

The Cooperative Capacity of Swiss Federalism*

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Abstract: *The federal structure is a defining feature of the Swiss polity. According to the disenchanting hypothesis, which argues that the Swiss political culture of accommodating competing interests has come under pressures, we should expect that cooperation among the cantons and between the federal and cantonal governments has deteriorated over the last 25 years. However, inter-cantonal coordination has increased substantially. In addition, the successful negotiation of the NFA shows that the federal and cantonal governments can reach comprehensive agreements. This study provides empirical analyses of the NFA reform and of inter-cantonal tax competition. The NFA analysis shows that the cantons successfully coordinated their interests vis-à-vis the federal government, and the findings of the spatial econometric tax competition investigation suggest that inter-cantonal coordination in the NFA had an attenuating effect on tax competition. Overall, the problem-solving capacity of the Swiss federal system is remarkably high—not disenchanting.*

KEYWORDS: Decentralisation, Federalism, Fiscal Federalism, Cantons

Introduction

The unofficial motto of Switzerland *unus pro omnibus, omnes pro uno* (one for all, all for one) might wrongly suggest that Swiss citizens share a strong sense of national solidarity and spirit that is typical for a nation-state. Rather, Switzerland represents the opposite of a centralized nation-state that encompasses citizens with a common and unique identity. The population is multi-lingual and multi-cultural, and the federal polity is highly decentralized with substantial competencies on the cantonal and municipal levels. Accordingly, the unofficial Swiss motto is not about the unity of the citizens, but emphasizes the willingness of the cantons to cooperate with one another—as can be seen in the cupola of the Federal Palace, where the cantonal flags surround the engraved latin phrase *unus pro omnibus, omnes pro uno*. But how strong is the capacity of the cantons to cooperate? And has inter-cantonal cooperation become less stable over the last two decades, as might be expected according to the general argument of the special issue, which suggests that consensus-orientation in Swiss politics is challenged by increased polarization and competition?

From a theoretical point of view, we would expect that in the Swiss power-sharing system gridlock and standstill dominate negotiations between the federal and the cantonal governments because a large number of veto players are involved (Tsebelis, 2002; Scharpf, 2006). In contrast to this theoretical expectation, the successful negotiation of the recent landmark federal reform, the NFA, provides evidence for a remarkably high

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problem-solving capacity of the Swiss federal system.¹ The comprehensive set of 27 constitutional changes and 30 modifications of laws revised the fiscal equalization system and re-allocated the public competencies between the federal government and the cantons. Both negotiations on the federal competence allocations and on the fiscal equalization payments were essentially zero-sum games, which makes it all the more remarkable, that the cantonal and federal decision-makers could find an agreement. An important factor for the successful negotiation of the NFA reform was that the cantons could unify their positions vis-à-vis the federal government.

The pooling of cantonal interests in the NFA is not an exception, but part of a larger pattern documented in the more recent literature. Over the last two decades, the extent to which cantons coordinate inter-cantonal activities, exchange information, provide public services together, and organize cantonal interests has substantially increased (Bochsler, 2009; Strelbel, 2011; Füglistner, 2012). This article adds to the findings of the literature on inter-cantonal coordination by providing empirical investigations of the NFA reform and of inter-cantonal tax competition. The analysis shows that the cantons successfully joined forces in the NFA negotiations. The coordination of cantonal interests was, according to the empirical study of the different NFA negotiation stages, most intense in the period from 1999 to 2004. The tax competition analysis builds on this insight and investigates how strongly cantons reacted to one another in tax decision-making since 1990. The findings of the spatial econometric model suggest that tax competition was at the lowest level in the years when inter-cantonal coordination was most intense.

Overall, the findings of the recent literature and this study show that the problem-solving capacity of Swiss federalism is remarkably high and that the level of inter-cantonal coordination has increased over the last 25 years. These findings do not confirm the disenchanting hypothesis of this special issue, which argues that the Swiss political culture of accommodating competing interests with consociational politics has come under substantial pressures because of increased polarization, personalization, and mediatization (Bochsler, Hänggeli and Häusermann, 2015). Interestingly enough, the coordination of cantonal interests in inter-cantonal conferences and the negotiation of the NFA are good illustrative examples of the *modus operandi* of Swiss politics that is supposedly disenchanting: decision-makers meet and discuss policies behind closed doors to find broadly supported solutions. The key is that the demands of all relevant political forces are taken into account to make sure that political agreements are broadly supported by the elites (and then legitimized by the electorate). This silent mode of politics was a critical success factor in the NFA process and is a defining feature of inter-cantonal coordination.

The remainder of this article is structured as follows: Section 2 introduces the literature on inter-cantonal cooperation and competition; Section 3 analyzes the NFA reform; Section 4 presents the tax competition analysis; Section 5 discusses the findings within the broader theme of the special issue; and Section 6 concludes.

Inter-cantonal cooperation and competition

In federal systems, the federal government and the subnational units share sovereignty. This shared power among the two government levels complicates decision-making substantially, particularly in distributional negotiations on, for example, the allocation of

¹ NFA is the acronym for “Neugestaltung des Finanzausgleichs und der Aufgabenteilung zwischen Bund und Kantonen.”

competencies and the transfer of fiscal equalization payments. In case the federal and the subnational governments have veto power, vertical competence allocations and the reform of fiscal equalization systems are typically locked in gridlock because such negotiations are essentially zero-sum games (Tsebelis, 2002; Scharpf, 2006). A public competence assigned to one government level is not available to the other, and any payout of an equalization system to one unit has to be covered by the budget of another government. From a theoretical perspective, we would thus expect little decision-making capacity in the Swiss federal system with its many veto players and shared sovereignty.

