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a survey of MP's attitude toward budget control
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RESISTANCE THRESHOLD TO JURISDICTIONS' AMALGAMATION:
A SURVEY OF MP'S ATTITUDE TOWARD BUDGET CONTROL
AND SOCIAL IDENTIFICATION

SEUIL DE RÉSISTANCE A LA FUSION DE COMMUNES :
ENQUÊTE SUR L'ATTITUDE DES PARLEMENTAIRES EN MATIÈRE
DE CONTRÔLE BUDGÉTAIRE ET D'IDENTIFICATION SOCIALE

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Abstract

Over time, traditional institutional borders become increasingly restricted compared to functional territories. To overcome the exiguity of the territory and take advantage of economies of scale, sub-central governments partake often in interjurisdictional joint ventures to provide public services. Budget resources are then earmarked to finance these ventures and this erodes citizen fiscal sovereignty at the local level. Amalgamation represents a solution to recover this lost control. However, locals tend to be reluctant to amalgamate with other, although neighbouring, social groups. Based on a survey administrated to the members of parliament in two Swiss cantons, this exploratory study identifies what we call the *resistance threshold* to amalgamation, i.e. the share of the budget earmarked to finance joint ventures above which the decision-maker considers amalgamation a viable solution to recover budget control, even if it erodes social identity. The paper also identifies some socio-psychological and political determinants of the threshold.

A travers le temps, les frontières institutionnelles traditionnelles sont devenues inadéquates par rapport aux territoires fonctionnels. Afin de profiter d'économies d'échelle et de remédier à l'étroitesse de leur territoire, les collectivités infranationales créent fréquemment des partenariats intercommunaux ou intercantonaux (associations de communes, concordats intercantonaux) pour produire divers services collectifs. Leurs ressources budgétaires deviennent alors en partie assignées au financement de ces partenariats ; ce qui hypothèque la souveraineté budgétaire de leur population respective. Fusionner représente une solution pour recouvrer le contrôle. Malgré cela, les habitants sont réticents à l'idée de s'unir à d'autres groupes sociaux, même si ces groupes sont leurs voisins. A l'aide d'une enquête auprès des parlementaires de deux cantons suisses, cette analyse exploratoire identifie ce que nous qualifions de « seuil de résistance » face à la fusion, c'est-à-dire la part du budget dédiée au financement des partenariats au-delà de laquelle un décideur considère que la fusion représente une solution pertinente pour recouvrer son contrôle sur le budget, même si cela doit se faire au prix d'une perte d'identité sociale. Cet article identifie également les facteurs socio-psychologiques et politiques qui influencent ce seuil.

INTRODUCTION

Major territorial and governmental reforms are constantly being implemented all over the world (Aulich 1999; Hanes et al. 2012; Jacobs 2004; Keating 1997, Ma 2005; Vetter & Kersting 2003; Wollmann 2010). They are the result of trade-offs between a larger state allowing for more efficiency (e.g. through economies of scale and spillover reductions) and a smaller, more democratic state, more responsive to the individual citizen (Dearlove 1979). Many federalist countries promote jurisdictional amalgamation at the sub-central level to increasing the competitiveness of the local governments. In the case of voluntary amalgamations, the decision to amalgamate is the result of a democratic process and the acceptance of the majority of the local decision-makers is required to change the jurisdictional boundaries. However, the amalgamation of municipalities or states are not universally popular. Such proposals are often confronted with vigorous opposition since many locals favor closeness to the government and jurisdictional borders that signal a specific identity to which they can identify themselves. To amalgamate with another jurisdiction would means to amalgamate with another social group and to lose one's specific identity.

This is the very purpose of this article: analyzing the reluctance —or, conversely, the readiness—to join another social group in the context of rationally justified jurisdictional amalgamation. As a starting point, the analysis considers the issue raised by existing cooperation ventures between jurisdictions. Such horizontal cooperation ventures aim to take advantage of economies of scale. The downside is that they trigger a loss of sovereignty since part of their budget resources become earmarked to finance them. Amalgamation can be seen as way to recover lost budget sovereignty whilst enabling economies of scale and the internalisation of spillovers. However, people may consider it a threat to their social identity.

More specifically, the aim of the study is to identify what we call the *resistance threshold* to amalgamation. We devised a psychologically plausible decision model where local decision-makers must choose to accept or reject the amalgamation of their jurisdiction with a neighboring one. The model depicts the decision as the outcome of a trade-off between two factors: the control over budget resources and the social identity. The model allows us to provide a theoretical representation of the resistance threshold, i.e. the share of the budget earmarked to finance joint ventures above which the local decision-maker considers amalgamation to be a viable solution to recover budget control, even if it erodes social identity. The factors influencing the level of resistance threshold are then empirically investigated using a survey administrated to the members of parliament in two Swiss cantons.

This paper contributes to the literature on both the economics and sociology of fiscal federalism, and especially to that of government amalgamation. To the best of our knowledge, the tradeoff between fiscal sovereignty and social identity has not yet been investigated. It takes an interdisciplinary perspective by incorporating concepts from psychology into this line of research.

The remainder of the paper is organized as follows. Section 2 briefly surveys the literature dealing with the ins and the outs of cooperation between sub-central jurisdictions and the theoretical implications of the amalgamation of such venturing jurisdictions. Section 3 discusses the institutional background of Switzerland and highlights the relevance of the choice of this country for the analysis of the current topic. Section 4 builds, at the level of the local decision-maker, a decision model whether to accept or reject an amalgamation and develops a theoretical representation of the resistance threshold. Section 5 depicts how the survey was organized. Section 6 presents the main survey results and the resistance

thresholds elicited by respondents. The elicited thresholds are analyzed in Section 7 in order to model the influencing factors. Section 8 concludes the paper.

LITERATURE AND MAIN HYPOTHESIS

Functional territories in which individuals and firms operate usually no longer coincide with the rigid and clearly defined institutional boundaries of existing jurisdictions (Keating 2013). This unbundling process (Ruggie 1993, p.160) has increasingly jeopardised the fiscal equivalence principle described by Olson (1969). The three circles of fiscal policy - those who decide, those who benefit and those who pay– do less and less coincide. This situation creates negative externalities (spillovers). It also hardly allows individual jurisdictions to exploit economies of scale and the provision of public services becomes inefficient (von Hagen 2002).

The literature brings forward three main solutions to cope with the issue: financial transfers, horizontal intergovernmental cooperation, and jurisdictional amalgamation (Blåka 2017, Dafflon 2000). This paper, however, contributes to this area of the literature from a different perspective. It questions how local decision-makers trade off the horizontal cooperation that produces a "democratic deficit" on the one hand for the jurisdictional amalgamation that involves a loss of identification on the other hand.

