



Ageing of the labour force and the labour market

Professor Dr Ronald McQuaid
University of Stirling, UK
ronald.mcquaid@stir.ac.uk

**Workshop on Labour Market and Migration across the Eurasian Continent, part of the
Challenges and Opportunities of Economic Integration within a Wider European and
Eurasian Space, International Institute for Applied Systems Analysis (IIASA),
Laxenburg, Austria, 13-14 April 2016**



1. Introduction

Ageing a main issue across most developed countries

Demand

- Leads to changing demand for services/goods, including health services

Finances

- Public and private finances, pensions, savings, wealth distribution etc.

Labour force supply

- Reduction in working age population (dependence ratio), migration
- Changing activity rates
- Average age of workforce & balance between age groups
- Entrepreneurship

Socio-political factors

- Stability/instability
- Importance of 'grey vote', income rise relative to young (Luxembourg Income Study database)

Differences in impacts on pensions and migration



Different regions across the globe, countries and regions/areas within countries vary by:

- Timing (similar changes but at various stages)
- Contexts (e.g. socio-economic and institutional contexts)
- Responses (e.g. policy pressures)
- Etc.



2. Population change

All aspects of demographic make-up are changing



- Mean and median age of European populations rising for a century
- Birth rates (total fertility rates – generally down)
- Death rates (and longevity - up)
- In-migration and out-migration (up??)
- Economic activity/ participation rates (including length of working lives - moving up)

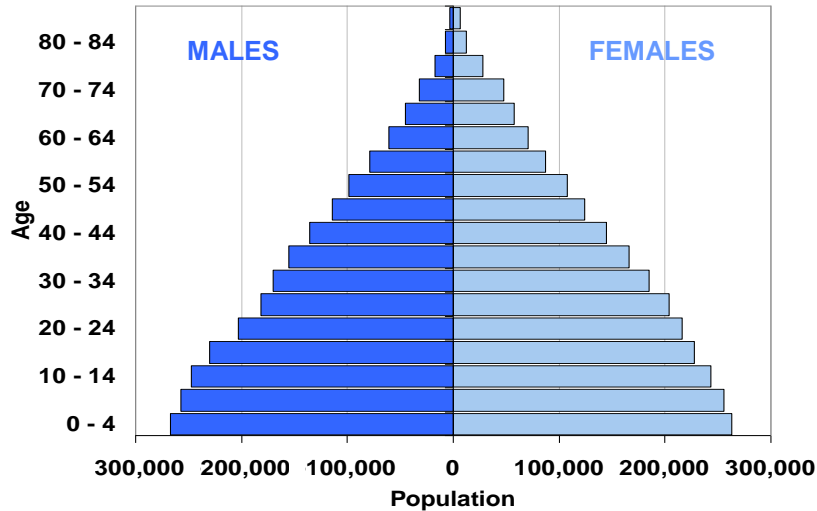
Illustration – one part of the UK



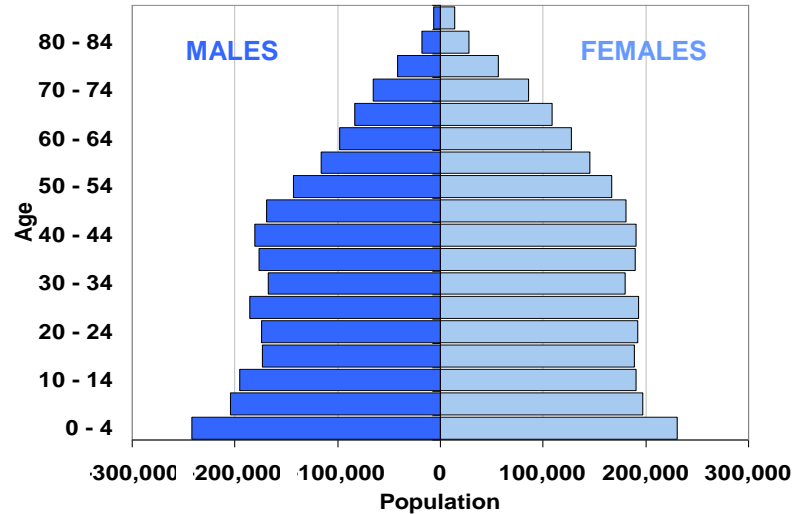
- Apologies for seeming parochial, but let us look at Scotland
- Pyramid .. to .. super tanker .. to .. coffin

