



WAREG
European Water Regulators

Water affordability: assessment and policies

Rita Martins

3rd December 2019, Rome


CeBER
CENTRE FOR BUSINESS AND ECONOMICS RESEARCH
UNIVERSITY OF COIMBRA

1290  FACULDADE DE ECONOMIA
UNIVERSIDADE D
COIMBRA

Outline

- Introduction
- Affordability assessment
 - Prevalence of affordability issues
 - Hidden problems
- Policies
- Conclusions and recommendations

Introduction



SDG 6 - “Ensure Access to Water and Sanitation for All” - establishes as a target the achievement of **universal and equitable access** to safe and **affordable** drinking water for all by 2030.

In the European Union water services are acknowledged as **services of general economic interest** and are thus subject to several public service obligations, among which universal access and **affordability** (COM, 2003).

Objective: to highlight key aspects related to policies for water affordability

Affordability assessment

Affordability (of essential services) might be approached from several perspectives (several types of concerns)

- Households not being able to pay their water bills
- Excessive weight of bills on household resources
Surpassing a given threshold
- Under consumption
Below the adequate quantities

Affordability assessment

Affordability assessments are usually carried out taking the benchmark that households should not have to spend more than 3% of their income to pay for water services into account

$$AR = \frac{\textit{Water charges}}{\textit{Income}}$$

Macro assessments - Average/data

Empirical affordability analysis can lead to misleading interpretations

Prevalence of affordability issues

The Portuguese case (Martins et al, 2019) as an example

- Data taken from the 2015/2016 wave of the Portuguese Household Budget Survey
- Average affordability ratio

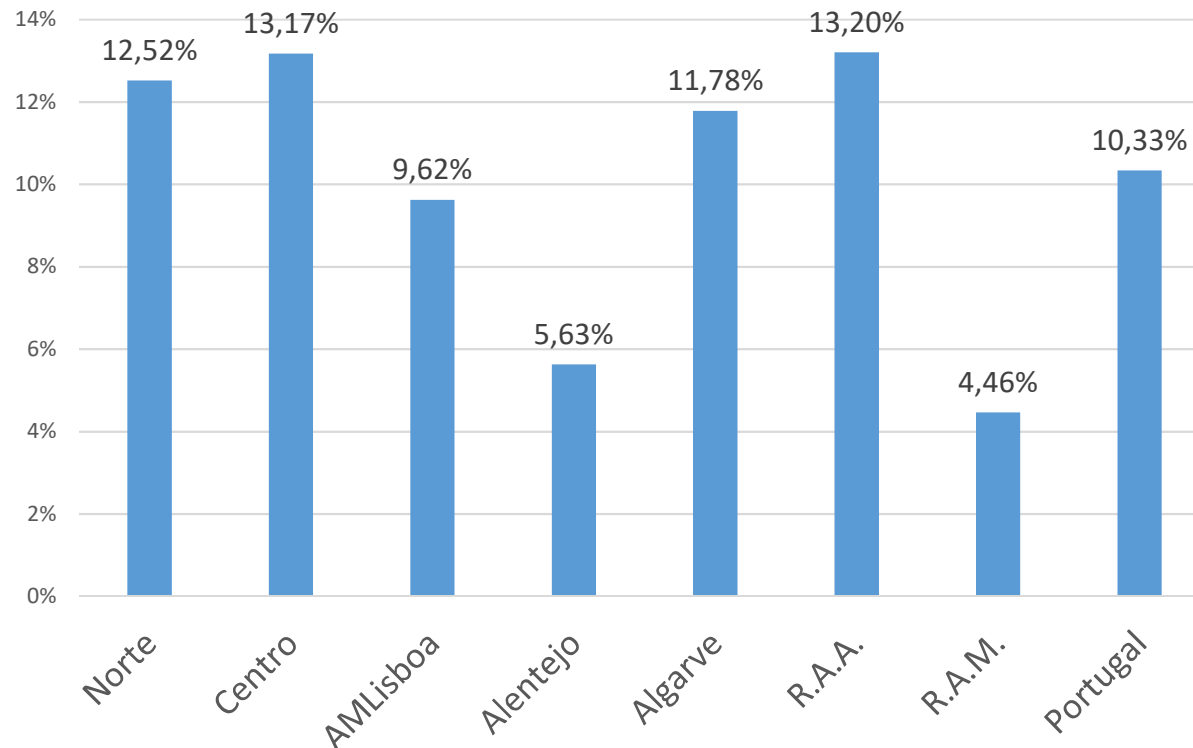
Variable	Obs	Mean	Std. Dev.	Min	Max
AR	11,379	.016421	.011732	0	0.18160

