Age Structure, Mortality, and Prospective Ageing

Warren Sanderson, Stony Brook University, International Institute for Applied Systems Analysis, Wittgenstein Centre for Demography and Global Human Capital

Sergei Scherbov, International Institute for Applied Systems Analysis and Wittgenstein Centre for Demography and Global Human Capital

Prepared for United Nations Expert Group Meeting on Changing Population Age Structures and Sustainable Development, 13-14 October 2016, New York

The New Faces of Ageing: Stanislaw Kowalski, Age 105

Oldest Person to Compete in a Sanctioned Track and Field Competition

The New Faces of Ageing: Ernie Andrus, Age 93

Ran from the West Coast of the US to the East Coast. It took him 3 years.

Organization of this Presentation

- 1. How is population ageing currently conceptualized and measured?
- 2. Another approach to conceptualizing population ageing (using only information published by the United Nations)
- 3. Does the new approach produce different results?
- 4. Conclusions

1. How is Population Ageing Currently Conceptualized

- Most current measures of population ageing are based on chronological age.
- For example, the Old-Age Dependency Ratio and the Median Age.

2. Another Approach

- One way of conceptualizing how old people are in terms of their needs and capabilities is to measure ageing based on remaining life expectancy.

2. Another Approach

- The two faces of ageing:
- 1. Chronological age (based on the number of years people have already lived).
- 2. Prospective age (based on the number of years people are expected to live in the future).

2. Another Approach

Prospective ages are life expectancy equivalent ages.

People with the same prospective age have the same remaining life expectancy.

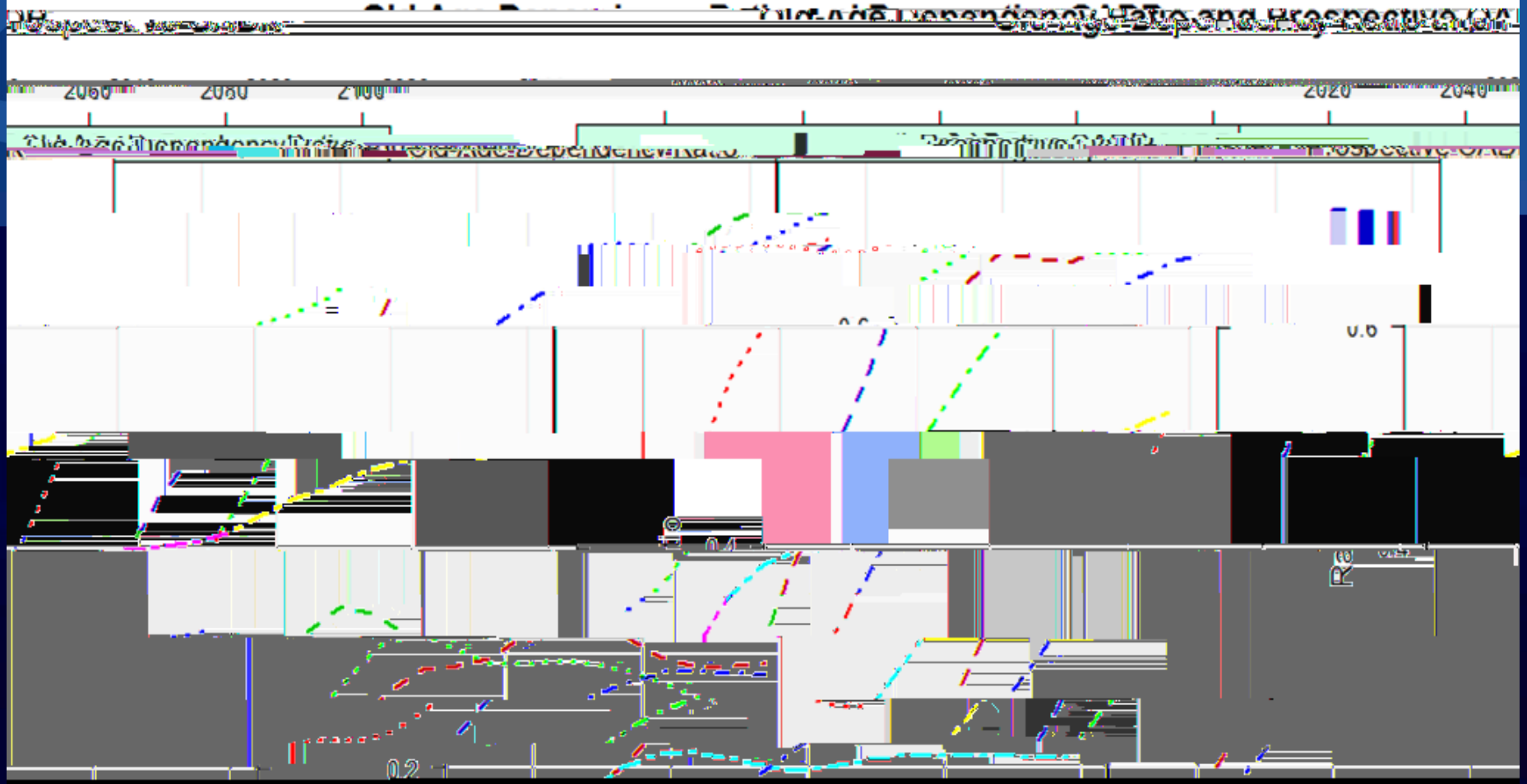
- Measures of population ageing based on prospective age are called prospective measures of population ageing.

2. Another Approach

- Some publications
  - Sanderson WC, Scherbov S (2005) Average remaining lifetimes can increase as human populations age. ***Nature***, 435(7043):811-813.
  - Sanderson WC, Scherbov S (2010) Remeasuring aging. ***Science***, 329(5997):1287-1288.
  - Sanderson, W. and S. Scherbov, 2013, The Characteristics Approach to the Measurement of Population Aging , ***Population and Development Review***, 39(4)

3. Different Results?

- 3.1 Old Age Dependency Ratio
- 3.2 Median Age
- 3.3 Policy studies
- 3.4 Academic studies of economic growth



3.2 The Prospective Median Age

- The prospective median age is the result translating the median age of a population into a corresponding prospective age.

3.4 Different Results: Academic Studies of Economic Growth

- “We assess empirically the role played by prospective ageing measures as a predictor of income growth in Europe. We show that prospective ageing measures which move beyond chronological age and incorporate changes in life expectancy are able to explain better the recent long-run growth experience of European economies.”
-

4. Conclusions

- 1. Prospective measures of population ageing are available.
- 2. Prospective measures conceptualize age based on remaining life expectancy.
- 3. Prospective measures can be computed for the same countries and over the same time span as conventional measures, using only data published by the UN.

4. Conclusions

- 4. The picture that we get of the future speed of ageing is very different when prospective measures are used.
- 5. Prospective measures are being used in policy analyses.
- 6. The use of prospective measures produces better forecasts of economic growth.

4. Conclusions

- 7. Prospective measures of population ageing are useful and informative. They provide an additional dimension to our understanding of population ageing.

THANK YOU!