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Subjective Well-Being Analysis of Income Inequality: Evidence for the Industrialized and Emerging Economies

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Abstract Subjective well-being analysis of income inequality finds that very high levels of objective inequality are considered "bad" in both the industrialized and emerging economies covered in the study. People from the industrialized economies appear to be more sensitive to mild levels of objective inequality compared to those from the emerging economies. Subjective inequality, on the other hand, is not considered "bad" in the same industrialized and emerging economies covered in the study. People from both areas appear to tolerate subjective inequality provided it is the outcome of an impartial environment founded upon rules observed by the majority. There, however, remains the need to help people recognize the importance of addressing inequalities in order for them to demand a more equitable distribution of income in society.

Keywords Subjective well-being · Inequality · Industrialized economies · Emerging economies

Introduction

There is an on-going revival of an earlier notion of "utility" that takes the subjective assessment of one's personal experience as its proper representation. The idea is that individual well-being is the individual's perception of one's state of well-being. It differs from the dominant notion of decision utility that is used in standard economics today—that is, the preferences of a person as manifested by choice-actions. This re-anchoring of utility on subjective well-being (SWB) is a welcome development because it promises a richer and deeper examination of both individual and social welfare.

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In the context of the topic at hand, SWB research has found out aspects about income inequality that conventional approaches have not been able to find. In general, studies find that objective inequality (Alesina et al. 2004; O'Connell 2004; Graham and Felton 2006) and subjective inequality (Corneo and Gruner 2002; Senik 2005) are negatively correlated with SWB. The more important contribution of SWB studies, however, is to show that an important part of the inequality problem is precisely how people see income inequality as well as how individual processes and societal arrangements shape the nature of personal consideration of income inequality. If income inequality persists, then it is in part because people do not see the urgency, or even the need, to act on the problem. In this regard, SWB research asserts that deeper explanations and more meaningful policy suggestions would be had if analysis was not limited to the "objective" aspects of the inequality problem but also included how people saw the situation. This paper seeks to present an analysis of the inequality problem in such context.

The paper starts in Part 2 with a discussion of the notion of "subjective well-being" then proceeds in Part 3 to a presentation of the SWB approach to valuation as applied to the inequality problem in this paper. Results follow in Part 4. The last part concludes the discussion.

Conceptual Framework

"Subjective well-being" (SWB) refers to how a person considers one's state of being at a point in time—that is, a personal knowledge or experience of one's state of being and not what an external observer thinks about the state of being of another person. As such, SWB is deemed reflective of "true" utility (Kahneman and Sugden 2005; Di Tella and MacCulloch 2006). Such declaration of well-being is also deemed truthful because there is no incentive to do otherwise.

Using a proxy for the state of being of a person, or vice versa, is argued to be not sensible given that well-being is what the individual perceives it to be. It is also argued that choice-actions (i.e., buying and selling) and associated choices are not sensible proxies for SWB because they may not match with personal experience, or vice versa (Hsee and Zhang 2004; Schwartz and Ward 2004). Thus, what is important in the SWB framework is that a person makes a self-evaluation of one's state of being and conveys such assessment in one way or another. Of course, there are limitations to undertaking a self-assessment like recall and measurement biases but these can be addressed with better procedures for elicitation, measurement, etc. All the same, self-reports assume the form of quantitative quotations.

For brevity, there are well-developed procedures for obtaining a measure SWB (for a review, see Andrews and Robinson 1991; Kahneman et al. 1999; Eid and Larsen 2008). The debate, though, remains on whether SWB is ordinal or cardinal. Few in economics accept the cardinality of SWB (for example, Ng 1996, 1997; van Praag and Ferrer-i-Carbonell 2004), although elsewhere in the social sciences SWB is presumed a cardinal measure (or, to be more precise, an *interval* cardinal measure). Nonetheless, the empirical results of Ferrer-i-Carbonell and Frijters (2004) suggest that there are similar conclusions to be had when using ordinal and cardinal measures of SWB.

Studies have established that the two components of SWB are affect and judgment, with both known to be separable and independently measurable (Lucas et al. 1996; Diener and Emmons 1985).[1] "Affect" refers to either positive or negative emotion—each is also known to be separable and independently measurable (Watson et al. 1988)—and the ratio of the positive to negative affect is an indicator of short-term SWB (Larsen and Prizmic 2008). In contrast, "judgment" refers to the self-assessment of life in general, with life satisfaction as its most common measure. In judgment, the person weighs the discrepancies between aspirations in different life domains (e.g., home, work, etc.) and actual achievements with respect to the domains (Andrews and Withey 1976; Campbell et al. 1976; Michalos 1985). Thus, it is best to see judgment as a "net" self-assessment of one's state of being. Because judgment is relatively stable, it is a more useful indicator for long-term SWB.

Studies find that some objective conditions like unemployment have direct (Clark and Oswald 1994; Di Tella et al. 2001, 2003; Diener et al. 2009) and lasting effects (Clark et al. 2008) on SWB. This observation is explained as the consequence of the direct pecuniary cost of losing a job plus the large indirect non-pecuniary costs of being jobless (Winkelmann and Winkelmann 1998). There are studies that find self-assessment distinct from political (Andrews and Withey 1976) and social (Hooghe 2012) assessments, suggesting that objective conditions and SWB are separable and independently measurable as well. Thus, putting subjective and objective measures of well-being together in an examination of social issues like income inequality is not necessarily problematic because the results need not be spurious.