Horizontal cooperation between neighboring jurisdictions provides a technical answer to the functional and institutional mismatch by creating intergovernmental joint ventures.[1] It allows venturers, i.e. individual governments, to gain access to economies of scale since the area of provision is extended as for the concerned public service (e.g. education, transportation, housing, water protection). Spillovers become internalised with the circle of the decision-makers coinciding with that of the users and the taxpayers. Dafflon (2013) argues that

horizontal cooperation creates difficulties by inducing individual government to waive part of its own fiscal sovereignty to the joint venture organisation. According to Soguel (2006), each government loses the status of provider of the concerned public service. It takes the position of a purchaser with a limited possibility to express its view and to control the expenditure. The expenditure is divided between the venturers and each of them are expected to bow to finance its share. Local decision-makers lose part of the control they previously had. Thus a "democratic deficit" appears (Court of Auditors 2016, p.6). Horizontal cooperation goes along with a lowering of democratic control over the outsourced public services. Of course, representatives of each participating government are in principle delegated to the governing body of the joint venture. However, the representatives are members of the executive body, they are not members of the local legislative body or citizens.

The amalgamation of sub-central public sector entities—in particular municipal amalgamations—also provides an answer to the functional and institutional mismatch, as shown in several studies in various countries, e.g. Aulich (1999), Vetter & Kersting (2003) or Wollmann (2010). Most studies consider that this solution guarantees a better democratic accountability than horizontal cooperation. Indeed, being larger than the preexisting jurisdictions, the amalgamated jurisdiction offers a better fit to the households' functional territories. It avoids the pitfalls of the horizontal cooperation by warranting the scope of the democratic decision-making to match that of users and taxpayers (Dafflon 2013, p.215).

Even though rationally justified, many propositions of jurisdictional amalgamation are vigorously opposed (Hanes, Wikström, and Wångmar 2012). The social identity theory developed by Tajfel and Turner (1979) explains this resistance. People categorize themselves in groups that gives individuals a sense of social identity and is a source of self-esteem. It

permits intergroup comparison based on proximity, similarity, and situation. Belonging to a jurisdiction generates identity by providing the in-group with a common territory, a common name or culture by comparison to the out-group located in the other jurisdiction. The amalgamation of both groups—in and out—disrupts the differentiation process and undermines the in-group individuals' self-esteem. Amalgamation dampens local identity and is often perceived by citizens to be a welfare loss (Soguel & Silberstein 2015).

The phenomenon of differentiation implicitly underpins the "strong nucleus" technique developed by Dafflon (2000). The foundation of the technique is that a jurisdiction usually horizontally cooperates with jurisdictions which people share at least roughly the same preferences as the ones of its own people regarding the provision of public services. Populations mix together because of the cooperation projects and get to better know each other. The higher number of jointly provided services between two jurisdictions, the less the differentiation and the less likely individuals are to oppose an amalgamation.

Based on this literature, we composed the following hypothesis concerning the relationship between horizontal cooperation and jurisdictional amalgamation:

The higher the number of joint-ventures between two (or more) jurisdictions, the higher the likelihood that citizens would accept an amalgamation.

Our hypothesis stems from two changes triggered by horizontal cooperation. The first change is that horizontal cooperation jeopardizes (fiscal) autonomy and amalgamation enables citizens to recover the power to decide. The second change is that horizontal cooperation somehow levels-out perceived differences between populations of cooperating jurisdictions and paves the way towards amalgamation.

INSTITUTIONAL BACKGROUND IN SWITZERLAND

Horizontal cooperation cannot be overlooked by sub-federal jurisdictions especially in Switzerland given their relatively small size. A large number of public policies and services are under the responsibility and autonomy of the 26 member-states (the cantons): police; culture; public health; public infrastructure and transportation; education and training; forest, water, nature and heritage protection, etc. There is not only a strong degree of (vertical) decentralisation, but also a strong degree of horizontal fragmentation between cantons. The Swiss cantons have extensive recourse to horizontal cooperation in order to efficiently provide the public services they are responsible for. According to Schöni (2005), Swiss cantons have established 733 joint-venture agreements (so-called *concordats intercantonaux*) between 1848 (year of foundation of the modern state of Switzerland) and 2003. 70% of these were agreed upon in the last 40 years. These agreements are currently facing mounting criticism. According to Rühli & Rother (2017), member-state parliaments are no longer ready to agree upon additional intercantonal joint-ventures since they suffer a loss of power with respect to the executive branch of the government over these types of intercantonal agreements. They also feel that the decisions that are met in the joint-ventures' governing bodies can hardly be influenced from outside, including by the participating cantons.

According to Sciarini and Bochsler (2006), three quarters of the existing agreements were contracted between two cantons only and it seems that the geographical proximity, the language and the religion are factors that promoted the conclusion of such agreements. Despite that, no amalgamation has taken place so far between cantons, even though some scholars have argued in favour of this solution (e.g. Wittmann 1998, Rumley 2010) and several official reports have been published (e.g. Swiss federal council, CdC, DTAP, UVS & ACS, 2012).

Actually, since 1969, only six projects aiming to merge cantons have been launched, but all of them failed, sometimes at a very late stage when rejected in a popular referendum. The project related to the geographic area concerned by our survey (i.e. the canton of Jura and the one of Neuchâtel in the northern part of Switzerland) was also unsuccessful.

By comparison, many municipalities have amalgamated over the same period. Since 1969, the number of Swiss municipalities has been reduced by a quarter. According to Steiner (2003) or Calciolari et al. (2013), there are several reasons for this. The loss of fiscal sovereignty triggered by the proliferation of joint-venture agreements between municipalities is a significant one. Small municipality are commonly involved in a dozen joint-ventures delivering water sanitation, water provision, school, social service facilities, fire brigade, police, swimming pool, ice rink, concert hall, etc. The phenomenon is often referred to as the "empty shell" syndrome by elected municipal officials.

Each joint-venture has its own organisation. It often owns its own infrastructure and is sometimes legally authorised to take out loans. It has its own personnel and its own budget. However, the operating cost is split between the venturing jurisdictions. As a result, the impression is that the venturing cantons or municipalities are dictated an increasing part of the decisions regarding the delegated public services, including the amount of money they have to spend on them.[2]

SOCIO-PSYCHOLOGICAL FRAMWORK

To clarify the issue, we modelled the choice of individual decision-makers from a jurisdiction to accept or reject an amalgamation with a jurisdiction when joint-ventures between both jurisdictions already exist. At this level of generality, the decision-maker is defined as any

individual who lives in a jurisdiction, who faces the question as to whether the jurisdiction should amalgamate or not and who has the right to vote on the issue. The decision-maker can thus either be a citizen in the setting of a direct democracy or a member of the legislature in the setting of a semi-direct or indirect democracy. Decision-makers—whether members of the legislature or citizens—are indeed directly impacted by intergovernmental joint ventures: On the one hand, any increase in the number of joint-ventures providing public services implies an additional loss of control (democratic deficit), since an increasing share of the government's budget is earmarked to financing joint ventures and is somehow sheltered from budget arbitration at the individual government level. One the other hand, intergovernmental cooperation, as a sign of shared identity, decreases the potential welfare loss in the case of a merger with the other social group.

According to our hypothesis, individual decision-makers support the amalgamation if they feel that amalgamation, by enabling a recovery of budget control (i.e. lowering the democratic deficit), would have a greater impact, in terms of gains, on their utility function compared to the welfare loss induced by the fact that they partly lose identity by joining another social group (i.e. the jurisdiction with which their home government would amalgamate). Hence, the decision-maker utility function is a weighting of the two variables of budget control and social identity (Assumption 1 hereafter).