Not just the vertical power-sharing dimension of the system complicates cooperation. In addition, the economics literature argues that Swiss cantons are in strong horizontal competition with one another. Indeed, Switzerland is an empirical textbook example for the study of fiscal federalism and tax competition because the cantons have extensive autonomy in taxation, the tax rates and systems vary substantially across cantons, and the small size of the country makes it feasible for people and businesses to relocate with rather marginal transaction costs (Tiebout, 1956; Oates, 1972; Brueckner, 2003; Sinn, 2003). Furthermore, tax competition between cantons is a highly salient topic in Swiss politics. Within that context, economists have studied various aspects related to inter-cantonal tax competition. Among others, they have analyzed the influence of competition on cantonal tax debates, whether residence location decisions of wealthy people are sensitive to cantonal tax differences, and how strongly cantons react to the decisions of their neighbors (Liebig and Sousa-Poza, 2006; Feld and Reulier, 2009; Brühlhart and Parchet, 2014).

Some economists have explicitly advocated the benefits of tax competition, arguing that federal reforms should further intensify competition among cantons (Eichenberger, 2002; Feld, 2009). Most of the research on inter-cantonal tax competition in the economics literature has an empirical focus though. On top of the already existing literature, economists from four different Swiss universities further investigate various aspects of tax competition in a large-scale research project founded by the Swiss National Science Foundation.² Overall, the research of economists suggests that competition dominates inter-cantonal relations. Accordingly, the economist Gebhard Kirchgässner concludes that the Swiss polity is “more strongly oriented towards the concept of a competitive than that of a cooperative federalism” (2012, 148).

Based on the discussed theoretical argument that shared sovereignty among different government levels is associated with gridlock and the emphasis of the economics literature on inter-cantonal competition, we would expect a high level of horizontal conflict among the cantons and a low level of problem-solving capacity on the vertical dimension of the Swiss federal system. Even worse, the general argument of this special issue suggests that the Swiss political culture of accommodating competing interests with consociational politics has come under substantial pressures (Bochsler, Hänggli and Häusermann, 2015). Thus, the already low level of cooperation should have further deteriorated. If that is an accurate account of inter-cantonal and federal politics in the last two decades, we should find less stable patterns of cooperation, gridlock in negotiations between the federal government and the cantons, and fierce competition among the cantons.

The empirical work of political scientists, however, neither suggests that vertical and horizontal cooperation in the Swiss polity is at a low level, nor that it has declined. Rather, recent studies show that various forms of inter-cantonal cooperation have been

² <http://www.fiscalfederalism.ch/>.

developed since the 1990s (Bochsler, 2009; Strebel, 2011; Füglistner, 2012). The most important institution coordinating inter-cantonal affairs is the Conference of Cantonal Governments, which was founded in 1993 as a reaction to the increasing pressures from European integration on cantonal autonomy. One of the most recent examples of European pressure on cantonal autonomy is the European criticism of beneficial corporate tax instruments. At the time of writing, the cantons elaborate, together with the federal government, potential solutions to react to the pressure of the European Union. On the part of the cantons, the Conference of Finance Ministers represents the cantonal interest in tax and finance questions. Apart from the Conference of Cantonal Governments and the Conference of Finance Ministers, 15 other specialized inter-cantonal conferences coordinate cantonal interests and policy-making in various policy fields. Empirical studies have shown that cooperation within such inter-cantonal institutions is effective in promoting the spread of best practices in energy and health policy-making (Strebel, 2011; Füglistner, 2012).

Furthermore, the abundant inter-cantonal concordates add to the dense and growing net of institutionalized forms of horizontal cooperation, in which cantonal decision-makers exchange experiences, coordinate inter-cantonal activities, and organize cantonal interests vis-à-vis federal actors (Bochsler and Sciarini, 2006; Bochsler, 2009). Overall, horizontal cooperation intensified substantially over the last two decades. Against this backdrop, the political scientist Klaus Armingeon comes to the opposite conclusion of the before-cited economist Gebhard Kirchgässner by stating that "federalism in Switzerland is not—unlike in the USA—primarily competitive" (2000, 123). International studies also show that Switzerland stands out for its high level of institutionalized inter-governmental arrangements, which supports the finding that the Swiss federal system is, in comparative perspective, a polity with a rather comprehensive set of cooperative elements (Bolleyer, 2006b, a).

However, besides these forms of inter-cantonal cooperation, Swiss cantons indeed also compete with one another (Feld and Reulier, 2009; Brühlhart and Parchet, 2014; Wasserfallen, 2014). The horizontal dimension of the Swiss polity is a complex system with both cooperative and competitive elements. As recent research indicates, competition and subtle forms of cooperative behavior co-exist and are not isolated from one another. Gilardi and Wasserfallen (2014) study the co-existence of competition and socialization by investigating how the joint membership of finance ministers in regional networks influences tax competition. Their empirical analysis shows that socialization in regional conferences of finance ministers attenuates tax competition. Thus, cooperative elements of inter-cantonal relations can also be found in the highly competitive policy area of taxation.

The negotiations and outcomes of the recent landmark reform of Swiss federalism, the NFA, provide interesting empirical material for further investigating the inter-cantonal capacity for cooperation. The NFA is also an ideal case for studying whether we find gridlock in highly distributional negotiations among the cantons and the federal government. An important first observation is that a comprehensive agreement could eventually be accomplished, which shows that the problem-solving capacity of the Swiss federal system is quite remarkable. The final NFA agreement consists of two major pillars. The first pillar disentangles the federal and cantonal public competencies. In this pillar, a clear vertical cleavage dominated the negotiations because both the cantonal and the federal authorities were interested in gaining the exclusive power in policy fields that were in mutual competence. The second pillar of the NFA completely revised the fiscal equalization system. In this pillar, the conflict line was both vertical and horizontal, as the

cantons had a common interest in a large financial contribution of the federal government, while each canton wanted to minimize its own obligations at the expense of the others.

