

Deciding Who's Decisive: Municipality Break-Ups and the Behavior of Local Politicians

Anna Brink*

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Department of Economics

Göteborg University

Abstract

Swedish municipality parts aiming for secession are highly dependent on the municipal council's acceptance in order to succeed. Only four of the 25 municipality break-up verdicts passed by the central government have not been in line with the municipal council's recommendation. In nearly all cases, the recommendation seems to be based on the stated opinion in local referenda or opinion polls. However, by deciding on whether the whole municipality, or the seceding part alone should be encompassed by the referendum or opinion poll, the municipal council can affect the probability of obtaining the desired result. This paper empirically studies this decision. Two factors show to be important. If secession would result in a large reduction of the municipality's population and a decrease in its per capita tax base, the referendum or opinion poll is more likely to encompass the whole municipality. Such a referendum or opinion poll does, in turn, decrease the probability of a municipal council supporting the case, which reduces the central government's propensity to finally approve secession.

Keywords: municipality break-ups, secession, referenda, municipal council

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1 Introduction

The responsibilities of local governments increased significantly with the expansion of the Swedish welfare state from the 1950s. Many of the municipalities were considered to be too small to be run efficiently, which motivated the government to carry through two municipality amalgamation reforms. The number of municipalities was reduced to about a tenth. But during the last 25 years the development has gone in the opposite direction; more than 40 municipality parts have tried to secede. The majority of all secession attempts has, however, been turned down somewhere in the legal process, along the path of investigation decisions, referenda, and governmental verdicts. So far, the central government has approved 13 municipality parts to break out and form new municipalities.

A central feature of the legal process is that the local politicians play a key role for a break-up case to be successful. Only four of the 25 partition verdicts passed by the central government have not been in line with the recommendation of the municipal councils. A natural question to pose is: Which factors are of importance for the recommendation? This paper shows that most of the municipal councils' recommendations directly correspond to the stated public opinion in referenda or opinion polls. The answer does therefore at first seem trivial. However, in about a third of all cases, the entire population has not been entitled to participate, but the seceding municipality part alone. The stated public opinion does, therefore, largely depend on the scope of the referenda and opinion polls.

A necessary condition for the municipal council to recommend a municipality break-up is a strong public opinion supporting the idea in the seceding municipality part. A referendum or opinion poll that also encompasses the non-seceding part imposes a further condition for a positive recommendation; the municipality as a whole must be positive as well. Accordingly, by letting the whole municipality participate, the likelihood of secession decreases. The vast majority of all referenda and opinion polls is, moreover, initiated and arranged by the municipal councils, which gives rise to the main question in this paper: Which factors affect the municipal council's decision whether people in the seceding part alone should be entitled to vote?

Municipality parts aiming for secession are relatively small; they do always constitute a minority of the municipality. The municipal council is, therefore, not

considered to necessarily represent the seceding part's wish in the process of municipality break-ups. The legal process of break-up cases does instead presume that the municipal council acts in accordance with the preferences of the non-seceding part of the local population. This is a hypothesis that will be tested. But we will also look into the possibility that the municipal council is motivated by self-interests. If the municipality part aiming for secession votes for the political opposition to a large extent, the incumbent majority may view secession as a means of securing future incumbency.

Based on 19 decisions made by municipal councils, the empirical analysis identifies two factors to clearly affect the choice of whether the whole municipality or the seceding part alone is encompassed by the referendum or opinion poll. The greater the population share belonging to the seceding part, and the more the municipality's per capita tax base would decrease in case of secession, the more likely is a referendum or opinion poll encompassing the whole municipality. Such an arrangement does, in turn, decrease the probabilities of a positive recommendation by the municipal council, and of a positive partition verdict by the central government.

The paper is outlined as follows. The background to municipality division and partitions is presented in section 2, which also describes the legal procedure of partition matters. Section 3 relates the municipal council's recommendation and the stated public opinion to the final partition verdict made by the central government. In section 4, the municipal council's strategy and its possible objectives are discussed. The data are described in section 5. Section 6 presents the results. Section 7 summarizes the main findings and concludes the paper.

2 Division and Partition – the Background

The size and number of Swedish municipalities have changed considerably during the last 50 years. In 1952, the “the large municipal district reform” took effect, halving the number of municipalities from 2,500 to 1,037. The “municipality bloc reform” of the 1960s further decreased their number to 277 when completed in 1974.

The two amalgamation reforms were a Social Democratic project based on efficiency arguments. The first reform aimed at creating municipalities with resources enough to sustain an acceptable level of public administration, which required a population of 2,000–3,500 at the minimum. The increase of municipal responsibili-

ties during the 1950s called for further amalgamations; municipalities ought to have populations large enough to keep up schools and social services, corresponding to a population of at least 8,000 inhabitants (SOU 1978:32).

