



UNU-EGOV Seminar  
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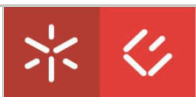
# Explaining Local Government Transparency: An Analysis of Information Disclosed in Official Websites

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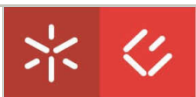
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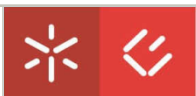
# Summary

- The Nature of the Problem
- Literature Background
- A 'Market' Approach to Transparency
  - Supply-side factors
  - Demand-side factors
- Research Context
- Data and Methods
- Findings
- Conclusions and Future Research



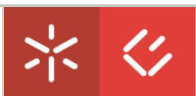
# What is Transparency?

- The ‘unfettered access by the public to timely and reliable information on decisions and performance in the public sector’ (Armstrong, 2005)
- The extent to which public organizations reveal information about their operations, procedures, and decision-making processes (Wong and Welch, 2004)
- The publicity of all the acts of government and their representatives to provide civil society with relevant information in a complete, timely, and easily accessible manner (i.e. available online) (Cruz et al., 2014; Tavares e Cruz, 2014)



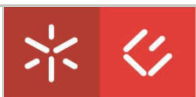
# The Nature of the Problem

- Transparency as an element of Good Governance
  - A precondition for public scrutiny, participation, and accountability (Piotrowski and Van Ryzin 2007; Piotrowski and Bertelli 2010).
  - Enables citizens, the media and audit institutions, among other stakeholders, to monitor the activities of governments.
- Citizen-centered or data user perspective (stakeholder focus)
- Effects of transparency on trust in government and perceived legitimacy
  - Policy-driven
  - Cultural differences
  - Corruption levels



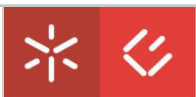
## The Nature of the Problem

- Great variability in transparency practices between local governments
- Transparency of processes and transparency of outcomes
- Operationalization of the concept of transparency
- Development of Municipal Transparency Indexes in several countries under the sponsorship/support of Transparency International



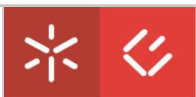
## Research Questions

- What are the causes of the variability of transparency in Portuguese municipalities?
  - Political leadership?
  - Administrative capacity?
  - Exogeneous factors (social, cultural, demographic, etc)?
- We tested this set of explanations using the Municipal Transparency Index (MTI) of 278 municipalities in mainland Portugal (2013)
- Also:
  - What are the determinants of the variation across dimensions?
  - Are there neighborhood effects? (to be explored in the future)



# Literature Background

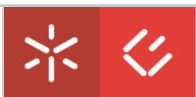
- Several financial and budget transparency indexes at the local level
  - Guillamón et al. (2011); Bolívar et al. (2013); Caamaño-Alegre (2013)  
Vicente et al. (2013)
- Indexes based on the perceptions of citizens
  - Piotrowski and Bertelli (2010) developed a municipal transparency index using Item Response Theory (IRT) to measure the transparency of New Jersey municipalities.
- “Comprehensive” Municipal Transparency Indexes are merely additive



# A 'Market' Approach to Transparency

- Supply-Side Factors
  - Profile of the Head of the Executive
  - Profile of the Municipal Executive
  - Characteristics of the Political System
  - Administrative Capacity
- Demand-Side Factors
  - Socioeconomic Profile of the Community
  - Population size
  - Other forms of political and administrative participation

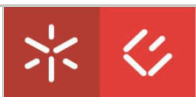




# Supply-Side Factors

## Profile of the Head of the Executive:

- H1: Municipalities with women as mayors display higher levels of transparency (Eagly and Johnson, 1990; Sjöberg, 2010)
- H2: Municipalities led by mayors with higher education display higher levels of transparency (Putnam, 1977; Dreher et al., 2009)
- H3: Municipalities headed by younger mayors are more likely to present higher levels of transparency (Piotrowski e Bertelli, 2010)



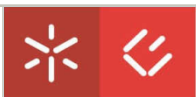
# Supply-Side Factors

## Profile of the Municipal Executive

- Municipalities w/ lower degrees of political conflict will display lower levels of transparency (Oliver, 2001; Gandia e Archidona, 2008; Esteller-Moré e Polo Otero, 2012):
  - H4: Lower electoral competition
  - H5: The number of consecutive terms in power
  - H6: Majority executives
- H7: Left wing executives are associated with higher levels of transparency (Albalade del Sol, 2013)
- H8: The degree of financial autonomy of the municipality has a positive effect on the level of transparency (Geys, Heinemann, & Kalb, 2010)
- H9: Administrative capacity has a positive effect on the level of transparency (Yavuz & Welch, 2014)

