with many positive socio-economic outcomes. Some of these outcomes include faster economic growth, greater investment in physical and human capital, poverty reduction, lower unemployment rates, and higher levels of social trust and tolerance (see Hall and Lawson (2014) for a recent review of literature). Within this literature, a number of studies have explored the empirical link between economic freedom and subjective well-being (SWB) and found that people who live in countries with institutions consistent with the principles of economic freedom are more likely to report higher levels of SWB (Bjørnskov, Dreher, and Fischer, 2010; Gehring, 2013; Gropper, Lawson, and Thorne, 2011; Ott, 2010; Rode, 2013). Recent research has further highlighted that increases in economic freedom are strongly associated with greater well-being at the U.S. state level (Belasen and Hafer, 2013).

Most of these studies, however, examine the effect of economic freedom on life satisfaction, which is a reflective assessment of one's life that requires an effort to remember and evaluate past experiences. Yet, psychologists often distinguish between two separate dimensions of SWB, namely, life evaluation and emotional well-being (Diener, 1984). The latter refers to the everyday positive and negative emotional states such as excitement, sadness, anger, stress, or loneliness that are experienced in real time and make one's life pleasant or unpleasant.[1] These different dimensions of SWB are only weakly correlated, have

[1] Diener (1984), for example, identifies three separate aspects of SWB: (1) life satisfaction (i.e., a person's overall life evaluation at a point in time), (2) the presence of positive feelings or affect (i.e., positive emotions such as feelings of joy or sense of vitality), and (3) the absence of negative feelings or affect (i.e., feelings of boredom, loneliness, etc.). The frequency with which a person experiences pleasant feelings such as excitement and joy could be entirely independent of the frequency with which a person experiences unpleasant feelings such as loneliness and boredom.

different correlates in the circumstances of people's lives, and the order of importance of the various dimensions is unclear (Fitoussi, Sen, and Stiglitz, 2009; Kahneman and Deaton, 2010). In order to get a satisfactory appreciation of people's quality of life, then, it is important to distinguish between these different aspects of SWB and understand their determinants.

This study endeavors to fill the gap in the economic freedom and happiness literature by examining the relationship between economic freedom and emotional well-being measured by the self-reported presence of positive and negative affect or experiences of feeling or emotion. We make several contributions to the literature. First, we propose mechanisms through which economic freedom may affect emotional well-being. We argue that there are two channels through which economic freedom can affect people's day-to-day emotional states and ultimately lead to higher levels of life satisfaction: socio-economic outcomes and procedural utility.

Second, this is the first study that we are aware of that empirically analyzes the relationship between economic freedom and emotional well-being. We take advantage of a module from wave 2 (1990-1994) of the World Values Surveys (WVS) that asks 15,000 respondents across a dozen countries (see Table 2 for a list of countries) to evaluate their recent emotional states such as feelings of excitement, boredom, and loneliness. We develop indices of positive and negative affect and find that individuals living in countries with greater economic freedom are more (less) likely to report feelings of positive (negative) affect. We also examine the correlation between economic freedom and eight individual measures of emotional well-being and find that individuals living in more economically free nations are more likely to report the presence of positive feelings such as accomplishment, excitement, and being on the top of the world. At the same time, they are less likely to report feelings of boredom, disappointment, loneliness, pride, and restlessness.

Overall, our results are consistent with previous studies that have found economic freedom contributes to higher levels of life satisfaction and suggest a possible channel through which this positive association may work: the presence of positive day-to-day feelings and the absence of negative ones leaves people in more economically free societies more satisfied with their lives. Furthermore, the results remain after controlling for a large set of microeconomic variables, the level of economic development, and the inclusion of country and regional dummies. This suggests that the procedural well-being benefits of economic freedom translate not just into better evaluation of one's life, but also into greater day-to-day positive hedonic experiences.

The remainder of this paper is organized as follows. Section 2 provides some theoretical considerations to motivate the analysis. The data are described in section 3, followed by the empirical results in section 4. Section 5 offers concluding remarks.

