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LIFE SATISFACTION:

IS THERE A ROLE FOR POLICY?

by

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EXECUTIVE SUMMARY

Citizens' satisfaction with life, or in a more general term, their 'happiness', has rapidly become one of the more influential parameters for measuring the success or failure of government policy and economic governance. It is often suggested that the average happiness of a population offers a better guideline for welfare-related policies than does measures of economic interventionism or the share of public transfers.

Examining in this paper why the populations of some countries are more satisfied than others, the author formulates the hypothesis whether government policy can affect the average subjective life satisfaction of the population.

Based on cross-country comparisons, it is concluded that four types of policy are associated with life satisfaction:

1) growth-conducive policies in poor countries;
2) trade policy that furthers participation in globalization;
3) policies that affect the business climate; and
4) policies that limit government's share of total income.

Factors popularly associated with overall happiness such as democracy, redistribution or other public welfare interestingly receive no statistical support.

This paper asks the question whether government policy can affect the average subjective life satisfaction of the population. Based on cross-country comparisons, it is concluded that four types of policy are associated with life satisfaction: 1) growth-conducive policies in poor countries; 2) trade policy that furthers participation in globalization; 3) policies that affect the business climate; and 4) policies that limit government's share of total income. Factors popularly associated with overall happiness such as democracy, redistribution or other public welfare receives no statistical support.

Economics has traditionally focussed on what can readily be measured: income, prices, trade and so forth. This focus led economists to stress objective, measurable indicators of welfare such as disposable after-tax income and access to publicly provided goods at the individual level, and GDP per capita at the national level. Indeed, the oldest of the great classics of the economic literature, Adam Smith's *Wealth of Nations* that many consider the book that inaugurated the discipline of economics, dealt primarily with the question why some countries and regions were so much richer than other.

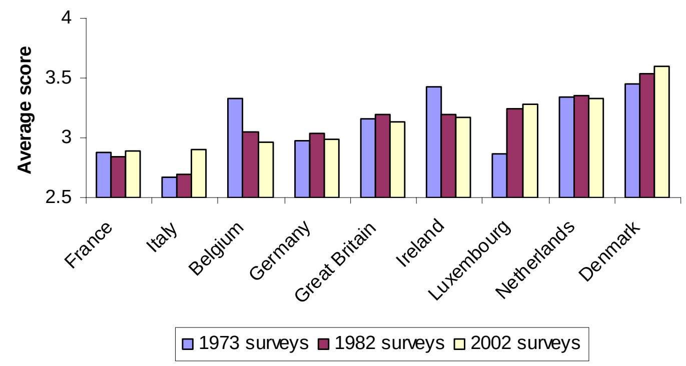
Since then, and particularly for the last 20 years, economic growth theory has advanced in strides. We now have quite a robust knowledge of why the inhabitants of certain countries are richer than in other countries, and what has made e.g. the South East Asian tiger economies reach a Western income level in relatively few decades while other apparently comparable countries have stagnated or declined.

Nevertheless, there is a catch: although the average real income level in Western Europe and North America has multiplied by a factor three since 1960, a series of surveys shows that self-reported 'happiness' or life satisfaction has not increased. Hence, while people's *objective* quality of life has increased immensely – we are richer, work less, travel more and have wide access to goods that our grandparents in their youth would have considered wildly luxurious – the *subjective* quality of life has remained about the same.

Figure 1 exemplifies the general picture by providing the average scores of a question on life satisfaction in nine European countries at three points in time: 1973, 1982 and 2002. According to standard economic theory, people ought to be more satisfied with their lives today than 30 years ago because we are richer now, but as the figure shows, this is quite obviously not the case although there are large differences across countries.[1] During the last decade, economists have therefore begun exploring why some people are more satisfied with their lives than others. Popularly, this field of the discipline has become known as the *economics of happiness*. One of the main questions in this field – and the question sought answered in this paper – is whether and how governments can affect the life satisfaction of their electorate.

[1] The trends that can be seen in the figure are explored in Bjørnskov, Datta Gupta and Pedersen (2005). Denmark, for example, seems to have experienced an increasing life satisfaction since the early 1970s. Yet, a comparable survey conducted in 1966 questions if there is a long-run increase in Denmark as the average satisfaction score in this survey is almost exactly the same as the score in 2002.