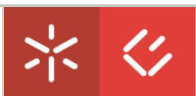
## Demand-Side Factors

- H10: Communities with higher socioeconomic status display higher levels of transparency (Rosenstone e Hasen, 1993; Yang e Callahan, 2007; Piotrowski e Bertelli, 2010; Caamaño-Alegre et al., 2013)
- H11: Community size is positively associated with the level of transparency (Styles e Tennyson, 2007; Serrano-Cinca et al. 2009; Jorge et al. 2011; Albalate del Sol, 2013)
- H12: Municipalities where the average age of the population is higher display lower levels of transparency (Piotrowski e Bertelli, 2010)
- H13: Higher voter turnout in mayoral elections is positively associated with higher levels of transparency (Albalate del Sol, 2013)



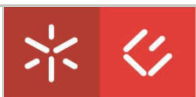
# Municipal Transparency Index

- Transparência e Integridade, Associação Cívica (TIAC)
- Scientific Coordination:
  - Nuno Ferreira da Cruz, LSE Cities (Coordinator)
  - António Tavares, CICIP-UM
  - Luís de Sousa, GOVCOPP-UA and TIAC President
  - Susana Jorge, CICIP-UM
- More information: <http://poderlocal.transparencia.pt/>



## Data and Methods

- Multi Criteria Decision Analysis (MCDA) is employed to structure the index through a participatory process (see da Cruz et al. 2015 for details)
- A comprehensive Advisory Group of stakeholders:
  - 15 representatives from governmental and monitoring institutions, civil society organizations, and academic experts
- Two meetings/workshops:
  - Selection of dimensions and indicators
  - Weights and scoring
- Analysis of the information available online (official websites)
- All indicators are universal in nature



# Data and Methods

- 76 indicators (1=Information is present; 0=Absent)
- 7 dimensions:
  - a) Organizational information, social composition, and operation of the municipality (executive and deliberative bodies) (18 indicators)
  - b) Plans and planning (13 indicators)
  - c) Local taxes, rates, service charges, and regulations (5 indicators)
  - d) Relationship with citizens as customers (8 indicators)
  - e) Public procurement (10 indicators)
  - f) Economic and financial transparency (12 indicators)
  - g) Urban planning and land use management (10 indicators)