The following two empirical sections build on the recent literature in political science on inter-cantonal cooperation by providing analyses of the NFA negotiations and of tax competition. The findings are in line with the recent literature by showing that, if anything, the cooperative capacity of the Swiss federal system has been strengthened—despite the arguments that shared sovereignty causes gridlock and despite the emphasis of economists on inter-cantonal competition. Moreover, the analyses point to an interesting connection between the NFA negotiations and tax competition dynamics: the empirical results suggest that intense inter-cantonal cooperation in the NFA negotiations may have had an attenuating effect on tax competition dynamics.

The NFA negotiation

As discussed in the previous section, the zero-sum nature of federal competence allocations and fiscal equalization payments typically lock in such systems in gridlock when the involved actors have veto power (Tsebelis, 2002; Scharpf, 2006). There may be some efficiency gains associated with reforms, but they do not solve the gridlock-problem because the costs of fiscal equalization reforms are immediately visible for net-losers, while the efficiency gains are not targeted and uncertain. The following analysis discusses the distributional aspects of the NFA reform and the main arguments of the literature that explain why the federal government and the cantons could eventually agree on a comprehensive federal reform—against all theoretical odds. In addition, the analysis provides insights beyond the existing literature by emphasizing that the outcome of the NFA was overall very favorable for the cantons. A reform outcome that is largely at the expense of the federal government suggests that inter-cantonal cooperation in the negotiations was strong. Finally, the analysis identifies the critical period in the NFA negotiations when the cantons successfully joined forces vis-à-vis the federal government.

The NFA reform is a comprehensive set of 27 constitutional changes and 30 modifications of laws and was prepared and negotiated in a 12-year long process. The reform assigned a series of public competencies that were in common responsibility to either the cantonal or the federal level and fundamentally changed the financial equalization system. Expert reports identified at the beginning of the reform process various dysfunctionalities of the old system and provided conceptual guidance for alternative approaches. Some studies highlight the importance of expert reports for the eventual success (Frey, 2010). The reform was negotiated in several working groups, in which federal and cantonal officials were always equally represented. Cappelletti, Fischer and Sciarini (2014) argue that distributional conflicts were omnipresent in these working groups. Braun (2009), in contrast, emphasizes that it was possible to overcome material interests. In his view, this was accomplished mainly because the general principles of the reform were discussed before the distributional conflicts played out. Braun's (2009) analysis thus suggests that a necessary condition for a successful federal reform is that the involved veto players agree on general reform principles (and expert reports may be helpful for achieving that). Since this is not a sufficient condition, the analyses of Braun (2009) and Cappelletti, Fischer and Sciarini (2014) are not necessarily contradictory. The specifics of the distributional consequences are typically negotiated in rather technical details, which are not fully resolved by general principles. To get a deeper understanding

Table 1: Task, principles, and negotiation outcomes of the two main pillars of the NFA (FG = Federal Government)

Task	Principles	Negotiation outcome
Vertical disentangling of public competencies	<ul style="list-style-type: none"> – Subsidiarity – Revitalizing Swiss Federalism 	Disentangling of competencies that are in the joint responsibility: <ul style="list-style-type: none"> – 13 policy areas go to the cantons – 7 policy areas go to the FG
Fiscal equalization	<ul style="list-style-type: none"> – Inter-cantonal equalization of taxable resources – Budget neutrality for FG 	<ul style="list-style-type: none"> – Payments of the FG to the cantons: <ul style="list-style-type: none"> – CHF 1.4 billion general equalization – CHF 550 million equalization of special urban and rural burdens – CHF 280 million to hardship fund – Inter-cantonal equalization (horizontal): <ul style="list-style-type: none"> – CHF 1.14 billion from high-fiscal to low-fiscal capacity cantons

of the negotiation, the remaining part of this section analyzes the reform outcome and the four NFA negotiation stages in more detail.

Table 1 summarizes the principles and negotiation outcomes of the two main parts of the NFA negotiation—that is, the vertical disentangling of public competencies and the reform of the fiscal equalization system.³ As a general principle of the reform of the vertical competence allocation, the involved actors agreed on the subsidiarity principle (i.e., public tasks should, as the default option, be assigned to the cantonal not the federal level). The agreement on this principle and the final negotiation outcome clearly reflect the commitment to revitalize Swiss federalism. Eventually, 13 policy areas were transferred to the exclusive competence of the cantons, while the federal government got the exclusive say in only 7 areas. At the beginning of the reform process, a larger disentangling was envisaged. The reform package shrunk during the negotiations to make sure that federal and cantonal representatives could support the outcome. Eventually, the new distribution of public competencies clearly favors the cantons.⁴

In regard to the fiscal equalization system, expert reports in the early 1990s outlined the various dysfunctions and poor incentives for fiscal policy-making of the intransparent old system. The old system was also ineffective in reducing fiscal disparities between the cantons (Frey *et al.*, 1994; Dafflon, 2004).⁵ The detailed discussion of the shortcomings was the foundation for creating a widely shared consensus that a reform with a completely new approach was needed. The experts also provided guidance for the design of a revised system. The core of the new system is that payments are calculated based on a so-called “tax potential index,” which basically estimates how many taxable resources a canton has. Based on that index, the potential of taxable resources are equalized among the cantons. This general accounting mechanism was uncontested. The controversial question, of course, was (and still is): how much should be equalized? Net-paying cantons aimed to restrict the overall size of the equalization package, while the net receivers argued for

³ The third part of the NFA is a series of measures to foster inter-cantonal cooperation.