2. Theoretical considerations

We propose two possible channels through which economic freedom can influence emotional well-being: socio-economic outcomes and procedural utility.[2] The first channel likely affects SWB in an indirect manner, while the second one offers a more instrumental SWB benefit to individuals.[3]

2.1. Socio-economic outcomes

A large theoretical and empirical literature has established a robust correlation between economic freedom and many positive socio-economic outcomes such as higher income levels and faster economic growth (Bennett et al., 2017; De Haan, Lundström, & Sturm, 2006; Faria & Montesinos, 2009), poverty reduction (Azman-Saini, Baharumshah, and Law, 2010), higher wages (Yankow, 2014), lower unemployment rates (Feldmann, 2007; Bennett, 2016), less income inequality (Bennett and Vedder, 2013), migration patterns (Watkins and Yandle, 2010), and more entrepreneurial activity (Bjørnskov & Foss, 2008; Kreft & Sobel, 2005; Nyström, 2008; Hall et al., 2013). A recent special issue in the *Journal of Regional Analysis & Policy* (see Hall (2013)), highlights that many of these positive effects of economic freedom are robust at the US state level." The underlying argument here is that institutions consistent with the principles of economic freedom provide incentives that encourage people to use their talents in a productive way (Baumol, 1990), which leads to higher levels of investment in physical and human capital (Gwartney, Holcombe, and Lawson, 2006; Hall, Sobel, and Crowley, 2010) and greater total factor productivity, promoting economic growth, job creation and higher standards of living.

[2] In this section, we build on Nikolaev & Bennett (2016).

[3] For a more general theory of the relationship between economic freedom and life satisfaction at the meta level, see Gehring (2013) and Rode (2013).

Economic freedom therefore provides individuals with greater choice in terms of the goods and services available to them as well as over their careers. We hypothesize then that more choices on the product and labor markets will translate into more real opportunities for self-actualization and self-expression. As a consequence, people will be more likely to feel excited about potential opportunities (e.g., greater choice set of jobs) and to feel "on the top of the world" when they succeed in their endeavors. Furthermore, novelty is a major source of satisfaction (Scitovsky, 1976), and thus we expect that people in more economically free societies will be more stimulated and more frequently experience feelings of excitement and interest and less frequently feelings of boredom. In this sense, economic freedom offers indirect well-being benefits through economic development.

More importantly, however, higher economic rewards may keep people hungry for greater success, especially if they believe in the procedural fairness of the system. While this could lead people to utilize their talents in a productive way by attaining higher levels of physical as well as human capital (e.g., pursue a higher education) and more often experience feelings of interest and achievement, it could also lead to escalated expectation and feelings of self-blame and regret, especially if individuals fail to achieve their goals (Schwartz, 2004). Higher material aspirations, for example, have been linked to lower happiness (Stutzer, 2004). In this case, higher levels of economic freedom may lead to more frequent feelings of disappointment. For example, even if more choices present valuable alternatives, people can still feel disappointed because of the perception that they are missing out on highly valuable (alternative) opportunities. Escalated expectations may also cause people to be more critical of each other's work and lead to feelings of discouragement.

Furthermore, people do not evaluate their lives in isolation—they restlessly compare themselves with one another (Duesenberry, 1949; Frank, 1999; Scitovsky, 1976; Veblen, 1899). Status concerns may lead to positional arms races that can lower the overall welfare of society (Frank, 1999, 2005; Layard, 1980). If more economically free societies offer higher economic rewards, they may set the benchmark for social comparison higher, which can lead to more frequent feelings of restlessness and less frequent feelings of pride even if individuals are able to accomplish more in absolute terms.

Finally, it has also been suggested that economic freedom is linked to higher levels of social trust (Berggren and Jordahl, 2006) and tolerance (Berggren and Nilsson, 2013). Free markets, for example, provide incentives for people to be more inclusive and less discriminatory, especially in the labor and product markets, and cultivate an environment of peacefulness (De Soysa and Fjelde, 2010). Thus, people in more economically free societies will be more likely to feel connected with each other, which can translate to less frequent feelings of loneliness. On the other hand, the opportunity cost of spending time with friends and family could be larger as more people dedicate their limited time and resources to fulfill their individualistic aspirations (e.g., pursue their dream career), which can produce feelings of remoteness, especially in the domain of family life.

