



**INSTITUTE OF  
PUBLIC POLICY**

L I S B O N

# PROJECT 3 – REPORT 3

Demographic changes and intergenerational  
transfers in Portugal

Final report: an analysis from 1995 to 2015

**Pedro Pita Barros** ppbarros@novasbe.pt

**Paula Albuquerque** pcma@iseg.ulisboa.pt

**Gabriel Salvitti** salvitti.gabriel@gmail.com

About Institute of Public Policy

The Institute of Public Policy is a Portuguese, academic and independent think tank. Its mission is to contribute to the continuous improvement of the analysis and public debate of institutions and public policies, with emphasis on Portugal and Europe, through the creation and dissemination of relevant research.

# 1. Introduction

As mentioned in previous reports, this project aims to estimate the National Transfer Accounts (NTA) in Portugal, covering several years, which implies the use of different available microeconomic databases.. We want to understand the effects on consumption and production of the shifting age structure of the population, and the evolution of the economic lifecycle which, in turn, should allow us to draw economic policy conclusions regarding the design of necessary reforms of the Welfare State.

This report presents results about the intergenerational dynamics for the years 1995, 2000, 2005, 2010 and 2015 for Portugal. In the previous report, we detailed some of the features of the NTA analysis and the necessary databases used in the computations for the year 2010. The same methodology was used for the other periods that we include now. However, in order to measure the NTA for 2000 and 1995, we had to replace the EU-SILC database with the European Community Household Panel (ECHP), since the former was only available from the year 2003 onwards. This option should not incur in any major changes in the final result. The ECHP is characterized by containing only interviewees older than 17 years old. Therefore, as a consequence, we are missing the information for this age group for 1995 and 2000.

## 2. NTA estimates: results from 1995 to 2015

Here we present results of the NTA estimation from 1995 to 2015. Figure 1 displays the age profile of total consumption per capita in the five years analysed. It is noticeable that (in nominal terms) total consumption per capita along the lifecycle increased across time, specially from 1995 to 2000. Additionally, we can see that the largest increases affected the older ages. Up to 2000, a significant decrease in per capita consumption was observed to start at around retirement age and, from 2005 on, that changed. The level of consumption of the older individuals clearly improved, both in absolute and in relative terms. From 2010 to 2015, they were basically the age group whose consumption increased, in nominal terms. The last two periods, 2010 and 2015, correspond roughly to pre- and post-economic crisis associated with the Great Recession. The elderly population (above 60 years) experienced still an increase in per capita consumption while at the other ages we observe essentially no change. This is in line with other works that indicate poverty increases at younger ages and consumption (income) protection during the crisis to the elderly population.

Figure 2 shows the per capita labour income age profile. As expected, labor income is clearly concentrated in active ages. It is interesting to notice how the specific age in which the income starts to decrease has been increasing while the age in which the population starts to earn money has remained relatively constant. Also, we observe that 2010 was the year when workers after age 67 earned the highest labour income.

