PART 1: WHAT IS ECONOMICS REALLY ABOUT?

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What is Economics really about?

- Unemployment, inflation and national income (economic growth)?

- Utility and consumption? Efficiency?

- Redistribution and poverty? Development?

- Firms and industry? Money and profits?

- What links all of this together?

The desire to understand how to better maximise utility (broadly defined), welfare, wellbeing or in simpler language…

Happiness!

Economics absent happiness?

- In general unemployment is very bad for happiness and GDP is good for happiness, but what if this were not the case…

  - Would unemployment be a problem if people wanted (were made happier) by unemployment? Should the government force people to work?
  - Is endlessly rising GDP good for the country even it makes people unhappy?

What next?

- So, if (national) happiness is that important why not just measure and maximise "national happiness"?

  - Do people know their own happiness? Do they answer truthfully? Do they think too short-term? How can we measure happiness accurately?
  - Even if we had a great measure, how do we go about maximising happiness?
  - Correlates matter, even more so if there is a causal link to national happiness: these will be crucial even if national happiness is the ultimate objective. (What does cause happiness?)

Measure is the all important word

- To do any of this we need a good measure of "national happiness"? One that links happiness to important causal variables.

- Surveys might be okay but how far back to they go?

- Can a few decades allow us to really understand what is good for national happiness or to measure it confidently?

- And so we come to…

PART 2: USING 'BIG DATA' TO MEASURE HAPPINESS IN THE PAST

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Scope

- Joint work with Eugenio Proto (an economist) and Thomas Hills (a psychologist).

- An attempt to measure wellbeing in the past (long before survey data existed).

- Very multidisciplinary: Economics, History, Psychology, Computer Science ("Big Data"), Literature and Language.

A Parallel with National Income

- National Income Accounting and the birth of macroeconometrics.
- A similar movement to use national wellbeing data (UN, OECD, national governments).
- Measuring GPD in the past: The Maddison Project (from 1AD!) but note the limitations of the super-long run.

Measuring Happiness

- Recap from Part 1: why we need historical data?
- Wars, epidemics, depressions, natural disasters..
- <u>Now</u> is fine: we can just ask people!
- But the past, surely impossible? How can we "go back in time" to ask our great grandparents how happy they are?

Google Books!

- Big Data: Google Ngrams (Viewer).
- Psychology: Sentiment ("valence").
  - ➢ High end: Happiness 8.53, Enjoyment 8.37, Vacation 8.53, Joy 8.21, Relaxing 8.19, Peaceful 8, Lovemaking 7.95, Celebrate 7.84.
  - ➢ Low end: Murder 1.48, Abuse 1.53, Die 1.67, Disease 1.68, Starvation 1.72, Stress 1.79, Unhappy 1.84, Hateful 1.9.
  - ➢ Middle: Neutral 5.5, Converse 5.37, Eight 5.37, Century 5.36, Machinery 4.65, Platoon 4.65.

Building the Index

- We selected 1,000 words which have a valence score based on a core of words where we have valences across multiple languages.

- Work out a weighted average score for each year for different countries (UK, USA, Germany, Italy and also France and Spain but with reservations).

- Roll this back as far as seems reasonable (noting concerns about language and literature and how they have changed): 1800 to 2009.

- "Validate" the data: see if it makes sense for periods of history when we already have happiness data.