CHANGING SCOTLAND: ESTIMATED AND PROJECTED AGE STRUCTURE 1901-2031

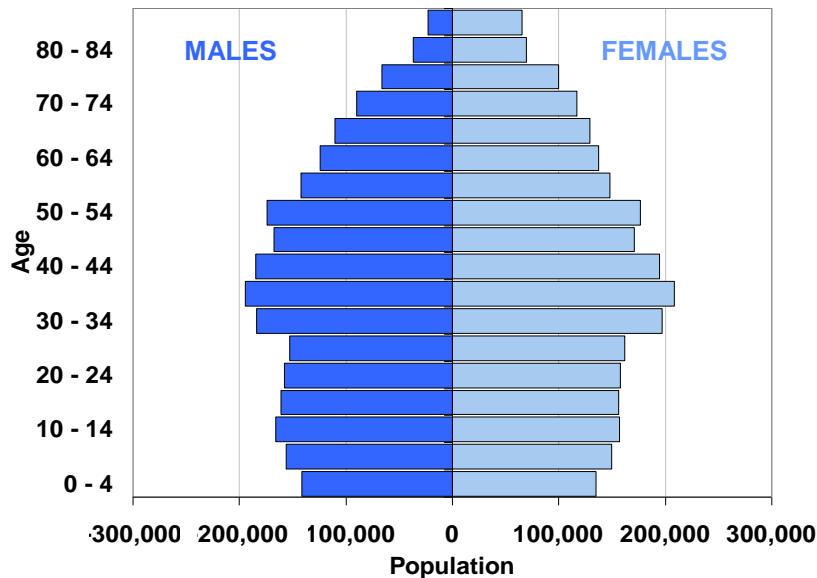
Scotland 1911



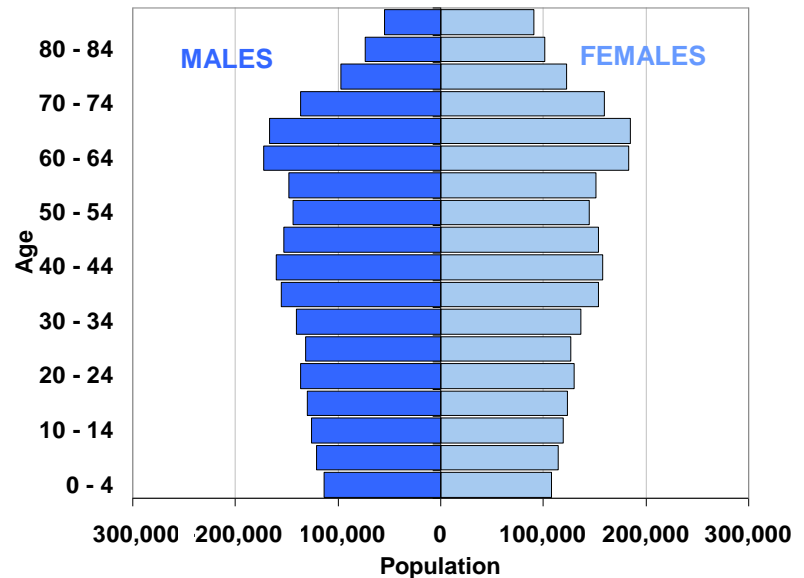
Scotland 1951



Scotland 2001

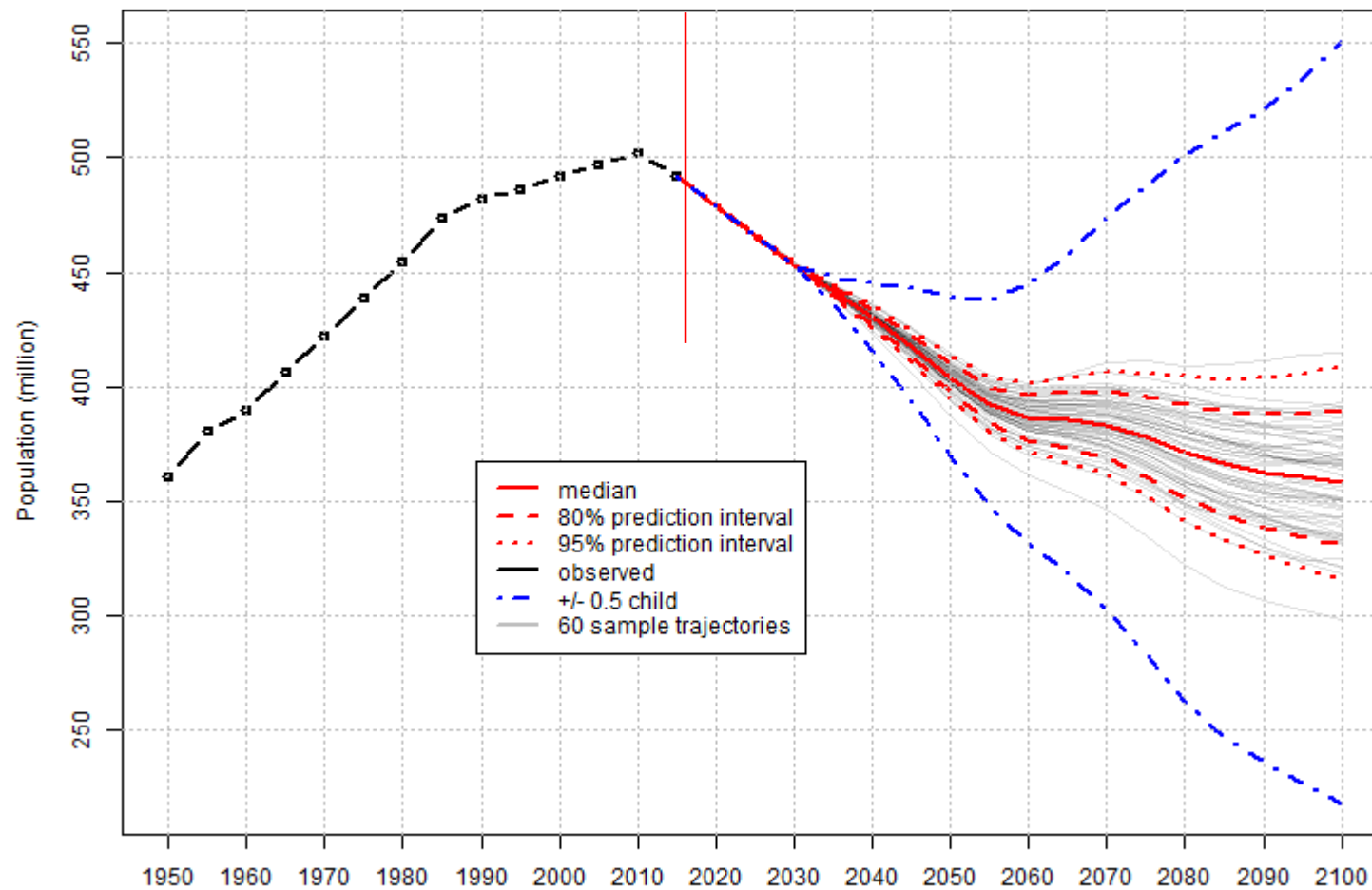


Scotland 2031



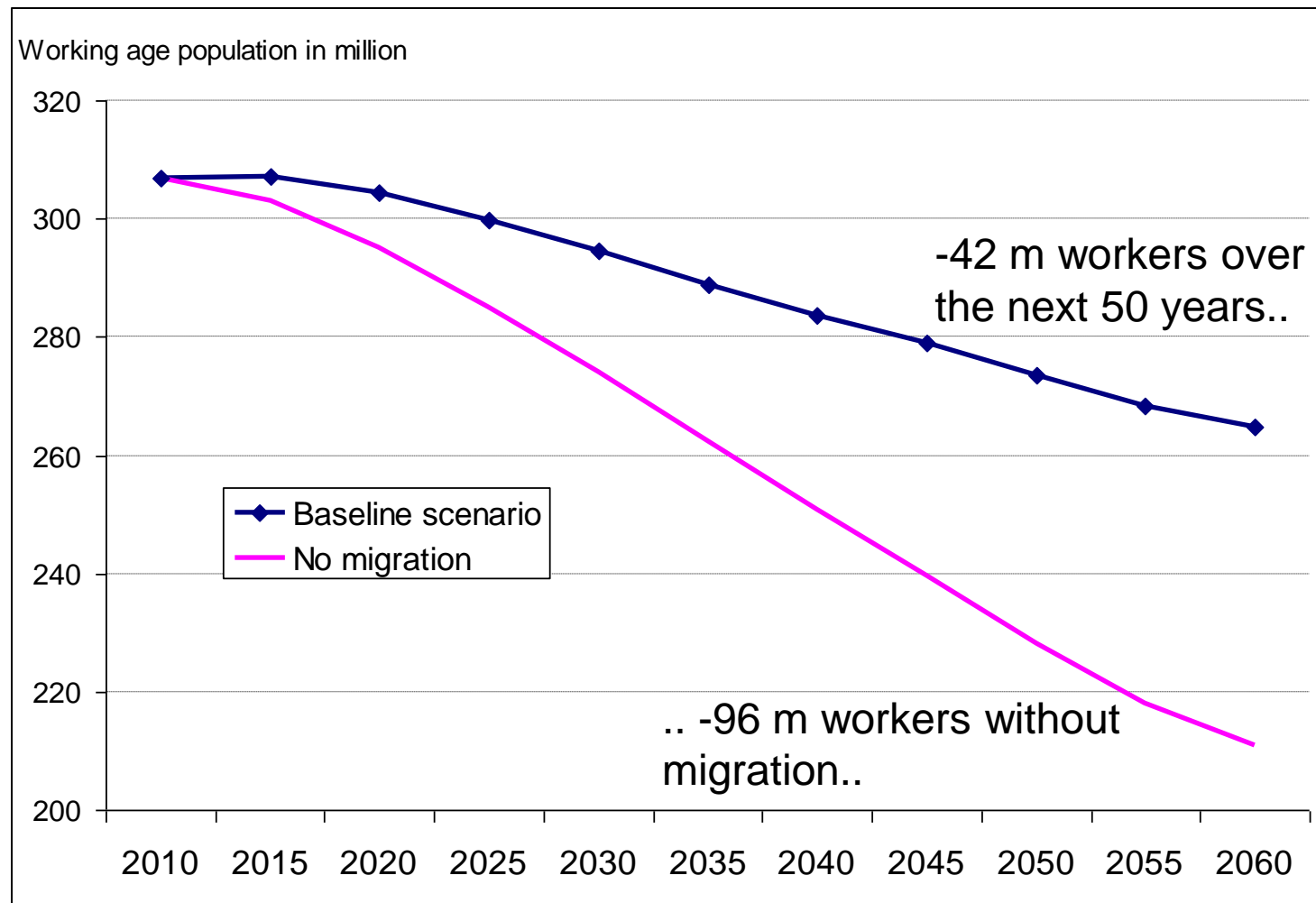


EUROPE: Population (Age 15-64)



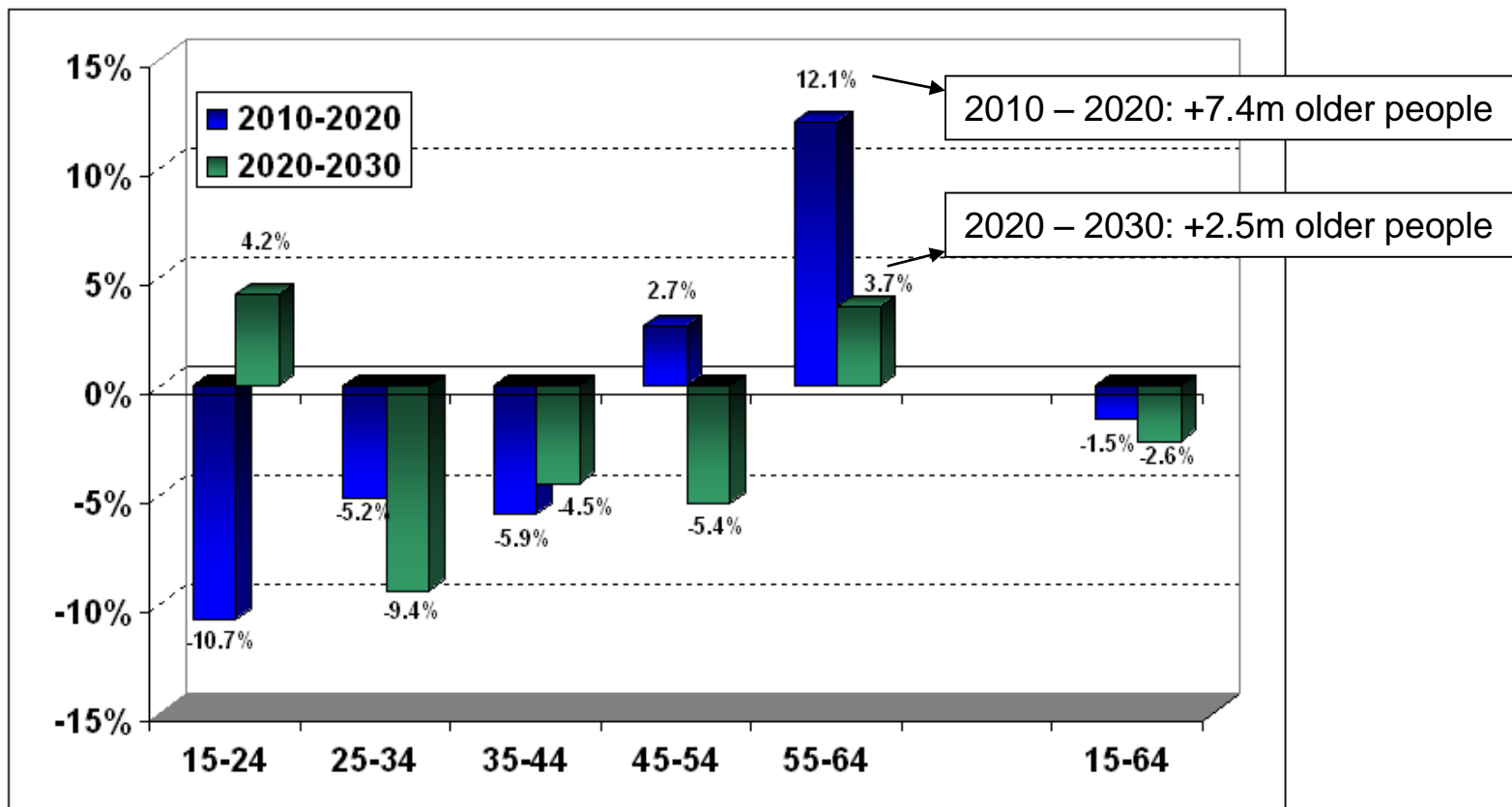
Source: United Nations, Department of Economic and Social Affairs, Population Division (2015).
World Population Prospects: The 2015 Revision. <http://esa.un.org/unpd/wpp/>

EU's workforce will shrink...