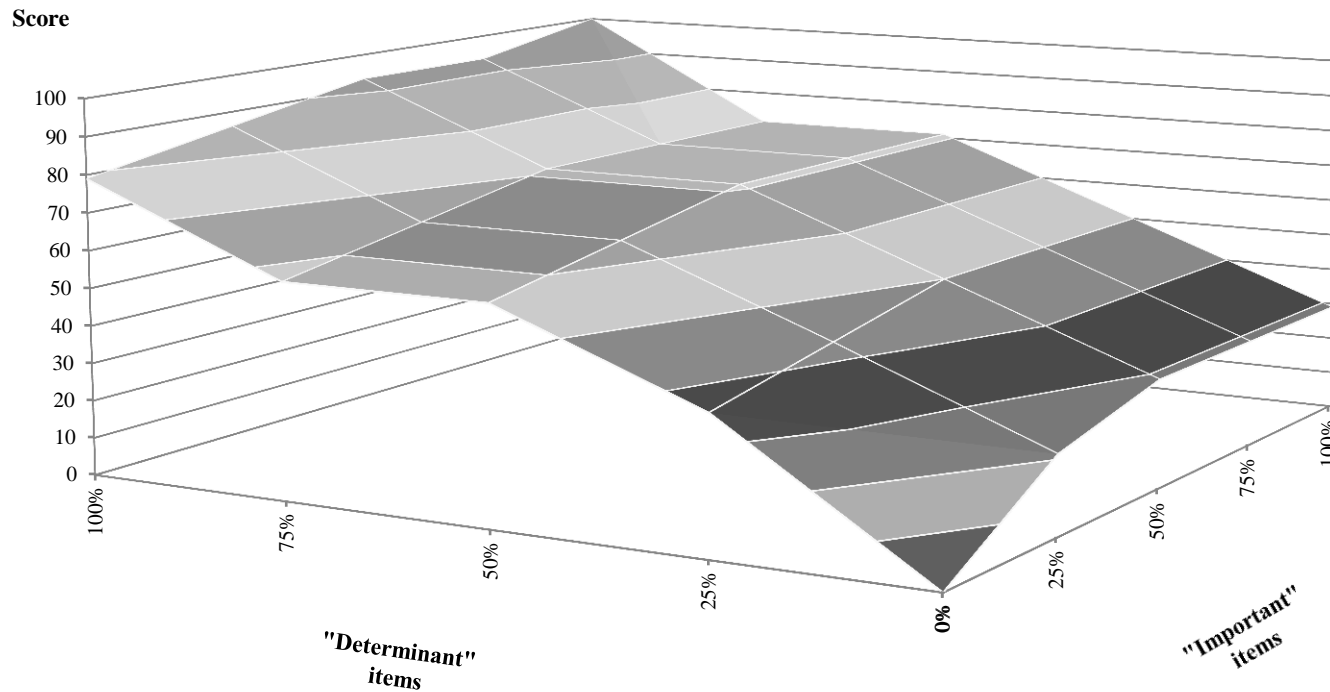


# Scoring System for the MTI Dimensions

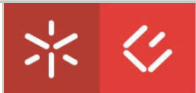
Performance level	Description	Score
Level I	All information is disclosed.	100
Level II	All 'Determinant' information and more than 50% of the 'Important' information.	93
Level III	All 'Determinant' information and between 25% and 50% of the 'Important' information.	86
Level IV	All 'Determinant' information and less than 25% of the 'Important' information.	79
Level V	More than 50% of the 'Determinant' information and more than 50% of the 'Important' information.	71
Level VI	More than 50% of the 'Determinant' information and between 25% and 50% of the 'Important' information.	64
Level VII	More than 50% of the 'Determinant' information and less than 25% of the 'Important' information.	57
Level VIII	Between 25% and 50% of the 'Determinant' information and more than 50% of the 'Important' information.	50
Level IX	Between 25% and 50% of the 'Determinant' information and between 25% and 50% of the 'Important' information.	43
Level X	Between 25% and 50% of the 'Determinant' information and less than 25% of the 'Important' information.	36
Level XI	Less than 25% of the 'Determinant' information and more than 50% of the 'Important' information.	29
Level XII	Less than 25% of the 'Determinant' information and between 25% and 50% of the 'Important' information.	21
Level XIII	Less than 25% of the 'Determinant' information and between 10% and 25% of the 'Important' information.	14
Level XIV	Less than 25% of the 'Determinant' information and less than 10% of the 'Important' information (but at least one item is disclosed).	7
Level XV	No information is disclosed.	0



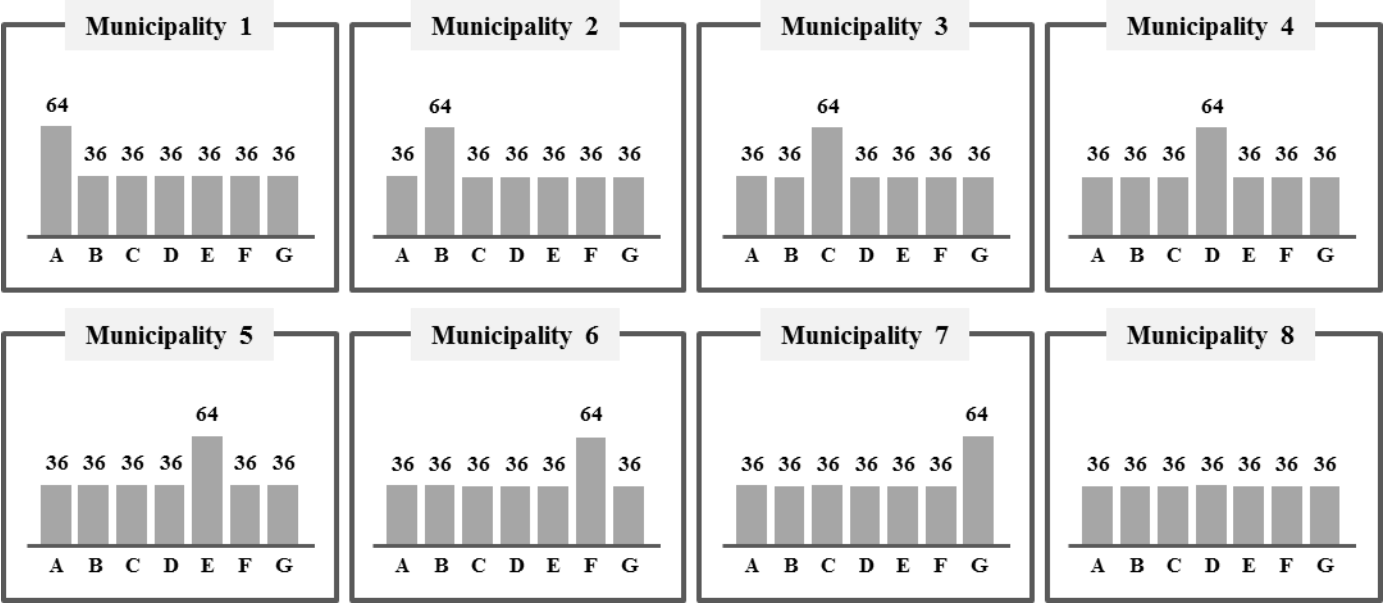
# Detail and Shape of the Scoring System for the MTI Dimensions





