

Or climate....

Table 5: The Costs of Events Quantified (in AS2001 thousands)

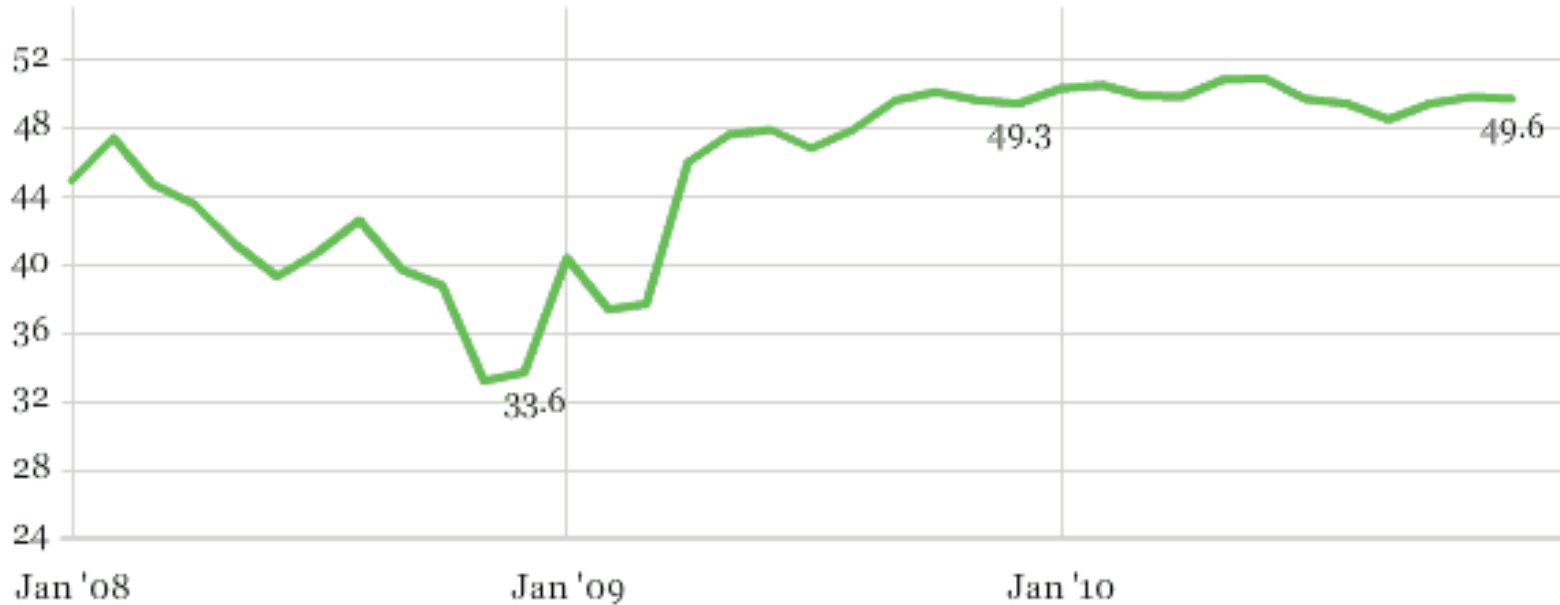
	10th Percentile	Mean	90th Percentile
Level of annual household income	9.5	33.5	74.1
Marriage	+19	+67	+149
Unemployment	-20	-72	-160
Low rainfall in winter/ spring (all)	-1	-5	-11
Low rainfall in winter/ spring (non-city)	-5	-18	-39
Spring (non-city)	+4	+14	+31

Notes: Calculations based on specification (1) in Table 3 (except the estimate for the rural cost of drought and spring). The “10th percentile” and “90th percentile” columns are calculated at the 10th and 90th percentile of log(household income), the “mean” column is calculated at the mean of log(household income). The estimates of spring rainfall and spring are divided by 4 to take account of the fact that these effects only occur ¼ of the time (i.e. in the other three season where there is no effect). While the mean of log household income is 10.42 (giving an estimate of household income at this level of \$33,500), the mean household income is \$47,400. The mean household income value in Unity Wellbeing Index is close to the \$50,800 given by the ABS.

