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Voter turnout and fiscal policy ☆

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ABSTRACT

In this paper, we examine whether shocks in voting costs can impact elected representatives' quality, defined as the capacity to fund projects at the lowest cost. Using data on French municipalities and local variations in seasonal infections incidence as a shock on voting cost, we estimate that higher incidence lowers voter turnout, increases subsidies obtained by a municipality, decreases harmful financial decisions, and increases the municipality's investment in infrastructure. We present a model where these predictions would hold, in particular for municipalities with a high base level of turnout.

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1. Introduction

In an electoral competition, candidates may differ in policy preferences, as well as in quality, defined as the capacity to fund projects at the lowest cost for constituents. This capacity could reflect better knowledge or training that may give access to better sources of funding, either public or private. In this paper, we ask whether changes in voting cost can affect the quality of elected representatives and the unit cost for their constituents of the policies they implement.

To address this question, we use as a shock on voting cost the incidence of digestive infections at the time of elections. We choose this particular shock for two reasons. First, its realisation is observed only at the time of the election and therefore does not affect the set of candidates running nor the platforms they propose. Second, it can potentially affect the entire population, unlike other shocks considered in the literature, such as enfranchisement laws. We use data on French municipalities over the period 2001–2013, which covers all the years of two consecutive municipal terms. Two elections took place over the period studied, the first in March 2001, and the second in March 2008.

We estimate the effects of the average weekly incidence of digestive infections in March on four (sets of) dependent variables: voter turnout, two measures of the cost of public goods, infrastructure expenses and other fiscal outcomes, and characteristics of the elected representatives. We include as control variables a set of municipal variables that capture demographic and economic conditions at the beginning of a term. Since we observe municipalities for two terms, all our estimations include municipal fixed effects.

Our first result is that an increase in infections incidence decreases voter turnout in the first round of the election. Sick people are less likely to vote. The incidence of digestive infections indeed significantly affects voting costs. We can then estimate the effect of voting cost on two variables that measure the cost of public policy following an election. Both variables depend on municipal councilmen's actions, and hence reflect their quality.

Our first measure uses transfers between the municipality and other governments. Every municipality can receive funds from these upper government levels by applying for targeted subsidies used for infrastructure expenses only. The allocation of these subsidies is left to the discretion of the higher levels of government.[1] The ability to obtain these funds depends on the knowledge of the politician and the quality of the project she proposes. Every municipality also transfers funds to other levels of governments. We define net discretionary transfers as the difference between targeted subsidies received and transfers paid.

The cost of a given investment in infrastructure borne by municipal residents is obviously lower if net transfers are bigger. We therefore estimate the effect of infections incidence at the time of the election on the ratio of net transfers over total infrastructure expenses in the years of the term that follow the election. We find that this effect is positive and significant. These effects are robust if we control for infrastructure expenses.

The second measure of unit costs of implemented policies (and thus quality of the candidates) is the probability to hold financial products that became known as "toxic loans". In 1995, some banks started to propose to municipalities structured loans with variable interest rates. These loans turned out to be extremely costly for the borrowers, who often ended up having to pay several times the amount they would have paid if they had chosen other types of loans. The decision to contract this type of loan seems to have been driven by lack of financial literacy; holding toxic loans thus indicates lower quality.[2] We estimate that infections incidence decreases the probability to hold such a loan.[3] Higher interest rates mean a higher cost of public policy borne by municipal residents.

We then estimate that an increase in infections increases the infrastructure expenses. We find no significant impact on other fiscal outcomes.

Finally, we assess the effect of average infections incidence on characteristics of the elected representatives. Each municipality is governed by a municipal council, headed by a mayor. The mayor is typically the local leader of the party that won the largest number of seats in the council. We find that infections incidence has no significant impact on the political affiliation (left or right) of the mayor.[4] Then, using information on the professional activity of mayors, we estimate that infections incidence increases the probability that the mayor's profession requires at least a Master's degree. This result shows that infections incidence can indeed impact electoral outcomes, but not through political affiliation.

We then use infections incidence to define instrumental variables for the log of voter turnout and estimate the elasticity of infrastructure expenses to voter turnout. This elasticity is around -7 if each municipality has the same weight, and around -2.5 if we weigh each municipality by its number of inhabitants.

The identification assumption is that infections incidence at the time of an election is not correlated with some unobserved factor that explains voter turnout, electoral outcomes, or municipal policy following the election. Such an unobserved factor could impact infections incidence directly, or could create an error in the measurement of incidence correlated with municipal policy. Consider, for instance, a decline in economic conditions (not captured in the set of control variables) that triggers changes in municipal policy. Such a decline might make the municipal population either more vulnerable to infections (direct impact on infections incidence) or less likely to visit a doctor if they are sick (measurement error). In either case, such a decline would be a source of endogeneity.

We test the validity of the identification assumption in three ways. First, we estimate the effect of the average weekly incidence in the months before and after the election, i.e. February and April, on the main dependent variables considered. Neither variable has any significant effect or substantially alters the value of the coefficient of infections incidence in the election month. Any omitted variable that would affect infections incidence in general, either directly or through measurement error, such as economic decline as described above, should affect infections incidence in any month of the election year, not in March specifically. Of course, average weekly incidence in March is a noisy measure of the actual number of individuals who were sick in the week of the election and had symptoms on the election days. However, if the noise in March specifically is not correlated to omitted factors explaining municipal policy (or turnout, or electoral results), the previous estimations reflect a causal effect of infections on the dependent variables.[5]

Then, we propose two series of falsification tests. The first series are the regressions of past values of the main dependent variables on infections incidence at the time of an election.[6] The second series are the regressions of current values of the main dependent variables on infections incidence measured in the month of March in a non-election year.[7] None of the

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[1] Some subsidies are automatic and depend on observable characteristics of a municipality (its population, its surface, etc.) We do not count them here.

[2] An official report published in 2011 (Cour des Comptes, 2011) explicitly warns municipalities against risky loans. The report explains to mayors that bankers' financial incentives are different from mayors' constituents' interests. It also reports that many toxic loans have deceiving names that may induce borrowers to believe they have taken loans with fixed rates. Several suits against the banks offering such loans have claimed that borrowers were misinformed.

[3] We use an indicator variable as dependent because we have no trustworthy information on the actual interest paid by the municipality.

[4] The number of mayors belonging to extremist parties at the time of study is so small that our estimations cannot be attributed to their electoral results.

[5] Infections incidence could directly impact infrastructure expenses, independent of its impact on voter turnout. For instance, a high incidence may justify the building of medical facilities. These tests also address this point: if infrastructure expenses respond to infections incidence, they should be affected by infections in February (which is comparable to infections incidence in March) and/or in April, which is not the case.

[6] We have no information on voter turnout or electoral results in municipal elections before 2001. Due to data limitations, we cannot observe all the years of the municipal term ending in 2001.

[7] We report only the results for one year before and two years before an election year.