

Competition, harmonization and redistribution: Corporate taxes in Switzerland*

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Abstract

Switzerland could be considered as something of a test case for international corporate-tax policy coordination. It is a federation of 26 fiscally autonomous cantons that have been taxing corporate profits more or less independently for over a century. We document and discuss corporate taxation in Switzerland, with a focus on three aspects: (a) the evolving within-country geography of taxable profits and corporate tax rates, (b) the nature and historical emergence of formal tax-base harmonization, and (c) the functioning of fiscal equalization. Parallels are drawn and differences are discussed relative to ongoing efforts at international tax coordination.

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1 Introduction

Taxable profits are ever more mobile. There is broad-based international agreement, therefore, that corporate taxation requires a degree of supranational coordination. Profit sheltering in low- or zero-tax jurisdictions has been recognized at least since the launch of the OECD’s Base Erosion and Profit Shifting (BEPS) initiative in 2013 as a harmful practice for all nations bar a few tax havens. That practice has been estimated to deprive corporate host-country governments of more than 200bn USD in annual tax revenue (OECD, 2017; Beer, de Mooij and Liu, 2020). According to Tørsløv, Wier and Zucman (2023), eliminating purely tax-motivated profit shifting would increase the corporate tax base by up to 20% in the European Union, 10% in the United States and 5% in developing countries. In contrast, the corporate tax base of tax havens would contract by 55%.¹ Even if unchecked tax competition implies efficiency losses overall, coordination inevitably creates losers as well as winners and therefore implies challenging institutional and political tradeoffs.

Policy coordination in this area boils down to four essential dimensions: (1) harmonization of tax bases, (2) jurisdictional apportionment of tax bases, (3) harmonization of tax rates, and (4) redistribution of tax revenue. The OECD BEPS negotiations have so far involved dimensions (1) to (3). Proposals also exist for cross-country revenue sharing (dimension 4), e.g. among member states of the European Union (European Parliament, 2021).

As a federal country that had started out as a loose confederation of cantons and became integrated, gradually and democratically, Switzerland could be considered as something of a model or test case for international coordination. Corporate taxation is a case in point. As this article aims to document, many of the issues that are currently being negotiated at the international level have been disputed within Switzerland as well, and most have been settled within stable and widely supported institutional structures and informal arrangements.

In this paper, we thus seek to provide an overview of corporate taxation in Switzerland, organized around the four essential dimensions of policy coordination. We describe and discuss current institutional arrangements and the scientific public-finance literature that exists on them. We moreover seek to trace the emergence of those arrangements and the political and economic forces that helped them into being. In a concluding discussion, we tentatively draw parallels with ongoing supranational coordination efforts.

The paper is divided into four main sections. Section 2 provides a cross-canton and historical overview of the corporate tax base, tax rates, and tax revenue, based on newly collected data series reaching back as far as 1949. In Section 3, we discuss various pieces of evidence of corporate tax-base mobility and tax competition among cantons. In Section 4, we describe the historical emergence of codified tax base definitions, a central plank of corporate tax coordination across fiscally autonomous cantons. Section 5 describes and discusses fiscal equalization, the main instrument designed to mitigate potential inequalities arising from decentralized tax setting. A

¹ These are inevitably rough estimates, and they abstract from indirect fiscal effects and behavioral responses. For instance, firms in high-tax countries could convert some of their tax savings on shifted profits into higher wages, dividends or R&D expenditure, which in turn would have positive fiscal effects (see e.g. Hines and Rice, 1994; Hines, 2010; Fuest and Neumeier, 2023).

concluding discussion is provided in Section 6.

2 Corporate taxation in Switzerland: key figures

2.1 Swiss fiscal federalism: three layers of government

Switzerland has three main layers of government, each with its own legislative and executive branch: the Confederation (henceforth “federal government”), 26 cantons and, as of 2023, 2,148 municipalities. Cantons are the member states of the Swiss Confederation, similar to states in the United States or provinces in Canada. All three jurisdictional layers raise taxes on corporate profits.

The cantons were historically – and by some measures have remained – the most important layer of government in matters of taxation: they are administratively in charge of collecting income taxes for the three jurisdictional layers, and they continue to raise the largest share of taxes on personal income, the main tax base.

In terms of corporate taxation, however, the federal government has more prominent role. It formally raises half of consolidated revenue, with the cantons raising about a third and the municipalities less than a fifth. As the federal government rebates around a fifth of its receipts directly to the cantons, total revenue from the corporate tax base is effectively split roughly evenly between the federal and canton layers, each absorbing around 40%.² This is relatively recent state of affairs. From the introduction of federal-level corporate taxation in 1916 up until the mid-1990s, the cantons’ corporate tax revenue had exceeded that of the federal government. Cuts in canton-level tax rates have been associated with a steady erosion of cantonal corporate tax revenue relative to that of the federal government (see Section 2.3).

