

Berlin, March 6 2013

The recent demographic change and the future of Portugal – a perspective from 1960 - 2030.

Lídia Patrícia Tomé

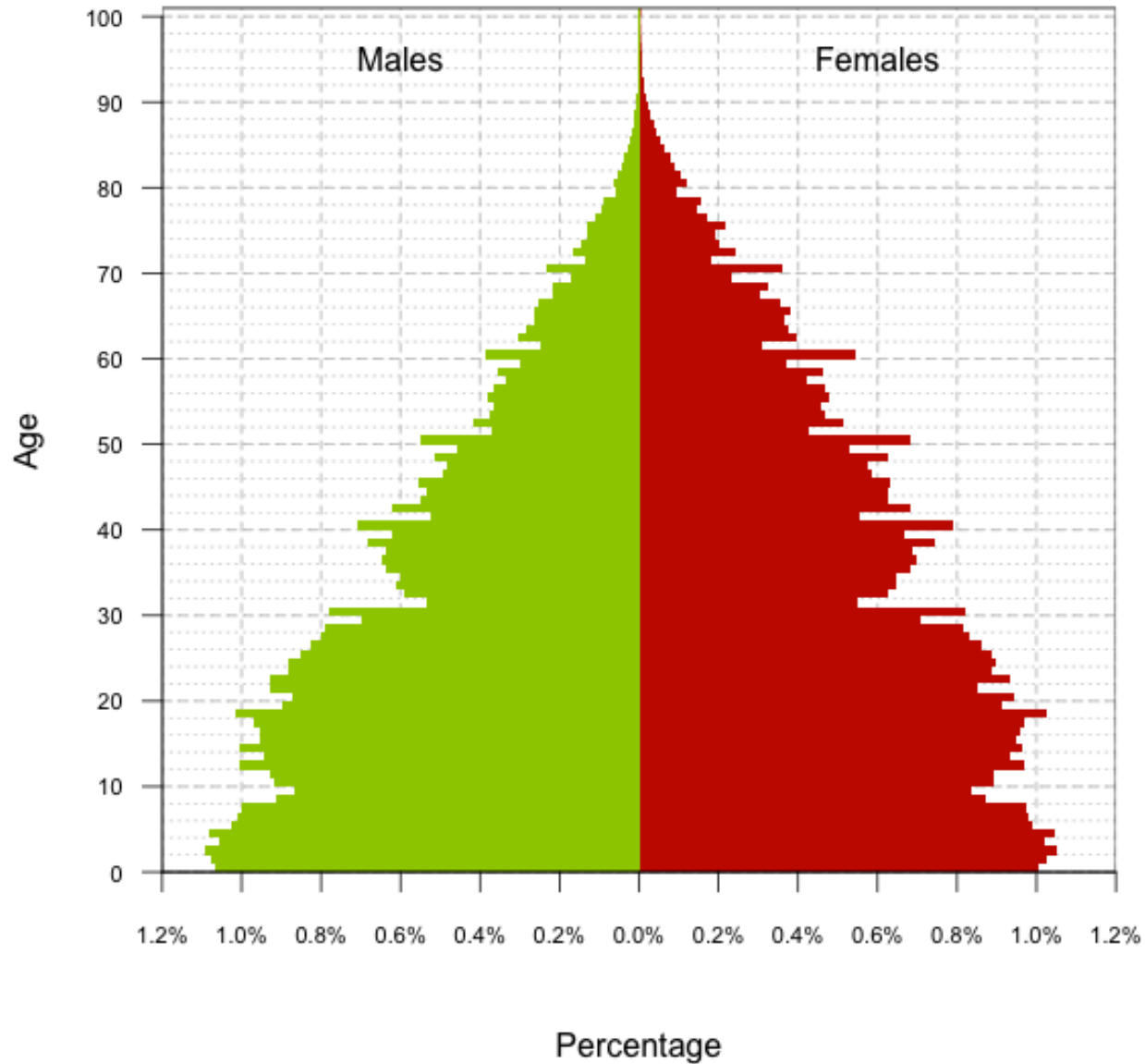
Filipe Ribeiro



CIDEHUS



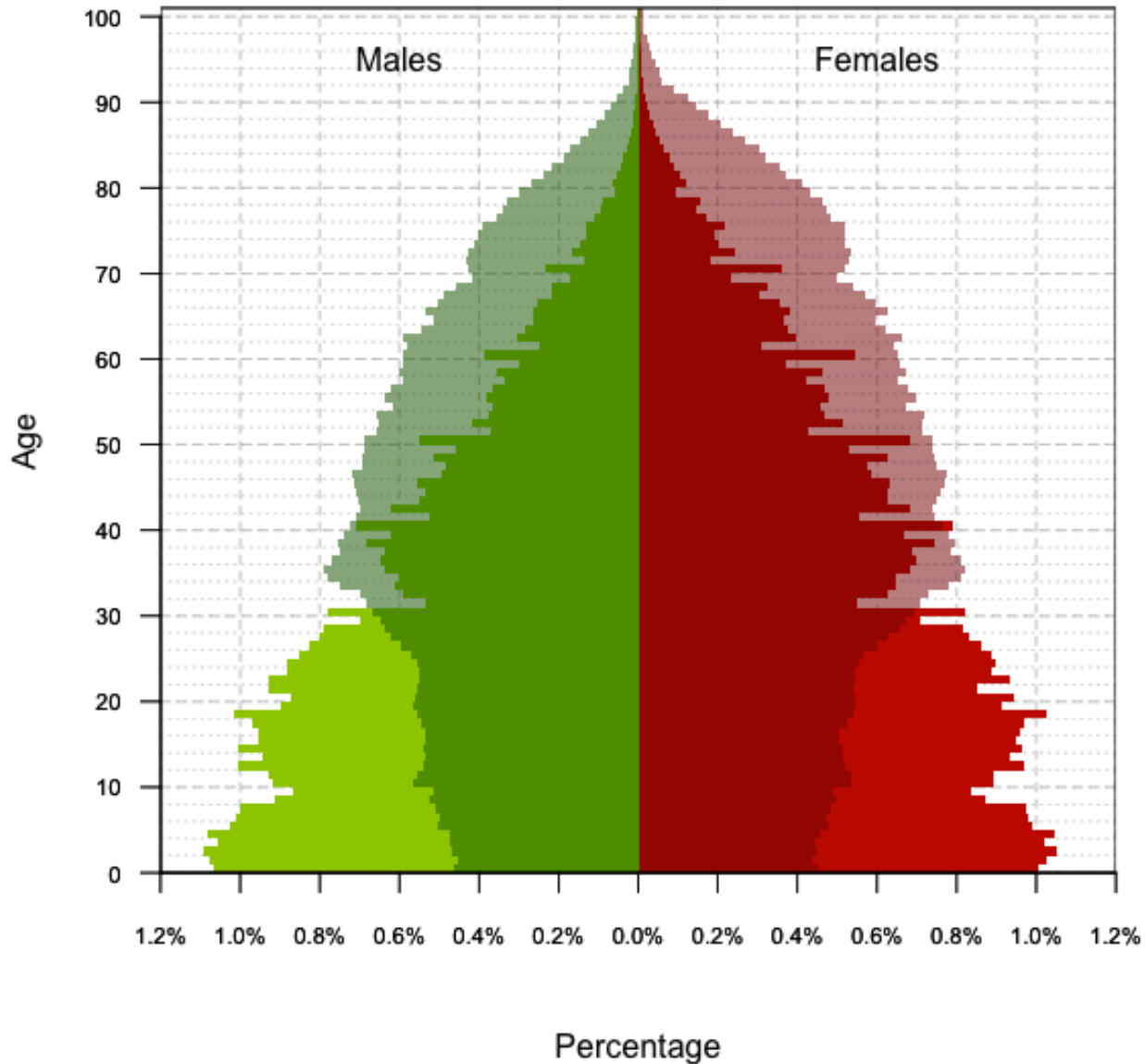
Portuguese Population Structure 1960 (8.4 millions)



Portuguese Population Structure 2011 (10.6 millions)



Portuguese Population Structure 1960 (8.4 milions) & 2011 (10.6 milions)



Some facts about Portugal

