

Feld, Lars P.

**Working Paper**

## Regulatory Competition and Federalism in Switzerland: Diffusion by Horizontal and Vertical Interaction

CREMA Working Paper, No. 2006-22

**Provided in Cooperation with:**

CREMA - Center for Research in Economics, Management and the Arts, Zürich

*Suggested Citation:* Feld, Lars P. (2006) : Regulatory Competition and Federalism in Switzerland: Diffusion by Horizontal and Vertical Interaction, CREMA Working Paper, No. 2006-22, Center for Research in Economics, Management and the Arts (CREMA), Basel

This Version is available at:

<https://hdl.handle.net/10419/214368>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

**Regulatory Competition and Federalism  
in Switzerland: Diffusion by  
Horizontal and Vertical Interaction**

Lars P. Feld

Working Paper No. 2006 - 22

# **Regulatory Competition and Federalism in Switzerland: Diffusion by Horizontal and Vertical Interaction**

by

LARS P. FELD  
*University of Marburg,  
University of St. Gallen, SIAW-HSG,  
CREMA and CESifo*

## ***Abstract***

The impact of regulatory competition on policy outcomes and particularly on policy innovation is widely debated among scientists from different fields as well as among policymakers. In this paper, Swiss cantonal regulation is studied in order to gain further insights into the policy impact of regulatory competition and harmonization. Starting from a theoretical perspective that particularly emphasizes the beneficial impact of inter-jurisdictional competition on policy innovations, and a discussion of the existing empirical evidence on regulatory competition, the development of the common market, regulatory competition and harmonization in Switzerland across time is analyzed. In an econometric analysis of the extent of regulation at the Swiss cantonal level, some indicative empirical evidence on the main determinants of Swiss cantonal regulation is derived.

*JEL-Classification:* H11, H71, D72, J23, K31

*Keywords:* Regulatory Competition, Political Innovation, Corporatist Protectionism.

Paper presented at the Conference on the Effects of Interjurisdictional Competition on Regulation, Heidelberg, June 9 – 11, 2005. – Revised Version, November 15, 2005. I would like to thank John Addison, Peter Bernholz, Bernhard Boockmann, Friedrich Heinemann, Dennis Mueller, Pierre Salmon, Christoph Schaltegger, François Vaillancourt and Roland Vaubel for their very useful and encouraging comments.

Mailing Addresses: Prof. Dr. Lars P. Feld  
University of Marburg  
Public Finance Group  
Am Plan 2  
D-35037 Marburg (Lahn)  
Germany  
Feld@wiwi.uni-marburg.de

## 1. Introduction

On the eve of the creation of a Swiss federation, Napoleon Bonaparte is told to have said that Switzerland will be a federal state or it will never be. By acknowledging the cantonal diversity with such resignation, he (supposedly) accepted that the strength of political and cultural identity of the Swiss cantons rendered his attempt to impose a centralized constitution on the Swiss unsuccessful (KÖLZ 1992). Swiss federalism has since been accepted as one of the most decentralized versions of this type of (vertical) state organization (FILIPPOV, ORDESHOOK and SHVETSOVA 2004). In recent times, the fiscal part of Swiss federalism has gained considerable attention by economists (FELD 2000, FELD and KIRCHGÄSSNER 2001, 2003). Strong fiscal competencies of the Swiss cantons and local jurisdictions, in particular their extensive tax autonomy, have led scholars to use Switzerland as a laboratory to analyze the effects of fiscal competition on the efficiency of public good provision (FELD 2005), decentralized income distribution (FELD 2000a, FELD, FISCHER and KIRCHGÄSSNER 2004), government size (SCHALTEGGER 2001, FELD, KIRCHGÄSSNER and SCHALTEGGER 2003, KIRCHGÄSSNER and FELD 2004) and economic performance (FELD, KIRCHGÄSSNER and SCHALTEGGER 2004).

The focus on fiscal issues in these empirical studies is owing to a large number of theoretical studies in the economic analysis of federalism that more or less heavily criticize the benefits of interjurisdictional competition (for surveys see FELD 2000, 2005a). One of the most prominent critiques stems from SINN (2003) who hypothesizes that interjurisdictional fiscal competition will lead to an inefficient provision of public services and to a collapse of the welfare state. An inefficient provision of public services could particularly result if economies of scale (non-rivalness) in consumption exist, i.e. when the government provides public goods in the Samuelsonian sense. Fiscal competition enforces the benefit principle of taxation such that mobile production factors can only be charged the marginal costs of their use of public goods. Mobile taxpayers do however not contribute to cover the high inframarginal (fixed) costs of public infrastructure. If this is not to lead to an inefficiently low level of public services, the fixed costs must be covered by immobile taxpayers (SINN 2003). This can induce an undesired income distribution. SINN (2003) also argues that a large government sector for distributive purposes can hardly be maintained in a decentralized system with fiscal competition. Not only would it become difficult if not impossible for a single community to levy the necessary redistribution tax upon the rich and mobile, but such a policy, if undertaken in one community, would also attract poor individuals from other jurisdictions and, thus, erode the internal redistribution policy. Therefore, no major redistributive activities would be possible in a decentralized, competitive system of jurisdictions.

The recent evidence from Swiss federalism rejects Sinn's hypotheses at least in their strong versions. According to the studies mentioned above, fiscal competition between Swiss cantons and between Swiss local jurisdictions rather lead to a relatively high efficiency of public

goods' provision. They do not induce a collapse of the welfare state although they restrict the cantons' ability to redistribute income and reduce the size of the public sector.<sup>1</sup> Overall, fiscal competition in Switzerland leads to sounder public finances. In addition, fiscal competition induces a better economic performance of the cantons as measured by their GDP per employee. The Swiss evidence is thus much more in line with the predictions of TIEBOUT (1956) and OATES and SCHWAB (1988) who hypothesize an efficient provision of public services as the result from fiscal competition. On the basis of this Swiss evidence, it is tempting to regard interjurisdictional competition as the most favorable principle of (horizontally and vertically) organizing interjurisdictional relationships.

There is however a dark side of federalism or decentralized policy-making, respectively. As one of the most important advantages of federalism, TIEBOUT (1956), STIGLER (1957) and OATES (1972) emphasized that public good provision and financing is close to citizens' preferences such that information problems are minimized and citizens' preferences for public goods are enforced (see also WEINGAST 1995). Being close to citizens however also involves closeness to local special interests. Instead of serving the interests of mobile individuals, sub-federal jurisdictions may thus be captured by local interest groups and introduce protectionist measures in order to shelter them from external competition (RODDEN and ROSE-ACKERMAN 1997, BRUECKNER 2000, BARDHAN 2002). An argument that starts as an advantage quickly turns into a disadvantage if the imperfections of politics are considered. It thus depends on the institutional restrictions shaping policy outcomes whether decentralized decision-making on the provision and financing of public services actually leads to efficient outcomes.

These advantages and disadvantages of federalism are clearly perceived by policy-makers, again in particular in Switzerland. While the positive role of fiscal competition is widely acknowledged, the tendency of the cantons to collude in certain policy areas as well as the cantonal reluctance to deregulate their economies are evaluated very critically (RENTSCH ET AL. 2004, BORNER and BODMER 2004). Many regulations of economic activity exist at the Swiss cantonal level and prevent economic innovation from unfolding. Because these regulations are in the competency of the cantons, the federal government has difficulties to deregulate the Swiss economy. In 1995, the Swiss federal government thus passed a law to complete the Swiss common market by establishing an origin principle in cantonal regulation such that regulations of the other cantons have to be accepted by each canton. As the impact of that Common Market Law on regulatory levels of the Swiss cantons has been rather moderate and free market access between the cantons has remained restricted in several areas of economic activity, an amendment proposal has followed in 2004 (BUNDESRAT 2004). The main goal of the amended Common Market Law is the enforcement of the origin principle in cantonal regulation and the extension of free market access to all economic sectors and branches. The

---

1. The international evidence on the effects of globalization on welfare states points in the same direction. See for example RODRIK (1998), VAUBEL (2000) and the survey by SCHULZE and URSPRUNG (1999).

validity of specific cantonal legal prerequisites in each canton supposedly increases inter-cantonal mobility of labor and services. What is going on in Switzerland is a liberalization along the same lines of thought as the EU Services Directive of 2005 has intended in the first place. The result of this deregulation effort will be regulatory competition.

When it comes to regulatory competition, similar concerns as in the case of fiscal competition can be formulated. Again SINN (2003) is one of those most heavily questioning the benefits of regulatory competition. With respect to product market regulation, he argues that regulatory competition will induce too lax standards if the reason for regulating product markets in the first place is asymmetric information. Customers who are ill informed about product quality would have at least as strong difficulties to properly judge competing national quality standards. The problems induced by asymmetric information and intended to be reduced by government regulation would re-emerge in regulatory competition. According to Sinn, market failure would be re-introduced by the backdoor. Swiss policymakers articulate the same fears in the current discussion on a revision of the Common Market Law (BUNDESRAT 2004, p. 478): Regulatory competition supposedly induces a race to the bottom in regulatory standards.

The main goal of this paper is to rationalize these theoretical and political discussions by providing some insights in the functioning of regulatory competition and harmonization in Switzerland. A focus of this paper is the dynamic interaction that takes place in any kind of competitive processes such that innovations and inventions could occur. Aside some pioneering studies (HAYEK 1939, ROSE-ACKERMAN 1980), the impact of interjurisdictional competition on policy innovations has only recently gained more considerable attention in the economic theory of federalism (INMAN and RUBINFELD 1997, KERBER 1998, OATES 1999, SCHNELLENBACH 2004, 2004a, FELD and SCHNELLENBACH 2004). The theory of regulatory competition in international economics and in law and economics more consistently study the relationship between policy competition and policy innovation (BERNHOLZ and FABER 1986, SIEBERT and KOOP 1990, HAUSER and HÖSLI 1991, BEBCHUK 1992, SUN and PELKMANS 1995), meanwhile extending the analysis to historical evidence (BERNHOLZ and VAUBEL 2004, VAUBEL 2005). This paper adds to the existing evidence by focusing on Switzerland.

The paper is organized as follows: In *Section 2*, the brief sketch of arguments mentioned before is extended to provide for a theoretical basis of the analysis. The often neglected link between competition and innovation is particularly emphasized in this section. A very brief overview on the cases of regulatory competition empirically studied in the literature follows in *Section 3*. *Section 4* analyzes the development of the common market, regulatory competition and harmonization in Switzerland across time. In *Section 5*, an econometric analysis of the extent of regulation at the Swiss cantonal level is conducted in order to find out the main determinants of Swiss cantonal regulations. Concluding remarks are provided in *Section 6*.

## 2. The Theoretical Basis for the Analysis

The theoretical point of departure in studies of regulatory competition is the same as the one from which the economic theory of federalism starts. In a seminal contribution, TIEBOUT (1956) analyzes decentralized provision and financing of public goods by drawing a market analogue. Citizens who demand public services face many jurisdictions providing different levels and quantities of them according to different tax prices. Individuals (and firms) shop around selecting that bundle of public goods (including regulations) and tax prices which comes closest to their preferences. In equilibrium, people have sorted according to their preferences and incomes into different jurisdictions offering different types, levels and qualities of public services (including regulations) to different tax prices. A sustainable variety of public solutions results, (relatively) homogeneous populations live in each jurisdiction, and citizens' preferences are enforced by competition between jurisdictions. Like in private markets, migration provides for a mechanism to induce efficient outcomes.

While TIEBOUT (1956) has developed his thoughts as a reply to SAMUELSON's (1954) free-rider problem in the provision of public goods by showing that an efficient mechanism to reveal individual preferences for local public goods exists, the theory of regulatory competition has adapted his model by drawing an analogue between local public goods and legal rules (GATSIOS and HOLMES 1998, VAN DEN BERGH 2000, HEINE and KERBER 2002). In that analogy, regulatory competition appears to comprise any state action from taxes and public spending to legal statutes, constitutional provisions and whole economic or political systems. SUN and PELKMANS (1995, p. 82) serve best to illustrate that analogy in an EU context:

*„Given the four economic freedoms of movement, consumers and firms will be able to arbitrage among the differences in national regulations revealed thereby. With mutual recognition, consumers will be able to choose among the goods and services produced according to various regulations. To the extent that greater variety increases utility, consumer welfare will be enhanced. Further, when mobility rests with factors of production (...), these factors can locate within the jurisdiction the regulations of which most closely approximate their preferences; allocative efficiency will be improved, and output will expand.”*

For those familiar with the literature on the economic theory of federalism, the analogy appears complete. In fact, the hypotheses developed in this analysis even seem to provide for a vision, like Ronald Reagan's shining city on a hill (BUCHANAN 2000): Regulatory competition under the principle of origin with mutual recognition of regulations of the jurisdictions involved leads to favorable economic outcomes.

## *2.1 The Neoclassical Criticisms*

It is no surprise that such visionary formulations have raised contradiction. Although some of the main critical arguments as to the functioning of inter-jurisdictional competition could be found earlier in the economic theory of federalism (OATES 1972) and at the same time in the literature on regulatory competition between the U.S. states (BEBCHUK 1992, BRATTON and MCCAHERY 1997), the most clearly formulated criticism is provided again by SINN (1990, 1997, 2003). He argues that government regulation in product markets serves as a solution to the lemons problem that emerges due to asymmetric information. Because potential buyers can less easily verify the quality of a product offered by a seller, sellers offering low quality goods can pretend to their customers that these are of high quality. The customers' lack of ability to verify quality standards also prevents sellers to differentiate prices in terms of product quality. According to this rationale, cheaper low quality products will always beat more expensive high quality products because the quality difference cannot be verified. The difficulties to realize product quality are particularly relevant in the case of experience goods in the mid-price segment. In such a situation of asymmetric information, customers will realize that their probability to buy low quality products is very high such that the markets affected by asymmetric information become very thin. Indeed, they may finally collapse as AKERLOF (1970) has argued for the market for used cars. This kind of market failure could be prevented by government regulation which establishes quality standards and quality controls.