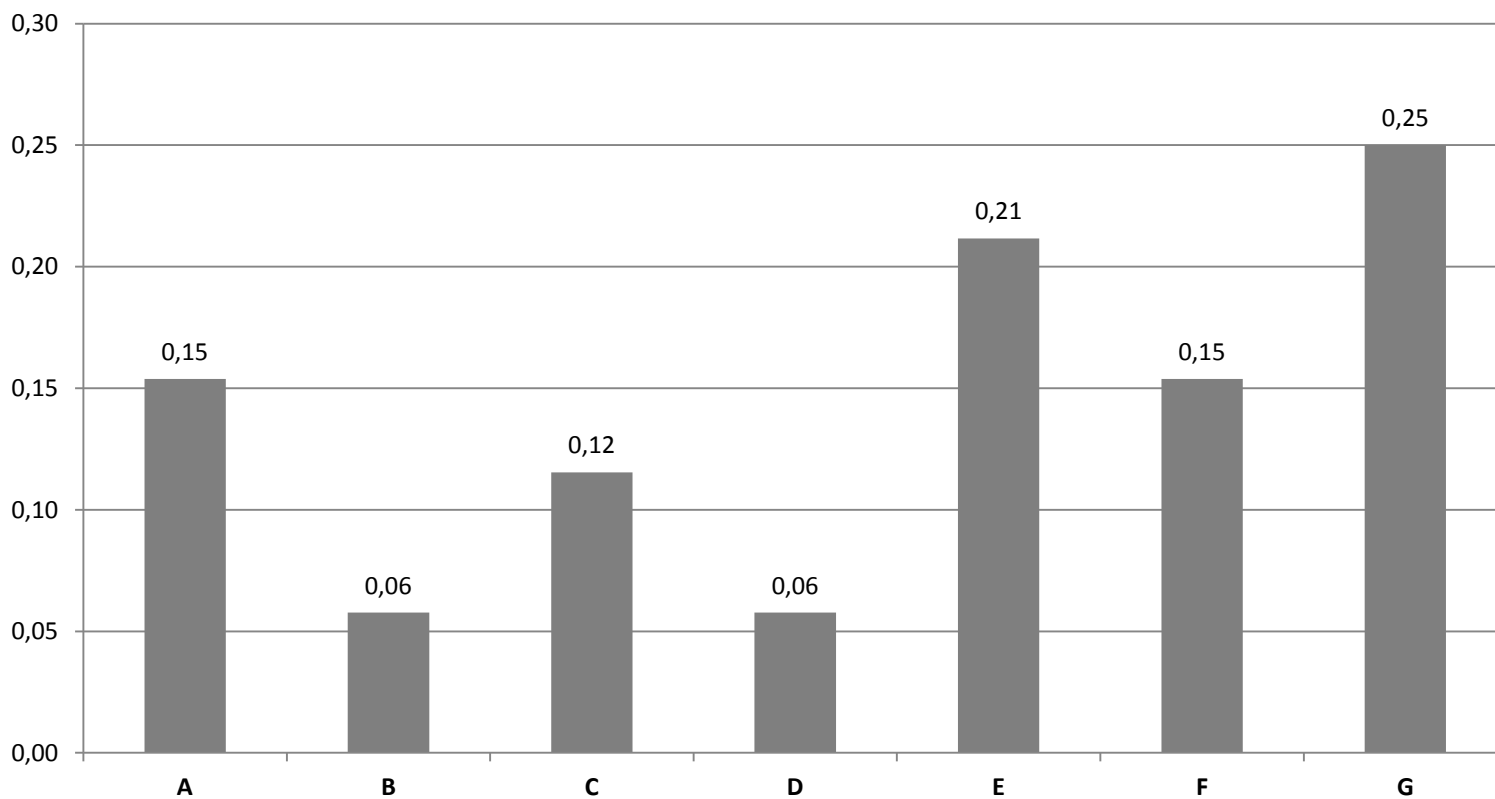


# Performance Profiles used to Determine the Weighting Coefficients

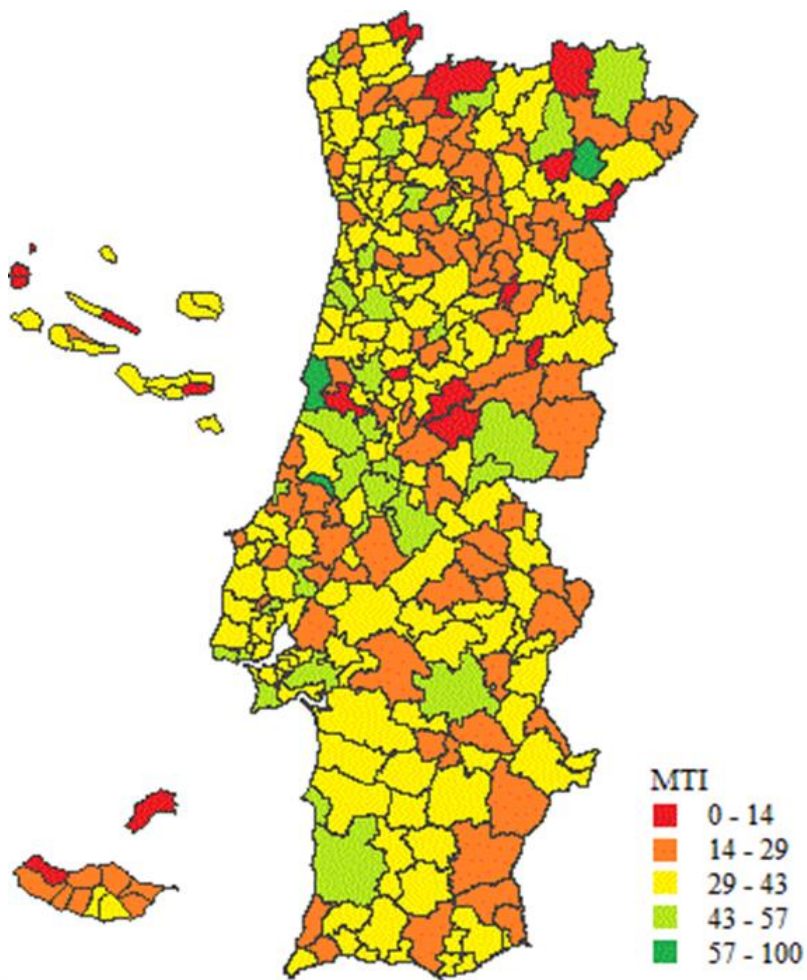