Between measures of affect and judgment, however, the latter is obviously less volatile. Outside extraordinary circumstances like death of a loved one, dissolution of marriage, and other striking situations, life satisfaction falls within a certain range through out the life cycle. Put in another way, processes that make life satisfying are in general very similar across people. People are also alike in their views on how best to go about living and enjoying life in general. Thus, an analysis of the average leads to an accurate representation of the state of being of a group of people given their commonalities in many aspects of life. The point is that using life satisfaction as a measure of the state of being is not a problem because it need not introduce excessive or unspecified volatility to produce spurious results.

An important issue with SWB is whether people make accurate measurements of their state of being. Put simply: is there correspondence between self-reported and experienced utility when the latter is in fact internal to the person? The contention of the SWB framework is that the self-assessment of the state of being is the relevant starting point given that no other individual is in a better position to

[1] Another way of looking at the components is as follows: affect is "emotional happiness" and "judgment is "evaluative happiness." The latter is synonymous with "satisfaction" (e.g., life satisfaction). Notice that the label "happiness" refers to affect or judgment, but the conversational usage of "happiness" is really more about affect. In this paper, subjective well-being, happiness, and life satisfaction are treated as the same concepts. There is another dimension to happiness—separate from but related to affect and cognition—and it is called "eudaimonic happiness," which is sometimes operationalized to comprise two components, namely "meaning in life" and "purpose in life".

access or even know what is in fact internal to a person. What a person declares as one's state of well-being should therefore be taken seriously. Besides, the presumption that people declare ill-being when they experience well-being is unfounded, if not distrustful.

Another issue concerns the validity of SWB. Do self-reports carry useful information at all? The point in using self-assessment as a starting point is not about finding the exact degree to which an event *X* or item *Y* affects life satisfaction because there are just too many events and items that constitute an experience. Rather the claim in using SWB is that because people share comparable ways of interpreting their states of being, some measure or procedure can be used to differentiate life circumstances as happiest, happier, happy, sad, sadder, or saddest.

In fact, studies confirm that measures of SWB are reliable, robust, and valid. Tests for reliability like using self-assessments obtained from one person at different points in the same interview (Andrews and Withey 1976; Ehrhardt et al. 2000) or from the same person but interviewed in different periods (Schimmack and Oishi 2005; Krueger and Schkade 2008) give consistent and stable results. Studies also find that people who are satisfied with life at time *t* are generally also satisfied with their lives in time $t+1$ barring extraordinary or dramatic life events between the two periods (Diener and Larsen 1984; Costa and McCrae 1988).

Moreover, the evidence for robustness is incontrovertible. Unemployment is negatively correlated with SWB (Clark and Oswald 1994; Clark et al. 2008). Age exhibits a U-shaped pattern with SWB (Blanchflower and Oswald 2008); but, on average, males have lower SWB than females, although some studies find a switch in the pattern over the life cycle (Easterlin 2010). Marriage raises SWB (Diener et al. 2000; Stutzer and Frey 2006), and marriage dissolution decreases it by a significant amount (Marks and Lambert 1998). Income is positively (but only to a limited extent) correlated with SWB. The across-time analyses between aggregate income and SWB show no correlation (Easterlin 1974, 1995), but Stevenson and Wolfers (2008) challenge such findings. Even so, the low correlation between income and SWB draws attention to the fact that intentional activities (Sheldon and Lyubomirsky 2006), engagement in desirable pursuits (Csikszentmihalyi 1991), and individual attitudes (Dunn et al. 2008) are some of the relevant aspects of SWB that an analysis of income cannot capture.

With regard to validity, studies find that people with high SWB tend to smile more (Ekman et al. 1990; Pavot et al. 1991), and they are likewise rated with high SWB by their spouses, relatives, or peers (Costa and McCrae 1988; Sandvik et al. 1993). Such correspondence in ratings is seen even up to the third degree of relation (Fowler and Christakis 2008). There are also studies that find a tight correspondence between SWB and the location of intense brain activity, in particular the left prefrontal cortex for positive experiences and the right prefrontal cortex for negative experiences (Davidson 2003; Urry et al. 2004).

The analytical innovation presented in this paper is that the perception of an external condition is dependent of the background and the specific location of the person within a society. If so, social context influences aspirations and perceptions even as subjective well-being influences how the person engages with the same social context. If people are born into realities that are not of their choosing, then it follows that self-assessments of states of being and the appraisals of social realities are related

to the same conditions. Indeed, Frey and Stutzer (2002), Inglehart et al. (2008), and Helliwell et al. (2010), for example, find that the quality of domestic institutions and the level of economic development have tangible effects on SWB. They likewise stress that where domestic institutions are functioning well and responding to the needs of people, social conditions are better and the well-being of people are higher than in other places where institutions are not functioning well or not working for the people. Accordingly, the complementarities between the subjective and objective measures can obtain explanations that might not be possible with single-dimension approaches.