Allowing for competition between jurisdictions which have different levels of government regulation induces customers to buy the products offered at the lowest prices possible, again having difficulties to judge product quality properly. These will be the products from countries with the lowest quality standards such that the lowest standards are enforced by the market mechanism in international competition. According to Sinn's arguments, customers will have the same difficulties to judge public quality standards in the different jurisdictions as they have in judging different product qualities. The result of that kind of competition would be a race to the bottom in regulatory standards providing additional incentives for each jurisdiction to reduce regulatory restrictions further in order to attract additional demand from abroad. Regulatory competition would induce market failure by the backdoor.

Aside regulation of product markets, SINN (2003) extends this type of analysis to different other fields of regulation. Similarly adverse outcomes are predicted from his analysis of ecological competition if jurisdictions internalize environmental externalities by Pigovian taxes and from competition of bank regulators using again an asymmetric information argument. With respect to the competition in social standards, a more optimistic assessment follows according to which a convergence of social standards to the higher level occurs. This result is driven by the symmetric interests of employers and employees. Differences in social standards only occur because the country with the lowest standards has low income levels and can thus not afford higher social standards. Competition between social standards will thus not



induce social dumping. Finally, Sinn analyses competition between competition rules and obtains a similarly adverse impact of inter-jurisdictional competition. His arguments rest on the presumption that national governments want to create monopolies or ‘national champions’ in order to gain dominant market positions in international terms. The incentives to follow that strategy are derived from the additional benefits presumably obtained for that country if ‘national champions’ reap monopolistic rents and distribute them to their fellow countrymen as their shareholders. The ‘national champions’ then act as Stackelberg leaders. Competition between competition rules would induce a considerable relaxation of antitrust laws. Sinn acknowledges however that this way of modeling inter-jurisdictional competition is relatively unrealistic. He shows that the usual Cournot-Nash-assumption applied in the other analyses of inter-jurisdictional competition is inducing efficient antitrust policies.

The analysis conducted by SINN (2003) hinges on several important assumptions. Two of them are criticized below in more detail, but mentioned at the outset: First, he assumes the validity of what he calls the selection principle. According to that principle, the state does what it ought to from the point of view of normative neo-classical economics. Governments do not follow their own private agenda, but actually cope with market failures. Second, Sinn’s view is static. Competition is however a very dynamic procedure that Sinn does not consider. In particular, the beneficial impact of competition on innovation and dynamic efficiency of a society is thus neglected. There are however inherent criticisms of his analysis (VAUBEL 2004). First, the strong assumptions about asymmetric information could be criticized. Many problems in markets for experience goods can be coped with by imposing much less restrictive regulations than Sinn presumes. In many cases, markets develop their own institutions to cope with imperfections. The market for used cars for example has not collapsed as the automobile industry uses its brand-names to signal high quality. If you want to escape from buying lemons, you can buy a car from a garage operating for brand-name car producers which offers new and used cars. This quality signal suffices to prevent the particular market failure in the used cars market. In other cases, the provision of state quality signs may suffice.

Second, it is not reasonable to assume that the information problems exist to the same extent when consumers judge the quality of a large number of single products and the quality of a small number of state regulations. The differences between regulatory standards could be much more easily revealed than the quality differences between products. Given state quality signs, a race to the top in regulatory standards could even result. Third, as VAUBEL (2004) argues convincingly, governments have low incentives to control quality standards of exported goods while the quality of products domestically consumed is in their interest. This could lead to exports of low quality goods to which importing governments would react by restricting these imports. If this reaction should not lead to protectionist measures, a control of justified and unjustified import restrictions needs to take place as it is done in the EU. Fourth, it is not useful to assume that governments support ‘national champions’ if the shares of these

firms are widely distributed and publicly traded in capital markets. A dominant position of such a firm would not necessarily benefit domestic interests if capital markets are internationally integrated which is a part of international competition. The more intense international competition, the less incentives a government has to push national monopolies.

Despite an incomplete discussion of all these shortcomings of the neoclassical view on regulatory competition, it has had a strong influence on economists, in particular in the German-speaking countries (see, e.g., APOLTE 1999). Similar arguments can however be found in studies conducted by legal scholars on state competition in corporate law (BEBCHUK 1992, BRATTON and MCCAHERY 1997). These analyses start from the fact that the U.S. states possess the primary responsibility for regulating corporate affairs. Corporations can freely choose a jurisdiction for incorporation and states have incentives to attract as many corporations as possible in order to generate state revenue. Both characteristics lead to a competition between the states for incorporations. It can be observed that Delaware is the state that has emerged from that process as the market leader for incorporations in the U.S. A large fraction of corporations are governed by Delaware corporate law. Delaware has however relatively lax standards that supposedly benefit managers instead of shareholders. BEBCHUK (1992), among others, thus argues that the state competition in corporate law leads to a race to the bottom of corporate regulation. The arguments brought forward to explain such an adverse outcome are the same as those provided in the traditional economic analyses: Asymmetric information of shareholders or externalities serve as the main justifications for the federal regulation of state corporate law. SUN and PELKMANS (1995), GATSIOS and HOLMES (1998) and VAN DEN BERGH (2000) develop or acknowledge at least the potential validity of such arguments in the European context, but also applied on regulatory competition in general.

## *2.2 Some Remarks from a Public Choice Perspective*

These neoclassical criticisms start from the dubious presumption called the selection principle. As mentioned above, it states that governments do what they ought to when they decide about regulatory policies: Government corrects market failures. More than 50 years of Public Choice analysis indicate that governments cannot be expected to follow social welfare goals and that it may even be impossible to know what social welfare is. It must be expected that governments follow their own private goals or the incentives provided to them by special interests. If this is the case, there is a danger that regulatory policies are used to generate rents for politicians and interest groups. This could well lead to excessive regulation. BRENNAN and BUCHANAN (1980) have made this argument with respect to excessive taxation by modeling governments as Leviathans. Inter-jurisdictional competition is a means to escape excessive regulation by Leviathan governments and forces governments to follow the preferences of mobile production factors. A decentralized provision and financing of policies (including regulations) is thus beneficial whenever governments don't do what they ought to.

In a slightly different fashion, WEINGAST (1995) points to the advantages of a ‘market-preserving federalism’. Starting from a „*fundamental political dilemma*“, according to which „*a government strong enough to protect property rights and enforce contracts is also strong enough to confiscate the wealth of its citizens*“ (p. 1), he considers competitive federalism as a chance to reduce the scope of the government and thus to maintain market efficiency. Because of the better migration chances of mobile investors, the governments of sub-central jurisdictions conduct investor-friendly policies and adopt solutions promoting market outcomes. Weingast continues an earlier analysis by HAYEK (1939), according to which „*planning in a federation cannot assume the forms which today are pre-eminently known under this term; ... In a federation economic policy will have to take the form of providing a rational permanent framework within which individual initiative will have the largest possible scope and will be made to work as beneficently as possible*“ (p. 268).

RODDEN and ROSE-ACKERMAN (1997) doubt that matters are so simple. They also argue from a Public Choice perspective, but their conclusions are rather different. As decentralized governments are closer to citizens’ preferences they may also be more easily captured by local interest groups and possibly protect these by protectionist measures from external competition instead of serving the general interests of mobile investors. BARDHAN and MOOKHERJEE (2000) as well as BARDHAN (2002) point out that, when looking at decentralization processes, a trade-off between the possible gains from inter-jurisdictional competition and the possible losses due to an easier access of locally concentrated interest groups to the political decision-makers is faced. BRUECKNER (2000) even attributes this rent-seeking of local interest groups to corruption. Decentralization in developing countries, he argues, increases corruption, because additional decision-makers have to be bribed in that case. TREISMAN (2001) points at the susceptibility also of central governments to corruption. It means that decentralization of a corrupt regime may result in corrupt officials now expecting bribes also locally, while the government at the central level has to be further „served“. But decentralization can, through horizontal competition between regions and between local governments, reduce local rents, while corruption at the central level remains. Empirical evidence on the impact of decentralization on corruption is consequently mixed. FISMAN and GATTI (2002) provide evidence, for a cross-section of 55 countries, that decentralization leads to less corruption. TREISMAN (2002) shows contradictory evidence for up to 166 countries.

### 2.3 A Dynamic Evolutionary Perspective

The neoclassical criticisms of the positive TIEBOUTIAN evaluation of inter-jurisdictional competition also lack a dynamic component. Economists perceive competition positively because it is the main force establishing a high variability and quality of product supply and the possibility that individuals can pursue their preferences. Starting from an evolutionary perspective, competition can be interpreted as a process in which competing firms continuously look for

products and services that provide better solutions for their customers' problems (KERBER 2000). This should hold *a fortiori* for public services and regulations that continuously adapt to different regulatory needs of private markets because governments lack sufficient knowledge to find the best policies for their electorates' purposes. A decentralized experimentation with different policy options (including regulatory alternatives) provides however opportunities to test new policies at lower cost than centralized policy experiments might involve. In this decentralized experimentation of new governmental solutions for economic or social problems, successful solutions are imitated and adapted by competing jurisdictions. Competition between jurisdictions becomes a discovery process which enhances the prospects of political innovation. Thus, the positive effects of inter-jurisdictional competition can be mainly expected in a dynamic economy (BERNHOLZ and FABER 1986, VIHANTO 1992).

Already in 1932, LOUIS BRANDEIS, judge at the U.S. Supreme Court, summarized this argument in the following way: „*It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country*“ (quoted from OATES 1999, p. 1132). In this context OATES (1999) speaks of '*laboratory federalism*' and points out that the reform of welfare in the USA in 1996 followed exactly these considerations (see also INMAN and RUBINFELD 1997). With respect to corporate law, this process is discussed as the race-for-the-top theory (BEBCHUK 1992, ROMANO 2002, HEINE und KERBER 2002, HEINE 2003) according to which regulatory competition leads to a liberalization in corporate law and to an enforcement of shareholder interests against the management of corporations.

How political innovations diffuse from one jurisdiction to the other is however much debated in the literature at least since WALKER's (1969) seminal contribution (see CLARK 2000 for a survey). Following NICE (1994), three different approaches are distinguished in political science: a *regional diffusion model* in which it is assumed that the probability of policy innovation rises with the number of neighboring jurisdictions that have already adopted it (WALKER 1969); a *national interaction model*, which assumes that the probability of policy innovation in a particular year rises with the number of interactions that representatives in a jurisdiction had in that year with representatives of other jurisdictions that have already adopted it (GRAY 1973, EYESTONE 1977); an *internal determinants model* which describes policy innovations as a process depending solely on socio-economic attributes of a state or region such as per capita income, the degree of urbanization, professionalization of the legislature and the bureaucracy etc. (WALKER 1969, BERRY 1994, DESVEAUX, LINDQUIST and TONER 1994, CARTER and LAPLANT 1997, MYERS 2001). Often, the role of the judiciary is also considered (CANON and BAUM 1981, CALDEIRA 1981, GLICK 1994). This has led to an independent research program in the field of policy innovation (ROGERS 1995). On the one hand, theoretical progress is triggered by the application of new empirical methods used to test the three established models

(BERRY and BERRY 1990, 1991, 1992, BERRY 1994). On the other hand, the need for further microfoundation of theory is recognized (SAVAGE 1985, p. 10).

A convincing theoretical study on policy innovation has been provided by BESLEY and CASE (1995) although the argument has already featured earlier in a paper by SALMON (1987). They analyze the incentives for voters to gather information from the policies conducted in neighboring jurisdictions in order to use it in their voting decisions. Inter-jurisdictional competition enables citizens to comparatively evaluate the performances of representatives and hence reduce the information asymmetries in political markets (‘*yardstick competition*’). For example, German voters can compare the performance of the German federal government to that of the French government. If France has a relatively high level and quality of public services under otherwise same conditions, but offers them at lower tax prices than Germany, German voters have incentives to throw the German government out of office at the next election day. Inter-jurisdictional competition does not only work through the migration mechanism, but also improves citizens’ ability to exert voice in the political process (BRETON 1996, 2000, BORDIGNON, CERNIGLIA and REVELLI 2003, SALMON 2003, 2005). The government is forced to provide public services at relatively lower costs and at the level desired by citizens. Moreover, Besley and Case manage to provide evidence for American states that voters tend to punish incumbents for raising taxes if neighboring jurisdictions do not do the same. Thus, voters appear to use information from other jurisdictions to judge the relative efficiency (or ability) of their own incumbent. This empirical result has important implications in the sense that information crossing the borders between jurisdictions is shown to trigger political change.

The higher innovative capacity of federations as compared to unitary states is however also contested in general. If citizens use the performance of the governments of other jurisdictions as yardstick when considering their re-election, a government is re-elected if it provides a bundle of regulation, public services and tax prices that are at least not worse as compared to other jurisdictions. Governments thus have incentives to initially wait to see which policies of other jurisdictions turn out to be relatively successful, and then imitate these. Uncertain about their re-election prospects, governments have an incentive to free ride with respect to the policy innovations of other jurisdictions such that the absolute amount of policy innovations in a federation is reduced (ROSE-ACKERMAN 1980). STRUMPF (2002) shows that this is only a serious problem when jurisdictions are very similar. KOLLMAN ET AL. (2000) argue that decentralized experimentation is superior to centralized experimentation if the problems for which solutions are to be found in these experiments are not too complex and if there are no scale economies in experimentation. KOTSOGIANNIS and SCHWAGER (2004) argue that in a federation policy innovations offer selfish politicians an opportunity to obtain personal advantages while marketing them as the result of the uncertainty of policy innovations. SCHNELLENBACH (2004) takes the incentives of voters in a decentralized process of political innovations into account. As voters are normally rationally ignorant – due to the low incentives to be politi-

cally informed – policy innovations are mainly possible in times of crises. The incentives of citizens to be informed about policy innovations are improved by high mobility and by elements of direct democracy in political decision-making processes. Thus, political rents of governments can be reduced by competition and politicians have incentives to innovate.