2.2. Procedural utility

While individuals derive utility from outcomes, they also care about the processes that lead to these outcomes (Frey, Benz, and Stutzer, 2004; Frey and Stutzer, 2010). In this respect, the mix of policies and institutions that determines the level of economic freedom in a country can provide an independent source of utility, *procedural utility*, because they not only lead to specific socio-economic outcomes, but also determine *how* these outcomes are achieved. Recent research, for example, suggests that individuals who live in more economically free countries are more likely to report greater perception of procedural fairness, social mobility, and freedom of choice (Bjørnskov, Dreher, Fischer, Schnellenbach, and Gehring, 2013; Nikolaev and Bennett, 2016).

One explanation is that people value freedom intrinsically because it allows them to act in a deliberate, conscious, and purposeful manner, which is one of the most fundamental human needs. By emphasizing the importance of personal choice and voluntary exchange, economic freedom allows individuals to maximize their potential through exercising their autonomy and self-expression. Being able to freely choose a course of action, even if it leads to failure, can produce greater feelings of self-worth, pride, and accomplishment. The work of Csikszentmihalyi (1991), for example, suggests that the highest feeling of personal happiness is achieved when a person is in a state of "flow" or otherwise in a self-selected task or activity. Similarly, Inglehart et al. (2008) and Verme (2009) argue that the perception of freedom of choice is one of the most important determinants of SWB.

In contrast, suppressing individual choice by placing more power into a centralized decision-making body such as government may have disturbing consequences for individual self-esteem and self-worth. A person who receives government benefits may less

frequently experience feelings of pride and accomplishment than someone who earns his or her income through their own efforts. Yet, living in an uncertain world in which more responsibility is placed on the individual may lead to greater feelings of restlessness, since competitive markets are dynamic and characterized by creative destruction (Schumpeter, 1942). Uncertainty is most unpleasant when it extends over a long and indeterminate period that leads to a lack of control (Scitovsky, 1976). Recent research, however, indicates that people who live in more economically free countries experience greater perception of control over their lives than people who live in less economically free societies (Nikolaev and Bennett, 2016; Pitlik and Rode, 2016).

Moreover, institutions provide established rules and norms that influence how people treat their fellow citizens. Economic freedom creates an inclusive environment of greater tolerance, social trust, and peacefulness, which are important determinants of SWB. Importantly, this is achieved not through cen-tralized decision making and planned order, but through freedom of choice, voluntary exchange, and spontaneous order. Thus, even if the end result is the same — e.g., minority groups are not discriminated against in the market place — the process that generates this outcome may provide a separate source of utility, especially if individuals believe that it is fair.

Overall, economic freedom can produce both the presence and absence of positive and negative feelings. We summarize our hypotheses with respect to the eight measures of positive and negative affect in Table 1.

Table 1. Affect variables and hypothesized relationship with EFW.

Question	Variable	Expected Sign
Positive Affect		
…particularly excited or interested?"	Excited	+
…pleased about having accomplished something?"	Accomplish	+
…proud because somebody complimented you?"	Proud	+/-
…on the top of the world?"	Top World	+
Negative Affect		
…upset because somebody criticized you?"	Upset	+/-
…restless?"	Restless	+/-
…bored?"	Bored	-
…lonely or remote to other people?"	Lonely	+/-

Note: '+' and '-' indicate that we anticipate a positive and negatively, respectively, relationship between EFW and the affect. '+/-' indicates that the relationship is theoretically ambiguous.

3. Data

In this section, we provide a brief overview of the main variables used in this study. Summary statistics are provided in Table 2.

3.1. Subjective well-being: positive and negative affect

Traditionally, most economists, who rely on the revealed-preference approach to model human behavior, have viewed subjective well-being (SWB) data with suspicion. In the past decade, however, happiness data have become more accepted in economic research and are commonly used in policy analysis (Di Tella, MacCulloch, and Oswald, 2001; Diener, 2009). Although self-reported data by their nature cannot be validated, an extensive literature exists that validates SWB data indirectly and shows that such metrics are valid, reliable, and psychometrically sound (Diener, Inglehart, and Tay, 2013; Frey and Stutzer, 2002; Kahneman, Diener, and Schwarz, 1999; Kahneman and Krueger, 2006; OECD, 2013; Stone and Mackie, 2014).

