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**SUBJECTIVE WELL-BEING IN LOW INCOME COUNTRIES:  
POSITIONAL, RELATIONAL AND SOCIAL CAPITAL COMPONENTS**

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*Abstract*

Economics has always been interested in people's well-being and its maximization, nevertheless recent studies show that hardly this aim is achieved. Recently, the so-called happiness economics is proposing a paradigmatic shift moving the focus of its research towards subjective well-being. So long, different theories have been advanced to explain what really makes people happy or satisfied with their life, but they are mainly focused on developed countries. Present work tries to identify positional and relational determinants of subjective well-being in low income countries using data from the World Values Survey. Focusing on low income countries can have notable effects on these economies allowing to better evaluate the effects of possible development policies and above all to identify policies socially and environmentally more sustainable than those proposed and adopted so far by developed countries.

*Keywords:* subjective well-being, low income countries, positional and relational goods.  
*JEL Classification:* A12; D12; I31.

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# 1 Introduction

Economics has always been interested in people's well-being and its maximization. In so doing a lot of new instruments have been developed, while the need for a more rigorous and quantitative approach asked for even more objective measures of well-being. Nevertheless, when theory meets reality we discover that hardly we achieved our objective.

Recently, thanks to fundamental contributions from different disciplines, particularly from psychology, some economists tried to look at the meaning of well-being from a different perspective arguing that some aspects of people's well-being have been left off, while they need to be considered together with the more traditional measures of well-being.

This new branch of research developed significantly since the pioneering article by Easterlin<sup>1</sup> and actually we can correctly speak about "Happiness Economics". In his pioneering work using subjective well-being data Easterlin (1974) discovered an intriguing puzzle which is known as "the Easterlin paradox": cross-section data reveals that on average richer people are also happier than poorer ones; but a life-cycle analysis on the same sample shows that during time income grew up while happiness stayed constant. Starting from this point an even more consistent part of the economic literature flourished.

The Happiness Economics approach "relies on more expansive notions of utility and welfare, including interdependent utility functions, procedural utility, and the interaction between rational and non-rational influences in determining economic behaviour."<sup>2</sup>

In this context, the words "happiness" and "subjective well-being" are considered synonyms and are generally referred to as an evaluation of one's own life considered as a whole: this approach is based on a direct individual assessment of well-being. For this reason economic research on this topic is generally based on surveys in which people answer questions like "all things considered, how happy/satisfied are you with your life?" with possible answers on a four to ten point scale. Similar self-reported evaluations of happiness have turned out to be a good indicator of happiness. Extensive research has shown that people are capable of consistently evaluating their own state of well-being (Frey B.S. and Stutzer A., 2002). Furthermore, several psychological evaluation studies have assessed the validity of such data. For example, it has been proved that different measures of happiness correlate well with one another; reliability studies indicate that reported subjective well-being is moderately stable and sensitive to changing life circumstances; happy people smile more often during social interactions and

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<sup>1</sup>Easterlin, R., Does economic growth improve the human lot? Some empirical evidence, In Nations and Households in Economic Growth, edited by Paul A. David and Melvin W. Reder. New York: Academic Press, 1974

<sup>2</sup>Graham C., *ibidem*, p. 42

are less likely to commit suicide; changing in brain electrical activity and heart rate account for substantial variance in reported negative affect (Frey B.S. and Stutzer A., June 2002). Such evidence allowed Diener to state in an early survey that these “measures seem to contain substantial amounts of valid variance”<sup>3</sup>

Happiness economics, then, can correctly contribute to a further exploration and definition of the well-being concept suggesting some aspects that may have been neglected and that should be rather taken in account together with more traditional measures of well-being.

From this point of view, some new findings point out the relevance of positional and relational goods and social capital for subjective well-being (Bartolini, 2002; Becchetti et al., 2006; Blanchflower and Oswald, 2004; Bruni, 2002; Gui, 2000; Helliwell, 2006; Oswald, 1997; Putnam, 2001). These aspects have revealed to be able to add fruitful informations to the definition of well-being. For this reason the aim of present work is to analyze the importance of positional and relational goods and social capital determining subjective well-being focusing on low income countries (LICs) and to allow a preliminary cross-country comparison with high income countries (HICs). Our hypothesis is that social capital, human relationships and positional goods are important aspects of our lives playing an important role in determining our well-being. Consequently, we run different regressions to test whether these aspects are among those factors still neglected and to be included in economic research and policy. A similar research is available thanks to the growing quantity of cross-section data about happiness coming from the “World Values Survey”, a large database with more than 250000 observations coming from 82 countries from all over the world and representing more than 85% of world’s population. Until now, analogue research have been constrained by the availability of data and only a few studies have been proposed.

The paper is articulated in seven sections: the following section focuses on the main applications of happiness data in economic literature; the third one is dedicated to a review of the main theories proposed to explain the income - happiness paradox and to identify the determinants of well-being showing the framework in which present research is situated. The fourth section points out the main methodological aspects that we have to keep in mind when working with subjective data and, particularly, in LICs. The subsequent two sections present firstly data adopted for our research and then results from an ordered logit regression considering happiness as dependent variable and adopting proxies of positional and relational goods, social capital, wealth and socio-economic conditions as independent variables. In the last section, some final notes will conclude this work.

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<sup>3</sup>quoted in B.S. Frey and A. Stutzer. What can economists learn from happiness research? *Journal of Economic Literature*, 40(2), June 2002, p. 406

## 2 Background of research on Happiness

Economists have always been aware that the object of their research was subjective well-being, but, since Bentham and its utilitarian theory, individual happiness started to be identified with utility (Bruni L., 2002). Subsequently, conjecturing that a higher income may not rise utility but it can not reduce it for sure, it was assumed that economic agents were only interested in income. In this sense, the original meaning of subjective well-being was distorted and actually it overlaps with the idea of economic welfare. One of the main objections to this approach is that it misses to give a consistent part of the whole picture of reality. For that reason “*happiness economists*” propose to supplement traditional measures with broader measures of well-being.

This approach is based on large surveys in which individuals are asked about their perceptions of well-being and other aspects of their lives. In this way researchers try to observe individual’s expressed preferences shifting from the revealed choices assumption characteristic of utilitarian theory (Graham C., 2005).

Since the first application by Easterlin, a number of other experiments have been tried in order to test earlier findings and to provide evidence for their explanations. As a consequence, the employment of happiness data in economic research flourished being progressively applied to a range of different topics.

Obviously, a large part of the literature focused on the income - happiness paradox either searching for corroboration of this phenomena (Di Tella et al., 2001; Blanchflower D.G. and Oswald A.J., 2004) or attempting to solve the puzzle. From this point of view one of the first suggestions comes from Easterlin him-self with its “aspirations hypothesis” (2001): the author suggests that income aspirations should be introduced in people’s utility in order to capture their concerns for relative income and their propensity to adapt to their previous income level.

A related hypothesis has been proposed by different economists and, in particular, by Robert Frank (1997) who focused on relative income. This approach argues that what really matters is the consumption of an individual compared to the consumption of its reference group. That is to say that happiness is mostly affected by relative consumption rather than its absolute level. A different approach is represented by the so-called *relational* hypothesis and is based on the idea of *relational goods* firstly introduced by the philosopher Martha Nussbaum. This particular kind of goods are produced by the meeting of two people in which the identity of individuals and the authenticity of their relationship is what really matters in the creation and the value of such goods (Bruni, 2002). This approach has been further tested and developed by many other authors among which we should remember Bruni and Stanca (2006), Bartolini (2007), Becchetti et al. (2006) and

Helliwell (2002). Those authors place particular attention to the role played by relational goods and social capital in the determination of happiness arguing that efforts to increase income may turn out in reducing quantities and quality of human relationships negatively affecting individual subjective well-being. Similarly, social capital may positively affect happiness but the sign of this effect depends on the effects of income and economic growth on this particular kind of capital.