#### *2.4 What Does This Lead Us to?*

This broad discussion of theoretical arguments as to the impact of and the different procedures shaping regulatory competition highlights that an assessment of decentralized competencies in regulatory issues cannot be made solely on theoretical grounds. Depending on the assumptions of the theoretical models, regulatory competition may have a beneficial or an adverse outcome. Three basic assumptions are crucial: First, the theoretically predicted outcome of regulatory competition depends on *the validity of the selection principle*. If governments do what they ought to, it may be useful to focus on potential failures of regulatory competition. If politics results in political failures, regulatory competition is a means to protect mobile production factors from being exploited by Leviathan governments. It is highly improbable that political failure does not occur such that the sole emphasis of potential market failures is very unrealistic. It should however also be realized that decentralized government is not immune against political failures. If the influence of special interests is higher at a sub-central than at the central level, decentralized competencies could lead to adverse economic outcomes. Whether inter-jurisdictional competition can unfold its huge beneficial potential thus depends on additional factors that shape the process of regulatory competition.

Second, *information assumptions* are important for an adverse outcome of regulatory competition even if the selection principle holds. It is not reasonable to assume, for example, that the information distribution underlying the lemons problems is the same with respect to product quality and to regulatory standards. In addition, institutions originating from market responses to asymmetric information need to be considered. Third, the *dynamic efficiency of regulatory competition* is important for its assessment. Each competitive process has the potential to generate innovations. This also holds for competition in politics or between systems. Whether these innovations actually enhance economic performance of the jurisdictions competing with each other cannot be easily found out. On the one hand, the beneficial impact of innovations is usually recognized ex post often with considerable time lags. On the other hand, arguments of dynamic efficiency, the famous metaphor of competition as a discovery procedure, need not be used to rationalize anything ex post. It could for example be argued that the abolishment of regulations in regulatory competition must have been efficient because regulatory competition is always dynamically efficient. The pure laissez-faire speaking from such an evaluation is difficult to accept given evidence on market failures. It will be rather difficult to operate in such an uncertain environment in which clear yardsticks to evaluate policies seldom exist. Nevertheless, they are needed to arrive at sound policy conclusions.

The dynamic perspective has its merits from a different point of view. It distracts attention from the outcome oriented approach and highlights a procedural approach. Aside the question of its impact, it thus helps to focus on how regulatory competition takes place. This shift of emphasis moves us also closer to observations of political innovations. Two mechanisms of regulatory competition have become obvious in the preceding analysis: migration and political action, or: exit and voice (HIRSCHMAN 1970, FELD 1997). TIEBOUT's analysis mainly rests on the migration mechanism, while the studies on political innovation conducted by political scientists, but also the yardstick competition model rely on voice mechanisms. The political science literature is quite instructive, because it helps to distinguish three procedures that are in place: Copy-cattng or *benchmarking* as regional diffusion of policies; the provision of arenas where political decision-makers can exchange their experiences with political innovations (*national interaction*); and the *internal* political or socio-economic *preconditions* that must be met in order to politically innovate. In the case of the second procedure, the national interaction models, the possibility of collusion between policy-makers needs to be considered. By harmonizing regulations, it is possible for regulators to raise rivals' costs and deteriorate economic performance (BOOCKMANN and VAUBEL 2005). These three procedures thus correspond to three classes of variables: internal determinants, external determinants that induce competition and external determinants that enable collusive behavior.

### 3. Studies on Regulatory Competition

As theoretical arguments on regulatory competition are contradictory, empirical evidence is needed in order to provide evidence on the *outcome* of and the *procedures* underlying regulatory competition. In the literature on regulatory competition, regulations are often widely defined such that tax laws (see, e.g. SUN and PELKMANS 1992), public goods and services are subsumed under this heading in addition to legal rules. As the literature on fiscal competition is broadly discussing its advantages and disadvantages, the focus in this paper will be on regulatory competition as competition in legal rules. Still, the empirical evidence mainly exists for taxes and much less for legal rules.

Starting with the *procedures* underlying inter-jurisdictional competition, it is mainly tax mimicking that has been empirically established (see BRUECKNER 2003 and REVELLI 2005 for surveys). The first studies were conducted for the U.S. states and local jurisdictions (LADD 1992, CASE 1993, BRUECKNER and SAAVEDRA 2001), but there is meanwhile also evidence on tax mimicking in Canada (BRETT and PINSKE 2000, HAYASHI and BOADWAY 2000), Belgian communities (HEYNDELS and VUCHELEN 1998), German local jurisdictions (BÜTTNER 1999, 2001), French regions and départements (FELD, JOSSELIN and ROCABOY 2003, LEPRINCE, MADIÈS and PATY 2003, REULIER 2004), Italian cities (BORDIGNON, CERNIGLIA and REVELLI 2003), Spanish local jurisdictions (SOLÉ-OLLÉ 2003), and Dutch municipalities (ALLERS and ELHORST 2005). Most of these studies focus on income, business and property taxation. They

find that a reduction of the average tax rates of competitors induces a reduction of tax rates of an observed jurisdiction. While these studies establish the existence of strategic tax setting as precondition of tax or yardstick competition, BERRY and BERRY (1992), ASHWORTH, GEYS and HEYNDELS (2003) as well as, in an experimental study, TYRAN and SAUSGRUBER (2003) emphasize that tax innovations are induced by regional diffusion, but also, and often more importantly, by the internal political environment.

Much less evidence of strategic interaction has been provided with respect to public spending. FIGLIO, KOLPIN and REID (1999) and SAAVEDRA (2000) present evidence on strategic interaction on welfare payments in the U.S. Again, reductions in welfare payments in competitor jurisdictions induce a reduction of welfare payments in an observed jurisdiction. This is no surprise as the welfare reform of 1996 has been particularly designed to use the states in order to generate innovations in welfare policy (FELD and SCHNELLENBACH 2004). Moreover, FREDRIKSSON and MILLIMET (2002) provide evidence on mimicking behavior in environmental regulation. With an emphasis on policy innovation, FILER, MOAK and UZE (1988) as well as BERRY and BERRY (1990) find inter-jurisdictional interaction with respect to state lottery adoption, CARTER and LAPLANT (1997) with respect to health care policy innovation and RINCKE (2005, 2005a) with respect to innovations in charter school legislation.

All these studies have in common that they cope with classical fields of public economics. Education, health care, environmental issues and welfare are traditionally publicly provided during the last century. Seldom, an analysis of the diffusion of legal rules is conducted. There are only a few exceptions. CALDEIRA (1985) studies the transmission of legal precedent and CANON and BAUM (1981) the patterns of adoption of tort law innovations. Most interesting is the diffusion of corporate law across the US states. ROMANO (1985) and CARNEY (1997, 1998) provide extensive analyses of the diffusion pattern of corporate law in the US. Both disagree as to the question whether Delaware, as the state with the most liberal regulation of incorporation, has been the inventor or whether it has been a quick follower on successful innovations. However, both authors fully agree as to the fact that Delaware served as a role model for the other states. CARNEY (1997a) studies the role of interest groups in the adoption of corporate law. He finds that interest groups have a lower impact on corporate law in the US as compared to European countries because of regulatory competition between the US states. All in all, this evidence supports the hypothesis that regulatory competition induces policy innovation via the regional diffusion and internal determinants channels.

Whether inter-jurisdictional competition of this sort has a positive impact on economic *outcomes* is widely debated in the literature. This certainly holds with respect to fiscal competition (FELD, KIRCHGÄSSNER and SCHALTEGGER 2004 and FELD 2005), but also with respect to regulatory competition. While historical studies by BERNHOLZ and VAUBEL (2004) and VAUBEL (2005) provide evidence on the beneficial impact of regulatory competition, this outcome is much more contested in the case of corporate law. HEINE (2003) provides for the most ex-



tensive survey on this empirical evidence. Although he remains relatively cautious and abstains from drawing too optimistic conclusions, he tentatively supports the hypothesis that regulatory competition in US corporate law leads to beneficial outcomes. In particular, firms incorporated in Delaware have significantly higher firm values and rates of return than firms incorporated in other states. This evidence hints to a compensation of the lower shareholder protection in Delaware by higher rates of return and higher firm values finally benefiting shareholders. As the ECJ has currently paved the way for regulatory competition on corporate law in the EU, the US evidence has important implications (SALMON 2005a).

#### **4. Regulatory Competition and Harmonization in Switzerland Across Time**

Given the small amount of evidence on regulatory competition, a closer look at Switzerland is useful. As in international studies, the main Swiss evidence has been provided for tax mimicking (FELD and REULIER 2005). Moreover, there is extensive evidence as to the economic impact of tax competition (FELD 2005). What is less known is that innovations in tax structure have spilled over from one canton to the other at least since the 19<sup>th</sup> century. In his study on Swiss taxation in the 19<sup>th</sup> century, GEORG VON SCHANZ (1890) shows how the idea of comprehensive income taxation, later called Schanz-Haig-Simons (SHS) tax systems, diffused from the canton of Basle to the other cantons. This process took longer than Schanz might have thought because it started in the beginning of the 19<sup>th</sup> century and came to an end in the 1970s only. The diffusion of that political innovation within Switzerland took longer than its adaptation by other countries around the world. Similar processes can be observed in today's Switzerland. For example, the latest corporate tax reform at the federal level, abolishing progressive corporate taxation, reveals vertical copy-cutting by using cantons as role models.

In addition, there is evidence on the existence of mimicking behavior in the field of administrative law. In the last decade, a tremendous amount of reforms in the field of New Public Management (NPM) has taken place within the cantons. According to a study by STEINER (2000), 24 of the 26 Swiss cantons had collected experience with NPM programs in 1998. He observes an interesting pattern of adoption of NPM. Cantons in which at least 35 percent of the communities have implemented NPM concepts could be found only in the German speaking cantons. As a reason for the introduction of NPM, 57 percent of the communities pointed to a diffuse preference for change; 31.5 percent feared that the community's ability to cope with policies would be reached without such reforms; and 30.5 percent each either mentioned a financial crisis in their community or good experiences in other communities as reasons for the introduction of NPM. The survey study by Steiner thus points to the importance of mimicking behavior as reasons for political innovation. WIDMER and RIEDER (2003) provide more formal evidence of such a kind of yardstick competition between the cantons. And according to LADNER and STEINER (2003) only a modest convergence of policy solutions in administrative procedures can be observed as a result from that yardstick competition. The variety of

solutions dominates because communities adapt the good examples from other jurisdictions to their own needs and preferences. Neither in taxation nor in administrative law, the competition between the cantons and the local jurisdictions in Switzerland has thus led to notable inefficiencies or a ‘race to the bottom’. There appears to be a considerable extent of innovation potential that is induced by inter-jurisdictional competition.

Like in the field of taxation and government administration, the cantons have considerable regulatory competencies in several areas of commercial activities. Since the beginning of the new federal constitution in 1848, the completion of the Swiss internal market by abolishing or reducing trade barriers has been at center stage of political discussions. The constitution of 1848 abolished the borders between the cantons and introduced a common currency (DE CHAMBRIER 2003, p. 16). The abolishment of cantonal tariffs was thus accomplished relatively early. However, the free movement of services has still not been achieved yet such that a Common Market Law in 1995 and its recent amendment have become necessary. A closer look at the history of the regulation of commerce and professional activity does however reveal some hints as to the information externalities leading to copy-cutting procedures.

During the middle ages, the economy of the area that comprises Switzerland today was organized according to a typical feudal system. In the urban areas, the guilds had a strong influence on commerce and trade. The Helvetian constitutions that governed Switzerland during the Napoleonic time between 1797 to 1802 temporarily abolished the coercion exercised by the guilds’ rule and regulation of commerce. In 1803, many of these regulations were however re-introduced despite opposition by influential liberal movements in some cantons. For example, THOMAS BORNHAUSER at that time called the regulation of commerce „*privileges that should be abolished*“ (KÖLZ 1992, p. 331). In particular, regulations for restaurants and bars as well as butchers and millers persisted in many cantons. The group of restaurant owners was highly influential in politics and lobbied the government by arguing that either regulations should be upheld or the owners should be financially compensated by the cantons. The guilds’ rule was equally difficult to abolish. It is remarkable how the ancient arguments to continue regulation resemble arguments brought forward today against deregulation. In the 19<sup>th</sup> century, it was the immigration of craftsmen from Southern Germany that most opponents in the cantons feared. In the canton of St. Gallen, freedom of commerce was even discredited as the “*death penalty for craftsmen*” (KÖLZ 1992, p. 332). The conflict of interests between consumers and producers was widely recognized. On the one hand, restrictions only originating from security and police order were asked to be allowed, but none that are in the interests of the merchant. On the other hand, the fear of capitalist concentration was also raised.

The cantons newly created during the Napoleonic years, like the cantons of Thurgau or of St. Gallen secured the freedom of commerce most extensively. In the former, all citizens basically enjoyed freedom of commerce, labor and trade, only restricted by policing laws. St. Gallen also explicitly abolished all monopolies. Basel-Country in addition to the abolition of mo-

nopolies granted the freedom of commerce also to citizens of other cantons if these cantons did the same in reciprocal terms. Freedom of commerce was also widely protected in the cantons of Solothurn and Ticino. The canton of Aargau acknowledged it however only basically, but pointed to the difficult trade-off between the liberal proposals of free commerce and the economic interests of local merchants.