## Weights of the MTI dimensions

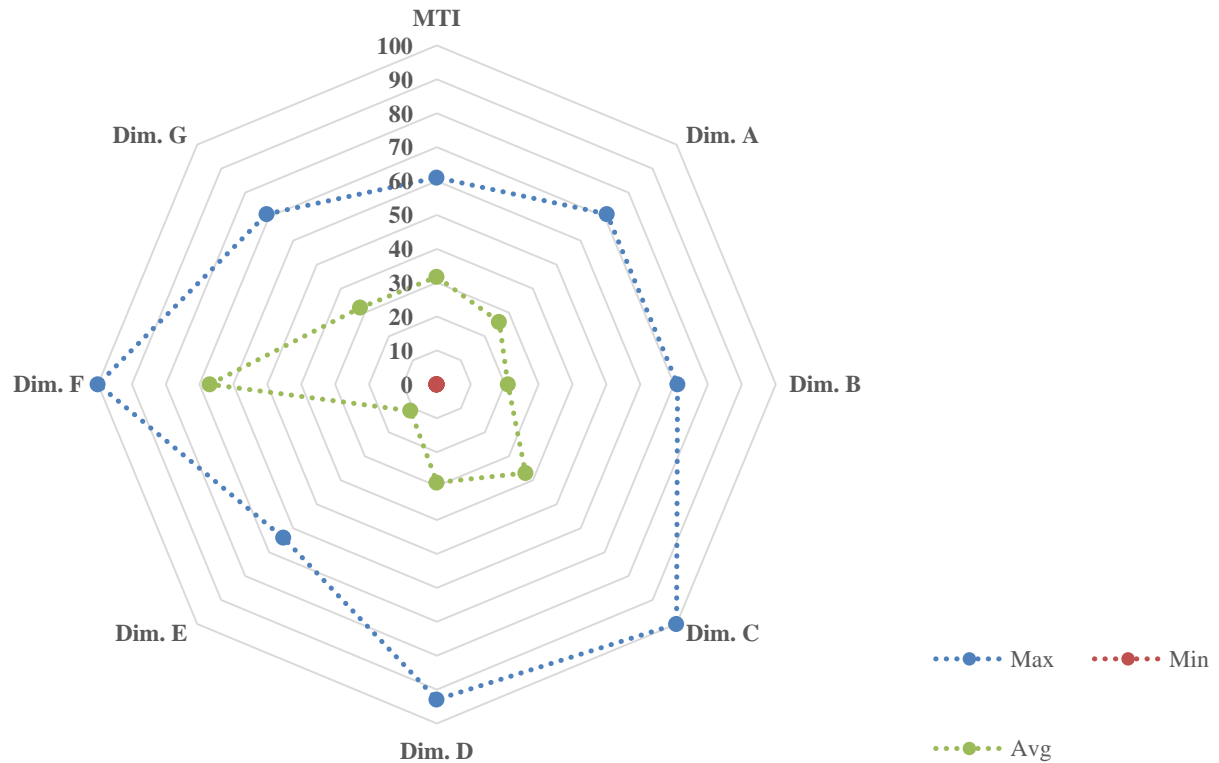


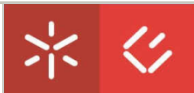
# Geographical Distribution of the MTI (2013)