The second reform met resistance in many municipalities, as well as among the right-wing political parties. Although both the advocates of the reform and its critics had similar anticipations of the amalgamations, they had conflicting priorities regarding the consequences of the reform. On the one hand, efficiency was anticipated to increase and local self-government to improve, making municipalities less dependent on the central government financially as well as administratively. On the other hand, local democracy was anticipated to worsen, both in terms of participation and representation (Gustafsson, 1980; Strömberg and Westerståhl, 1984).

The initial intention of voluntary implementation of the second reform was finally abandoned. Some municipalities were not willing to unite, but were finally forced to, despite opposition from the right-wing parties. When the right-wing government took office in 1976, it consequently declared to be willing to try out proposals about changes in the municipal division that are motivated with respect to the municipal democracy. The Social Democratic government from 1982 correspondingly declared that it would be restrictive with municipality partitions (Högländer and Wiklund, 1998).

2.1 The Legal Process

The prevailing discontent with the amalgamations gave rise to the initiative of a thorough overhaul of the outdated legislation on municipality partitions. It resulted in the Local Government Boundary Reform Act of 1979 (*Lag om ändringar i Sveriges indelning i kommuner och landsting, SFS 1979:411*), among other things regulating the procedure for municipality break-ups. Since these matters are complex, the law does not include any detailed rules. The intention of the law is explained in a report by the Boundary Legislation Committee (*Indelningslagskommittén*). It suggests that a change in municipality division should only be decided upon if it can be assumed to bring about lasting benefits for the municipality or the seceding part of the municipality (SOU 1978:32).

In broad terms, the process is as follows: An application from a municipality or a member of a municipality is submitted to a public authority, the Legal, Financial and

Administrative Services Agency (*Kammarkollegiet*). The case is then referred to the municipal council in the concerned municipality and to the County Administrative Board (*Länsstyrelsen*) for consideration. Based on their statements the agency decides on whether the case should be investigated further or not. The agency may reject the application at any stage during the process, but a rejection can always be appealed against to the central government.

The investigation is most often conducted by either the County Administrative Board or the Swedish Association of Local Authorities (*Svenska Kommunförbundet*) and should include all factors affecting the case and be made in consultation with the concerned municipalities. If the investigator finds reason to investigate the opinion of the local population, it should be reported to the agency, which decides on the matter. If the County Administrative Board conducts the investigation, it can decide on such a matter as well.

However, if the municipal council wants to investigate the public opinion on a break-up case, it can decide to carry out a referendum or opinion poll. This possibility was opened up through the Municipality Act of 1977 (*Kommunallagen*) and has become the most common alternative; very few of the referenda and opinion polls were not initiated by the municipal councils. Related to this decision is the scope of the referendum or opinion poll. Two possibilities exist; the whole municipality can be encompassed or the seceding part alone. If the municipal council decides to carry out the referendum or opinion poll, it also decides on the scope.

The central government gives the final partition verdict. The opinion of the concerned municipality is of great importance and the municipal council is assumed to speak in the interest of the local population. Special considerations should also be taken to the seceding municipality part on the assumption that the wish of its population is manifested in an unambiguous way. How to balance opposite opinions between the population in the seceding part and the municipal council not regulated by the Act, but left for practice.

Although no right of veto exists for the municipal council, it has *de facto* become more or less decisive on these matters. The central government has passed 25 partition verdicts and only four were not in line with the municipal council's recommendation.

3 Recommendations, Public Opinions, and the Partition Verdicts¹

On January 1st, 1974, the three municipalities Åsele, Fredrika and Dorotea were amalgamated despite a massive opposition in Dorotea, including a hunger-strike! An action group was quickly formed and a list of names, signed by 90 percent of the Dorotea population, was delivered to the local politicians. In 1976, after a time of political disagreement, the municipal council finally submitted an application for breaking up the municipality to the central government. After the investigation and an opinion poll were conducted, the government decided to let Dorotea regain independence. The amalgamated municipality lasted for six years only (Holmgren, 1981).

The Dorotea case was shortly followed by others. During the period 1976–2000, some 40 municipality parts have formally applied for secession. 25 applications have reached as far as to a governmental partition verdict. Table 1 shows the outcome of these cases and the preceding recommendations made by the municipal councils.²

Table 1. The partition verdict
and the municipal council’s recommendation, 1976–2001

	Municipal council negative	Municipal council positive	Total
No partition	13	0	13
Partition	4	8	12
Total	17	8	25

Note: The 12 positive verdicts correspond to 13 new municipalities, since one application concerned secessions of two municipality parts.

The tabulation indicates the importance for an applying municipality part to have support by the local politicians for a secession case to be successful. The government has almost always followed the opinion of the municipal council; when positive, the government has always approved. The four verdicts that not corresponded to the recommendation of the municipal councils were all passed by right-wing governments, which compared to Social Democratic governments have had a more positive

¹The sources of the data referred to in this section are described in Section 4.