More difficulties to realize the freedom of commerce existed in the former centers of the guilds, like the cantons of Zurich and Schaffhausen. In Zurich, the regulation of commerce was only modified and adapted to the new time trend (KÖLZ 1992, p. 333) keeping the guilds' rule for a large part of commercial activities. Schaffhausen did not manage to abolish the cartels of craftsmen, but cautiously liberalized the apprenticeship system. The formerly aristocratic and mostly agrarian canton of Bern introduced the freedom of commerce under the general restriction of social interest. The catholic cantons of Lucerne and Fribourg did not even mention the freedom of trade and commerce. Industrial activities which developed heavily in the cantons of Zurich, Glarus and St. Gallen were not captured by these regulations. Many restrictions existed however with respect to inter-cantonal trade until 1848.

Most cantonal constitutions between the Helvetian period and the foundation of the Swiss federation in 1848 granted the free movement of labor also to citizens of other cantons on a reciprocity basis. The residence concordate of 1819 between the cantons of Zurich, Bern, Luzern, Glarus, Fribourg, Solothurn, Aargau, Thurgau, Ticino, Vaud, Neuchâtel, Geneva and Schaffhausen granted freedom of residence to their citizens under certain administrative conditions including the right of economic activity. The remaining cantons (Uri, Schwyz, Obwalden, Nidwalden, Zug, both Basel, both Appenzell, St. Gallen, Graubünden, Valais) did not join this inter-cantonal agreement in order to protect their catholic religious identity and unity (KÖLZ 1992, p. 334). These cantons finally suffered economic losses since protestant industrials and craftsmen chose their location in the other more liberal cantons.

While the liberal cantons had continued their policies of freedom of trade until 1848, the freedom of production of goods and services was not fully granted. The situation was even worse in the conservative cantons. As a consequence of the former feudal and guilds' system, commerce was thus still heavily restricted in 1848. The creation of the Swiss federation in 1848 constitutionally established several components of a common market like the abolition of border (and border controls) between the cantons, the introduction of a common currency and of common measures. The federal level obtained the competency to regulate tariffs. But the ways and means of abolishing cantonal tariffs, the design of future federal tariffs and in particular the abolition of cantonal specific consumption taxes on alcoholic beverages were heavily disputed (KÖLZ 1992, p. 591). Several opposing interests clashed on each other: Agrarian and industrialized cantons on alcohol taxes, or alpine transit cantons and the other cantons on tariffs. The arguments in these discussions were the same as in each program of economic integration, for example in the EU: the distribution of revenue and the compensation for reve-

nue losses or infant industry arguments to justify tariffs. In the end, tariffs became however the most important revenue source of the federal level.

The way to establish the free movement of labor between the cantons was expectedly thorny. The fear of competition, potential additional welfare payments for immigrants, and confessional homogeneity were the most frequently heard arguments against the freedom of residence choice particularly in the conservative cantons (KÖLZ 1992, p. 584). The right to restrict immigration of Non-Swiss foreigners has remained assigned to the cantonal level. If a canton granted citizen rights to foreigners they received residential rights in the other cantons only after a period of five years. However, foreign residents could invest in real estate in their place of residents before becoming Swiss citizen. Again, the conservative cantons strongly opposed this regulation because religion supposedly was in danger if citizens from other cantons, in particular protestants, could reside and purchase real estates (KÖLZ 1992, p. 586).

While these were only first steps in the creation of the Swiss common market, the freedom of commerce and trade was explicitly introduced in the Swiss federal constitution in 1874. Art. 31 of the old federal constitution was introduced to abolish cantonal regulations that restricted the transition from a local crafts production to a modern industrialized economy with a Swiss-wide trade of products (DE CHAMBRIER 2003, p. 16). In principle, each citizen should be able to start and conduct his own economic activity. Federal constitutional change was preceded by cantonal reforms. The cantonal constitution of Zurich of the year 1869 was dominated by a modern liberal economic doctrine including the free movement of goods, money, labor and organizational forms for economic activity (KÖLZ 2004, p. 77). At that time, the introduction of a constitutional article to regulate labor was much heavily disputed. The final agreement on Art. 23 established the constitutional principle of a welfare state for the first time in Switzerland. It was to become the most important concurrent principle to the freedom of trade and commerce. The cantonal constitution of Thurgau regulated the freedom of commerce and trade in the same fashion as neighboring Zurich. On the one hand, these freedoms were fully granted, on the other hand, social considerations were newly introduced (KÖLZ 2004, p. 185). In Glarus, St. Gallen, Appenzell, Uri and several other cantons, the liberal movements succeeded to include the full set of individual freedoms in the cantonal constitution only after 1874 although a gradual liberalization took place before (KÖLZ 2004, p. 211).

There were however cantons where the guilds' rule persisted more heavily despite the regulation of the federal constitution of 1874. One example is the canton of Basel-City in which the abolition of the guilds' rule was proposed in the constitution of 1847, but finally rejected. KÖLZ (2004, p. 339) argues that the old established families of Basel-City wanted to ascertain the support by and loyalty of local craftsmen. The constitution of 1847 thus even forbid the inclusion of the freedom of commerce in cantonal statutes. While several liberal proposals were accepted in the constitutional revision of 1875, the freedom of commerce and trade was

again rejected. The next revision of 1889 finally came up with the standard liberal canon of rules, but also established the most extended social policy model of all Swiss cantons.

The federal constitution of 1874 did not grant comprehensive rights to harmonize constitutional laws to the federal level. In the discussions on such an article on legal harmonization, an important argument against a unitary harmonized civil law consisted in the well-known arguments from laboratory federalism (KÖLZ 2004, p. 612): JOHANN JAKOB BLUMER from Glarus argued that an abstention from legal harmonization allowed for an experimentation with these laws at the cantonal level such that the most successful laws could be adopted by the federal level in partial revision of federal law. Giving the cantons considerable competencies in deciding upon their own commercial law, it is no surprise that some cantons, like Basel-City, were more reluctant and introduced the freedom of commerce and trade relatively late in their constitutions, not without restricting free commerce additionally by specific cantonal statutes supposed to protect producer interests.

Although the freedom of commerce and trade was a part of the original concept of the Swiss common market in the 19<sup>th</sup> century, it was realized only with differing regulatory restrictions at the cantonal level. Moreover, the common market program quickly lost attraction. As early as 1890, cantonal regulations that restricted free trade were allowed by the federal government. On the one hand, basic proposals of the welfare state were introduced and extended. On the other hand, different professions were able to successfully lobby the cantonal governments for protection against outside competition. Often, health, security and morale were used as arguments for cantonal regulations finally accepted by the federal government. Moreover, labor regulation like maximum working times and security of working places provided arguments for restrictions of the freedom of commerce. Construction, traffic, restaurants and bars or the health sector, lawyers, science and other self-employment were subject to cantonal regulations (KÖLZ 2004, p. 814). During the First World War, the freedom of commerce and trade was further restricted, then however by the federal government.

Like other European countries, Switzerland was under pressure from corporatist models of the state between the First and Second World War. In particular, the constitutional initiative for a total revision of the Swiss constitution of 1935 underlines the importance of these movements. The initiative originated from national-socialist and fascist groups, but found support also by other corporatist movements (KÖLZ 2004, p. 754). More importantly for our purposes, a discussion about a professional status-oriented constitutional order took place. Economic interest groups continuously gained importance as indicated by the influence of the farmers', commerce and citizen party of that time as well as the introduction of a formal consultation procedure for interest groups in federal legislation. According to some constitutional models discussed during that period, professional groups would have obtained far-ranging legislative competencies as public law corporations. The freedom of commerce and trade would have been abolished and replaced by a monopolistic position of the professional groups.

**Table 1: Development of the Cantonal Regulations of Professions Requiring State Allowances in 1983 and 2002**

Newly Regulated Professions	1983	2002	Wider Distribution of Cantonal Regulations	1983	2002	Less Regulated Professions	1983	2002
<b>Health Sector</b>								
Acupuncturist	0	7	Chemist	14	26	Medical Practice Assistant	24	1
Emergency Medical Technician	0	9	Homeopath	2	11	Dentists' Practice Assistant	25	2
Hearing Device Technician	0	4	Psychology	5	7	Veterinarian Practice Assistant	22	1
Nutrition Advisor	0	19	Dental Hygienist	6	14	Orthopedist	10	8
Physiotherapist	0	2	Speech Therapist	4	19	Manicurist	4	0
Psychotherapist	0	18	Optician	9	22	Masseur	23	17
Psychomotor Specialist	0	3	Dental Technician	16	22	Pedicurist	24	22
Optometrist	0	1	Baby Care	2	4			
Osteopath	0	6						
Reflexologist	0	2						
<b>Commercial Sector</b>								
Game Warden	0	3	Disinfectant	13	26	Hairdresser	3	1
						Aesthetician	10	4
						Plumber	<i>Unclear</i>	
						Chimney Sweep	24	13
						Fisherman	20	7
						(Film) Projectionist	9	10
<b>Services Sector</b>								
Canyoning Guide	0	2	Security Service	3	7	Real Estate Broker	10	3
Rafting Guide	0	1				Tax Accountant	4	1
Financial Intermediaries (TI)	0	1				Trade of Alcoholic Beverages	15	10
						Private Detective Agencies	8	3
						Restaurants and Hotels	26	20
						Taxi Driver	<i>Unclear</i>	
						Used Car Dealer	26	3
<b>Para-State and Judicial Activities</b>								
			Notary	5	12	Director of Private Schools	20	3
						Legal Advisor	5	1

Source: DE CHAMBRIER (2003), p. 78.

Although the constitutional initiative was finally rejected by a clear margin of 72.3 percent, it had considerable influence in economic terms (KÖLZ 2004, p. 761) finally resulting in a constitutional revision in 1947. On the one hand, labor market regulation at the Swiss federal level was affected leaving the possibility of a generality clause of collective labor contracts. On the other hand, the federal level obtained additional instruments to restrict the freedom of commerce and trade, for example in order to preserve a healthy status of farmers, to protect important, endangered sectors of the economy, to regulate cartels, professional education and labor conditions, or to declare agreements between professional groups generally binding. Finally, these movements affected Switzerland as a whole leading to the regulation of professional activities and to protectionist measures also at the Swiss cantonal level. The Swiss cantons could hide in the shelter provided by federal restrictions on the freedom of commerce and trade. They used their new discretion to a considerable, but as usually the case in Switzerland, also differing extent. It is quite instructive that the catholic-conservative cantons Fribourg, Valais, Obwalden and Appenzell i. Rh. were the only ones where a majority of the citizens accepted the proposal for a total revision of the Swiss constitution in 1935 supposedly to obtain stronger competencies at the cantonal level (KÖLZ 2004, p. 761). With some probability, these competencies would have mainly been used to restrict commercial freedom.

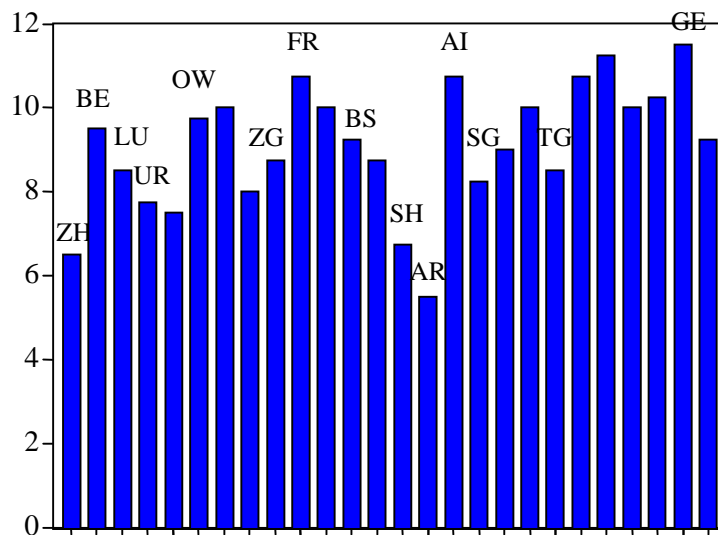
After 1947, the pendulum only slowly moved back towards liberalization. The deregulation movement took until the 1980s to gain considerable momentum. Many restrictions, for example on restaurants and bars, have remained in place at least since 1947. Additional restrictions have however been created in the course of the emergence of new professions. In 1983, the BIGA (1983) had a closer look on how many regulatory restrictions on professional activity existed. This study has recently been replicated by DE CHAMBRIER (2003). The results of the comparison between both years are presented in *Table 1*. On the one hand, quite a few reductions of regulatory activity are obvious in particular in the commercial and services sectors as well as for the legal profession. On the other hand, newly created professions have become regulated during this time period. This mainly holds for the health sector. Moreover, there are some notable exceptions to the deregulation trend in some professions. For example, notaries and disinfectors have faced additional regulations.