Further studies have been proposed in order to assess the impacts of other non-economic aspects on individual happiness. One of the first contributions from this point of view was advanced by Oswald (1997) who explored the relationship between socio-demographic aspects (such as age, gender, marital and employment status, income and education level, traits and cognitive dispositions) and happiness.

Another field in which happiness economics is providing interesting insights is macro-economics. Observing directly individual response to different macro-economic variables has proved to be a good way to evaluate economic policies. For example Di Tella et al. (2001, 2003, 2006) firstly confirm Easterlin observation and then assess the impact of inflation and unemployment on individual happiness. From a different perspective, Kenny (1999) tries to assess the effects of economic growth on happiness and subsequently focuses its analysis on Less Developed Countries searching for a connection between economic growth and subjective well-being (Kenny C., 2005). Alesina et al. (2004) pose their attention on the relationship between inequality and happiness in Europe and U.S.A. Their general finding is that “individuals tend to declare lower happiness levels when inequality happens to be high”<sup>4</sup>.

Further research has been developed to evaluate the effects of particular policies on people. This is the case, for example, of some applications about airport noise or other environmental aspects. A more substantial part of literature, from this point of view, focused on how political institutions affect subjective well-being (Frey and Stutzer, 2000, 2002, 2007).

There is a vast range of aspects to which happiness economics have been applied. In order to conclude this brief review we have to consider previous applications to Less Developed Countries. From this point of view, there are only a few works available mainly because of the lack of adequate data. Nonetheless, happiness economics can be very useful in order to better evaluate poverty and inequality or the impacts of particular economic policies on people well-being. The largest part of this literature is mainly devoted to the analysis of singular countries such as Kyrgystan, Mexico, and Russia. Carol Graham and other researchers such as Andrew Felton and Stefano Pettinato tried to apply happiness research to broader set of countries. For

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<sup>4</sup>Alesina A., Di Tella R., MacCulloch R., Inequality and Happiness: are Europeans and Americans different? *Journal of Public Economics*, vol. 88, 2004, p. 2035

example, Graham (2006) tried to understand the way individuals in developing economies assess their own welfare and how their assessments differ from those based on traditional measures.

Another interesting work has been proposed by Graham and Pettinato (2002) who tried to better understand the determinants of income mobility and the role of perceptions of past and future mobility in LICs opening their economies. Unfortunately, such an ambitious project was limited by the scarcity of data about individuals' past and future perceptions obliging them to limit their analysis to a smaller subsample of respondents from Russia and Peru. The main results we can draw from this study are:

1. the determinants of happiness in developing economies are similar to those in developed countries;
2. relative income differences, reference norms, macro-economic volatility and other non-income factors play an important role in explaining happiness.

Furthermore, in Graham and Pettinato (2001), the two authors find that income has a positive effect on happiness for all groups in a sample from Latin America and Russia, but the effect is stronger for poor respondents than it is for wealthier ones. They also notice that the effects of demographic variables such as age, marital status, and education levels, are the same for Latin America as they are in the advanced industrial economies. In a further work conducted in 2005 with Felton, Carol Graham observes also that individual well-being in Latin America is significantly influenced by the level of inequality (Graham C., 2005).

In this context, my objective is to try to explore the nexus between relational and positional goods and happiness in poorer countries searching for differences between high and low income countries. Such a research attempts to contribute to a better definition of well-being exploring its relational, positional and social capital components in LICs and comparing these results from those relative to high income countries. As suggested by Bruni (2002) there is a fundamental idea accepted by different theories: economic science in focusing on particular variables (income, wealth, consumption, etc.) forget something important for the happiness of people. This could be health, working status, social stimulus, social aspirations, freedom, a reduction in altruism, inequality, a reduction in relational goods, or positional externalities<sup>5</sup>. My research tries to explore the role of the last two proposals trying to define their effects in different contexts.

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<sup>5</sup>Bruni, L., *Felicità e Scienza Economica. Storia, problemi aperti e spunti teorici, "Complessità relazionale e comportamento economico, verso un nuovo paradigma di razionalità"*, a cura di P. Sacco e S. Zamagni, Il Mulino, Bologna, 2002

### 3 Theoretical approaches

Several theories, coming from different disciplinary frameworks, have been proposed in order to explain the happiness paradox. *Set-point theory* is one of the main psychological theories suggested so-far. In this context, an increase in income may produce only temporary changes in well-being: after a while it is going to revert to its previous level (Bruni L., 2006). Consequently, in the long-run this theory predicts a constant subjective well-being, while in the short run any external shock is going to be reabsorbed and subjective well-being is going to get back to its long run level. This mechanism is possible since its underlying hypothesis is that happiness depends on individual personality traits: people are “genetically” disposed to certain levels of happiness (Pugno M., 2005). This aspect implies also that nothing can be done in order to make people happier. Moreover, further research suggests that personality traits explain only a part of the whole variance of subjective well-being while adaptation to the previous well-being level occurs only slowly and incompletely.

In order to better articulate set-point theory, it is sometimes presented jointly with the so-called *adaptation theory* proposed by Tibor Scitovsky (Bruni L., 2006). This author explains the adaptation mechanism distinguishing between *creative* and *comfortable* goods stating that happiness rises when people experiences *new* goods. However, after a while the effect of novelty disappears and is replaced by a *comfort* effect which brings to boredom: in this way happiness goes back to its previous level (Bianchi M., 2004). From Scitovsky’s point of view, happiness can only be increased by creativeness which allows to experience novelty and is opposed to boredom. This theory is exciting but in general enjoying novelty will ask for even new experiences in order to avoid boredom and this process doesn’t seem indefinitely available even when, like in Scitovsky’s idea, creativeness is expressed through immaterial, intellectual activities. The integration between set-point and adaptation theories allows to explain short-term variations in happiness and its long-term steadiness suggesting that there is no space for public policy in order to ameliorate subjective well-being since it depends essentially on individual characteristics.

Similarly to Scitovsky, Easterlin tries to explain the paradox focusing on the opposition between *aspirations* and *achievements*. *Aspiration theory* suggests that an improvement in material conditions cause people asking for continuous and even more intense pleasures in order to keep the same satisfaction level (Bruni L., 2006). For this reason, this theory is sometimes indicated as *satisfaction treadmill* theory. The engine of such continuous overcoming of present conditions is based on the difference between what people can achieve and their aspirations: when I obtain a particular good (for example a car) my well-being increases, but, after a while, my aspirations about that good and related ones adapt to the new present conditions and

I will look forward in order to satisfy my new demand (in this example a newer, safer, more powerful car). In this case, even if my objective well-being improves, my subjective well-being stays constant because of this process of continuous aspirations changing (Bruni L., 2002).

All theories presented here are based on the idea of rationality failure in which no external factor is able to exert a permanent influence on happiness, but no explanation of why rationality fails is proposed. Furthermore they seem to suggest that individual interest in money should decline over time because of its negative impact on happiness, even if this is not the case for our societies. Finally there is a growing agreement on the idea that subjective well-being strongly depends on domains other than income and material concerns which are less exposed to the “treadmill” mechanism (Easterlin R., 2004).

This observation led to further research on the causes of the paradox focusing particularly on the idea of *relational goods* that will be discussed later.

