# HAPPINESS, GROWTH, AND PUBLIC POLICY†

## WEAI 2012 Presidential Address

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*If society's goal is to increase people's feelings of well-being, economic growth in itself will not do the job. Full employment and a generous and comprehensive social safety net do increase happiness. Such policies are arguably affordable not only in higher income nations but also in countries that account for most of the population of the less-developed world. These conclusions are suggested by an analysis of a wide range of evidence on happiness in countries throughout the world.* (*JEL* I31, I38, O21, F20, D60, E60)

### I. INTRODUCTION

Happiness as a measure of well-being is gradually becoming more accepted by economists and policy makers.[1] It seems appropriate, therefore, to examine some of its implications for public policy. I will address three specific questions:

1. Are economic growth policies sufficient in themselves to raise people's happiness, that is, their *subjective* well-being (SWB)?
2. Are there other policies that might raise SWB?
3. Can poorer countries afford policies to raise SWB?

My approach, in answering these questions, is to draw on the available evidence, based partly on the happiness literature and partly on my own collaborative research. The answers suggested by the evidence are respectively, no, yes, and yes.

Since Pigou's (1932) classic study "The Economics of Welfare," economists have typically assumed that income growth, as indexed, say, by real gross domestic product (GDP) per capita, raises well-being. A major policy implication is that promoting economic growth advances human welfare. The introduction of happiness measures into the discipline (Easterlin 1974) made it possible for the first time to test this proposition, and the result was surprising—in cross sectional data, happiness and income were positively correlated, as expected, but over time happiness seemingly did not increase despite substantial economic growth. The subsequent four decades have seen an explosion of empirical studies on this paradoxical result as more happiness data have accumulated, and much debate, pro and con (Clark, Frijters, and Shields 2008). The most frequently cited recent work questioning the paradox is Stevenson and Wolfers (2008). Subsequently, this has been updated by Sacks, Stevenson, and Wolfers (2012) and the latter article, referred to from now on as S-S-W, will be the one subsequently discussed. S-S-W report a positive time series relationship of happiness and income not significantly different from the cross-sectional relationship. There is a substantial overlap in the basic data used by S-S-W and those reported

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1. See Helliwell, Layard, and Sachs (2012); Stiglitz, Sen, and Fitoussi (2008).

**ABBREVIATIONS**

GDP: Gross Domestic Product
GDR: German Democratic Republic
GRR: Gross Replacement Rate
LDC: Less-Developed Countries
S-S-W: Sacks, Stevenson, and Wolfers
SWB: Subjective Well-Being
WVS: World Values Survey



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**TABLE 1**
Measures of Subjective Well-Being

1. Happiness (U.S. General Social Survey): "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?" (Coded 3, 2, 1).
2. Life Satisfaction (World Values Survey): "All things considered, how satisfied are you with your life as a whole these days? Please use this card to help with your answer."
   1 'Dissatisfied' 2 3 4 5 7 8 9 10 'Satisfied'
3. Financial Satisfaction (Latinobarometer): "How would you define, in general, the current economic situation of yourself and your family?
   Would you say that it is. . . .
   1 = Very bad; 2 = Bad; 3 = Regular; 4 = Good;
   5 = Very Good"

on here. As will be seen, the difference in the results arises principally from the time spans studied. I use the longest period available for each country, while S-S-W confine their analysis to periods of about a decade in length.

I take as the measure of economic growth real GDP per capita. Mean SWB is calculated here as the average of individuals' integer responses to survey questions of the type listed in Table 1. The terms SWB, happiness, and life satisfaction are used interchangeably; though not identical in concept, they are closely related (Easterlin 2010, 8–9, 103–04).

Until recently, economists assumed that measures of an individual's external (observable) circumstances, especially one's income, were sufficient to assess well-being, and self-reports of subjective feelings were dismissed out of hand.[2] The 2008 Stiglitz-Sen-Fitoussi Report, commissioned by French President Sarkozy to propose more meaningful measures of well-being, is indicative of the sea-change that has taken place. After advocating the official collection of a variety of objective measures, the Report of the 25-member Commission (including five Nobel prize winners in economics) states:

> Research has shown that it is possible to collect meaningful and reliable data on subjective as well as objective well-being. . . . [T]he types of questions that have proved their value within small-scale and unofficial surveys should be included in larger scale surveys undertaken by official statistical offices. (Stiglitz, Sen, and Fitoussi, 2008, 16)

The subjective measures used here are among the principal ones advocated in the report. For an excellent comparison of the various SWB measures and analysis of their meaningfulness, see Helliwell, Layard, and Sachs (2012, ch. 2).

## II. DOES GROWTH RAISE HAPPINESS?

### A. *The Long-term Relationship*

The answer to this question is often based on the bivariate cross-section relation of happiness to real GDP per capita. A frequently cited example is Angus Deaton's (2008) analysis of Gallup World Poll data for 123 countries, the most comprehensive cross-section analysis done to date. Deaton's figure 2 (p. 57) is reproduced in full here (Figure 1).[3] The inference suggested by the figure is stated explicitly in the caption "Each Doubling of GDP Is Associated with a Constant Increase in Life Satisfaction." This generalization is found by Deaton to apply across the income stratum, with the relationship being, if anything, stronger in richer than in poorer countries. For real world growth rates of GDP per capita, say up to 10% per year, Deaton's generalization implies that doubling the growth rate of GDP per capita will approximately double the increment in life satisfaction.[4]

Of course, the test of this cross-section relationship is whether it holds true in historical experience. To evaluate this, I present here the results of several time series studies covering recent decades done by my collaborators and me. The countries included are those with a fairly long time span of comparable SWB data, usually a minimum of 12 years but often much more.[5] For each country, we compute the growth rate of real GDP per capita over the full time span of SWB data, and the corresponding increment in SWB. We then compare the observations for the various countries to see whether countries with higher rates of economic growth have significantly higher increments in SWB—at the extreme, whether doubling the growth rate of GDP doubles the increment in life satisfaction. This is, of course, only a bivariate