DE CHAMBRIER (2003) also provides a detailed account of the number of regulations at the cantonal level. She groups the regulations in two different baskets: Examination requirements in the different regulated professions, and additional quality, health or security restrictions. Unfortunately, the importance of the regulations for the cantonal economies cannot be assessed since the number of employees covered by these regulations is not provided on a cantonal basis.<sup>2</sup> However, the sheer number of regulations is already interesting (see the Appen-

---

2. Moreover, the data are not differentiated with respect to those regulations going up and those going down. Also, the explanatory variables for a more detailed assessment across industries and professions is not available such that the regulation data could not be differentiated further.

dix for the data on regulations). *Figure 1* displays the average number of cantonal regulations for examination requirements obtained from four different sectors: Health, commerce, services, and the legal profession. In the health sector, as indicated by *Table 1*, such regulations might comprise the requirement to proof ability by certificates on exams for example in psychology. Cantonal allowances must be obtained before opening a practice as a physician, but also as a chemist, sometimes as a homeopath. In other cases, a certain profession is only regulated and thus created in some cantons, but not in others. For example emergency medical technicians are required to have a cantonal certificate in the German speaking part of Switzerland, but not in the French speaking part. In the case of commercial activities, different professional requirements are formulated for architects or engineers. In the services sector, similar divergences across Switzerland can for example be found for restaurant owners, taxi drivers, several sports (rafting, canyoning, winter sports) and so on. Finally, the legal professions (lawyers, notaries) experience enormous restrictions for offering their services across cantons. Thus, an interesting variety of these regulatory provisions results which becomes obvious from *Figure 1*. With respect to the number of regulations on professional certificates, the canton of Geneva appears to be the most heavily regulated cantons. However, the small canton of Appenzell i. Rh. also belongs to that high regulation group. The canton of Zurich and the canton of Appenzell a. Rh. are the least heavily regulated. It is amazing that two cantons which formed a unity in history have such huge differences in the number of regulations.

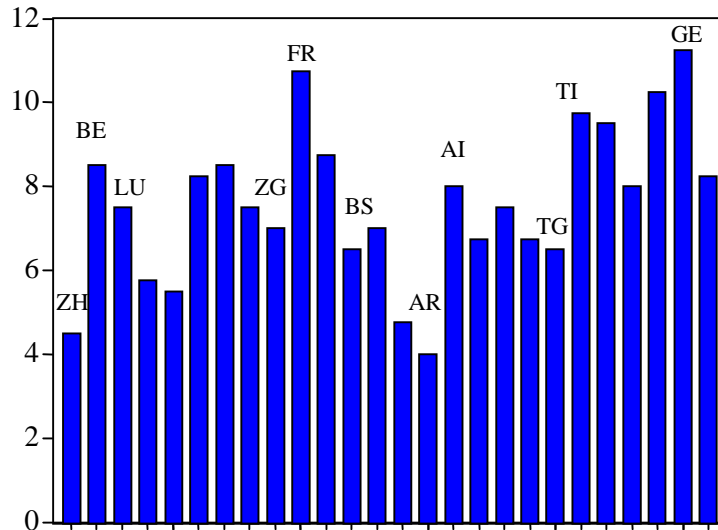


***Figure 1: Average Cantonal Regulations for Examination Requirements in Four Different Sectors in 2002***

In addition to the canton-specific professional certificates, there exist additional regulations that are supposed to enhance the quality of the products and services offered. These could for example be health provisions, as in the case of restaurant owners, but take also other forms. A



common feature of these provisions is that the cantonal concession is only granted if these requirements are met. A look at *Figure 2* reveals that there is again an interesting amount of variation across the cantons. On average, the cantons of Geneva and of Fribourg have the highest number of regulations in this field. It is again Zurich and the canton of Appenzell a. Rh. that have low numbers of regulations.



**Figure 2: Average Cantonal Regulations for Additional Quality Requirements in Four Different Sectors in 2002**

This brief history and more recent description of regulatory competition in Switzerland underlines the many forces that drive cantonal regulation. In a first step, the freedom of commerce and trade was basically granted by some more liberal and progressive cantons, mainly the protestant ones, before the creation of a Swiss federation in 1848 on the basis of mutual recognition. This established a system of *regulatory competition* between the cantons that harmed those cantons which did not follow a liberalization strategy, i.e. the conservative-catholic cantons. It is interesting to note that the canton of Zurich, certainly one of the more progressive cantons has a lower regulatory activity than, say, Fribourg. Most striking is the difference between both cantons of Appenzell of which the protestant Appenzell a.Rh. has a lower number of regulations than the catholic canton of Appenzell i.Rh. It thus seems as if the conjecture by BOOCKMANN and VAUBEL (2005, p. 6) holds that religion is an important reason for regulation and deregulation of the cantons. There are however also traditionalist cantons, like Schwyz, which have a relatively low number of regulations. It is thus not clear to what extent *internal determinants* played a role. In the early phase before the Swiss common market was created, regulatory competition obviously kept the cantonal ability to regulate in check. The driving force behind regulatory competition was the mobility between the cantons.

Extending the jurisdiction of the freedom of commerce in the two constitutional efforts in 1848 and 1874, only slowly succeeded in liberalizing the regulatory regimes at the cantonal level. Harmonization and centralization efforts appeared to have created the preconditions for a common market. However, providing the arenas and the lobbying incentives at the federal level quickly induced the groups seeking protection to demand exceptions from the freedom of commerce now at the federal level. The federal government subsequently allowed for these exceptions and thus reduced the possibilities for regulatory competition. The restrictions on the freedom of commerce were enhanced in the period between the two world wars and finally gave special interest groups considerable power to obtain rents from protectionist measures. It is not clear to what extent this could be characterized as a period of raising rivals' costs (BOOCKMANN and VAUBEL 2005). It would however be a surprise if that strategy were unimportant in Switzerland. SOMMER (1978) provides a history of the Swiss welfare state according to which the strategy of raising rivals' costs was apparently followed during the same time period in the field of social security.

The final phase after the Second World War is characterized by increasingly intensified efforts to deregulate the Swiss economy despite new regulations that emerged when new professions were created. This holds with respect to the eighties the discussions of which culminated in the Common Market Law of 1995.<sup>3</sup> Unhappy, with the outcome of that reform, a revision of the Common Market Law is now planned. This relatively long period is characterized by a more beneficial impact of the federal government than in the earlier phases. The main goal of the federal government during the last 25 years has been to get rid of superfluous regulations at the cantonal level and to facilitate trade in services across the cantons. The activity of the federal government also teaches the lesson that regulatory competition does not necessarily lead to a race to the bottom. Moreover, this phase could well be characterized by an important influence of internal determinants, like, e.g., religion or conservative values, a tradition of guild and craftsmanship or simply the power of cantonal interest groups. The historical evidence as well as the brief look at the number of regulations prevailing in the end of the 1990s and the beginning of the new century do however not provide any evidence as to the mimicking behavior so prominent in most of the literature.

## **5. Explaining Swiss Cantonal Regulation: An Econometric Analysis**

In this section, a test of mimicking behavior in regulatory activity in the Swiss cantons is thus conducted. As the dependent variable, the number of regulations in three of the four sectors covered by the study of DE CHAMBRIER (2003) is used.<sup>4</sup> Moreover, the average of the four

- 
3. Although I have not found a study supporting this argument directly, it could well be argued that this development was influenced by the creation of a Common Market in the EU:
  4. As can be easily inferred from the Appendix, the variation in the number of regulation of the legal professions is very low such that the lack of reasonable results should not surprise. The variation of the number of

sectors is used as an indicator of the total number of regulations. Following the tax mimicking literature, the respective indicators of the neighbors of a canton are introduced in order to test mimicking behavior.<sup>5</sup> The idea is simply that the more regulations the neighboring cantons have in a particular sector of the economy, the higher is the probability that a canton adopts regulations in that sector as well. It is widely discussed whether the spatial correlation between policies needs to be positive such that increases in regulatory activity of the neighbors increase regulatory activity of a canton under consideration. BRUECKNER (2003) argues that the relationship might well be negative indicating spillovers instead of strategic interactions due to regulatory competition. The regulation of the neighboring cantons is calculated as an unweighted average of the number of regulations of the neighbors of a canton.

In addition to this relationship of most interest in our analysis, further variables are introduced into the model as controls. The index of direct democracy is a proxy for the extent of political competition in a canton. If there are differences between direct and representative democratic cantons, the suspicion is nourished that interest groups influence regulatory outcomes differently. If direct democracy has a negative impact, it is evidence for a stronger impact of interest groups in cantons with representative democracy. The index of direct democracy thus provides for an internal determinants variable.<sup>6</sup> The index is obtained from STUTZER and FREY (2000). Because of the argument by BOOCKMANN and VAUBEL (2005), the share of the catholic population from total population is included in the model in order to measure religious preferences. This variable could be hypothesized to have a positive impact. Finally, income per capita, population and population density are standard controls in political economy models and are also considered.

The information on regulatory activities of the cantons is available for the end of the 1990s and beginning of the new century and obtained from the study by DE CHAMBRIER (2003). She is not totally transparent as to the exact date of measurement though. As this is only cross-section data, we use lagged values of the control variables in order to have a certain lead of regulations to the internal political determinants and economic variables. Regulations are notoriously difficult to change which renders such a procedure sensible. The data on the index of direct democracy, income per capita, population size and population density are thus from the

---

regulations in the health sector is similarly disappointing such that it is left out from the analysis from the start. Regulation of the legal profession is reported only for illustrative purposes.

5. It could be questioned whether the neighborhood concept is adequate in order to test mimicking behavior. This question has been discussed in the literature at least since the paper by CASE, ROSEN and HINES (1993), but has not been resolved yet. The current state of the literature appears as opining that each concept chosen is somewhat arbitrary. Given the restricted data set used in this paper, the simplest concept appeared to be the most reasonable one.
6. For an economic analysis of the impact of direct democracy on policy outcomes providing a more detailed discussion as to the reasons why (economic) policy outcomes in direct and representative democracy might differ see the recent survey by Feld and Kirchgässner (2006).

year 1998. The share of the catholic population is for the year 1990, because it has been the most recent point in time when a comprehensive survey of the Swiss population was conducted. The cross-section model is estimated first by OLS and second by IV. The test strategy is to start with a simple bivariate regression to test for a basic neighborhood relationship. In the next step, the internal political determinants are included. The model is finally completed by the inclusion of the economic variables. This is done first for the index of total regulation, before regulations of the commercial sector, the services sector and the legal profession are analyzed separately. The analyses of the health sector revealed no explanatory power of the model whatsoever such that it is dropped.

**Table 2: Regressions of the Number of Total Regulations on Neighbors' Regulations and Controls, Cross Section of 26 Swiss cantons**

Variable	Total Number of Examination Requirements	Total Number of Examination Requirements	Total Number of Examination Requirements	Total Number of Additional Quality Requirements	Total Number of Additional Quality Requirements	Total Number of Additional Quality Requirements
Neighbors' Regulations	0.623** (2.28)	0.345 (1.17)	0.336 (1.04)	0.900*** (4.07)	0.597** (2.61)	0.613** (2.49)
Index of Direct Democracy	–	-0.441* (1.85)	-0.476* (1.73)	–	-0.595** (2.48)	-0.709** (2.65)
Share of Catholic Population	–	0.017 (1.53)	0.016 (1.10)	–	0.015 (1.40)	0.008 (0.61)
Income per Capita	–	–	-0.367 (0.09)	–	–	1.840 (0.46)
Population	–	–	-0.004 (0.31)	–	–	-0.014 (1.19)
Population Density	–	–	0.008 (0.23)	–	–	-0.016 (0.45)
Constant	3.513 (1.43)	6.910** (2.08)	7.213 (1.65)	0.822 (0.49)	4.708* (1.93)	5.462 (1.56)
R <sup>2</sup>	0.179	0.345	0.355	0.409	0.564	0.597
SER	1.388	1.291	1.382	1.453	1.303	1.348
Observations	26	26	26	26	26	26
Jarque-Bera	4.478	0.666	0.598	0.660	1.399	0.866

*Note:* *t*-values are given in parentheses. \*\*\*, \*\* and \* indicate significance at 1%, 5% and 10% levels, respectively. The Jarque-Bera test statistic is a test on the null hypothesis of normality of the residuals.

The results for the average number of total regulations are provided in *Table 2*. The variation of the number of cantonal regulations of professional degrees is fairly well explained by the models ranging from 18 percent in the bivariate model to 36 percent in the complete model. The figures are between 41 and 60 percent in the case of additional quality requirements. In none of the equations, the hypothesis of normality of the residuals can be rejected. While it is possible to establish a statistically significant mimicking behavior in both types of regulations

in the simple bivariate regressions, the impact loses its significance if additional controls are included in the case of the examination requirements. There is however still a statistically significant positive impact of the neighbors regulatory activity on the regulations in a particular canton establishing a mimicking behavior that is fully in line with what is found in most of the tax literature. The estimated coefficients are of reasonable size as their values are always between 0 and 1. In addition to neighbors' regulations, only the index of direct democracy has a statistically significant effect on regulatory activity. In both types of regulations, examination requirements as well as additional quality standards, more directly democratically governed cantons have a statistically significant lower number of regulations. The effect is however only marginally significant in the case of examination requirements. These results indicate that interest groups are less successful to obtain additional regulations in direct democracy.

**Table 3: Regressions of the Number of Regulations in Commerce on Neighbors' Regulations and Controls, Cross Section of 26 Swiss cantons**

Variable	Examination Requirements in Commerce	Examination Requirements in Commerce	Examination Requirements in Commerce	Additional Quality Requirements in Commerce	Additional Quality Requirements in Commerce	Additional Quality Requirements in Commerce
Neighbors' Regulations	0.664* (2.07)	0.357 (1.19)	0.405 (1.25)	0.674*** (3.24)	0.310 (1.59)	0.357 (1.70)
Index of Direct Democracy	–	-0.659** (2.80)	-0.682** (2.57)	–	-0.707*** (3.80)	-0.742** (3.58)
Share of Catholic Population	–	0.017 (1.44)	0.017 (1.18)	–	0.004 (0.46)	0.005 (0.45)
Income per Capita	–	–	-1.179 (0.28)	–	–	2.178 (0.71)
Population	–	–	-0.005 (0.37)	–	–	-0.054 (0.63)
Population Density	–	–	0.029 (0.77)	–	–	0.004 (0.13)
Constant	1.596 (1.22)	4.630** (2.37)	4.320 (1.48)	0.547 (1.14)	3.997*** (3.65)	3.060 (1.62)
R <sup>2</sup>	0.151	0.416	0.442	0.304	0.580	0.611
SER	1.580	1.369	1.440	1.259	1.022	1.057
Observations	26	26	26	26	26	26
Jarque-Bera	1.509	0.142	0.620	9.247***	0.020	0.217

*Note:* *t*-values are given in parentheses. \*\*\*, \*\* and \* indicate significance at 1%, 5% and 10% levels, respectively. The Jarque-Bera test statistic is a test on the null hypothesis of normality of the residuals.