Let Jurisdiction A and Jurisdiction B be two venturing jurisdictions. Decision-makers of Jurisdiction A must decide if they want to amalgamate with Jurisdiction B. We are interested in the following variables:

$C = budget\ control$[3]

$\mathbb{I}_i = Social\ identity\ (individual\ variability$[4]$)$

$Decision-maker's\ individual\ utility{:}\ U_i = \alpha_i * C + \beta_i * \mathbb{I}_i,$

where α_i is the weight given to the control over the budget and β_i is the weight given to social identity.

Assumption 1: $(i)\ C \geq 0\ and\ \mathbb{I} \geq 0\ ; (ii)\ U'(C) = \alpha > 0\ and\ U'(\mathbb{I}) = \beta > 0$

Individual decision-makers will accept an amalgamation if it increases their utility. Hence, if the utility of an amalgamation (U_A) is bigger than the utility of staying alone (U_S).

$Decision\ to\ merge\ if{:}\quad U_A = \alpha * C_A + \beta * \mathbb{I}_A \quad > \quad U_S = \alpha * C_S + \beta * \mathbb{I}_S$

We need to consider the following variables in order to assess the decision to amalgamate:

$h = horizontal\ cooperation\ between\ Jurisdiction\ A$

$and\ Jurisdiction\ B, in\ terms\ of\ share\ of\ the\ budget$

$c = effective\ control$

$d = democratic\ deficit$

$\sigma_i = social\ identity\ of\ the\ individual\ in\ the\ initial\ state$

We assume that we are in the case of an ideal amalgamation where the three circles of users, decision-makers and taxpayers coincides and the preferences of decision-makers from jurisdictions A and B are homogenous. Hence, if the amalgamation occurs, there is no democratic deficit and the control over the budget (C_A) is equal to the effective control. By contrast, in the presence of intergovernmental cooperation $(h > 0)$, the control over the budget if the jurisdiction stays alone is smaller than 100% of the effective control because of the democratic deficit $(d = h * c)$ (Assumption 2 hereafter)[5].

Assumption 2:
$(i)\ 0 < h \leq 1\ in\ the\ presence\ of\ intergovernmental\ collaboration$
$\quad and\ =\ 0\ when\ no\ collaboration;$

$(ii)\ C_S = c - d = (1 - h) * c\ and\ C_A = c, where\ c > 0$

In the case of an amalgamation of both jurisdictions, the social identity is equal to the shared identity with the other jurisdiction, the horizontal cooperation, multiplied by the initial identity. The loss of identity is not fixed but negatively depend upon h (Assumption 3 hereafter). Thus

Assumption 3: $\mathbb{I}_S = \sigma_i \; and \; \mathbb{I}_A = h * \sigma_i, where \; \sigma_i > 0$

$Decision \; to \; amalgamate \; if: \quad U_A = \alpha_i * c + \beta_i * h * \sigma_i \quad > \quad U_S$

$$= \alpha_i * (1 - h) * c + \beta_i * \sigma_i$$

$if \quad \alpha_i * h * c > \beta_i * \sigma_i * (1 - h), \quad hence \; if \; h > \dfrac{\beta_i * \sigma_i}{\alpha_i * c + \beta_i * \sigma_i} = \theta_i$

     gain in budget control   *loss of identity*

Following the above equations, i.e. the resistance threshold equation, the decision-maker takes the decision to amalgamate if the intergovernmental cooperation (h) is bigger than the weight of social identity multiplied by the original identity over the weight of budget control multiplied by the effective control plus the weight of social identity multiplied by the original identity. Intuitively, the decision-maker accepts the amalgamation if both jurisdictions cooperate enough, or in other words are close enough, for the gain in budget control induced by an amalgamation to compensate the loss of identity regarding the initial state. Hence, the greater the horizontal cooperation, the more likely the decision-maker is to accept the amalgamation.

The impact of each factor on the threshold θ can be computed by looking at the first order derivatives:

$$\left(\frac{\partial \theta}{\partial \alpha}\right) = -\frac{\beta * \sigma * c}{(\alpha * c + \beta * \sigma)^2} < 0 :$$ the greater the weight of budget control in the decision-maker's utility, the lower the threshold and the more likely the individual will accept an amalgamation.

$$\left(\frac{\partial \theta}{\partial \beta}\right) = \frac{\sigma * \alpha * c}{(\alpha * c + \beta * \sigma)^2} > 0 :$$ the greater the weight of social identity in the decision-maker's utility, the higher the threshold and the less likely the individual will accept an amalgamation.

$$\left(\frac{\partial \theta}{\partial c}\right) = -\frac{\beta * \sigma * \alpha}{(\alpha * c + \beta * \sigma)^2} < 0 :$$ the greater the effective control, the lower the threshold and the more likely the decision-maker will accept an amalgamation.

$$\left(\frac{\partial \theta}{\partial \sigma}\right) = \frac{\beta * \alpha * c}{(\alpha * c + \beta * \sigma)^2} > 0 :$$ the greater the initial identity, the higher the threshold and the less likely the decision-maker will accept an amalgamation.

To summarize, an amalgamation becomes a better option, from a decision-maker's perspective, if the level of horizontal cooperation (h) exceeds the decision-makers' resistance threshold (θ_i). This resistance threshold is defined as the government budget share dedicated to joint ventures that the decision-maker considers to be the upper limit before the loss of control appears too large and before the amalgamation with the neighbouring jurisdiction becomes inescapable. Decision-makers with a high threshold would signal that they are willing to postpone the necessity of an amalgamation despite the corresponding loss of control and democratic deficit. By contrast, decision-makers who report a low threshold would signal their willingness to amalgamate in order to avoid even a small loss of budget control although it

comes at the cost of having to join a new supra-jurisdiction's social group with which they, a priori, do not share a common identity.

SURVEY DESIGN

To empirically identify the resistance threshold, we designed a survey using a questionnaire meant to engage respondents in a situation that would elicit their threshold. The questionnaire was designed to be administered via self-administered mail survey.[6]

The experimental field was provided by two neighbouring cantons in the northern part of Switzerland, namely the canton of Neuchâtel (180'000 inhabitants) and the canton of Jura (70'000 inhabitants). This pair of cantons was chosen because the idea of an amalgamation between them has already been raised and because they have already set up various joint ventures together.[7] As for the respondents, members of the two cantonal parliaments were targeted since they debate annually and decide upon the cantonal budget. Therefore, they have already been confronted with the fact that the existing joint ventures infringe upon their budget room to manoeuvre.

The first part of the questionnaire included questions to bring the respondent to think about the impact of intercantonal cooperation on budget sovereignty. For example, respondents were asked whether they have taken part in the parliamentary debate on cooperation projects between both cantons. They were also asked in which areas such cooperation is justified, whether they were able to provide sufficient oversight of the existing cooperation projects, how the expenditure for these joint ventures has developed and if they consider that these ventures infringe upon their canton's fiscal autonomy.

At the end of this part of the questionnaire, respondents were asked if they would be ready to consider amalgamation when horizontal cooperation would increase to a point at which the budgetary autonomy of the canton would be jeopardised. This question captures the reluctance—or, conversely, the readiness to the idea of an amalgamation at first sight, i.e. before the questionnaire requires the MPs to elicit their resistance threshold.