So you can get some idea about the value of things that are not easy to price. This also includes noise, pollution, and feelings of safety. Source: Carroll et al. (2008)

Also useful for politicians.... Happiness and recessions

Life Evaluation Sub-Index Score by Month, 2008-2010



Gallup-Healthways Well-Being Index

GALLUP

We bounce back, but it takes over a year! It tells a politician how long a recession affect the mood.

And for China.....

Migrants and rural people are happier than urban residents, despite being much poorer. That is because of their hopes:

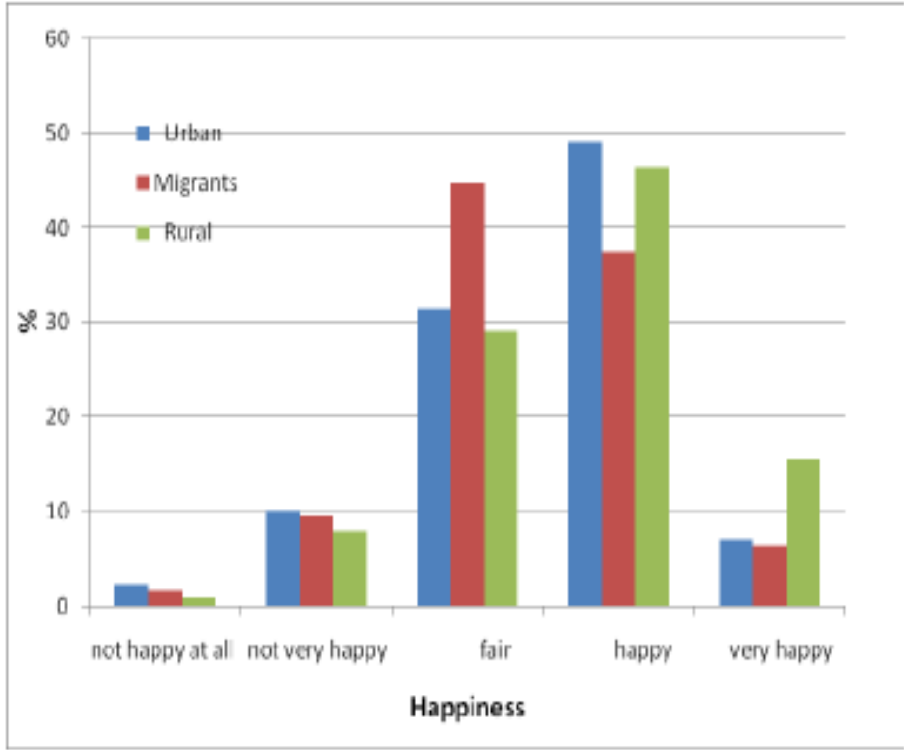
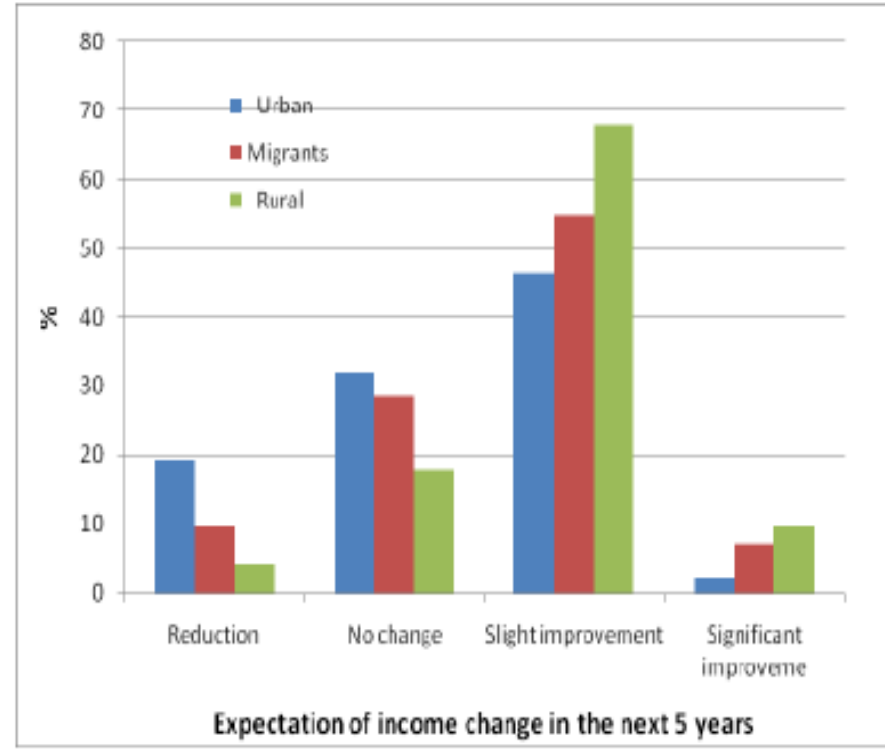