The general story remains more or less like that when the different components of this index of regulation are analyzed. With respect to the regulation of commercial activities (*Table 3*), the influence of neighbors is less robust, while direct democracy is very robustly affecting regulatory activity. Regulation of the services sector (*Table 4*) is more heavily and robustly influenced by mimicking behavior, while direct democracy has a robust negative influence

only on the number of quality standards. The unreasonable size of the coefficient of mimicking behavior in the bivariate regressions is quickly corrected as soon as additional controls are included in the model such that it should not be a matter of concern. In addition, income per capita is significant for quality standards in the services sector.

**Table 4: Regressions of the Number of Regulations in the Services Sector on Neighbors' Regulations and Controls, Cross Section of 26 Swiss cantons**

Variable	Examination Requirements in Services	Examination Requirements in Services	Examination Requirements in Services	Additional Quality Requirements in Services	Additional Quality Requirements in Services	Additional Quality Requirements in Services
Neighbors' Regulations	1.068*** (4.70)	0.666** (2.20)	0.636* (1.95)	1.247*** (7.13)	0.835*** (4.19)	0.640*** (1.70)
Index of Direct Democracy	–	-0.646* (1.88)	-0.582 (1.46)	–	-0.982*** (3.16)	-1.295*** (4.17)
Share of Catholic Population	–	0.009 (0.70)	0.009 (0.47)	–	0.007 (0.53)	-0.013 (0.45)
Income per Capita	–	–	-5.083 (1.08)	–	–	-8.361** (2.16)
Population	–	–	0.008 (0.58)	–	–	-0.017 (1.48)
Population Density	–	–	0.013 (0.31)	–	–	0.009 (0.26)
Constant	-1.239 (0.34)	3.020 (1.40)	4.632 (1.29)	-0.992 (1.18)	4.558** (2.20)	11.857*** (3.83)
R <sup>2</sup>	0.479	0.556	0.594	0.679	0.780	0.851
SER	1.627	1.569	1.614	1.717	1.484	1.316
Observations	26	26	26	26	26	26
Jarque-Bera	0.583	0.091	0.248	3.629	0.830	1.065

Note: *t*-values are given in parentheses. \*\*\*, \*\* and \* indicate significance at 1%, 5% and 10% levels, respectively. The Jarque-Bera test statistic is a test on the null hypothesis of normality of the residuals.

Finally, neighbors' regulations are significantly negatively associated with quality standards in the case of regulation of the legal profession leaving room for a speculation what is actually driving this type of spatial correlation (*Table 5*). Following BRUECKNER's (2003) arguments this result might simply reflect spillovers of that particular kind of regulation from the neighbors. However, the low variation of the number of regulations of legal professions (*Appendix*) demands a very cautious interpretation. Direct democracy does not influence the regulation of the legal profession while income per capita and population density have significant influences on quality standards.

**Table 5: Regressions of the Number of Regulations Legal Professions on Neighbors' Regulations and Controls, Cross Section of 26 Swiss cantons**

Variable	Examination Requirements in Legal Professions	Examination Requirements in Legal Professions	Examination Requirements in Legal Professions	Additional Quality Requirements in Legal Professions	Additional Quality Requirements in Legal Professions	Additional Quality Requirements in Legal Professions
Neighbors' Regulations	-0.031 (0.05)	-0.100 (0.17)	-0.257 (0.40)	-0.798* (1.79)	-0.859* (1.84)	-0.932** (2.17)
Index of Direct Democracy	–	-0.070 (0.57)	-0.079 (0.40)	–	-0.191 (0.91)	-0.214 (1.07)
Share of Catholic Population	–	0.003 (0.44)	-0.000 (0.02)	–	0.008 (0.71)	0.009 (0.81)
Income per Capita	–	–	-4.463 (0.19)	–	–	9.964*** (3.03)
Population	–	–	-0.001 (0.17)	–	–	0.001 (0.05)
Population Density	–	–	-0.012 (0.55)	–	–	-0.088*** (2.93)
Constant	8.407* (1.86)	9.100* (1.91)	11.169* (1.96)	7.854*** (4.027)	8.459*** (3.96)	6.767** (2.57)
R <sup>2</sup>	0.000	0.023	0.064	0.118	0.169	0.611
SER	0.747	0.771	0.812	1.302	1.321	1.057
Observations	26	26	26	26	26	26
Jarque-Bera	0.656	0.714	1.448	1.506	6.507**	0.217

*Note:* *t*-values are given in parentheses. \*\*\*, \*\* and \* indicate significance at 1%, 5% and 10% levels, respectively. The Jarque-Bera test statistic is a test on the null hypothesis of normality of the residuals.

The drawback of the analysis is straightforward. First, only the number of regulations is explained by the average number of neighbors' regulations and controls. There is no information as to the importance of the single regulatory acts. It might simply be that one canton obtains a certain amount of regulatory restriction by a lower number of regulations. This also depends on the coverage of these regulations which could not be considered for this analysis. Second, data is only available for one cross-section restricting the number of variables that could be used because of low degrees of freedom. Still, the results might be sufficiently interesting such that a flavor of mimicking in the field of regulation of commercial activity comes up.

From an econometric point of view, the most serious shortcoming might be the endogeneity of the average number of neighbors' regulation on the right hand side and the number of regulations on the left hand side of the estimated equation. As often the case in cross section analyses, convincing instruments are lacking. The traditionally used IV procedure in spatial public finance empirics follows KELEJIAN and ROBINSON (1993) and KELEJIAN and PRUCHA (1998) using neighbors' exogenous variables as instruments. As the control variables in Tables 2 to 5 do not have any clear-cut significant impact on the number of regulations, they

must be dismissed as potential instruments. Nevertheless, an attempt to use the IV method is made in this paper. As instrument, a dummy variable taking on the value of 1 if a canton stems from the German speaking part of Switzerland (zero otherwise) is used.

**Table 6: TSLS-Regressions of the Number of Total Regulations on Neighbors' Regulations and Controls, Cross Section of 26 Swiss cantons**

Variable	Total Number of Examination Requirements	Total Number of Additional Quality Requirements	Examination Requirements in Commerce	Additional Quality Requirements in Commerce	Examination Requirements in Services	Additional Quality Requirements in Services
Neighbors' Regulations	0.834 (1.36)	0.709 (1.60)	1.102 (1.56)	0.616 (1.54)	1.255* (1.90)	0.782** (2.83)
Index of Direct Democracy	-0.275 (0.77)	-0.660* (2.01)	-0.513 (1.55)	-0.630** (2.43)	-0.052 (0.08)	-1.140*** (2.98)
Share of Catholic Population	0.016 (1.10)	0.009 (0.62)	0.018 (1.09)	0.003 (0.30)	0.009 (0.51)	-0.012 (0.85)
Income per Capita	0.011 (0.25)	0.022 (0.52)	-0.005 (0.11)	0.020 (0.62)	-0.037 (0.70)	-0.078* (1.96)
Population	-0.004 (0.28)	-0.014 (1.19)	-0.009 (0.59)	-0.007 (0.69)	0.015 (0.88)	-0.015 (1.30)
Population Density	0.001 (0.00)	-0.016 (0.47)	0.033 (0.79)	0.011 (0.37)	0.012 (0.26)	0.011 (0.32)
Constant	1.403 (0.19)	4.391 (0.81)	0.503 (0.11)	2.059 (0.88)	-0.091 (0.02)	10.173** (2.59)
R <sup>2</sup>	0.274	0.594	0.305	0.580	0.517	0.846
SER	1.466	1.353	1.607	1.099	1.760	1.335
Observations	26	26	26	26	26	26
Jarque-Bera	0.945	0.753	2.894	1.778	0.520	0.594

Note: *t*-values are given in parentheses. \*\*\*, \*\* and \* indicate significance at 1%, 5% and 10% levels, respectively. The Jarque-Bera test statistic is a test on the null hypothesis of normality of the residuals.

The language classification of the Swiss cantons is peculiar because a prejudice has it that the French and Italian speaking cantons are more inclined than the German speaking ones to search for public rather than private solutions. The former studies in cantonal public finance, as surveyed in FELD and KIRCHGÄSSNER (2006), do however not lend towards a consistent picture to support this prejudice. As the inclusion of the dummy variable for German-speaking cantons in the regressions presented in *Tables 2 to 5* reveals, there is no significant impact of this variable on the number of regulations and the overall pattern is not affected by that procedure. However, the dummy for German speaking cantons is significantly negatively correlated with the number of neighbors' regulations.<sup>7</sup> This correlation might simply reflect the construction of this variable because German-speaking cantons individually cover a

7. The latter correlation is almost exclusively on the one percent significance level. Both sets of estimation results are available from the author upon request.



smaller area on average such that they have more neighbors. It does thus not appear to be a convincing instrument although the standard tests do not necessarily suggest to leave it aside.

Nevertheless, the results as presented in *Table 6* indicate an interesting pattern.<sup>8</sup> In general, mimicking behavior is not fully robust to the use of this imperfect instrument. In the case of the total number of examination requirements and in particular of additional quality requirements, neighbors' regulations fall short of conventional significance levels. In the second case, it comes close to marginal significance. A similar assessment holds for both indicators of commerce regulation. In the case of services regulation, mimicking behavior is however robust to the use of the IV method. There is only one grain of salt, i.e. the estimated coefficient of neighbors' examination requirements in services is larger than zero which is not plausible for reaction functions. The significant negative impact of direct democracy remains robust in all three cases of additional quality requirements. Overall, the results are remarkably robust given that the instrument used is less than perfect to say the least.

## 6. Concluding Remarks

In this paper, regulatory competition at the Swiss cantonal level is analyzed in order to gain some insights as to how decentralized competencies shape regulation. While the dominating theoretical literature in economics as well as the normative literature in law mainly emphasize the dangers of regulatory competition, in particular a potential race to the bottom, political economists point to the beneficial impact of regulatory competition. From the point of view most strongly pursued in this paper, the dynamic nature of regulatory competition provides for its most important advantage. Successful regulations are imitated and adapted by other jurisdictions such that a variety of different policy solutions is found.

The historical study of cantonal regulation in Switzerland reveals a certain ambivalence in at least two different forms. First, some cantons have obviously been reluctant in the past to adopt the Swiss common market and drop the regulations they formerly imposed mostly in order to protect particular commercial activities. However, the early beginning of regulatory competition between the cantons in the 19<sup>th</sup> century with an imposition of the origin principle undermined the local potential to protect special interests. The singular argument that decentralization favors a benevolent economic outcome is obviously too crude. There is a potential of protectionism in a decentralized polity, but with the origin principle and sufficient mobility it unleashes the positive forces of regulatory competition. Second, the influence of a central authority, in the Swiss case the federal government, need not necessarily be positive. While the first impact in the 19<sup>th</sup> century consisted in an attempt to complete the Swiss common market, the government later provided opportunities for the conservative, more heavily regu-

---

8. Due to insufficient variation the results for the regulation of the legal profession and of health services, these results are not reported.

lated cantons to raise their rivals costs. This becomes most obvious during the period between both world wars. In recent times, the federal government is again a driving force for deregulation of the cantonal economies and thus of total Switzerland.

As the data available is only indicative, cautious conclusions must be drawn with respect to the econometric evidence in this paper. Mimicking behavior appears to be also important in cantonal regulation while direct democracy restricts the ability of cantons to introduce additional regulations. The first result points to the potentially important effect that yardstick competition might have on political innovation. Whether this political innovation actually results has not been analyzed in this paper, nor is it possible to draw any conclusions as to benevolence of mimicking behavior. But the force of information externalities is present in Switzerland. This might either lead to more or to less regulation depending on what canton sets the trend. Thus, internal determinants are crucial for the overall performance of such a highly decentralized system. This is illustrated by the effect of direct democracy which is in line with former analyses of the impact of direct democracy on public finances.

Finally, there is no discussion whether cantonal regulatory competition has actually induced a better or worse economic performance of the cantons and of the country as a whole. Of course, there is no clear-cut systematic evidence on that. However, a too strong emphasis of the usefulness of regulatory competition during particular episodes may be besides the point. It is the possibility to dynamically adapt to new challenges, the ability to experiment in a decentralized fashion that is making Swiss federalism so peculiar. It looks as if this conjecture also holds in the case of regulatory activity.

## References

- AKERLOF, G.A. (1970), The Market for Lemons: Quality, Uncertainty and the Market Mechanism, *Quarterly Journal of Economics* 84, 488 – 500.
- ALLERS, M.A. and J.P. ELHORST (2005), Tax Mimicking and Yardstick Competition Among Local Governments in the Netherlands, *International Tax and Public Finance* 12, 493 – 513.
- APOLTE, TH. (1999), *Die ökonomische Konstitution eines föderalen Systems: Dezentrale Wirtschaftspolitik zwischen Kooperation und institutionellem Wettbewerb*, Mohr Siebeck, Tübingen.
- ASHWORTH, J., B. GEYS and B. HEYNDELS (2003), Political Fragmentation and Tax Innovations: The Case of Environmental Taxes in Flemish Municipalities. mimeo. Vrije Universiteit Brussel.
- BARDHAN, P. (2002), Decentralization of Governance and Development, *Journal of Economic Perspectives* 16 (4), 185 – 205.
- BARDHAN, P. and D. MOOKHERJEE (2000), Capture and Governance at Local and National Levels, *American Economic Review, Papers and Proceedings* 90, 135 – 139.
- BEBCHUK, L.A. (1992), Federalism and the Corporation: The Desirable Limits on State Competition in Corporate Law, *Harvard Law Review* 105, 1435 – 1510.