²There are possibly cases missing in Tables 1 and 2.

attitude towards breaking up municipalities. All four cases involved referenda where the majorities were in favor of secession in the concerned municipality parts.

The first of these approvals was the decision in 1979 of letting Vadstena to secede from Motala municipality. The referendum was arranged by a local action group and only people in the concerned municipality part were entitled to vote. Although two thirds of the voters in Vadstena voted for secession, the Social Democratic majority in the municipal council decided not to recommend a break-up. Two arguments used were that costs would increase if the municipality separated, resulting in increased tax rates, especially in the remaining part of the municipality, and that the referendum result not was convincing due to the low turnout. However, the recommendation of the municipal council counted for little to the liberal central government, which found a positive partition verdict to be motivated since both municipalities would have populations large enough and there were good conditions for providing the needs of municipal services (Hagård, 1989).

In the other three municipalities – Botkyrka, Vaxholm, and Vara – the referenda encompassed the whole population. Despite a positive majority vote in the whole municipality in Vaxholm, the political majority in the municipal council decided not to recommend a partition. In Botkyrka and Vara, on the other hand, the central government approved secession despite negative majorities in the municipalities. In the two government decisions dated 1981, the same phrasing recurred: “The advantages, especially from a municipal democracy point of view, have according to the government such a strength that particular reasons for a partition exists.”

With Vadstena and Vaxholm as the only exceptions, the stated public opinion seems to be of great importance for the municipal council’s recommendation to the government. In all the other cases, the council’s recommendation was in line with the municipal majority vote.

If looking at the referendum results in the seceding municipality parts, the picture that emerges is that neither the municipal council nor the central government support the view of a “right to secede.” Table 2 shows that 35 percent of the partition verdicts passed by the central government were negative despite a positive majority in the seceding part. As we can see, there are few parts with negative majorities, partly explained by the applications that were withdrawn before the government verdict due to bad referendum results, and that are not included in these data.

Table 2. Majority opinion in the seceding parts and the partition decision, 1976-2001

	Negative	Positive	Total
No partition	3	8	11
Partition	0	11	11
Total	3	19	22

There were 8 cases where the government turned down the partition proposal despite a positive majority in the concerned municipality parts; three were decided by right-wing governments and five by Social Democrats. All eight cases had referenda or opinion polls with municipal majorities not favoring secession, and the municipal councils were all negative as well.

The three cases the right-wing governments turned down that had positive majorities in the concerned municipality parts were applications from Gullspång, Härjedalen and Nacka municipalities. These three differed from the cases that were approved in spite of negative municipal majorities. The applying parts in Gullspång and Härjedalen had populations below 4,000 and constituted more than 30 percent of the municipal population. The positive right-wing verdicts where the municipal council was negative to partition concerned larger parts – the smallest with a population of 4,900 and none of the municipality parts had a population share larger than 25 percent. In the Nacka case, the referendum concerned a trisection of the municipality, to which the majority in the municipality as well as in one of the possibly seceding parts was negative. In the municipality part Saltsjöbaden, however, there was a small but positive majority and an action group applied for secession subsequent to the referendum. Aside of the problem of interpreting the public opinion, the case also differs from the approved ones regarding the income structure in the municipality. While the per capita tax bases in the three municipality parts that were granted secession were more or less as large as in the rest of the municipality, Saltsjöbaden stands out as one of the richest municipality parts in Sweden. When applying for secession, the per capita tax base was more than 25 percent greater than the municipality's.

The five cases of positive municipality parts that were turned down by Social Democratic governments do all concern the municipalities of Huddinge and Göteborg. In Huddinge, an action group in the municipality part Trångsund-Skogås has applied twice and been turned down twice by the Social Democratic government.

The Göteborg cases show some resemblance with Saltsjöbaden; all three parts have significantly greater tax bases than the rest of the municipality. However, the referendum contained separate questions for each of the municipality parts, and there were large majorities in favor of secession in two of the parts. The public opinion in at least two of the concerned municipality parts can, therefore, not have been difficult to interpret.

Three of the cases that were subject to a governmental partition verdict did not have any referendum or opinion poll. In the case of Vännäs, the application came from the municipality and the public opinion was stated through a petition (SOU 1993:90), resulting in a positive partition verdict. The other two cases, Idre/Särna in Älvdalen and Burträsk in Skellefteå, were less successful. In both municipalities local members of the Centre party turned to the government in 1984 and demanded referendum. The Social Democratic government, however, stated that "... a partition would not bring about lasting benefits for both municipality parts... There are no reasons to carry through a referendum about the matter." In both cases, the municipal councils were against the partition proposals.