Empirical Methodology

Let what a person declares as one's state of being to be reflective of the internal state of being. Moreover, the person is assumed as truthful in making such declaration. A proposition can then be made that SWB is a positive monotonic transformation of the internal state of well-being (SWB*). That is, $SWB = h[U(\cdot)]$, where $U(\cdot)$ is SWB*. $SWB_2 > SWB_1$ if and only if $U_2(\cdot) > U_1(\cdot)$ and state $i+1$ is superior to state i for $i = 1, \ldots,$ and n. The right-hand side of the expression can be restated as $h[U(\cdot)] \equiv h(Z, Y, \boldsymbol{X})$, where Z represents the "external" variable inserted for the purpose of the valuation exercise (albeit Z relates in one way or another to SWB); Y is income; and $\boldsymbol{X}$ is a set other relevant factors. Note that the SWB function allows for society-level indicators.

Proceeding to rearrange the above expression obtains $SWB - SWB^* = e$, where e is the residual. The law of large numbers and homoscedasticity in e suggest that SWB* ≡ SWB. Then, totally differentiating the SWB function obtains $dSWB = h_Z dZ + h_Y dY + h_{Xi} dX$. Let $dSWB = 0$ and $d\boldsymbol{X} = 0$ to obtain $MV = -\frac{dY}{dZ} = \frac{h_Z}{h_Y}$, where MV stands for the valuation of Z.

Presumably, $h_Y > 0$ (i.e., marginal utility of income is positive). Then, Z is a "good" if $h_Z > 0$ but it is a "bad" if $h_Z < 0$. Because a direct examination of Z is not required, the procedure takes the correlation of SWB and Z and that of SWB and Y to obtain the valuation of Z. Notice, too, that the procedure does not require a surrogate or pseudo market, hypothetical good, or choice-action like buying and selling. In fact, Frey et al. (2010) argue that MV does not even require that SWB is a cardinal measure. The introduction of Z as an external variable implies that the procedure is less likely to be contaminated with problems like implausible scenarios, hedonic considerations, or cognitive biases.

For the inequality problem in this paper, the structural model for the regression takes the form $SWB(\boldsymbol{Z}, Y, \boldsymbol{X}) = \alpha + \beta_1 \cdot Z_{obj} + \gamma_1 \cdot Z_{subj.-1} + \gamma_2 \cdot Z_{subj.-2} + \delta \cdot Y + \varphi \cdot X + e$ and $SWB = k \leftrightarrow u_k \leq SWB^* \leq u_{k+1}$. For the regression, SWB is operationalized as life satisfaction; Z_{obj} is objective income inequality (henceforth, "objective inequality"); $Z_{subj.-1}$ is subjective income inequality (henceforth, "subjective inequality"); $Z_{subj.-2}$ is subjective opportunities; Y is income; $\boldsymbol{X}$ includes indicators like objective and subjective freedom; and k is the number of discrete categories with u_k and u_{k+1} as threshold values. The model is estimated using ordered probit regression—thus, the estimated coefficients indicate the general direction of relationship between the right-hand side indicators and SWB but, following the SWB literature, the ratios

$\frac{h_{Zobj}}{h_Y}$, $\frac{h_{Zsubj-1}}{h_Y}$,and $\frac{h_{Zsubj-2}}{h_Y}$ represent the valuations of *Zs* (c.f., Di Tella et al. 2001, 2003; van Praag and Ferrer-i-Carbonell 2004; Frey et al. 2010).[2]

Data and Description of Variables

The economies included in the study are those surveyed in the World Values Survey 2005. Thirty-two economies are identified based on the data completeness criterion. The regression is done on grouped datasets—that is, one group for the industrialized economies and another for the emerging economies—in order to control for dissimilarities in the quality of domestic institutions and other factors that are known to be associated with differences in the levels of development. Details of the variables are presented next. The data come from the World Values Survey 2005 unless indicated otherwise—in which case, the source is specified with the variable description.

Subjective Well-Being

Life satisfaction is the proxy for SWB. It is the response to the question: "*All things considered, how satisfied are you with your life as a whole these days?*" The person reports life satisfaction using a 10-point scale, wherein 1 means 'completely dissatisfied' and 10 means 'completely satisfied.' The responses are treated as interpersonally but ordinally comparable measures.

Objective Inequality

Following standard analyses of inequality, the Gini index of income inequality serves as proxy for objective inequality. Raw data are from the World Development Indicators.

Subjective Inequality

In the World Values Survey, the following statements: *'Income should be made more equal' [or] 'We need larger income differences*' are presented. The person reports one's subjective view of income inequality using a 10-point scale, wherein 1 means 'completely [agreeing] with the [first] statement' and 10 means 'completely [agreeing] with the [second] statement.' For the regression, the values 1 to 4 are collapsed and used to represent an affirmative assessment on the first statement (and zero otherwise). The same step is done for values 5 to 6, which mean neutral position (and zero otherwise). Values 7 to 10 are also collapsed to represent an affirmative assessment on the second statement (and zero otherwise). This strategy is possible

[2] It is not feasible to correct for time invariant unobservable variables by, say, the first difference approach given that SWB is latent and ordinal. It is also not possible to correct for (possible) endogeneity in the model because the dataset used in the analysis in this paper is not longitudinal in nature. Country dummies can control for the idiosyncrasies within the country groupings but these were not introduced in the analysis in order not to bias the relationship between individual-level indicators and SWB. Just the same, the size of *e* is not expected to undermine or reverse the direction of relationship between the right- and left-hand side variables. Caution in generalizing the results is therefore well advised.

because the statements given to the person follow bi-polar phrasing—that is, the two sides can be treated as conceptual opposites (Schwarz et al. 1991, 1998). Note that the same interpretation applies to subjective opportunities (below). Two dummy variables are therefore introduced in the regression with the neutral position as the reference point.