Municipality	MTI	Ranking
<i>10 best</i>		
Figueira da Foz	61	1
Alfândega da Fé	59	2
Batalha	58	3
Abrantes	54	4
Ferreira do Zêzere	54	4
Aveiro	53	6
Oeiras	52	7
Vizela	52	7
Coimbra	51	9
Guimarães	51	9
Mirandela	51	9
Pombal	51	9
<i>10 worst</i>		
Calheta (Azores)	0	306
Montalegre	0	306
Santa Cruz das Flores	0	306
Belmonte	2	303
Fornos de Algodres	5	303
Oleiros	5	303
Lajes das Flores	7	302
Vinhais	8	301
Corvo	9	299
Melgaço	9	299

# Maximum, Minimum and Average MTI Scores (2013)



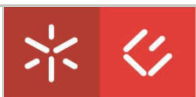


# Descriptive Statistics

Table 2. Descriptive Statistics.

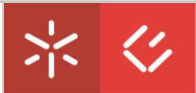
Variable	Indicator	Mean	Standard Dev.	Min.	Max.	Obs.
<i>Dependent</i>						
Transparency	MTI 2013	32.31	10.41	0.00	60.99	278
Transparency	All transparency dimensions valued the same (i.e. dimensions with equal weights) (2013)	32.48	10.23	0.00	61.22	278
Transparency	All indicators valued the same (i.e. indicators with equal weights) (2013)	29.44	10.75	0.00	57.89	278
<i>Supply-side</i>						
Minority	1=Minority executive; 0=Otherwise (2009)	0.09	0.29	0.00	1.00	278
Consecutive Terms	Number of consecutive terms by the incumbent (2009)	3.07	1.96	1.00	10.00	278
Margin of victory	Difference in percentage points between 1 <sup>st</sup> and 2 <sup>nd</sup> place parties (2009)	20.02	10.98	0.95	56.64	278
Partisanship	Left=1; 0=Otherwise (2009)	0.54	0.50	0.00	1.00	278
Financial autonomy	Proportion of own revenues	0.34	0.19	0.04	0.87	278
IT Employees	Natural log of IT employees in City Hall	1.30	0.86	0.00	4.93	236
Gender	Mayor's gender (1=Female)	0.08	0.26	0.00	1.00	278
Mayor's Age	Mayor's age	52.02	8.61	27.00	74.00	270
Mayor's Education	(0=6 years or less; 1=9 years; 2=High school; 3=Graduate; 4=Postgraduate)	1.97	.68	0.00	4.00	220
<i>Demand-Side</i>						
Education	Proportion of individuals w/ a Bachelor's degree	0.08	0.04	0.03	0.27	278
Unemployment	Percent unemployed	12.50	2.83	5.09	22.85	278
Age	Average age of municipal population	41.55	3.89	32.5	52.71	278
Purchase power	Index (100=Country average)	76.03	24.26	47.36	232.54	278
Turnout	Turnout in mayoral elections (2009)	65.06	7.37	45.91	80.61	278
Municipal Population	Natural log	9.83	1.10	7.48	13.14	278

Note: All variables are measured in 2011, except where mentioned otherwise.



## Data and Methods

- 278 local governments (mainland Portugal)
- Municipal Transparency Index (dependent variable)
  - ITM (2013)
  - Index (Dimensions w/ Equal Weights)
  - Index (Indicators w/ Equal Weights)
- Regression Analysis – Ordinary Least Squares
- Two sets of Independent Variables:
  - Supply-side: mayor's profile and municipal executive profile
  - Demand-side: socioeconomic and demographic factors