- BERNHOLZ, P. and M. FABER (1986), Überlegungen zu einer normativen ökonomischen Theorie der Rechtsvereinheitlichung, *Rabels Zeitschrift für ausländisches und internationales Privatrecht* 50, 35 – 60.
- BERNHOLZ, P. and R. VAUBEL (eds.) (2004), *Political Competition, Innovation and Growth in the History of Asian Civilisations*, Edward Elgar, Cheltenham.
- BERRY, F.S. (1994), Sizing Up State Policy Innovation Research, *Policy Studies Journal* 22, 442 – 456.
- BERRY, F.S. and W.D. BERRY (1990), State Lottery Adoptions as Policy Innovations: An Event History Analysis, *American Political Science Review* 84, 395 – 415.
- BERRY, F.S. and W.D. BERRY (1991), Specifying a Model of State Policy Innovations, *American Political Science Review* 85, 573 – 579.
- BERRY, F.S. and W.D. BERRY (1992), Tax Innovation in the States: Capitalizing on Political Opportunity, *American Journal of Political Science* 36, 715 – 742.
- BESLEY, T. and A.C. CASE (1995), Incumbent Behaviour, Vote-Seeking, Tax-Setting and Yardstick Competition, *American Economic Review* 84, 394 – 414.
- BIGA (1983), *Übersicht über bewilligungspflichtige Berufe und Gewerbe*, Ausgabe Januar 1983, Ref. 2/163.01.
- BOOCKMANN, B. and R. VAUBEL (2005), The Theory of Raising Rivals' Costs and Evidence from International Labour Organizations, Unpublished Manuscript, University of Mannheim.
- BORDIGNON, M., F. CERNIGLIA and F. REVELLI (2003), In Search of Yardstick Competition: A Spatial Analysis of Italian Municipality Property Tax Setting, *Journal of Urban Economics* 54, 199 – 217.
- BORNER, S. and F. BODMER (2004), *Wohlstand ohne Wachstum: Eine Schweizer Illusion*, Orell Füssli, Zürich 2004.
- BRATTON, W.W. and J.A. MCCAHERY (1997), The New Economics of Jurisdictional Competition: Devolutionary Federalism in a Second-Best World, *The Georgetown Law Journal* 86, 201 – 278.
- BRENNAN, G. and J.M. BUCHANAN (1980), *The Power to Tax: Analytical Foundations of a Fiscal Constitution*, Cambridge University Press, Cambridge.
- BRETON, A. (1996), *Competitive Governments: An Economic Theory of Politics and Public Finance*, Cambridge University Press, Cambridge 1996.
- BRETON, A. (2000), Federalism and Decentralization: Ownership Rights and the Superiority of Federalism, *Publius: The Journal of Federalism* 30, 1 – 16.
- BRETT, C. and J. PINSKE (2000), The Determinants of Municipal Tax Rates in British Columbia, *Canadian Journal of Economics* 33, 695 – 714.
- BRUECKNER, J.K. (2000), Fiscal Decentralization in Developing Countries: The Effects of Local Corruption and Tax Evasion, *Annals of Economics and Finance* 1, 1 – 18.
- BRUECKNER, J.K. (2003), Strategic Interaction among Governments: An Overview of Empirical Studies, *International Regional Science Review* 26, 175 – 188.
- BRUECKNER, J.K. and L.A. SAAVEDRA (2001), Do Local Governments Engage in Strategic Property Tax Competition?, *National Tax Journal* 54, 203 – 229.
- BUCHANAN, J.M. (2000), The Soul of Classical Liberalism, *Aussenwirtschaft* 55, 7 – 17.
- BUNDESRAT (2004), *Botschaft über die Änderung des Binnenmarktes vom 24. November 2004*, BBl 2004-2321, 465 – 504.
- BÜTTNER, T. (1999), Determinants of Tax Rates in Local Capital Income Taxation: A Theoretical Model and Evidence from Germany, *Finanzarchiv N.F.* 56, 363 – 388.
- BÜTTNER, T. (2001), Local Business Taxation and Competition for Capital: The Choice of the Tax Rate, *Regional Science and Urban Economics* 31, 215 – 245.

- CALDEIRA, G.A. (1985), The Transmission of Legal Precedent, *American Political Science Review* 79, 178 – 194.
- CANON, B.C. and L. BAUM (1981), Patterns of Adoption of Tort Law Innovations: An Application of Diffusion Theory to Judicial Doctrines, *American Political Science Review* 75, 975 – 987.
- CARNEY, W.J. (1997), Explaining the Shape of Corporate Law: The Role of Competition, *Managerial and Decision Economics* 18, 611 – 626.
- CARNEY, W.J. (1997a), The Political Economy of Competition for Corporate Charters, *Journal of Legal Studies* 26, 303 – 329.
- CARNEY, W.J. (1998), The Production of Corporate Law, *Southern California Law Review* 71, 715 – 780.
- CARTER, L.E. and J.T. LAPLANT (1997), Diffusion of Health Care Policy Innovation in the United States, *State and Local Government Review* 29, 17 – 26.
- CASE, A.C. (1993), Interstate Tax Competition after TRA86, *Journal of Policy Analysis and Management* 12, 136 – 148.
- CASE, A.C., H.S. ROSEN and J.R. HINES, JR. (1993), Budget Spillovers and Fiscal Policy Interdependence: Evidence from the States, *Journal of Public Economics* 52, 285 – 307.
- CLARK, J. (2000), Policy Attributes and State Policy Innovation, *Southeastern Political Review* 28, 3 – 25.
- DE CHAMBRIER, A. (2003), *Die Verwirklichung des Binnenmarktes bei reglementierten Berufen*, Grundlagenbericht zur Revision des BGBM (Bundesgesetz über den Binnenmarkt), seco – State Secretariat for Economic Affairs, Bern.
- DESVEAUX, J.A., E.A. LINDQUIST and G. TONER (1994), Organizing for Policy Innovation in Public Bureaucracy: AIDS, Energy and Environmental Policy in Canada, *Canadian Journal of Political Science* 27, 493 – 528.
- EYESTONE, R. (1977), Confusion, Diffusion, and Innovation, *American Political Science Review* 71, 441 – 447.
- FELD, L.P. (1997), Exit, Voice and Income Taxes: The Loyalty of Voters, *European Journal of Political Economy* 13, 455 – 478.
- FELD, L.P. (2000), *Steuerwettbewerb und seine Auswirkungen auf Allokation und Distribution: Ein Überblick und eine empirische Analyse für die Schweiz*, Mohr Siebeck, Tübingen.
- FELD, L.P. (2000a), Tax Competition and Income Redistribution: An Empirical Analysis for Switzerland, *Public Choice* 105, 125 – 164.
- FELD, L.P. (2005), Fiscal Equivalence and the Increasing Dispersion/Divergence of Public Goods Claims – Do We Need a New Interpretation?, forthcoming in: G. FÄRBER and N. OTTER (eds.), *Spatial Aspects of Federative Systems*, Nomos, Baden-Baden 2005.
- FELD, L.P. (2005a), On Tax Competition: The (Un-)Expected Advantages of Decentralized Fiscal Autonomy, in: FRIEDRICH A. VON HAYEK INSTITUT (ed.), *Austrian Economics Today II: Reforms for a Competitive Economy*, The International Library of Austrian Economics Vol. 10, Hayek Institut, Wien 2005, 89 – 126.
- FELD, L.P. and G. KIRCHGÄSSNER (2001), Income Tax Competition at the State and Local Level in Switzerland, *Regional Science and Urban Economics* 31, 181 – 213.
- FELD, L.P. and G. KIRCHGÄSSNER (2003), The Impact of Corporate and Personal Income Taxes on the Location of Firms and on Employment: Some Panel Evidence for the Swiss Cantons, *Journal of Public Economics* 87, 129 – 155.
- FELD, L.P. and G. KIRCHGÄSSNER (2006), Fiscal Policy and Direct Democracy: Institutional Design Determines Outcomes, forthcoming in: A.F. OTT and R.J. CEBULA (eds.), *The Elgar Companion to Public Economics: Empirical Public Economics*, Edward Elgar, Cheltenham.

- FELD, L.P. and E. REULIER (2005), Strategic Tax Competition in Switzerland: Evidence from a Panel of the Swiss Cantons, Unpublished Manuscript, University of Marburg.
- FELD, L.P. and J. SCHNELLENBACH (2004), Begünstigt fiskalischer Wettbewerb die Politikinnovation und -diffusion? Theoretische Anmerkungen und erste Befunde aus Fallstudien, in: C.A. SCHALTEGGER and S. SCHALTEGGER (eds.), *Perspektiven der Schweizer Wirtschaftspolitik*, vdf, Zürich, 259 – 277.
- FELD, L.P., J. FISCHER and G. KIRCHGÄSSNER (2003), The Effect of Direct Democracy on Income Redistribution: Evidence for Switzerland, Unpublished Manuscript, University of Marburg.
- FELD, L.P., J.-M. JOSSELIN and Y. ROCABOY (2003), Tax Mimicking Among Regional Jurisdictions, in: A. MARCIANO and J.-M. JOSSELIN (eds.), *From Economic to Legal Competition: New Perspectives on Law and Institutions in Europe*, Edward Elgar, Cheltenham, 105 – 119.
- FELD, L.P., G. KIRCHGÄSSNER and CH.A. SCHALTEGGER (2003), Decentralized Taxation and the Size of Government: Evidence from Swiss State and Local Governments, CESifo Working Paper No. 1087.
- FELD, L.P., G. KIRCHGÄSSNER and CH.A. SCHALTEGGER (2004), Fiscal Federalism and Economic Performance: Evidence from Swiss Cantons, Unpublished Manuscript, Philipps-University of Marburg.
- FIGLIO, D.N., V.W. KOLPIN and W.E. REID (1999), Do States Play Welfare Games?, *Journal of Urban Economics* 46, 437 – 454.
- FILER, J. E., D.L. MOAK and B. UZE (1988), Why Some States Adopt Lotteries and Others Don't, *Public Finance Quarterly* 16, 259 – 283.
- FILIPPOV, M., P.C. ORDESHOOK and O. SHVETSOVA (2004), *Designing Federalism: A Theory of Self-Sustainable Federal Institutions*, Cambridge: Cambridge University Press.
- FISMAN, R. and R. GATTI (2002), Decentralization and Corruption: Evidence across Countries, *Journal of Public Economics* 83, 325 – 345.
- FREDRIKSSON, P.G. and D.L. MILLIMET (2002), Strategic Interaction and the Determination of Environmental Policy across U.S. States, *Journal of Urban Economics* 51, 101 – 122.
- GATSIOS, K. and P. HOLMES (1998), Regulatory Competition, in: P. NEWMAN (ed.), *The New Palgrave Dictionary of Economics and the Law*, Vol. 3, Palgrave, London, 271 – 275.
- GLICK, H.R. (1994), The Impact of Permissive Judicial Policies: The U.S. Supreme Court and the Right to Die, *Political Research Quarterly* 47, 207 – 222.
- GRAY, V. (1973), Innovation in the States: A Diffusion Study, *American Political Science Review* 67, 1174 – 1185.
- HAUSER, H. and M. HÖSLI (1991), Harmonization of Regulatory Competition in the EC (and the EEA)?, *Aussenwirtschaft* 46, 497 – 512.
- HAYASHI, M. and R. BOADWAY (2000), An Empirical Analysis of Intergovernmental Tax Interaction: The Case of Business Income Taxes in Canada, *Canadian Journal of Economics* 34, 481 – 503.
- HAYEK, F.A. v. (1939), The Economic Conditions of Interstate Federalism, reprinted in: F.A. v. HAYEK, *Individualism and the Economic Order*, Ch. XII., Chicago 1948, 255 – 272.
- HEINE, K. (2003), *Regulierungswettbewerb im Gesellschaftsrecht: Zur Funktionsfähigkeit eines Wettbewerbs der Rechtsordnungen im europäischen Gesellschaftsrecht*, Duncker & Humblot, Berlin.
- HEINE, K. and W. KERBER (2002), European Corporate Laws, Regulatory Competition and Path Dependence, *European Journal of Law and Economics* 13, 47 – 71.
- HEYNDELS, B. and J. VUCHELEN (1998), Tax Mimicking among Belgian Municipalities, *National Tax Journal* 51, 89 – 101.
- HIRSCHMAN, A.O. (1970), *Exit, Voice and Loyalty: Responses to Decline in Firms, Organisations, and States*, Harvard University Press, Cambridge.