Subjective Opportunities

The World Values Survey asks a person to choose between the following two paired statements: "*[1] In the long-run, hard work usually brings a better life [or] Hard work doesn't generally bring success – it's more a matter of luck and connections*" and "*[2] People can only get rich at the expense of others [or] Wealth can grow so there's enough for everyone*." The same 10-point scale is used to collect the information, with 1 to mean 'completely [agreeing] with the [first] statement' and 10 to mean 'completely [agreeing] with the [second] statement.' Like subjective inequality (above), the responses are compressed into three categories thereby introducing two dummy variables in the regression with the neutral position as the reference point.

Objective Freedom

Indicators for "political and civil liberties" are introduced in the regression. Objective freedom refers to a country's position of being "free" as defined by the Freedom House. Thus, the categories of 'partly free' and 'free,' respectively, take the value of 1 (and zero otherwise) with the 'not free' category as the reference state for the regression. Raw data are from the Freedom House database.

Subjective Freedom

Subjective freedom is the perceived choice and control within a particular setting. In the World Values Survey, a person responds to the question: "*Some people feel they have completely free choice and control over their lives, while other people feel that what they do have no real effect on what happens to them"* using a 10-point scale, where 1 means "no choice at all" and 10 means "a great deal of choice". In this case, two consecutive values are compressed to transform the data into subjective freedom quintiles (see also subject income quintiles). Then, the 'second subjective freedom quintile' and up to the 'fifth subjective freedom quintile' take the value of 1 and zero otherwise, thereby the 'lowest subjective freedom quintile' is the reference state for the regression.

Income

The World Values Survey does not collect information on the individual's income. Following the extant literature, gross domestic product (GDP) per capita is used as proxy. Specifically, a 5-year average of GDP per capita is used (instead of the current GDP per capita) in order to deal with possible income endogeneity. Raw data are from the World Development Indicators.

Demographics and Socio-Economic Profile

The standard controls for demographics and socio-economic profile include age, gender, marital status, educational attainment, job status, and income class. Age is reported years. Age-square is included in the regression to control for the purported quadratic relationship between age and SWB. For gender, the reference status is female. For marital status, "married" (which includes the status "living as married") is the reference status. Thus, "ex-married" (i.e., divorced or separated), "widowed," and "single" take the value of 1 (and zero otherwise). The reference state for educational attainment is the combined states of "no formal education" and "incomplete primary education." Those with "completed primary", "completed secondary", and "completed tertiary" levels of education take the value of 1, respectively (and zero otherwise). For job status, the reference state is "employed" (i.e., full-time, part-time, or self-employed). Respectively, people who are "unemployed" or "retired" as well as people who are "not in the labor force" take the value of 1 (and zero otherwise). Lastly, income class refers to subjective income status, which is reported using a 10-poing scale. Two consecutive deciles are compressed (as was done earlier) in order to form subjective income quintiles with the lowest subjective income quintile serving as the reference state for the regression. Thus, the "second subjective income quintile" and up to the "fifth subjective income quintile" take the value of 1 (and zero otherwise).

Findings

The regressions are summarized in two parts. First, Table 1 presents results on the socio-economic and demographic profile as well as on the two notions of freedoms. Then, Table 2 covers both objective and subjective inequality. The valuations of inequality are subsequently presented in Table 3.

Socio-Economic and Demographic Profile and Freedoms

Results on the standard correlates of SWB for the industrialized and emerging economies are in line with the extant literature (Table 1). Age, as expected, exhibits a U-shaped relationship with SWB. Both the industrialized and emerging economies turn out to have similar turning points at 50 years and 48 years, respectively. The U-shaped relationship between age and SWB reflects the trend in states of being over the life cycle. As a person grows older, there are more aspirations, responsibilities, and so on; naturally, disappointments happen when aspirations and achievements do not match. In fact, people experience greater dissatisfaction with their lives as the gaps between aspirations and achievements increase. Interestingly, the so-called "mid-life crisis" falls within one standard deviation around the turning points of the two areas. Perspectives change, of course, as a person grows older and, in due course, people begin to accept how their lives turn out and experience fewer discontents in the process. Results suggest that people in their 50s or 60s could experience levels of SWB that are comparable to those in their 20s or 30s.