<0.03% → no affordability issues

Prevalence of affordability issues – hidden problems

Average affordability ratios below the reference threshold might coexist with significant shares of population struggling to pay for water services

Percentage of households with AR > 0.03



Data Source: Portuguese Household Budget Survey (2015/2016)

Prevalence of affordability issues – hidden problems

Affordability ratios per total expenditure deciles

	Min	Max	Mean	SD
AR (Total Sample)	,00	,18	,0166	,01192
AR (D1)	,00	,18	,0295	,02083
AR (D2)	,00	,09	,0223	,01231
AR (D3)	,00	,07	,0200	,01078
AR (D4)	,00	,06	,0181	,00965
AR (D5)	,00	,09	,0163	,00929
AR (D6)	,00	,06	,0152	,00800
AR (D7)	,00	,06	,0136	,00698
AR (D8)	,00	,04	,0121	,00592
AR (D9)	,00	,04	,0106	,00542
AR (D10)	,00	,03	,0085	,00451

Affordability has been almost exclusively analysed on a sector-specific basis
Assessment of joint affordability of utility services (Water, energy + communication services): Under consumption (particularly in energy services) → Underestimation of affordability issues, Martins et al (2019)

Policies to tackle affordability issues

Mechanisms to promote water-specific measures on affordability, WAREG(2017)

a) Regulatory tools applied to all domestic customers

(e.g. IBT, tariff blocks free of charge, reduced VAT rate, Cap on tariff)

b) Regulatory tools applied to specific categories of domestic customers

- solidarity funds, bonus, lump sum
- discounts;
- exemptions;
- **social tariffs;**
- prohibition of water supply's interruption

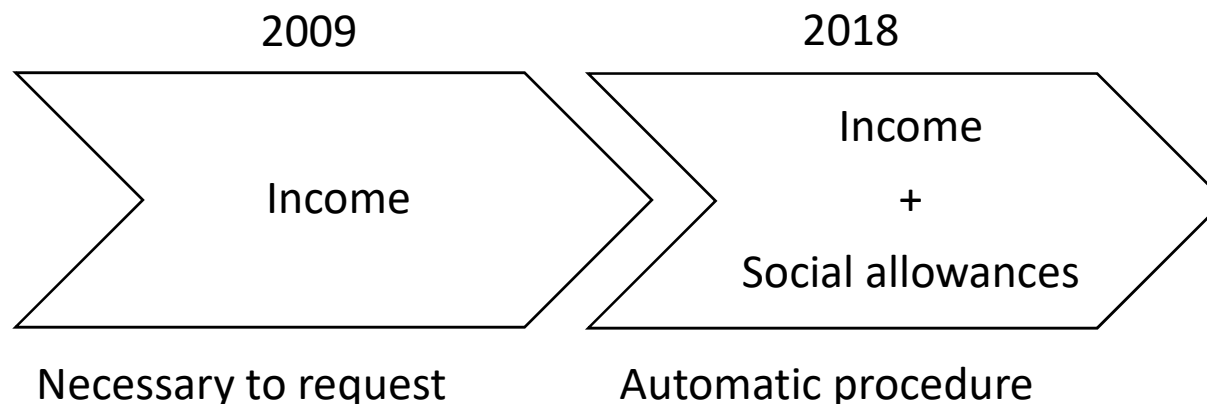
c) Public subsidies

Policies to tackle affordability issues

- Social tariffs – The Portuguese context (water)

Regular tariff scheme		Social tariff scheme	
Fixed charge		--	
Volumetric charges	1 st block [0-5 m ³]	Volumetric charges	1 st block [0-15 m ³]
	2 nd block]5-15 m ³]		2 nd block]15-25] m ³
	3 rd block]15-25 m ³]		
	4 th block > 25 m ³		
			3 rd block > 25 m ³