Figure 1. Life satisfaction in Europe



Why are the populations of some countries more satisfied than others?

While most economic data are compiled by national statistical offices, data on life satisfaction and happiness derive from various surveys based on questionnaires.[2] For example, the US General Social Survey has asked questions on happiness and life satisfaction biannually since the 1960s, the Eurobarometer has asked a life satisfaction question semi-annually since 1973, and the World Values Survey has asked both types in all four waves beginning in 1981. These surveys thereby provide quantitative measures of life satisfaction, which enable economists to employ the same methods that have brought us knowledge of for instance economic growth processes and thus to answer the million dollar questions: why are some individuals more satisfied than others? And why are the inhabitants of some countries more satisfied than others?

The first question is the focus of a broad literature in social psychology, which has a long tradition in exploring the question, and more recently also in economics. However, this paper will not rely on literature seeking to answer the first question, as the purpose in the following is to provide answers to the second question. We seek to understand why the populations of countries such as India, Armenia and Belarus are so dissatisfied with their lives while Danes and Swiss in particular seem very satisfied.

Beginning in the mid-1990s, economists have tried to understand why the inhabitants of some countries are substantially more satisfied with their lives than in other countries. This is an important question since answers to it will also inform policy makers on how, if at all, they can influence the level of subjective quality of life in their country.[3] Many different factors have been suggested in the existing literature including democracy, inflation, unemployment, welfare state characteristics, employment protection, and a large number of other features that can be argued to affect at least some groups in society.

However, as has been the case for most new areas in the social sciences, the first wave of studies is mainly exploratory and not subject to overly strict scientific norms. When subjecting these

[2] For an overview of these surveys, see the World Database of Happiness, a website maintained by Ruut Venhoven at the Erasmus University in Rotterdam. The website is available at http://www2.eur.nl/fsw/research/happiness/index.htm.

[3] One of the very first papers on the topic was Diener, Diener and Diener (1995). More findings are surveyed in Frey and Stutzer (2002), di Tella, McCulloch and Oswald (2003) and Diener and Seligman (2004). It should be stressed that most of the cross-country literature uses the life satisfaction question instead of questions on happiness. The reason is that there seems to be some cultural bias in answers to the latter questions and that the term 'happy' does not translate well to other languages. The German translation (glücklich) for example means both happy and lucky, and the word translates into two different concepts in Danish (glad and lykkelig).

factors to the standard criteria used in empirical macroeconomics, a surprise occurs: only a few factors can with *any reasonable certainty* be said to affect levels of life satisfaction across countries.[4] The factors that affect the national average levels of life satisfaction can be divided into two categories: those that cannot be affected by government policy in the foreseeable future, and those that are likely to be affected by policy. The examples of the size of effects in the following all rely on empirical results outlined in the appendix.

The surprises: factors that do not influence life satisfaction

When testing the findings in the early literature on life satisfaction as well as a set of factors people commonly believe should affect their satisfaction, we are in for some surprises. First of all, many people and politicians seem to believe that democracy is a cure-all. However, once regional differences are taken into account it appears that democracy is not at all associated with life satisfaction. Neither is political competition, hence it does not matter whether there are only two or twelve parties in parliament. Other good things such as a strong legal system, little corruption, freedom of press and stability likewise turn out to be irrelevant.

A large number of economic factors also turn out to matter very little, if at all. Politicians of all ideological convictions pride themselves with the Scandinavian welfare states, and people in other countries sometimes express their wish to copy features of these welfare systems. Yet, no matter what is measured the extent of public welfare does not matter. The degree of redistribution, whether measured by the level of transfers, marginal taxation or by the actual inequality in society, has no bearing on life satisfaction across countries; not even the poorest groups derive any satisfaction from having an equal income distribution! Other specific features often attributed to the welfare state such as widespread education, proper health care, and gender equality also have zero effects on how satisfied people in general are with their lives.