Table 1 Regression results (part 1)

	Industrialized economies		Emerging economies	
	Model 1	Model 2	Model 1	Model 2
Age	−0.0283	−0.0294	−0.0190	−0.0191
	−8.8931	−9.2254	−7.6615	−7.7148
Age-square x 100	0.0002	0.0002	0.0001	0.0002
	8.2964	8.5813	7.2994	7.3520
Male	−0.0706	−0.0603	−0.0391	−0.0382
	−4.3616	−3.7277	−3.0070	−2.9409
Ex-married	−0.4065	−0.4061	−0.2105	−0.2105
	−14.228	−14.234	−6.3651	−6.3623
Widowed	−0.2733	−0.2691	−0.1052	−0.1044
	−7.0215	−6.9316	−3.5331	−3.5073
Single	−0.3258	−0.3317	−0.1246	−0.1248
	−13.816	−13.948	−7.0559	−7.0633
Primary education	0.1081	0.0989	0.1203	0.1200
	2.6172	2.4025	6.3977	6.3840
Secondary education	0.1709	0.1624	0.0946	0.0959
	4.1404	3.9451	5.0011	5.0656
Tertiary education	0.1859	0.1768	0.1382	0.1401
	4.2597	4.0568	5.8068	5.8887
Unemployed	−0.3072	−0.3086	−0.0852	−0.0871
	−8.0245	−8.0590	−3.8297	−3.9141
Retired	0.0316	0.0301	−0.1315	−0.1328
	0.9933	0.9475	−4.3806	−4.4246
Not in the labor force	0.0255	0.0276	0.0696	0.0868
	1.0553	1.1384	5.2791	5.2625
Subjective income, quintile 2	−0.0201	−0.0196	0.0769	0.0764
	−0.8962	−0.8737	4.2030	4.1733
Subjective income, quintile 3	0.1108	0.1145	0.2763	0.2749
	4.7441	4.9023	15.034	14.959
Subjective income, quintile 4	0.1953	0.1974	0.4793	0.4766
	7.3994	7.4788	23.126	22.991
Subjective income, quintile 5	0.2331	0.2408	0.5434	0.5419
	7.5480	7.8073	16.833	16.789
Part Free			0.1517	0.1479
			4.6345	4.5217
Full Free			0.3648	0.3668
			13.420	13.507
Subjective freedom quintile 2	−0.1832	−0.1782	−0.0487	−0.0479
	−2.8759	−2.8008	−1.4906	−1.4680
Subjective freedom quintile 3	0.1965	0.1991	0.2144	0.2140
	3.4365	3.4896	7.2372	7.2234

Table 1 (continued)

	Industrialized economies		Emerging economies	
	Model 1	Model 2	Model 1	Model 2
Subjective freedom quintile 4	0.5525	0.5574	0.4651	0.4635
	9.7338	9.8436	15.492	15.427
Subjective freedom quintile 5	0.9111	0.9145	0.7914	0.7915
	15.329	15.417	24.619	24.628

Tables 1 and 2 (Section "Objective Inequality, Subjective Inequality, and Subjective Opportunities") comprise the full results of ordinal regression. Variable descriptions are in Section "Empirical Methodology" of the paper. Numbers below the estimated coefficients are the z-statistics

Table 2 Regressions results (part 2)

	Industrialized economies		Emerging economies	
	Model 1	Model 2	Model 1	Model 2
GDP per capita	1.03E-5	8.74E-6	8.12E-5	8.15E-5
	6.6005	5.6622	12.509	12.560
Gini index	−0.0019	−0.0003	0.0319	0.0319
	−0.4692	−0.0849	18.413	18.483
Gini index * high income inequality	−0.0047	−0.0049	−0.0063	−0.0065
	−5.8466	−6.0715	−7.9185	−8.1118
Subjective inequality: income to be equalized	0.0007	0.0030	−0.0167	−0.0122
	0.0383	0.1511	−0.9497	−0.6991
Subjective inequality: income differences okay	0.0972	0.0915	0.0961	0.0940
	5.0008	4.7194	6.3512	6.2020
Subjective opportunity: hard work matters	0.0421		0.0284	
	2.1970		1.8864	
Subjective opportunity: luck & connection	−0.0788		−0.0065	
	−3.5006		−0.3657	
Subjective opportunity: getting rich, zero sum		−0.0836		−0.0235
		−3.6912		−1.3777
Subjective opportunity: getting rich, positive sum		0.0461		0.0227
		2.5881		1.6174

[i] Tables 1 (Section "Socio-Economic and Demographic Profile and Freedoms") and 2 comprise the full results of ordinal regression. Variable descriptions are in Section "Empirical Methodology" of the paper. Numbers below the estimated coefficients are the z-statistics. Fixed effects results are not reported in the table. 5-year average of GDP per capita (in levels) is used in the regression

[ii] Industrialized economies = Australia, Canada, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom, and United States. Emerging economies = Brazil, Chile, Egypt, Ethiopia, Ghana, India, Indonesia, Malaysia, Mali, Mexico, Morocco, Peru, Poland, Romania, Russian Federation, South Africa, Thailand, and Turkey