4 The Municipal Council's Strategy

This section discusses the factors that may be of importance for the municipal council's attitude towards a break-up. We begin by discussing the factors that should matter for a municipal council acting as a representative for the non-seceding part of the municipality. We proceed with a discussion of how these and other factors should influence a municipal council motivated by self-interests, and also the role of ideological differences. Depending on the council's objectives, different factors ought to influence the decision of whether the whole municipality or the seceding part alone should be encompassed by the referendum or opinion poll. A discussion of this decision concludes the section.

4.1 Factors of Importance

Theoretical models by Bolton and Roland (1997) and Persson and Tabellini (2000) predict three factors to be of importance for people's preferences of a jurisdictional break-up. Firstly, economies of scale in public good production imply that a break-

up always is associated with efficiency losses that affect not only the seceding part, but also the non-seceding part of the municipality. A municipal council that represents the people in the remaining part should, therefore, be less positive towards a break-up the more the population size in the municipality is affected by a break-up.

Secondly, municipalities that have a greater per capita tax base can provide more public goods and services at a given tax rate.³ In addition, secession of a wealthy municipality part removes the scope for redistribution from the rich to poorer municipality parts.⁴ The municipal council should thus be more positive towards a break-up if the per capita tax base in the municipality increases in case of secession, i.e. if the municipality would get rid of a relatively poor municipality part.

Thirdly, if political preferences differ between municipality parts, a break-up will result in a better match between the voters and the politicians. This is not only the case for the seceding part, but also for the remaining part of the municipality. From a “distance to the government” point of view, a municipality break-up is always desirable.⁵ If the municipal council acts in the interest of the non-seceding part of the municipality, it should thus be more positive to a break-up if there are large political differences between the non-seceding part and the united municipality.

A municipal council that opposes secession from a large and wealthy municipality part is intuitively appealing. A relatively large and rich municipality part that wants to secede would probably meet resistance from the municipal council, since both the remaining population and the politicians would lose parts of tax revenues as well as of the population base. However, such behavior does not necessarily derive from the objective of representing people in the non-seceding municipality part. Rent-seeking motives, for example, could also result in similar behavior. Nelson (1992) has empirically studied the effect of the amalgamations in the 1950s to the 1970s on the growth of the municipal sector. The data support the theory that larger municipalities make it easier for politicians and bureaucrats to increase the

³Sweden has an income equalization system that redistributes funds from wealthier to poorer municipalities. The system has, however, changed over the years and has not always resulted in perfect equalization.

⁴This issue is discussed in Brink (2003).

⁵This concerns efficiency in the sense discussed by Oates (1972), that the match between provision of public goods and services and people’s preferences is more accurate in smaller jurisdictions. The point of political frictions in large jurisdictions is heavily stressed by Alesina and Spolaore (1997).

municipal budget. While the amalgamations of small non-rural communities led to a slow-down of public sector growth – probably due to economies of scale – the amalgamations of already rather large communities significantly contributed to the local public sector’s expansion.

Thinking of politicians not primarily as representatives but also as motivated by vested interests makes the third factor interesting. It says that the municipal council should be more positive to a break-up the more it would result in a change of the political landscape. Consider a municipality consisting of two municipality parts, where the small part wants to secede and the votes coming from the small part are necessary for the incumbent to obtain a majority of the seats in the municipal council. A break-up would then result in that the current incumbent would be in majority in the small municipality, and the current opposition would take office in the big municipality (if voting patterns stay the same). Such an outcome is probably not desirable for an office-motivated incumbent. On the other hand, if the seceding municipality part has many voters supporting the opposition, the incumbent’s chances of staying in power in the large municipality improve if the municipality breaks up. It is reasonable to assume that such a situation is more preferable than the one previously discussed. We can, therefore, expect that an incumbent majority in the municipal council with the objective of staying in office will be more positive towards secession if it can expect an increased vote share in case of secession.

However, even though a municipality break-up may increase the incumbent’s chance of winning future elections, it will also result in a decreased population base and, if the seceding part is relatively wealthy, a decreased per capita tax base. Ideally, such interactions should be considered as well, but the data set used for testing the predictions is very small, which limits the possibility of studying this sort of trade-offs.

The final factor we consider is ideology. The Social Democrats were behind the amalgamation reforms, and most of the approved partition verdicts have been made by non-socialist governments. If local politicians share the same ideological ideas as their national counterparts, we should expect that municipal councils dominated by socialist parties are more negative towards a break-up than those dominated by non-socialists.

4.2 The Scope Decision

Next, we look into the two interconnected decisions made by the municipal council; whether to recommend a municipality break-up and whether the whole municipality should be encompassed in a referenda or opinion poll. A necessary condition for a positive recommendation is that there is strong support for secession in the seceding part. The municipal council can thus not recommend the government to approve a break-up if the majority in the concerned municipality part prefers staying united.

A municipal council positive towards a break-up has no reason to include the non-seceding part of the municipality in the referendum or opinion poll. If the whole population is encompassed, and there is a majority voting in favor of a break-up, it becomes difficult for the politicians not to make a positive recommendation. Moreover, there is always a risk that the central government follows the stated public opinion and not the municipal council's recommendation in such a case.