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 - In the 50's 46% of the Portuguese population aged 15 years and over were unschooled.
 - And only 20% completed primary education.
- Strong traditional family model (promoted by the church).
- Late economic expansion.

Demographic facts

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Migration

A **country of emigrants** until the mid 70's.

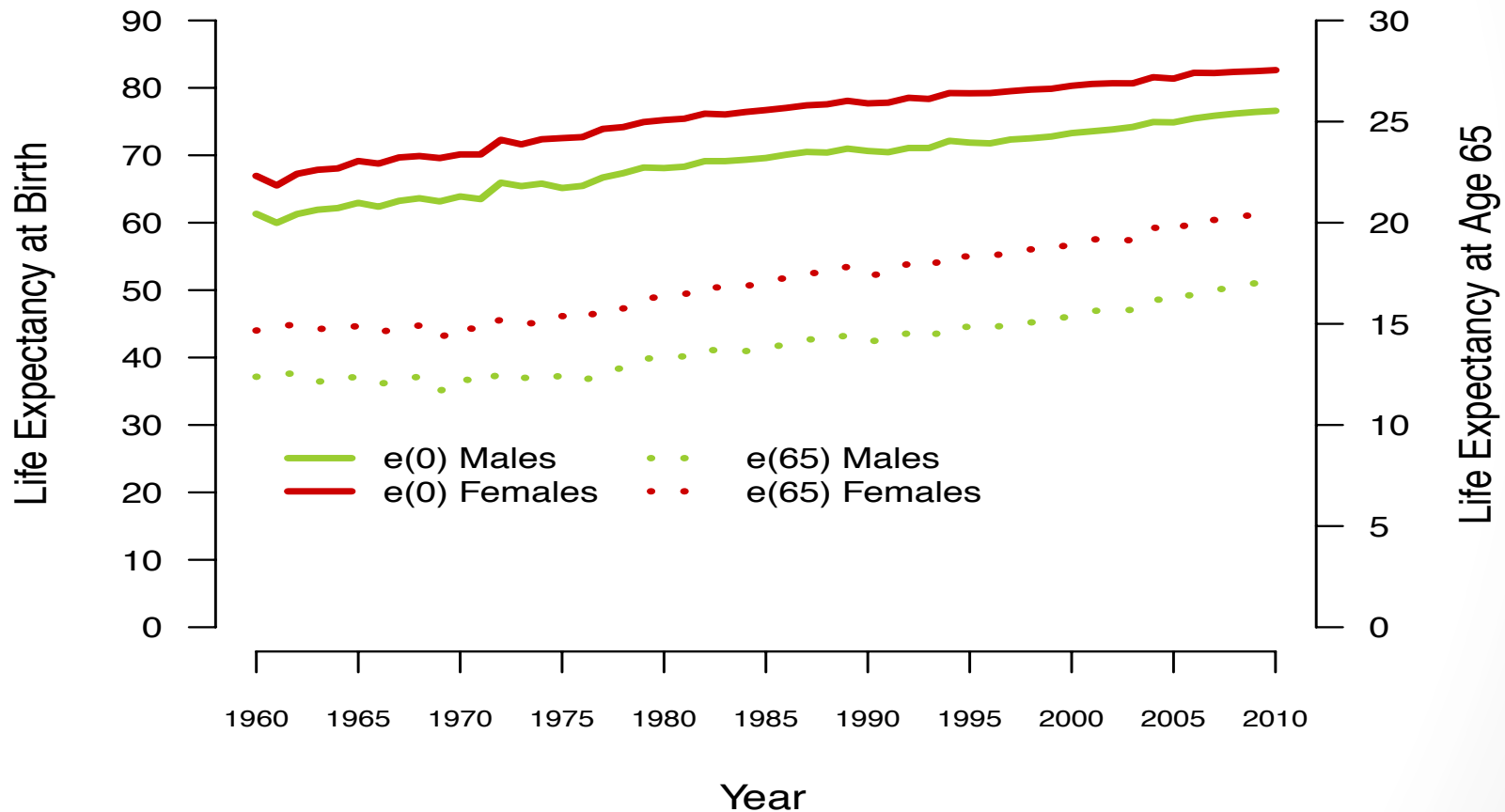
Immigrants represent \pm 5% of the total **population** between **late 80's and 2007**.

