



# Future prospects for Spain's population: The role of INE's population projections

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# What does INE tell about the future of Spain population?

España perderá cinco millones de habitantes en los próximos 40 años

Los mayores de 64 años supondrán el 37% de la población total, según prevé el INE

Spain will lose 5 millions of inhabitants in the next 40 years. Older than 64 will be

## Vamos a menos

España se enfrenta a una tormenta demográfica perfecta: emigración, envejecimiento y baja natalidad ● A partir de 2018 se registrarán más muertes que nacimientos

We go down

### España pierde población por primera vez en 40 años

graphic and low will be more

La evolución de la población hará cada vez más insostenible la financiación del Estado de Bienestar

November 2012

### España perderá población y cederá más de un millón

Spain loses population for first time in 40 years

Spain will lose population that decrease more than 1 million

The evolution of population will become the funding of the welfare system unsustainable

Cinco Días, 20th November

Expansion, 20th November 2012

## What is a population projection?

- ✓ A population projection is **NOT** a forecast.
- ✓ A population projection is an statistical simulation of the future population, based on several hypothesis about the future demographic evolution.
- ✓ **Purpose of INE's population projection for Spain:** showing where the present population structure and the recent demographic trends would lead us in the coming future.

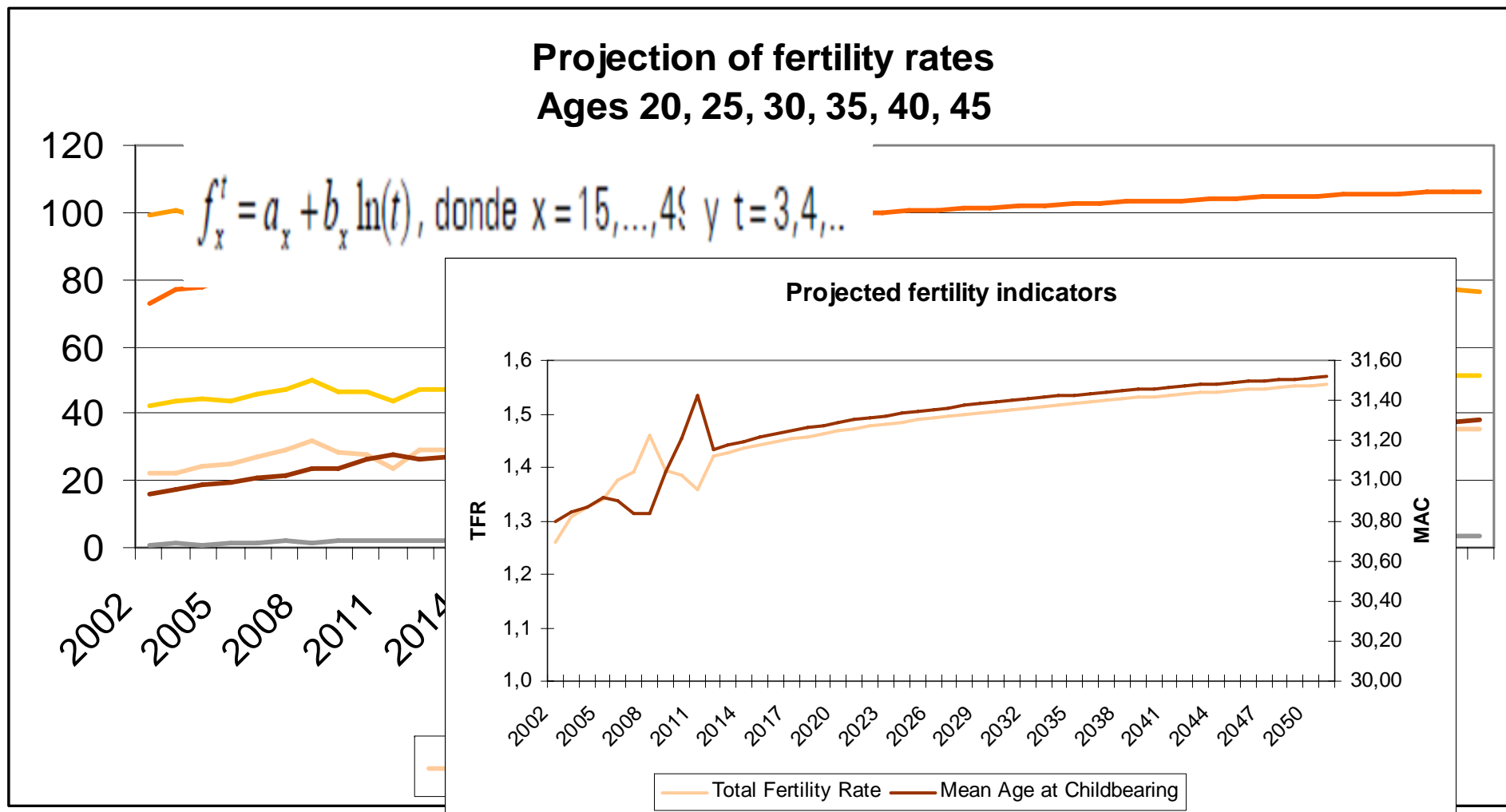


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## So, INE's population projection for Spain are...