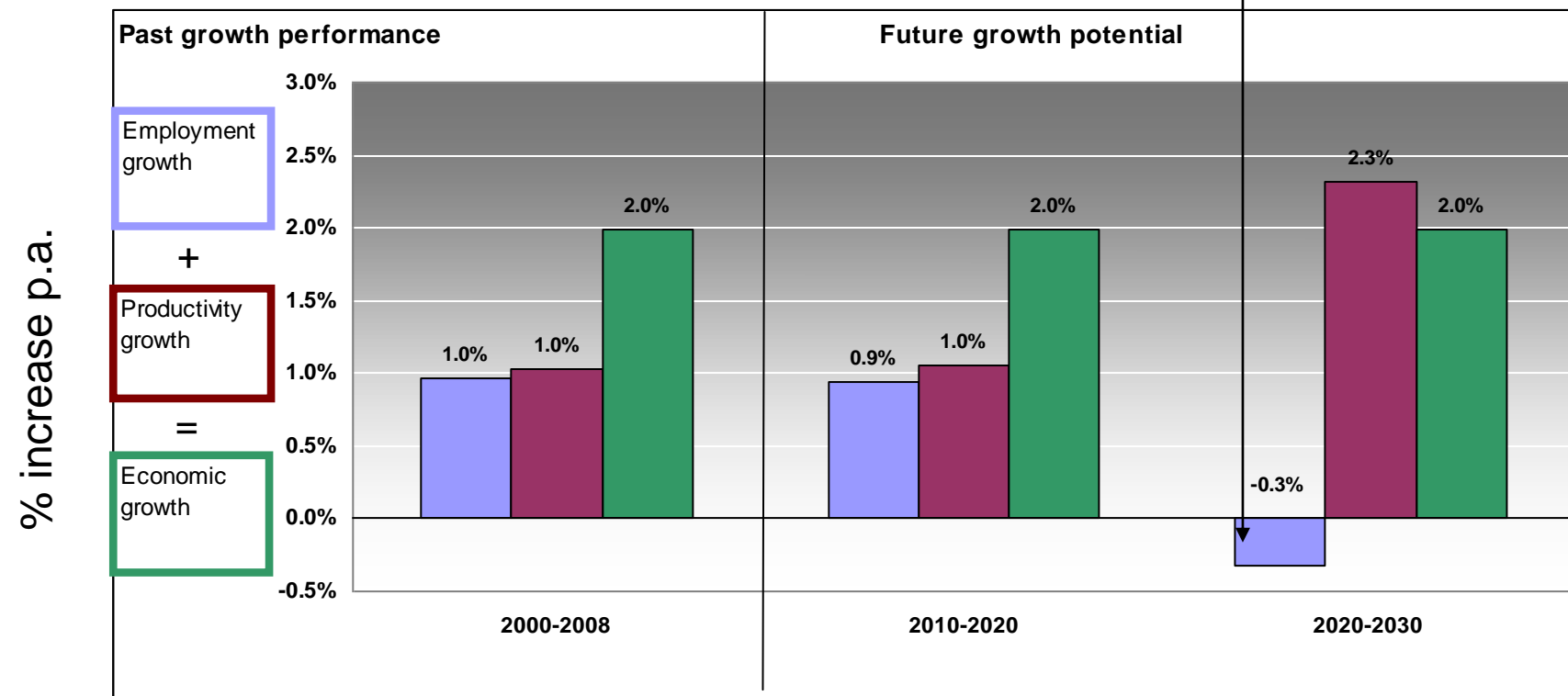


The changes in the age structure of the EU workforce 2010-2020-2030





If employment rate 75% and migration constant (pre-2015)
... then economic growth will be difficult to maintain



Source: Dr. Jörg Peschner, European Commission, DG EMPL/A1
calculations based on LFS data

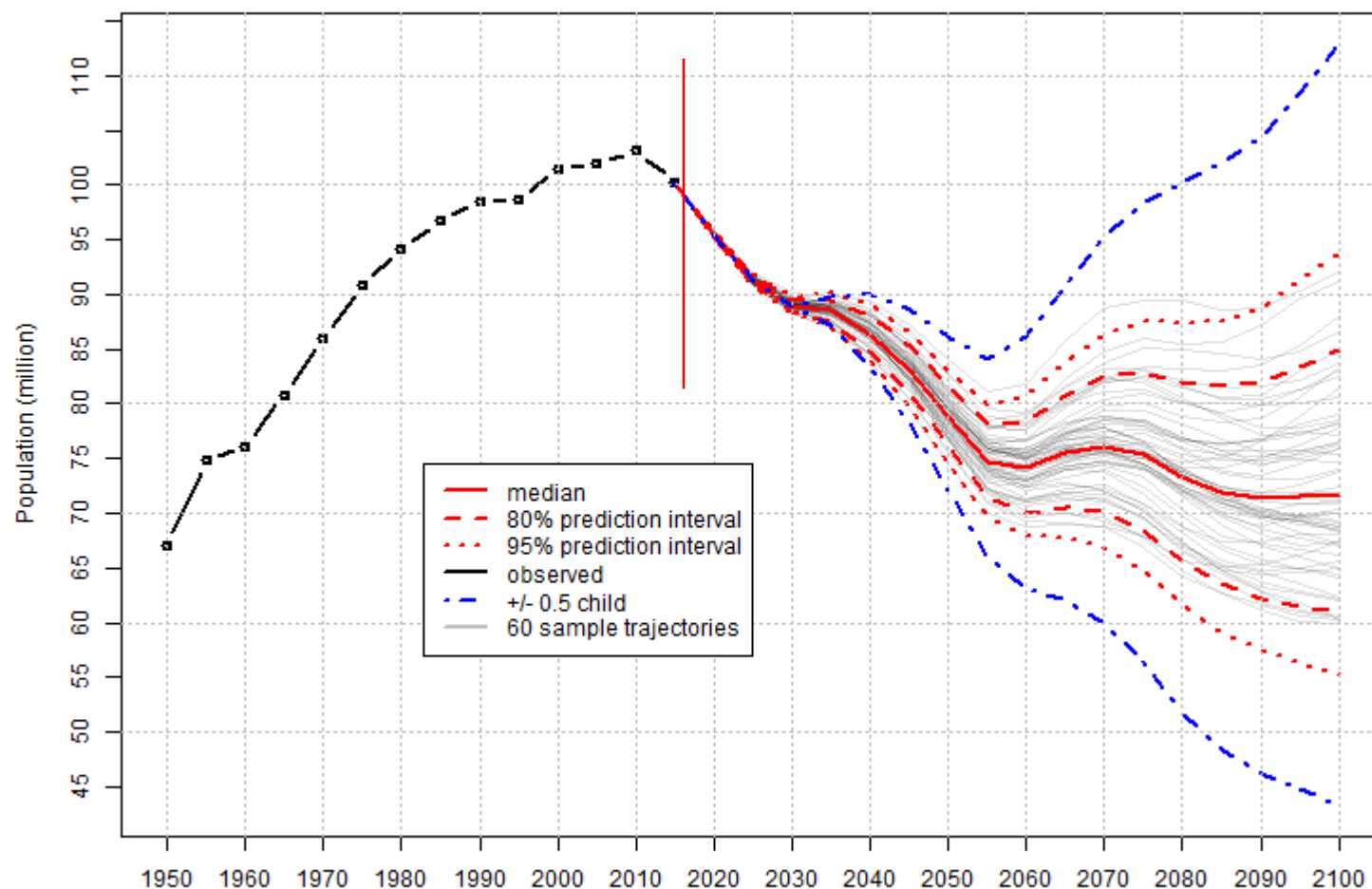
Projections not predictions



- Assumptions about migration, mortality (health improvements, epidemics, wars etc.) and so on are significant
- Within the working age population, workforce structure also getting much older
- Similar type picture across much (but not all) of Eurasia – with different time scales
- (Note: 15-64 years is used for ease of comparison – each country may have different actual dates between leaving school and state pension ages that they used for more accurate estimates)