Figure 1: Expectations and happiness



Of course, there were many more controls and instrumental-variable techniques used.
Source: Frijters et al. (2012, forthcoming)

Holding governments to account

Aggregate indices

■ Relevant for:

- Politicians. Aggregate indices might become a measure of performance of a government as well as an index they will want to manipulate.
- Statisticians. A new market for surveys.

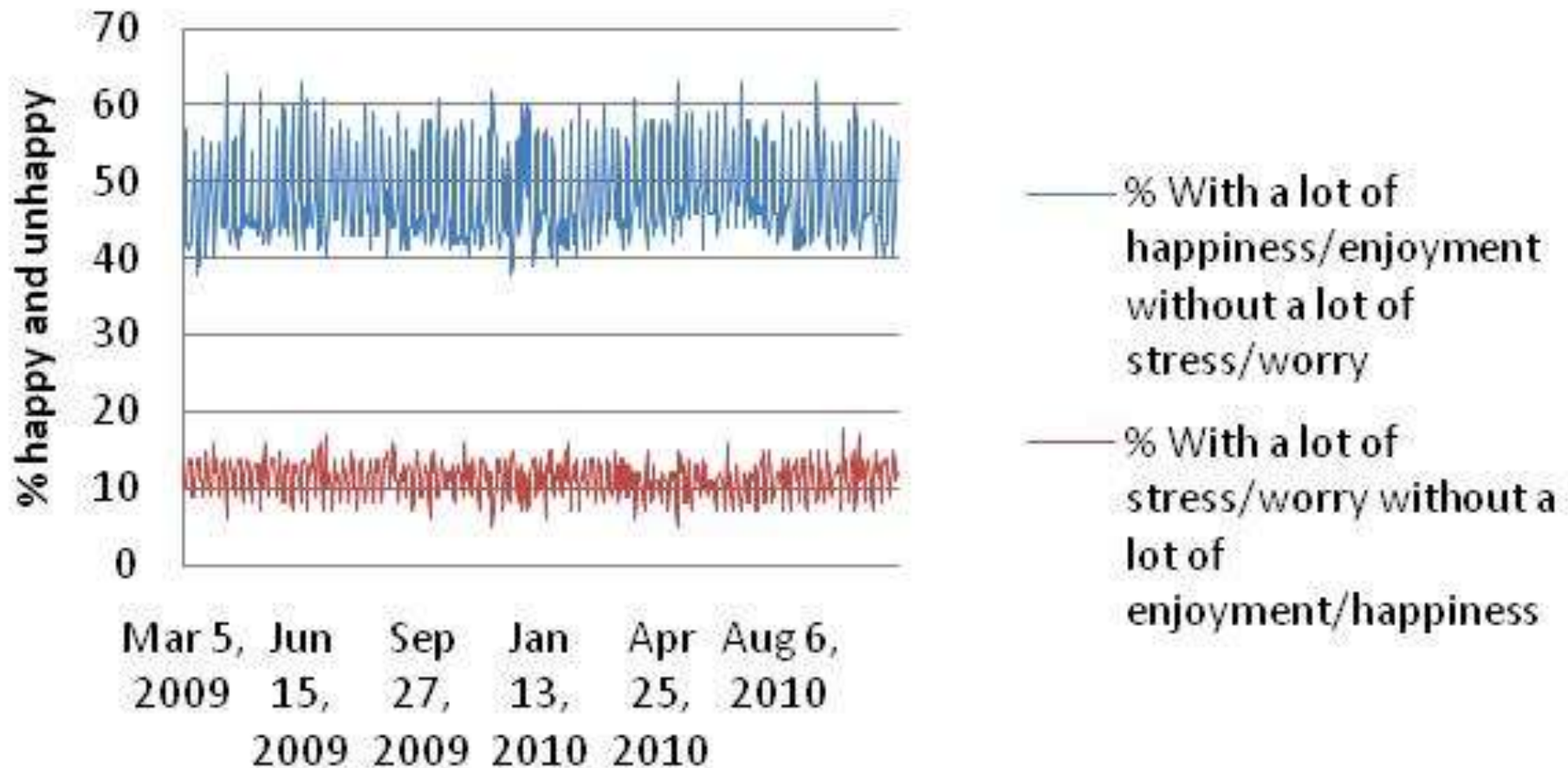
Aggregate indices

■ Some already available indices:

- Qualys: quality adjusted life years. Example: life expectancy * aggregate happiness. Other example: life expectancy * expert-rated aggregate health.
- Mish-mash: a weighted average of things that sound good. Example: 2010 human development index (UN) = geometric aggregate of life expectancy, years of schooling, and Gross National Income. Other example: Basic Capabilities Index, Green GDP, Environmentally-adjusted GDP. Gross National Happiness index: aggregate of various indicators of 'well-ness'.
- Governments of Britain¥Canada¥France have announced they want to measure national happiness and take it seriously. Many countries already measure such things (Croatia, New Zealand, Oz)
- Soon, new indices will emerge based on Google trend data. They might even win.

Example of a current index

Gallup Mood in the US index



Discussion ≠ opinions

- 1. As a national index, only those indicators with big institutional backing have a chance, hence the game so far has been to get institutional support, not academic credibility per se. For instance: Gross National Happiness has so far mainly been supported by Bhutan and the UN, and is currently getting some interest from Brazil. Kahneman is pushing for DRMs and is lobbying politicians.

- 2. National institutions are increasingly interested in such indicators. Statistical agencies are chomping at the bits to measure them, but there is also political support to have national indices (eg. the European initiative or the Australian Treasury mission statement).

- 3. The big requirements for successful indicators are political:
 - They have to be costly to construct and cannot be too simple in design (so that it takes an agency to collect and so that uneducated outsiders can believe in them);