⁴ For a comprehensive discussion of the NFA negotiation outcome, see Federal Department of Finance (2007).

⁵ The first evaluations of the new system provide mixed findings regarding the effectiveness of the new equalization mechanism (Swiss Federal Council, 2010).

minimal equalization targets. Furthermore, the rural cantons asked for compensations for the spending that is caused by the geo-topographical structure of their territory, while urban cantons requested some burden sharing for their expenditures caused by the socio-demographic structure of their populations.

Most studies investigate primarily these inter-cantonal conflicts (see, e.g., Cappelletti, Fischer and Sciarini, 2014). Focusing the analysis on the distributional conflict between the cantonal and the federal governments is at least as interesting. In a nutshell, the fiscal equalization outcome was attractive for the cantons because the federal government agreed to pay the bill. All actors in the negotiations of fiscal equalization reforms have a basic interest: the new system should be at least as good in terms of payments and benefits as the old one. However, since fiscal equalization is a zero-sum game, it is impossible that all actors can achieve this goal. As soon as the officials of certain cantons realized that the new system will be more costly for them, a so-called hardship fund was negotiated to make sure that no canton with weak resources will experience financial disadvantages from the new system. The hardship fund is mainly paid by the federal government and is the key reason for the overwhelming support of the cantons for the introduction of the new system.⁶

The negotiation outcome thus suggests that the cantons could maximize the federal government's share of the burden by accommodating their horizontal distributional conflicts. Three arguments support the interpretation that the federal government was eventually "the principal underwriter of the reform" (Blöchli and Vammalle, 2012, 130). First, the federal government repeatedly insisted, as a red line for the negotiations, that the new system should be budget neutral—that is, it should not lead to greater transfers from the federal to the cantonal level. The federal negotiators abandoned that principle, when they agreed to finance the hardship fund, which makes almost 15% of the overall federal commitments.⁷ Second, the total vertical payments from the federal government to the cantons (CHF 2.23 billion) clearly exceed the horizontal equalization sum (CHF 1.14 billion). Third, the equalizations of special urban and rural burdens and the hardship fund, in particular, secure additional payments for the vast majority of the cantons (see Figure 1). Since the hardship fund has no underlying economic rationale, the economic experts criticized this part (Dafflon, 2004; Frey, 2010; Kirchgässner, 2012). Also, the payments for special urban and rural burdens are controversial.

In sum, the analysis of the NFA negotiation outcome shows that the cantons were very successful in getting back public competencies and in maximizing the federal government's share in the fiscal equalization system. The regional and national Conferences of Cantonal Governments and the Conferences of Finance Ministers provided the institutional capacity for this successful inter-cantonal coordination. Particularly for the Conference of Finance Ministers, the NFA was for several years by far the most important topic of inter-cantonal coordination. The favorable negotiation outcome for the cantons was only possible because the cantons could effectively coordinate their interests during the negotiation period when the specific rules on the distributional consequences of the reform were drafted. The following analysis of the reform stages identifies this critical negotiation period.

⁶ Two-thirds of the contribution in the hardship fund is paid by the federal budget. The payments will be reduced slightly year by year. The compensation should last for about 30 years.

⁷ I rely here on the 2001 calculations, which provide the blueprint of the reform (Swiss Federal Council, 2001).

Figure 1: Milestones and stages of NFA reform process.



The pre-negotiation of the NFA started in 1992, when the Conference of Finance Ministers discussed problems of the old equalization systems (Conference of Finance Ministers, 1992). The cantons mandated a group of economists to elaborate on a comprehensive report on the various dysfunctionalities of the system (Frey *et al.*, 1994). Cantonal and federal representatives drafted, based on the recommendations of the report, a rough reform proposal that was sent into consultation in 1996. The reform effort and direction were generally welcomed. However, parts of the vertical allocation of competencies were criticized, which led to the downsizing of the reform in the competence allocation pillar. In the pre-negotiation period, cantonal and federal representatives created problem awareness and defined subsidiarity and budget neutrality as the main principles for the negotiation.

After analyzing the reactions to the first proposal, federal and cantonal authorities drafted a more detailed proposal that was sent into consultation in 1999 and provided the framework for the core negotiation stage between 1999 and 2001. In the core negotiation period, the financial consequences of the reform became visible and the discussion shifted from principles to specifics. At this stage, the cantons negotiated remarkably successful. The negotiators agreed to generously endow both compensation funds with geo-topographical and socio-demographic funding, and, in addition, they created the hardship fund and decided that it should primarily be financed by the federal budget. In this negotiation period, the federal government abandoned the budget neutrality principle, as its financial commitments increased with the hardship fund beyond the status quo obligations. In 2001, the legislation proposal was sent into the federal parliamentary process. Since the key cornerstones of the reform were already fixed, the federal legislator could de facto only approve or reject the proposal. After the parliamentary approval, the next milestone was in November 2004, when 64.4% of the electorate and 23 cantons voted for the reform. The preparation of the implementation of the reform started in

2008.⁸ Figure 1 summarizes the milestones and the negotiation stages of the NFA process.

According to the presented analysis of the four stages of the NFA reform, inter-cantonal cooperation was most intense in the years from 1999 to 2001, during which the cantons maximized the financial burden of the federal government. In the approval stage (2001–2004), the joint inter-cantonal support was also important for convincing the federal legislator and the public of the reform. A divided cantonal front in that stage would have been a substantial threat for the approval of the negotiation outcome. After the reform passed the public vote in 2004, the need for inter-cantonal cooperation dropped. The start of the implementation of the reform was in 2008, and it took a few years of experience with the new system to calculate the first systematic analysis of the distributional consequences of the fiscal reform.