### 3.1 The positional goods approach

One of the main economic theory advanced to explain the paradox is based on the idea of *positional goods*: our well-being depends significantly on our level of consumption relative to the consumption of people with whom we usually interact (Bartolini S., 2007). These kind of goods are socially scarce in the sense that if these were available for all people then they would lose their value. From this point of view, the absolute level of well-being is less important and individual well-being may stay constant even if it is raising since the level of consumption of people in the reference group near to me increased the more. A key aspect of this theory is that the choices of others affect my personal well-being just like a negative externality. Such theory originates from the pioneering works of Veblen and Duesenberry and has been further developed by Robert Frank<sup>6</sup> (who speaks about relative income) and Fred Hirsch<sup>7</sup> who introduces the concept of *positional goods*. From Frank’s point of view, individual happiness depends on relative income, that is to say the difference between the income level of a subject  $i$  and those of people close to him (in a hypothetical society with only two people, subject  $j$ ); summarizing:  $H = f(Y_i - Y_j)$  where  $H$  represents individual well-being and  $Y$  is the income of the two subjects (Bruni L., 2002). In this framework even when income levels grow up, happiness remains unchanged if the difference between the two incomes is constant. An interesting implication of this argument is that even if subject  $i$ ’s absolute income increases, its subjective well-being may decrease when subject  $j$ ’s absolute income growth

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<sup>6</sup>Frank R., *Luxury Fever*, Free Press, New York, 1999

<sup>7</sup>Hirsch P., *I limiti sociali allo Sviluppo*, Bompiani, Milano, 1991

is higher. Fred Hirsch further develops this approach arguing that if people is interested in their relative position in society, then there is a growing incentive to compete in order to overcome the others in the social ladder. This *positional* competition<sup>8</sup> asks for an increasing effort and a continuous absorption of resources useful to face others rivalry. In this continuous run people need more and more goods which are not useful per se, but are only instruments to overcome others and to show the relative position of their owner. Such a process will include a growing number of goods coming from spheres other than simply economics and will involve a continuous waste of resources.

This theory offers a good explanation to different social phenoma such as the increasing demand for goods and the continuous research for higher income. An important characteristic of this model is that it implies a coordination failure rather than a hypothesis of limited rationality of subjects typical of the previously reviewed models (Bartolini S., 2007). In fact, if people would be aware of the results of their choices, maybe they would not execute them. Finally, a key aspect of this theory is that it assumes an idea of society characterized by competition, rivalry and envy.

A further element of this framework is given by the growing importance of time perceived by individuals. In fact the quest for even higher positions in the social ladder, causing a higher rivalry, make time a scarce good (Hirsch F., 1991). As a consequence people will tend to optimise it reducing all those activities time consuming and not useful for their competition. In particular, time dedicated to social relationships will be reduced since genuine human relationships need an active commitment by both subjects involved, while those relationships that can help people to climb the social ladder will be preferred. This blasting of sociality will have two consequences: from the first point of view, reducing sociality will induce a further consumption of marketable goods to replace the scarce and time-expensive human relationships; from the second point of view, the scarcity of social relationships will induce an under-investment in *relational* goods. Benedetto Gui and C.J. Uhlaner, the first economists introducing and adopting this concept, define relational goods those goods that “can only be possessed by mutual agreement that they exist, after appropriate joint actions have been taken by a person and non-arbitrary others (Uhlaner C.J., 1989, p. 254). Relational goods cannot be produced, consumed, or acquired by a single individual, because they depend on the interaction with others and are enjoyed only if shared with others”<sup>9</sup>.

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<sup>8</sup>Hirsch F., 1991

<sup>9</sup>Bruni L., Stanca L., Watching alone: Relational goods, television and happiness, Journal of Economic Behavior & Organization Vol. xxx (2006), p. 4

### 3.2 The relational goods approach

Actually, a number of scientists from different disciplines, in particular from economics, are paying attention to the importance of these goods for human well-being since their growing scarcity. These goods can also provide an interesting explanation to the Easterlin dilemma.

To start with, we have to notice that relational goods are human relationships in which the relationship itself is the grounding aspect. They have been alternatively defined as local public goods, relation-specific, obtained by “encounters” in which “identity”, “attitude” and “motivations” of people involved are essential elements of the production of the relational good and of its value. (Bruni L., 2002). Consequently, relational goods are also *fragile* since they are exposed to unobserved behaviours of two different subjects who have to be sharing reciprocity.

Bruni (2002) proposes that subjective well-being ( $F$ ) depends positively on the level of income ( $Y$ ) and of relational goods ( $R$ ) available to people and deliberately ignores other important aspect of well-being (e.g. health):  $F = f(Y, R)$ . Such expression highlights that it is important to focus on income and its growth since it directly affects happiness. This is true unless income indirectly hurts relational goods and then subjective well-being. In fact, our engagement to increase income can produce negative effects on the quality and quantity of our relationships in a manner that the overall effect of an increase in income on happiness may be negative. In this way, relational goods offer an alternative interesting explanation to the Easterlin paradox in which the quest for higher income is the engine of a progressive usury of relational goods which are fundamental for subjective well-being (Pugno M., 2005).

An interesting feature of this theory is that, unlike the previous one, it does not assume a negative nature of human beings (Bartolini S., 2007). At the same time it shows mechanisms of rationality failure: why do people choose to pursue higher income and to waste social relationships? The first explanation can be proposed analyzing Scitovsky’s theory about comfort and creativity goods: in this framework relational goods belong to the set of creativity goods. The problem is that in *modern economies* creativity goods are scarcely accessible or very expensive and for this reason people tend to invest more in comfort goods which are cheaper and appear to be good substitutes for creativity ones. A further explanation related to Scitovsky’s theory focuses on the idea of “addiction”: comfort goods cause dependency and people is induced to consume more comfort goods in order to keep their pleasure constant. Another justification is based on the idea of “fragility” of relational goods: since they do not depend solely on subjective will, but on a biunique relationship, they are considered more risky than other economic goods and people will be reluctant to consume such good (Bruni L., 2006). Finally, the under-investment in relational goods could be explained in terms

of “positional competition” eroding sociality.

Positional and relational theories offer two possible interpretations of the Easterlin paradox that are particularly convincing. First of all they are quite related and it seems that there could be an interaction between them. Then their implications fit quite well particular aspects of contemporaneous society such as the quest for higher income, an even scarcer leisure time, the erosion of social relationships and the growing number of marketable goods and of their relevance in society.

These theories are quite studied in available literature focusing mainly on rich countries, while fewer is known about poorer ones. Nonetheless there are reasons to expect that positional competition and relational goods play an important role also in poorer economies (Bruni L., 2006). For that reason analyzing the effects of these goods in poor countries could shed further light on subjective well-being helping to better understand what people really desire.

Present work tries to analyze positional and relational components of subjective well-being in developing countries and to point out possible differences respect to developed ones.

## 4 Methodological issues and expected results

A similar research using subjective well-being data poses different methodological questions that need to be previously addressed.

Usually researchers are sceptical about using subjective data because they may be biased by different aspects (Helliwell, 2006):

- lack of precise definition of the question asked;
- different or changing norms;
- personality aspects and their difficult observability;
- idiosyncratic or unobserved events;
- different cultures;
- lack of natural scaling to allow cross-person comparison of terms like “happiness” or “satisfaction”;
- accuracy in reporting: responses can be biased by the phrasing or the placement of questions in the survey.

Furthermore, when speaking about less developed countries, national representative surveys are rare and often with flaws. Another problem is accounting for error in reporting income, a problem that is further aggravated by policy shocks, such as devaluations and high levels of inflation. Political

and social conditions of respondent's nation/region may further bias its answers. Finally, accuracy in reporting may be a more stringent problem in such contexts (Graham C., 2005).

In general, these objections suggest the impossibility of comparing subjective data and their unreliability because they may be influenced by different aspects that can not be controlled by researchers. Nonetheless, these data have been longly and widely tested and adopted by psychologists and other social scientists who have been analyzing the sources of human satisfaction in detail for decades asking people how they feel (Powdthavee, 2007). Moreover this kind of data have been found coherent with a number of other "more objective" measures of subjective well-being. For example psychology literature reports a well-defined correlation between happiness data and various physical measures (e.g. duration of Duchenne smile; heart rate; blood pressure); Alternatively, subjective data correlate substantially with what is assessed about the person's happiness by friends and family, by spouses or by clinical experts (Powdthavee, 2007).