The most common way to collect data on subjective well-being has been to rely on questions with qualitative responses such as feeling "fairly" or "pretty" happy about one's life. In the U.S. General Social Survey, for example, subjective well-being data is measured with the following question: "*Taken all together, how would you say things are these days - would you say that you are very happy, pretty happy, or not too happy*?" Similar questions are also found in the World Value Survey, the European Value Survey, and the Latinobarometer. The World Value Survey, for instance, uses the modification: "*All things considered, how satisfied are you with your life these days?,*" with possible responses ranging from "not at all satisfied" to "very satisfied."

Table 2. Summary statistics.

Main Variables	Observations	Mean	St. Dev.	Min	Max
Economic Freedom	12	5.73	1.24	3.52	7.96
Log of GDP	12	9.00	0.93	7.35	10.29
Positive Affect	15,056	0.47	0.33	0	1
Excited	15,056	0.57	0.50	0	1
Proud	15,056	0.38	0.49	0	1
Accomplish	15,056	0.62	0.49	0	1
Top of the World	15,056	0.32	0.47	0	1
Negative Affect	14,928	0.26	0.28	0	1
Restless	15,013	0.32	0.47	0	1
Lonely	15,026	0.23	0.42	0	1
Bored	15,007	0.29	0.46	0	1
Upset	15,020	0.21	0.41	0	1
Life Satisfaction	14,968	6.83	2.37	1	10
Age	15,056	38.63	15.03	16	99
Age Squared (*0.01)	15,056	17.19	13.35	2.56	98.01
Gender (Base=Female)					
Male	15,056	0.51	0.50	0	1
Marital Status (Base=Married)					
Divorced	15,056	0.10	0.30	0	1
Single	15,056	0.25	0.44	0	1
Employment Status (Base=Full Time)					
Part time	15,056	0.06	0.24	0	1
Self-employed	15,056	0.10	0.30	0	1
Retired	15,056	0.09	0.28	0	1
Housewife	15,056	0.15	0.36	0	1
Students	15,056	0.08	0.26	0	1
Unemployed	15,056	0.06	0.24	0	1
Other	15,056	0.01	0.08	0	1
Religiosity (Base=Not at all important)					
Not very important	15,056	0.19	0.39	0	1
Rather important	15,056	0.24	0.43	0	1
Very important	15,056	0.39	0.49	0	1
Income Scales (Base=1)					
2	15,056	0.15	0.36	0	1
3	15,056	0.18	0.39	0	1
4	15,056	0.14	0.34	0	1
5	15,056	0.12	0.33	0	1
6	15,056	0.10	0.30	0	1
7	15,056	0.09	0.28	0	1
8	15,056	0.07	0.25	0	1
9	15,056	0.02	0.15	0	1
10	15,056	0.02	0.14	0	1
Trust (Base=No Trust)	15,056	0.31	0.46	0	1

Note: Sample limited to observations for which positive affect and the rest of the control variables are available. Wave 2 of WVS survey conducted over period 1990-1994, so data observed in 1990-1992 matched to 1990 EFW values and data observed in 1993 or 1994 matched to 1995 EFW values.

This type of approach, however, measures how people evaluate their life as a whole rather than their current feelings. Thus, it reflects an evaluative judgment in which past and present life circumstances as well as expectations for the future play a role. Emotional well-being, on the other hand, is measured in real time (or shortly after an event has occurred) and measures the presence or absence of pleasant and unpleasant feelings. Because of their relatively high cost, data on emotional well-being are far less common than life-evaluation surveys, although this does not necessarily imply that they are less preferred or useful. The two most common measures are the Experience Sampling and the Day Reconstruction Method, but neither one has been applied to a representative portion of the population (Fitoussi et al., 2009).