2. Fuchs (1983, 14); McCloskey (1983, 514).

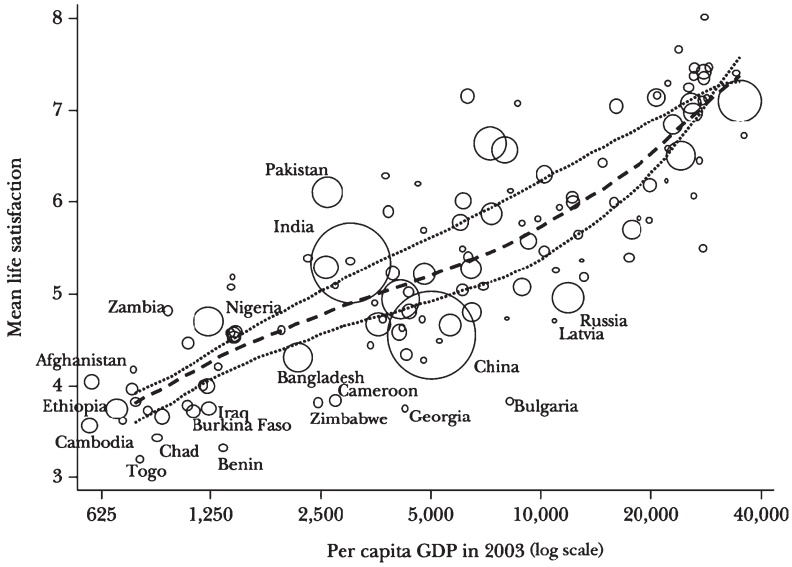
3. See also Frey and Stutzer (2002); Veenhoven (1991); Inglehart (2002).

4. Deaton's cross-section result is sometimes cited as disproving the happiness-income paradox (Arrow and Dasgupta 2009, 500; Bok 2010, 14; Guriev and Zhuravskaya 2009, 152). It is hard to understand how a paradox—by its very nature, a contradiction in terms—can be disproved by citing one term against the other.

5. For details, see Easterlin and Sawangfa (2010), Appendices B and C; Easterlin 2010, 20–23, 58–63, 85–87, 112–113.

**FIGURE 1**

Each Doubling of GDP Is Associated with a Constant Increase in Life Satisfaction




*Source:* The figure and title are reproduced from: Deaton 2008, 57. Each circle is a country, with diameter proportional to population.

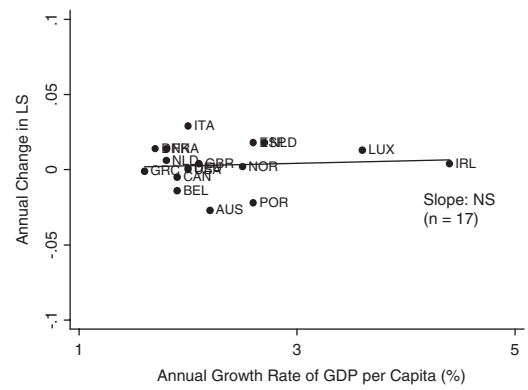
analysis, but so too are the cross-section studies, such as Deaton's, on which generalizations are based about the effect of economic growth on happiness. The results here are quite consistent and easily summarized:

1. For 17 developed countries with time series ranging from 21 to 34 years, there is no significant relationship between the rate of improvement in life satisfaction and the growth rate of GDP per capita (Figure 2). The countries included here are 14 developed countries of Europe plus the United States, Canada, and Australia. For most countries the long-term GDP growth rates are between 1.5% and 3%, but for two, Ireland and Luxembourg, the rates are between 3% and 5%. If Ireland and Luxembourg are deleted, there is still no significant relationship, as can readily be seen from a glance at Figure 2.

2. For nine developing countries with time series ranging from 15 to 33 years, there is no significant relationship between the rate of improvement in happiness and the rate of economic growth (Figure 3). The nine countries are mostly fairly populous, four in Asia, four in Latin America, and one in Sub-Saharan Africa. The economic growth rates range from around zero for South Africa to almost 10% per year for China. If China, the outlier of the group, is omitted, the regression coefficient remains not significant.

**FIGURE 2**

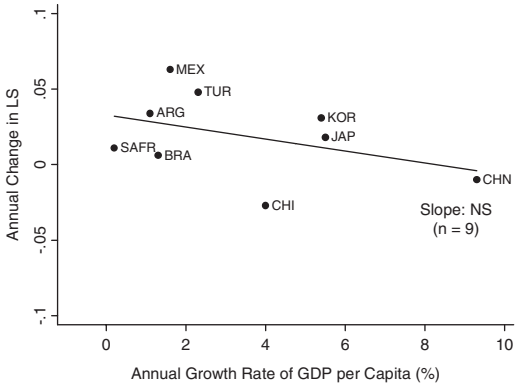
Growth Rate of Life Satisfaction and Real GDP Per Capita, 17 Developed Countries (time span, 21–34 years)




*Notes:* The fitted regression is $y = -0.001 + 0.002x$ (adj. $R^2 = 0.006$); $t$-stats in parentheses. (−0.005) (0.31) NS here and in subsequent figures means the slope coefficient is not significant at the .05 level.
*Source:* Easterlin (2010, 117).

**FIGURE 3**

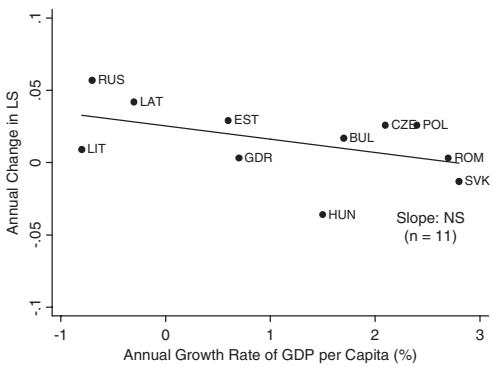
Growth Rate of Life Satisfaction and Real GDP Per Capita, Nine Developing Countries (time span, 15–33 years)




*Note:* The fitted regression is $y = 0.033 - 0.004x$ (adj. $R^2 = 0.168$); $t$-stats in parentheses. (2.24) (−1.19)
*Source:* Easterlin (2010, 117).