On the other hand, if the municipal council does not want a break-up, it should arrange a referendum or opinion poll that encompasses the non-seceding part as well. To impose a further restriction, that there has to be a majority favoring a break-up in the municipality as a whole, does always decrease the probability for a positive recommendation. Consequently, the more negative the municipal council is towards a break-up, the more probable is the choice of arranging a referendum, or opinion poll, that encompasses the whole municipality.

5 Data and Variables

The application data are constructed from filed documents at the archives of the Legal, Financial and Administrative Services Agency (*Kammarkollegiet*) and the Government Offices (*Regeringskansliet*). The data were collected in November 2000–January 2001, and the cases studied in this paper includes nearly all cases submitted 1976–2000 that were investigated. Most of the investigated cases involved a referendum or opinion poll. A few of the cases were withdrawn, but most were subject to a partition verdict given by the central government. Three cases were settled during 2001 and the data were completed afterwards by information from web sites for the concerned municipalities.⁶

⁶www.sigtuna.se, www.uppsala.se, www.huddinge.se.

Data at a lower level than for municipalities are scarce. Tax base data and population data are, however, available at the parish level. Municipality parts include one or more parishes and the borders do most often coincide. We can, therefore, construct data for the municipality parts by identifying which parishes that are included in a municipality part. This information is available in the application documents or in related material in the files. The tax base data and population data come from various issues of Statistics Sweden's Yearbook for Swedish Municipalities.

Voting data is available at electoral district level and include the number of votes given to the established parties in local elections, 1976–1998. Fortunately, the data provided by the Swedish Social Science Data Service and Statistics Sweden do also include information of which parishes that belongs to a certain electoral district. The matching between municipality parts, parishes and electoral districts have in this way been possible. Data on the distribution of seats in the municipal councils is provided by Statistics Sweden (General Elections. Vol. 3. Elections to the municipal councils, various issues).

5.1 The Cases

The cases studied are for the municipalities where referenda and opinion polls that concern municipality break-ups have been initiated and arranged by the municipal councils. In total, 26 referenda and opinion polls have been held. Five of those were not initiated by the municipal council and are not included in the analysis.⁷ Decisions about 21 referenda and opinion polls are thus included in the analysis. Two of the referenda, in Nacka and Norrtälje, concerned possible secession of two municipality parts. In Göteborg, there were three separate referenda taking place, but at the same day. The municipal council's decision about the scope was most likely based the decision on the joint effect of secession. We, therefore treat the Göteborg cases as one, and the number of decisions made by the municipal councils is then reduced to 19. The cases are listed in Table 3.

⁷Wallin (1993) reports that the referenda in Gullspång 1982 and in Sigtuna 1982 were initiated by the central government and arranged by the County Administrative Board, and that the opinion poll in Nyköping 1989 was initiated by the Legal, Financial and Administrative Services Agency and arranged by the County Administrative Board. The opinion poll conducted in Åsele 1977 was a part of the investigation carried out by a special investigator by order of the County Administrative Board (Holmgren, 1981). In Motala municipality, the applying action group in Vadstena initiated and arranged the referendum in 1977 (Hagård, 1989). Based in the application documents, I have been able to conclude that all other cases were initiated and arranged by the municipal councils.

Two municipality parts, Trångsund-Skogås in Huddinge municipality and Sigtuna stad in Sigtuna, have applied for secession twice, resulting in one referendum and one opinion poll for both cases. Sigtuna, however, only appears once in Table 3, since only the opinion poll was initiated and arranged by the municipal council (see footnote 7). Besides Huddinge, two municipalities appear twice in Table 3, Borås and Södertälje, but concerning referenda about two different municipality parts.

Table 3. Referendum and opinion poll decisions made by the municipal councils

Municipality	Municipality parts	Application year	Scope	Mandate period
Härjedalen	Tännäs/Hede	1977	1	1976–79
Norsjö	Malå	1978	1	1979–82
Vara	Essunga	1978	1	1979–82
Vaxholm	Vaxholm	1978	1	1976–79
Botkyrka	Salem	1978	1	1979–82
Alingsås	Bjärke	1978	0	1976–79
Örebro	Lekeberg	1990	0	1988–91
Södertälje	Nya Järna	1990	0	1991–94
Nacka	Saltsjöbaden & Boo	1992	1	1991–94
Borås	Bollebygd	1993	0	1991–94
Borås	Fristad	1993	1	1994–98
Huddinge	Trångsund/Skogås	1993	1	1994–98
Norrtälje	Rimbo & Hallstavik	1993	1	1991–94
Södertälje	Nykvarn	1995	0	1994–98
Norrköping	Vikbolandet	1996	0	1994–98
Göteborg	Askim & Torslanda & Älvsborg	1997	1	1994–98
Uppsala	Knivsta	2000	0	1998–02
Huddinge	Trångsund/Skogås	2000	1	1998–02
Sigtuna	Sigtuna stad	2000	1	1998–02

Notes: 0 and 1 in the Scope column indicate whether the referendum/opinion poll encompassed the seceding part only or the whole municipality. The municipal council decided on the scope during the last column's mandate period.