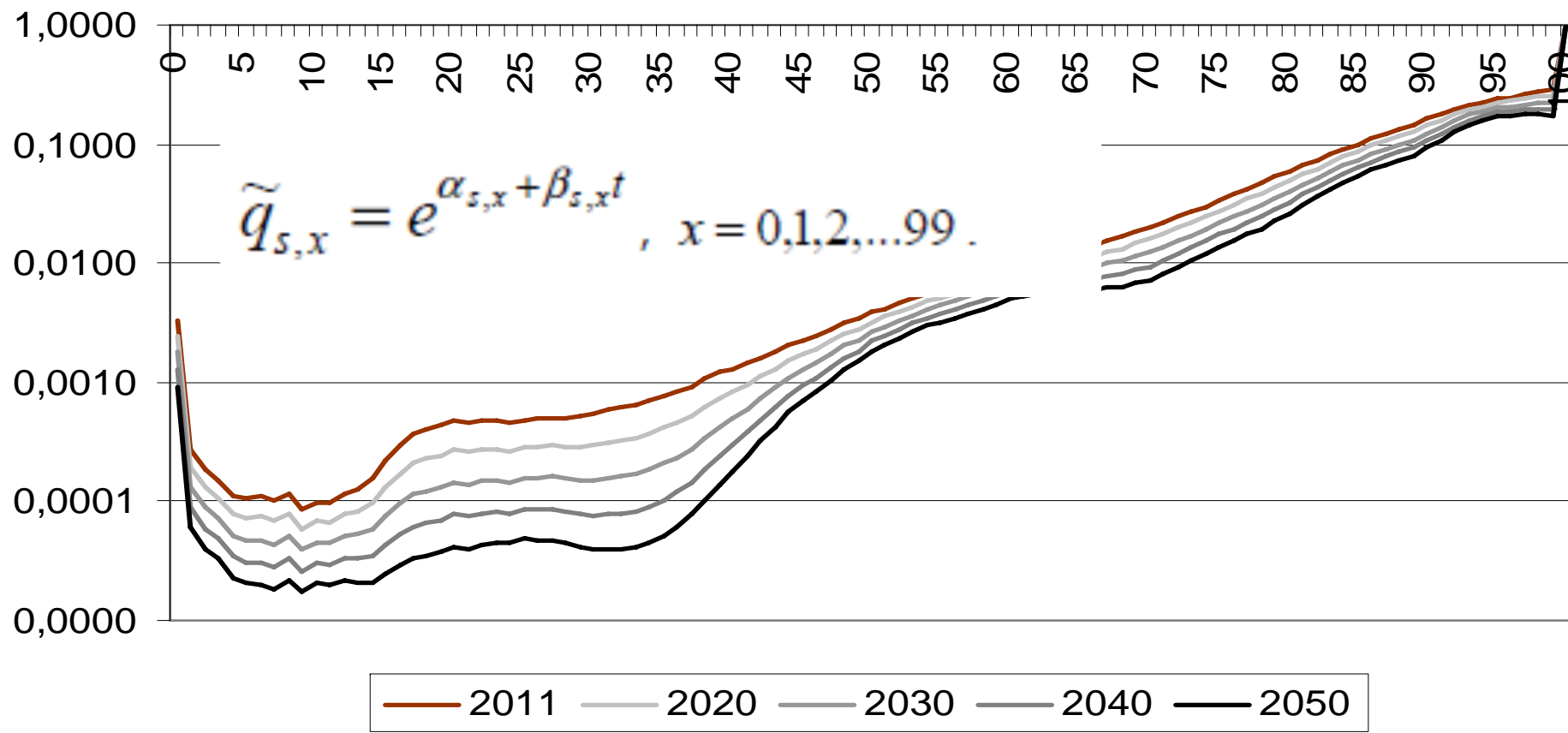
- ✓ **Objective:** simulation of the future consequences of the current population pyramid and demographic behaviours.
- ✓ **Useful:** warning of possible future scenarios and risks.
- ✓ **Relevant:** guaranteed by a continuous updating.

# Last ten years trends in *fertility rates* by age are extrapolated to the future



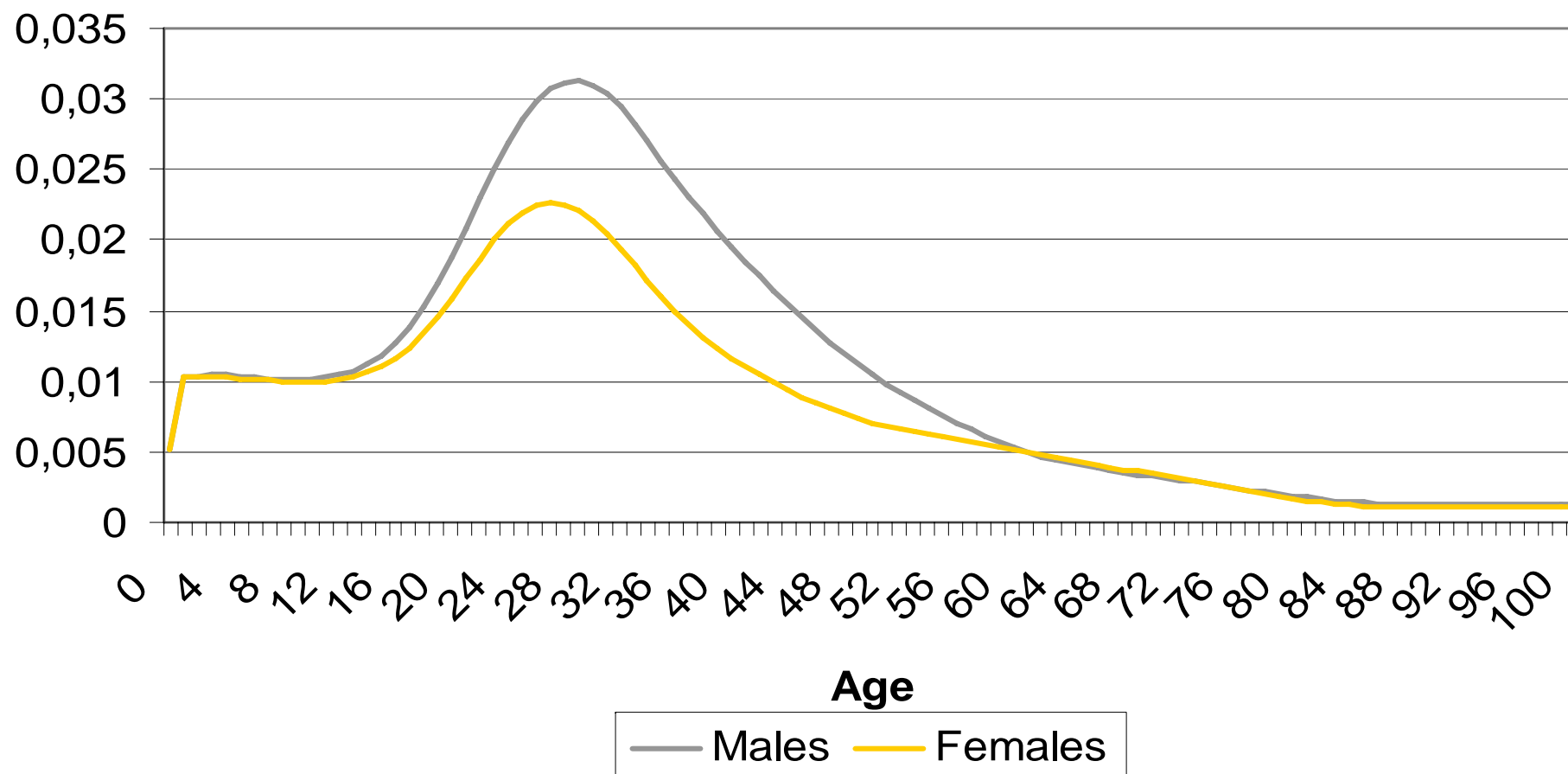
# Last ten years trend in *mortality risks* by sex and age are extrapolated to the future