**FIGURE 4**

Growth Rate of Life Satisfaction and Real GDP Per Capita, 11 Transition Countries (time span, 12–22 years)

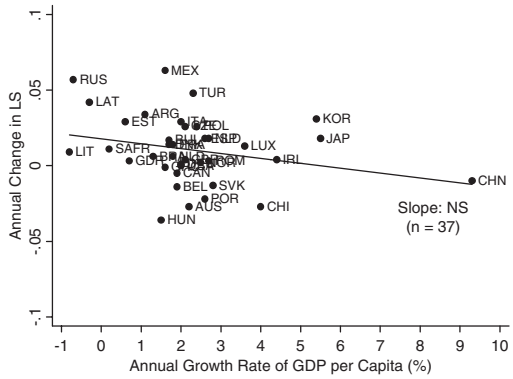



*Note:* The fitted regression is $y = 0.025 - 0.009x$ (adj. $R^2 = 0.229$); $t$-stats in parentheses. (2.62) (−1.63)
*Source:* Easterlin (2010, 119).

3. For 11 transition countries with time series ranging from 12 to 22 years, there is no significant relationship between the improvement in life satisfaction and the rate of economic growth (Figure 4). The 11 countries range across central and eastern Europe and are those for which there is a life satisfaction observation near the start of the transition (cf. Easterlin 2010, 86). Their economic growth rates are from slightly negative to about 3% per year.

**FIGURE 5**

Growth Rate of Life Satisfaction and Real GDP Per Capita, 17 Developed, 11 Transition, and 9 Developing Countries (time span, 12–34 years)



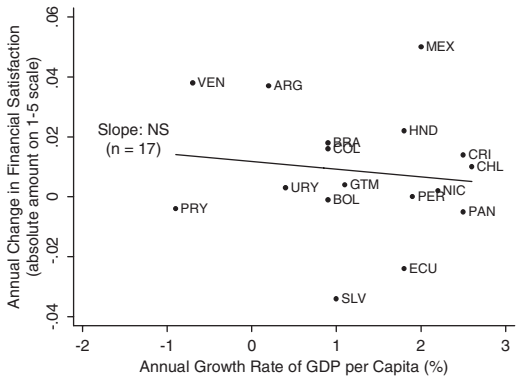

*Note:* The fitted regression is $y = 0.018 - 0.003x$ (adj. $R^2 = 0.069$); $t$-stats in parentheses. (3.07) (−1.61)
*Source:* Easterlin (2010, 119).

4. For all 37 countries taken together, with time series ranging from 12 to 34 years in length, there is no significant relation between the improvement in life satisfaction and the rate of economic growth (Figure 5). The growth rates of GDP per capita typically range from slightly negative to almost 6%. If the one outlier, China, is omitted, the regression coefficient is still not significant.

In sum, for rich, poor, and transition countries, whether pooled or analyzed separately, there is no evidence that a higher growth rate increases the rate of improvement in life satisfaction. Doubling the rate of economic growth does not double the increase in life satisfaction; rather, the evidence is that it has no significant effect.

Reasonably comparable time series data on SWB in less-developed countries (LDCs) are in short supply. In the foregoing analysis, the World Values Survey (WVS) was the principal source and it was possible to include only nine LDCs. Fortunately, the annual Latinobarometer surveys, covering 17 Latin American countries since 1994, provide an additional body of data on the experience of lower income nations. The life satisfaction question in these surveys changes too frequently to be used, but the question on financial satisfaction listed in Table 1 is the same from 1994 to 2006. One would expect the responses to this question to be even more

**FIGURE 6**
Growth Rate of Financial Satisfaction and Real GDP Per Capita, 17 Latin American Countries, 1994–2006




*Note:* The fitted regression is $y = 0.012 - 0.003x$ (adj. $R^2 = -0.05$); $t$-stats in parentheses. (1.42) (−0.5).
*Source:* Easterlin et al. (2010, table S1).

closely linked to economic growth than life satisfaction. The central feature of growth is a rapid increase of real incomes, and such an increase would presumably lead directly to greater satisfaction with one's financial situation. Hence, one might expect that countries with higher growth rates of GDP per capita would have greater increments in financial satisfaction.

In fact, there is no evidence that a greater increase in financial satisfaction accompanies more rapid economic growth. As in the analysis of the WVS data, the regression line fitted to the Latin American data indicates a nil relationship (Figure 6). The results from the Latinobarometer buttress those from the WVS.

If there is any LDC where one would expect a positive impact of economic growth on SWB it would be China, whose growth rate since 1990 has been the highest ever recorded (Heston, Summers, and Aten 2011). Household appliances such as refrigerators and washing machines—quite rare in 1990—are now commonplace in urban areas (OECD 2010b, 21). Color television sets currently average over one per household. By 2008, almost one in ten urban households owned a car and China had become the world's leading automobile producer (OECD 2010a, 6, 10).

Yet, the combined evidence from six SWB surveys is that life satisfaction in China has not improved, and, if anything, may have declined somewhat (Easterlin et al. 2012). Life satisfaction appears to have followed a U-shaped trajectory, bottoming out in the first part of this millennium; the recovery since then has left SWB somewhat short of its initial level (Figure 7; cf. also Easterlin et al. 2012).

The six surveys in Figure 7 vary in their comprehensiveness. In general, they are more representative of urban areas, but, then, income growth was much higher in urban areas.[6] If economic growth has a strong positive effect on SWB, one would expect that in a two-decade period of more than fourfold real income growth per capita any sizable impact on SWB would be picked up in most of these surveys. Yet, all but one fail to give any indication of a marked increase of the type one would expect based on the cross-section studies.