# OLS Estimates (Dep. Variable: MTI)

	Supply-side model (1)	Demand- side model (2)	Full model (3)	Full model (w/ IT employees) (4)	Full model (w/ mayor's gender) (5)	Full model (w/ mayor's gender & age) (6)	Full model (w/ mayor's gender & education) (7)
<i>Supply-side</i>							
Minority	1.02	----	0.41	-0.02	-0.13	0.37	0.8
Executive	(1.56)	----	(1.62)	(1.75)	(1.69)	(1.7)	(1.94)
Consecutive	-0.87	----	-0.96	-0.82	-0.93	-0.90	-0.64
Terms	(0.32)***	----	(0.31)***	(0.31)***	(0.31)***	(0.37)**	(0.35)*
Margin of victory	0.13	----	0.12	0.10	0.13	0.13	0.11
	(0.06)**	----	(0.06)**	(0.06)	(0.06)**	(0.06)**	(0.07)
Partisanship	0.78	----	1.19	1.14	1.07	0.87	0.1
	(1.14)	----	(1.14)	(1.17)	(1.13)	(1.14)	(1.27)
Financial autonomy	22.18	----	10.61	8.86	9.9	9.21	11.89
	(3.20)***	----	(5.18)**	(5.34)*	(5.16)*	(5.13)*	(5.07)**
IT Employees	----	----	----	0.5 (1.13)	----	----	----
Gender	----	----	----	----	4.78	5.12	5.77
	----	----	----	----	(2.48)*	(2.5)**	(2.66)**
Mayor's Age	----	----	----	----	----	0.01	----
	----	----	----	----	----	(0.09)	----
Mayor's Education	----	----	----	----	----	----	1.11
	----	----	----	----	----	----	(1.04)
<i>Demand-side</i>							
Education	----	18.73	35.18	57.89	40.38	30.11	4.51
	----	(33.41)	(33.84)	(37.77)	(34.15)	(36.57)	(41.89)
Unemployment	----	-0.48	-0.46	-0.33	-0.46	-0.42	-0.43
	----	(0.22)**	(0.21)**	(0.2)	(0.21)**	(0.21)*	(0.24)*
Age	----	-0.41	-0.33	-0.39	-0.39	-0.4	-0.43
	----	(0.24)*	(0.23)	(0.25)	(0.23)*	(0.24)*	(0.26)
Purchasing power	----	0.07	0.01	-0.03	0.01	0.01	0.03
	----	(0.05)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Turnout	----	-0.08	-0.02	-0.03	-0.02	-0.02	-0.04
	----	(0.10)	(0.11)	(0.11)	(0.11)	(0.11)	(0.12)
Municipal Population	----	0.81	0.6	0.6	0.49	0.48	0.07
	----	(0.98)	(0.97)	(1.18)	(0.96)	(1)	(1.13)
Constant	24.33	45.79	39.67	43.12	42.63	42.43	47.4
	(1.97)***	(20.91)**	(21.16)*	(23.34)*	(20.48)**	(21.38)**	(22.84)**
F	11.76***	10.66	7.56***	6.54***	7.73***	6.26***	5.14***
R <sup>2</sup>	0.18	0.18	0.23	0.24	0.24	0.22	0.22
N. Obs.	278	278	278	236	278	270	220



## OLS Estimates (Dep. Variable: Dimensions w/ Equal Weights)

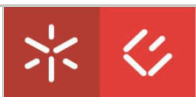
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<i>Supply-side</i>							
Minority	0.98	----	0.32	-0.07	-0.17	0.24	0.87
Executive	(1.54)	----	(1.58)	(1.74)	(1.63)	(1.64)	(1.88)
Consecutive	-0.80	----	-0.9	-0.78	-0.88	-0.86	-0.7
Terms	(0.28)***	----	(0.27)***	(0.28)***	(0.27)***	(0.33)**	(0.31)**
Margin of victory	0.13	----	0.12	0.1	0.12	0.13	0.12
	(0.06)**	----	(0.06)**	(0.06)*	(0.06)**	(0.06)**	(0.07)*
Partisanship	0.63	----	1.09	0.73	0.98	0.75	-0.07
	(1.09)	----	(1.07)	(1.09)	(1.06)	(1.07)	(1.19)
Financial autonomy	24.16	----	11.31	9.81	10.65	9.83	11.46
	(3.05)***	----	(5)**	(5.1)*	(4.99)**	(4.99)*	(5.09)**
IT Employees	----	----	----	1.1	----	----	----
	----	----	----	(1.03)	----	----	----
Gender	----	----	----	----	4.39	4.74	5.68
	----	----	----	----	(2.2)**	(2.21)**	(2.34)**
Mayor's Age	----	----	----	----	----	0.01	----
	----	----	----	----	----	(0.09)	----
Mayor's Education	----	----	----	----	----	----	0.74
	----	----	----	----	----	----	(0.96)
<i>Demand-side</i>							
Education	----	25.84	42.17	70.77	46.94	41.03	19.7
	----	(33.47)	(33.42)	(36.98)*	(33.74)	(36.76)	(41.32)
Unemployment	----	-0.46	-0.44	-0.33	-0.44	-0.4	-0.41
	----	(0.21)**	(0.2)**	(0.19)*	(0.2)**	(0.2)**	(0.23)*
Age	----	-0.48	-0.39	-0.46	-0.44	-0.47	-0.49
	----	(0.22)**	(0.21)*	(0.23)**	(0.21)**	(0.22)**	(0.24)**
Purchasing power	----	0.06	0.00	-0.06	0.00	0.00	0.02
	----	(0.05)	(0.05)	(0.06)	(0.05)	(0.05)	(0.06)
Turnout	----	-0.84	-0.02	-0.02	-0.01	-0.02	-0.05
	----	(0.09)	(0.1)	(0.1)	(0.09)	(0.1)	(0.11)
Municipal Population	----	1.07	0.85	0.61	0.74	0.64	0.22
	----	(0.93)	(0.92)	(1.08)	(0.92)	(0.96)	(1.08)
Constant	23.78	46.26	39.4	45.09	42.12	43.87	49.81
	(1.85)***	(19.14)**	(18.91)**	(20.6)**	(18.4)**	(19.32)**	(20.64)**
F	14.20***	15.13***	9.56***	8.65***	9.70***	7.96***	6.45***
R <sup>2</sup>	0.21	0.22	0.27	0.29	0.28	0.26	0.26
N. Obs.	278	278	278	236	278	270	220