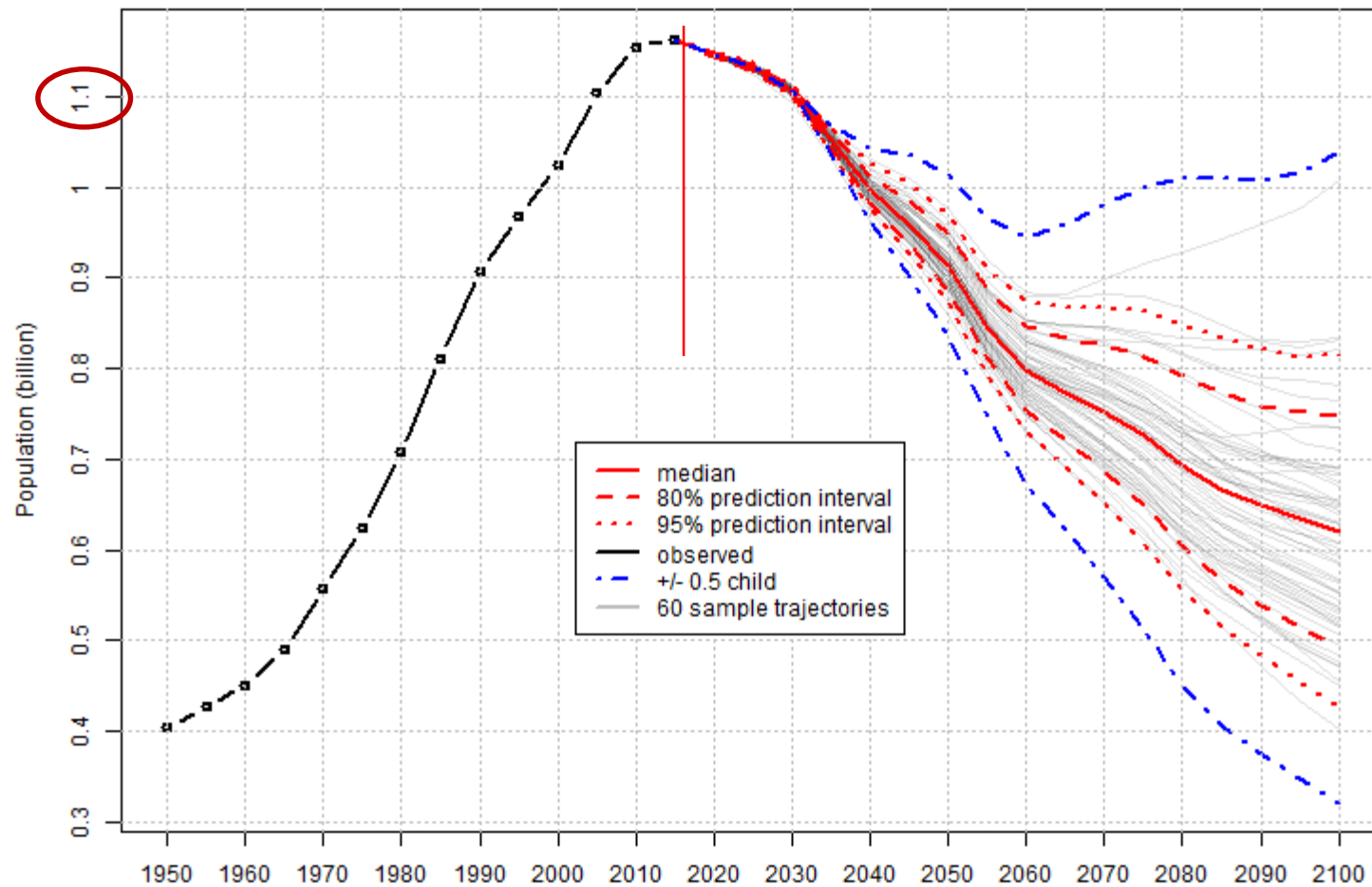
Russian Federation: Population (Age 15-64)



Source: United Nations, Department of Economic and Social Affairs, Population Division (2015).
World Population Prospects: The 2015 Revision. <http://esa.un.org/unpd/wpp/>



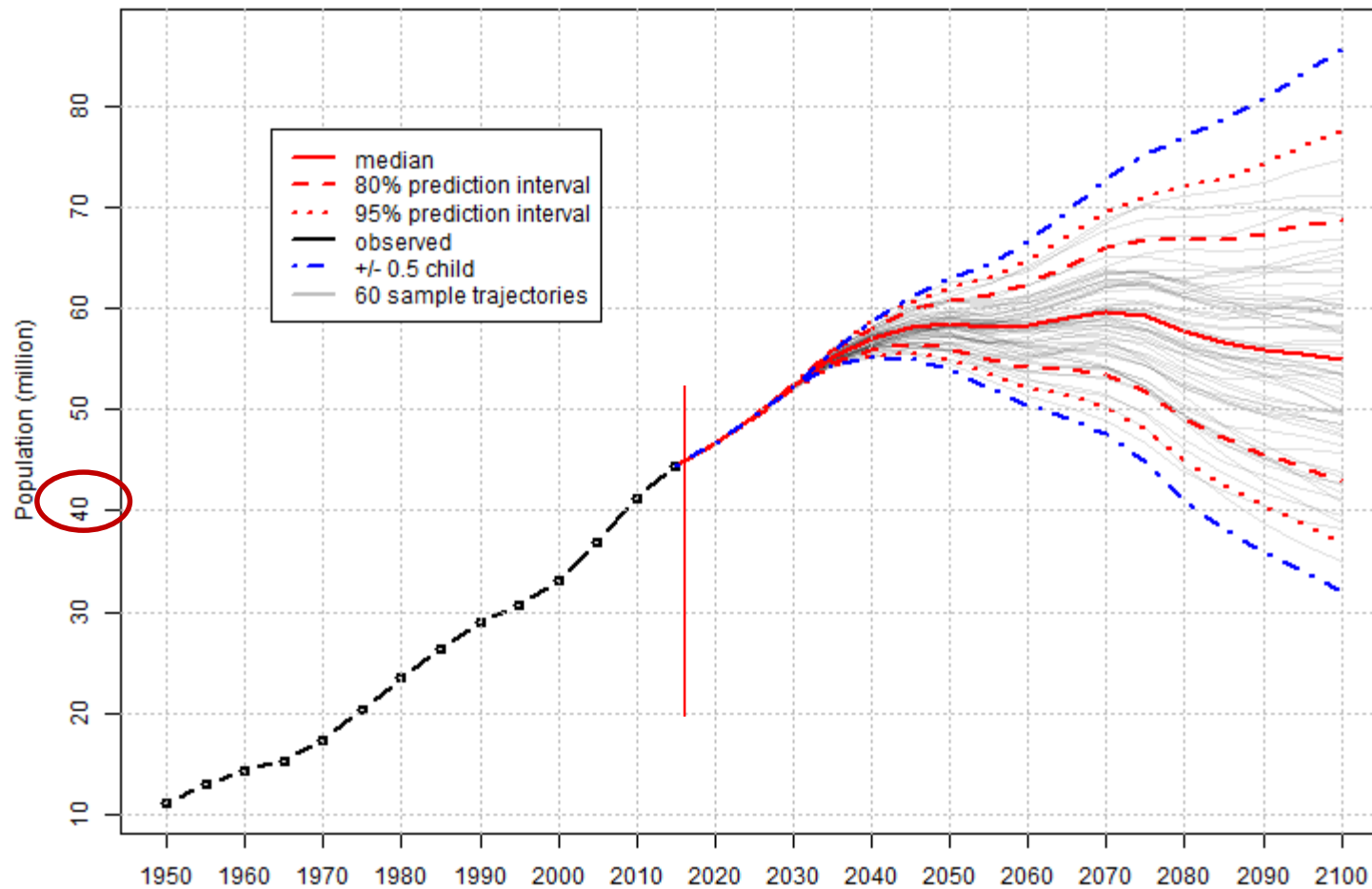
Eastern Asia: Population (Age 15-64)



Source: United Nations, Department of Economic and Social Affairs, Population Division (2015).
World Population Prospects: The 2015 Revision. <http://esa.un.org/unpd/wpp/>