2008 is the turning point with a number of **emigrants higher than immigrants**.

Mortality

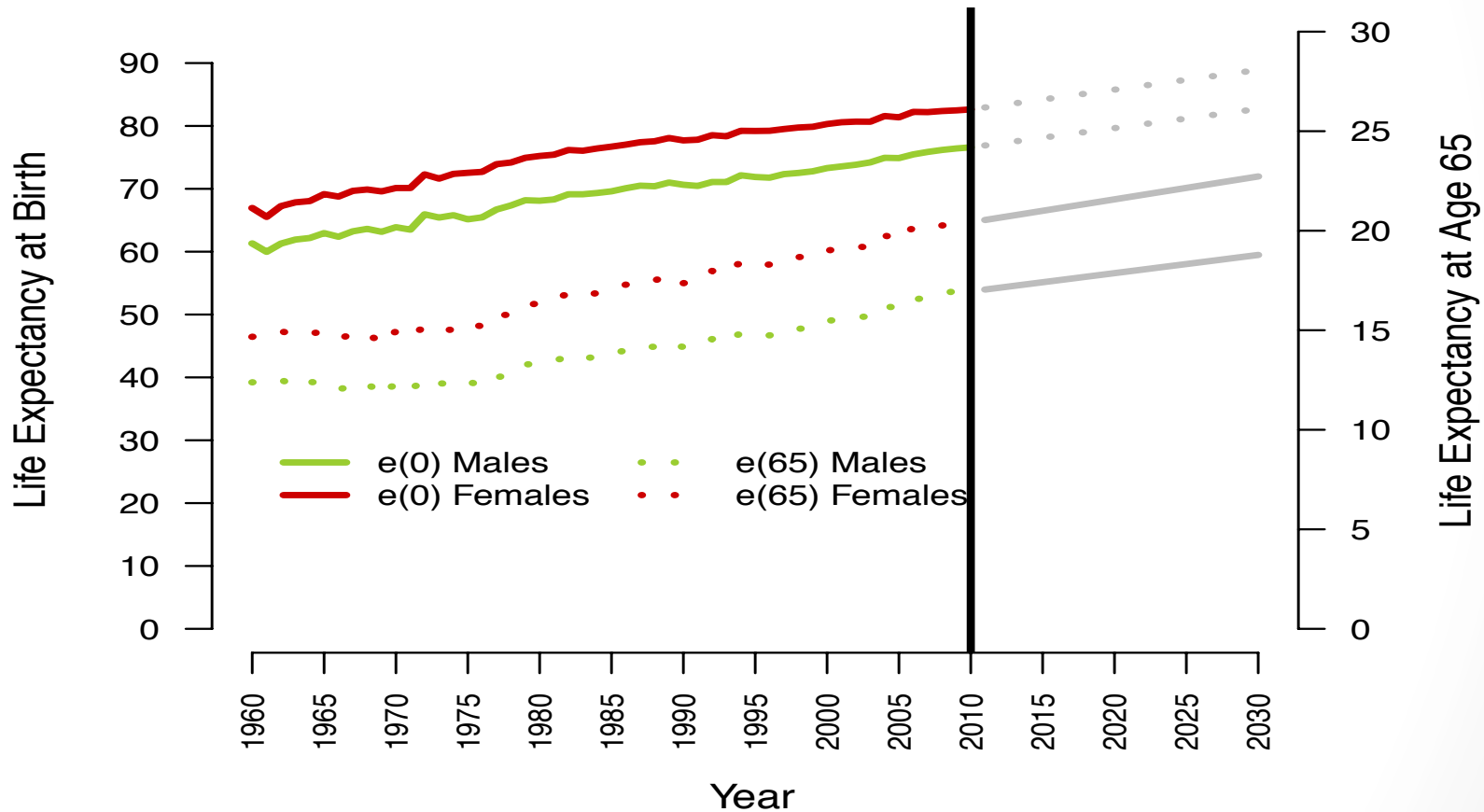
Life expectancy in Portugal 1960 -2010

**Life Expectancy in Portugal
1960 – 2010**

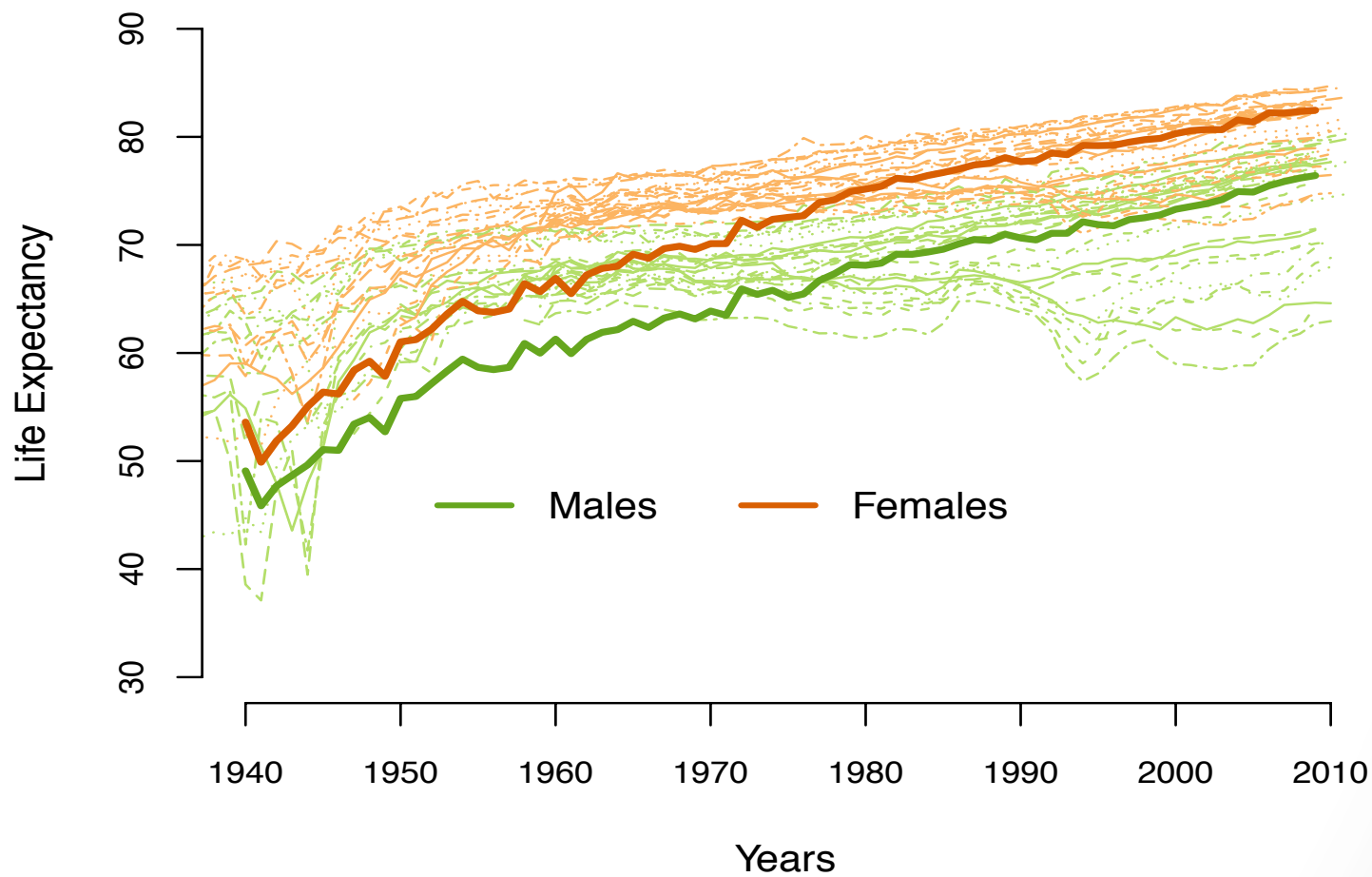


Life expectancy in Portugal 1960 -2030

Life Expectancy in Portugal 1960 – 2030



Life Expectancy in European HMD countries, 1940 -2010



Demographic facts

Mortality

Female life expectancy increased from **66.9** in **1960** to **82.6** in **2010**.
For males increased from **61.3** to **76.6**, respectively