This was followed by two questions dedicated to the resistance threshold. Both approximate the threshold as the share of the canton's expenditure that would escape the budgetary discussion and beyond which the respondent would consider amalgamating with the other canton to be worthwhile. The first question sets out amalgamation as conceivable and its wording is as follows: "Above which share of the canton's expenditure that would escape the budgetary discussion at the cantonal level could you contemplate an amalgamation?". Respondents were asked to tick one out of ten boxes, graduated from 0% to 100% and were told that 100% represents a situation in which all government activities would be joint-ventured, whereas 0% is equivalent to an absence of cooperation. Then the second question sets out amalgamation as indispensable: "Above which share of the canton's expenditure that would escape the budgetary discussion at the cantonal level would you consider an amalgamation of cantons would then be indispensable?". Again, respondents were asked to tick one out of ten boxes, graduated from 0% to 100%. The last part of the questionnaire was dedicated to the respondent's opinion on a hypothetical amalgamation and respondent's personal characteristics.

The survey was conducted in early April 2015. Due to different communication practices between the two parliaments, surveys were sent in paper form to the 91 MPs of the Jura and via Email to all 151 of Neuchâtel. The deadline was initially set for early May. Two reminders

were sent and the deadline was postponed until the end of June. We ended up with a unit response rate of 47.3% for the Jura and 39.1% for Neuchâtel, which generates an overall response rate of 42.2%, i.e. 102 MPs out of the 252. Of course, the item response rate is often lower since any single question may end up with some missing answers.[8]

SURVEY RESULTS

The 102 observations in the sample are composed of MPs from Neuchâtel (58%) and Jura (42%). About two thirds of the sample had taken part in a discussion about horizontal cooperation and 89% of the sample agrees at least slightly to the statement that cooperation is globally justified.

Responding MPs Consider Horizontal Cooperation To Infringe Budgetary Autonomy

79 MPs answered the question concerning the impact of horizontal cooperation on budget autonomy. 90% of them considered that the budget share of expenditure generated by cooperation is not decreasing, with 54% stating the share is stagnant and 36% stating the share is increasing. In line with our theoretical model, most MPs agreed with the statement that cooperation reduces the canton's budgetary autonomy. Regarding the statement that cooperation reduces the autonomy, 62% of the respondents agreed at least slightly, indicating that that most MPs share the view that horizontal cooperation induces a democratic deficit (loss of autonomy). However, an important part of our sample (38%) does not agree with this statement.

But They Are Reluctant To See Amalgamation As A Way To Solve The Problem

Regarding the idea of a possible amalgamation, results show that two types of respondents in the sample. 59% of the 93 respondents who answered the question rejected the idea of amalgamating both cantons when the budgetary autonomy is jeopardized. On the contrary, 41% would be prepared to consider such an option. Opinions vary importantly between both cantons. In Neuchâtel, 61.1% of responding MPs would be prepared to consider the amalgamation conceivable compared to only 12.8% in the Jura. This feature might be explained by the recent and eventful past of the canton of Jura. Indeed, the canton was created in 1979 as the result of a split-off from the canton of Bern after a protracted process. In addition, Jura is much smaller than Neuchâtel. Thus its MPs might experience even stronger fears of a possible loss of political influence following an amalgamation.

### They Nevertheless Identify A Threshold Above Which Amalgamation Becomes Worthwhile

Figure 1 is based on the answers provided to both threshold questions. The box each respondent ticked corresponds to the share of the canton's expenditure escaping the budgetary discussion that would prompt the respondent to consider an amalgamation between both cantons as conceivable (first threshold question) or to be indispensable (second threshold question). Unfortunately, ten individuals had to be dropped due to explicit inconsistency in their answers.[9]

On its vertical axis, the figure shows the cumulative frequency of the two thresholds elicited by the 78 available observations/respondents when the share of the canton's expenditure that escapes budgetary discussion increases. A cumulative frequency above 50% (.5) means

that the majority of the responding MPs is reached (dotted line). From a 50% out-of-control expenditure share, the majority of the responding MPs could contemplate amalgamating the cantons and this share needs to reach at least 60% of the budget before the majority of the respondents' stated that amalgamation is indispensable.

The situation is almost the same when analysing both cantons separately. From a 50% share of expenditure that would be out of control, the majority of the 30 responding MPs from the canton of Jura, respectively 48 for the canton of Neuchâtel, could contemplate amalgamating the cantons. This share of the budget needs to reach 60% for the Jura MPs and 70% for the Neuchâtel MPs before the majority of the respondents state that amalgamation is indispensable. These figures point out that, in spite of being more reluctant to amalgamate under current circumstances, MPs in the canton of Jura would come to the same conclusion as their counterparts in the canton of Neuchâtel should the share of expenditure escaping their control increase. Provided the responding MPs were representative of each of the two parliaments, this finding suggests that the decision to amalgamate is democratically achievable when the identified budget share is perceived as being out of control. Nevertheless, we can estimate the current share of expenditures relative to intercantonal collaboration in Neuchâtel to be about 5%, which keeps the canton far away from a democratic movement towards an amalgamation.

Figure 1: Cumulative frequency of the elicited thresholds for a conceivable and indispensable amalgamation (N=78)

Share of the canton's expenditure escaping the budgetary discussion

- - - - Amalgamating is conceivable ——— Amalgamating is indispensable
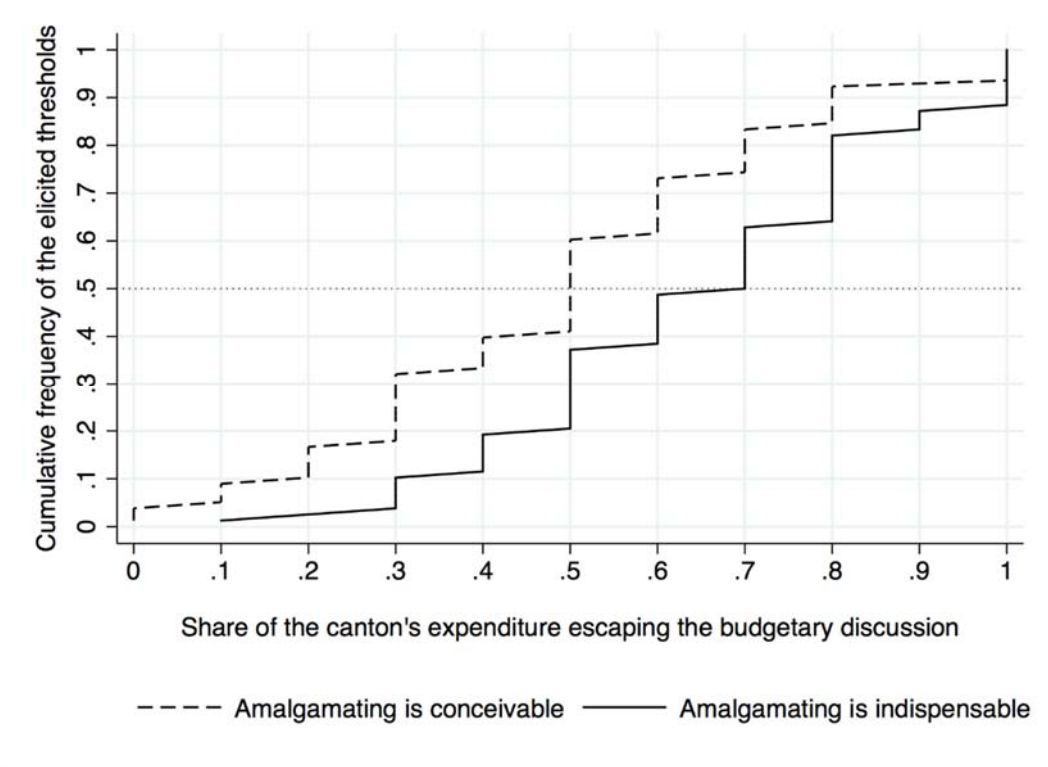
MODELLING THE RESISTANCE THRESHOLD