When subjecting the popular beliefs and earlier claims that, for example, education or Scandinavian welfare makes people more satisfied with their lives to proper statistical testing, it immediately appears that these beliefs are unfounded. Surprisingly, welfare policies are - despite their name - not associated with people's subjectively perceived welfare. It thus seems to matter very little what government does, as long as policies are not directly harmful.

Life satisfaction factors not influenced by policy

Let us now turn to the factors that do influence average subjective life satisfaction. Three of these are not likely to be influenced by policy:

- *Regional differences.* Asian and African countries on average report substantially lower levels of life satisfaction while Latin American countries report somewhat higher levels, all other things being equal. Any honest researcher within this field would likely admit that

[4] The findings that this paper relies on are reported in Bjørnskov, Dreher and Fischer (2005), which is the first paper to subject the empirical results of the life satisfaction literature to standard 'robustness tests' that were developed in the mid 1980s for use in the growth literature. The point of the paper is that if the economics of happiness is to be used for drawing policy recommendations that politicians can use, the findings must pass the same tests that other statistical results in economics are routinely subjected to. To make statistical identification more certain, the paper both uses the average life satisfaction of the entire national populations as well as employing the averages of specific subgroups in society to test whether there are factors that only affect some, but not all, members of society.

what determines these differences is unknown, although at least some of them could be due to cultural differences in how people respond to the questionnaires.

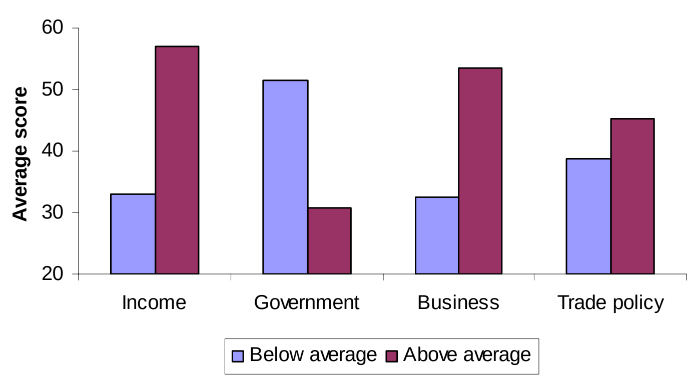
- *Having a communist past*. This is one of the strongest factors. In former communist countries the share of the population declaring themselves satisfied with their lives, all other things equal, averages one quarter which is only half of the average in the rest of the world. This is by far the largest effect found in the cross-country literature. Had Denmark, with a population of 5.2 million people, ended up on the wrong side of the iron curtain after World War 2, it would likely have had almost one million people less that responded that they were satisfied with their lives. The harmful effects of communism on basic human conditions should therefore not be underestimated.

- *Social trust*. The propensity of people to trust fellow citizens also affects life satisfaction. This insight is hardly surprising, yet here lies the key to understanding the very high satisfaction level of Denmark, which like its Nordic neighbours has one of the highest trust levels on record. Approximately two-thirds of all inhabitants in the three Nordic countries respond that in general you can trust other people, which is more than twice the share of the average country in international comparisons. If governments could conduct some kind of policy that would induce an increase of social trust corresponding to the difference between Denmark and Canada, an additional three percent of the population would move into the satisfied category. Unfortunately, such policies probably do not exist.[5]

Life satisfaction factors likely to be influenced by policy

Although, as noted above, a large number of different forms of policy have been suggested to increase life satisfaction, only four of them survive the standard statistical tests required in other economic analyses. Figure 2 illustrates the four main features of society that are associated with life satisfaction and are likely to be affected by government policy. The figure simply plots the average life satisfaction in countries above and below the global average of each of these four factors.

Figure 2. Sources of life satisfaction



- *Average income*. As suggested by traditional economic theory, average income is associated with average life satisfaction although this is only true for poor countries. When countries reach the situation where the basic needs are met for the bulk of the population, which

[5] See for example Bjørnskov (2003) and Uslaner (2002) for evidence on the effects of social trust. It is worth noting that both the individual trust and the trust of fellow citizens affect people's life satisfaction.

happens around the level of e.g. the Czech Republic or Mauritius, income ceases to have an effect. Instead of leading to a steady increase in satisfaction, increasing income affects what people perceive as a decent standard of living. So, even if Denmark was to become much richer the next ten years, people would simply adjust their expectations of living standards upwards even when knowing (and probably appreciating) that their objective quality of life has increased. This insight also has significant implications for policy, as we cannot expect society to be able to pay its way out of social problems.