High reductions in mortality at older ages

More deaths than births since 2009

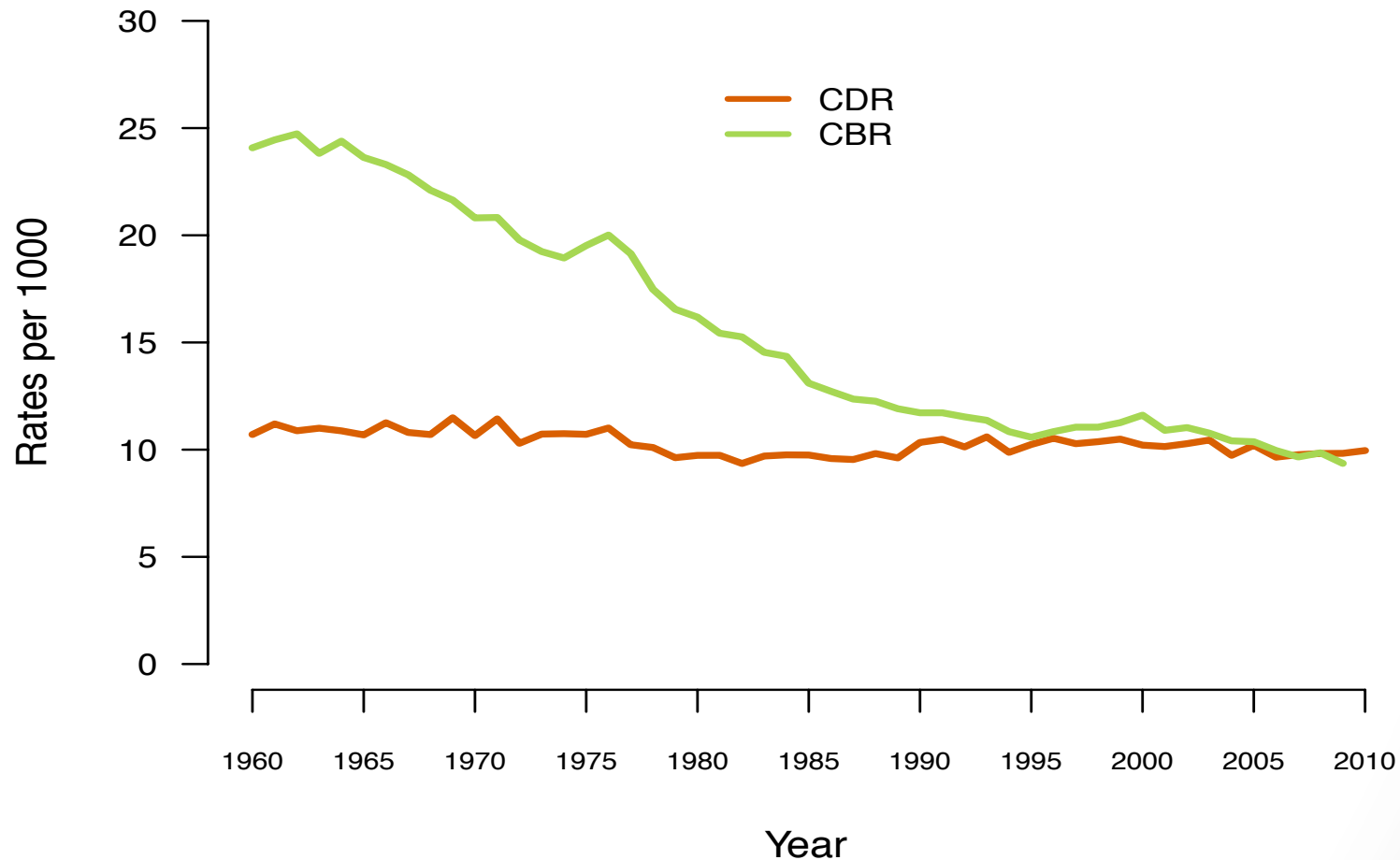
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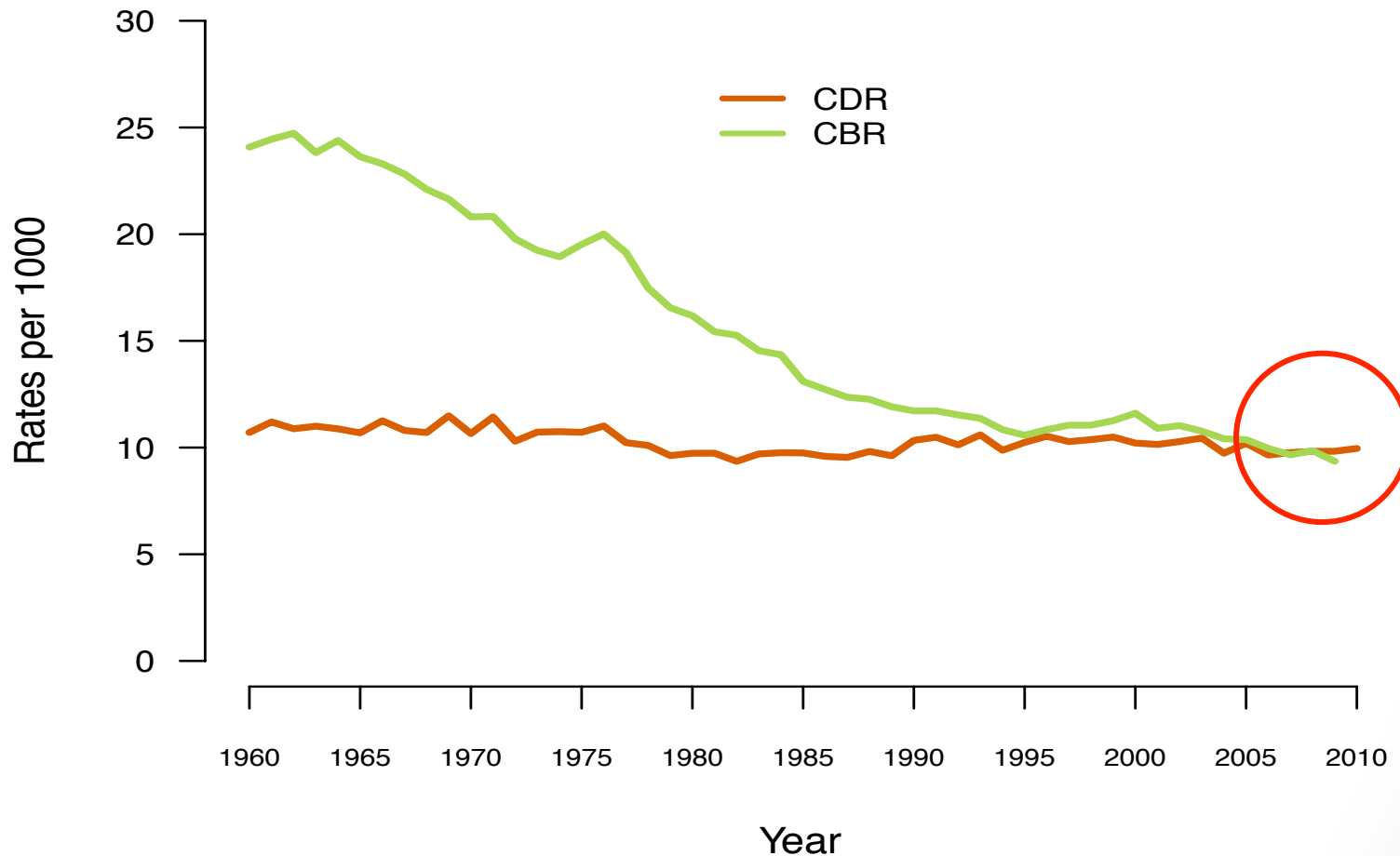
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Demographic transition in Portugal, 1960-2010