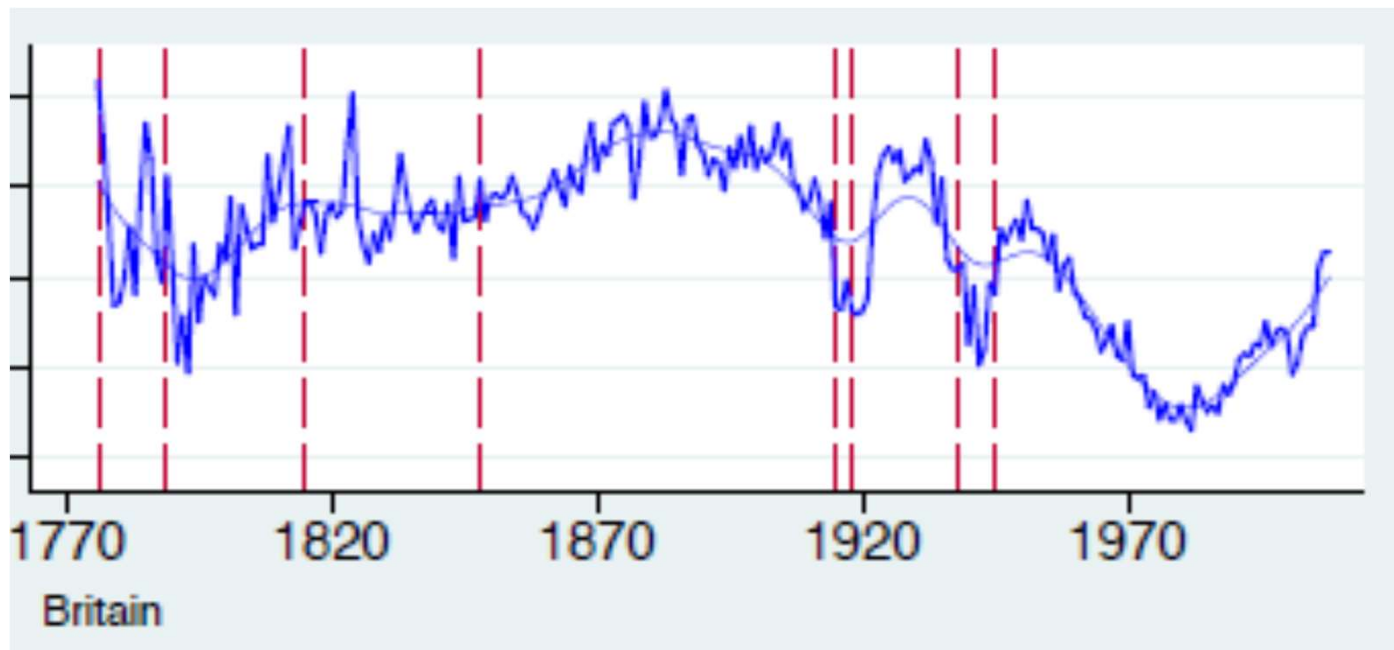**Valence correlates heavily with life satisfaction 1972-2009:**
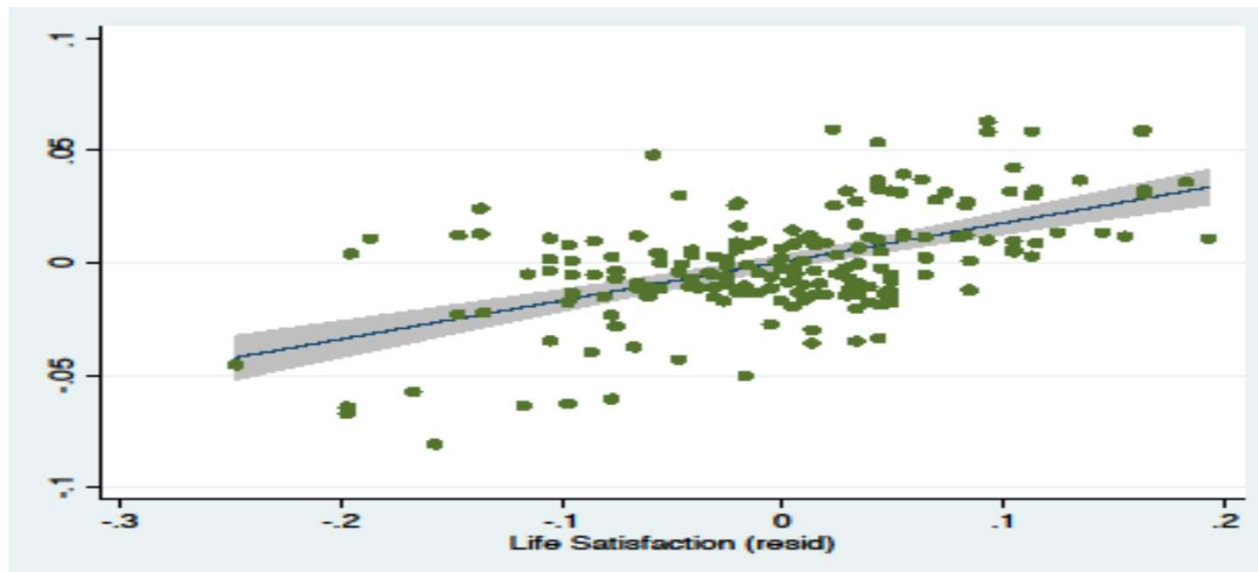
Other checks

- Words with high valence occur significantly more often at times of higher life satisfaction (1972-2009, Eurobarometer).

- Happy people read happy books (not happy-sad) – competitive publishing industry perhaps?

- So, let's look at the index (for the UK)…

The HPS Index: UK

Britain

So now what?

- Scale, direction, comparisons…

- At the margin what matters more for happiness (health vs money, wars vs natural disasters, etc.).

- Cross-country comparisons.

- We need to be careful about super-long run comparisons (for now…)

Next steps

- Text-analysis on other forms of sentiment, looking at specific words and themes

- Refining the method (how language evolves through time) to make the very long run easier to follow.

- Looking at now (Twitter, newspapers, blogs) rather than the past.

General Lessons

- Economics is not a narrow discipline, and increasingly involves multidisciplinary collaboration.

- Economics is about welfare and wellbeing broadly defined, not just money and profits!

- "Big data", advances in computing, advances in other (social) sciences are all having an impact on the subject.

- It is evolving quickly: great to be a part of that process.

Thank you for listening!
Questions?