Money is Everything, or is it? Explorations of the Stability of Welfare Inference across Money-metric, Elicited, and Bio-metric Measures of Wellbeing Maria Gabriela Farfan, Jed Friedman,, Giovanni Pollitti, Renos Vakis Eliana Zeballos

Discussion:

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## So what's the idea?

- Follows the Benjamin et. al. (2014) AER paper in analysing data from 1550 Peruvian adults covering 22 wellbeing aspects (w) covering 11 domains.
- Based on  $\Delta u = \sum_{j=1}^{K} \frac{\partial u(w)}{\partial w_j} \Delta w_j =>$
- Change in wellbeing a weighted sum of changes in wellbeing drivers where the aggregation weights are the marginal effects of the drivers.
- Challenge is to measure the  $\frac{\partial u(w)}{\partial w_i}$ .
- Clever use of elicited responses to a posited choice problem (20 pairs of "either ors" the responses to which are analysed in fixed effects model (based on gender income age ... categories).
- So what's my issue?

## Increasing Multidimensionality.

- No denying Multidimensionality is really important for understanding wellbeing, but increasing the # dimensions should be approached with caution.
- Ultimately we want to assess whether overall wellbeing has increased or diminished which boils down to measuring the extent to which two multivariate distributions differ.
- The problem, the curse of dimensionality increasing dimensionality makes multivariate distributions more alike k dimensional surfaces get closer together as k increases.
- Think about the peak of a multivariate standard normal variate  $\left(\frac{1}{\sqrt{2\pi}}\right)^{k}$

## Income and Wellbeing

- In a series of papers (Easterlin(1974), Easterlin (1995) Easterlin (2001) Easterlin (2003)) Richard Easterlin questioned the relationship between income and self reported happiness / wellbeing variables.
- His basic result (established over a variety of societies) was that average annual self reported happiness in a society did not change over time in a significant fashion whereas average real incomes (GDP per Capita) in that same society had a steady and significant positive growth.
- The reason why this result should not be taken too seriously is technical and has to do with the way the happiness questions are posed. Essentially when you are asked to report your happiness on a bounded scale (0-10) in the above example average happiness will always be bounded, however incomes are measured on an unbounded scale (theoretically production can grow without bound).
- For example average annual real incomes in China have grown at roughly 10% per annum over the last decade so that real income at the end of the period is roughly 2.59 times what it was at the beginning of the period (it has grown exponentially). Happiness measured on a bounded scale could not grow at this rate.
- Its really relative wellbeing that we are measuring income and relative wellbeing cannot be cointegrated a bounded variable vs unbounded variable regressions don't work.