Table 3 Monetary valuation results, in US dollars

	Industrialized economies		Emerging economies	
	Valuation 1	Valuation 2	Valuation 1	Valuation 2
Gini index	–	–	$ 393	$ 391
			(14.5 %)	(14.4 %)
Gini index * high income inequality	-$ 456	-$ 561	-$ 76	-$ 80
	(−1.61 %)	(−1.98 %)	(−2.81 %)	(−2.95 %)
Subj. inequality: income to be equalized	–	–	–	–
Subj. inequality: income differences okay	$ 9,437	$ 10,469	$ 1,183	$ 1,153
	(33.3 %)	(37.0 %)	(43.7 %)	(42.6 %)
Subj. opportunity: hard work matters	$ 4,087	–	$ 350	–
	(14.4 %)		(12.9 %)	
Subj. opportunity: luck & connection	-$ 7,660	–	–	–
	(−27.0 %)			
Subj. opportunity: getting rich, zero sum	–	-$ 9,565	–	–
		(−33.8 %)		
Subj. opportunity: getting rich, positive sum	–	-$ 5,276	–	$ 279
		(−18.7 %)		(10.3 %)

[i] Monetary valuation is $\frac{h_Z}{h_Y}$. Only the statistically significant results are indicated in the table. Calculations are based on Table 2 coefficients. Numbers in parentheses are shares in GDP per capita. For the emerging economies, the group average masks the large variations in average incomes. If the average of high-income emerging economies and the average of low-income emerging economies are used instead, the percentages can range between half to six times the reported figures in the table. The percentages are still large relative to GDP per capita. For the industrialized economies, the net valuation on the first subjective opportunity indicator is -$3,573 (12.5 % of the average income); that on the second subjective opportunity indicator is -$4,289 (15.1 % of the average income). These amounts are comparable to each other

[ii] Industrialized economies = Australia, Canada, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom, and United States. Emerging economies = Brazil, Chile, Egypt, Ethiopia, Ghana, India, Indonesia, Malaysia, Mali, Mexico, Morocco, Peru, Poland, Romania, Russian Federation, South Africa, Thailand, and Turkey

Gender obtains the anticipated result. Males, in both the industrialized and emerging economies, have relatively lower SWB than females. Perhaps, male socialization is driving this pattern. That is, there are relatively greater social expectations on men to pursue a career, take on the role of family provider, succeed in life, and so on that they end up striving harder and facing more stresses in life. All things the same, gender socialization results in more frustrations in men relative to the women.

The next results concern marital status. The dissolution of marriage (say, with divorce or death) is negatively correlated with SWB. This pattern is observed in both the industrialized and emerging economies, albeit the impact of marriage dissolution is larger in the former. Relative to the death of a spouse, the high cost (pecuniary-legal and non-pecuniary) associated with divorce could be a more important factor in explaining the lower SWB in the industrialized economies. Comparable results are found on being single. Thus, if marriage exhibits economies of scale in terms of family provisioning and security, then marriage dissolution or being single is

economically "costly," which is reasonable if income is positively correlated with SWB (see below).

Fourth, education is positively correlated with SWB, albeit results indicate that the completion of secondary and tertiary levels of education shows larger impacts on SWB in the industrialized economies. This result is in line with the expectation that a higher level of education is important in sustaining economic progress when a country has reached an advanced level of economic development. In the emerging economies, in contrast, the completion of primary and tertiary education is more important to SWB. This result indicates that primary education at lower levels of economic development is a necessary foundation for economic progress, while tertiary education is useful because it provides the pool of human capital to support the transition from lower to higher economic status.

Additionally, the findings on education could also reflect existing social cleavages. That is, on the one hand, the relatively well-off individuals are more interested in acquiring tertiary education whereas the relatively worse-off ones are content with acquiring primary to secondary education. This situation could also be viewed as a symptom of unequal access to educational opportunities (and the recognition thereof on the part of individuals) in these societies.

Fifth, unemployment is negatively correlated with SWB. Unemployment shows greater impact in the industrialized economies than in the emerging economies. Being jobless is naturally more costly where the standards of living are high. Interestingly, being "not in the labor force" has little impact on SWB, perhaps, because there are fewer expectations on, say, the youth and adolescents to have careers at their age. This finding is the same for the emerging economies. Meanwhile, being "retired" is positively correlated with SWB in the industrialized economies but negatively correlated with SWB in the emerging economies. Thus, people are less worried about retirement when they live in societies where the pension and healthcare systems are addressing their needs. However, retirement is a bane in the emerging economies because it does not only mean losing a livelihood—thus the reduction in income—but also mean assuming additional financial burdens that come with old age given the limited, if any, pension and healthcare systems. The greater impact of unemployment on SWB in the industrialized economies can likewise be explained by existing social mores—that is, people are more disapproving with the unemployed because they do not contribute to society, they are on welfare and therefore are social burdens, etc. In a way, the result could be indicating the social cost associated with unemployment in the industrialized economies.

The next results are on subjective income status, which reveal positive correlations with SWB for both the industrialized and emerging economies. Results still indicate "diminishing impacts" of higher income status on SWB. Higher perceived income status leads to higher SWB regardless of the level of economic development because people are not only enjoying more choices but are also actualizing their choices. Note that if income standing is linked to social class and associated outlook in life and society, etc., then the results already take into account the variations in class behavior linked to income. Still, in the industrialized economies, higher income status has little effect on SWB because the standard of living there is already high. In contrast, in the emerging economies, the impact of higher income status on SWB is much more pronounced given the large disparities in actual incomes.