Projection of mortality risks by age  
Males



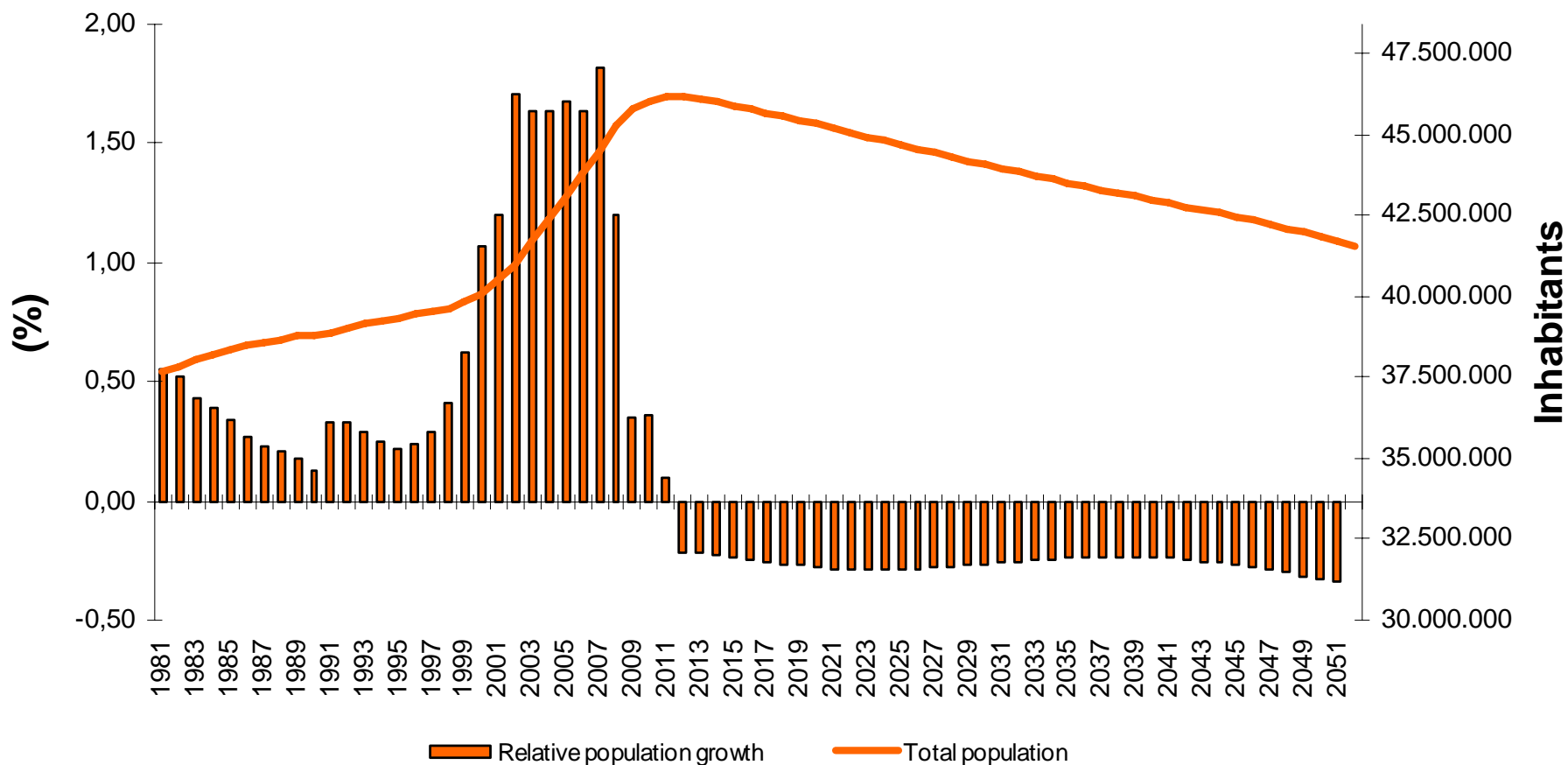
## Current *migration rates* by sex and age are applied to the future population