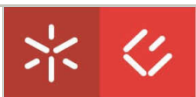
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<i>Supply-side</i>							
Minority	2.50	----	1.79	1.16	1.38	1.61	2.77
Executive	(1.72)		(1.74)	(1.9)	(1.76)	(1.78)	(2.07)
Consecutive Terms	-0.77	----	-0.88	-0.75	-0.86	-0.88	-0.6
	(0.29)***		(0.29)***	(0.29)**	(0.28)***	(0.34)**	(0.31)*
Margin of victory	0.10	----	0.09	0.08	0.09	0.09	0.09
	(0.06)*		(0.06)	(0.06)	(0.06)	(0.06)	(0.07)
Partisanship	1.15	----	1.54	1.4	1.45	1.37	0.69
	(1.17)		(1.14)	(1.16)	(1.14)	(1.16)	(1.28)
Financial autonomy	24.84	----	10.39	8.32	9.84	9.44	11.09
	(3.14)***		(5.45)*	(5.5)	(5.42)*	(5.44)*	(5.38)**
IT Employees	----	----	----	0.72	----	----	----
				(1.14)			
Gender	----	----	----	----	3.67	3.97	4.79
					(2.35)	(2.35)*	(2.55)*
Mayor's Age	----	----	----	----	----	0.03	----
						(0.09)	
Mayor's Education	----	----	----	----	----	----	0.51
							(0.97)
<i>Demand-side</i>							
Education	----	8.65	24.01	42.8	27.99	26.67	-1.35
		(34.68)	(34.52)	(38.21)	(34.97)	(38.09)	(42.37)
Unemployment	----	-0.37	-0.38	-0.27	-0.38	-0.35	-0.32
		(0.22)*	(0.21)*	(0.21)	(0.22)*	(0.22)	(0.25)
Age	----	-0.41	-0.35	-0.41	-0.39	-0.42	-0.40
		(0.22)*	(0.21)	(0.23)*	(0.21)*	(0.22)*	(0.24)*
Purchasing power	----	0.07	0.01	-0.03	0.01	0.00	0.04
		(0.05)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Turnout	----	-0.07	-0.02	-0.05	-0.02	-0.03	-0.05
		(0.10)	(0.1)	(0.1)	(0.1)	(0.1)	(0.12)
Municipal Population	----	1.87	1.58	1.63	1.50	1.36	1.07
		(0.98)*	(0.98)	(1.14)	(0.98)	(1.01)	(1.16)
Constant	20.66	31.06	28.09	32.36	30.37	32.1	34.78
	(1.99)***	(20)	(20.58)	(21.81)	(20.34)	(21.26)	(22.97)
F	14.43***	15.65	9.69***	9.00***	9.59***	7.94***	6.26***
R <sup>2</sup>	0.21	0.22	0.26	0.29	0.27	0.25	0.25
N. Obs.	278	278	278	236	278	270	220



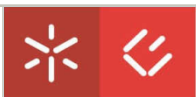
## Findings (Supply-Side)

- Municipalities run by female mayors have, on average, MTI scores 5 points above their male counterparts
- Each additional term reduces the MTI by about 0.88 points
- Increased margins of victory have a positive effect on local transparency (a surprising result!)



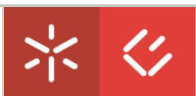
## Findings (Demand-Side)

- Municipalities w/ higher unemployment rates also tend to display lower transparency levels:
  - An increase in 1 percentage point in the unemployment rate originates an average drop of 0.3 points in the MTI
- Municipalities where the average age of residents is higher display lower levels of MTI
- Tenuous positive relationship between educational levels and transparency



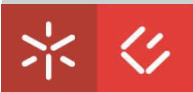
## Conclusions and Policy Implications

- Lengthier stays in power are detrimental to the adoption of information disclosure and open government principles.
- The introduction of term limits effectively on the 2013 local election may contribute to increase political competition and produce benefits to local government transparency
- Low levels of transparency found across the board of Portuguese local governments may be due to insufficient demand driven by cultural and educational motives



## Conclusions and Policy Implications

- An increase in transparency has the potential to provide citizens with information so they can act as 'armchair auditors' that participate in the policy process, promote accountability, improve the quality of government decision-making, and help prevent and mitigate corruption
- The availability of information can also help to unravel private interests which can conflict with the collective interest, and make actors accountable for all decisions and actions taken or omitted, and the reasons that informed them.



**Thank You!**

**Comments are Welcome!**

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