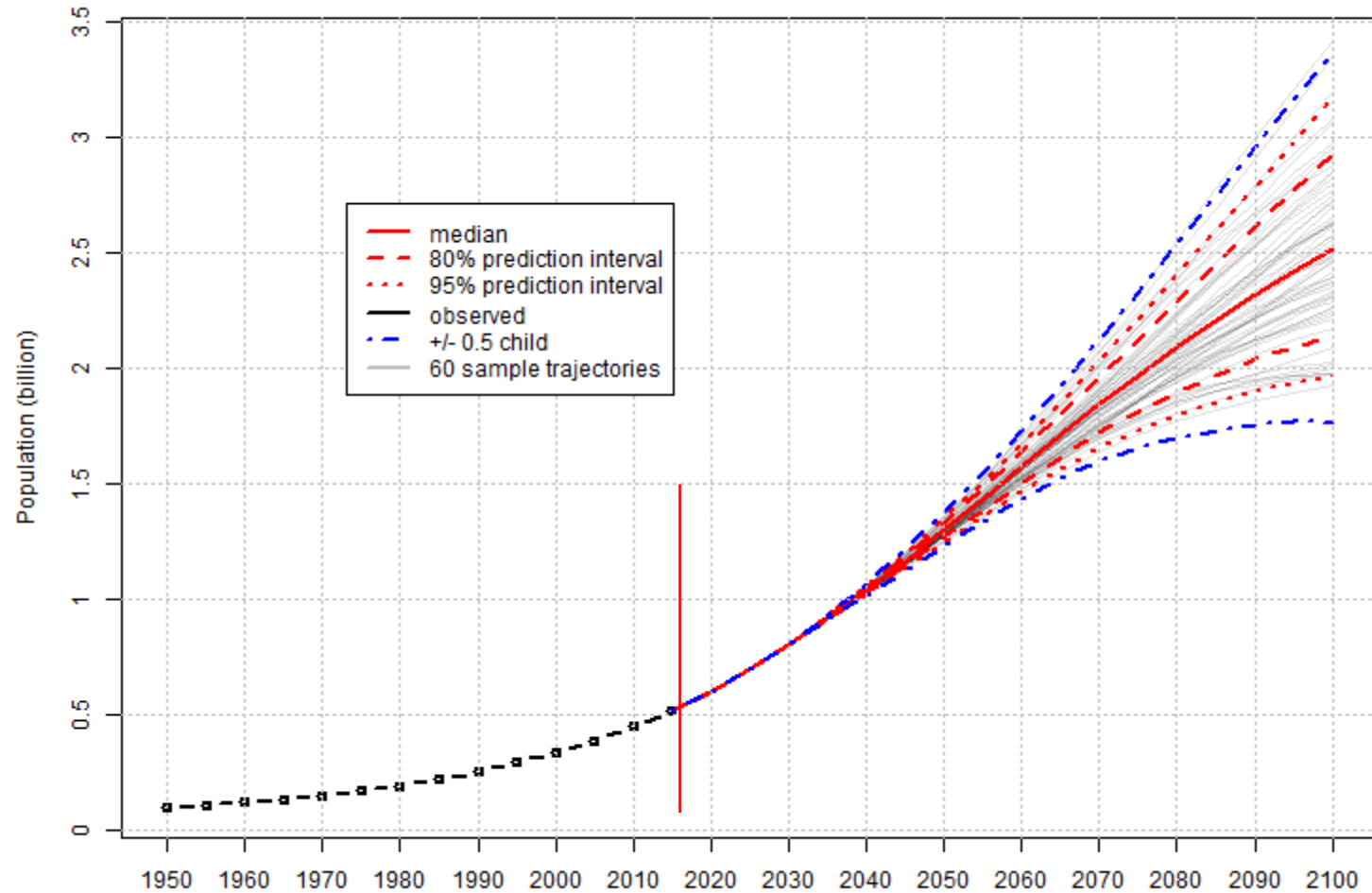


Central Asia: Population (Age 15-64)



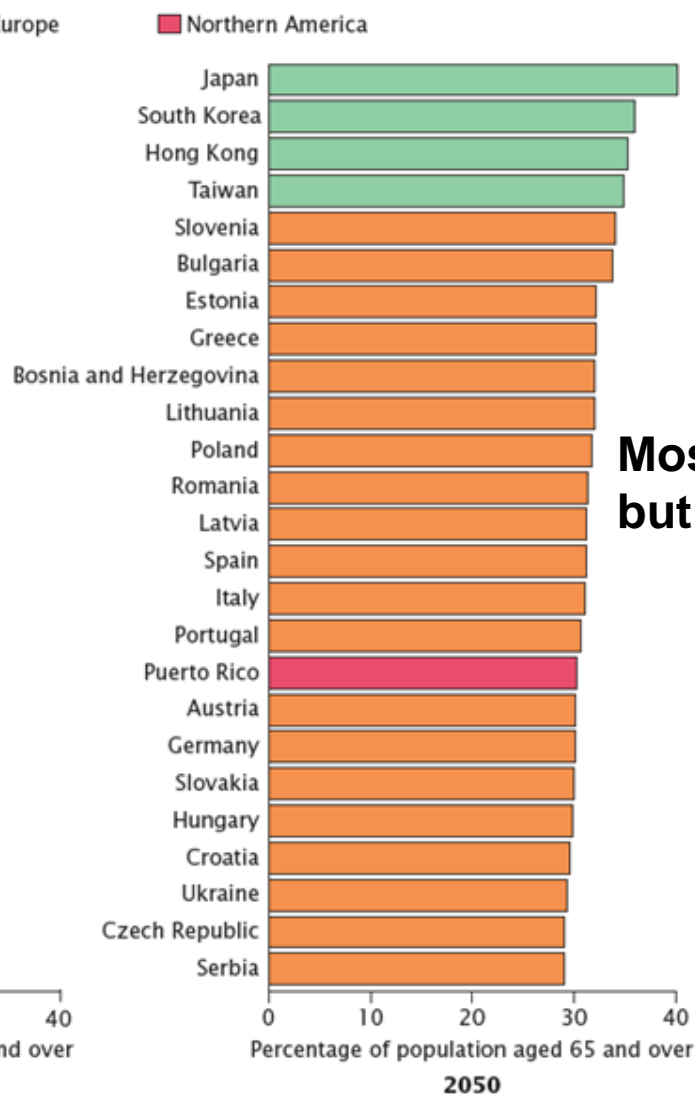
Source: United Nations, Department of Economic and Social Affairs, Population Division (2015).
World Population Prospects: The 2015 Revision. <http://esa.un.org/unpd/wpp/>

Sub-Saharan Africa: Population (Age 15-64)



Source: United Nations, Department of Economic and Social Affairs, Population Division (2015).
World Population Prospects: The 2015 Revision. <http://esa.un.org/unpd/wpp/>

The World's 25 Oldest Countries and Areas: 2015 and 2050



Most aged societies European but increasingly some Asian

Note: The list includes countries and areas with a total population of at least 1 million in 2015.
Source: U.S. Census Bureau, 2013; International Data Base.