5.2 Variables

We construct the dependent binary variable *SCOPE* to take the value one if the whole municipality is encompassed by the referendum or opinion poll and zero if only the seceding part (or parts) are entitled to vote.

We construct five independent variables. ΔPOP is the share of the municipality's total population that belongs to the municipality part (or parts) that possibly will secede. This is thus the share of the municipality's population that will be lost in case of a secession. The population figures date from the year when the application was submitted.⁸

The tax base change that the municipality would experience in case of secession is captured by the variable $\Delta TAXBASE$. It is the ratio of the tax base per capita in the non-seceding part of the municipality, and the tax base per capita in the municipality as a whole. The tax base is the municipality's taxable income, comprising labor income only. As for the population figures, the tax base figures date from the year of application.⁹

To capture political difference between the non-seceding municipality part and the whole municipality we define the variable $|\Delta POL|$ as the absolute difference between the shares of valid votes given to the established left-wing parties in the non-seceding part of the municipality and the municipality. The parties considered as left-wing are the Left Party (v), the Social Democratic Party (s), and the Green Party (mp). The local elections considered are the ones closest preceding the decisions of the municipal council. That is the elections for the mandate periods shown in Table 3.

The change of support to the incumbent in case of secession is captured by the variable $\Delta INCUMBENT$. It is defined as the ratio between the incumbent bloc's vote share in the non-seceding part of the municipality, and the incumbent bloc's vote share in the municipality as a whole. The political blocs are defined as the left-wing bloc, including the Left Party (v), the Social Democratic Party (s), and the Green Party (mp), and the right-wing bloc, including the Centre Party (c), the Liberal Party (fp), the Christian Democrats (kd), the Conservative Party (m), and New Democracy (nyd).

To examine if there are any ideological differences between right-wing and left-wing municipalities, we construct the dummy variable $LEFT$, which equals one if the left-wing political parties have a majority of the seats in the municipal council,

⁸These figures were readily available, and since population figures do not change very much over a few years, I found no reason to update the data.

⁹For the choice of year, see the previous footnote. Since it is the relation between the tax bases that is of importance for the analysis, and not the absolute figures, the exact year chosen is of minor importance.

and zero otherwise. The parties considered as left-wing are the Left Party (v), the Social Democratic Party (s), and the Green Party (mp).

Descriptive statistics are presented in Table 4. Correlations can be found in the Appendix.

Table 4. Descriptive statistics

	Obs.	Mean	Median	Std. Dev.	Min.	Max.
<i>SCOPE</i>	19	0.63	1		0	1
ΔPOP	19	0.20	0.17	0.13	0.06	0.43
$\Delta TAXBASE$	19	1.00	1.01	0.03	0.94	1.05
$ \Delta POL $	19	1.78	1.59	1.67	0.01	6.67
<i>LEFT</i>	19	0.58	1		0	1
$\Delta INCUMBENT$	19	0.99	1.00	0.04	0.88	1.06

The population in the whole municipality were encompassed by the referenda and opinion polls in 12 of the 19 cases. The relative size of the seceding part (or parts) differs substantially among municipalities; secession would result in a population loss of 6–43 percent in the municipalities. The per capita tax bases would, however, not be affected to any greater extent; the municipalities would keep between 94 and 105 percent of their per capita tax bases.¹⁰ On average, the absolute difference in the vote share to the left bloc was less than two percentage points, but there is a rather large spread among the municipalities; while some of the non-seceding parts show a similar voting pattern as the municipality as a whole, others vote rather differently. A majority of the municipal councils was dominated by left-wing parties, and the support for the incumbent bloc was, on average, not different between the non-seceding municipality part and the municipality as a whole. There are, however, large differences among the municipalities, just as for the absolute difference in support for the left-wing bloc.

¹⁰The main reason why the per capita tax bases are relatively unaffected is not that the possibly seceding part is equally wealthy as the rest of the municipality. In many cases it is rather due to that the seceding part only constitutes a small share of the municipality’s population. The extreme example of losing 6 percent of the per capita tax base implies that the seceding part is a lot wealthier than the rest of the municipality. This figure concerns Sigtuna, where the seceding part had a per capita tax base more than 20 percent greater than the municipality. At the other extreme, the seceding part from Alingsås had a 25 percent smaller per capita tax base than the municipality.