Estimation Strategy

Various econometric models were estimated in order to identify what variables impact the elicited thresholds. The indispensable amalgamation threshold was used as the dependent variable (the conceivable amalgamation threshold was used for robustness checks). Ordinary least square (OLS) regression with robust variance estimates is the basic model. In addition, we conduct a robust regression to test if our data is contaminated with outliers or influential observations. We must also account for the fact that the dependent variable is a percentage, i.e. a limited dependent variable constraint to values between 0 and 1. In such a case OLS regression might predict values that aren't possible either below 0 or above 1. An alternative approach is to employ a two-limit Tobit model to allow both upper and lower censoring in

order to restrict our estimated predictions to values between 0 and 1. The outcome is thus treated as a censored continuous variable with a lower bound at 0 and an upper bound at 1. Following Rosett and Nelson (1975), the regression model has the following form:

$$\theta = \begin{cases} 0 & if \ \theta^* \leq 0 \\ \theta^* = x\beta + \varepsilon & if \ 0 \ \leq \ \theta^* \leq \ 1 \\ 1 & if \ \theta^* \geq 1 \end{cases}$$

The observed dependent variable, which is censored to values between 0 and 1 is θ. Let θ^* be a dependent variable that is not censored, then θ^* is a latent variable that cannot be observed over its entire range (Long et al. 1997, p.188). In the same vein as Saltzman (1987), one must consider that some respondents feel a stronger resistance toward amalgamation than indicated by the elicited 100% threshold. One could share the same concern as for the lower bound of 0: the hidden distribution may not stop at 0 and some MPs may feel more openness toward amalgamation than indicated by the 0% threshold. Since no MP in the sample chose 0%, it is useless to consider the lower bound of zero and our Tobit model will be of the following form.

$$\theta = \begin{cases} \theta^* = x\beta + \varepsilon & if \ \theta^* < \ 1 \\ 1 & if \ \theta^* \geq 1 \end{cases}$$

Explanatory Variables

The econometric models include five explanatory variables constructed using respondent answers. After dropping all missing values of the different variables, there remain 51 observations. The descriptive statistics can be found in Table 2 of the appendix.[10]

Three explanatory variables can be used to validate the theoretical model: *(a)* the respondent's take on the statement that increasing intercantonal COOPERATION REDUCES THE AUTONOMY (-2= 'fully disagree'; +2='fully agree'). This variable reflects the MPs beliefs on the

existence of a democratic deficit induced by intercantonal collaboration. Following our theoretical model, a loss of control over the budget negatively impacts MP utility, and fosters the decision towards amalgamation, by lowering the threshold. However, this can be true only if MPs actually do perceive the democratic deficit. Hence, we hypothesize that agreeing to the statement that cooperation reduces the autonomy decreases the individual threshold, i.e. we expect a negative coefficient; *(b)* the MPs perception of the EVOLUTION OF THE BUDGET SHARE dedicated to intercantonal cooperation (-1='decrease'; 0='stable'; +1='increase'). As the theoretical threshold does not depend on the level of horizontal cooperation, we expect no effect of the perceived evolution of cooperation on the threshold[11]; *(c)* a dummy that takes the value 1 when the MP would be READY TO CONSIDER AMALGAMATION in case the cooperation would increase to a point where the budgetary autonomy of the canton would be jeopardised (0 otherwise). This question reflects the principle-based reluctance –or conversely– the readiness of MPs to consider an amalgamation, independently of a concrete level of endangerment on the budget control. This reluctance may be due to many factors but should mostly reflect the cantonal attachment induced by social identity. Individuals who are ready to consider amalgamation are expected to have a lower threshold than those who express reluctance towards amalgamation, i.e. the coefficient should be negative.

Two explanatory variables reflect the MPs opinion on collaboration: *(a)* whether they consider intercantonal COOPERATION IS GENERALLY JUSTIFIED (-2='not at all'; +2='yes, absolutely').

(b) whether the responding MP considers that COOPERATION between Jura and Neuchâtel SHOULD BE EXTENDED in each eleven functions[12] (1 = Yes and 0 = No). The dummies are aggregated in the count variable COOPERATION ACCORDING TO FUNCTIONS SHOULD BE EXTENDED which may vary between 0 and 11.

Controls

The models included five control variables. Three discrete variables reflect: *(a)* in the parliamentary debate on how many concrete cooperation projects between both cantons the responding MP has been involved (possibly between 0 and 10); *(b)* the number of years respondents have lived in the canton in which they are MP; *(c)* the number of cantons where they have been living during their lifetime. Then we have four dichotomous variables: *(a)* the first dummy is for gender, taking the value 1 when the respondent is a woman (0 otherwise); *(b)* the second indicates whether the respondent is a member of parliament in the canton of Neuchâtel (1) or in the canton of Jura (0); *(c)* the third indicates whether the MP represents a minor party (party with less than 10% of the seats in the cantonal parliament); *(d)* the last dummy indicates whether the MP represents a major party (party with more than 20% of the seats).[13]

Results

Table 1 shows the three models used to regress our explanatory and control variables on the threshold for an indispensable amalgamation. The first column reports a standard OLS with robust variance estimates. As a standard OLS is sensitive to outliers, the second column reports a robust regression including the same variables. To account for the fact that we have a limited dependent variable, the third column reports a Tobit model with upper censoring at the value 1 with the same explanatory and control variables. Two points are worth mentioning regarding column 1 and 2 before we focus on the third column for coefficients analysis. Firstly, the strong similarity of the results in column 1 and 2 suggests, notably, that our data are not contaminated with outliers or influential observations. Secondly, the high R-squared values, 0.48 for the OLS model and 0.54 for the robust model, show that our model has good

explanatory power. Tobit regression coefficients can be interpreted as a linear effect on the uncensored latent variable y*, which is merely a modelling tool and is not itself of direct interest. This is why we will compute the marginal effects of the observed censored outcome for variables with a significant coefficient.

Regarding the variable of opinion on the statement that COOPERATION REDUCES THE AUTONOMY, the coefficient of -0.082 is negative and significant at a 0.01 level. This result matches our expectations and confirms that for MPs who perceive horizontal cooperation as inducing a democratic deficit, this loss of control enters into their decision-making process by lowering the resistance threshold. The marginal effect of COOPERATION REDUCES THE AUTONOMY at value 0 on the observed censored outcome holding all other variables at means is -0.078, which means that if we stand at the center of the scale, going for a slight agreement of the statement decreases the threshold on average by 7.8%, while going for a slight disagreement increases it by the same percentage.[14] The coefficient of the EVOLUTION OF THE COOPERATION BUDGET SHARE is small and not significant, which matches our theoretical predictions. As expected, the coefficient of READINESS TO CONSIDER AMALGAMATION is negative, however only significant at a 10% level, which suggests a possible place for cantonal attachment due to social identity in the decision-making process of MPs.