The last section of Table 1 presents the findings on objective and subjective freedom. Results show that objective freedom is positively correlated with SWB, indicating that people experience greater well-being in free societies. The finding is in line with the view that democratic societies provide the necessary backdrop for economic and social advancement. Furthermore, results also indicate that higher perceived freedom is positively correlated with SWB in both the industrialized and emerging economies.[3] What this finding on subjective freedom points out is that people need to know and care about what choices they can make on their own regardless of the outcomes of those choices. In short, both objective freedom and personal independence enhance well-being. Note, too, that if subjective freedom is associated with social power and awareness to shape one's life and society, etc., then it takes into account class behavior linked to the choices.

Objective Inequality, Subjective Inequality, and Subjective Opportunities

Table 1 also shows income to be positively correlated with SWB. The size of the coefficient on income is larger in the emerging economies than in the industrialized economies. Similar to the results on income status, the findings confirm the notion of a "diminishing impact" of higher levels of income on SWB.

Now, consider objective inequality. The coefficient on the Gini index is negative but only in the industrialized economies, albeit it is not statistically significant. This finding can mean that income inequality is not acceptable where income equality is the norm. At the least, though, it can mean that income inequality is not something of a bother to the people in the industrialized economies. In contrast, there is the unexpected positive coefficient on the Gini index in the emerging economies. The finding suggests that objective inequality is not yet a cause of concern to people in the emerging economies. It can also suggest that income inequality is acceptable and deemed as normal state of affairs, perhaps, because income equality is not the norm in society. In fact, the valuation of (the level of) objective inequality in the emerging economies is about $390 (about 14 % of average income) per person (Table 2). Perhaps, the processes of coping and rationalization make people in the emerging economies attend less to their adverse conditions. Alternatively, people in the emerging economies like their adverse situation. Thus, there is less negative impact experienced from objective inequality.

Meanwhile, the coefficient on the interaction between the Gini index and a dummy representing high level of Gini indices reveals that too much objective inequality can be unpleasant to people in both areas, suggesting some threshold to objective inequality.[4] This finding indicates a switch in the behavior of people: the presence of income inequality is acceptable but too much of it is not. Put in another way: the

[3] There is a negative correlation between low subjective freedom and SWB (subjective freedom quintile 2) in the industrialized economies, where objective freedom is high. This result is not found (or at least, the result is not statistically significant) for the same quintile in the emerging economies, where objective freedom is low. Perhaps, the large array of choices available to people in the industrialized economies becomes a negative freedom to people who end up feeling restrained or who cannot act on their options because their incomes cannot make them convert choices to actions. People end up blaming themselves because they cannot shape their own lives or control outcomes.

[4] A "high Gini index" is defined as a value above 30. Admittedly, the definition is rather arbitrary.

presence of inequality can increase well-being but the increase turns out to be small beyond a certain threshold. The finding may thus suggest that people do not tolerate disproportionate advantages or privileges that only a few people get to enjoy.

Still, in the emerging economies, very high levels of inequalities undermine the incentives for ingenuity and hard work with an estimated cost on well-being of $76 to $80 (about 2.8 % to 3 % of average income) per person (Table 3). Large departures from relative equality in the industrialized economies upset people and cost them from at least $450 to about $560 (about 1.6 % to 2 % of average income) per person (Table 3). In either case, the estimated costs are not trivial amounts. In short, too much inequality is "bad" in the emerging economies because few people are coming out ahead of the rest, and it is "bad" in the industrialized economies because many people are left behind.

Juxtaposing with the above findings are the results on subjective inequality. Results show that people see income inequality as a normal state of affairs. Income differences are thus acceptable. In both the industrialized and emerging economies, the valuations of subjective inequality are about 30 % to 40 % of average incomes. Again, the amounts are large enough to be disregarded in understanding the inequality problem. As such, redistribution to achieve income equalization may turn out to be not helpful to society based on the way people in both areas view the situation. What might be helpful in this state of affairs is to begin by leveling the playing field where each person enjoys the same opportunities to move up on the economic ladder (see below). In a way, income inequality is easily tolerated by people if it is the outcome of an impartial environment, wherein people operate on the same rules or it arises from processes that are perceived to be fair; but the reverse situation occurs if the outcome is the result of rules and processes that people see as unfair or biased.

Next, consider subjective opportunities (Table 2). The indicator 'working hard matters' obtains a positive correlation with SWB in both the industrialized and emerging economies. The indicator 'luck and connections' shows a negative correlation with SWB but it is statistically significant only in the industrialized economies. The same pattern is found for the indicator 'people can only get rich at the expense of others.'

Lastly, there is a positive correlation between the indicator 'wealth can grow for everyone' and SWB in both the industrialized and emerging economies, and there are interesting interpretations to such findings. First, results indicate that people are generally optimistic—that is, better lives are possible if people only work hard enough. Another interpretation is that equal chances to opportunities are the routes to better life circumstances, and so people need to redirect their attention toward something better and make every effort toward achieving that envisioned life. What matters more according to the results is that people can still do something to improve their life circumstances despite objective inequality. Striving to improve one's life circumstances is a worthwhile endeavor if doing so does not restrain the opportunities of others to do the same because, as findings here imply, the economic pie can be enlarged for everyone to enjoy.