In sum, the presented investigation of the NFA reform adds two main insights to the existing literature. First, the analysis of the NFA negotiation outcome shows that the cantons successfully joined forces vis-à-vis the federal government. Second, the discussion of the negotiation stages suggests that inter-cantonal coordination was intense during the years from 1999 to 2001, remained high during the approval period (2001–2004), and dropped after the reform passed the public vote by the end of 2004. As discussed in the previous section, competitive and cooperative elements co-exist in the Swiss federal system. The following section extends the analysis to this dimension. The research of economists, as summarized above, indicates that taxation is the most pronounced arena of inter-cantonal competition (Feld and Reulier, 2009; Brühlhart and Parchet, 2014). However, even in that policy area, joint membership in inter-cantonal conferences can have attenuating effects on competition (Gilardi and Wasserfallen, 2014).

During the NFA negotiations, the cantons intensively coordinated their interests in various inter-cantonal conferences. The landmark character of the NFA had a very broad impact on cantonal policy-making, as the reform affects most cantonal policy areas. Most importantly, the NFA is directly connected to tax competition because a major objective of the NFA is to adjust tax competition with the revised fiscal equalization system. The presented findings and the work of Gilardi and Wasserfallen (2014) suggest that cooperation among the cantons might have had an impact on tax competition dynamics. If that is the case, we should find attenuating effects particularly during the core negotiation and the approval stages. Following that argument, we expect that the intensity of tax competition was low during the negotiation and approval stages (when inter-cantonal cooperation was very high) and that tax competition increased after the reform passed the public vote in 2004. The next section empirically analyzes whether the temporal variation in tax competition follows that pattern.

Temporal variation in tax competition

To test the hypothesis on the temporal variation in inter-cantonal tax competition empirically, the following analysis relies on a spatial econometric model with a spatial lag as the main explanatory variable (Brueckner, 2003; Beck, Gleditsch and Beardsley, 2006; Franzese and Hays, 2007). As the dependent variable, I model the cantonal income tax

⁸ For further details on the negotiation stages, see Swiss Federal Council (2001, 2005); Dafflon (2004); Braun (2009); Cappelletti, Fischer and Sciarini (2014); Kirchgässner (2012).

rates for high incomes of CHF 150k.⁹ The data for the analysis are taken from Gilardi and Wasserfallen (2014) and cover the time period of the NFA negotiation (from 1992 – 2007). The spatial lag in this study is a reaction function that is supposed to account for competitive dynamics. Technically speaking, the spatial lag is the weighted average of the tax rates in other cantons, whereas the row-standardized connectivity matrix defines the relative weights. For the Swiss context, Gilardi and Wasserfallen (2014) argue that commuting data provide a reasonable proxy for measuring competitive relations among cantons. The rationale of that operationalization is that the more people commute between two cantons, the higher is the tax competition pressure among them, because residents can relocate without high transaction costs. This analysis uses the same data.¹⁰

As controls, I model a set of fiscal (debt, deficits, and spending), economic (unemployment), political (government composition), and institutional (finance referendum index) variables.¹¹ Following conventional practice in spatial analysis, the model includes unit dummies to control for time-invariant unit heterogeneity. Including unit dummies is of substantive importance because we aim to estimate how cantons react to one another in tax decision-making. Our main interest lies in the model estimates of the spatial lag, which show whether the tax rate changes of the competitor cantons in time $t - 1$ are a systematic and substantive predictor of cantonal tax rate changes in time t (while competitor cantons are those with a large relative share of commuters). For estimating the temporal variation in tax competition, I include year dummies and the interactions of the spatial lag with the year dummies (except for the first year of the time-series). Accordingly, the estimates of the spatial lag variable gauge the competitive interaction in 1991, while the average competitive effect for each other year is the sum of the spatial lag coefficient and the corresponding interaction effect (Brambor, Clark and Golder, 2006). The model is specified as follows:

$$y_{it} = \beta_{0i} + \rho W y_{t-1} + \beta_{1t} D_t + \beta_{2t} (D_t \times W y_{t-1}) + \beta_3 X_{it} + \epsilon_{it},$$

where β_{0i} is a vector of canton-specific intercepts, $W y_{t-1}$ is the spatial lag vector, ρ its coefficient in the baseline year 1991, D_t is a matrix of year dummies, $D_t \times W y_{t-1}$ the interactions of the year dummies with the spatial lag, X_{it} the control variables, and ϵ_{it} the error term. The model is estimated with OLS and panel-specific Prais Winsten corrections for serial correlation.¹²

Table 2 shows the findings. The spatial lag coefficient is positive, quite substantial in size, and significant, which indicates that in the year 1991 the cantons reacted to the tax rate changes of their competitors. We interpret this result as evidence of inter-cantonal competitive behavior in 1991. The interaction effects show for each year how the effect of the spatial lag deviates from the baseline year 1991. The coefficients of the first block of

⁹ The appendix shows the analysis for incomes of CHF 400k. The findings are robust.

¹⁰ To address the endogeneity concern that the number of commuters could be influenced by tax rates, Gilardi and Wasserfallen (2014) use the 1990 census data to construct the spatial lags from 1990 to 1998 and the 2000 census data for the spatial lags from 1999 to 2007.

¹¹ Many thanks to Adrian Vatter, Marc Bühlmann, Hans-Peter Schaub, and Oliver Dlabac for sharing data on the fiscal referendum index. The tax and financial data are from the Swiss Federal Tax Administration and the Federal Finance Administration, the unemployment rate from the Federal Statistical Office, and the political variables from *Année politique Suisse*.