Moreover, previous economic studies found that using such data in their aggregate allow to avoid many bias related to individual aspects (Di tella et al., 2001). Infact, considering large samples across countries and over time reveals consistent patterns in the determinants of happiness, while errors result uncorrelated with the observed variables and do not systematically bias the results. Furthermore, in order to avoid the scaling problem, econometric studies have usually adopted ordered logit or probit equations. Anyway, it has been assessed that there are no significant differences among these methods and the traditional OLS method. Another aspect of the resulting equations is that they usually yield "lower R-squares than economists are used to, reflecting the extent to which emotions and other components of true well-being are driving the results, as opposed to the variables we are able to measure such as income, education and marital and employment status"<sup>10</sup>

Despite the problems that can arise when using such data, we have also to consider the advantages that can originate from these studies. Respondents' assessments of their own welfare can highlight factors that are not adequately captured by income measures, including real and perceived insecurity of rewards and incentives systems adapting to structural changes, the state of essential public services (educations, health, crime prevention), and norms of fairness and justice. Aspects such as poverty and inequality can be characterized by broader dimensions and dynamic elements that are not captured by such traditional income-based measures as poverty headcounts (e.g missing short term movements in and out of poverty) and Gini coefficients (which are static, aggregate and do not reflect distributional shifts)

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<sup>10</sup>Graham C., *The Economics of Happiness. Insights on globalization from a novel approach*, World Economics, vol. 6, n. 3, 2005, p. 45

(Graham C., 2005).

What has been said before suggest us to be careful in using such data and in drawing results. Nonetheless this research can reveal new aspects about human behaviour and to better their policy proposals. This could reveal useful in developed countries as well as developing ones when drawing out proper development policies. Unfortunately, a similar research suffers the scarcity of previous works about this topic in developing countries, but at the same time it represents also a challenge. In fact it can help us to shed a new light on happiness economics and its implications or to enrich happiness economics' literature about less developed countries and related policies. "Growth is a necessary but not sufficient condition for poverty reduction. Other key factors [...] are essential to sustaining the development gains that globalization helps bring about."<sup>11</sup>. Finally, it can be useful to supplement "usual" instruments to better understand development outcomes.

## 5 Data

World Values Survey (WVS) is a wide compilation of surveys collected in more than 80 countries representing more than 80% of the world's population. WVS collects informations on sociocultural and political change observed on a randomly selected sample of 300 to 4,000 individuals per country (Bechetti L. et al., 2006). In particular this database provides informations on "individual beliefs about politics, the economy, religious, social and ethical topics, personal finances, familial and social relationships, happiness and life satisfaction"<sup>12</sup>. These data have been collected in four waves (1980 - 82; 1990 - 91; 1995 - 97 and 1999 - 2001) for a total of 267,870 observations. Anyway, the sample available for present study is smaller since particular informations (such as relational time and informations on voluntary activities) have not always been observed. Summary statistics for all the variables used in the analysis are reported in tab.1.

In order to study the effects of positional and relational goods on happiness in LICs and allow a comparison with HICs, we assume that individual happiness (Hap) depends on material well-being (Wealth), the consumption of positional (Pos) and relational (Rel) goods, the endowment of social capital (SocK) and a set of socio-economic conditions (Sec):

$$Hap_i = f(Wealth_i; Pos_i; Rel_i; SocK_i; Sec_i) \quad (1)$$

Data on different countries collected in the WVS have been divided in two groups reflecting the distinction proposed by the World Bank in low

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<sup>11</sup>Graham C., The Economics of Happiness. Insights on globalization from a novel approach, World Economics, vol. 6, n. 3, 2005, p. 52

<sup>12</sup>Bruni L. and Stanca L., Watching alone: relational goods, television and happiness, Journal of Economic Behaviour and Organization, 2006, p. 6

Variable	Low Income Countries					High Income Countries				
	Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max
happiness	21336	3.091723	0.79001	1	4	93432	3.183299	0.637163	1	4
income	17845	9.543932	1.606429	6.3111	14.8656	51184	10.24055	2.039841	6.144389	18.08564
civic	20319	9.284463	1.84725	1	10	94156	8.481446	2.343541	1	10
freedom of choice	18871	6.304329	2.675422	1	10	92049	6.932655	2.129457	1	10
trust	20382	0.263026	0.440287	0	1	91635	0.397512	0.489386	0	1
upper class	21494	0.027077	0.162313	0	1	97049	0.002597	0.050891	0	1
working class	21494	0.170745	0.376295	0	1	97049	0.064112	0.244954	0	1
lower class	21494	0.192798	0.394505	0	1	97049	0.012973	0.113158	0	1
first income quintile	21494	0.187262	0.39013	0	1	97049	0.143144	0.350222	0	1
second income quintile	21494	0.313064	0.463751	0	1	97049	0.19654	0.397383	0	1
third income quintile	21494	0.242859	0.42882	0	1	97049	0.194613	0.395905	0	1
fourth income quintile	21494	0.127198	0.333203	0	1	97049	0.155468	0.362352	0	1
fifth income quintile	21494	0.030334	0.171509	0	1	97049	0.112922	0.3165	0	1
time spent with: friends	11536	3.294556	0.856759	1	4	28418	3.431487	0.787101	1	4
time spent with: colleagues	11228	2.802458	1.216915	1	4	23866	2.341616	1.088457	1	4
time spent with: people at church	11318	2.972875	1.185338	1	4	25520	1.853918	1.125138	1	4
time spent with: people at sport	11003	2.097701	1.162023	1	4	25465	2.154526	1.200765	1	4
voluntary organization: religious	7677	0.386349	0.486944	0	1	77888	0.199915	0.399939	0	1
voluntary organization: arts	7677	0.198906	0.399203	0	1	77888	0.121726	0.326971	0	1
voluntary organization: unions	7677	0.122574	0.327969	0	1	77888	0.170488	0.376064	0	1
voluntary organization: politics	7677	0.173375	0.378596	0	1	77888	0.066069	0.248405	0	1
voluntary organization: charity	7677	0.154487	0.361439	0	1	77888	0.082914	0.275754	0	1
voluntary organization: professional	7677	0.136251	0.343077	0	1	77888	0.085995	0.280359	0	1
voluntary organization: sport	7677	0.191611	0.393595	0	1	58882	0.20536	0.403968	0	1
illiterate	21494	0.219736	0.414077	0	1	97049	0.031871	0.175656	0	1
low school education	21494	0.221178	0.41505	0	1	97049	0.132407	0.338935	0	1
high school education	21494	0.212897	0.409365	0	1	97049	0.114056	0.317881	0	1
male	21494	0.533265	0.498904	0	1	97049	0.473039	0.499275	0	1
age	21418	35.29909	12.92415	15	99	95749	43.58574	17.28109	15	100
age2	21418	1413.052	1098.992	225	9801	95749	2198.35	1656.107	225	10000
married	21494	0.645483	0.478378	0	1	97049	0.574936	0.494355	0	1
divorced	21494	0.015586	0.123869	0	1	97049	0.058599	0.234874	0	1
single	21494	0.278031	0.448039	0	1	97049	0.234954	0.423972	0	1
unemployed	21494	0.095934	0.294507	0	1	97049	0.050809	0.219609	0	1

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Table 1: Descriptive statistics  
Source: author's elaboration of World Values Survey data

income countries (LICs) and high income countries (HICs).<sup>13</sup> Following this criteria, countries belong to the first group if their gross national income (GNI) per capita is \$ 875 or less ; vice versa countries with a GNI pro capita of \$ 10,726 or more belong to the group of high income countries<sup>14</sup>. Groups are defined on the basis of the 2006 World Bank list of economies.