The one exception is the PEW survey. But in this survey, the initial observation falls at an economic trough, and the subsequent increase captures the recovery segment of the U. This is evidenced by comparison with the other surveys in Figure 7. It is also apparent from data in the PEW survey itself. Among other things, respondents were asked, "Now thinking about our economic situation, how would you describe the current economic situation in China? Is it very good, somewhat good, somewhat bad, or very bad?" Here are the responses to this question, along with the survey values for mean life satisfaction in 2002 and 2010:

| Year | Economic situation (% somewhat or very good) | Mean life satisfaction (scale 0–10) |
|---|---|---|
| 2002 | 52 | 5.27 |
| 2010 | 93 | 5.85 |

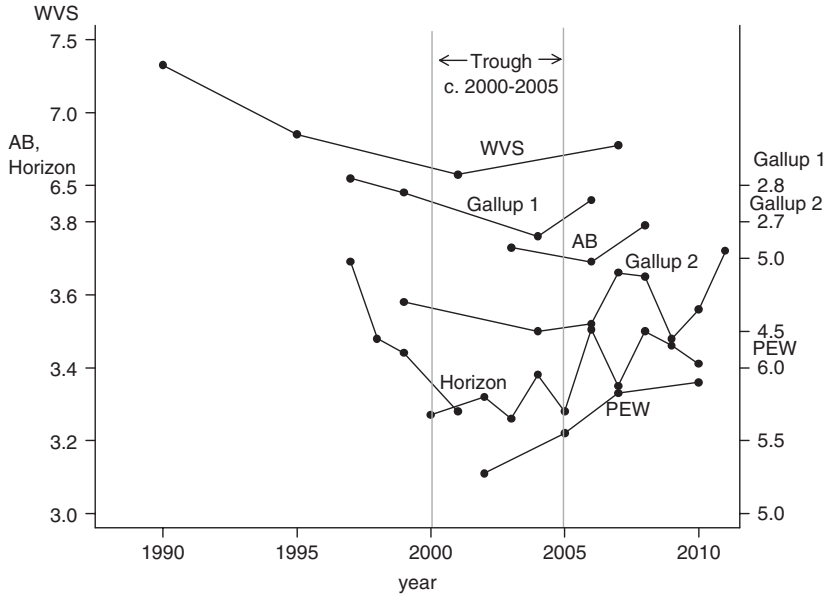
Clearly, the increase in life satisfaction in China reported in the PEW surveys occurs in conjunction with a marked improvement in the economy.

### *B. Misreading the Long-term Relationship*

The PEW data illustrate a widely observed relationship, namely, that in the *short term* happiness goes up and down with the state of the economy.[7] The Pew Research Center,

6. Chinese Academy of Social Sciences (2011); Knight and Song (2005); Xu (2011).
7. DiTella, MacCulloch, and Oswald (2001); Easterlin et al. (2010).

**FIGURE 7**
Mean Life Satisfaction, China, Six Series, c. 1990–2010




*Sources:* WVS-World Values Survey (www.worldvaluessurvey.org), AB-Asiabarometer (www.asiabarometer.org), Gallup (www.gallup.com), Horizon Research (www.agmr.com/members/horizon.html), PEW (http://www.pewglobal.org/category/datasets/).

in its commentary on the results of its surveys, states: "The relationship between rising incomes and increasing happiness is most evident in China, India, Latin America, and Eastern Europe" (Pew Research Center, 2007, 1). Evidence that the increase in SWB reported for China after 2002 is the short-term one has just been presented (Figure 7). Similar evidence for the movements in India and Latin America is found in other work.[8] There was a serious worldwide setback to economic growth at the beginning of this millennium (United Nations 2002, 2003). The upswing reported in the PEW surveys, namely, an improvement in life satisfaction due to recovery from the economic slump at the beginning of the millennium, may be common to many countries throughout the world. (The time series movement in eastern Europe, mentioned in the PEW quotation above, is a somewhat different matter, as will be seen shortly.)

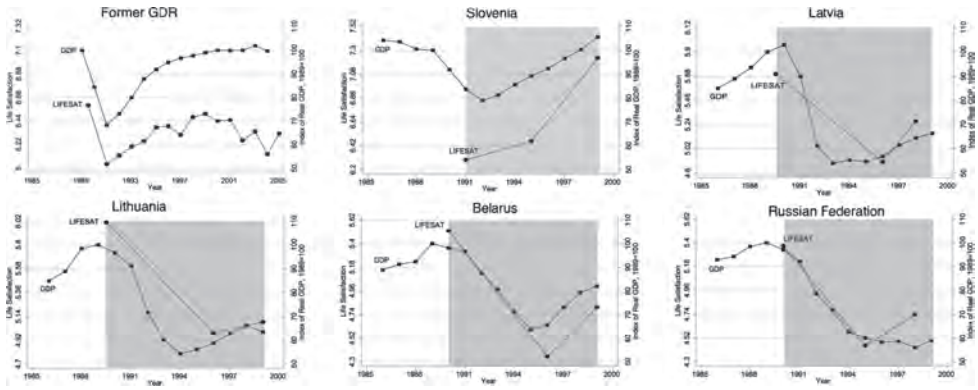
Two examples of how shorter-term movements can be mistaken for the longer-term relationship of happiness and economic growth appear in the recently published article by Sacks, Stevenson, and Wolfers (2012). As previously mentioned, S-S-W report a positive time series relationship between happiness and income not significantly different from the cross-section relationship. Their time series analysis is based chiefly on two data sets, the Eurobarometer and WVS waves 1–4, and in both cases involves a comparison between growth rates of life satisfaction and GDP for a number of countries, similar to that presented in Figures 2–6 above (S-S-W 2012, 81–84, figures 6, 7).[9]

The positive association in the WVS that S-S-W report is due in substantial part to outlier observations for several transition countries. The typical transition pattern is a U- or V-shaped movement in both GDP and life satisfaction, illustrated here by the German Democratic Republic (GDR), the only European transition country for which annual life satisfaction data are available (Figure 8). The GDR's contraction and recovery covers a shorter time period than in most transition countries, because

8. Easterlin and Sawangfa (2010, 202); Easterlin et al. (2010, figures 3 and 4).

9. It is not clear why wave 5 of the WVS, which has been publicly available since 2008, is not included in the S-S-W analysis.