The legal framework is quite particular as well. According to the federal constitution, the cantons are sovereign to the extent that their sovereignty is not explicitly limited by that same constitution. This means that the cantons may levy any tax they wish, as long as it is in accordance with constitutional principles. Without a constitutional basis, the federal legislator may not enact any law that restricts cantons’ tax policies. The cantons have levied corporate taxes since the middle of the 19th century. Federal taxing rights were given a constitutional underpinning only in 1959. To this day, the federal government’s constitutional right to raising its own taxes on corporate and personal income is subject to a sunset clause. That right was last confirmed in a nationwide referendum in 2017 and will expire in 2035.

Municipalities’ right to tax profits originates in the cantonal constitutions. Their ability to set tax rates and schedules is severely circumscribed by cantonal law. They typically are allowed to raise a top-up tax on the cantonal rates by applying a multiplier on the cantonal rate schedule.

² Until 2019, the share of federal tax receipts returned to the cantons was 17%. That share was increased in 2020 to the current 21.2%.

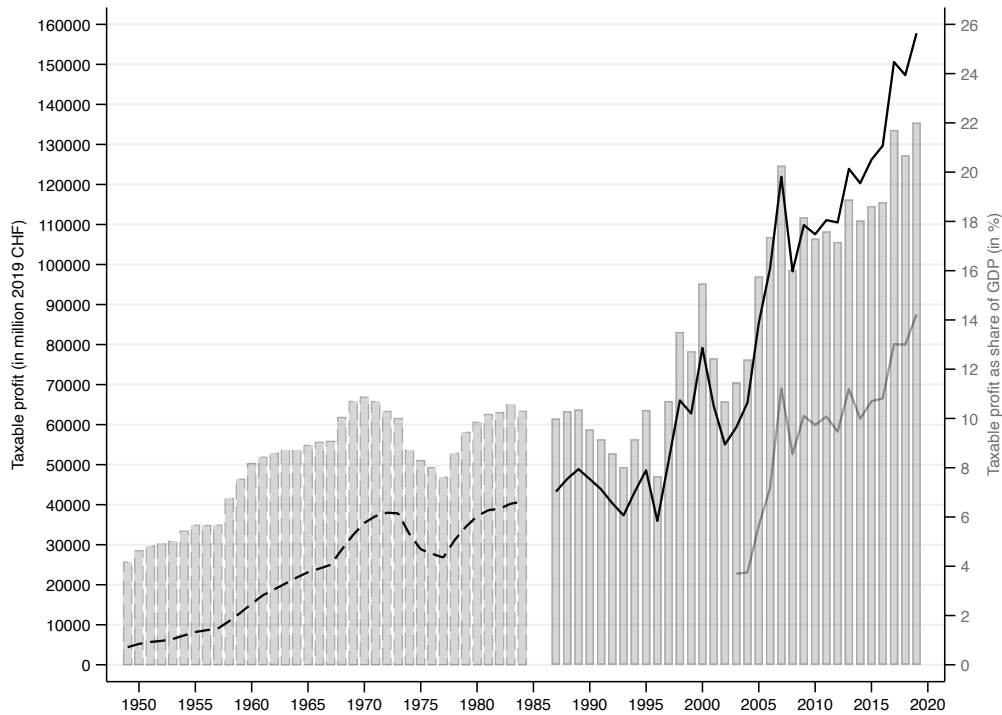


Figure 1: The evolution of total taxable profit in Switzerland

Notes: The figure shows the evolution of nationwide taxable profits in million Swiss francs at constant 2019 prices (black dashed and solid lines, left scale for total profits; gray line, left scale for profits reported by firms subject to privileged taxation), and the evolution of the nationwide taxable profits in % of the GDP (bars, right scale). The data prior to 1987 do not correct taxable profit for deductions due to the firms' shareholdings in other firms, which could imply some upward bias due to double counting. Data for 1985 is missing. Source: own calculation based on Federal Tax Administration (2022a).

2.2 The corporate tax base

Taxable profits and capital are distributed very unevenly across the cantons, and this distribution has changed considerably over time.³

In Figure 1, we show the evolution of taxable profits since 1949 (black dashed and solid lines). A trend break is evident around the mid-1990s: while profits, measured in constant prices, increased moderately between 1949 and the early 1970s, then stopped increasing until the mid 1990s, they have more than quadrupled since.⁴ In 2019, 426,174 firms reported a total of 158 bn Swiss francs (CHF) of taxable profits (one CHF was worth around one USD in 2019).

³ On the legal definition of the corporate tax base and its gradual harmonization, see Section 4.

⁴ The growth acceleration of taxable profits after the mid-1990s roughly coincides with intensifying world-wide cross-border profit shifting in those years, documented by Wier and Zucman (2022). According to that study, the global rise in the share of shifted profits came to a halt in the 2000s. In Switzerland, however, taxable profits kept increasing strongly. Some of the disproportionate increase in tax-privileged declared profits may be due to internationally active firms switching from regular to privileged taxation. Cantons had a stronger incentive to treat firms as status firms after a reform of the fiscal equalization scheme in 2008 (see Section 5 and A.4.3 for details).