- *Globalization*. Economic globalization, measured by how much a country trades internationally, is strongly associated with life satisfaction. Hence, although globalization sceptics claim that increased international integration creates social tensions and anxiety, the empirical evidence rather clearly demonstrates that the opposite is more likely. If an average country changes its trade policy to allow free trade in most goods, the population is likely to gain access to a larger variety of goods at lower prices. Economic openness is also often associated with cultural openness, as people in open countries travel abroad more frequently. Both developments increase life satisfaction, just as standard economic theory predicts. If the change in trade policy results in a change in trade of a statistical 'standard deviation' – about the difference between the openness of the United Kingdom and the Netherlands, or between Japan and Denmark – the country in question will according to the statistical estimates move an additional five percent of the population into the 'satisfied' categories. In a Danish context, it is worth noting that this would be equivalent to almost the entire population of Århus, the second-largest city of Denmark.

- *Business climate and quality*. The third factor to clearly influence average life satisfaction across countries is the business climate, measured by the investment price level. High investment prices reflect that there is a high demand for investment goods in the country, which is only the case when government policies are conducive to business. Hence, excessive employment protection - as is known from France or Germany - indirectly harm people's subjective quality of life by harming business. In addition, investment prices also reflect the quality of goods as most high-quality production needs substantial investments. If, for example, the Hungarian investment price level would increase to the level of the United States or Spain, roughly five percent of the Hungarian population would likely move into the 'satisfied' category. If, on the other hand, the Danish investment prices fell to the Spanish level, five percent – corresponding to the population of Århus – would move out of the category. While the former effect probably comes from an improvement in the business climate, it is difficult to interpret the latter effect as anything but a deterioration of quality.

- *Government involvement in the economy*. The final factor associated with life satisfaction is the share of the national income generated by the government sector. Although the government sector delivers many vital public goods and services such as national defence, health care and education, it also limits personal choice and is often found to slow down economic growth.[6] The negative effects evidently more than outweigh any positive effects of government involvement in the economy. For example, both income redistribution and the provision of an array of public goods, welfare benefits and various retirement schemes require more active government involvement in the economy and therefore increase the share of GDP created by the government sector. The effect of an increase in

[6] The question whether government spending in general inhibits growth or not has been disputed for decades. However, most empirical economists find excessive government spending to slow down growth. See for example Fölster and Henrekson (2001).

government's share of GDP of one 'standard deviation' – roughly nine percent of GDP – can be calculated to be a loss of life satisfaction corresponding to moving three percent of the population out of the satisfied category. Although nine percent may seem a large difference, it is less than the difference between the Danish and Belgian systems.

Summary: what should governments do?

Just as the literature on economic growth has influenced government policies in recent decades, we can use the economic literature on life satisfaction to forecast the effects of policies on the subjective quality of life of our populations. If - as the British economist and Labour politician Richard Layard has suggested - we ought to consciously design policies to maximize the happiness of the majority of the population, the above results also hold clear implications for which kinds of policy can achieve that goal. The implications following the cross-country studies are nevertheless quite different from those suggested by Layard, who advocates redistribution, French-style employment protection and in general a more active government sector.[7]

With any reasonable certainty, only four types of government policy can affect life satisfaction: 1) those directed towards generating income growth in poor countries; 2) trade policy that affects how much a country 'participates' in globalization; 3) policies that affect the business climate; and 4) the extent of direct government involvement in the economy. Contrary to most popular belief, there is very little evidence to support that welfare states create satisfaction. It simply seems not to matter what governments do. On the other hand, whenever government take over the creation and administration of income, it limits the personal choices that individuals have and thereby damage their subjective quality of life. Furthermore, government production is not likely to be subject to the same competitive forces as private firms face. Instead they deliver one-size-fits-all products whereas private suppliers are forced by the market forces to fit their goods and services to the needs and preferences of their costumers.