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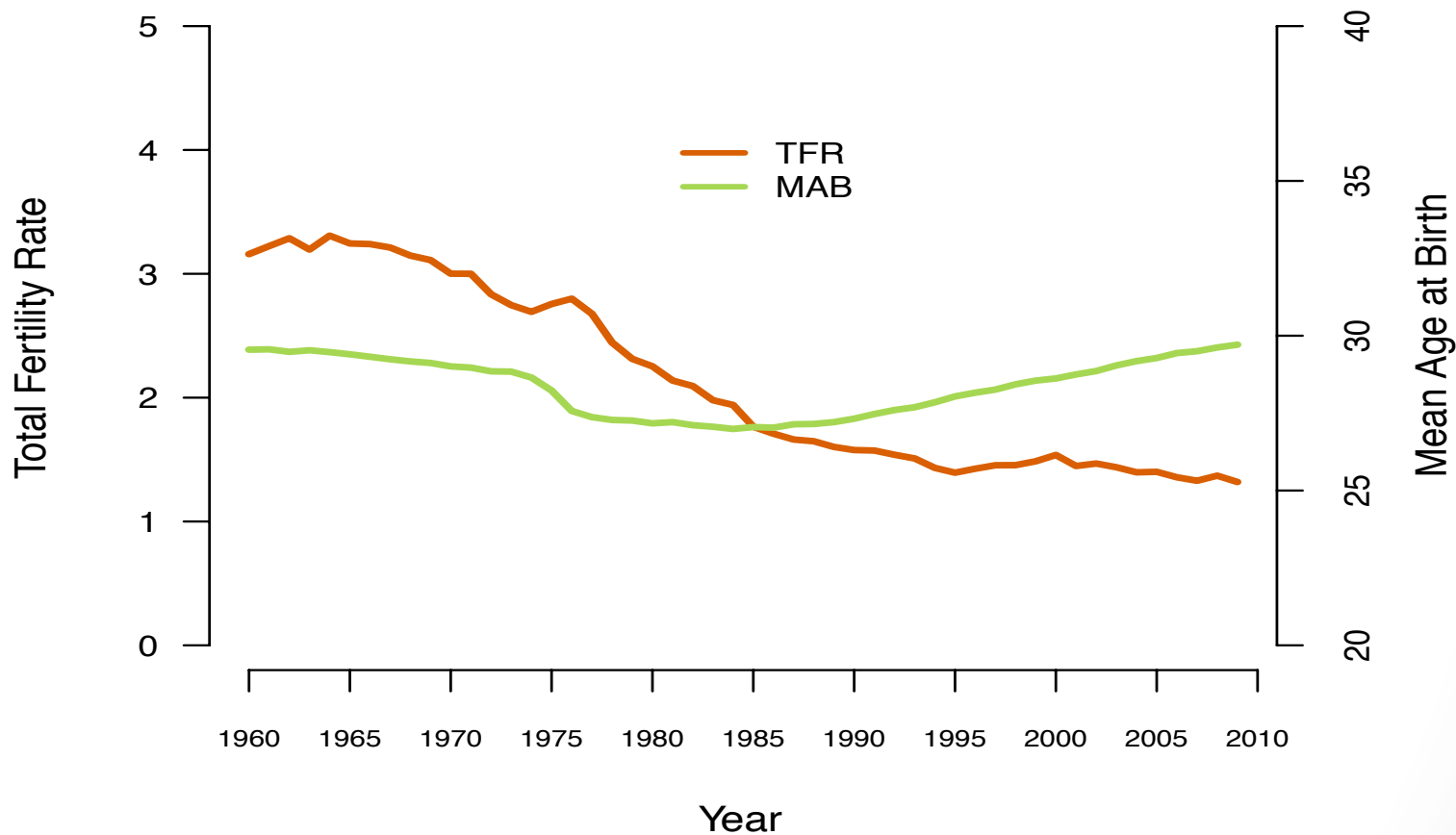