To test our hypotheses, we utilize a special module from wave 2 (1990-1994) of the WVS that asks respondents to evaluate their positive and negative affect with the following question: "*We are interested in the way people are feeling these days. During the past few weeks, did you ever feel ___?*" We are particularly interested in responses to the questions indicated in Table 1. Each question was dichotomous, so yes responses are coded as 1 and no responses as 0. Following Kahneman and Deaton (2010), we create positive and negative affect composite measures by taking the average of the first and last four responses, respectively.

3.2. Economic freedom

Our measure of economic freedom is the widely used Economic Freedom of the World (EFW) index, which measures the degree to which a country's institutions and policies are consistent with personal choice, voluntary exchange, open markets, and protection of persons and their property from aggressors. It is comprised of 42 variables derived from publically available sources such as the World Bank, International Monetary Fund, and the Global Competitiveness Report. Each variable is transformed to a 0-10 scale increasing in freedom and assigned to 1 of 5 major areas: (1) size of government; (2) legal system and property rights; (3) sound money; (4) freedom to trade internationally; and (5) regulation of credit, labor, and business. Each area score equals the average of its components, and the composite EFW index represents the average of the five areas (Gwartney, Lawson, and Hall, 2012). The EFW data are available very five years prior to 2000, so we match the WVS variables to the closest (+/- 2 years) EFW country-year observation.

3.3. Control variables

Our analysis controls for a wide variety of individual-level characteristics that potentially affect emotional well-being. These include categorical variables such as income rank, marital status, gender, social trust, employment status, and religiosity, as well as discrete variables such as age and its square. All microeconomic controls came from the WVS. We also control the log of real PPP-adjusted GDP per capita (*Log GDP*) using data from the World Bank World Development Indicators. Table 3 provides the mean EFW, Log GDP, and positive and negative affect and life satisfaction by country.

Table 3. Mean EFW, GDP and SWB, by country.

Country	N	EFW	GDP per capita	Positive Affect	Negative Affect	Life Satisfaction
Brazil	1,637	4.18	9,981	0.57	0.35	7.39
Chile	1,421	6.75	9,199	0.56	0.37	7.55
China	1,421	4.09	1,554	0.48	0.19	7.33
Czech Rep.	917	7.38	16,266	0.39	0.22	6.36
India	2,291	4.89	1,812	0.40	0.25	6.73
Japan	694	7.96	29,550	0.26	0.13	6.53
Mexico	1,283	6.26	12,479	0.56	0.27	7.47
Nigeria	828	3.52	3,030	0.60	0.26	6.60
Russia	1,516	6.65	19,349	0.32	0.29	5.46
Slovakia	457	7.34	15,268	0.44	0.21	6.16
South Africa	2,052	5.56	9,935	0.63	0.27	6.75
Spain	1,046	6.56	23,643	0.27	0.18	7.14
Average	**1,255**	**5.73**	**11,315**	**0.47**	**0.26**	**6.83**

Note: Data was collected from wave 2 (1990-1994) of the WVS and represent country averages.

4. Main empirical results

We use the multi-level pooled ordinary least squares (POLS) model, which is standard in the happiness literature, described by equation 1:

$$SWB_{i,c} = \beta_0 + \beta_1 EFW_c + \beta_2 GDP_c + X_{i,c}\lambda + T_c\delta + \epsilon_{i,c}, \quad (1)$$

where *SWB* denotes one of our measures of positive or negative affect, *EFW* represents the composite economic freedom index, *GDP* is log of real GDP per capita, X a vector of personal characteristics and values including age, age squared, marital status, employment situation, religiosity, social trust, and income rank, T a vector of country dummies, and ε an idiosyncratic error term. The parameters to be estimated are $\beta, \lambda,$ and δ, and i and c denote individuals and countries, respectively. All regressions are estimated using OLS with robust standard errors (White, 1980) to control for cross-sectional heterogeneity and are clustered at the country level to account for the so-called Moulton bias (Moulton, 1990). Moreover, we include regional fixed-effects to control for the well-known Latin American and Post-Communist country biases.