Happiness is measured on a scale ranging from 1 to 4 and is based on answers to the following question: “*All considered you would say that you are : 1. very happy; 2. pretty happy; 3. not too happy; 4. not at all happy?*”. Comparisons of happiness scores between low and high income countries are reported in tab.2.

happiness	Low Income Countries			High Income Countries		
	Freq.	Percent	Cum.	Freq.	Percent	Cum.
not at all	665	2.97	2.97	1,424	1.41	1.41
not too much	3,944	17.63	20.6	9,675	9.57	10.98
pretty happy	10,490	46.89	67.49	60,150	59.5	70.48
very happy	7,272	32.51	100	29,837	29.52	100
<b>Total</b>	<b>22,371</b>	<b>100</b>		<b>101,086</b>	<b>100</b>	

Table 2: Average happiness in LICs and HICs

Source: author’s elaboration of World Values Survey data

Although the number of observations is quite different between the two groups, these results show that people in poor countries seem on average less happy than people in rich countries: cumulative percentage of people with low average level of happiness in LICs is 20.6% while in HICs it is 10.98%. On the contrary, people declaring themselves pretty or very happy is 79.4% in LICs and 89.02% in HICs. Despite these figures, it is interesting to notice that the percentage of people declaring themselves very happy is higher in the first group of countries (32.51%) rather than in the second one (29.52%).

These figures are not surprising, while it is interesting to notice that although the average level of happiness in LICs is lower than in HICs, happiness trend throughout the four waves (tab.3) reveals that subjective well-being in poor countries increased from 1980 to 2000, while in high income countries it stagnated.

This trend is much more significant since in the same period per capita average income (tab.4) in poor countries modestly grew up, while it skyrocketed in rich countries.

These figures are surprising since they suggest that economic growth

<sup>13</sup>The World Bank, [www.worldbank.org](http://www.worldbank.org)

<sup>14</sup>LICs include Zimbabwe, Nigeria, Uganda, Tanzania, Vietnam, Pakistan, India, and Bangladesh. HICs include Austria, United States, Switzerland, Sweden, Spain, Portugal, Norway, New Zealand, Netherlands, Luxembourg, Italy, Ireland, Iceland, Greece, United Kingdom, Germany, France, Finland, Denmark, Canada, Belgium, Australia

Happiness	1980 - 82	1990 - 91	1995 - 97	1999 - 2001
LICs	-	2.941413	3.110418	3.126756
HICs	3.207599	3.16698	3.22955	3.209658

Table 3: Average happiness from 1980 to 2001 in LICs and HICs  
Source: author's elaboration of World Values Survey data

income	1980 - 82	1990 - 91	1995 - 97	1999 - 2001
LICs	-	9.04628	9.328138	9.775349
HICs	9.285799	9.309522	10.15577	11.81667

income is expressed as the logarithm of 2000 US\$ PPP

Table 4: Per capita average income from 1980 to 2001 in LICs and HICs  
Source: author's elaboration of World Values Survey data

and happiness trend are divergent implying that an increasing economic framework does not necessarily imply an higher level of subjective well-being.

Aspects about individual wealth are observed via the absolute level of income based on individual self-assessment of received income<sup>15</sup>.

In order to consider the effects of positional goods on happiness we consider two groups of variables: *relative income* (or income quintile) and *social class*. WVS allow to distinguish among 5 different self-assessed classes: upper, middle-upper, middle-lower, working and lower class. In order to allow a more precise comparison between different groups of countries, in present work we are going to focus only on the two extremes of the ladder including the working class.

Aspects about relational goods are observed through two different set of variables aimed at observing two different characteristics of these goods: the *identity* of people involved and the *authenticity* of the relationship. The first aspect is given by the time spent by the respondent with specific groups of people and is based on answers to the question: "For each activity, would you say you do them every week or nearly every week; once or twice a month; only a few times a year; or not at all? Spend time with: friends; colleagues from work; people at church, mosque or synagogue; people at sport, culture, and communal organization." Answers to this question range on a 1 to 4 point scale going from *not at all* to *every week*. Instead, genuiness of the relationship is observed through the participation

<sup>15</sup>The absolute income level is expressed as belonging to a determined range of values expressed in local currency. When these data miss for an entire country, they have been replaced with data from World Development Indicators. In this way each respondent has been assigned with the mean income value of the corresponding income range. Successively, each income measure has been translated in 2000 purchasing power parity expressed in US dollars. Finally, income measures have been turned in logarithm.

to specific voluntary organizations. Namely: church, sport, art, union, political, charitable, professional and environmental organizations. Each option is expressed as a dummy variable.

Social capital is represented by three different variables: trust, freedom of choice and control, and civic. The first one is obtained through answers to the question “Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?” and is represented by a dummy variable.

Perceived freedom of choice and control tries to consider the degree of individual self-determination and is measured on a 10 point scale ranging from “*none at all*” to “*a great deal*”.

Civic is based on respondent’s judgement about the justifiability of cheating on taxes and also this variable is measured on a 10 point scale ranging from “*never justifiable*” to “*always justifiable*”.

Concluding, in order to consider specific individual and social aspects a set of control factors including age, gender, education, employment status and marital status is considered. In particular age is considered linearly and with its square; a dummy on male is introduced; education is introduced through three different dummy for each education level: illiterate, low education and high education corresponding to different years of school attendance. Unemployment of respondent is accounted with a dummy variable, while marital status is controlled through four different dummies: married, divorced, widowed and single.

## 6 Results

We report and discuss results from an ordered logit model relative to equation 1. Ordered logit models are an extension of the well known logit model in which we have a dichotomous dependent variable estimated by a function of the form  $P(y_i = 1|x_i) = F(x_i'\beta)$ , where  $F(\cdot)$  is a function symmetric about zero so that  $F(u) = 1 - F(-u)$ .

When this function assumes a logistic form such as

$$F(u) = (1 + e^{-u})^{-1} \tag{2}$$

we have the logit model. In the event that the dependent variable is an ordered response with multiple outcomes, then the values we assign to each outcome are no longer arbitrary. In our case,  $y$  is a subjective well-being rating on a scale ranging from zero to four, with  $y = 4$  representing the highest rating and  $y = 0$  the lowest rating. The fact that four is a better rating than two conveys useful information, even though the subjective well-being itself only has ordinal meaning. For example, we cannot say that the difference between four and two is somehow twice as important as the difference between one and zero.

In order to focus on low income countries and successively allow for a comparison with high income countries, we run different regressions and then we calculated the marginal effects of each independent variable for the highest level of happiness. Basically, we run two different kind of regressions: one considering positional goods and the other one focusing on relational goods. In both kind of regressions the set of the remaining control variables does not change. In particular we control for absolute income and social capital. Finally, in order to consider different socio-economic aspects and any possible bias represented by specific countries, years or survey waves, we include in each regression the set of socio-economic variables ( $Sec_i$ ) and country-specific and time-fixed effects for survey waves. For shortness these last dummies are not reported in the tables.

We run different regressions for poor and rich countries and for different groups of variables. This second choice is due to the fact that when considering all our variables in the same regression the sample considerably reduces. In particular, informations about relational time are only available in the fourth wave, while voluntary activities aspects are not available in the first wave and social class aspects are not available in the second one. Consequently, missing values determine a strong reduction in the sample available for the regression. In order to overcome this problem we are successively going to consider two broad groups of regressions in which we consider positional goods proxies firstly and then relational goods ones. In both case the set of other control variables such as absolute income, social capital proxies, socio-demographic aspects etc. have been hold. Results about ordered logit regressions are shown in the appendix. Here we show directly the marginal effects of each variables for the maximum level of happiness.

## 6.1 Social capital, positional goods and happiness

Table 5 presents results<sup>16</sup> about social capital, positional goods and other control variables. In order to verify the importance of positional goods for happiness across countries, we consider two proxies of these goods:

1. relative income: based on the income class of the respondent and recoded in quintiles.
2. social class: measured on self-assessment from the respondent. Three classes are considered: upper, working and lower class;

while proxies we considered about social capital are:

- honesty;

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<sup>16</sup>This regression, similarly to all the others, contains country-specific and time-fixed effects dummies to control for any systematic variability, but they are omitted in tables for brevity.