Projected emigration rates sex and age



# Spain would have started a long period of population decrease

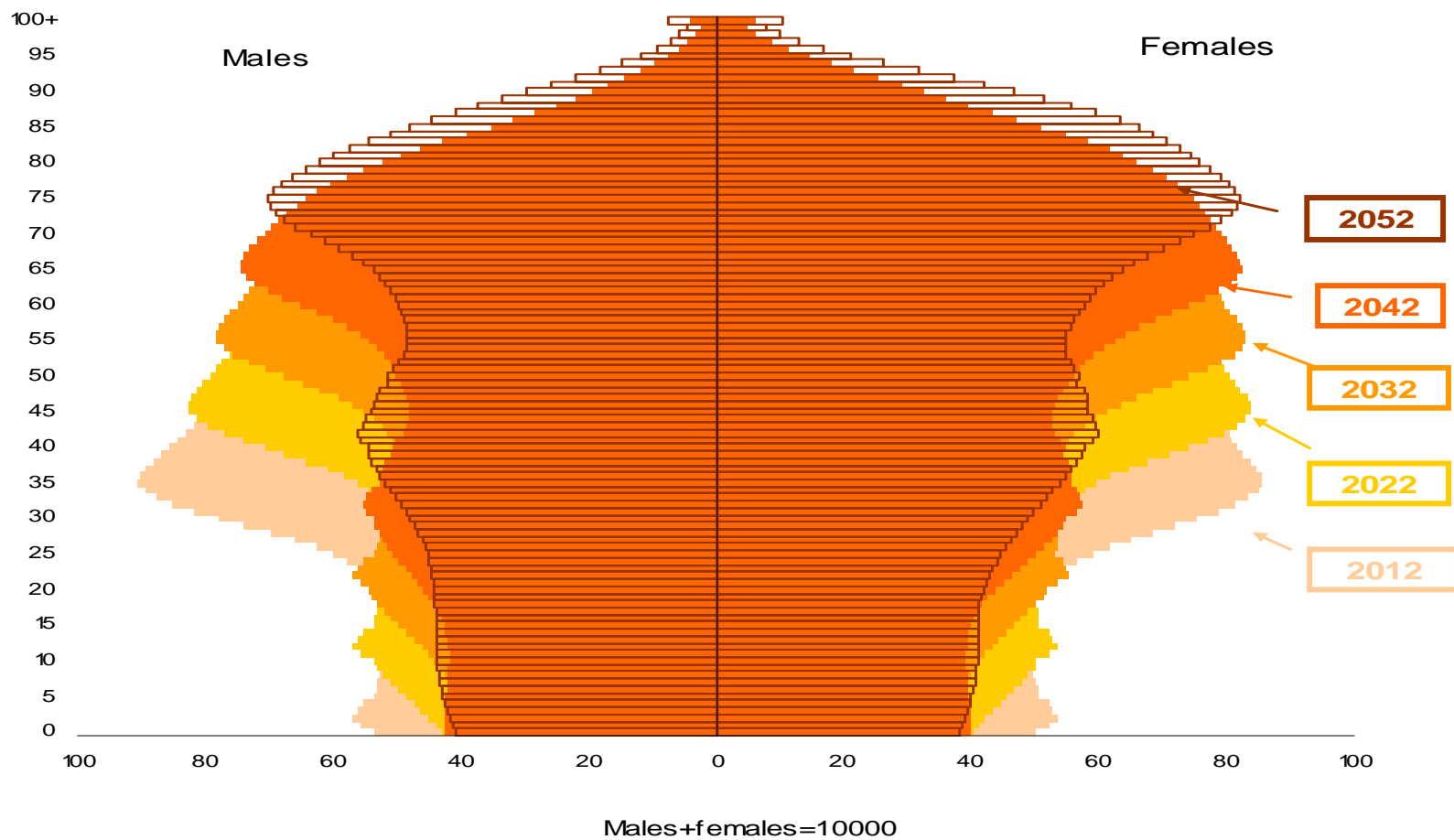
## Evolution of the Spain's population



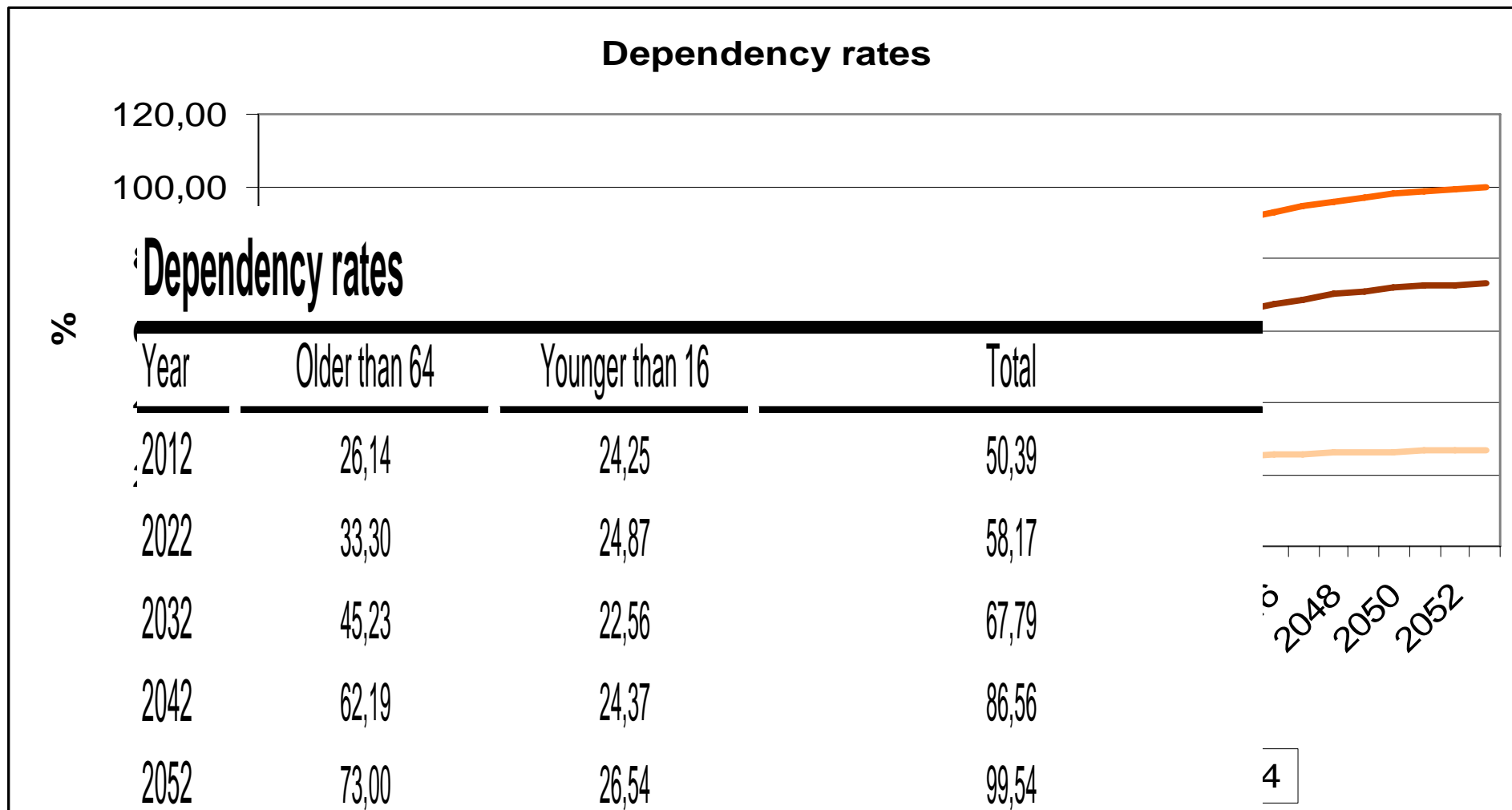


# The ageing process would be joined to the loss of population

Spain's population pyramid



# The *dependency rate* would reach almost 100% in forty years

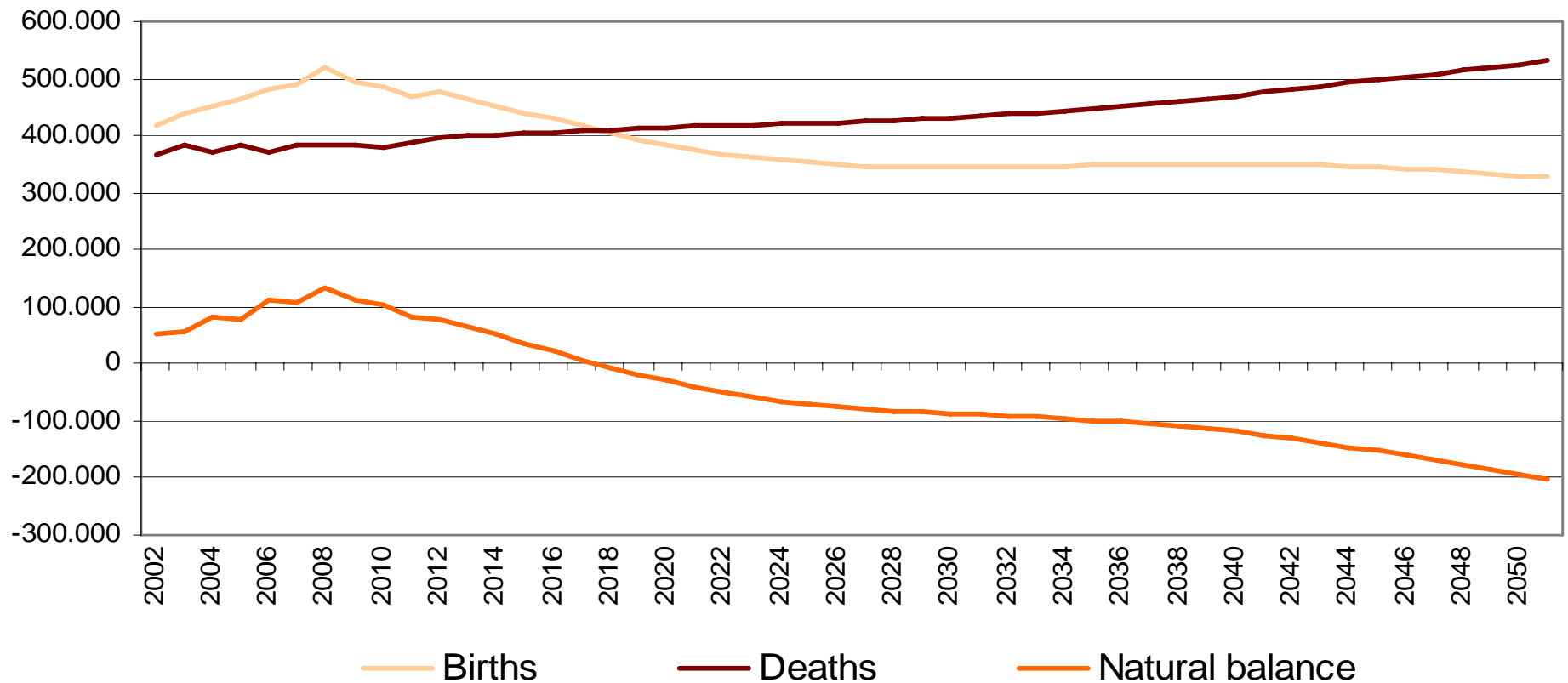