Although the dependent variables for positive and negative affect are categorical variables and technically require logit estimation, we choose to report the results from OLS regression models.[4] The results from OLS and ordered logit regressions hardly differ in the context of SWB research (Ferrer- i- Carbonell and Frijters, 2004). While the ordered logit models are theoretically appealing, the OLS estimates also have the practical advantage of providing easy-to-interpret marginal effects (Clark, Frijters, and Shields, 2008).

Table 4 presents our main results. Model 1 analyzes the relationship between economic freedom and our index of positive affect, and Model 2 presents our results with respect to negative affect. For comparison purposes, Model 3 estimates the effect of economic freedom on life satisfaction for the sample of countries for which we have emotional well-being data. Overall the results from this table indicate that people who live in countries with higher levels of economic freedom are more likely to report the presence of positive affect (Model 1) and the absence of negative affect (Model 2). In both of these specifications, *EFW* is statistically significant at the 1 percent level. In addition, *EFW* is positively and significant associated with life satisfaction in model 3.

The point estimate of 0.142 in model 1 of Table 4 suggests that, *ceteris paribus*, a 1 point increase in *EFW* (approximately 0.8 standard deviations) is associated with a 0.142 point increase (about 0.4 standard deviations) in the positive affect index. The -0.367 point estimate in model 2 suggests that, holding other factors constant, a 1 point increase in *EFW* is associated with a 0.367 point decrease (about 1.3 standard deviations) in the negative affect index. Statistically, a standard deviation increase in *EFW* is associated with standard deviation changes in positive and negative affect of 0.284 and -0.226, respectively. Because we control for GDP, which enters positively in model 1 and negatively in model 2, and *EFW* has been shown to be a positive causal determinant of GDP (Bennett et al., 2017; Faria and Montesinos, 2009), it should be noted that these point estimates, if causal, underestimate the total impact of *EFW* on hedonic happiness and should therefore be considered conservative estimates.

For comparative purposes, we also estimate the impact of *EFW* on life satisfaction for the same sample of countries for which we have affect data. The 4.798 point estimate in Model 3 suggests that a one point increase in *EFW* is associated with a nearly 4.8 point (2 standard deviations) increase in reported life satisfaction (1-10 scale). Statistically, a standard deviation increase in *EFW* is associated with a 1.896 standard deviation rise in subjective well-being. This is consistent with previous studies in the literature that find a positive and robust correlation between economic freedom and life satisfaction (Bjørnskov, Dreher, and Fischer, 2010; Gehring, 2013; Gropper, Lawson, and Thorne, 2011; Ott, 2010; Rode, 2013).

Relative to individuals employed full-time, housewives and retirees are less likely to report feelings of positive happiness. Unemployed individuals are more likely to report feelings of negative happiness relative to individuals employed full-time. In general, individuals reporting higher levels of relative income are also more (less) likely to report positive (negative) affect, although there may be diminishing returns to relative income at higher levels. In addition, males are less likely to report negative affect than females, and divorced and single individuals are less likely than married people to report negative affect. The remaining microeconomic variables are statistically insignificant in Models 1 and 2.

[4] Ordered logit estimation does not change our results qualitatively. Results are available upon request.

Table 4. Main results: EFW and emotional well-being.