- freedom of choice and control;
- trust.

The first aspect we notice is that marginal effects of proxies about social capital and positional goods are larger than those about absolute income. This result holds for poor countries as well as for high income ones. In particular, among social capital variables, trust and freedom of choice have large effects on subjective well-being, while the two proxies related to positional goods have the expected signs and significant coefficients. The importance of social capital is confirmed for both groups of countries, but the comparison among coefficients reveals that marginal effects are stronger for rich countries. Considering absolute income, we notice that a higher income has a stronger effect in LICs rather than in HICs. Previous observations suggest that, even if absolute income is important for subjective well-being, it is not the unique factor: other non economic aspects may play a major role. Especially in rich countries, social relationships seem to be an important determinant of subjective well-being.

Results about social class show that going from the lowest to the highest class positively affects happiness in both developing and developed countries. In particular, belonging to the working and lower class has increasing negative effects, while belonging to the upper class positively affects happiness. Similarly, being below the average of per capita income presents decreasing negative effects when relative income increases. On the contrary, belonging to the fourth and fifth quintile of the per capita income distribution clearly presents positive and growing effects on happiness.

When comparing these results with those about high income countries, the first striking aspect is that absolute income coefficient turns negative even if the effect is weak. This first result seems to confirm the common wisdom that money does not purchase happiness. Also in this case marginal effects of proxies about social capital and positional goods overcome those about income: civic, freedom of choice and trust show significant effects and they are quite higher than those about poor countries. This aspect suggests that social capital is important for subjective well-being yielding stronger effects in rich countries.

Considering proxies about positional goods, signs remain unchanged, but coefficients vary: belonging to the upper class has a larger effect (around twofold) on happiness in rich countries rather than poor ones. Similarly, belonging to the two lower classes has higher negative effects in HICs. These results are statistically significant and seem to suggest that happiness of people in HICs is mainly affected by the splitting of society in social classes.

Results about relative income show a similar path for those who are under the relative income average. From this point of view it is interesting to notice that being over the relative income average has higher effects for low income countries rather than for rich ones. An important implication of

Marginal Effects	LICs	HICs
	Happiness = 4	
income	0.0167**	-0.00300*
	-0.0079	-0.0016
civic	0.00791***	0.00503***
	-0.0022	-0.00086
freedom of choice	0.0200***	0.0456***
	-0.0015	-0.0011
trust	0.0396***	0.0483***
	-0.0088	-0.0041
upper class	0.0735**	0.155**
	-0.03	-0.061
working class	-0.0592***	-0.0235**
	-0.011	-0.0099
lower class	-0.0942***	-0.00791
	-0.011	-0.024
first income quintile	-0.0601***	-0.0515***
	-0.013	-0.0066
second income quintile	-0.0357***	-0.0215***
	-0.0096	-0.0054
fourth income quintile	0.0301**	0.0178***
	-0.012	-0.0059
fifth income quintile	0.0790***	0.0203***
	-0.028	-0.0068
illiterate	-0.0276**	-0.0444***
	-0.011	-0.011
low school education	-0.00192	-0.0074
	-0.01	-0.0075
high school education	-0.0162*	-0.0146*
	-0.0098	-0.0076
male	-0.0287***	-0.0187***
	-0.0075	-0.0039
age	-0.0106***	-0.0109***
	-0.0017	-0.00074
age2	0.0000969***	0.0000938***
	-0.000019	-0.0000076
married	0.0454***	0.141***
	-0.016	-0.0065
divorced	-0.0561*	-0.0398***
	-0.031	-0.0097
single	0.0108	-0.00697
	-0.019	-0.0079
unemployed	-0.0188	-0.0939***
Observations	14923	45549
R-squared Standard errors in parentheses		
*** p<0.01, ** p<0.05, * p<0.1		

Table 5: Marginal effects of social capital, positional goods, absolute income and other control variables in LICs and HICs.

Source: author's elaboration of World Values Survey data

this point is that redistributing income from rich people to poor people does not slightly reduce subjective well-being of rich people, but considerably better the conditions of poor people.

Summarizing, these data suggest that in both groups of countries happiness is strongly influenced by positional aspects. In particular, subjective well-being in HICs seems more affected by social class aspects, while people in poor countries seem more affected by relative income.

## 6.2 Relational goods and happiness

The idea that interpersonal relationships are important in human happiness has been widely tested so far. In this case, following Bruni and Stanca (2006) we test this hypothesis thanks to two different groups of proxies of relational goods reflecting two particular aspects:

1. the identity of subjects involved in the relationship;
2. the authenticity of the relationship.

The importance of these two characteristics of relational goods have been discussed earlier in this paper. The first aspect is actually proxied by the time the respondent declares to spend with specific groups of people; the second characteristic is considered through a set of dummy variables about the participation in specific voluntary organization.

Results presented in tab.6 suggest that in general time spent with specific groups of people matters as well as the participation in voluntary groups. Another important aspect to be stressed is that also in this case absolute income has a positive sign, but its coefficient is smaller than those about relational goods confirming previous finding : absolute income is important for subjective well-being, but it is not the unique factor. Other aspects may play a major role in low income countries as well as in high income ones.

In particular, subjective well-being of people living in poor countries is positively influenced by time spent with colleagues from work or people from church, mosque etc. and, finally, with people from recreational and sport environment. Comparing these results with those about high income countries, we notice that in the second case time spent with friends become significant followed by time spent with people from church, mosque, etc. and, finally, with colleagues. Surprisingly, time spent with people from recreational and sport environments is less important also with respect to low income countries. Furthermore, data about social capital confirm results drawn above suggesting that social relationships as well as social capital are very important for happiness and particularly in high income countries.

In order to allow a comparison among the two groups of countries about participation in voluntary organization, we consider tab.7 reporting related marginal effects. Unfortunately, it was not possible to run a single regression

Marginal Effects	LICs	HICs
	Happiness = 4	
income	0.0144	0.0359***
	-0.0091	-0.0081
civic	0.0121***	0.00437**
	-0.0031	-0.0019
freedom of choice	0.0203***	0.0546***
	-0.0022	-0.0025
trust	0.0141	0.0432***
	-0.015	-0.0091
time spent with: friends	-0.00415	0.0320***
	-0.0074	-0.0065
time spent with: colleagues	0.0233***	0.0179***
	-0.0053	-0.0043
time spent with: people at church	0.0232***	0.0276***
	-0.0057	-0.0046
time spent with: people at sport	0.0165***	0.00775*
	-0.0056	-0.0041
voluntary organization: religious	-0.0195	0.000876
	-0.014	-0.013
voluntary organization: arts	0.00327	-0.00701
	-0.015	-0.011
voluntary organization: unions	-0.0303*	0.00499
	-0.017	-0.012
voluntary organization: politics	0.0377**	-0.00446
	-0.016	-0.017
voluntary organization: charity	0.0361**	0.0269*
	-0.017	-0.016
voluntary organization: professional	0.0304*	-0.0066
	-0.016	-0.013
voluntary organization: sport	-0.0335**	0.00131
	-0.015	-0.011
illiterate	-0.0706***	-0.0229
	-0.017	-0.019
low school education	-0.0309**	0.0146
	-0.014	-0.011
high school education	-0.0162	-0.0134
	-0.016	-0.011
male	-0.0452***	-0.0284***
	-0.013	-0.0086
age	-0.00921***	-0.0135***
	-0.0025	-0.0017
age2	0.0000970***	0.000112***
	-0.000028	-0.000017
married	0.0159	0.166***
	-0.021	-0.015
divorced	-0.0563	-0.0287
	-0.038	-0.02
single	-0.0137	-0.0106
	-0.025	-0.018
unemployed	0.0219	-0.0976***
	-0.019	-0.017
Observations	5510	11933

R-squared Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 6: Marginal effects of relational goods, social capital, absolute income and other control variables in LICs and HICs.