Figure 1 – Consumption profile by age, Portugal

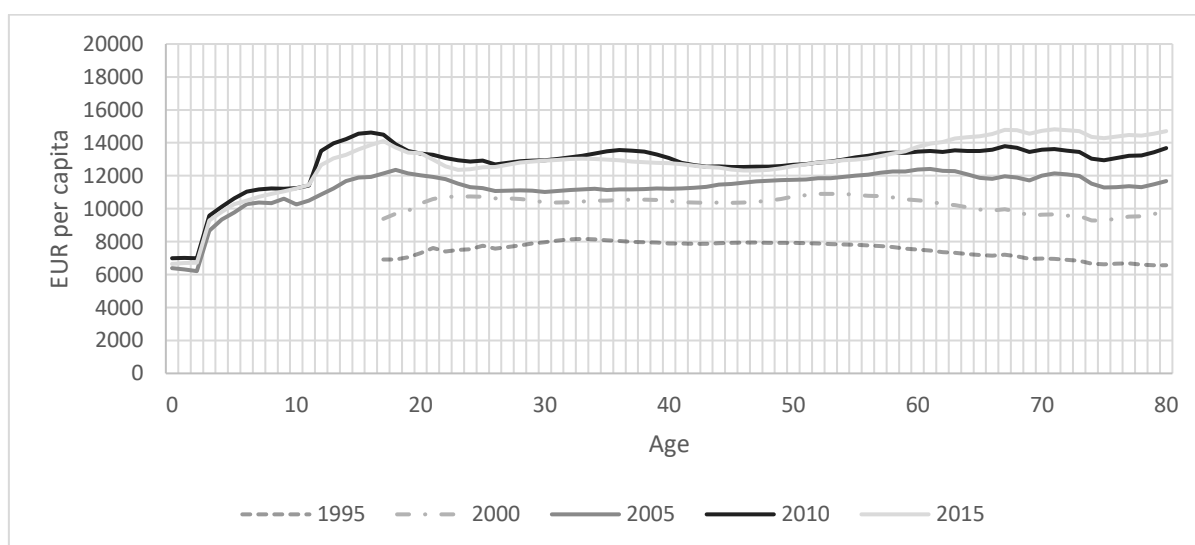
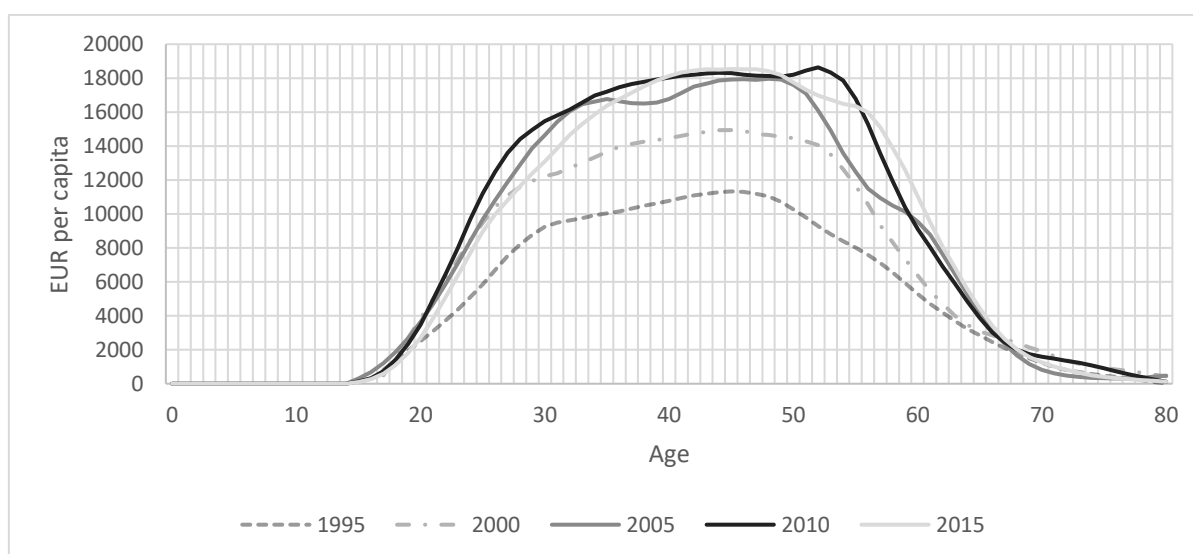


Figure 2 – Labour income profile by age, Portugal



Source: Eurostat (population data, students' data and aggregate controls); EU-SILC; Household Budget Survey; European Community Household Panel; Authors' own calculations.

We also estimated the total private and public transfers throughout the same five years. Public transfer inflows refer to the flows that are mediated by the government, including both in-kind and in-cash transfers received by individuals (Istenič et al., 2016). In turn, private transfers include direct transfers between households (e.g. alimony payments and gifts), as well as indirect household transfers mediated by the non-profit institutions serving households (e.g. donations), but it excludes the capital transfers such as bequests (UN, 2013). According to Figure 3, most private transfers are received during early ages, and are paid throughout their active lives, as one would expect. We should note, however, that individuals in older age groups exhibit very close to zero net benefits, without taking into account bequests, whose consideration would obviously turn them into important net givers.

In Figure 4, it stands out the increase in public transfers at older ages, - which is associated with the higher expenditures in public health and in pensions, - and how this later life increase has been accentuated over the years.