	(1)		(2)		(3)	
	Positive Affect		Negative Affect		Life Satisfaction	
EFW	0.142***	(0.019)	-0.367***	(0.011)	4.798***	(0.075)
Log GDP	0.019	(0.084)	-0.765***	(0.033)	11.391***	(0.326)
Age	-0.004**	(0.002)	0.000	(0.001)	-0.046***	(0.013)
Age Sq (*0.01)	0.003	(0.002)	-0.001	(0.002)	0.055***	(0.012)
Male	-0.011	(0.007)	-0.021**	(0.007)	0.022	(0.079)
Marital Status					-0.467***	(0.112)
Divorced	-0.014	(0.017)	0.071***	(0.012)	-0.413***	(0.085)
Single	0.000	(0.010)	0.048***	(0.005)	0.127	(0.092)
Employment Status					0.108	(0.092)
Part time	0.001	(0.013)	-0.005	(0.013)	-0.077	(0.098)
Self-employed	0.012	(0.012)	0.004	(0.009)	0.048	(0.107)
Retired	-0.028*	(0.015)	0.017	(0.013)	0.018	(0.094)
Housewife	-0.057***	(0.014)	0.011	(0.007)	-0.573	(0.349)
Students	-0.001	(0.012)	-0.000	(0.013)	0.201	(0.339)
Unemployed	-0.089	(0.053)	0.033***	(0.009)	0.068	(0.063)
Other	0.025	(0.041)	0.027	(0.026)	0.168**	(0.063)
Religiosity					0.430***	(0.097)
Not very important	-0.009	(0.013)	-0.003	(0.010)	0.092	(0.140)
Rather important	0.007	(0.019)	-0.002	(0.013)	0.455*	(0.217)
Very important	0.026	(0.029)	0.001	(0.016)	0.628**	(0.250)
Income Scale					0.737**	(0.322)
2	0.027*	(0.013)	-0.011	(0.016)	0.880**	(0.366)
3	0.049	(0.032)	-0.039**	(0.014)	0.956**	(0.345)
4	0.078*	(0.041)	-0.041**	(0.017)	1.179***	(0.356)
5	0.087*	(0.046)	-0.063***	(0.019)	1.068***	(0.283)
6	0.115*	(0.057)	-0.058**	(0.020)	1.079***	(0.306)
7	0.131*	(0.064)	-0.057**	(0.021)	0.430***	(0.074)
8	0.145*	(0.070)	-0.050*	(0.025)	4.798***	(0.075)
9	0.118**	(0.042)	-0.049	(0.030)	11.391***	(0.326)
10	0.123**	(0.043)	-0.072**	(0.029)	-0.046***	(0.013)
Trust	0.022	(0.013)	-0.032***	(0.006)	0.055***	(0.012)
Constant	-1.052	(1.009)	11.007***	(0.445)	-149.009***	(3.925)
Regional Dummies	YES		YES		YES	
Country Dummies	YES		YES		YES	
Observations	15,056		15,112		14,968	
R-squared	0.171		0.067		0.108	

*Note: All regressions are OLS with robust standard errors (reported in parenthesis) clustered at the country level. Regional dummies are included to account for the known Latin American and Post-Communist bias. The categories 'female', 'married', 'employed full-time', 'cannot trust others', 'income scale 1', and 'religion not at all important' used as a base category and therefore omitted. Age square is scaled by 0.01 so that its partial effect is discernible. ***p<0.01, **p<0.05, *p<0.1.*

Next we disaggregate the positive and negative affect indices to examine the correlation between *EFW* and each of the eight different affect variables. The results are presented in Table 5. Each column pertains to a different measure of hedonic happiness, with columns 1-4 utilizing a positive affect variable and columns 5-8 a negative affect variable. All models include the same set of control variables included

in Table 4. For space, results for the controls are omitted with the exception of *Log GDP*, which is not statistically significant in columns 1-4, but negative and statistically significant at the 1 percent level in columns 5-8.

Recall from section 2, as well as Table 1, that we anticipate a positive relationship between economic freedom and the *Excited*, *Accomplish* and *Top World* variables, and a negative one with the Bored variable. *EFW* is statistically significant at the 1 percent level with each of these variables in Table 5 and the qualitative effects are as anticipated. A unit increase in *EFW* is associated with a 23.5, 10.6, 38.7, and -59.9 percentage point change in the likelihood that an individual reported feelings of excitement, accomplishment, being on top of the world and boredom, respectively.

For the remaining hedonic happiness variables theory is ambiguous, so we have no a priori expectation about the qualitative effect. The results from Table 5 suggest that economic freedom is negatively correlated with the variables *Proud*, *Restless*, *Upset* and *Lonely*. The point estimates suggest that a unit increase in EFW is associated with a 15.9, 29.8, 32.8, and 24.5 percentage point reduction in the probability that an individual reported feelings of pride, restlessness, emotional upset, and loneliness, respectively. Each of these estimates is statistically significant at the one percent level.

Table 5. Specific measures of positive and negative affect.