¹² Franzese and Hays (2007) show that OLS is appropriate if the spatial lag is lagged by one year and the time span long enough, which is the case in this application.

Table 2: Estimates of spatial lag regression model with standard errors in parentheses; dummy variables (for years, units, and party of finance ministers) are included but not shown

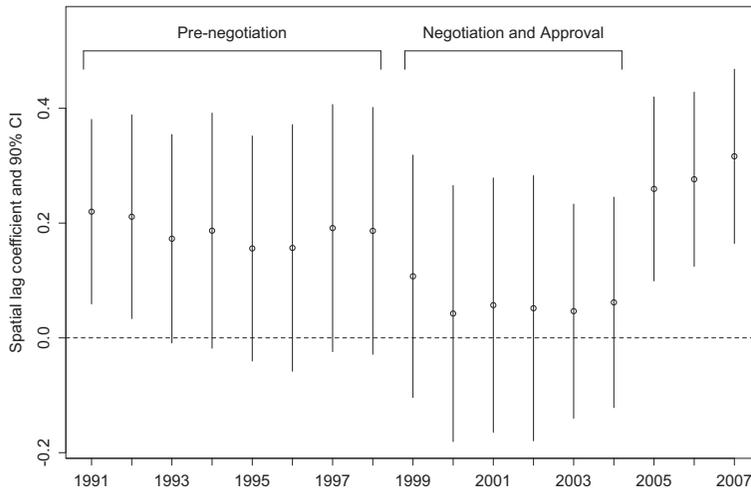
SPATIAL LAG	0.220 (0.098)**
$d_{1992} \times \text{SPATIAL LAG}$	-0.009 (0.027)
$d_{1993} \times \text{SPATIAL LAG}$	-0.047 (0.043)
$d_{1994} \times \text{SPATIAL LAG}$	-0.033 (0.060)
$d_{1995} \times \text{SPATIAL LAG}$	-0.064 (0.055)
$d_{1996} \times \text{SPATIAL LAG}$	-0.063 (0.059)
$d_{1997} \times \text{SPATIAL LAG}$	-0.029 (0.063)
$d_{1998} \times \text{SPATIAL LAG}$	-0.033 (0.063)
$d_{1999} \times \text{SPATIAL LAG}$	-0.113 (0.061)*
$d_{2000} \times \text{SPATIAL LAG}$	-0.177 (0.066)***
$d_{2001} \times \text{SPATIAL LAG}$	-0.163 (0.066)**
$d_{2002} \times \text{SPATIAL LAG}$	-0.168 (0.073)**
$d_{2003} \times \text{SPATIAL LAG}$	-0.173 (0.059)***
$d_{2004} \times \text{SPATIAL LAG}$	-0.158 (0.060)***
$d_{2005} \times \text{SPATIAL LAG}$	0.040 (0.055)
$d_{2006} \times \text{SPATIAL LAG}$	0.056 (0.050)
$d_{2007} \times \text{SPATIAL LAG}$	0.096 (0.047)**
DEBTS	0.417 (0.206)**
DEFICITS	0.909 (0.444)**
UNEMPLOYMENT	-0.087 (0.053)*
FINANCE REFERENDUM INDEX	0.177 (0.173)
SPENDING PER CAPITA	0.051 (0.425)
SVP IN GOVERNMENT	-0.090 (0.012)
FDP IN GOVERNMENT	-0.018 (0.012)
CVP IN GOVERNMENT	-0.012 (0.012)
LEFT IN GOVERNMENT	-0.012 (0.011)
<i>N</i>	442
Cantons	26
Years	17
Unit dummies	YES
Year dummies	YES

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

interaction effects from 1992 to 1998 are approximately at the same level as the baseline year coefficient, but from 1993 on they are less precisely estimated. From 1999 to 2004, however, the strongly negative interaction effects indicate that there was no tax competition in that time period, while inter-cantonal tax competition was intense in the years after the NFA passed in 2004 (see the positive coefficients of the interactions from 2005–2007). Turning to the control variables, the fiscal measures—debt and deficits—have the expected signs and are positive (the worse the fiscal situation gets, the higher the tax rate increases). Deteriorating economic conditions, measured with the unemployment rate, are also associated with increasing tax rates. Finally, the political and institutional variables have no systematic effect on tax rate changes. However, the non-finding of the fiscal referendum and the political variables are not surprising given that the unit dummies control for unit heterogeneity.

Overall, the estimates of the spatial lag and the interaction terms reported in Table 2 support the expectation that there was no inter-cantonal competition during the negotiation period of the NFA from 1999 to 2004, when the cantons had a common

Figure 2: Temporal variation in tax competition and stages of the NFA reform process; shown are the year-specific spatial lag coefficients and the 90% confidence intervals.



interest in a unified position vis-à-vis the federal government, while we find some evidence for competition in the pre-negotiation period (before 1999) and particularly after the reform was approved in 2004. Figure 2 shows the spatial lag coefficient for each year and the 90% confidence interval to visualize the yearly tax competition effects. The spatial lag coefficients for the years 1992 to 2007 are estimated as the sum of the spatial lag and the corresponding interaction term coefficients.¹³ Figure 2 reports the year-specific tax competition effects.

The findings of Figure 2 show that the spatial lag coefficients from 1992 to 1998 are positive. We should, however, be cautious in interpreting this as evidence of tax competition in the pre-negotiation period, as not all coefficients are estimated with great precision (the confidence intervals cross the zero-line in most years). A clear change occurs in 1999, when the core negotiation period started and the need for inter-cantonal cooperation grew: after the pre-negotiation period ended, the tax competition coefficients fell to very low levels. During the negotiation and approval stages from 1999 to 2004, we find no evidence of tax competition, which supports the argument that the cantons cooperated intensively in these two periods to negotiate and secure a reform that benefits the cantons at the expense of the federal government. Most impressive is the change of the tax competition effect after the reform passed in 2004: as soon as the NFA was approved by the electorate, the need for a unified cantonal position vis-à-vis the federal government vanished and the cantons started to compete again on a rather intense level (see results from 2005–2007).