Figure 3 – Private Tranfers profile by age, Portugal

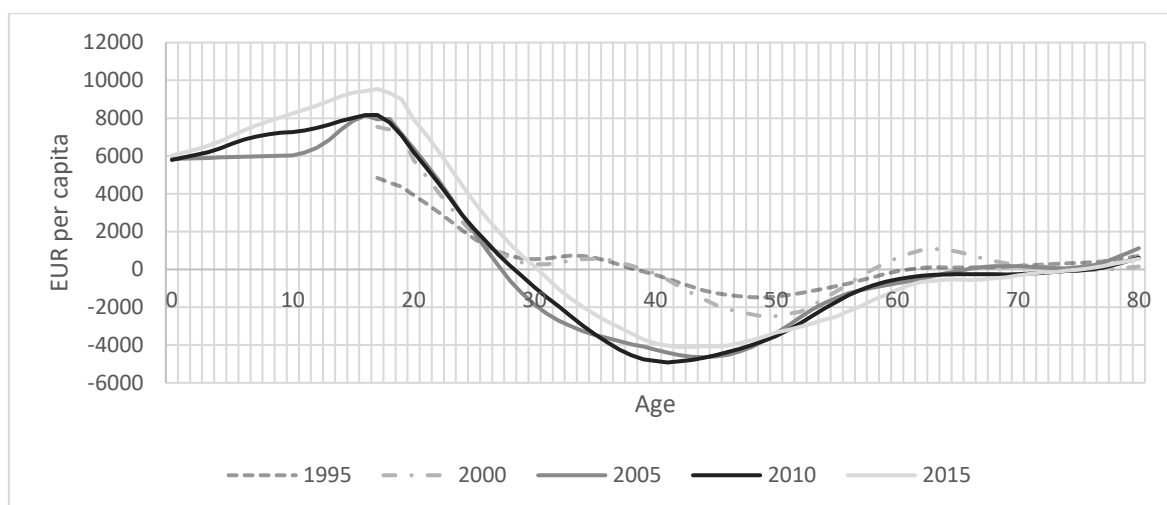
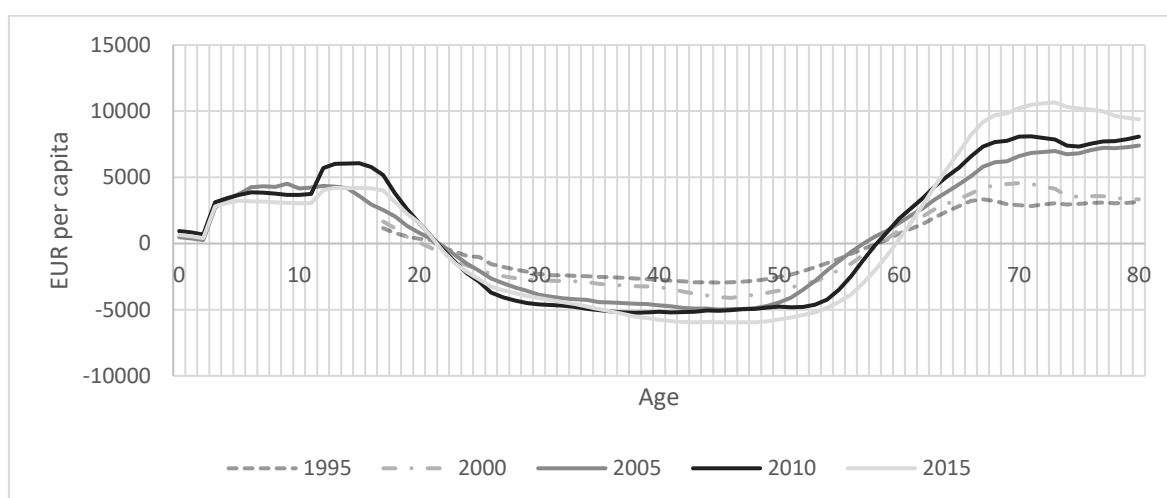


Figure 4 – Public Tranfers profile by age, Portugal



Source: Eurostat (population data, students' data and aggregate controls); EU-SILC; Household Budget Survey; European Community Household Panel; Authors' own calculations.

We also unpinned the total consumption into private and public consumption in Figures 5 and 6, respectively. We notice a large increase in private consumption after age 40, and an increasing gradient of the private consumption curve. Furthermore, one can notice a major increase in public consumption at old ages, which corresponds to the increase in public transfers to the elderly as noticed before. The literature shows that public expenditures on health rise mainly in the last years of life. The life expectancy in Portugal went from 75,4 years in 1995 to 80,6 years in 2015 (INE, Pordata). This increase in longevity is enough to shift health expenditure from the 70's to the 80's, producing a steeper rise in the age profile of public consumption in late life.