	Positive Affect				Negative Affect			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Variables	Excited	Accomplish	Proud	Top World	Restless	Bored	Upset	Lonely
EFW	0.235***	0.106***	-0.159***	0.387***	-0.298***	-0.599***	-0.328***	-0.245***
	(0.020)	(0.022)	(0.019)	(0.028)	(0.022)	(0.017)	(0.014)	(0.017)
Log GDP	0.006	-0.128	0.074	0.125	-0.579***	-1.041***	-0.894***	-0.553***
	(0.074)	(0.091)	(0.086)	(0.103)	(0.069)	(0.043)	(0.040)	(0.055)
CONTROLS	YES	YES	YES	YES	YES	YES	YES	YES
Regional Dummies	YES	YES	YES	YES	YES	YES	YES	YES
Country Dummies	YES	YES	YES	YES	YES	YES	YES	YES
Observations	15,056	15,056	15,056	15,056	15,013	15,007	15,020	15,026
R-squared	0.098	0.091	0.122	0.099	0.027	0.042	0.026	0.054

*Note: All regressions are OLS with robust standard errors (reported in parenthesis) clustered at the country level. Regional dummies are included to account for the known Latin American and Post-Communist bias. The categories 'female', 'married', 'employed full-time', 'cannot trust others' and 'income scale 1', and 'religion not at all important' were used as a base category and therefore omitted. Full set of controls as used in Table 4 included here – results omitted for space. ***p<0.01, **p<0.05, *p<0.1.*

5. Concluding remarks

Previous research suggests that economic freedom is positively associated with higher levels of life satisfaction. This paper contributes to this literature by examining the link between economic freedom and emotional well-being. We propose two channels through which economic freedom potentially impacts hedonic happiness: socio-economic outcomes and procedural fairness. This motivates our empirical analysis, which is carried out using responses to eight questions about hedonic experiences by 15,000 individuals across a dozen countries during wave 2 of the World Values Survey and data from the Economic Freedom of the World (EFW) index.

Using responses to questions about feelings of accomplishment, excitement, pride, and being on top of the world, we construct an index of positive affect. We also construct an index of negative affect from responses to questions about feelings of boredom, loneliness, restlessness, and being upset. After controlling for a standard set of microeconomic variables and the level of economic development, we find that individuals living in more economically free countries are more likely to report feelings of positive affect and less likely to report feelings of negative affect. This suggests that individuals are more likely to report feelings of hedonic happiness in countries with more economic freedom. We also disaggregate the two affect indices and explore the relationship between EFW and the eight measures of affect. The

results suggest that individuals living in countries with higher levels of economic freedom are more likely to report feelings of accomplishment, excitement, and being on top of the world. They are also less likely to report feelings of boredom, loneliness, pride, restlessness, and being upset.

Although our results are generally consistent with previous research that has found a positive link between economic freedom and subjective well-being, there are three main limitations. First, the results are based on cross-sectional data for a dozen countries during the early 1990s. If people adapt rapidly to their new environment, then cross-sectional data may overstate the long-run effect of economic freedom on emotional well-being (Frey and Stutzer, 2010). Additionally, the limited sample size and period suggest that the results are not generalizable. Second is the possibility of omitted variable bias. We attempt to minimize this by including a standard set of microeconomic controls used in happiness research, fixed country and regional effects, and the level of economic development. Lastly, our results cannot be interpreted as causal, as it is possible that economic freedom is endogenous; however, as Gehring (2013) points out, there is no psychological theory suggestive that happier people have preference for economic freedom. On the contrary, previous empirical research suggests that the relationship runs from formal institutions to happiness (Verme, 2009). In addition, Rode (2013) provides evidence of a causal channel from economic freedom to well-being.

Additional research on the relationship between economic freedom and hedonic happiness will be possible as a survey and field data become available for a greater number of countries over time. Because economic freedom is a complex concept that is comprised of a large number of institutional and policy variables, it would also be instructive for policy analysis to explore how various aspects of economic freedom are related to emotional well-being. The current paper, however, contributes to the growing literature on the link between institutions and happiness that views hedonic experiences, and not just life evaluation, as fundamental to our understanding of the causes and correlates of well-being.

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