Discussion of findings

It is quite remarkable that the cantons and the federal government could accomplish both a re-allocation of public competencies and a comprehensive reform of the fiscal

¹³ The variance of the yearly spatial lag coefficients are estimated as a function of the variances and covariances of the spatial lag and the corresponding interaction terms: $Var(\hat{\rho} + \hat{\beta}_{2t}) = Var(\hat{\rho}) + Var(\hat{\beta}_{2t}) + 2 \cdot Cov(\hat{\rho}, \hat{\beta}_{2t})$

equalization system. The cantons' capacity for cooperation, which has been illustrated in various recent studies (Bochsler, 2009; Strebel, 2011; Füglistner, 2012), was an important factor for the successful negotiation of the NFA reform. The presented findings suggest that the cantons could successfully unify their interests in the critical negotiation periods, and the empirical analysis of the temporal variation in tax competition further indicates that the cantons shifted to a cooperative mode in these critical negotiation periods. After the need for cooperation vanished, however, inter-cantonal tax competition became intense.

The findings of this study and the more recent literature on Swiss federalism are of importance for assessing the general argument of this special issue. Several analyses provide evidence supporting the main hypothesis evaluated in this special issue that the Swiss political culture of accommodating competing interests with consociational politics has come under pressures because of increased polarization, personalization, and mediatization on the federal level (Bornschier, 2015; Leemann, 2015; Udrist, Lucht and Schneider, 2015). These phenomena, however, seem not to be pertinent in cantonal politics (Bochsler and Wasserfallen, 2013). Indeed, the disenchantment argument is usually made by referring to the use of direct democracy or some dysfunctionality of consociational governance on the federal, not the cantonal, level. The literature on cantonal politics, in contrast, shows that inter-cantonal relations has become more intense and institutionalized in the last 25 years (Bochsler and Sciarini, 2006; Bochslers, 2009). If anything, the findings of the more recent literature and this article suggest that we can observe some enchantment of the federal dimension of the Swiss polity over the last two decades. Given its strongly decentralized structure, the federal and inter-cantonal part of the Swiss system are important elements in an overall evaluation of Swiss politics.

Also of importance for the larger theme of this special issue is that the NFA and the work accomplished in inter-cantonal conferences are good illustrative examples of the *modus operandi* of Swiss politics: cantonal officials meet and discuss various topics behind closed doors to find broadly supported solutions. This silent mode of politics was a critical success factor in the NFA process. Public officials and government representatives from all cantons and the federal government started with the identification of shortcomings, discussed shared principles, negotiated the details of the reform, and reached a broad compromise that was supported by a large majority of the electorate and the cantons. Changes in Swiss politics that complicate this distinct form of decision-making, where political elites negotiate broadly supported compromises that are eventually confirmed and legitimized by the electorate, are at the core of the disenchantment argument.

Although this article puts forward an overall positive assessment of inter-cantonal politics, there are also important challenges that should be discussed. For example, the fiscal equalization system, which needs constant legitimization, continues to be a politically controversial topic. In times of increased fiscal pressure on the cantonal budgets, the inter-cantonal conflicts on the equalization payments become intense again. The current debates among net-paying and net-receiving cantons are very similar to the ones during the negotiation of the NFA. Some cantonal politicians try to politicize the NFA in the public (rather than the elite) arena. The cases of shared financing of cultural facilities and the nation-wide educational concordat "Harmos" show how politicization with direct democratic instruments can destabilize inter-cantonal cooperation (Füglistner and Wasserfallen, 2014). This may also become a problem for the NFA because cantonal referendums and initiatives induce uncertainty on carefully negotiated inter-cantonal cooperative agreements. Initiatives on the federal level, in contrast, usually stabilize and

foster inter-cantonal cooperation, as they ask for federal interventions. At the time of writing, cantonal tax practices are under pressure from the OECD and the EU. Whether the cantons will again be able to join forces and to shift most of the financial burden of the upcoming corporate tax reform to the federal budget remains to be seen.

In sum, the analysis of the federal dimension of the Swiss polity suggests that we can also observe some enchantment over the last two decades in Swiss politics. The cantons have extended their institutional capacity for cooperation and shown that they can find broad consensus even in policy areas with strong distributional consequences. Furthermore, the analyses of inter-cantonal cooperation and the NFA illustrate how the Swiss version of silent politics works: behind closed doors, the political elites negotiate compromises that are eventually confirmed and legitimized by the electorate. However, the discussion of current and future challenges of inter-cantonal cooperation also emphasizes that politicization and direct democratic votes on the cantonal level are potentially destabilizing forces.

Conclusion

The NFA reform—prepared, negotiated, and approved over the course of a 12-year-long process—revised the fiscal equalization system and disentangled the allocation of public competencies between the federal government and the cantons. The successful negotiation of this landmark reform is evidence for a remarkably high problem-solving capacity of the Swiss federal system. In both main pillars of the reform, the final negotiation outcome is overall very beneficial for the cantons: most competencies that were in shared responsibility were transferred to the cantonal level, and the cantons could maximize the federal government's share in the fiscal equalization system.¹⁴ The representative of the cantons could negotiate this favorable outcome because they successfully unified their positions vis-à-vis the federal government. The analysis of the different stages of the NFA negotiation shows that inter-cantonal cooperation was most intense in the reform period from 1999 to 2004.