## What is behind these results?

- 1°. A long cycle of descending number of births is expected.
- 2°. Life expectancy will keep a positive trend, beyond random fluctuation.
- 3°. An extension of the present migration intentions.

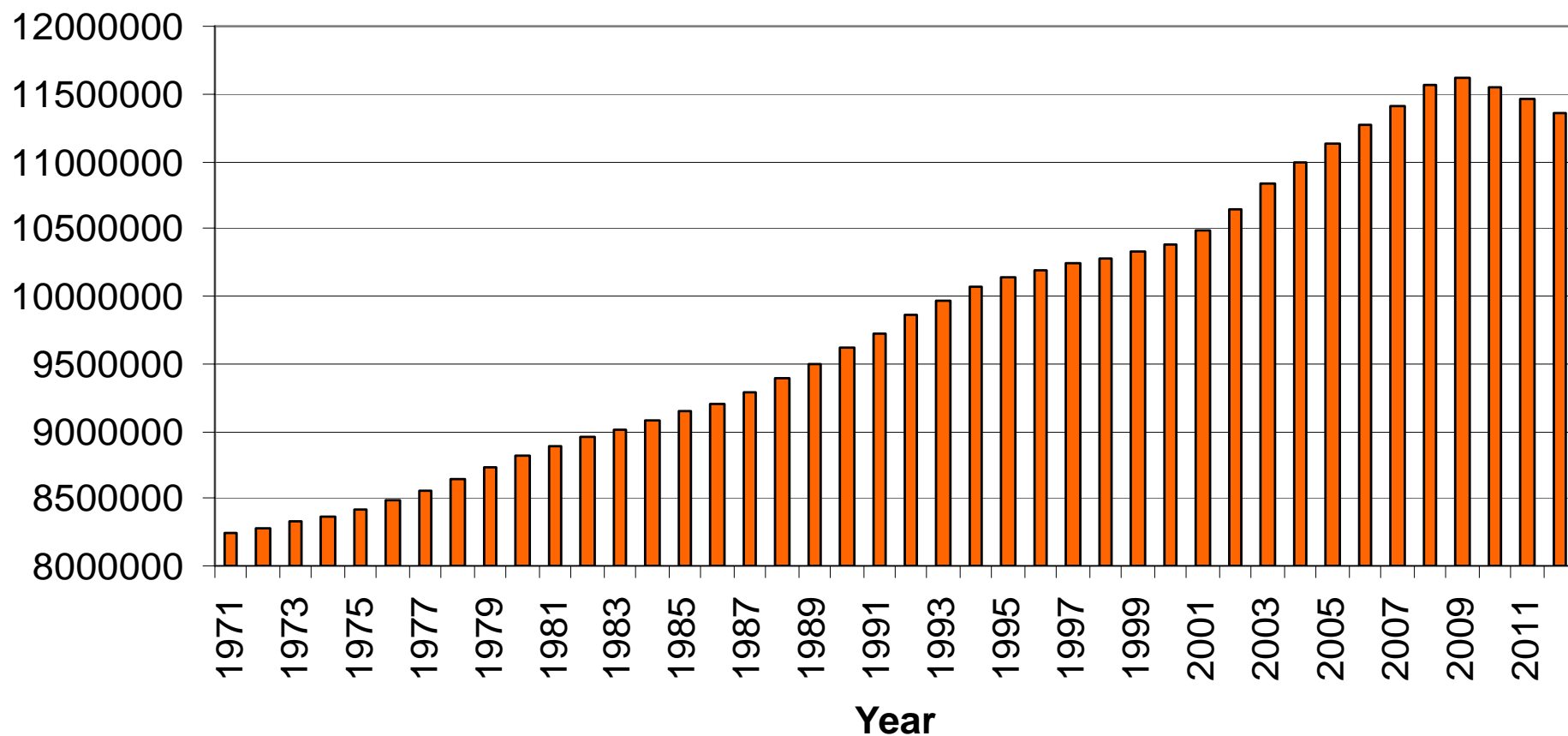
# 1º. 2009 opened a expected long cycle of descending evolution of births