Regarding the two variables of opinion on intercantonal cooperation, only the variable COOPERATION GENERALLY IS JUSTIFIED has a significant coefficient (at the 0.01 level). The marginal effect of COOPERATION GENERALLY IS JUSTIFIED at value 0 on the observed censored outcome holding all other variables at means is -0.10, which means that if we stand at the center of the scale, finding cooperation is slightly justified decreases the threshold on average by 10%, while finding it slightly not justified increases the threshold on average by 10%. This result suggests that the

opinion of MPs on cooperation does matter in their decision-making process when computing their resistance threshold, i.e. MPs who find cooperation justified foster amalgamation through a decrease in their threshold.

Only two control variables reached the 0.01-level significance in this table: PARTICIPATION IN COOPERATION and NUMBER OF YEARS IN CANTON. The marginal effect of participation at value 0 on the observed censored outcome holding all other variables at means is 0.062 and slightly decreases for a higher level of participation. For MPs that have never participated in parliamentary debate on concrete cooperation projects, a first participation increases the threshold on average by 6.2%. The coefficient of the number of years spent in the canton is slightly negative but highly significant. The marginal effect of one additional year spent in the canton where the respondent is MP decreases the threshold by 0.5% for Number of years in canton = 5, then decreases slightly more with years to reach a decrease of 0.7% for Number of years in canton = 70. It is interesting that being more rooted in the canton of interest decreases the resistance threshold. A result that suggests that newcomers to a canton are slightly less willing to accept an amalgamation. This may be because they must build themselves a local identity. Interestingly, belonging to a minority party seems to increase the resistance threshold, although a level of significance of only 10%. Consistently, MPs from a minority party should express a stronger fear of amalgamation because they incur a higher risk of losing political power, i.e. being lost in the crowd, than MP belonging to a majority party.

Although not significant in the 'indispensable amalgamation' model presented in Table 1, the gender variable is significant in the model of the threshold for a conceivable amalgamation (Appendix, Table 3). Women reported a threshold that is lower than men's; which is also the

case in the model of the threshold for an indispensable amalgamation (Table 1). One possible explanation is that women are more concerned about retaining control over the budget even if this means amalgamating with another jurisdiction.

As for the size of the jurisdiction, Table 3 shows a significant influence in one model of the threshold for a conceivable amalgamation. Thus, the reluctance to potentially consider an amalgamation may decrease with the size of the jurisdiction, Neuchâtel being larger than Jura. Although fragile, this result contrasts with that of Hanes et al. (2012). But it is in line with Brasington (2003).

Robustness checks

Table 3 in the Appendix shows that apart from the first explanatory variable that loses its significance, the main results are robust to the use of the second dependent variable: threshold for a conceivable amalgamation. Interestingly, the gap between the two dependent variables seems to be statistically impacted by one control variable: gender. Women report 10% lower differences between the real decisional threshold and the threshold for a conceivable amalgamation.

Correlation analysis as well as variance inflation factors (VIF) computation allow us to conclude that we are not in a situation of multicollinearity. We computed the Cook's distance of all MPs and none of them is bigger than one. This result suggests that there is no problem with influential observations in our model.

Table 1: Model explaining the threshold for an indispensable amalgamation

Dependent variable: Threshold for an indispensable amalgamation

VARIABLES	(1) OLS	(2) Robust	(3) Tobit
COOPERATION REDUCES THE AUTONOMY	-0.072***	-0.061**	-0.082***
	(0.026)	(0.025)	(0.026)
EVOLUTION OF THE COOPERATION BUDGET SHARE	0.050	0.062	0.051
	(0.034)	(0.044)	(0.033)
READINESS TO CONSIDER AMALGAMATION	-0.112	-0.132*	-0.150*
	(0.078)	(0.076)	(0.077)
COOPERATION GENERALLY IS JUSTIFIED	-0.088**	-0.114***	-0.122***
	(0.037)	(0.034)	(0.036)
COOPERATION ACCORDING TO FUNCTIONS SHOULD BE EXTENDED	0.005	-0.003	0.007
	(0.014)	(0.013)	(0.014)
PARTICIPATION IN COOPERATION	0.045**	0.038**	0.062***
	(0.018)	(0.017)	(0.019)
NUMBER OF YEARS IN CANTON	-0.006***	-0.006***	-0.007***
	(0.001)	-0.002	(0.001)
NUMBER OF CANTONS LIVED IN	-0.007	-0.005	-0.007
	(0.035)	(0.038)	(0.031)
WOMAN	-0.046	-0.046	-0.061
	(0.066)	-0.067	(0.060)
NEUCHÂTEL	-0.002	0.052	0.009
	(0.079)	(0.079)	(0.079)
MINORITY PARTY (<10% OF SEATS IN PARLIAMENT)	0.085	0.033	0.158*
	(0.086)	(0.087)	(0.086)
MAJORITY PARTY (>20% OF SEATS IN PARLIAMENT)	0.053	0.026	0.086
	(0.069)	(0.060)	(0.070)
CONSTANT	0.923***	1.025***	0.973***
	(0.162)	(0.153)	(0.151)
Observations	51	51	51
R-squared	0.476	0.542	

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10

CONCLUSION

This paper considers the *resistance threshold* to amalgamation. It offers a decision model where decision-makers must decide whether to accept or reject the amalgamation of their jurisdiction with a neighboring one. The decision is the outcome of a trade-off between two factors: control over budget resources and social identity. In practice, this theoretical representation of the resistance threshold corresponds to the share of the budget earmarked to finance joint ventures above which the decision-maker considers amalgamation a viable solution to recover budget control, even if it erodes social identity. The paper provides an exploratory investigation of the level of the threshold and of the factors that influence it by using a survey administrated to the members of parliament in two Swiss cantons.

Results show that most respondents have already been confronted with interjurisdictional joint ventures. Joint ventures seem to infringe upon their budget room to manoeuvre, which comforts us about the pertinence of the choice of the experimental field. Interestingly, our survey results highlight the reluctance of certain respondents to figure out if the two cantons could amalgamate, even though this reluctance might engender a significant loss of the MPs control over the government budget. Nevertheless, the results also show that in case the share of the canton's expenditure escaping the budgetary discussion would exceed some 60%, at that point a majority of the respondents' state they would consider amalgamation indispensable.

The estimated regression model of the resistance threshold gives credence to the role of the democratic deficit in the respondent's decision to consider the cantonal amalgamation indispensable. Admittedly, empirical results do not entirely validate the theoretical model since it is hardly possible to include a direct measure of social identity in the model. However,

results suggest the presence of two types of respondents distinguished by their principle-based reluctance—or, conversely, their readiness—to join another close social group in the context of rationally justified jurisdictional amalgamation. Although at a level of significance of only 10%, the reluctance to consider amalgamation increases the threshold, controlling for all other variables. This result signals that a factor, possibly cantonal attachment, which effect is visible through the rejection of the idea of merging, impacts an MP's decision to amalgamate, which leaves space for a potential impact of social identity on MP's utility.

