A fine collection: The political budget cycle of traffic enforcement☆

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HIGHLIGHTS

- We use data on issuance and collection of traffic fines in Italian municipalities.
- Before elections, mayors issue fewer fines.
- Before elections, mayors collect a smaller share of issued fines.
- Tax collection (and not only tax setting) is subject to political budget cycle.

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ABSTRACT

We find evidence that before elections Italian mayors issue fewer traffic tickets and collect a lower proportion of issued fines. This is first-hand evidence that tax collection – other than tax setting – can be strategically used to affect electoral results.

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1. Introduction

Traffic enforcement tickets are a common source of revenues for local governments. They are a cheap way to raise funds with no necessity to touch existing tax policies, they are imposed on subjects who may not be resident (voters) in that particular area. Moreover, traffic regulations are often set by the same subjects issuing fines, with obvious scope for strategic behavior: a speed camera can be easily switched on or off, irregular parking can be enforced very strictly or very laxly, parking regulations can be changed. Unlike taxes (such as property tax) or service charges (such as nursery school fees) traffic fines have further advantages: they are (mostly) unrelated to any "service" provided by the local government, have a near-zero marginal cost, and are issued to subjects who have breached a law or regulation, something that can be felt as "wrong", and that is generally avoidable. All these elements make traffic fines a very flexible and interesting policy instrument.

In Italy municipal governments issue about 20 million tickets per year; this amount does not include tickets issued by the national police forces, or outside urban areas; about 15% of non-tax revenues of municipalities comes from this source (source: our elaboration from municipal budgets). A further peculiarity makes our data quite unique: municipal budgets report both the cash-based and the accrual-based figures, allowing to distinguishing (for example) between mayors issuing fewer fines or collecting less effectively. Data from municipal budgets show that about 75% of accrued traffic-fine revenues are ever cashed in. The remaining quarter is not collected for a variety of reasons: fines resulting from traffic-enforcement cameras need to be notified within a given time frame to be valid, appeals are so frequent (and the full number of them is unknown) that municipalities choose not to show up in Court to defend each (small) claim,[1] municipalities may more

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[1] In large municipalities, such as Milan, one can find also dedicated websites offering to file the appeal on your behalf for a small fee, claiming up to 97% success rate.

generically be inefficient or ineffective in collecting (e.g. in case the car owner is not to be found, has no funds or just does not pay); anecdotally, it is also known that the central-government collection agency (Equitalia) – to which most municipalities entrust the collection of unpaid claims – is less efficient when collecting small amounts, while is more efficient for larger unpaid sums (originated by VAT, income or property tax evasion).

As a first instance the aim of this paper is to seek evidence on the political budget cycle of traffic fines, exploring both their issuance and collection. Secondly, but most importantly, through this exercise we also find evidence of a political budget cycle in the collection mechanism.

This paper contributes to a number of strands of literature. First of all, it directly relates to the large literature on political budget cycle, started by Nordhaus (1975), Tufte (1978) and Rogoff (1990) and reviewed extensively by Dubois (2016). This literature highlights how nearly any aspect of public policy (expenditure levels and composition, taxation, deficit, public employment) are affected by electoral incentives, and in particular how these incentives are affecting policy choices more strongly when elections are closer (so in the pre-election period) or tighter (in marginal localities, in absence of term limits).

This paper also relates to the large literature on tax evasion. In particular the literature has highlighted how the decision to evade taxes depends on the beliefs held about the enforcement mechanism (see for example the seminal paper by Allingham and Sandmo, 1972; and the review by Andreoni et al., 1998): the decision of not paying a parking ticket (or the decision to file a "frivolous" appeal) can be equated to the decision to evade taxes, and related to the expectation of being chased for that payment.

Finally, this paper is also linked with a smaller number of works on traffic enforcement and policing: the famous paper by Fisman and Miguel (2007) found that diplomats from low social capital countries were less likely to pay traffic fines in New York; Garrett and Wagner (2009) noted how traffic fines are used more intensely by localities with tighter budgets; Guillamón et al. (2013) find evidence of a political budget cycle of police expenditure in Spanish municipalities.