It is interesting to highlight that 2010 was an atypical year with record public investments on education, pushing up the overall public consumption curve. This outlier character of education expenditures in 2010 is also recognized in the European Commission (2019) report on education and training.

Figure 5 – Private Consumption profile by age, Portugal

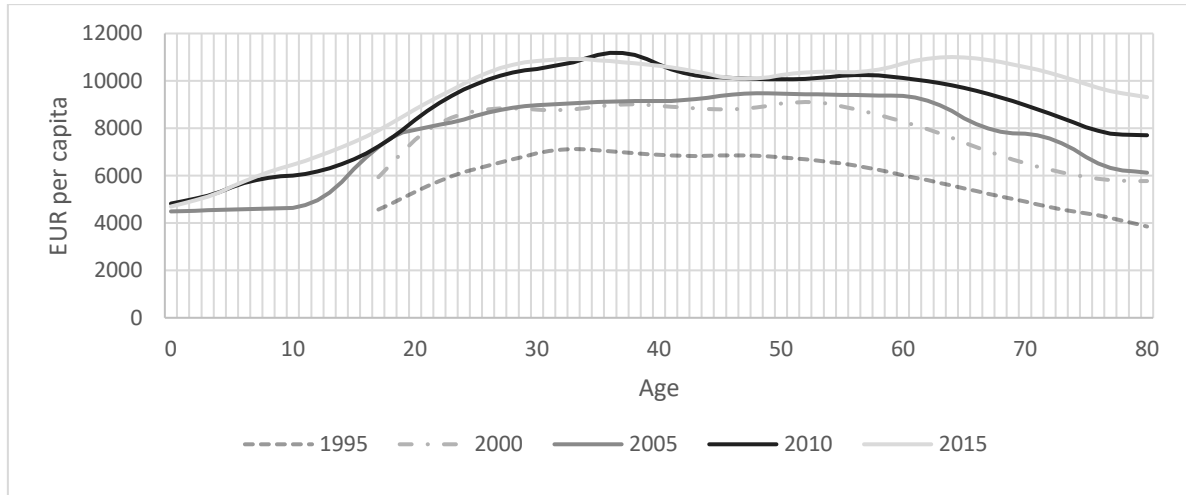
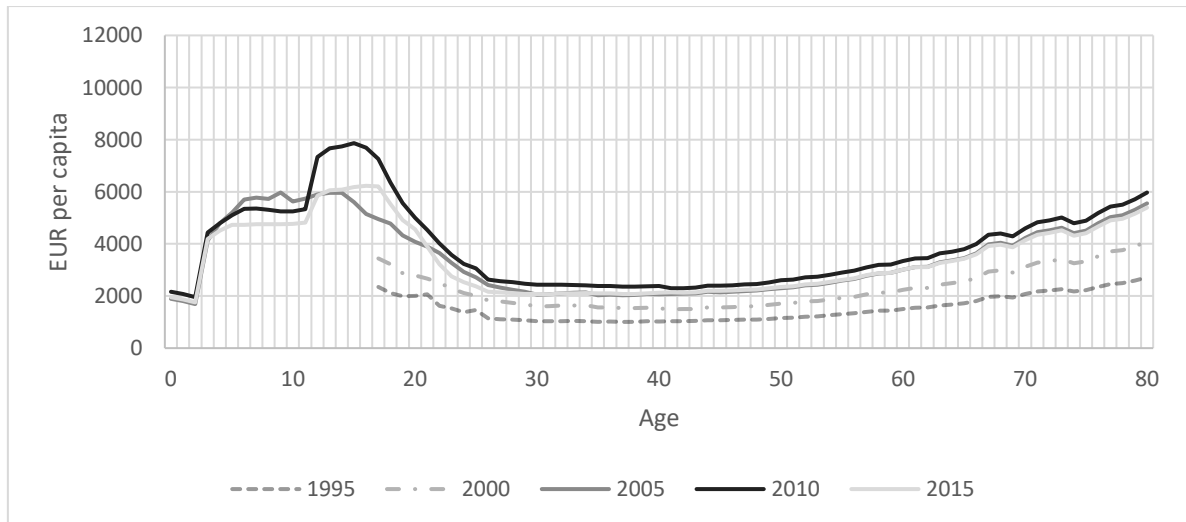