Fertility

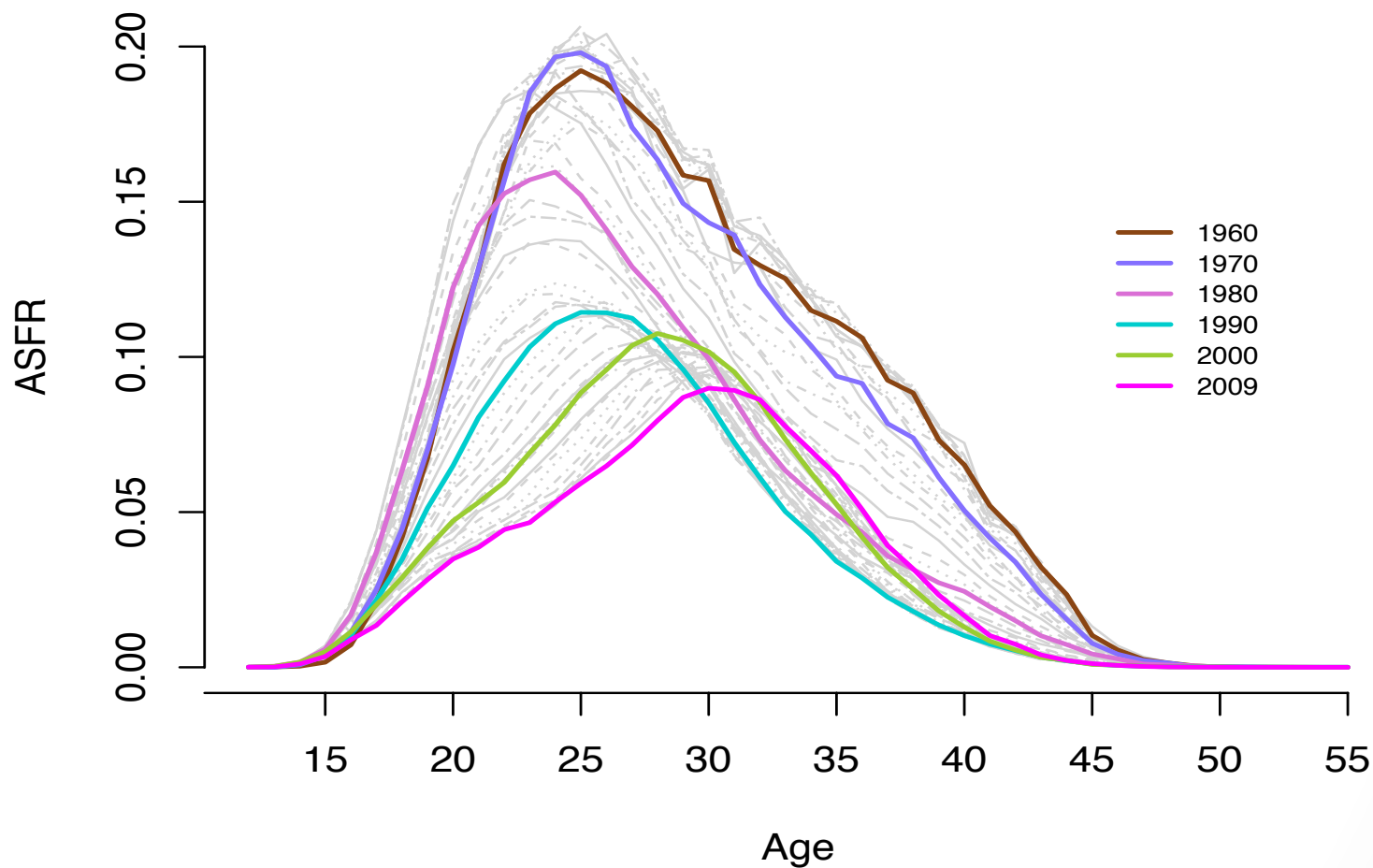
Evolution of reproductive age in Portugal, 1960-2011



Evolution of TFR and MAB in Portugal, 1960-2010



Evolution of age specific fertility rate



Selected European Countries with PTFR < 1.5

	1996-2000 (a)	2001-2005 (b)	2006-2010 (c)	Dif % (b)-(a)	Dif % (c)-(b)
Bulgaria	1.22	1.25	1.46	3	20.76
Czech Republic	1.16	1.20	1.45	4	24.90
Estonia	1.34	1.41	1.62	7	20.75
Germany	1.36	1.35	1.37	-1	1.97
Greece	1.26	1.29	1.46	2	17.00
Hungary	1.35	1.29	1.31	-6	2.18
Italy	1.22	1.29	1.39	7	9.55
Lithuania	1.46	1.27	1.42	-19	15.24
Portugal	1.47	1.43	1.35	-4	-8.32
Poland	1.45	1.25	1.35	-20	10.00
Slovakia	1.39	1.21	1.32	-17	10.89
Slovenia	1.25	1.23	1.46	-2	23.89
Spain	1.18	1.30	1.41	11	10.80

Demographic facts

Mortality	Fertility	Migration
Female life expectancy increased from 66.9 in 1960 to 82.6 in 2010 . For males increased from 61.3 to 76.6 , respectively	Between 1950 and 2009 the number of births declined 52%	A country of emigrants until the mid 70's
High reductions in mortality at older ages	TFR > 3 until 1971	Immigrants represent \pm 5% of the total population between late 80's and 2007
More deaths than births since 2009	TFR of 1.33 in 2011	2008 is the turning point with a number of emigrants higher than immigrants

From the recent past we know that

- The Portuguese population is aging and declining;
- The fertility levels are among the lowest in the world;
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And the future?

Definition of scenarios

	Scenario 0	Scenario 1
Mortality	Constant Mortality (2010 as year of reference: $e_0^M = 76.6$ and $e_0^F = 82.6$)	
Fertility	TFR = 1.3	TFR = Linear evolution from 1.3 to 1.7 in 2030
Migrations	Closed to population movements	