Building on the findings of the NFA analysis, the spatial econometric investigation of the temporal variation in tax competition suggests that tax competition was at the lowest level during the period of intense inter-cantonal cooperation (1999–2004), which indicates that the pooling of cantonal interests in the NFA may have had an attenuating effect on tax competition. The presented empirical results of the NFA and of the tax competition analyses are in line with the findings of the more recent literature on Swiss federalism (Bochsler, 2009; Füglistner, 2012; Gilardi and Wasserfallen, 2014). Over the last 25 years, inter-cantonal cooperation has strongly intensified. The cantons nowadays work together within a dense net of concordats and professionalized inter-cantonal conferences.

This special issue investigates whether the Swiss political system is disenchanting because of increased polarization, personalization, and mediatization. As a contribution to answering this question, this study argues that inter-cantonal cooperation has substantially increased over the last two decades, and the problem-solving capacity of Swiss federalism

¹⁴ What the analysis does not explain is why the federal government accepted the negotiation outcome. In the core negotiation stage, the costs of reform failure may have become too high for the federal authorities to veto the reform. The broader point is that the federal negotiators could not benefit from inter-cantonal conflicts. If inter-cantonal conflict had dominated (not the vertical cleavage), the outcome most likely had been better for the federal government and less favorable for some cantons.

is remarkably high. The findings of this article are not just relevant for the edited volume because they suggest that the disenchanting hypothesis is not well-suited to explain modern inter-cantonal politics and the vertical dimension of the Swiss federal system. Also important is that the successful negotiation of the NFA and the intensified inter-cantonal cooperations are good illustrative examples of how the political elites in Switzerland seek to find broadly supported compromises behind closed doors. The key is that the demands of all relevant political forces are taken into account to make sure that political agreements are eventually legitimized by the majority of the electorate. The better this silent consociational mode of politics works, the more enchanted is the Swiss system.

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Appendix

A Robustness checks

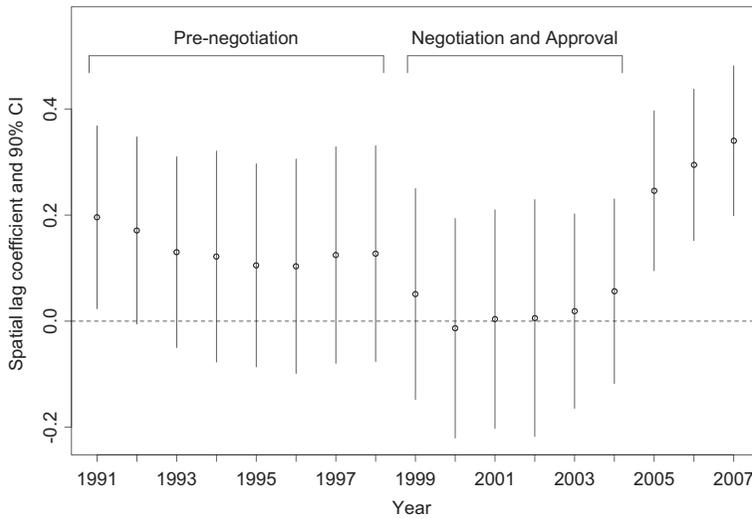
The empirical analysis presented in the article relied on tax data for an income of CHF 150k. Table A1 and Figure A1 show the results of the same model specification using tax data for an income of CHF 400k. The findings with this alternative high income category are robust.

Table A1: Estimates of spatial lag regression model with standard errors in parentheses; dummy variables (for years, units, and party of finance ministers) are included but not shown

SPATIAL LAG	0.196 (0.105)*
$d_{1992} \times$ SPATIAL LAG	-0.025 (0.026)
$d_{1993} \times$ SPATIAL LAG	-0.066 (0.042)
$d_{1994} \times$ SPATIAL LAG	-0.074 (0.057)
$d_{1995} \times$ SPATIAL LAG	-0.091 (0.053)*
$d_{1996} \times$ SPATIAL LAG	-0.092 (0.054)*
$d_{1997} \times$ SPATIAL LAG	-0.071 (0.058)
$d_{1998} \times$ SPATIAL LAG	-0.069 (0.058)
$d_{1999} \times$ SPATIAL LAG	-0.145 (0.054)***
$d_{2000} \times$ SPATIAL LAG	-0.209 (0.055)***
$d_{2001} \times$ SPATIAL LAG	-0.192 (0.056)***
$d_{2002} \times$ SPATIAL LAG	-0.190 (0.064)***
$d_{2003} \times$ SPATIAL LAG	-0.177 (0.054)***
$d_{2004} \times$ SPATIAL LAG	-0.139 (0.055)**
$d_{2005} \times$ SPATIAL LAG	0.050 (0.055)
$d_{2006} \times$ SPATIAL LAG	0.099 (0.051)*
$d_{2007} \times$ SPATIAL LAG	0.144 (0.049)***
DEBTS	0.530 (0.241)**
DEFICITS	0.860 (0.527)
UNEMPLOYMENT	-0.066 (0.071)
FINANCE REFERENDUM INDEX	0.061 (0.258)
SPENDING PER CAPITA	-0.137 (0.549)
SVP IN GOVERNMENT	-0.016 (0.013)
FDP IN GOVERNMENT	-0.021 (0.013)
CVP IN GOVERNMENT	-0.017 (0.013)
LEFT IN GOVERNMENT	-0.016 (0.012)
<i>N</i>	442
Cantons	26
Years	17
Unit dummies	YES
Year dummies	YES

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Figure A1: Temporal variation in tax competition and stages of the NFA reform process; shown are the year-specific spatial lag coefficients and the 90% confidence intervals.



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