Source: author's elaboration of World Values Survey data

about relational goods because considering at the same time the whole set of variables imply a considerable reduction in observations available and of their significance. For this reason we observe the authenticity of the relationship in tab.7 besides other standard regressors.

In this case we can notice that subjective well-being in LICs is positively affected by participation in political, charitable and professional voluntary organizations, while participating in recreational and sport organizations has a negative coefficient. Excluding charitable associations, these figures point out that authenticity of relationships is not so important for subjective well-being in LICs. In fact political and professional organizations are clearly *extrinsic* activities, i.e. they are important as a means and not by themselves.

This framework is quite different from that relative to rich countries: also in this case voluntary organizations are important for subjective well-being, but now happiness is mainly affected by participation in religious, charitable and sport voluntary organizations. These are all intrinsic activities: they are important in themselves and not as a means to reach other goals. Then the main difference among the two groups of countries is that high income countries pay growing attention to the authenticity of relationships.

These findings are useful to further characterize the relationship among relational goods and different groups of countries: these goods result to be important for happiness in both groups, but richer countries are more sensitive to authenticity and spontaneity of relationships than poor countries and pay growing attention to the time spent with close friends.

### 6.3 Socio-economic aspects

Socio-economic variables are quite coherent with what found in previous empirical research. Male and age coefficients are negative and significant in both groups of countries. Educational dummies show that being illiterate or having a high level of education has negative effects on happiness in LICs. The coefficient about a low education level is not significant. Comparing with HICs signs remain unchanged but this time it is illiteracy that influence happiness the most.

Results on marital status highlight also an interesting pattern coherent with previous literature. In fact being married positively affects happiness in both LICs and HICs with significant coefficients which are stronger for richer countries. Table 5 and 6 show that divorce negatively affects subjective well-being, while being single has non significant coefficients. These figures seem to confirm the relevance of social relationships for people: marriage representing the building up of a stable relationship has clearly a positive effect especially for people living in rich countries. This result is not surprising since it is coherent with what we found previously about relational goods: they are important for people in both countries, but in HICs people pay

Marginal Effects	LICs	HICs
	Happiness = 4	
income	0.0141*	0.00300*
	-0.0085	-0.0017
civic	0.0125***	0.00356***
	-0.0029	-0.001
freedom of choice	0.0202***	0.0462***
	-0.0021	-0.0013
trust	0.0144	0.0483***
	-0.014	-0.0049
voluntary organization: religious	0.013	0.0486***
	-0.013	-0.0067
voluntary organization: arts	0.00451	0.00667
	-0.015	-0.007
voluntary organization: unions	-0.0254	-0.00404
	-0.017	-0.0065
voluntary organization: politics	0.0543***	-0.00749
	-0.015	-0.009
voluntary organization: charity	0.0403**	0.0278***
	-0.016	-0.0092
voluntary organization: professional	0.0351**	0.000592
	-0.016	-0.0082
voluntary organization: sport	-0.0322**	0.0149**
	-0.015	-0.0058
illiterate	-0.0721***	-0.0439***
	-0.015	-0.012
low school education	-0.0292**	-0.00682
	-0.013	-0.0081
high school education	-0.0164	-0.00593
	-0.015	-0.0083
male	-0.0211*	-0.0160***
	-0.011	-0.0046
age	-0.00731***	-0.0116***
	-0.0023	-0.00089
age2	0.0000740***	0.0000963***
	0.00	0.00
married	0.0267	0.146***
	-0.02	-0.0076
divorced	-0.0605*	-0.0407***
	-0.034	-0.011
single	-0.00393	-0.00336
	-0.024	-0.0095
unemployed	0.0132	-0.107***
	-0.018	-0.0084
Observations	6058	33210
R-squared Standard errors in parentheses		
*** p<0.01, ** p<0.05, * p<0.1		

Table 7: Marginal effects about participation in voluntary organizations in LICs and HICs.

Source: author's elaboration of World Values Survey data

more attention to these goods than people from LICs.

Finally being unemployed reveals a negative and significant coefficient only in HICs while in the other case results are not significant.

## 7 Conclusions

The aim of this research was to find out the effects of positional and relational goods and social capital on subjective well-being in low income countries. The question was to verify whether there were any differences among the determinants of happiness between poor and rich countries. For that reason we adopted World Values Survey data which have been widely used in similar studies so far. Results achieved are relevant for happiness economics since they enlarge our knowledge focusing on low income countries.

The first element we notice is that average happiness in poor countries is lower than in rich countries. This is an obvious result since a higher income contributed to a safer and better life. Simply think to the great steps forward taken by our societies in educational, sanitary and health standards, political freedoms and technological progress. Yet our story does not stop here: wealth does not plenty explain differences among the two groups of countries. If we consider average happiness trends we notice a surprising path: from 1980 to 2001 average happiness in LICs grew up steadily, while in the same period it stagnated in HICs. That is to say that despite the incredible progress carried out by rich countries, happiness in these countries did not improve.

This evidence seems to confirm that there are other aspects than income which are important for people. This does not imply that income is not relevant, but simply that when speaking about well-being, we should consider not only income, but also some other aspects: income is an important component, but not a sufficient one for well-being.

Which aspects should be consider together with economic measures of well-being? Our hypothesis is that people are interested in the quality of the social environment in which they live. For this reason we concentrated on the effects of positional and relational goods and social capital on subjective well-being pointing out possible differences between poor and rich countries.

From this point of view the first important result we achieved is that income is an important element of well-being, but it is not the most important. Other aspects such as social capital, social classes and relative income reveal to have a stronger impact on subjective well-being. This result holds in LICs as well as in HICs, even if individual coefficients vary between the two groups: an higher income has a positive effect on happiness in poor countries, while it has a slightly negative impact in rich ones.

we notice that socio-economic aspects such as age, gender, being unemployed, education and marital status, generally have the same effects in both

groups of countries even if the magnitude may be different: for example the effect of being married or illiterate has stronger effects on subjective well-being in low income countries rather than on high income ones.

Moving towards positional, relational and social capital aspects we find out an interesting and intriguing profile.

To start with, we observe that positional aspects matter also in LICs: belonging to the upper class positively affects happiness while the two lower classes show growing negative coefficients. Considering relative income we notice that belonging to the first two income quintiles negatively affects subjective well-being, while being among the two highest income quintiles positively affects happiness. The magnitude of coefficients is larger for the two extremes of the scale and smaller for the two intermediate steps. This evidence about proxies of positional goods confirm that also poor countries are subjected to positional competition. A comparison with HICs reveals that the signs of coefficients for the two groups of countries are the same, while the magnitude of coefficients vary. Belonging to the highest social class has an higher effect on happiness, while belonging to the two lower classes has a decreasing negative effects. At the same time relative income is less important for well-being in rich countries.

Coefficients related to proxies of relational goods generally show that these goods are important in both groups of countries. In this case single components differ. In fact it seems that in low income countries subjective well-being is much more influenced by time spent with colleagues from work and with people from religious and recreational environments while participation in political, charitable and professional voluntary organizations has the largest effect on happiness.

Differently, in rich countries people pays much more attention to time spent with friends and then with colleagues and people from religious and recreational environments. Considering voluntary organizations, we notice that happiness is affected by religious, charitable and recreational organizations.

These aspects reveal a different framework in the two groups of countries. In fact, involvement in political or professional voluntary organizations, that is to say activities implying a joint effort for a common cause, are significantly related to subjective well-being in poor countries rather than rich ones. Happiness in high income countries, instead, seems much more influenced by participation in activities in which intrinsic motivation plays a prominent role (Bruni and Stanca, 2006).

Finally, trust and freedom of choice largely influence subjective well-being in both groups of countries even if they have stronger effects in rich countries. Finally, civic has a smaller but positive impact on happiness.