Much the same main implication holds true for government policies directed towards limiting or directing globalization. With the advent of economic globalization, people have gotten access to a much larger variety of goods and services, and the increased competition leads domestic producers to deliver goods that are more in line with people's preferences. Policies that seek to limit or subject globalization to political control are consequently likely to inflict a direct loss on people's subjective life quality.

The implications of the most recent cross-country research on life satisfaction are therefore clear. If the ultimate goal of government is to make life as pleasant as possible for the people, it should follow standard advice on economic policy – open up for international trade and economic integration and create a sound business climate – and keep their hands off the economy.

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[7] See Layard (2003). Layard's work on happiness, which also includes a book, has generated substantial attention in the United Kingdom. However, it seems problematic that he mixes strategically chosen examples and a large amount of statistical evidence from incongruent sources to reach his conclusions of which kind of policy that maximizes happiness. Oddly, his conclusion seems to be that the British government should pursue what is essentially traditionalist Labour politics from the pre-Blair era that can hardly be said to have been economically successful.

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Appendix

The life satisfaction/happiness research relies on questionnaires asking questions on life satisfaction, happiness and related topics. The World Values Survey includes two questions listed below, both evaluated on Likert scales. The Eurobarometer surveys used in Figure 1 ask the first question, essentially exchanging 'satisfied with your life' with happy'.

- Taking all things together, would you say that you are:
    1. Very happy
    2. Quite happy
    3. Not very happy
    4. Not at all happy
- And all things considered, how satisfied are you with your life as a whole these days?
    1. Dissatisfied
    …
    10. Satisfied

Individual-level studies explore differences between e.g. Danes' different responses while cross-country studies explore differences between country averages of these questions. When researchers use the Eurobarometer surveys, they usually simply take the average of all answers as the starting point of their analysis, as has been done in Table 1. When using the World Values Survey questions, the usual practice is instead to calculate the share of the population evaluating their life satisfaction between 8 and 10, allowing researchers to avoid problems relating to different lingual and cultural uses of absolutes. When stating that a change leads to X percent moving into the 'satisfied' category, what is meant is that an additional X percent of the population answer between 8 and 10.

Relying on the World Values Survey gives us data from 74 countries in total. Table 2 gives descriptive statistics for the variables used in the baseline specification in Table 3. For the interested readers, Table 2 also provides the data for Denmark. While the data on social trust – the percentage of people saying that you can in general trust most people - also derives from the World Values Survey, the remaining data are taken from the Penn World Tables, Mark 6.1.

Table 2. Descriptive statistics

Variable	Mean	Minimum	Maximum	Standard dev.	Denmark
Life satisfaction	42.74	9.55 (India)	76.75 (Denmark)	20.03	76.75
Social trust	27.85	4.75 (Brazil)	63.93 (Norway)	14.17	60.08
Openness	89.05	18.22 (Brazil)	326.18 (Singapore)	57.10	78.29
GDP per capita	12,336	482 (Tanzania)	44,009 (Luxembourg)	9,667	26,608
Government share of GDP[8]	18.46	6.01 (Japan)	49.66 (Jordan)	8.89	13.38
Investment price	.869	.26 (Armenia)	1.66 (Uganda)	.36	1.36

The cross-country data go into standard multiple regression models that are used to estimate the effect of a number of factors on life satisfaction and are used in Figure 2. It should be noted that all quantitative as well as qualitative assessments in this note is based on the baseline model and further findings in Bjørnskov, Dreher and Fischer (2005); baseline results are reported in Table 3.

Table 3. Empirical results

Variable	
Government share of GDP	-0.448 (3.677)
Social trust	0.267 (2.084)
Openness	0.090 (4.738)
Investment price level	16.021 (3.954)
Communist past	-17.409 (3.843)
Log GDP per capita	0.054 (0.025)
Observations	74
Adjusted R square	0.806
F-statistic	54.64
Root mean squared error	8.889

Note: t-statistics based on robust standard errors in parenthesis; the regression also includes a constant term and regional effects.

[8] "Government share of GDP measures the active role of government in value creation. In other words government transfers and subsidies and government purchases of goods and services produced by the private sector are not included".

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