**FIGURE 8**
Happiness and Index of GDP, Six Transition Countries




*Note:* Shaded areas are those spanned by Waves 2–4 of the WVS.
*Source*: Easterlin (2010, 88–91).

of the substantial economic support provided by West Germany after unification (Easterlin and Plagnol 2008). For several of the outliers (Russia, Belarus, Latvia, Lithuania) waves 2–4 of the WVS (the waves included in the S-S-W study) capture only the lengthy contraction phase of the transition in each, when a negative growth in GDP was accompanied by a substantial decline in life satisfaction (see the shaded areas of Figure 8). For Slovenia, an outlier with a substantial positive change in both GDP and life satisfaction, waves 2–4 span only the recovery phase of the transition (Figure 8). It is these outlier transition observations that chiefly determine the positive association in the regression between changes in happiness and income plotted in S-S-W's Figure 6. The changes in life satisfaction and GDP are reflecting shorter-term movements in the course of the transition, not the longer-term pattern presented in Figures 4 and 5 above (which include wave 5 of the WVS and thus span a longer period).[10]

Similarly, in S-S-W's Eurobarometer analysis, the positive association they report between changes in happiness and income is based on shorter-term changes. Ireland provides an example. In the regression for 17 developed countries shown in Figure 2 above, Ireland has the highest growth rate of GDP per capita, but only an average rate of change in SWB. In analyzing the same data for Ireland, S-S-W replace the long-term change by shorter decade-to-decade movements (S-S-W 2012, 82–84). Figure 9 reproduces my Figure 2 with the single observation in Figure 2 for Ireland now replaced by three sub-period observations.[11]

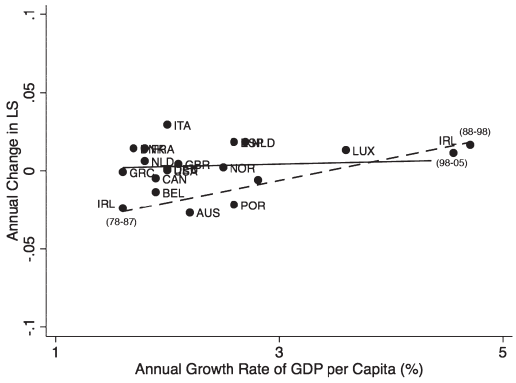
As can be seen, the result is to tilt the regression relationship in a positive direction. The earliest S-S-W observation, that labeled 78–87, spans a period in which the economy plunged into a major recession—the economic growth rate is among the lowest and the rate of change in SWB is negative. The subsequent recovery (88–98) yields an observation of high economic growth coupled with a positive increment in life satisfaction, and the two points together make for a positively sloped regression line.

10. S-S-W's WVS positive regression result is also partly because of outlier observations for two other countries, whose importance in the regression result S-S-W specifically acknowledge: "There are also some interesting outliers . . . Korea, for example, had only a modest change in SWB and a very large increase in GDP [it is off-scale in their figure 6]. Hungary experienced very little growth, but had a serious decline in life satisfaction. In the regression results reported below, we include these countries, but it is clear that excluding them would change our estimates" (S-S-W 2012, 79).

11. S-S-W apparently believe that a 10-year time span is sufficient to establish the long-term relation between happiness and income. Here is my own previously stated view: Our criterion for including a country to study happiness trends is that there be at least three comparable observations on SWB spanning at least 10 years; the average period spanned is actually 16 years. This is a short time series for studying happiness. The original time series study of happiness and economic growth found that, when comparing identical happiness questions, there was an increase in happiness in the United States from 1946 to 1956–1957, followed by a decline to 1970, with a negligible net change over the entire [24 year] period . . . (Easterlin and Sawangfa 2010, 167; Easterlin 2010, 57).

**FIGURE 9**

Figure 2 with Single Value for Ireland, 1973–2007, Replaced by Three Sub-period Values as in Sacks, Stevenson, and Wolfers 2012




For all of the Eurobarometer countries included in their analysis, S-S-W similarly replace the long-term change with shorter-term decadal changes. Even after doing this, they only conclude that the "estimated satisfaction-income gradient resulting from these long-run differences is *marginally statistically significant* at 0.28" (p. 84, emphasis added).

The question posed at the start of the section was whether economic growth in itself leads to increased happiness. The answer suggested by the evidence surveyed—17 developed countries, 9 developing countries, 11 transition countries, 17 Latin American countries, and China—is, no. Contrary conclusions are due to analysts confusing the shorter-term (positive) relation of SWB and GDP with the long-term (nil) relation.

My interest here has been to establish the facts on the relation between happiness and economic growth. The results just summarized inevitably raise questions of explanation. Why is it that income growth fails over the long term to raise happiness? How can one reconcile this long-term nil relationship with the short-term positive relationship? The answers to these questions involve psychological mechanisms such as social comparison, hedonic adaptation, and loss aversion, which for lack of space cannot be pursued here (but see Easterlin 2010, ch. 2–6). I turn, instead, to the policy issues raised at the start of the paper.

## III. PUBLIC POLICY AND HAPPINESS

If economic growth in itself does not increase happiness, are there other policies that will? The answer is, yes, full employment and safety net polices increase happiness.

There is extensive evidence in the happiness literature that unemployment has a significant and sizable negative impact on SWB.[12] DiTella, MacCulloch, and Oswald (2001) report that this effect is felt by employed as well as unemployed persons. The policy implication is straightforward—full employment policies will increase happiness.

The positive effect of safety net policies on happiness is suggested in another study by DiTella, MacCulloch, and Oswald (2003, 821), who in a multivariate analysis find that "the [OECD unemployment] benefit rate is positively associated with happiness levels and is well-defined statistically." The political science literature on SWB provides additional support for the positive impact on SWB of safety net policies.[13]

In what follows, I present additional evidence on the positive relation between happiness, on the one hand, and full employment and safety net policies, on the other. First, I compare European countries with the same GDP per capita, but different socio-economic policies, to see whether there is any difference in happiness. Second, I examine the course of happiness in China and a European transition country (the former GDR) in the period when employment and safety net policies were largely abandoned.

### A. *European Welfare States*

For simplicity, Denmark, Sweden, and Finland are grouped together here as "ultra-welfare states," and France, Germany, Austria, and the United Kingdom, as "semi-welfare states." Macro-economic conditions—GDP per capita, and inflation and unemployment rates—in the two groups are virtually the same (Table 2).