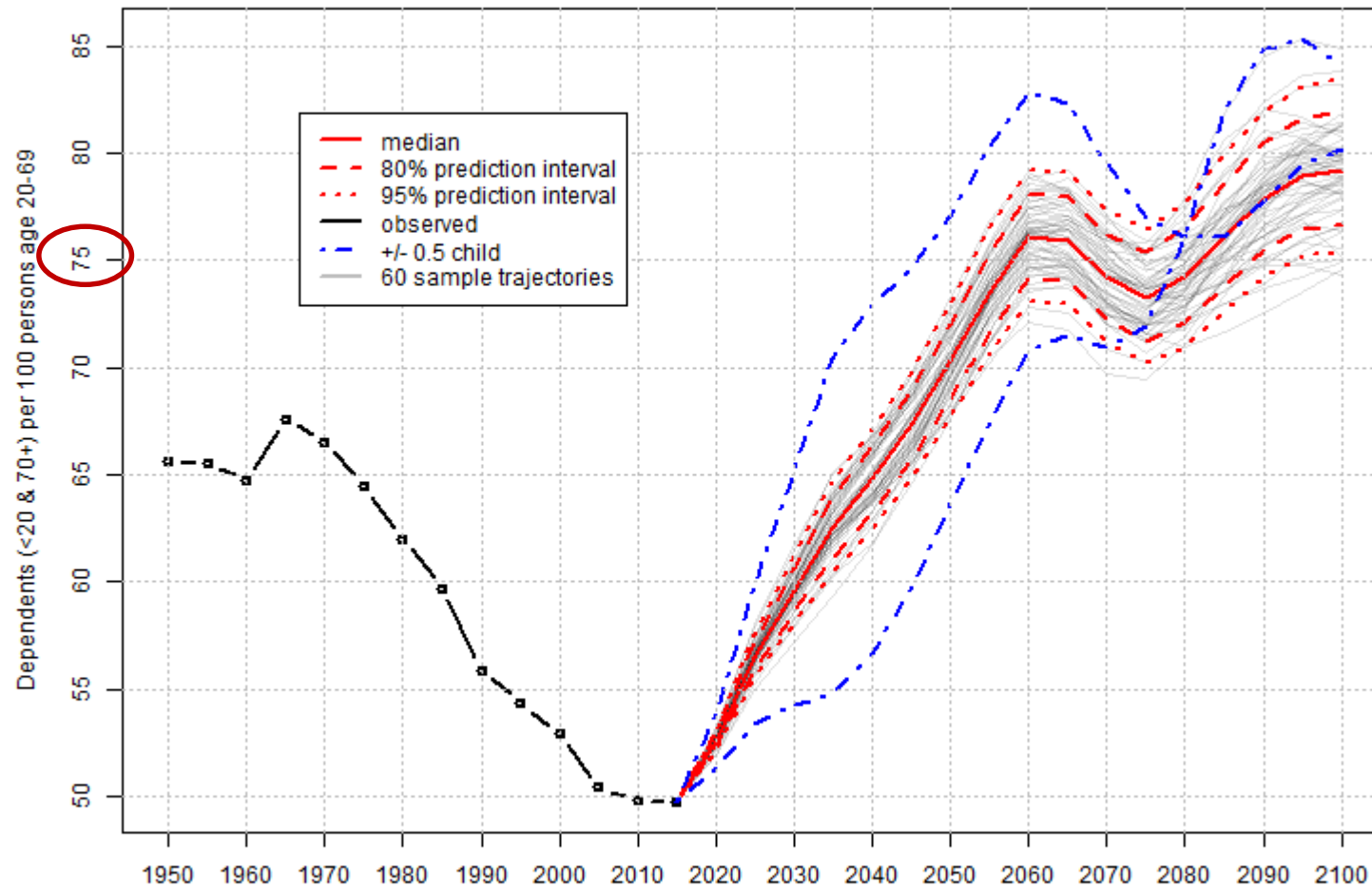


Dependency ratios about to rise

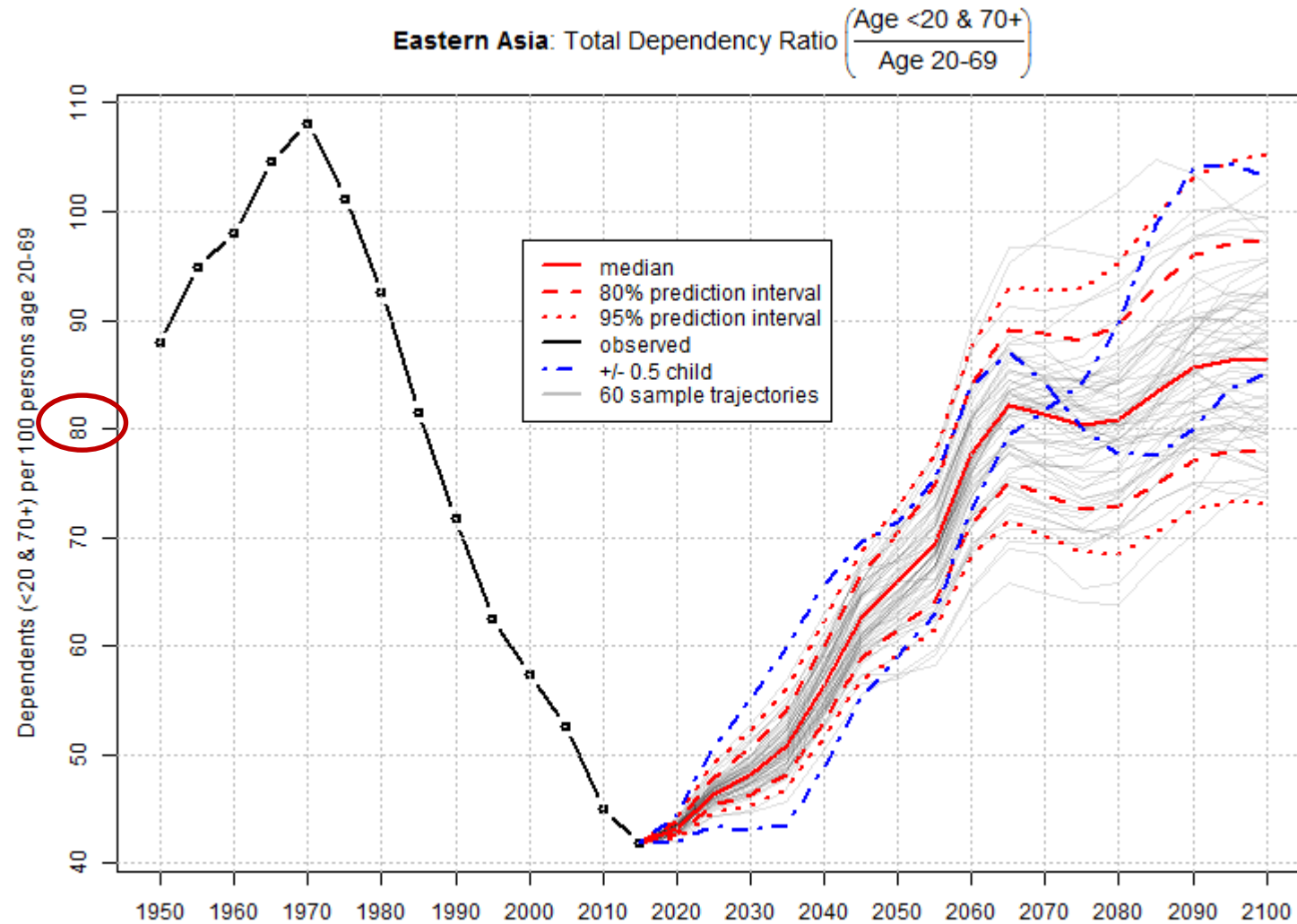
- *Increased longevity widely have been recognised by govts & their policies for decades – (20-69 year old base in graphs are used to partly recognise changing state pension ages and labour market entry ages (common data age bands are for international comparisons, not for accurate national calculations)*
- *Dependency ratios are not insignificant - they reflect actual pension commitments, and partly socially constructed retirement practices etc.*
- *In UK there is no longer a retirement age - state pension ages started at 60 for women and 65 for men, rising to 66 years for both in 2020, then to 67 and later rising more (i.e. reflecting longevity etc.)*
- *Essential to take account of increasing morbidity as people age (on average a 70 year old worker today & one who was 60 year old today, or one 20 years ago, are not simply interchangeable in terms of health, productivity, hours worked etc. and socio-politically constructed retirement and participation rates)*



EUROPE: Total Dependency Ratio $\left(\frac{\text{Age } <20 \text{ \& 70+}}{\text{Age } 20-69} \right)$



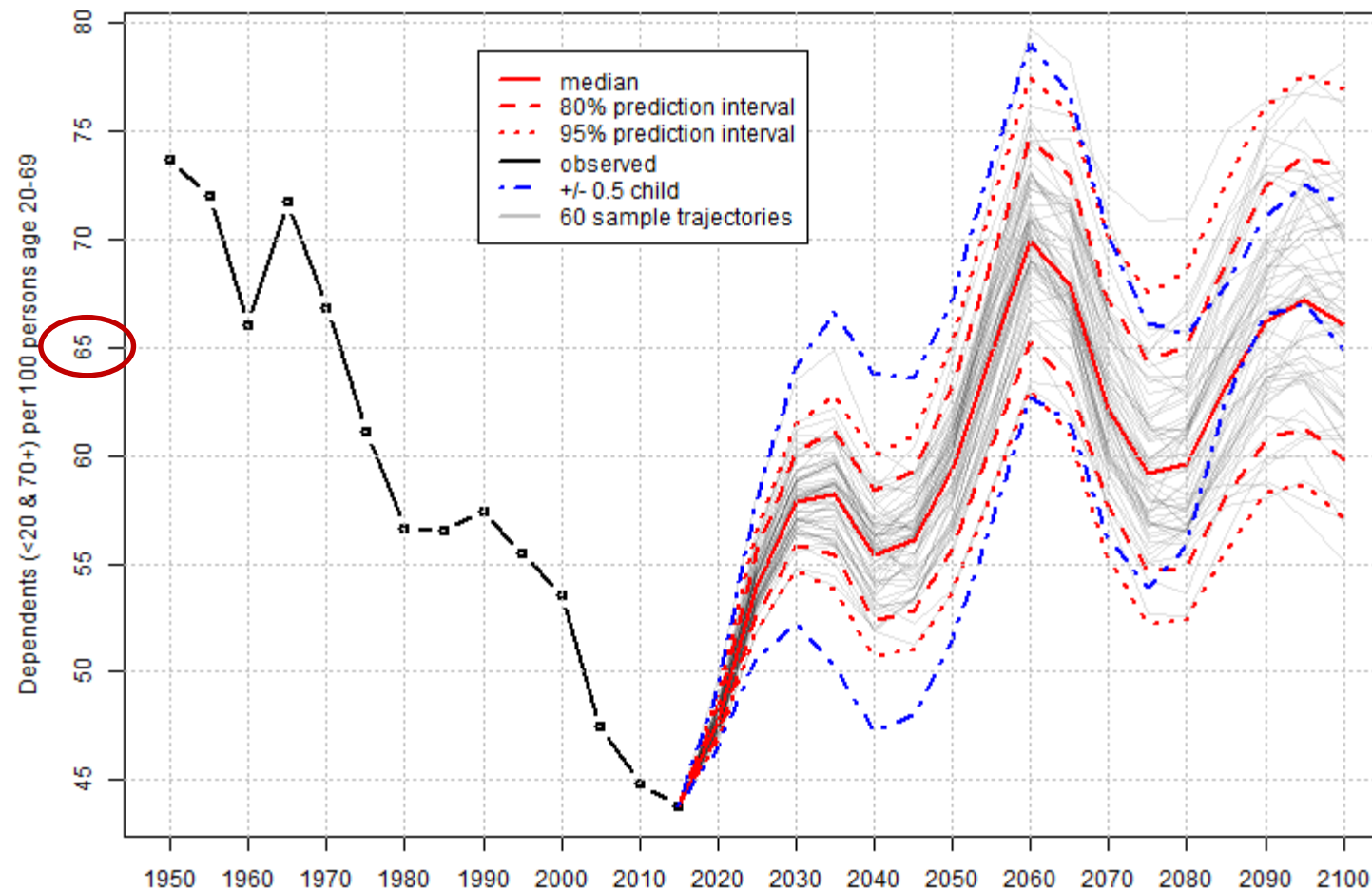
Source: United Nations, Department of Economic and Social Affairs, Population Division (2015).
World Population Prospects: The 2015 Revision. <http://esa.un.org/unpd/wpp/>



Source: United Nations, Department of Economic and Social Affairs, Population Division (2015).
World Population Prospects: The 2015 Revision. <http://esa.un.org/unpd/wpp/>



Russian Federation: Total Dependency Ratio $\left(\frac{\text{Age } <20 \text{ \& 70+}}{\text{Age } 20-69} \right)$



Source: United Nations, Department of Economic and Social Affairs, Population Division (2015).
World Population Prospects: The 2015 Revision. <http://esa.un.org/unpd/wpp/>

What is happening

- **Working aged population** beginning to decline in many economically developed countries
 - Many other countries in Eurasia following in next decades
- **Composition** of the working age population **getting older** – again lag for some countries (so relatively more older workers but also rapid decline in young, entry level workers)
- **Dependency ratios** shooting up in many countries – but ...longevity, age structures, previously high ratios etc.
- But, there is also the issue of activity rates ...



