RELATIVE INCOME AND SUBJECTIVE WELLBEING

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INTRODUCTION

It is now widely accepted that broad measures of wellbeing should be incorporated into policy-makers' objective functions when making policy choices[1]. There may, however, be a paradox in the relationship between GDP, income and subjective wellbeing that has an impact on reported life satisfaction:

- within countries, richer people are more satisfied with their lives than are poorer people;
- richer countries tend to be, on average, happier than poorer countries[2]; however,
- over time, subjective wellbeing at the national level does not rise with income[3].

This is known as the Easterlin Paradox. Until Easterlin (1974), economists assumed that raising incomes across a country also raised subjective wellbeing. At its most extreme interpretation, the Easterlin Paradox implies that if each individual in society becomes richer by the same degree then no individual is any better off (in subjective wellbeing terms) than they were prior to their income increasing.

Much of the work on the Easterlin Paradox ignores three important aspects, including whether:

1. People also compare themselves to citizens in other countries[4];
2. There is a difference between residents in differently sized settlements within a country;
3. There is a difference between residents in immobile societies versus countries with higher degrees of mobility[5].

Our research incorporates each of these aspects and shows that an individual country that lifts their national per capita income relative to others also raises average life satisfaction.

This research is based on data that does not include New Zealand[6], although there are policy implications for this country.

METHODOLOGY

Our research is based on data from the European and World Values Surveys between 1990 and 2009. Individual respondents are chosen by random or multi-stage representative sampling and surveys are carried out by researchers in

1. Stiglitz et al., 2009; Easterlin, 2010; Layard, 2011; Helliwell et al., 2013; Grimes et al, 2014
2. While a later study by Easterlin et al. (2010) contends otherwise, there is strong evidence that richer countries are on average happier than poorer countries (Diener et al., 1995; Stevenson and Wolfers, 2008; Deaton, 2008; Diener, Tay, & Oishi, 2013).
3. Stevenson and Wolfers, however, provide counter-evidence that shows subjective wellbeing rising with income over time.
4. One study that does look at this issue is Becchetti et al (2013).
5. Senik (2008) is one study that examines this issue, finding that inter-personal comparisons are stronger in less mobile societies (e.g. 'old Europe').
6. The study doesn't include New Zealand as some of the required data series are missing.

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their respective countries. Uniform 'master' structured questionnaires are used, enabling comparisons between surveys. The continuity and consistency over variables such as life satisfaction, age, marital status, employment status and gender makes this an appropriate data source for our research.

Our data for life satisfaction comes from responses to the question: "All things considered, how satisfied are you with your life as a whole these days?" Respondents are asked to answer on a 1 – 10 scale where one is "dissatisfied" and ten "satisfied".

Our country sample includes established developed countries and a group of transitional middle-income countries. We drop any country that has only one wave of data to enable inclusion of country fixed effects[7]. This process results in the inclusion of 27 countries (16 OECD founder members and 11 transitional) across 4 waves with 78,058 individual observations.