Public policies in the ultra-welfare states, however, are more generous and comprehensive than in the semi-welfare states. Summary measures of such policies do not exist. The closest approximation is the benefit generosity indexes created by political scientist Lyle Scruggs (2004,

12. Blanchflower and Oswald (2004); Clark, Georgellis, and Sanfey (2001); Kassenbohmer and Haisken-DeNew (2009); Winkelmann and Winkelmann (1998).

13. See Flavin, Pacek and Radcliff (2011), and references therein.

**TABLE 2**
Macro-Economic Indicators, Average for Two Sets of European Welfare States, 2007

| | GDP per capita ($000) | Inflation rate (%/year) | Unemployment rate (%) |
|---|---|---|---|
| Ultra-Welfare States | 34.3 | 2.1 | 5.6 |
| Semi-Welfare States | 33.4 | 2.1 | 6.6 |

Ultra-Welfare States: Denmark, Finland, and Sweden. Semi-Welfare States: France, Germany, Austria, and UK.
*Source:* GDP, available at: http://databank.worldbank.org, accessed December 2009; Unemployment rate, OECD Labour Force Statistics (MEI), available at: http://stats.oecd.org/Index.aspx?datasetcode=meilabour, accessed June 2011, and International Labour Organization, Labour Statistics Database, available at: http://laborsta.ilo.org, accessed on July 2011; Inflation rate, OECD Statistical Database, available at: http://stats.oecd.org, accessed on July 2011.

**TABLE 3**
Measures of Unemployment Benefits, OECD and Scruggs, Average for Two Sets of European Welfare States

| | OECD Income Replacement Rate, 2007 (%) | Scruggs Generosity Index Unemployment Benefits, 2002 (scale, 0–15) |
|---|---|---|
| Ultra-Welfare States | 38.0 | 9.9 |
| Semi-Welfare States | 27.4 | 6.6 |

*Source*: OECD gross replacement rate (GRR), see OECD online datasets, available at: http://www.oecd.org/dataoecd/60/8/49971171.xlsx, Scruggs (2004).

2006) who, in turn, built on the earlier work of Esping-Andersen (1990). Scruggs' indexes take account of income replacement rates and the scope and duration of benefit coverage in three policy areas—unemployment, sickness, and pensions. Data for the most recent year available in the Scruggs estimates, 2002, are used here. I also use as supportive evidence the responses to several questions on people's subjective feelings and attitudes in the European Quality of Life Survey (European Foundation 2007).

As a partial check on Scruggs' measures, it is possible to compare the OECD's summary measure of the average income replacement rate due to unemployment benefits with the Scruggs generosity index for unemployment benefits (Table 3). As can be seen, the ultra-welfare states are considerably more generous on both the OECD and Scruggs measures, suggesting that Scruggs' generosity index is consistent with the OECD measure.

Scruggs' estimates indicate differences between the ultra-welfare states and semi-welfare states in the generosity of sickness and pension benefits much like the difference in unemployment benefits (Table 4). Scruggs' overall benefit measure is obtained by adding these three generosity indexes. The evidence in the table indicates that the policies of the ultra-welfare states are uniformly more generous than those of the semi-welfare sates.

The differences in public policies between the two sets of countries are reflected in peoples' satisfaction with their lives. Respondents in the ultra-welfare states are, on average, more satisfied with their work, health, and family life than in the semi-welfare states, and they also report greater overall life satisfaction (Table 5).

The correspondence between the satisfaction and public policy differences for the two sets of countries is consistent with the findings in the SWB literature that there is a causal connection running from full employment and safety net policies to happiness. But, as a check, I consider whether people give any evidence that they are aware of and responsive to these policy differences. One indication is provided by respondents' ratings of public services. On average, those in ultra-welfare states give consistently higher ratings for a wide range of public services: health, education, care of children and the elderly, and public pensions (Table 6). They also consistently express greater trust in the political system (Table 7). It seems that, in general, people are aware of and responsive to more generous social policies and, because of these policies, are more satisfied with their lives. Although the ultra- and semi-welfare states have quite similar macro-economic conditions, happiness is higher in the set of countries where socio-economic policies are more generous and comprehensive.

### *B. Transition Countries*

The second piece of new evidence that happiness is positively related to full employment

**TABLE 4**

Benefit Generosity of Various Public Policies, Average for Two Sets of Welfare States, 2002

| | Scruggs generosity index | | | |
|---|---|---|---|---|
| | **Unemployment benefits (0–15)** | **Sickness benefits (0–15)** | **Pension benefits (0–17)** | **Overall benefits (0–47)** |
| Ultra-Welfare States | 9.9 | 11.4 | 12.5 | 33.8 |
| Semi-Welfare States | 6.6 | 9.2 | 10.4 | 26.2 |

*Source:* Scruggs (2004).

**TABLE 5**

Satisfaction with Work, Health, Family Life, and Life in General, Average for Two Sets of European Welfare States, 2007. (Could you please tell me on a scale of 1 to 10 how satisfied you are with each of the following items, where 1 means very dissatisfied and 10 means very satisfied?)

| | **Work** | **Health** | **Family life** | **Life in general** |
|---|---|---|---|---|
| Ultra-Welfare States | 8.0 | 7.9 | 8.6 | 8.4 |
| Semi-Welfare States | 7.2 | 7.4 | 8.0 | 7.2 |

*Source*: European Foundation, European Quality of Life Survey 2007.

**TABLE 6**

Respondents' Ratings of Government Services, Average for Two Sets of European Welfare States, 2007. (In general, how would you rate the quality of each of the following PUBLIC services? 1–10 scale)

| | | | Care of: | | |
|---|---|---|---|---|---|
| | **Health** | **Education** | **Children** | **Elderly** | **Public pension** |
| Ultra-Welfare States | 7.4 | 7.8 | 7.6 | 6.5 | 6.3 |
| Semi-Welfare States | 6.8 | 6.6 | 6.5 | 6.0 | 5.1 |

*Source:* European Foundation, European Quality of Life Survey 2007.