From a policy perspective, the paper provides an explanation for the high rejection rate of amalgamation propositions between sub-central jurisdictions. In countries where the decision to merge is devolved to the parliaments of sub-central jurisdictions, the paper also helps policy-makers diagnose from what point they should turn their back on horizontal cooperation and favour the option of amalgamating with neighbouring jurisdictions instead. Indeed, taking into account decision-making mechanisms is of critical relevance, in particular the democratic ones, to achieve the adherence of the majority. In fact, the share of the budget earmarked to finance joint ventures is still very far from reaching the identified thresholds to bring about a majority of the MPs questioned in the survey. However, the survey also indicates that starting from a level as low as 5% some members of parliament could already contemplate amalgamating the cantons. Therefore, it comes as no surprise that parliamentarian voices already call for an amalgamation. However, our results also show why these voices remain a small minority in Switzerland.

Further, our results may explain why in countries where amalgamation between regions or municipalities have been enforced by the upper-tier, this decision had to be reversed, leading

to a secession. One interpretation of this is that the resistance threshold necessary to make an amalgamation acceptable had not been reached beforehand.

From a research viewpoint, this article develops the sociology and the economics of government amalgamation by proposing a model of individual decision to amalgamate or not when concern for budget control and social identity enters a trade-off. The key contribution of the study is having identified a strong reluctance toward the idea of amalgamating with a neighboring jurisdiction, although a close social group, but a reluctance that melts away with the loss of budget autonomy when horizontal cooperation through joint-ventures mushroom. Despite the country-specific nature of the empirical estimation, the decision-making model can be applied to any kind of political amalgamation. Further research should however extend the model and identify the factors that may possibly affect the threshold in other contexts. Hence, the study opens up opens up empirical avenues toward other institutional settings and other levels of government (municipalities, countries).

Nevertheless, the study is limited by its inherent hypothetical nature. In addition, future studies should include more observations than the admittedly small number we had at our disposal for modelling the resistance threshold. Further, although the theoretical framework is generalized to any decision-maker of a jurisdiction (i.e. citizens or MPs), the empirical estimation is made with MPs. These latter might not have the same resistance threshold as simple citizens, but it is not clear how their preferences differ regarding an amalgamation. It is worth noting that their position as MPs might be challenged after an amalgamation and this additional fear possibly inflates the identified resistance threshold. If such a bias exists, then the gap for citizens between the existing horizontal cooperation and their resistance threshold should be lower.

Endnotes

[1] The International Public Sector Accounting Standard (IPSAS 8) define a joint venture is a binding arrangement whereby two or more parties (e.g. states) are committed to undertake an activity that is subject to joint control (e.g. provision of a given public service). The arrangement usually takes the form of a contract between the parties. It usually specifies how costs and revenues are shared between the venturers (e.g. individual states) (Müller-Marqués Berger 2012, p.86).

[2] *24 heures*, a Swiss local newspaper, gives us a striking anecdotal evidence by making a headline with 'When the "intermunicipals" act like boats without captain' (*Quand les "intercommunales" prennent des airs de paquebot sans capitaine*') (18.04.2016).

[3] We assume that the effective control is constant across decision-makers of the same jurisdiction.

[4] Each decision-maker has a specific emotional attachment to the jurisdiction in which they live.

[5] We assume that the share of the budget dedicated to finance the expenditure of the horizontal cooperation is out of reach.

[6] The questionnaire is four pages and includes 20 questions. Most questions are structured following a closed multiple-response format. The estimated length to answer is 10 minutes. The questionnaire was introduced with a cover letter explaining to respondents the aim of the survey and the reason why they were selected. The full questionnaire and the database can be obtained by contacting the authors.

[7] Collaboration in domains such as education, health policy, data protection, public safety and river management.

[8] Most of the questions offered the respondent the possibility to state « no opinion ». We considered "no opinion" as a missing response.

[9] These individuals rejected the idea of amalgamating both cantons if the budgetary autonomy was jeopardized but were able to contemplate an amalgamation above 0% of share of the canton's expenditure that would escape the budgetary discussion at the cantonal level. They also reported finding amalgamation indispensable above 0% of share of the canton's expenditure that would escape the budgetary discussion. This drop explains the difference between the mean of readiness to consider a merger in the whole item sample (N=93) and the mean of the reduced sample (N=51).

[10] Although there was a difference in the response rate between the two cantons, no significant difference at a 0.05-level was found in the characteristics of the two groups regarding the rate of women, the age, the number of years as MP, the number of cantons lived in and the number of years lived in the canton.

[11] A more sophisticated version of the model should potentially benefit from extending this assumption to a consideration of a possible dependence of the threshold with the actual level of horizontal cooperation.

[12] The specific functions of governments are: general administration, public order and security defense, education, culture, sport and leisure, health, social security, transportation and telecommunications, protection of the environment and spatial planning, national economy, and finances and taxes.

[13] We excluded the MP's age since it highly correlates with the number of years lived in the canton. Running the regressions including age instead does not change the result and age coefficient is not significant.

[14] If we rerun the same regression with a dummy variable of agreement to this statement (1=agree and 0 = disagree) instead of the scale of strength of disagreement/agreement, the respective marginal effect to go from disagree to agree on the observed censored outcome holding all other variables at means is -0.127. Therefore, the fact of agreeing to this statement decreases the threshold on average by about 13%, independent of the strength of the agreement.

REFERENCES

Aulich, C. (1999). From convergence to divergence: Reforming Australian local government. *Australian Journal of Public Administration,* 58(3), 12-23.

Brasington, D. M. (2003). Size and school district consolidation: Do opposites attract?. *Economica,* 70, 673–690.

Calciolari, S., Cristofoli, D., & Macciò, L. (2013). Explaining the reactions of Swiss municipalities to the 'amalgamation wave': At the crossroad of institutional, economic and political pressures. *Public Management Review,* 15(4), 563-583.

Court of Auditors-Cour des comptes du Canton of Vaud. (2016). *Audit sur l'organisation, le financement et le contrôle démocratique des associations de communes vaudoises*. Rapport n° 38. Lausanne.

Dafflon, B. (2000). Fusions de communes : Eléments d'étude pour une dimension de référence. *Revue d'économie régionale et urbaine,* 5, 841-860.

Dafflon, B. (2013). Voluntary amalgamation of local governments: The Swiss debate in the European context. In *The challenge of local government size: Theoretical perspectives, international experience and policy reform,* ed. Lago-Peñas, S. and J. Martinez-Vasquez, 189-220. Cheltenham: Edward Elgar.

Dearlove, J. (1979). *The reorganisation of British local government: Old orthodoxies and a political perspective*. Cambridge: CUP Archive.

Blåka, S. (2017). Does cooperation affect service delivery costs? Evidence from fire services in Norway. *Public Administration,* 95, 1092-1106.

Hanes, N., Wikström, M., and Wångmar, E. (2012). Municipal preferences for state-imposed amalgamations: An empirical study based on the Swedish municipal reform of 1952. *Urban Studies,* 49(12), 2733-2750.