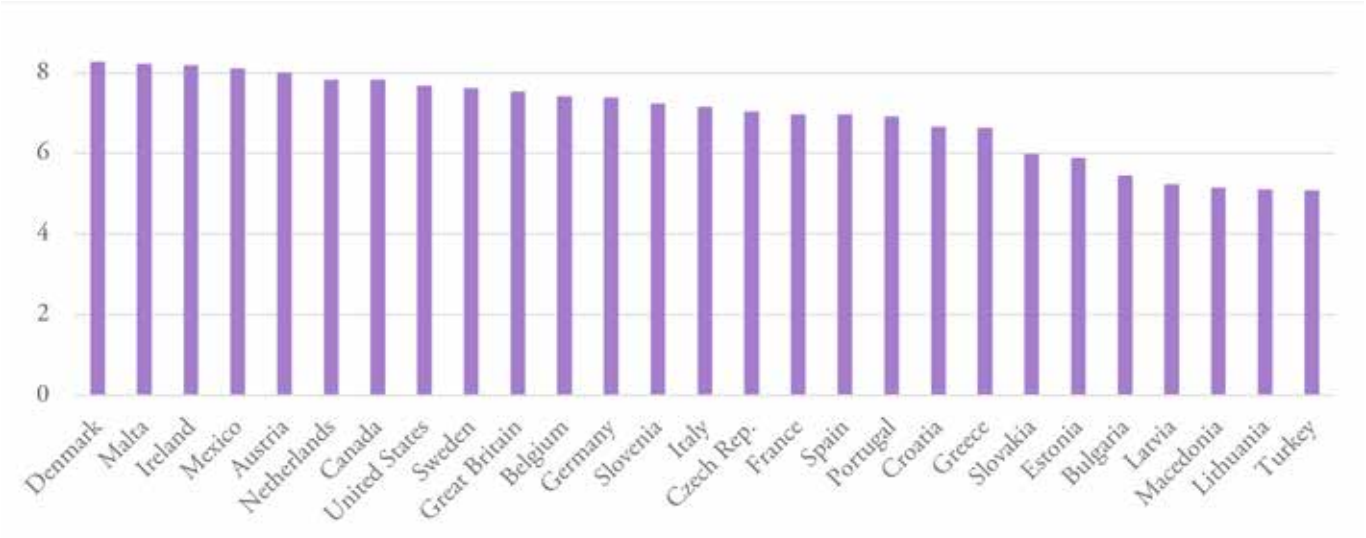
The four settlement size groupings that we use in this study are defined as:

- Rural: population under 5,000 people
- Town : population between 5,000 and 20,000 people
- Small City: population between 20,000 and 100,000 people
- Large City: population over 100,000 people.

RESULTS

Figure 1 shows life satisfaction in most transitional countries is below that of most founder OECD countries with the exception of three outliers: high life satisfaction for both Malta and Mexico, and low life satisfaction for Turkey (and, to a lesser extent, Greece)[8].

FIGURE 1: Mean Life Satisfaction by Country



7. i.e. to take account of specific country life satisfaction scores that may reflect local cultural attitudes and/or institutions.
8. In our estimates, country fixed effects account for systematically high or low life satisfaction in particular countries.

Consistent with this observation, Figure 2 shows a strong relationship between life satisfaction and national income.