Projection method

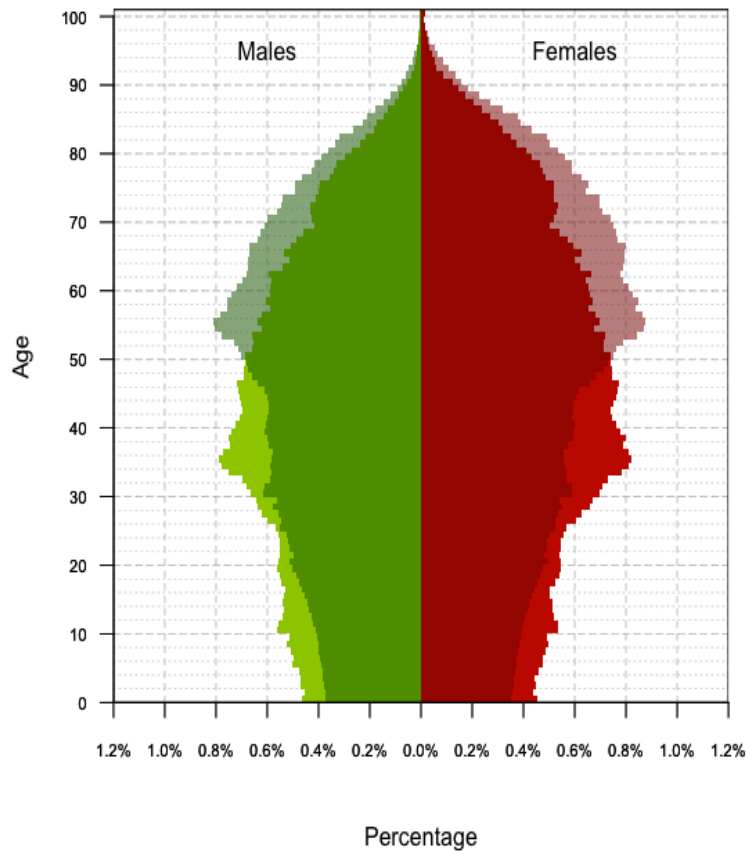
$${}_{y+1}P_{a+1} = {}_yP_a * {}_aS_{a+1} + {}_aM_{a+1}$$

$${}_yB_{y+1} = ({}_yfa + {}_{y+1}fa) * ({}_yP_a^f + {}_{y+1}P_a^f) / 4$$

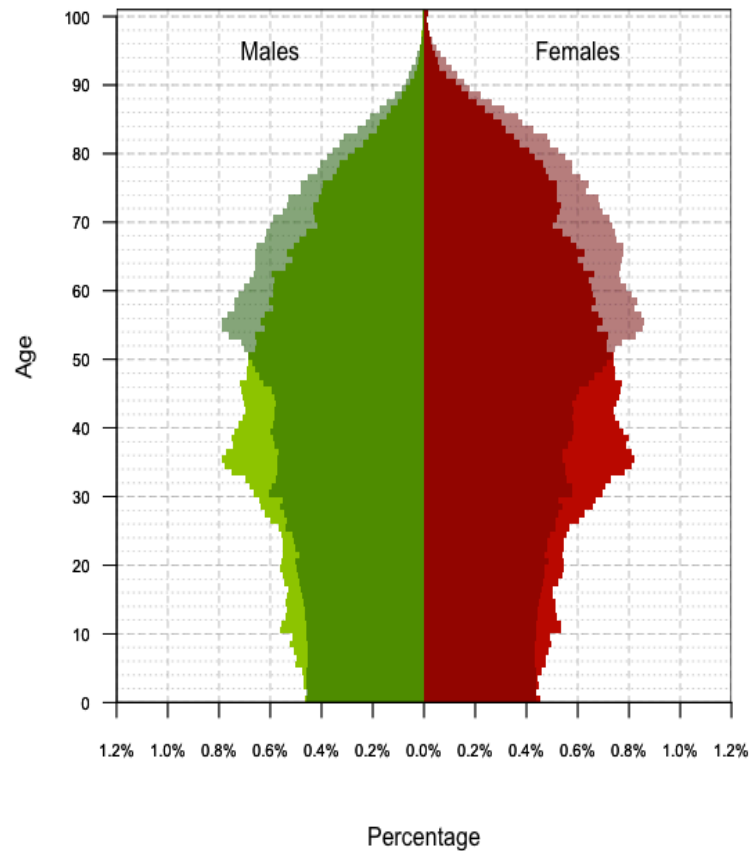
- where P is the total population, P^f the female population, B the births, y the years, a the age, M net migration, and ${}_aS_{a+1}$ the survival rate between age a and $a+1$.

Portuguese Population in 2030, scenario 0 & 1

Portuguese Population Structure
2011 (10.6 millions) & 2030 (9.6 millions)
Scenario 0



Portuguese Population Structure
2011 (10.6 millions) & 2030 (9.8 millions)
Scenario 1



Proportion of elderly & Aging Index

Proportion of elderly	
1961	7.9
1981	11.5
2001	16.4
2011	19.4

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2030	Scenario 0	Scenario 1
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Aging Index	
1961	27.3
1981	44.9
2001	102.2
2011	127.8

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2011	127.8	
2030	Scenario 0	Scenario 1
	216.9	185.5



Portugal, um país que se esvaziou

Em Setembro de 2008, a falência do Lehman Brothers precipitava a crise global. Desde então, Portugal esvaziou-se: são cada vez menos os que nascem e cada vez mais os que partem. Reflexo de uma crise que afecta todos os aspectos da vida colectiva, como o PÚBLICO retrata nesta edição de aniversário **Destaque 4 a 29**

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- With **90,026 babies** and **107,287 deaths**, the country **shrank 17,261** in 2012.

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- Portugal is a country where **unemployment does not stop to grow** and **economy is shrinking**.
- This country is also one where the **birth rate fell sharply, breaking all records in 2012**, while **emigration explodes**.
- With **90,026 babies** and **107,287 deaths**, the country **shrank 17,261** in 2012.
- **The problem is not the aging trend - common across Europe - but the speed with that change is happening in Portugal, which is already one of the most aged countries in the world.**