Jacobs, A.J. (2004). Federations of Municipalities: A Practical Alternative to Local Government Consolidations in Japan?. *Governance*, 17(2), 1468-1491.

Keating, M. (1997). The invention of regions: Political restructuring and territorial government in Western Europe. *Environment and Planning C: Government and Policy,* 15(4), 383-398.

Keating, M. (2013). *Rescaling the European state: The making of territory and the rise of the meso.* Oxford: Oxford University Press.

Long, J. S. (1997). *Regression models for categorical and limited dependent variables*. Thousand Oaks: Sage Publishing.

Ma, L.J.C. (2005). Urban administrative restructuring, changing scale relations and local economic development in China. *Political Geography*, 24(4), 477-497.

Müller-Marqués Berger, T. (2012). *IPSAS explained: A summary of international public sector accounting standards*. 2nd ed. Chichester: John Wiley & Sons.

Olson, M. (1969). The principle of "fiscal equivalence": The division of responsibilities among different levels of government. *American Economic Review,* 59(2), 479-487.

Rosett, R. N., & Forrest, N.D. (1975). Estimation of the two-limit probit regression model. *Econometrica*: 141-146.

Ruggie, J. G. (1993). Territoriality and beyond: Problematizing modernity in international relations. *International Organization,* 47(01): 139-174.

Rühli, L., & Rother, N. (2017). *NFA 2 – Towards a revitalisation of Swiss federalism*. Zürich: Avenir Suisse.

Rumley, P. A. (2010). *La Suisse demain: De nouveaux territoires romands, un nouveau canton du Jura: utopie ou réalité ?.* Pontarlier: Editions du Belvédère.

Saltzman, G. M. (1987). Congressional voting on labor issues: The role of PACS. *Industrial & Labor Relations Review,* 40(2), 163-179.

Schöni, A. (2005). Le contrôle parlementaire des conventions intercantonales. Working paper 4, University of Lausanne, IDHEAP.

Sciarini, P., & Bochsler, D. (2006). Réforme du fédéralisme suisse: Contribution, promesses et limites de la collaboration intercantonale*. In *Contributions à l'action publique. Beiträge zum öffentlichen Handeln,* ed. Chappelet J.-L., 267-285. Lausanne/Bern: Presses polytechniques et universitaires romandes/Haupt.

Soguel, N. (2006). The inter-municipal cooperation in Switzerland and the trend towards amalgamation. *Urban Public Economics Review,* 6, 169-189.

Soguel, N., & Julie S. (2015). Welfare loss with municipal amalgamations and the willingness-to-pay for the municipality name. *Local Government Studies,* 41(6), 977-996.

Steiner, R. (2003). The causes, spread and effects of intermunicipal cooperation and municipal mergers in Switzerland. *Public Management Review,* 5(4), 551-571.

Swiss federal council, CdC, DTAP, UVS and ACS (2012). *Projet de territoire Suisse*. Berne: OFCL.

Tajfel, H., & Turner, J.C. (1979). An integrative theory of intergroup conflict. *The Social Psychology of Intergroup Relations,* 33(47), 74.

von Hagen, J. (2002). Fiscal federalism and political decision structures. In *Federalism in a changing world. Learning from each other*, ed. Blindenbacher R. and A. Koller, 373-394. Montreal: McGill-Queen's University Press.

Vetter, A., & Kersting, N. (2003). Reforming local government: Heading for efficiency and democracy. In *Reforming Local Government in Europe*, ed. Vetter, A. and N. Kersting, 333-349. Wiesbaden: VS Verlag für Sozialwissenschaften.

Wollmann, H. (2010). Comparing two logics of interlocal cooperation: The cases of France and Germany. *Urban Affairs Review,* 46(2), 263-292.

APPENDIX

Table 2: Descriptive statistics for the variables in the models (N=51)

	Variable	Obs	Mean	Std. Dev.	Min	Max
Dependent variables	Threshold for amalgamation to be conceivable	51	0.50	0.26	0	1
	Threshold for amalgamation to be indispensable	51	0.67	0.22	0.1	1
Explanatory variables	COOPERATION REDUCES THE AUTONOMY	51	0.25	1.25	-2	2
	EVOLUTION OF THE COOPERATION BUDGET SHARE	51	0.33	0.65	-1	1
	READINESS TO CONSIDER AMALGAMATION	51	0.51	0.50	0	1
	COOPERATION GENERALLY IS JUSTIFIED	51	1.25	0.96	-2	2
	COOPERATION ACCORDING TO FUNCTIONS SHOULD BE EXTENDED	51	4.96	2.59	0	11
Controls	Participation in cooperation	51	1.86	1.73	0	5
	Number of years in canton	51	36.47	17.05	4	71
	Number of cantons lived in	51	1.84	0.88	1	4
	Female	51	0.22	0.42	0	1
	Neuchâtel	51	0.65	0.48	0	1
	Minority party (<10% of seats in parliament)	51	0.14	0.35	0	1
	Majority party (>20% of seats in parliament)	51	0.53	0.50	0	1

Table 3: Robustness checks and further investigations

Dependent variable : Threshold for a conceivable amalgamation (col 1 to 3) and DV gap (col 4)

VARIABLES	(1) OLS	(2) Robust	(3) Tobit	DV gap OLS
COOPERATION REDUCES THE AUTONOMY	-0.046	-0.041	-0.047	-0.026
	(0.039)	(0.038)	(0.038)	(0.024)
EVOLUTION OF THE COOPERATION BUDGET SHARE	0.048	0.047	0.052	0.001
	(0.050)	(0.068)	(0.048)	(0.035)
READINESS TO CONSIDER AMALGAMATION	-0.166	-0.171	-0.178*	0.054
	(0.106)	(0.117)	(0.101)	(0.061)
COOPERATION GENERALLY IS JUSTIFIED	-0.092**	-0.094*	-0.106**	0.004
	(0.044)	(0.052)	(0.043)	(0.031)
COOPERATION ACCORDING TO FUNCTIONS SHOULD BE EXTENDED	0.012	0.010	0.015	-0.007
	(0.020)	(0.020)	(0.020)	(0.011)
Participation in cooperation	0.078	0.079	0.099	0.007
	(0.120)	(0.134)	(0.133)	(0.087)
Number of years in canton	0.051	0.051	0.064	0.002
	(0.084)	(0.094)	(0.083)	(0.044)
Number of canton lived in	0.027	0.042	0.020	-0.030
	(0.110)	(0.123)	(0.111)	(0.077)
Women	-0.007***	-0.007**	-0.008***	0.001
	(0.002)	(0.003)	(0.002)	(0.001)
Neuchâtel	0.046*	0.042	0.055**	-0.001
	(0.025)	(0.027)	(0.026)	(0.016)
Minority party (<10% of seats in parliament)	0.062	0.072	0.062	-0.108**
	(0.093)	(0.104)	(0.085)	(0.050)
Majority party (>20% of seats in parliament)	-0.001	0.005	0.001	-0.006
	(0.049)	(0.059)	(0.045)	(0.029)
Constant	0.734***	0.733***	0.745***	0.189*
	(0.191)	(0.237)	(0.174)	(0.097)
Observations	51	51	51	51
R-squared	0.379	0.325		0.152

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.10