6 Results

To analyze a data set including only 19 observations by using econometric methods is problematic, especially when the dependent variable is binary. Small-sample behavior of Maximum Likelihood estimators for binary models is largely unknown, making the results unreliable (Long, 1997). We, therefore, begin the analysis by studying the means of the independent variables by applying Hotelling's T -squared generalized means test. This test shows whether the means of the variables are statistically different between the two groups of municipalities: the ones where the referendum or opinion poll encompassed the whole municipality and the ones where the seceding part alone was included. The test takes the variables' covariance pattern into account when estimating the joint significance levels, but since the mean differences are not affected by the presence of other variables, we proceed the analysis by probit estimations to see whether the results change.

6.1 Testing for Equal Means

Hotelling's T -squared generalized means test can be used to examine whether a set of means is equal between two groups (see e.g. Tacq, 1997). We can thus test if there is joint significance of the means of the independent variables between the two groups of municipalities where $SCOPE=0$ and $SCOPE=1$.

Hotelling's T^2 is given by

$$T^2 = (X_1 - X_2) S^{-1} (X_1 - X_2)', \quad (1)$$

where X_1 and X_2 are the mean vectors in the two groups and S is the estimated covariance matrix. This gives us the following test statistic:

$$\frac{(n - p - 1)}{p(n - 2)} T^2 \sim F(p, n - p - 1), \quad (2)$$

where n is the number of observations and p is the number of variables. In our case, $n = 19$, and $1 \leq p \leq 4$.

When $p = 1$, the test reduces to a standard t test. We start with this univariate test to examine whether the means of the dependent variables are individually different between the two groups. The results are presented in Table 5.

Table 5. Unpaired two-sample t test of equal means

	$SCOPE=0$	$SCOPE=1$	$DIFF$	t	$P > t $
ΔPOP	0.093 (0.045)	0.26 (0.12)	0.17	-4.41	0.00
$\Delta TAXBASE$	1.01 (0.018)	0.99 (0.026)	-0.02	1.77	0.09
$ \Delta POL $	1.24 (1.23)	2.10 (1.85)	0.86	-1.22	0.24
$\Delta INCUMBENT$	1.00 (0.03)	0.99 (0.05)	-0.01	0.57	0.58
$LEFT$	0.71 (0.49)	0.50 (0.52)	-0.21	0.88	0.39
Number of obs.	7	12			

Notes: Standard deviations in parentheses. $DIFF$ is the mean of the variable when $SCOPE = 1$ minus the mean of the variable when $SCOPE = 0$.

The most striking result from the t tests is the large difference in the seceding parts' population shares between the two groups. The average share is almost three times as large in municipalities where the whole population was encompassed by the referenda or opinion polls, and the difference is highly statistically significant. A municipality that would lose a large share of its population in case of secession is thus more likely to have a referendum or opinion poll that includes the whole municipal population.

The average difference in $\Delta TAXBASE$ does also correspond to the expected result; when only the seceding part was allowed to vote, the non-seceding municipality part would increase its per capita tax base in case of secession. The p-value is higher for this variable, but the difference is still significant at the ten percent level.

$|\Delta POL|$ does not support the theory of a municipal council acting as a representative for the non-seceding part of the municipality. When the seceding part alone was entitled to vote, and the probability of secession accordingly is greater, a secession would lead to a smaller political change in the municipality. This result is, however, not statistically significant.

The mean difference in $\Delta INCUMBENT$ shows the expected sign. Incumbents in municipalities where the seceding part alone was entitled to vote had greater

support in the non-seceding part of the municipality than in the municipality as a whole. But the difference is not statistically significant.

The mean difference in *LEFT* shows an unexpected sign, but is not statistically significant. Municipalities where the referenda and opinion polls encompassed the whole population were to a lesser extent dominated by left-wing parties.

A joint test of the mean differences for all five variables gives $F(5, 13) = 3.69$, and $P > F(5, 13) = 0.03$. The mean difference of the variables are thus together statistically different between the two groups at the three percent significance level.

Excluding one or more of the variables that have individual p-values greater than 0.10 decreases the joint p-value. When including ΔPOP and $\Delta TAXBASE$ only, we obtain $F(2, 16) = 9.24$, and $P > F(2, 16) = 0.002$.

We can thus conclude that the means are jointly different between the two groups at the three percent significance level, but that the statistical significance is due to the differences in the group means of ΔPOP and $\Delta TAXBASE$.

6.2 Probit Results

Next, we estimate the following probit model:

$$Pr(SCOPE_j = 1) = \Phi[\beta_0 + \beta_1(\Delta POP_j) + \beta_2(\Delta TAXBASE_j) + \beta_3(|\Delta POL_j|) + \beta_4(INCUMBENT) + \beta_5(LEFT) + \epsilon_j], \quad (3)$$

where Φ is the cumulative normal distribution, and ϵ_j is the error term for municipality j . The expected parameter signs are $\beta_1 > 0$, $\beta_2 < 0$, $\beta_3 < 0$, $\beta_4 < 0$, and $\beta_5 > 0$.