- INMAN, R.P. and D.L. RUBINFELD (1997), Rethinking Federalism, *Journal of Economic Perspectives* 11 (4), 43 – 64.
- KELEJIAN, H.H. and I.R. PRUCHA (1998), A Generalized Spatial Two-Stage Least Squares Procedure for Estimating a Spatial Autoregressive Model with Autoregressive Disturbances, *Journal of Real Estate Finance and Economics* 17, 99 – 121.
- KELEJIAN, H.H. and D.H. ROBINSON (1993), A Suggested Estimation for Spatial Interdependent Models with Autocorrelated Errors, and an Application to a County Expenditure Model, *Papers in Regional Science* 72, 297 – 312.
- KERBER, W. (1998), Zum Problem einer Wettbewerbsordnung für den Systemwettbewerb, *Jahrbuch für Neue Politische Ökonomie* 17, 199 – 230.
- KERBER, W. (2000), Interjurisdictional Competition within the European Union, *Fordham International Law Journal* 23, S217 – S249.
- KIRCHGÄSSNER, G. and L.P. FELD (2004), Föderalismus und Staatsquote, *Jahrbuch für Föderalismus* 5, 67 – 87.
- KOLLMAN, K., J.H. MILLER and S.E. PAGE (2000), Decentralization and the Search for Policy Solutions, *Journal of Law, Economics and Organization* 16, 102 – 128.
- KÖLZ, A. (1992), *Neuere Schweizerische Verfassungsgeschichte: Ihre Grundlinien vom Ende der alten Eidgenossenschaft bis 1848*, Stämpfli, Bern.
- KÖLZ, A. (2004), *Neuere Schweizerische Verfassungsgeschichte: Ihre Grundlinien in Bund und Kantonen seit 1848*, Stämpfli, Bern.
- KOTSOGIANNIS, C. and R. SCHWAGER (2004), Policy Innovation in Federal Systems, Unpublished Manuscript, University of Göttingen.
- LADD, H.F. (1992), Mimicking of Local Tax Burdens among Neighboring Counties, *Public Finance Quarterly* 20, 450 – 467.
- LADNER, A. and R. STEINER (2003), Die Schweizer Gemeinden im Wandel: Konvergenz oder Divergenz?, *Swiss Political Science Review* 9, 233 – 259.
- LEPRINCE, M., T. MADIES and S. PATY (2003), Interactions fiscales horizontales et verticales: Un test sur données départementales, Unpublished Manuscript, University of Lille.
- MYERS, D.J. (2001), Modeling Social Diffusion Processes Using Event History Analysis: Some Conceptual Issues, Practical Considerations, and Empirical Patterns, Working Paper and Technical Report Series No. 2001-07, Dept. Of Sociology, University of Notre Dame.
- NICE, D.C. (1994), *Policy Innovation in State Government*, Iowa State University Press, Ames.
- OATES, W.E. (1972), *Fiscal Federalism*, Harcourt/Brace/Jovanovich, New York.
- OATES, W.E. (1999), An Essay on Fiscal Federalism, *Journal of Economic Literature* 37, 1120 – 1149.
- OATES, W.E. and R.M. SCHWAB (1988), Economic Competition among Jurisdictions: Efficiency Enhancing or Distortion Inducing?, *Journal of Public Economics* 35, 333 – 354.
- RENTSCH, H., S. FLÜCKIGER, T. HELD, Y., HEINIGER and T. STRAUBHAAR (2004), *Ökonomik der Reform. Wege zu mehr Wachstum in der Schweiz*, Orell Füssli, Zürich 2004.
- REULIER, E. (2004), *Choix fiscaux et interactions stratégiques*, Ph.D. Thesis, Université de Rennes 1, France.
- REVELLI, F. (2005), On Spatial Public Finance Empirics, *International Tax and Public Finance* 12, 475 – 492.
- RINCKE, J. (2005), Policy Innovation in Local Jurisdictions: Testing the Neighborhood Influence Against the Free-Riding Hypothesis, Discussion Paper No. 05-08, Centre for European Economic Research (ZEW), Mannheim.
- RINCKE, J. (2005a), Neighborhood Influence and Political Chance: Evidence from US School Districts, Discussion Paper No. 05-16, Centre for European Economic Research (ZEW), Mannheim.

- RODDEN, J. and S. ROSE-ACKERMAN (1997), Does Federalism Preserve Markets?, *Virginia Law Review* 83, 1521 – 1572.
- RODRIG, D. (1998), Why Do More Open Economies Have Bigger Governments?, *Journal of Political Economy* 106, 997 – 1032.
- ROGERS, E.M. (1995), *The Diffusion of Innovations*, 4th ed., New York.
- ROMANO, R. (1985), Law as a Product: Some Pieces of the Incorporation Puzzle, *Journal of Law, Economics and Organization* 1, 225 – 283.
- ROMANO, R. (2002), *The Advantage of Competitive Federalism for Securities Regulation*, AEI Press, Washington.
- ROSE-ACKERMAN, S. (1980), Risk-Taking and Re-Election: Does Federalism Promote Innovation?, *Journal of Legal Studies* 9, 593 – 616.
- SAAVEDRA, L.A. (2000), A Model of Welfare Competition with Evidence from AFDC, *Journal of Urban Economics* 47, 248 – 279.
- SALMON, P. (1987), Decentralization as an Incentive Scheme, *Oxford Review of Economic Policy* 3, 24 – 43.
- SALMON, P. (2003), Assigning Powers in the European Union in the Light of Yardstick Competition among Governments, *Jahrbuch für Neue Politische Ökonomie* 22, 197 – 216.
- SALMON, P. (2005), Horizontal Competition among Governments, Unpublished Manuscript, Université de Bourgogne.
- SALMON, P. (2005a), Political Yardstick Competition and Corporate Governance in the European Union, Unpublished Manuscript, Université de Bourgogne.
- SAMUELSON, P.A. (1954), Pure Theory of Public Expenditure, *Review of Economics and Statistics* 40, 332 – 338.
- SAVAGE, R.L. (1985), Diffusion Research Traditions and the Spread of Policy Innovations in a Federal System, *Publius: The Journal of Federalism* 15, 1 – 27.
- SCHALTEGGER, CH.A. (2001), The Effects of Federalism and Democracy on the Size of Government: Evidence from Swiss Sub-national Jurisdictions, *ifo Studien* 47, 145 – 162.
- SCHANZ, G. VON (1890), *Die Steuern der Schweiz in ihrer Entwicklung seit Beginn des 19. Jahrhunderts, Vol I to V*, Stuttgart.
- SCHNELLENBACH, J. (2004), *Dezentrale Finanzpolitik und Modellunsicherheit: Eine theoretische Untersuchung zur Rolle des fiskalischen Wettbewerbs als Wissen generierender Prozess*, Tübingen, Mohr Siebeck.
- SCHNELLENBACH, J. (2004a), Learning from Decentralised Policy: The Demand Side, paper presented at the Royal Economic Society 2004 annual conference at Swansea (UK).
- SCHULZE, G.G. and H.W. URSPRUNG (1999), Globalisation of the Economy and the Nation State, *World Economy* 22, 295 – 352.
- SIEBERT, H. and M.J. KOOP (1990), Institutional Competition. A Concept for Europe?, *Aussenwirtschaft* 45, 439 – 462.
- SINN, H.-W. (1990), Tax Harmonisation and Tax Competition in Europe, *European Economic Review* 34, 489 – 504.
- SINN, H.-W. (1997), The Selection Principle and Market Failure in Systems Competition, *Journal of Public Economics* 66 (1997), S. 247 – 274.
- SINN, H.-W. (2003), *The New Systems Competition*, Blackwell, Oxford.
- SOLÉ-OLLÉ, A. (2003), Electoral Accountability and Tax Mimicking: The Effects of Electoral Margins, Coalition Government and Ideology, *European Journal of Political Economy* 19, 685 – 713.

- SOMMER, J.H. (1978), *Das Ringen um soziale Sicherheit in der Schweiz: Eine politisch-ökonomische Analyse der Ursprünge, Entwicklungen und Perspektiven sozialer Sicherung im Widerstreit zwischen Gruppeninteressen und volkswirtschaftlicher Tragbarkeit*, Dissertation, Universität St. Gallen, Rüegger, Diessenhofen 1978.
- STEINER, R. (2000), New Public Management in Swiss Municipalities, *International Public Management Journal* 3, 169 – 189.
- STIGLER, G.J. (1957), The Tenable Range of Functions of Local Government, in: U.S. CONGRESS, JOINT ECONOMIC COMMITTEE (ed.), *Federal Expenditure Policy for Economic Growth and Stability*, Washington, D.C., 213 – 219.
- STRUMPF, K. (2002), Does Government Centralization Increase Policy Innovation?, *Journal of Public Economic Theory* 4, 207 – 241.
- STUTZER, A. and B.S. FREY (2000), Stärkere Volksrechte – Zufriedenere Bürger: eine mikroökonomische Untersuchung für die Schweiz, *Swiss Political Science Review* 6, 1 – 30.
- SUN, J.-M. and J.J. PELKMANS (1995), Regulatory Competition in the Single Market, *Journal of Common Market Studies* 33, 67 – 89.
- TIEBOUT, CH.M. (1956), A Pure Theory of Local Expenditures, *Journal of Political Economy* 64, 416 – 424.
- TREISMAN, D. (2001), Corruption, Fiscal Incentives, and Output in Federal States: On the Neutrality of Fiscal Decentralization, Unpublished Manuscript, UCLA.
- TREISMAN, D. (2002), Decentralization and the Quality of Government, Unpublished Manuscript, UCLA.
- TYRAN, J.-R. and R. SAUSGRUBER (2003), The Diffusion of Policy Innovations: An Experimental Investigation, mimeo, University of St. Gallen.
- VAN DEN BERGH, R. (2000), Towards an Institutional Legal Framework for Regulatory Competition in Europe, *Kyklos* 53, 435 – 466.
- VAUBEL, R. (2000), Internationaler Politischer Wettbewerb: Eine europäische Wettbewerbsaufsicht für Regierung und die empirische Evidenz, *Jahrbuch für Neue Politische Ökonomie* 19, 280 – 309.
- VAUBEL, R. (2004), The New Systems Competition: Zu dem gleichnamigen Buch von Hans-Werner Sinn, *ORDO – Jahrbuch für die Ordnung von Wirtschaft und Gesellschaft* 55, 380 – 388.
- VAUBEL, R. (2005), The Role of Competition in the Rise of Baroque and Renaissance Music, Unpublished Manuscript, University of Mannheim.
- VIHANTO, M. (1992), Competition between Local Governments as a Discovery Procedure, *Journal of Institutional and Theoretical Economics* 148, 411 – 436.
- WALKER, J.L. (1969), The Diffusion of Innovation among the American States, *American Political Science Review* 63, 880 – 899.
- WEINGAST, B.R. (1995), The Economic Role of Political Institutions: Market-Preserving Federalism and Economic Development, *Journal of Law, Economics and Organisation* 11, 1 – 31.
- WIDMER, T. and S. RIEDER (2003), Schweizer Kantone im institutionellen Wandel: Ein Beitrag zur Beschreibung und Erklärung institutioneller Reformen, *Swiss Political Science Review* 9, 201 – 232.



Appendix Table 1: Regulation in Swiss Cantons 2002

<i>Canton</i>	<i>Total Number of Examination Requirements</i>	<i>Total Number of Additional Quality Requirements</i>	<i>Examination Requirements in Commerce</i>	<i>Additional Quality Requirements in Commerce</i>	<i>Examination Requirements in Services</i>	<i>Additional Quality Requirements in Services</i>	<i>Examination Requirements in Legal Professions</i>	<i>Additional Quality Requirements in Legal Professions</i>
ZH <sup>c</sup>	6.50	4.50	3.00	1.00	1.00	1.00	7.00	4.00
BE	9.50	8.50	4.00	3.00	4.00	6.00	9.00	6.00
LU	8.50	7.50	6.00	4.00	2.00	4.00	8.00	4.00
UR	7.75	5.75	2.00	1.00	2.00	3.00	8.00	3.00
SZ	7.50	5.50	2.00	0.00	0.00	1.00	8.00	3.00
OW	9.75	8.25	4.00	2.00	2.00	4.00	9.00	4.00
NW	10.00	8.50	4.00	1.00	1.00	2.00	8.00	5.00
GL	8.00	7.50	2.00	2.00	0.00	1.00	9.00	8.00
ZG	8.75	7.00	5.00	2.00	0.00	1.00	8.00	7.00
FR	10.75	10.75	6.00	4.00	4.00	8.00	8.00	6.00
SO	10.00	8.75	4.00	1.00	1.00	4.00	8.00	4.00
BS	9.25	6.50	4.00	2.00	4.00	3.00	7.00	3.00
BL	8.75	7.00	3.00	1.00	2.00	4.00	8.00	4.00
SH	6.75	4.75	3.00	1.00	1.00	2.00	7.00	3.00
AR	5.50	4.00	2.00	0.00	1.00	2.00	8.00	3.00
AI	10.75	8.00	6.00	0.00	1.00	3.00	8.00	3.00
SG	8.25	6.75	2.00	0.00	2.00	4.00	9.00	5.00
GR	9.00	7.50	3.00	1.00	4.00	6.00	9.00	5.00
AG	10.00	6.75	6.00	1.00	2.00	3.00	8.00	4.00
TG	8.50	6.50	3.00	1.00	2.00	3.00	9.00	3.00
TI	10.75	9.75	7.00	5.00	8.00	10.00	8.00	4.00
VD	11.25	9.50	5.00	3.00	6.00	7.00	8.00	3.00
VS	10.00	8.00	5.00	2.00	8.00	8.00	8.00	5.00
NE	10.25	10.25	7.00	3.00	3.00	12.00	7.00	4.00
GE	11.50	11.25	7.00	5.00	3.00	8.00	10.00	6.00
JU	9.25	8.25	5.00	3.00	5.00	7.00	8.00	5.00
Mean	9.11	7.59	4.23	1.88	2.65	4.50	8.15	4.38
Median	9.25	7.50	4.00	1.50	2.00	4.00	8.00	4.00
Standard Deviation	1.50	1.85	1.68	1.48	2.21	2.97	0.73	1.36
Minimum	5.50	4.00	2.00	0.00	0.00	1.00	7.00	3.00
Maximum	11.50	11.25	7.00	5.00	8.00	12.00	10.00	8.00

Source: Own calculations from A. DE CHAMBRIER (2003).