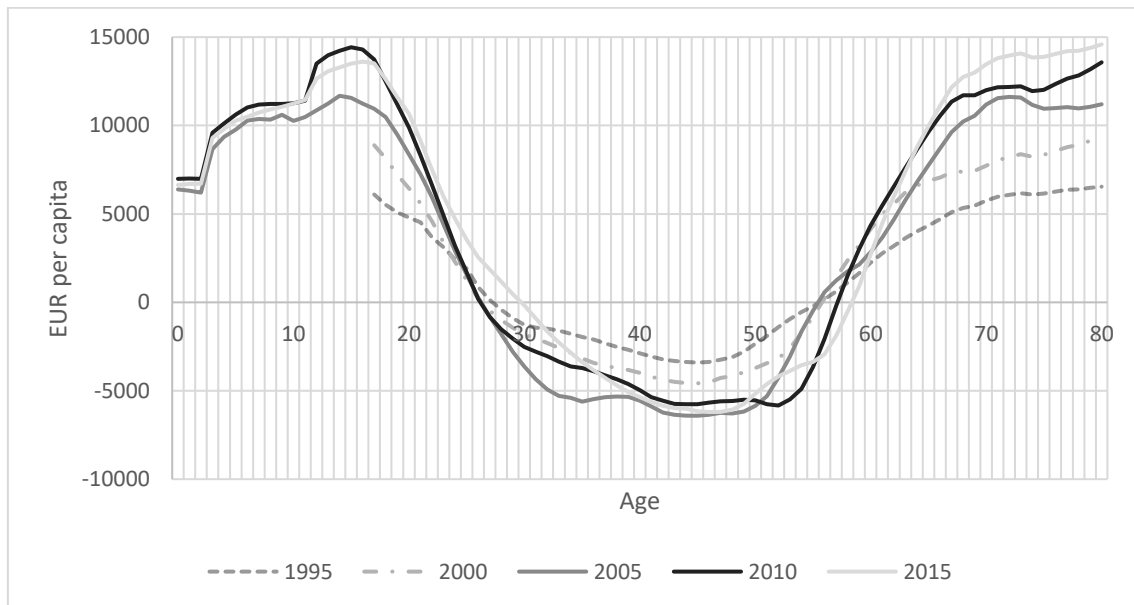
Figure 6 – Public Consumption profile by age, Portugal



Source: Eurostat (population data, students' data and aggregate controls); EU-SILC; Household Budget Survey; European Community Household Panel; Authors' own calculations.

Figure 7 shows the increasing lifecycle deficit of the elderly and (except between 2010 and 2015) of children. Most notoriously in 2015, there was a shift to the right in the break-even ages: there is a rise in both the age when young adults start producing in the market more than they consume, and the age when older adults start consuming more than they produce. In all the periods analysed, the number of years of deficit is larger than the number of years of surplus. The lifecycle difference between consumption and labour income has increased over the years and we can see that the lifecycle peak in the youth has been deferred to slightly older ages. The rise in retirement age in Portugal is reflected in the age when individuals turn from surplus to a deficit, at the end of the active age. Typically, the older the individual, the larger his/her lifecycle deficit.

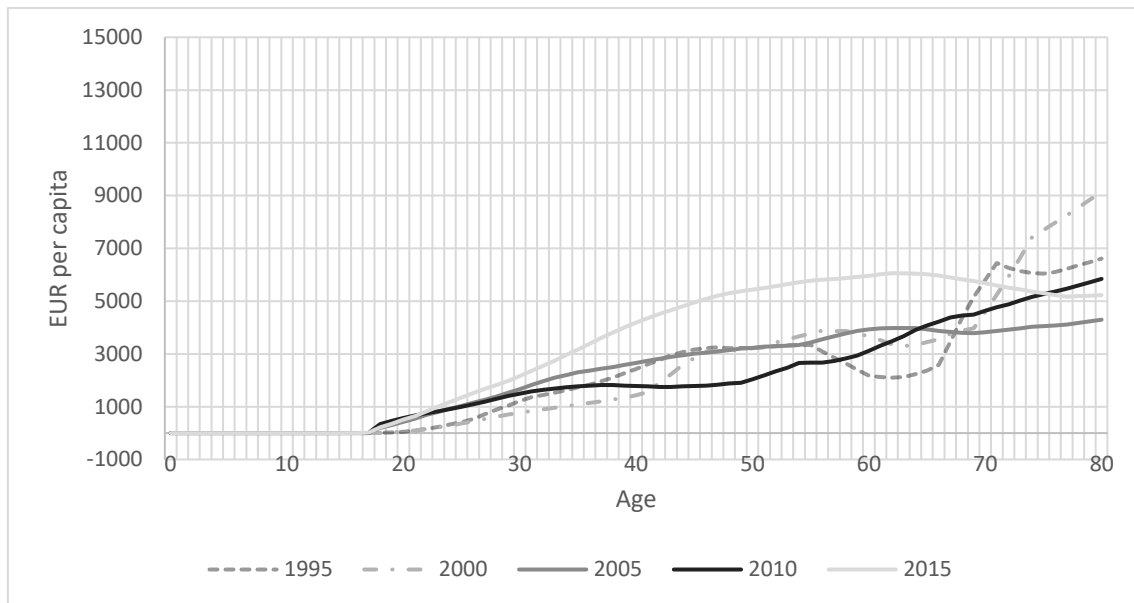
Figure 7 – Lifecycle Deficit profile by age, Portugal