The results are shown in the first column of Table 6.¹¹

The parameter estimates for ΔPOP and $\Delta TAXBASE$ show the predicted signs, and are both statistically significant at the two percent level. The results show that the greater effect a break-up would have on the municipality's population, and the more the per capita tax base would decrease, the larger the probability that the

¹¹All models have been estimated with the continuous independent variables in logarithmic form as well. The results are largely the same. This also holds when including a variable for population density. Estimations excluding the second observation for Huddinge have also been made, since its inclusion violates the assumption of independent observations. The main results are unchanged.

referendum or opinion poll encompasses the whole population. The marginal effects indicate that a one standard deviation increase in ΔPOP increases the probability for a referendum or opinion poll that encompasses the whole population by 0.19, evaluated at the variable mean. The corresponding marginal effect for $\Delta TAXBASE$ is -0.07 .

Table 6. Effects on the scope of referenda and opinion polls. Probit estimates.

Variable	Coefficient	Marginal effect ^a
ΔPOP	26.29** (5.10)	1.48
$\Delta TAXBASE$	-53.05* (20.95)	-2.97
$ \Delta POL $	0.08 (0.18)	0.00
$\Delta INCUMBENT$	8.33 (14.16)	0.47
$LEFT$	0.64 (0.73)	0.04
$CONSTANT$	40.85 (31.57)	
Number of obs.	19	
Wald $\chi^2(5)$	34.67	
Prob > χ^2	0.00	
Pseudo R^2	0.75	

Notes: ^a The marginal effect for $LEFT$ is for a discrete change from 0 to 1, and for the other variables evaluated at the variable means.

Huber/White robust standard errors in parentheses.

** indicates significance at the 1 percent level,

* at the 2 percent level.

The estimate for $|\Delta POL|$ is positive, indicating that the probability of a referendum or opinion poll encompassing the whole municipality increases if the municipality can expect large differences in the municipal council's constitution. This result does not correspond to the prediction if we regard the municipal council as a representative for the non-seceding part of the municipality. The estimate is, however, not statistically significant.

The effects of both $\Delta INCUMBENT$ and $LEFT$ have changed sign compared to the means test, but neither of the estimates are statistically significant. The sign of the probit estimate for $\Delta INCUMBENT$ is thus not in line with the theory of a municipal council being more prone to let a municipality part secede if it increases the vote share to the incumbent bloc in the municipality. The estimate sign for $LEFT$ is positive as predicted, indicating that municipal councils with left-wing majorities have an increased propensity to arrange referenda where the whole municipal population is encompassed.

7 Summary and Conclusions

In the cases examined in paper, the municipal council decided on the scope of the referenda and opinion polls about municipality break-ups. Based on the majority vote, the council makes a recommendation to the central government about whether a break-up is desirable or not. The recommendation plays an important role for the central government's partition verdict; only four of 25 partition verdicts have not been in line with the municipal council's recommendation. A necessary condition for a successful secession case is that a majority in the seceding part is pro-secession. By imposing a further condition, that there must be a majority favoring secession in the whole municipality as well, the probability of a positive recommendation necessarily decreases.

The main idea in this paper is that the municipal council uses the scope of the referenda and opinion polls as a tool for obtaining the desirable outcome.

The empirical analysis shows that two factors affect whether the whole municipal population was encompassed or the seceding part only. The greater share of the municipal population belonging to the seceding part (or parts), and the more the municipality would decrease its per capita tax base in case of a break-up, the more likely is a referenda or opinion poll that includes the whole municipal population.

Accordingly, the empirical findings support the idea that by encompassing the whole municipal population, the municipal council obstructs secession the more the municipality's population and per capita tax base would decrease in case of a break-up.

The municipal council's underlying motive for this behavior is not evident. The factors supported by data correspond to the picture of a municipal council acting as a representative for the non-seceding part of the municipal population, but also to a municipal council having rent-seeking motives. The results of this paper does, therefore, not say anything about the implications for the local population, which ought to be quite different depending on how the local politicians utilize the resources available in a larger and more wealthy municipality.

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Appendix

Table A1. Correlations

	<i>SCOPE</i>	Δ <i>POP</i>	Δ <i>TAXBASE</i>	$ \Delta$ <i>POL</i>	Δ <i>INCUMBENT</i>	<i>LEFT</i>
<i>SCOPE</i>	1.00					
Δ <i>POP</i>	0.66***	1.00				
Δ <i>TAXBASE</i>	-0.40*	-0.11	1.00			
$ \Delta$ <i>POL</i>	0.26	0.17	-0.41*	1.00		
Δ <i>INCUMBENT</i>	-0.14	-0.28	0.35	-0.54**	1.00	
<i>LEFT</i>	-0.21	-0.28	0.18	-0.05	0.53**	1.00

Notes: *** indicates statistical significance at the 1 percent level,

** at the 5 percent level, * at the 10 percent level.