**TABLE 7**

Respondents' Ratings of Trust in Political System, Average for Two Sets of European Welfare States, 2007. (Please tell me how much you trust each of the following institutions. . .1 = do not trust at all, 10 = trust completely)

| | **Government** | **Political parties** | **Legal system** |
|---|---|---|---|
| Ultra-Welfare States | 6.3 | 5.7 | 7.4 |
| Semi-Welfare States | 5.0 | 4.2 | 5.8 |

*Source*: European Foundation, European Quality of Life Survey 2007.

and safety net policies comes from the experience of the transition countries. In the countries moving from socialism to capitalism, there has been a substantial retreat from safety net policies. Hence one would expect a negative impact on happiness.

Prior to the transition, the typical situation in these countries was one of full employment and a comprehensive social safety net. Here is a description of workers' conditions pre-transition in three different countries by three different analysts.

*China.*

> Job rights have until very recently been firmly entrenched in urban China .... State-owned enterprises have ... supplied extensive welfare benefits, including housing, medical services, pensions, childcare, and jobs for [grown] children ... Almost all state employees, and many in the larger collectives,

> have thus enjoyed an "iron rice bowl" . . . lifetime tenure of their job and a relatively high wage in the enterprise representing a "mini welfare state." (Knight and Song, 2005, 16–17)

*East Germany.*

> Over the 40 years of its existence, the DDR [Deutsche Demokratische Republic (East Germany)] had developed as a completely different state from the BRD [Bundersrepublik Deutschland (West Germany)]. There was no unemployment, no (open) inflation, low work intensity, free medical services, low prices for housing and public transport. (Lumley 1995, 29)

*Russia.*

> Before 1989, Russians lived in a country that provided economic security: unemployment was virtually unknown, pensions were guaranteed and provided a standard of living perceived to be adequate, and macroeconomic instability did not much effect the average citizen. (Brainerd and Cutler 2005, 125)

The similarity among these descriptions is striking—clearly full employment and a comprehensive safety net was the norm prior to the transition.

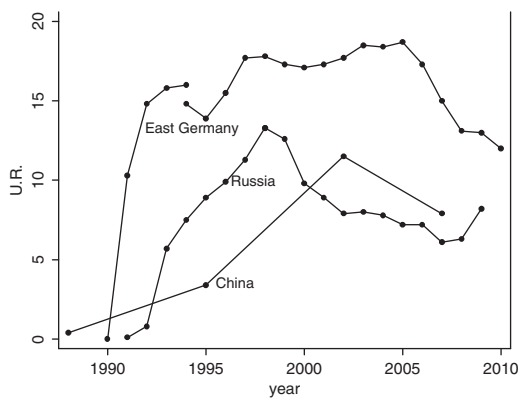
The movement from socialism to capitalism brought an end to full employment and the social safety net. Unemployment rates rose from near-zero to two-digit levels (Figure 10). Safety net benefits, which were typically provided through state-owned enterprises, disappeared, as workers lost jobs and/or shifted to private firms. The severity in China of the effects of this "restructuring" of the economy are suggested by the following two quotations from a World Bank document:

> By all measures, S.O.E. [state-owned enterprise] restructuring had a profound effect on the functioning of the labor market and the welfare of millions of urban workers. Most urban centers experienced a sharp rise in unemployment and a large reduction in labor force participation as many older and discouraged workers left the labor force. (World Bank, 2007, 19)

> S.O.E. restructuring . . . mark[ed] the end of the "iron rice bowl" of guaranteed lifetime employment and benefits for urban workers. (World Bank, 2007, 17)

**FIGURE 10**

Unemployment Rate, Specified Country, c. 1990–2010 (percent of labor force)




*Source:* East Germany 1990, GSOEP (Haisken-DeNew and Frick 2005); 1991–1994: ILO; 1994–2009, Federal Statistical Office of Germany. Russian Fed: ILO, except 2009, World Development Indicators. China: Knight and Xue 2006, extended to 2007 via email from Knight to author.

As has been seen, life satisfaction in China over the last two decades remained constant or perhaps even declined, despite a more than fourfold multiplication of output and incomes. It seems reasonable to infer that with the emergence and rise of unemployment, and breakdown of the social safety net, new concerns arose among workers about such things as jobs and income security, the availability of health care and pensions, and provision for care of children and the elderly. Rapid economic growth may have partially alleviated these concerns by providing increased employment opportunities, but the net effect was no gain in happiness.

The survey data for East Germany, the former GDR, provide specific evidence of the emergence of job and safety net concerns. These surveys ask about satisfaction not only with life in general but also about satisfaction with various aspects or "domains" of life, data not available for China.

Between June 1990 (just prior to the transition) and 2004, East Germans' satisfaction increased with a number of material aspects of life (Table 8). The marked increase in satisfaction with the environment and availability of goods is noteworthy. These are two features of life in the GDR that were often spoken of disparagingly by contemporary observers. All of the other material dimensions of life in Table 8 also show at least modest improvement.

Counterbalancing these improvements, however, are sizable negative changes in satisfaction with health, work, and childcare (Table 8). Prior to the transition, people were assured of jobs and substantial social support. With the retreat

**TABLE 8**
Satisfaction with Various Life Domains, East Germany, 1990 and 2004 (scale 0–10)

| Domain | 1990 | 2004 | Change 1990–2004 |
|---|---|---|---|
| Positive changes | | | |
| Environment | 3.11 | 6.47 | +3.36 |
| Goods availability | 3.16 | 6.20 | +3.04 |
| Dwelling | 6.93 | 7.36 | +0.43 |
| Standard of living | 6.34 | 6.63 | +0.29 |
| Household income | 5.52 | 5.61 | +0.09 |
| Negative changes | | | |
| Health | 6.62 | 6.20 | −0.42 |
| Work | 7.23 | 6.48 | −0.75 |
| Childcare | 7.54 | 6.48 | −1.06 |
| Overall life satisfaction | 6.57 | 6.55 | −0.02 |

*Source*: GSOEP (Haisken-DeNew and Frick 2005).

from full employment and a social safety net, concerns regarding these important aspects of life mounted, and satisfaction correspondingly declined. The outcome, as in the case of China, was a negative impact on happiness, and no improvement in overall life satisfaction.