2. Institutional background and data

Italy is subdivided into over 8000 municipalities, ruled by directly elected mayors (for further institutional details see Bracco et al. (2015)). Each municipality follows its own electoral cycle, so that each year – typically in Spring – a number of municipalities goes to elections. Municipalities are in charge of a number of local services, including traffic management, and have substantial powers in revenue setting. Many municipalities – the exception being the smaller ones – have a municipal police force, which is directly dependent from the mayor, and is in charge of traffic controls, assisting bailiffs, checking on street sellers, and patrolling the territory. Since 1997 – through a quite non-linear process, laden with legal challenges – the task of issuing parking tickets have been extended from members of the police forces to ad-hoc traffic wardens. In past two decades, an increasing amount of traffic enforcement cameras have been installed; resident-permit and pay-and-display parking have become more and more common also outside of major cities.

Municipalities' receive grants from upper-tier governments (mainly central government) and also have their own sources of revenues. On average one quarter of revenues come from fiscal sources (such as property tax, or income tax surcharges), one half from intergovernmental grants, and one quarter from non-tax sources such as user charges, fees, and fines (see Bracco et al., 2013, for details).

Our dataset comprises municipal budgets and demographic and economic variables from 1998 to 2015, and electoral data for all

Table 1
Summary statistics.

Variable	Mean	Std. Dev.	N
Tickets: Issued	10.808	18.09	60477
Tickets: Cashed	7.086	12.577	60477
Tickets: Index	0.727	0.313	60477
Marginal	0.16	0.366	60477
Pre-election	0.421	0.494	60477
Term limit	0.309	0.462	60477
Population, k	9.508	33.042	60477
Population, sq.	1182.156	30144.406	60477
Taxable income, pc.	16.676	4.244	51262
Social capital	72.602	11.049	60441
Left-wing	0.213	0.409	60477
Right-wing	0.125	0.33	60477
Grants, share	53.15	17.653	56855
Tax revenues, share	25.503	17.381	56855
Munic. Policemen per 100k inahbs.	0.01	0.237	57794
Vehicles per thousand inhabs.	596.422	74.235	59825

Table 2
Effect of electoral incentives on issuance and collection of traffic fines (pre-election dummy).

	(1) Issued b/se	(2) Cashed b/se	(3) Index b/se
Pre-election	−0.108 (0.122)	−0.184** (0.082)	−0.011*** (0.002)
Population, k	0.132*** (0.016)	0.077*** (0.011)	−0.000 (0.000)
Population, sq.	−0.000*** (0.000)	−0.000*** (0.000)	0.000 (0.000)
Social capital	−0.033 (0.023)	−0.027* (0.015)	−0.000 (0.000)
Taxable income, pc.	0.838*** (0.113)	0.630*** (0.076)	−0.003** (0.001)
Left-wing	−0.362 (0.400)	0.002 (0.276)	−0.004 (0.006)
Right-wing	0.707 (0.450)	0.449 (0.296)	−0.015** (0.007)
Grants, share	−0.237*** (0.019)	−0.144*** (0.012)	0.000 (0.000)
Tax revenues, share	−0.263*** (0.019)	−0.160*** (0.012)	0.001*** (0.000)
Munic. Policemen	0.423 (0.504)	0.276 (0.288)	0.003 (0.003)
Vehicles	0.001 (0.003)	−0.002 (0.002)	−0.000** (0.000)
Constant	17.299*** (3.016)	11.113*** (1.898)	0.883*** (0.040)
N	44735	43179	43287
r2	0.158	0.161	0.045

Note: Panel data with province and year fixed effects. Standard errors clustered at the municipality levels. All regressions include controls.
* $p < 0.1$.
** $p < 0.05$.
*** $p < 0.01$.

mayors in power in that period (i.e. for elections held from 1994 onwards).[2]

As dependent variable we use figures related to traffic fines ("Municipal Police: Highway-Code Earmarked Resources"). In particular we measure (1) accrual figure (related to issued fines), (2) cashing of fines issued in the year, (3) the "collection index" calculated as a ratio between (2) and (1). Our main variables of

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[2] Municipal budgets (including data on number of fines issued and number of city policemen) and electoral data are made public by the Interior Ministry. Demographic data is provided by the Italian statistical office ISTAT. Data on taxable income is provided by the Finance Ministry. Data on number of registered vehicles is provided by ACI (Automobile Club d'Italia).