FIGURE 2: Life Satisfaction and GNDI per capita

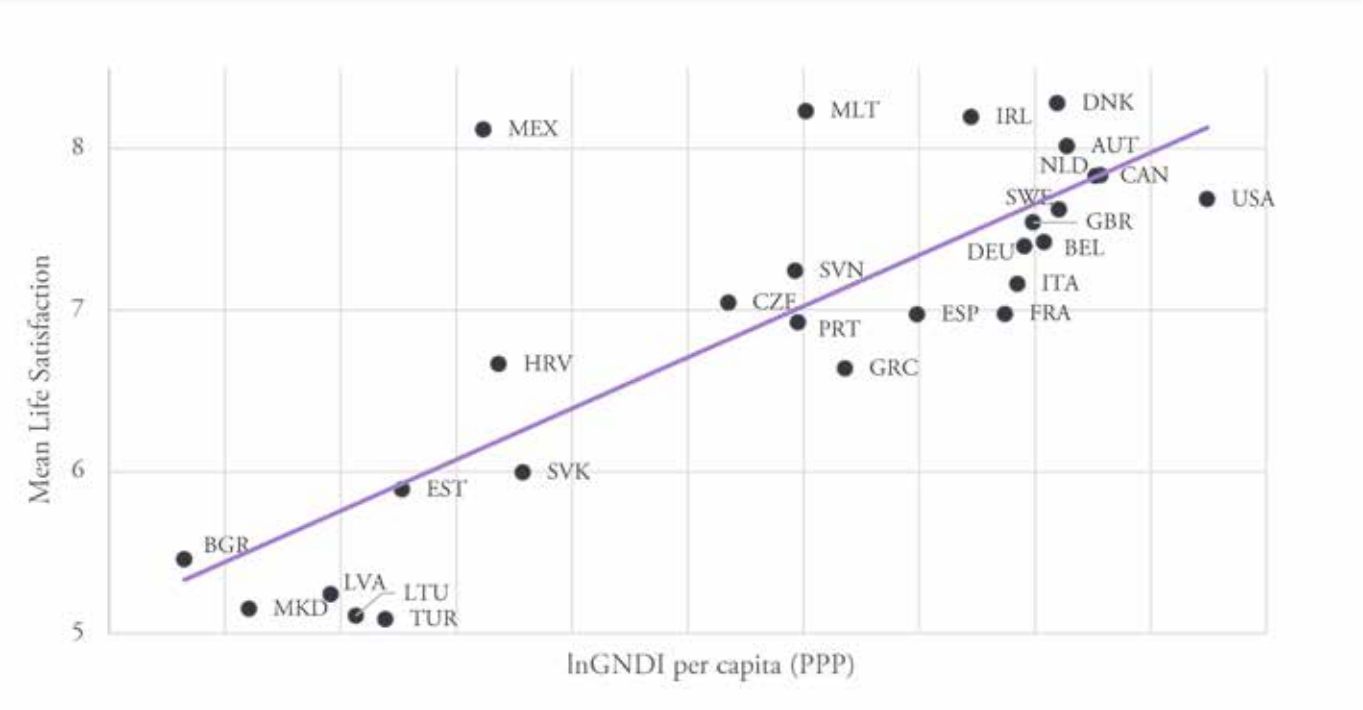
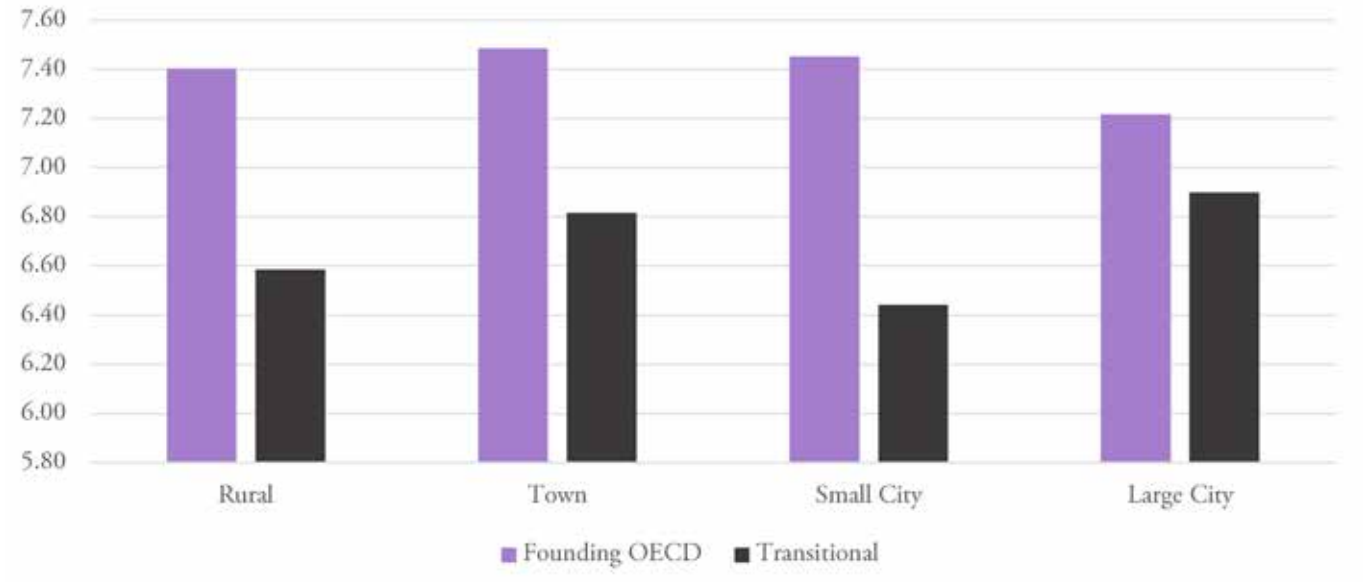