Concluding, we can confirm that positional and relational goods and social capital are important elements of subjective well-being in rich as well

as poor countries. We observed that the sign of these effects on subjective well-being are the same independently on average national income, while the magnitude of these effects may vary between countries. Finally, we noticed that income is an important element for subjective well-being, but it is not the most relevant: social relationships and comparisons count the more. These observations suggest that we should be able to complement more traditional measures of well-being with the new contributions coming from happiness economics.

This research tried to shed new light on particular aspects concerning subjective well-being in low income countries. Results are encouraging showing a complex pattern which asks for further research as well as the small dimension of the sample resulting from regressions needs further commitments to enlarge and explore it. Maybe when a new wave of surveys will be available, we will have the possibility to further test our hypothesis and results. Finally, it is important to stress that given the numerous questions and problems that we encountered we should rather consider our results a starting point. Numerous theoretical as well as empirical questions arised opening new scenarios for happiness economics and public and development policies.

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Independent variable	LICs	HICs
income	0.075 (2.12)*	-0.015 -1.88
civic	0.036 (3.55)**	0.025 (5.87)**
freedom of choice	0.09 (13.24)**	0.229 (42.16)**
trust	0.176 (4.58)**	0.241 (11.99)**
upper class	0.317 (2.51)*	0.691 (2.75)**
working class	-0.275 (5.31)**	-0.121 (2.31)*
lower class	-0.448 (8.40)**	-0.04 -0.32
first income quintile	-0.279 (4.44)**	-0.271 (7.49)**
second income quintile	-0.162 (3.68)**	-0.11 (3.95)**
fourth income quintile	0.134 (2.56)*	0.089 (3.03)**
fifth income quintile	0.34 (2.97)**	0.1 (3.01)**
illiterate	-0.126 (2.38)*	-0.236 (3.80)**
low school education	-0.009 -0.19	-0.038 -0.98
high school education	-0.073 -1.64	-0.074 -1.9
male	-0.129 (3.86)**	-0.094 (4.80)**
age	-0.048 (6.29)**	-0.055 (14.70)**
age2	0 (5.14)**	0 (12.33)**
married	0.206 (2.81)**	0.733 (20.88)**
divorced	-0.265 -1.7	-0.21 (3.94)**
single	0.048 -0.58	-0.035 -0.88
unemployed	-0.086 -1.39	-0.533 (11.27)**
Cut1	-2.33078	-3.640521
Cut2	-0.1267361	-1.368286
Cut3	2.196045	2.013863
Wald chi2	2251.93	6663.27
Prob > chi2	0.000	0.000
Log likelihood	-15443.275	-39626.897
Pseudo R2	0.0813	0.0882
Observations	14923	45549

Note: Ordered Logit estimates. Dependent variable: happiness. Robust z statistics in parentheses. \* significant at 5%; \*\* significant at 1%. Regressors also include individual country dummies, year dummies and time dummies for survey waves (1980-82; 1990-91; 1995-97; 1999-2001). Data source: World Values Survey 1 – 4 (Inglehart, 2000, 2004)

Table 9: Ordered logit regression about positional goods and other control variables.

Source: author's elaboration

Independent variable	LICs	HICs
income	0.068	0.165
	-1.59	(4.40)**
civic	0.058	0.02
	(3.91)**	(2.24)*
freedom of choice	0.096	0.251
	(9.03)**	(21.83)**
trust	0.066	0.197
	-0.97	(4.77)**
time spent with: friends	-0.02	0.147
	-0.56	(4.96)**
time spent with: colleagues	0.111	0.082
	(4.40)**	(4.11)**
time spent with: people at church	0.11	0.127
	(4.08)**	(6.02)**
time spent with: people at sport	0.078	0.036
	(2.95)**	-1.87
voluntary organization: religious	-0.093	0.004
	-1.38	-0.07
voluntary organization: arts	0.016	-0.032
	-0.21	-0.62
voluntary organization: unions	-0.147	0.023
	-1.7	-0.4
voluntary organization: politics	0.176	-0.021
	(2.40)*	-0.26
voluntary organization: charity	0.168	0.122
	(2.23)*	-1.73
voluntary organization: professional	0.142	-0.031
	-1.89	-0.49
voluntary organization: sport	-0.162	0.006
	(2.13)*	-0.12
illiterate	-0.352	-0.107
	(4.04)**	-1.21
low school education	-0.149	0.067
	(2.21)*	-1.31
high school education	-0.078	-0.062
	-0.99	-1.21
male	-0.214	-0.131
	(3.60)**	(3.29)**
age	-0.044	-0.062
	(3.65)**	(7.88)**
age2	0	0.001
	(3.45)**	(6.48)**
married	0.076	0.782
	-0.76	(10.44)**
divorced	-0.284	-0.135
	-1.39	-1.39
single	-0.066	-0.049
	-0.54	-0.59
unemployed	0.103	-0.493
	-1.19	(5.30)**
Cut1	-2.697775	0.3795606
Cut2	-0.5495021	2.687067
Cut3	1.876197	6.135303
Wald chi2	849.91	1986.41
Prob > chi2	0.000	0.000
Log likelihood	-5719.2782	-10030.482
Pseudo R2	0.0810	0.1066
Observations	5510	11933

Note: Ordered Logit estimates. Dependent variable: happiness. Robust z statistics in parentheses. \* significant at 5%; \*\* significant at 1%. Regressors also include individual country dummies, year dummies and time dummies for survey waves (1980-82; 1990-91; 1995-97; 1999-2001). Data source: World Values Survey 1 – 4 (Inglehart, 2000, 2004)

Table 10: Ordered logit regression about relational goods and other control variables.

Source: author's elaboration

Independent variable	LICs	HICs
income	0.068	0.015
	-1.67	-1.77
civic	0.06	0.018
	(4.34)**	(3.54)**
freedom of choice	0.096	0.231
	(9.64)**	(36.15)**
trust	0.068	0.239
	-1.07	(10.06)**
voluntary organization: religious	0.062	0.236
	-1.02	(7.42)**
voluntary organization: arts	0.022	0.033
	-0.3	-0.96
voluntary organization: unions	-0.124	-0.02
	-1.47	-0.62
voluntary organization: politics	0.252	-0.038
	(3.61)**	-0.83
voluntary organization: charity	0.188	0.136
	(2.60)**	(3.08)**
voluntary organization: professional	0.164	0.003
	(2.29)*	-0.07
voluntary organization: sport	-0.157	0.074
	(2.14)*	(2.58)**
illiterate	-0.361	-0.231
	(4.47)**	(3.44)**
low school education	-0.141	-0.034
	(2.18)*	-0.84
high school education	-0.079	-0.03
	-1.05	-0.71
male	-0.1	-0.08
	-1.84	(3.45)**
age	-0.035	-0.058
	(3.13)**	(13.10)**
age2	0	0
	(2.84)**	(10.72)**
married	0.129	0.755
	-1.35	(18.28)**
divorced	-0.308	-0.213
	-1.64	(3.56)**
single	-0.019	-0.017
	-0.16	-0.35
unemployed	0.062	-0.613
	-0.750	(10.80)**
Cut1	-2.308	-2.963
Cut2	-0.094	-0.728
Cut3	2.325	2.562
Wald chi2	877.830	4981.000
Prob > chi2	0.000	0.000
Log likelihood	-6292.113	-29409.199
Pseudo R2	0.0778	0.0881
Observations	6058	33210

Note: Ordered Logit estimates. Dependent variable: happiness. Robust z statistics in parentheses. \* significant at 5%; \*\* significant at 1%. Regressors also include individual country dummies, year dummies and time dummies for survey waves (1980-82; 1990-91; 1995-97; 1999-2001). Data source: World Values Survey 1 – 4 (Inglehart, 2000, 2004)

Table 11: Ordered logit regression about participation in voluntary organizations and other control variables.

Source: author's elaboration