## Natural growth of the Spain population



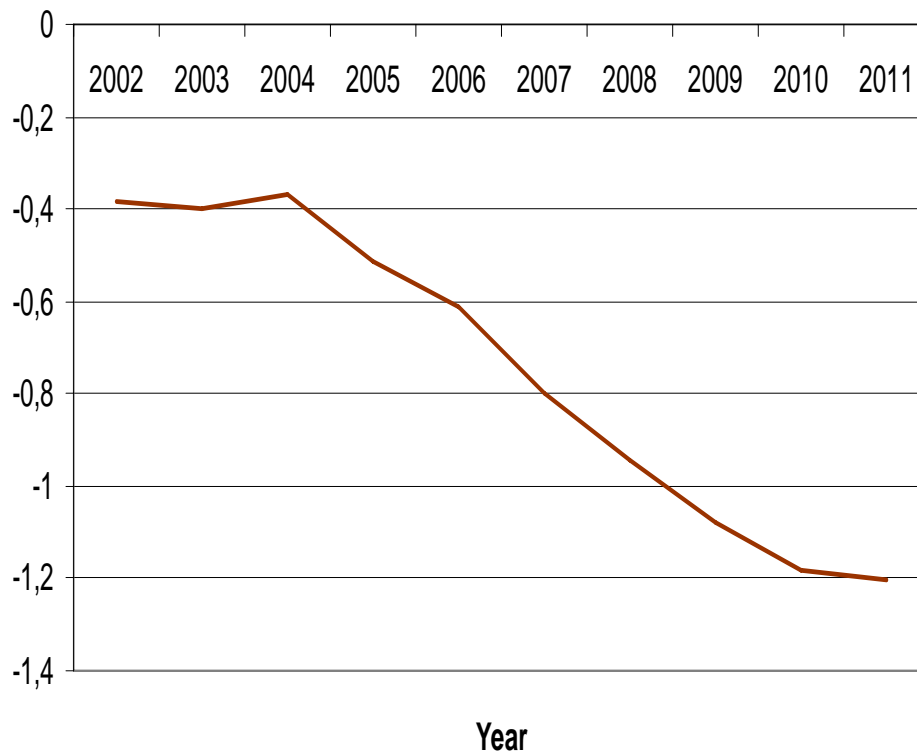
# The decrease of births is the long term consequence of past fertility crisis