The general conclusion is that full employment and safety net policies increase happiness. This is suggested, first, by prior studies in the happiness literature. It is seen here in the tabular survey data from European welfare states, where, controlling for GDP per capita, persons in countries with more generous and comprehensive socio-economic policies report greater happiness, and give subjective evidence that it is such policies that are responsible for their happiness. Finally, it is evidenced in the experience of two transition countries examined here, China and the former GDR. Despite a marked difference in their output trajectories, the two countries exhibit a similar life satisfaction pattern of no long-term improvement, resulting from a common retreat from full employment and a comprehensive safety net.

## IV. AFFORDABILITY

Incomes are low in many countries throughout the world and promoting economic growth is, in consequence, often viewed as a high priority policy. As has been seen, however, if the goal is to increase happiness, economic growth in itself is unlikely to do the job. Full employment and social support policies will increase happiness, but such policies are often seen as a luxury of higher income nations. Hence, it is essential to ask whether social insurance of the type discussed above is affordable in today's less-developed world. This is a complex question. A start on answering it can perhaps be made by comparing incomes in today's LDCs with those in Germany, the country that pioneered social insurance.

In 1883, Germany introduced sickness insurance; in 1884, industrial accident insurance; and, in 1889, public pensions. In the 1880s, Germany's real GDP per capita in 2005 dollars was about $3200 (Heston, Summers, and Aten 2011). How do the incomes of today's LDCs compare with that of Germany in the 1880s? If we take population size into account, about three-fourths of the population of the less-developed world lives in countries whose GDP per capita exceeds $3200, and 43% live in countries whose level is $6400 or more, at least double that of Germany in the 1880s (Heston, Summers, and Aten 2011). Most of those living in countries below $3200 are in Sub-Saharan Africa.

Turning from levels of GDP per capita to rates of change, how do growth rates in today's LDCs compare with the per annum 1.8% growth rate of Germany in the 1880s? The answer is that, on average, today's LDC growth rate is almost three times that of Germany's (Table 9). If China and India, large countries with considerably above average growth rates, are excluded, the average growth rates of GDP per capita in LDCs in the major areas of the world are still considerably above the German growth rate of the 1880s, and this includes Sub-Saharan Africa (Table 9, right-hand panel).

In sum, countries accounting for three-fourths of the world's population have both a higher level and higher growth rate of GDP per capita than Germany in the 1880s, when it initiated

**TABLE 9**
Growth Rate of Real GDP per Capita, Germany, 1880s, and Less-Developed Countries, 2000–2008 (per cent per year)

| | | | |
|---|---|---|---|
| Germany | 1.8 | East Asia, except China | 4.8 |
| | | South Asia, except India | 3.8 |
| All LDCs | 5.1 | Middle East and North Africa | 3.0 |
| China | 9.7 | Latin America | 2.7 |
| India | 6.4 | Sub-Saharan Africa | 2.7 |

*Source:* Heston, Summers, and Aten 2011.

social insurance programs. One may reasonably have reservations about the comparison of today's LDCs with Germany in the 1880s, and clearly more research is needed. But by this comparison, at least, social insurance is affordable in most LDCs today. Indeed, a number of LDCs are starting to implement various types of social insurance, sometimes with the help of international organizations.[14] These programs are typically less than comprehensive, but the same was true of Germany's initial programs.

## V. SUMMARY AND IMPLICATIONS

The answers to the three questions posed in the Introduction can be briefly summarized:

1. Economic growth in itself does not raise happiness. Evidence for a wide range of developed, transition, and developing countries consistently shows that higher growth rates are not accompanied by greater increments in happiness. Even China, with the highest rate of economic growth ever recorded, has no improvement in life satisfaction. Analysts claiming that growth and happiness go together are mistaking a shorter-term positive relation for the long-term nil relation. The time series data also make clear that cross-section studies are a misleading basis for drawing conclusions about historical experience.

2. Full employment and safety net policies do increase happiness. The evidence for this is, first, prior work in the happiness literature. Second, when one compares European countries with the same macro-economic conditions but different welfare policies, one finds that the set of countries with more generous welfare policies is happier. Finally, in the transition countries the substantial retreat from full employment and safety net policies had a negative impact on happiness.

3. Employment and safety net policies are arguably affordable in most countries throughout the world. Among LDCs, those accounting for three-fourths of LDC population have both a higher level and higher growth rate of GDP per capita than Germany in the 1880s, when it pioneered social insurance programs.

These conclusions do not necessarily mean that economic growth should be abandoned as a policy goal. In principle, economic growth should contribute to greater employment and make safety net policies easier to implement, although this has not been demonstrated here. Clearly, there is much more research to be done, but it is evident that the sole promotion of economic growth as a cure-all is not a valid policy solution to raising happiness.

In particular, there is need for research on the effects of public policy on happiness. It is commonly assumed that the positive cross-section association of happiness and GDP per capita is indicative of the effect of income on happiness. The alternative possibility is not considered, namely, that greater happiness is due to public policies based on the growth in social science knowledge, in which the more developed countries have been the leaders.[15]

There is also need for research on the distributional implications of public policies. It seems plausible that full employment and safety net policies would contribute especially to raising the happiness of the less-advantaged segment of the population. There is some evidence to this effect (Easterlin 2013b), but greater study is needed.

Finally, it is important to note that the present analysis demonstrates the value of SWB measures like happiness and life satisfaction as guides to policy. Output measures lead one to focus on firms and their productivity, while happiness measures lead directly to the lives and personal concerns of individuals. Moreover, happiness and life satisfaction are concepts with which a layman can identify, unlike GDP. Both GDP and SWB have their uses, but policymakers' preoccupation with GDP has too often led to neglect of the individuals whose welfare is or should be the primary object of policy.

14. Aspalter (2009); Holzmann (2012); Kudo (2012); OECD (2010a); Rofman (2005); Tzannatos and Roddis (1998); Vodopivec and Tong (2008).

15. An analogous issue is the positive relation between life expectancy and GDP per capita, taken by some as evidence that economic growth raises life expectancy (Pritchett and Summers 1996). The importance of new public policies based on advances in biomedical knowledge as an alternative explanation is now becoming more widely recognized (Cutler, Deaton, and Lleras-Muney 2006; Easterlin 1999, 2013a).

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