3. Activity rates

Employed, unemployed and inactive

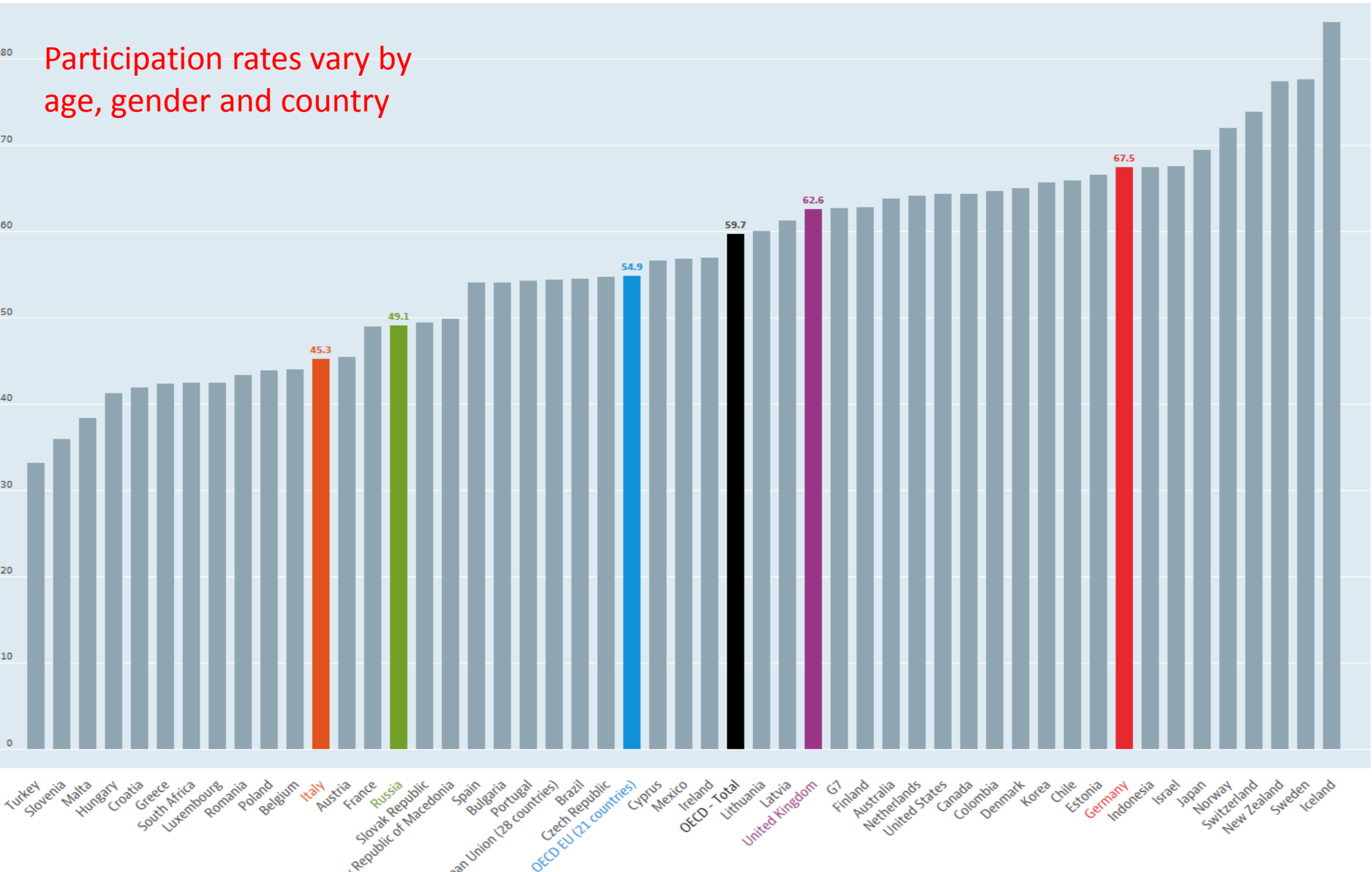
- (Working age) population classified as:
- employed (in a paid job); Employment rates is the ratio of the employed to the working age population.
- unemployed (not employed and available and actively seeking work in last 4 weeks);
- inactive (e.g. long-term sick, full-time students, carers)
- **Total working aged population** = employed + unemployed + inactive

Labour force participation rate – Age 55-64 (OECD)

Labour force participation rate 55-64 year-olds, % in same age group, 2013



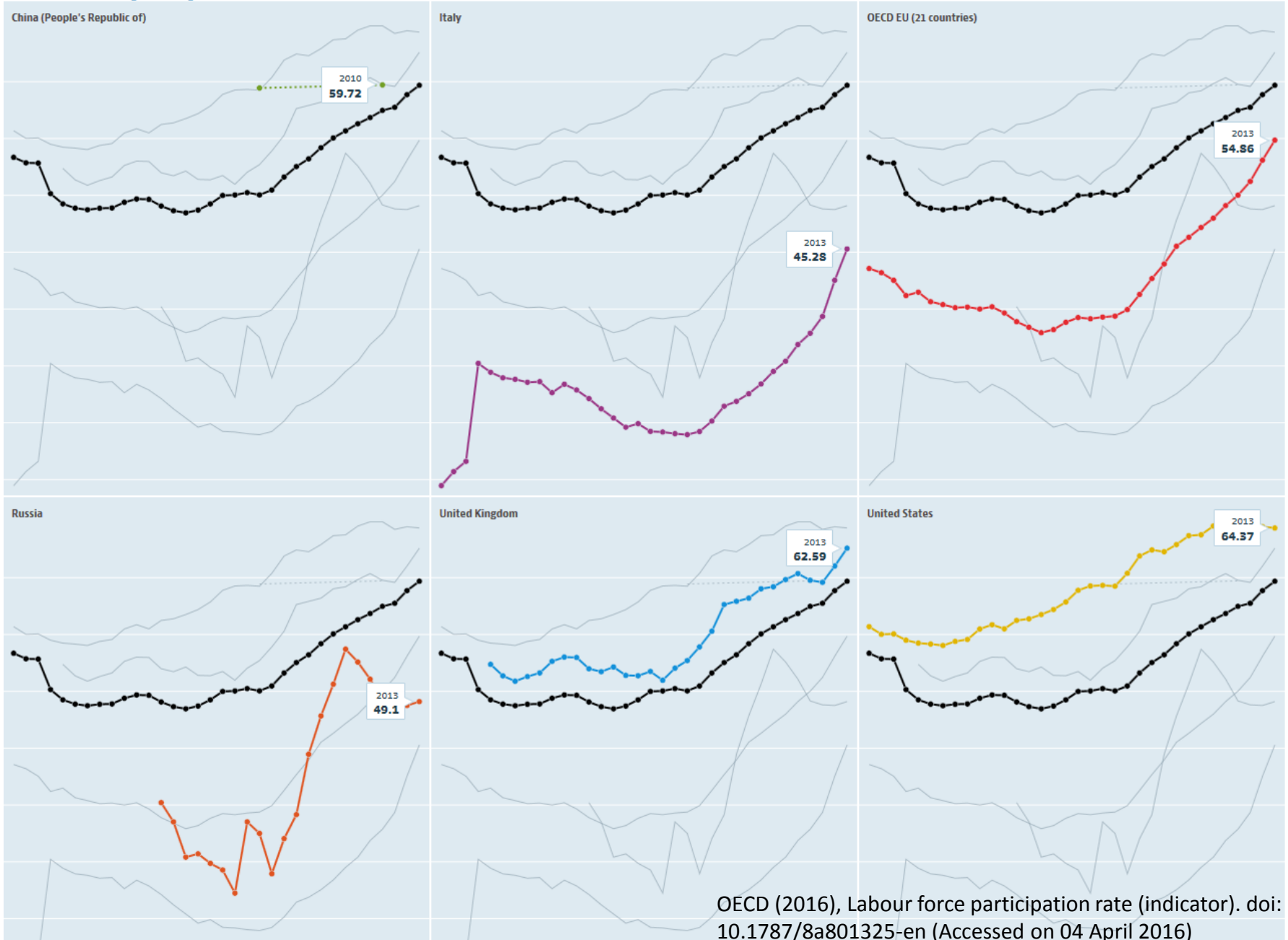
Participation rates vary by age, gender and country



OECD (2016), Labour force participation rate (indicator). doi: 10.1787/8a801325-en (Accessed on 04 April 2016)