 - The index has to relate to intuitive drivers of well-being, i.e. go up with income and health, go down with wars and environmental disasters. This is why DRMs have trouble.
 - In many countries, the inherent subjectivism has to be somewhat hidden from view.

Futurology: what index will win?

- From a theoretical point of view, simply life sat* life expectancy is easiest to interpret and defend. However, it is too simple.

- Several indices are likely to co-exist for a long time, but I would expect a dominant one to emerge that has a distinct happiness focus.

- As with GDP, IQ, inflation, and health, one should expect the winning index to be a weighted average of a set of objective-looking variables that are measured over time. The weights would change over time and be different for different purposes (rural happiness, child happiness, consumer happiness).

- As with IQ, inflation, and health, the weights will probably be anchored to some final outcome, which could be just average life satisfaction, average satisfaction from DRMs, or stated preference as to who someone wants to be: weights will be chosen to best-predict average satisfaction or the choice of vignettes (5 more years of life versus more education). This means you get a rolling prediction based on variables measured frequently, with periodic updating of the weights.

Summing up

- We are seeing the rise of subjective feedback as a direct tool for finding out what works and what is popular in many fields of life. Satisfaction feedback has become an organising force.
- This trend is only going to get stronger now that communication and interaction is so fast: it's the increased availability of choices that increases the demand for these tools.
- Satisfaction tools are also directly useful in court-cases and in order to find shadow costs of hard-to-measure things.
- Given the increased familiarity of consumers and businesses with self-ratings, a natural extension is to apply the same logic to whole countries and to government departments.
- So, get with the program! If you're good, there is nothing to fear...