Females between 15 and 49 years old

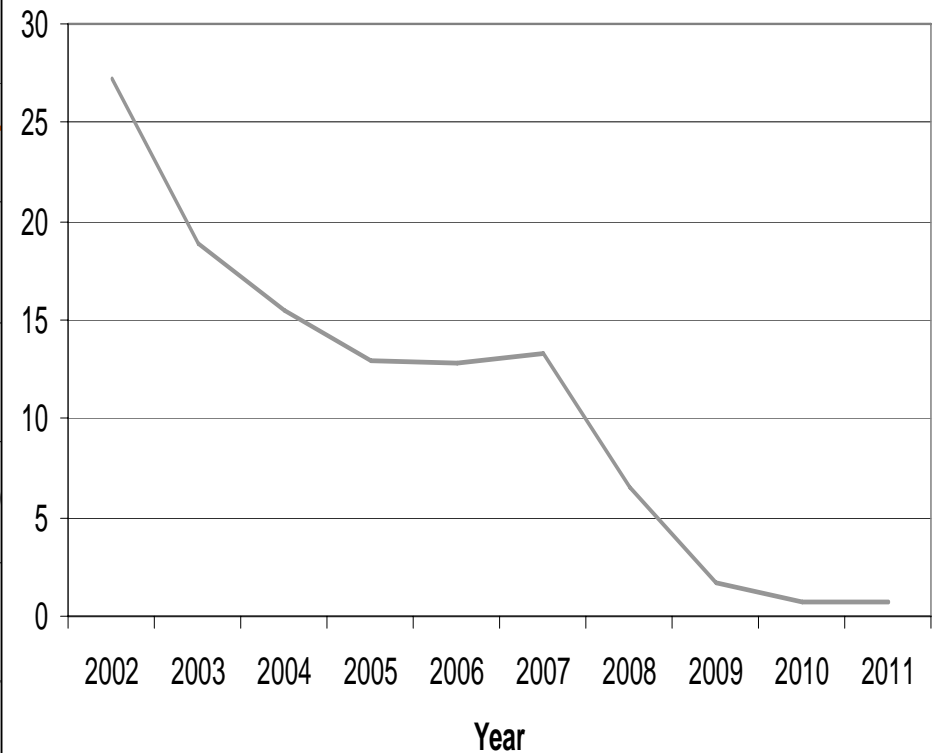


# The decrease of births is the long term consequence of past fertility crisis

Annual variation rate of females between 15 an 49 years old  
Spanish women

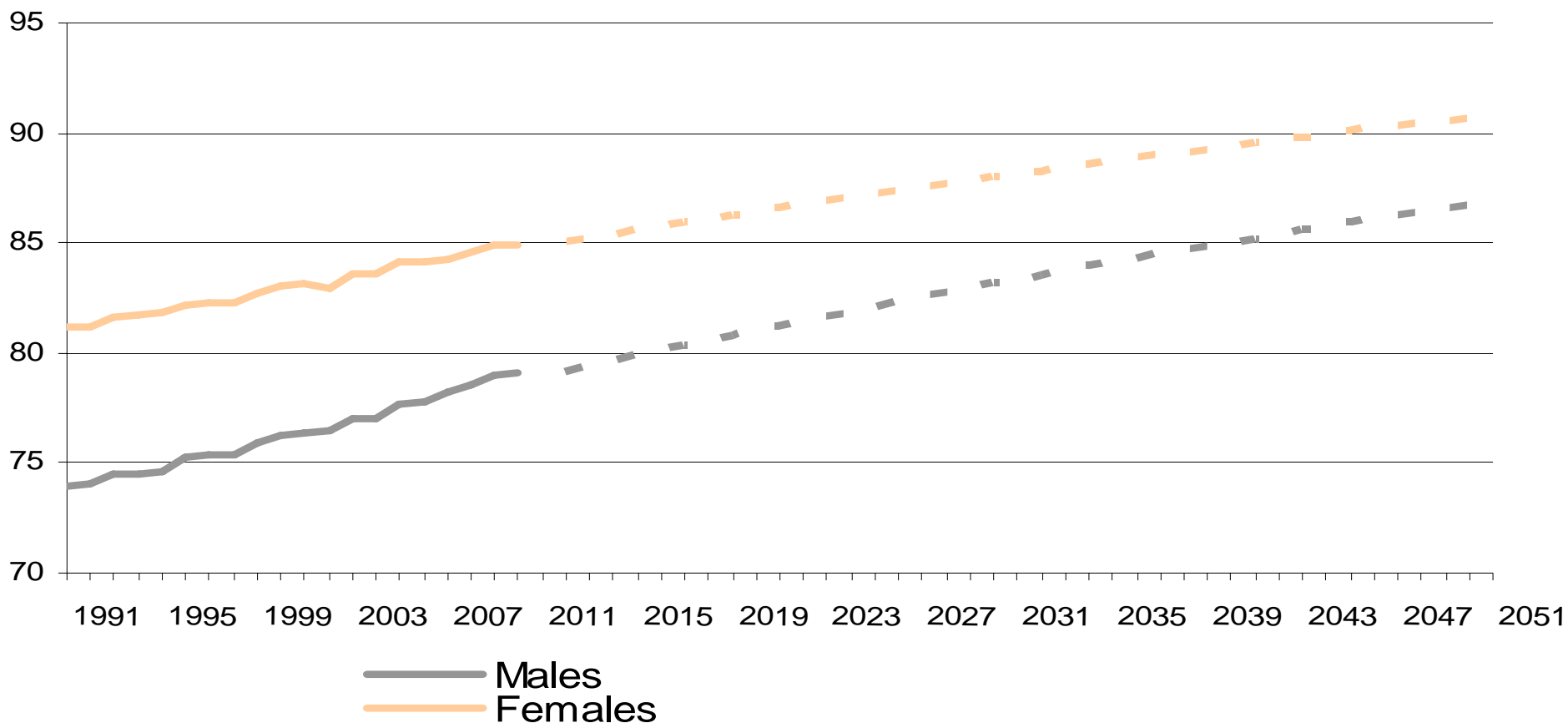


Annual variation rate of females between 15 an 49 years old  
Foreign women

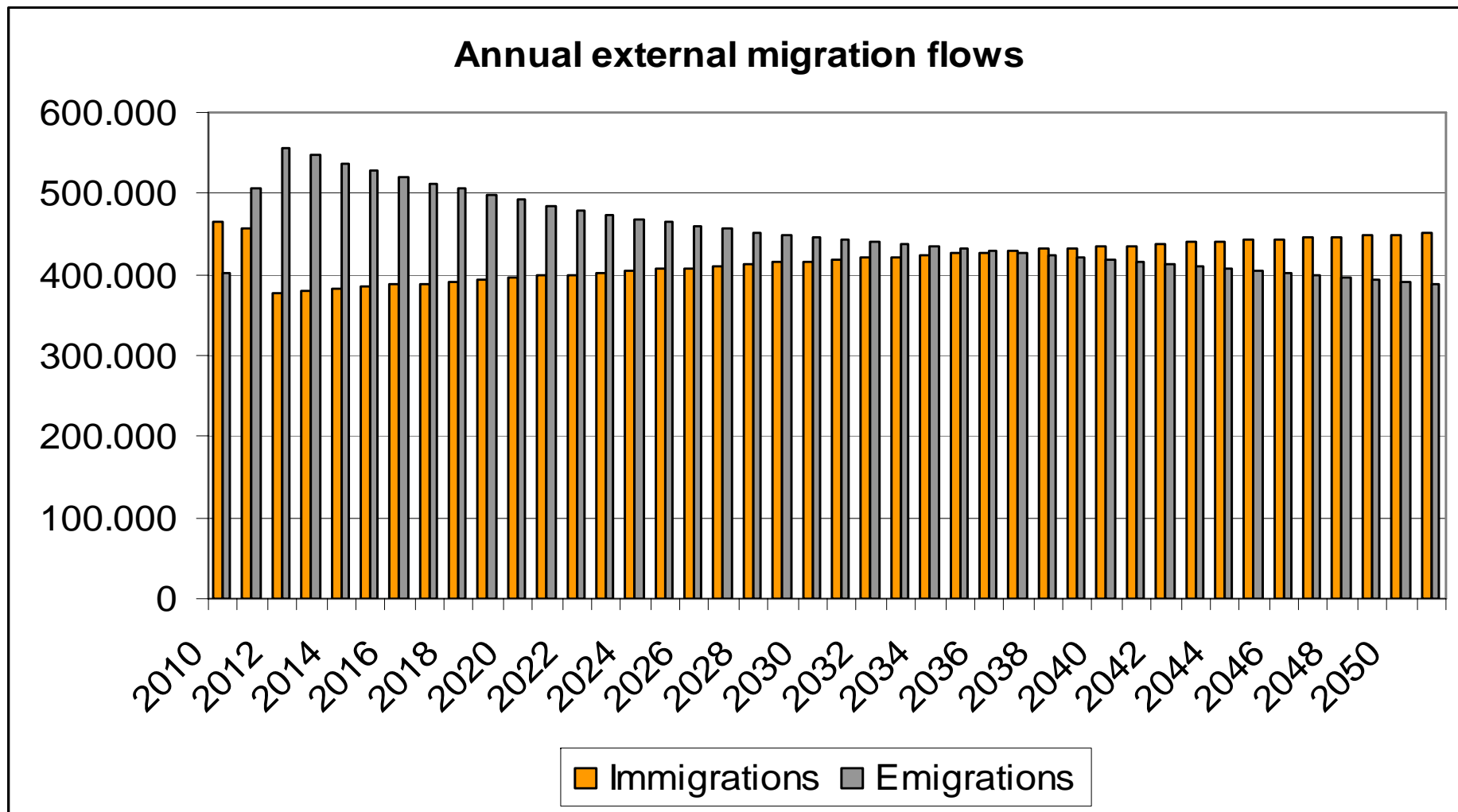


## 2º. Life expectancy increases in 1 year every 4-5 years

### Life expectancy at birth



### 3°. These results are based on the present migrations trends

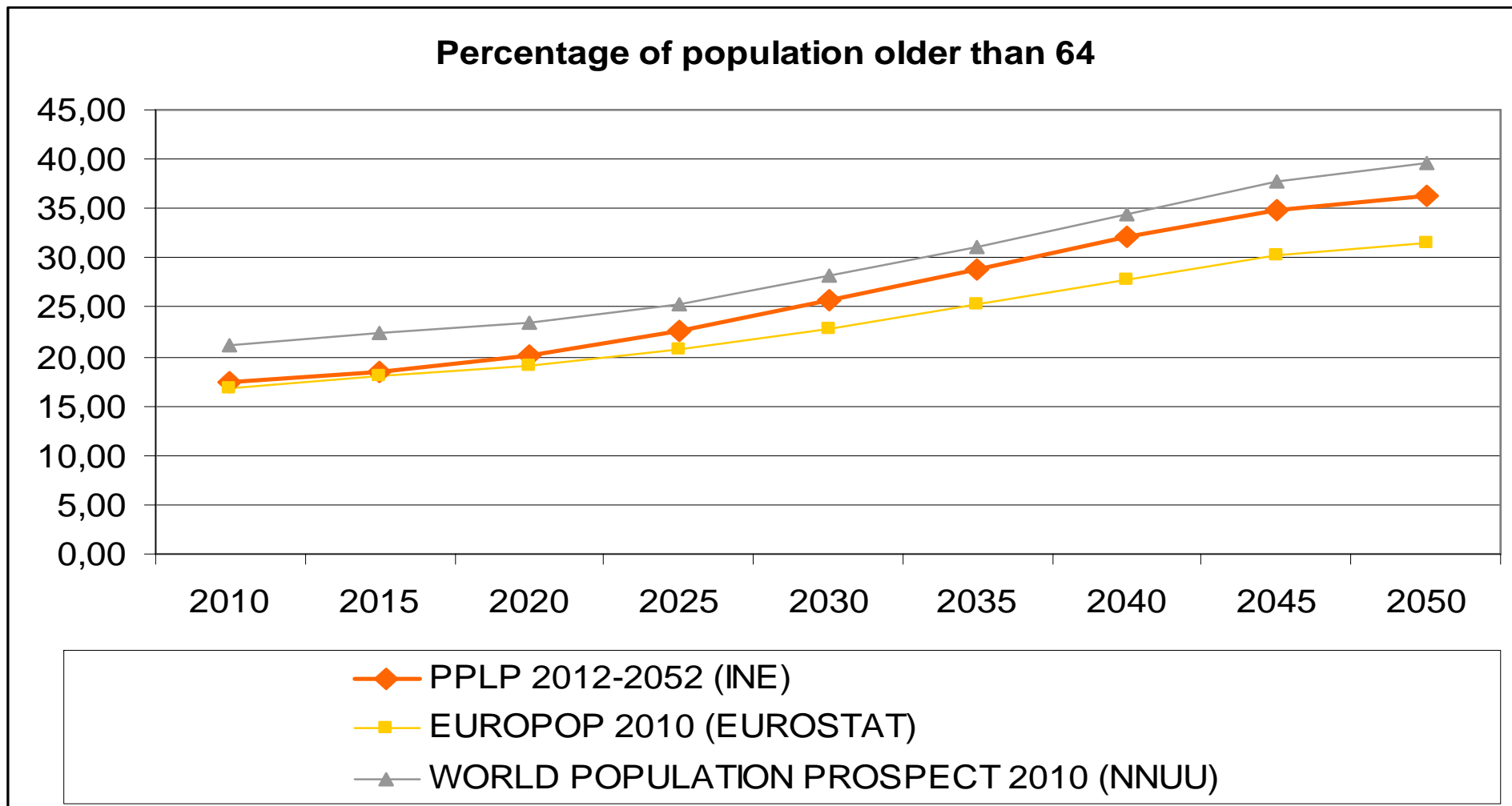




## Two final remarks:

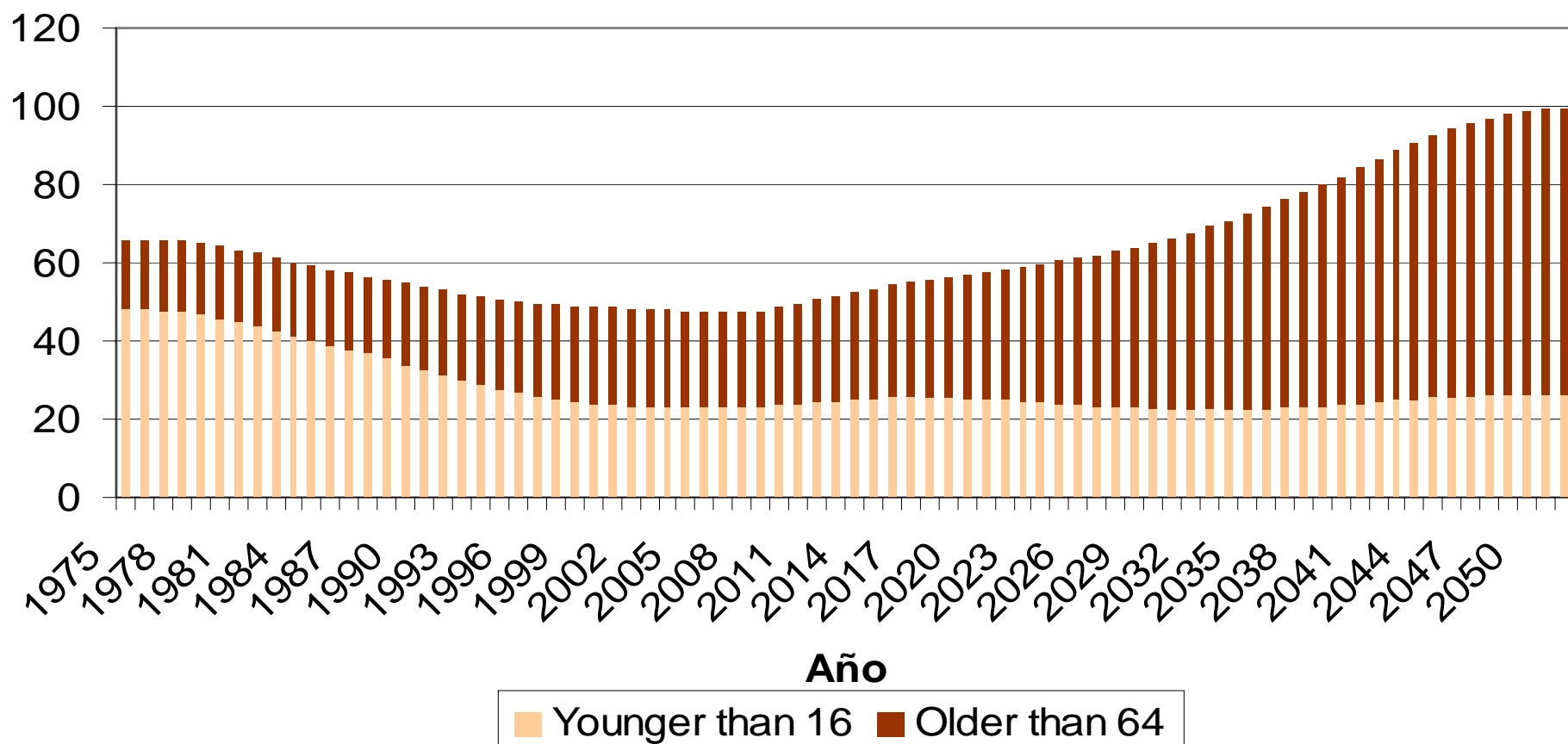
- ✓ Robustness of ageing: the result of a population projection depends on the hypothesis it is based on. However, a future scenario of ageing seems to be very robust for modern societies.
- ✓ Ageing indicators should be analyzed with a wide perspective: past evolution of ageing indicators might give us a new vision of the ageing problem.

# Different projections with quite similar results in terms of ageing for Spain



# Dependency rate would reach 60% in 2025. But... it was higher 40 years ago!

Dependency rates of Spain population



## Conclusions

- ✓ Future demographic prospects for Spain:
  - Descending cycle of births, with origin in past fertility crisis.
  - Population in descending trend for a long period.
  - The ratio non workers/workers might be 1 to 1 in 40 years.
- ✓ The ageing process have strong structural components.
- ✓ High dependency rates are not a newness, but they have a different composition now.
- ✓ ...and finally, **this is only one of the edge of a multi-face issue;**



**Thanks a lot for your attention**

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