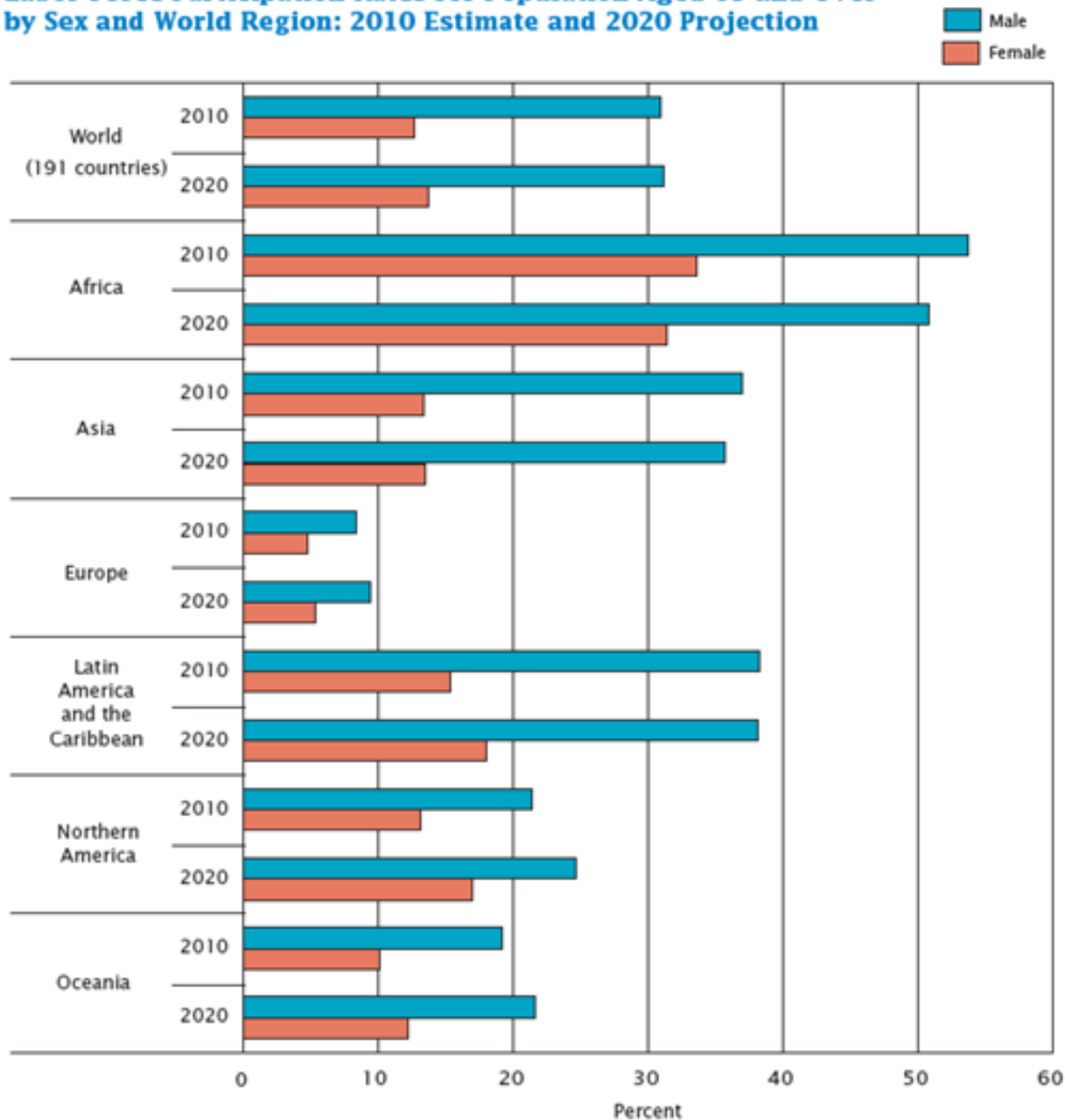
Labour force participation rate – Age 55-64 1980-2013 (OECD comparator)

Labour force participation rate 55-64 year-olds, % in same age group, 1980 – 2013



OECD (2016), Labour force participation rate (indicator). doi: 10.1787/8a801325-en (Accessed on 04 April 2016)

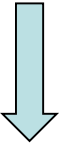
Labor Force Participation Rates for Population Aged 65 and Over by Sex and World Region: 2010 Estimate and 2020 Projection



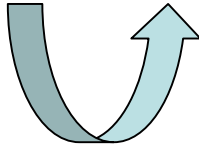
Source: International Labour Organization, 2011; LABORSTA.

Activity Rates

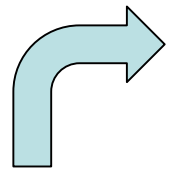
- > 65 years rates decline markedly 1960-2010 and are extremely low in most countries (especially EU)



- 50-64 year olds the picture is more varied, partly reflecting varying normal retirement ages etc. Dropped then rising



- Activity rate for 15-49 year olds increasing over the decades in each country, partly as a result of greater levels of female working in the formal labour market. Mostly limited growth potential



- Participation rates vary by age and gender
- In economically developed countries older people less likely to be in labour force (but changing somewhat)
- Differences in gender participation rates narrowing
- Share of older workers who are part-time varies by country -US Census '16



4. Some implications

Demographic dividend(s)



- Much of Europe has now passed the ‘demographic dividend’ stage (relatively few young and few older people – large working age population)
- Much of Asia still in this phase
- But most countries in the region will grow old before getting rich (implies World Bank ‘Live Long and Prosper: Aging in East Asia and Pacific’, 2015)
- Will there be a second demographic dividend (e.g. higher savings & assets among old, consumption funded by savings [not Pay-as-you-go pensions] and greater capital per worker)? (Bloom and Canning, 2008; Bloom et al., 2010)

Some workforce implications for labour markets



- *Workforce mix* (not just age)
- Getting younger workers
- Changing age mix of workforce (inter-generational friction?)
- Increasing the productivity of older workers (e.g. training)
- Increasing the productivity of all workers!

- *Pension and other financial costs* (e.g. health insurance)
- Public sector costs (health, pensions etc.) – tax implications?

- *Market changes* and opportunities
- Changing customer base
- *Etc.*

Some policy responses

- Increasing the *size of the labour force* through increasing:
 - working life (raising pension age, tapered retirement, increasing lifetime av. hours);
 - birth rates (limited effects – Singapore, Sweden ... as underlying factors wide (urbanization, income, investment in children, emancipation etc.)
 - migration (especially international migration + skilled; but other countries increasingly competing for these workers)
 - all participation (employment) rates (FT plus PT - not just on low hours per week)
 - participation of women, and crucially supporting them with career progression (especially after childbirth)
 - participation of groups under-represented in the labour force
- Increasing *productivity* (skills and capital investment) at all ages

Some policy responses cont.

- Increasing *demand for older workers* (employment attitudes & policies for older workers; attitude to training; Age Discrimination legislation)
- Other policies
 - *development aid* more targeted towards generating skilled workers (technical, language etc. skills) from areas of population growth (given large demand for skilled workers there is a danger of a drain of skilled workers from developing countries; so need support for these countries might be supported to expand skilled workers to ensure sufficient skilled people remain, as well as to support those who wish to migrate for higher paid job opportunities)
 - *managing decline/transition to lower population*, e.g. health, welfare, pensions and income standards for future retirees (and others). Is global (or regional) - population decline such a bad thing if it is well and managed?



Productivity

Bottom line – in employment we need to improve productivity of older (and all) workers, which may mean:

- Redesigning workplaces and work processes
- Investment in, and the role of, new technologies important
- Changing attitudes to, and practices in, skills development (skills development/ training reduces with lower level jobs, yet many older workers may move into lower level jobs); Lifelong learning
- Bringing mothers back into the workforce in a way that helps them back up the skills ladder to higher skilled jobs and careers development
- Changing lifetime hours worked

5. Conclusions

- Ageing of labour force affecting most of Eurasia, but with different time lags
- ‘Demographic dividend’ virtually over for EU, but will we have a double dividend (if latter then less pressure for migration and on pensions)?
- Need to increase participation rates of older workers
- Competition for (skilled) migrants may rise
- Unexpected consequences? Opportunities and challenges ahead



Thank you for your attention



Some references

- Bloom, D.E., Canning, D. and Fink, G. (2010) The greying of the global population and its macroeconomic consequences, *21st Society - Journal of the Academy of Social Sciences* (now *Contemporary Social Science*), 5, 3, 233-242
- Bloom, D.E., Canning, D. (2008) Global demographic change: Dimensions and economic significance, *Population and Development Review*, 34, 17-51
- He, W., Goodkind, D. and Kowal, P. (2016) *An Aging World: 2015*. US Census Bureau, Washington DC
- Lisenkova, K., McQuaid, R.W., and R.E. Wright (2010) 'Demographic Change and Labour Markets', *21st Society - Journal of the Academy of Social Sciences* (now *Contemporary Social Science*), 5, 3, 243-259
- McQuaid, R.W. (2007) 'The Aging of the Labor Force and Globalization', in: Cooper, R.J., Donaghy, K.P., and G.J.D. Hewings (eds), *Globalization and Regional Economic Modelling* (Springer-Verlag, Heidelberg) pp. 69-85. (ISBN 9783540724438)