Asset income in Figure 8 tends to increase with age. The decrease in asset income at older ages in 2015 may reflect the decline in real interest rates experienced over recent decades because older people, more than younger individuals, tend to hold safer assets that earn

interest, instead of risky assets. However, the same type of decrease should be observed from 2005 to 2010 and it is not. It is a feature that deserves further investigation.

Figure 8 – Asset Income profile by age, Portugal



Source: Eurostat (population data, students' data and aggregate controls); EU-SILC; Household Budget Survey; European Community Household Panel; Authors' own calculations.



## Conclusion

After analysing the NTA estimations obtained for 1995, 2000, 2010 and 2015, it is possible to notice differences in the use of resources and their provision by different age groups, over time. The change in consumption profiles, labour income and, consequently, lifecycle deficit, reflects several factors that have influenced the organisation of intergenerational transfers during this period, such as the rise in retirement age and the increase of average labour income. We also observe an increase in the differences between the positive and negative deficits: from the initial year to the last year, the values of the individual deficits became larger and the values of the individual surpluses became also more pronounced, for the corresponding age groups.

Moreover, we detect an improvement in the relative situation of older people. The change in the situation of each age group from year to year reflects a period effect, - characterized by certain economic events and changes in policies that affect all groups - combined with a cohort effect which reflects behavioural change of different generations and policies that affected the age groups in differentiated ways. It is the two effects combined that give rise to the differences that appear in the situation of each age category.

The strengthening of the Welfare State over the last decades, through its different spending programmes aimed especially at older age groups through the pension system and health care, have resulted in a considerable increase in the public spending received by these individuals. At the same time, we could not observe considerable changes in the private transfers pattern throughout the period studied.

The computations made show a typical age profile in Portugal, similar to what we observe in other countries. Thus, Portugal is faced with the same challenges. Note worthy still is the fact that the last twenty years were particularly beneficial to the elderly population, despite a severe economic crisis during the years 2011-2014. Our results show that public policies in Portugal were able to protect the consumption at older ages, with stagnation at the early active life of younger cohorts.

## References

European Commission (2019) Education and Training Monitor 2019 – Portugal, Luxembourg: Publications Office of the European Union. Available at: [https://ec.europa.eu/education/sites/education/files/document-library-docs/et-monitor-report-2019-portugal\\_en.pdf](https://ec.europa.eu/education/sites/education/files/document-library-docs/et-monitor-report-2019-portugal_en.pdf)

Istenič, T., Hammer, B., Šeme, A., Lotrič Dolinar, A., & Sambt, J. (2016). “European National Transfer Accounts”. Available at: <http://www.wittgensteincentre.org/ntadata>.

UN (2013). National Transfer Accounts Manual. Measuring and Analysing the Generational Economy. Population Division, Department of Economic and Social Affairs, United Nations, New York.



**INSTITUTE OF  
PUBLIC POLICY**

L I S B O N

Institute of Public Policy Lisbon – Rua Miguel Lupi 20, 1249-078 Lisboa PORTUGAL  
www.ipp-jcs.org – email: admin@ipp-jcs.org – tel.: +351 213 925 986 – NIF: 510654320

The views and information set out herein are those of the authors do not necessarily reflect those of Institute of Public Policy, the University of Lisbon, or any other institution which either the authors or IPP may be affiliated with. Neither Institute of Public Policy nor any person acting on its behalf can be held responsible for any use which may be made of the information contained herein. This report may not be reproduced, distributed, or published without the explicit previous consent of its authors. Citations are authorized, provided the original source is acknowledged.