- Eligibility criteria

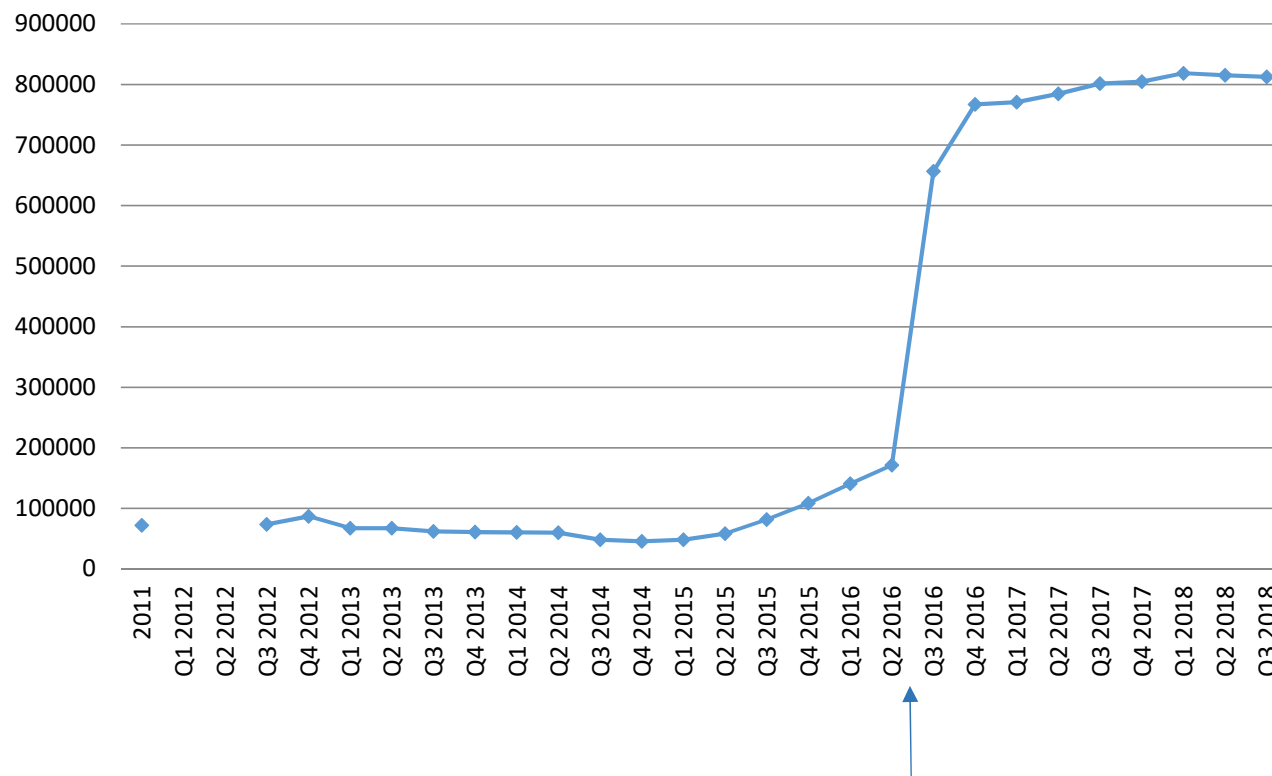


Policies to tackle affordability issues

Social tariffs might be insufficient

- The poorer households face the largest affordability ratios
- It is necessary to reach who really needs help

Evolution of the number of beneficiaries of electricity social tariff - Portugal



Conclusion

- Average/Macro figures are not enough to assess water affordability
 - Average/macro affordability ratios below the accepted thresholds might coexist with a significant prevalence of households facing affordability issues
 - There is still room for regulators and policy makers to monitor water services' affordability in developed countries, too, particularly when there are significant income distribution inequalities
- Methods and thresholds used to address affordability issues should be reviewed by academics, international organisations and/or water regulators
 - Regulatory authorities may influence water tariffs (the AR numerator) and/or mechanisms such as social tariffs

Recommendations

- It is not enough that measures to ensure affordability are envisaged
 - To achieve universal access at affordable prices it is especially necessary to ensure that the support is effective in contexts of illiteracy, which is very common due to the complexity of tariff schemes.
- Universality and affordability comes at a cost, and should thus not be guaranteed at the expense of the economic sustainability of service providers
 - The decision of whether or not to make social tariffs available being left up to the operators gives rise to the possibility of inequity and the lack of territorial cohesion. It is up to regulators to define rules for the financing model for social tariffs.

Recommendations

- Assessment of joint affordability should be conducted along with sector-specific approaches
 - If families cut expenditures on a given utility because they are spending more on another one, then a single sector approach might not capture the full extent of affordability problems.
 - Assistance for one service can improve the situation for the household by lowering the joint burden of utility expenses or by allowing the consumption of adequate levels of other services.
 - Policy measures in a given sector might be easily implemented there, either because social tariffs or other solutions to tackle affordability problems are already in place, or because these measures gather greater public support in that sector.

Thank you!

Rita Martins (rvmartin@fe.uc.pt)