It is thus interesting to see that 'luck and connections' and 'getting rich is a zero sum game' both show negative correlations with SWB in the industrialized economies. Large valuations (about 27 % to 34 % of average income) reveal the considerable weight that people put on these sentiments, albeit perceived as "bads" (Table 3). People still do not want to see that others are getting ahead just because they are

lucky and have social connections. In other words, social exceptionalism is not based on serendipity, linkages, or unjustified advantages but fair play and self-determination are the foundations if people want to move up along the economic ladder, especially where society is characterized by relative equality.

Moreover, people in the industrialized economies reject and feel bad about situations where people are scheming or conspiring to take advantage of the circumstances of others just to move ahead in society. Manipulation or insensitive actions cause disappointments and adversely affect SWB, especially when the benefits from working harder and taking risks cannot be reaped due to unjustified advantages of others. Still, the net valuations on these sentiments are large enough to suggest that people in the industrialized economies reject actions that are injurious in one way or another to others (Table 3) and that a level playing field remains the relevant setup even though societies reach higher levels of economic development.

Conclusion

Research that focused on objective inequality suggests that income inequality is a bane to welfare because unequal distributions could undermine the foundations for economic growth and development. This paper does not challenge such view. In fact, income redistribution is an important step toward raising welfare of everyone. This paper, however, points out that people may not immediately see objective inequality as a problem. People may even accept objective inequality as a normal state of affairs.

Indeed, the findings presented in this paper indicate that objective inequality is not necessarily harmful to well-being. Objective inequality is acceptable when people see the possibilities to rise above their current standing. Income inequality turns out to be not a problem if there are nudges toward self-improvement. Too much objective inequality becomes harmful when it means that some people are left out or unable to rise above their current social standing even with the existing opportunities. Too much objective inequality equality also becomes harmful when it implies that society undervalues the achievements that are possible with talent, innovation, and ingenuity.

Notwithstanding the findings in the paper, perfect equality is not the end goal. Rather, what the findings on objective inequality suggest is that pushing for objective equality without regard to the social context can backfire because doing so means people are treated unfairly or unevenly in the end. Pushing for objective equality for its own sake can be counterproductive because doing so creates disincentives against working hard toward something better.[5] In this context, going for perfect equality might push society into a worse position where people experience lowered well-beings that, in turn, erase any support for a redistribution program.

Should people ignore objective inequality? Based on the findings in the paper, the answer is “No”. Yet the findings also suggest that it might be more constructive to first deal with the way people see income inequality before heading on to pursue a

[5] Results on the interaction between the Gini index and a dummy representing very low levels of income inequality reveal that too little objective inequality is negatively correlated with SWB. The industrialized economies in the sample with (relatively) low Gini index are Finland (0.27), Germany (0.28), Japan (0.24), Netherlands (0.30), Norway (0.25), and Sweden (0.25). Thus, too much fairness may not raise well-being further when well-being is already at a high level.

redistribution program. Accordingly, making people accept that objective inequality is harmful to society in the long-run because it not only undermines the foundations that allow for higher trajectories of economic growth and development but also contradicts the basic principles of justice and democracy that hold the fabric of society together might be a more productive avenue to pursue. If people are born into realities that are not their own choosing, then correcting the objective inequalities in society is a responsibility that cannot be rescinded. Nevertheless, the guiding principle is not to impose objective equality but rather to use strategies that make people demand for income redistribution.

The findings on subjective inequality indicate that well-being can improve even with objective inequality as long as opportunities are available to overcome life circumstances. Thus, a positive assessment of the opportunities helps mitigate the perceived ill-being brought about by objective inequality.

The converse to the above conclusion is applicable, too. People feel bad whenever a minority in society enjoy more luck and connections than the majority, while they cannot do something about their life circumstances despite the available opportunities. People likewise feel bad if there is no respect for fairness and if rewards are not guaranteed to anyone who takes up the challenge to do every effort possible to move up on the economic ladder. Thus, there are two guiding principles given these conclusions. First, the direction of action is not to impose income redistribution but rather to create a setting wherein opportunities for advancement are fair and open to everyone. Second, the setting needs to be such that the ability of some to take up the opportunities does not compromise the ability of others to improve their life circumstances as well.

If objective inequality is not yet viewed as a problem, then ensuring that each person gets fair chances to opportunities is an initial course to pursue. In cases where people have given up on objective equality, it is important that there are at least opportunities to allow them, on their own, to go as far as possible to advance their life circumstances. Even so, social blindness needs to be reversed toward a realization that objective inequality is fundamentally unfair. People need to and should be concerned about objective inequality if they want their society to move toward something that is just and humane. A rejection of objective inequality is therefore necessary before a demand to change the way society is organized and resources are distributed can emerge and pursued effectively. Yet, drawing out such demand requires the transformation of the consciousness and understanding of the people about inequality. The appreciation and acceptance of the nature of the problem can thus make redistributive measures succeed because, in that case, they are not going to be perceived as injurious to people's well-being.

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