Figure 3 indicates that within the OECD founder countries, residents of large cities have the lowest life satisfaction, while within the transitional countries those living in large cities have the highest life satisfaction.

FIGURE 3: Mean Life Satisfaction by Settlement-Type



Our key findings are as follows:

1. There are no (statistically significant) differences in life satisfaction by settlement-type in either country-type once other factors are controlled for. Thus, on average, people would not make themselves happier by moving from the city to the country, or vice versa.

2. An individual's own income has a positive relationship with life satisfaction in all country- and settlement-types. On average, a 10% increase in income results in a 0.012 increase in life satisfaction points.

3. The income of like individuals in the same country in the same year has a negative relationship with life satisfaction in all country- and settlement-types. The (within country) Easterlin Paradox holds for all settlement-types in OECD founders and in rural areas in transitional countries. However, non-rural settlements in transitional countries do not experience the pure form of the Easterlin Paradox.

4. An increase in gross national disposable income relative to that across the EU countries (RelGNDI) raises life satisfaction in all country- and settlement-types. A 10% increase in an OECD founder country's RelGNDI increases life satisfaction for individuals in that country by 0.40 points. The effect is smaller in transitional countries. In these countries the effect of a 10% increase in RelGNDI is for an increase in life satisfaction of 0.19 points. The effect of RelGNDI on life satisfaction in transitional country large cities is smaller than for founding OECD large cities. In addition, transitional country large cities place a lower weight on RelGNDI than do transitional country rural and town areas.

FURTHER RESEARCH

We believe there are two open questions indicated by our study that merit further research:

- Whether the relative inter-national income finding reflects purely a relative effect of one's own country's incomes rising relative to others', or an absolute life satisfaction effect over and above effects derived from an increase in own income.

- Whether personal preferences and characteristics (such as education) change upon migration, and whether these changes then affect an individual's life satisfaction.

CONCLUSIONS

Our research confirms that individuals' life satisfaction rises as their personal income rises and falls as the incomes of similar individuals within their own country rise. This occurs across all country- and settlement-types.

Prior literature finds that the Easterlin Paradox holds in stagnant, immobile areas but not in faster developing, mobile areas. We conjecture that rural transitional economy areas are stagnant and immobile (relative to urban centres in transitional economies) and hence share the OECD founder Easterlin Paradox result, while the larger population areas in transitional economies are more up-and-coming and so do not share the Easterlin Paradox result.

In addition we find residents in transition country cities are less negatively affected by income increases, whether these increases are within the country or in comparator countries. Life satisfaction tends to be lower in large cities in developed nations and higher in large cities in transitional countries compared to other settlement-types. However once we include a full set of controls plus related income effects, we find no differences in life satisfaction across settlement sizes in either country-type.

Taken overall, our results provide strong support for the hypothesis that the impact of reference and relative incomes depends on whether the individual is located in a country and/or settlement type that is mobile versus one that is stagnant. Our findings show that this is not simply a developed versus transitional country dichotomy or rural versus urban dichotomy. Rural transition country residents are akin to their founder OECD counterparts in their attitudes to others' success, while large city transition country residents are less likely to experience others' success negatively.

Importantly, our findings imply that for any individual country, a rise in national per capita incomes does raise average life satisfaction in that country. Thus, at a policy level, a government can increase its own citizens' wellbeing through supporting policies that increase its country's national income.