This corresponds to some 18,300 CHF per capita, or 22 percent of GDP – up from 10 percent of GDP in 1990 (gray bars in Figure 1).

The main driver behind the recent growth in the corporate tax base were profits reported by tax-privileged “status” firms, whose profits are mainly foreign-sourced (gray line in Figure 1): those taxable profits increased by fully 271% between 2003 and 2018. Status firms were exempt from canton and municipal corporate taxes on income earned abroad. In contrast, profits declared by domestically-oriented firms subject to regular taxation rose by a comparatively modest 93% over the same time period.

Taxable profits have been highly concentrated among relatively few large firms throughout our sample period. In 2019, the top-1% of firms in terms of profits, reporting 32m CHF per firm on average, accounted for 85% of total taxable profits – up from 68% in the early 1970s. At the other end of the spectrum, 55% of registered firms reported zero taxable profits (see Appendix Figure 1).⁵

Corporate profits are strongly concentrated also in the spatial dimension. Figure 2 maps 2019 per-capita taxable profits by canton. Profits range from some 4,000 CHF per inhabitant in the mountainous canton of Valais (VS, population 353,000 in 2021) to 149,000 CHF in the small, semi-urban and centrally located canton of Zug (ZG, population 130,000 in 2021), for a nationwide average of 18,300 CHF. Taxable profits thus differ by a factor of 37 between the least well endowed and the best endowed canton.

The geography of corporate profits and of corporate taxation has changed substantially over time. Figure 3 presents per-capita taxable profits by canton in 1949 and 2019. Looking at the spatial distribution of profits in 1949 (x -axis), it appears that Switzerland emerged from World War II with relatively modest spatial disparities. Basel-Stadt (BS), home to a strong pharmaceutical cluster, had per-capita taxable profit 3.5 times above the national average, while Geneva’s (GE) per-capita profits were 2.3 times above the average. In total, 10 of the then 25 cantons were host to above-average taxable profits, scaled to population. That spatial distribution changed dramatically over subsequent decades. Zug, whose per-capita corporate tax base had been close to the national average in 1949, was host to per-capita profits 6.6 times above the national average by 2019 (y -axis). Only six cantons had above-average per-capita corporate profits in 2019. Were it not for the strong increase in Zug, the spatial dispersion of profits would now look rather similar to that observed 70 years ago. We explore the role of tax policy in the emergence of Zug as such an attractive location for firms and their taxable profits in Section 3.3.

⁵ This analysis defines firms as tax units. These are individual legal entities, some of which are part of corporate groups (Federal Tax Administration, 2022a). Profits of parent firms which stem from subsidiaries in Switzerland or abroad and were already subject to a corporate income tax are not taxed again at the parent level and have thus been subtracted in the data since 1986 to avoid double counting. This is why we show a break in the series in that year for both Figure 1 and Appendix Figure 1.

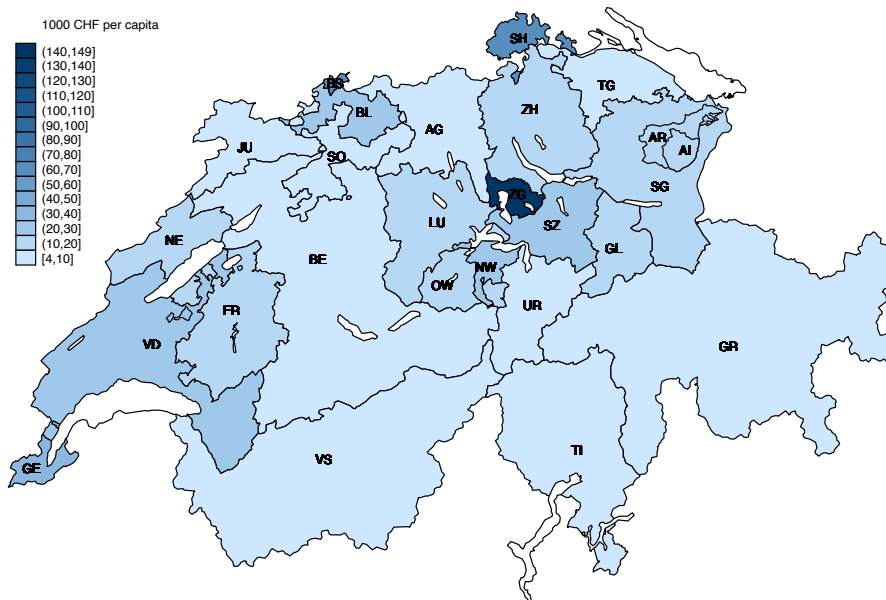


Figure 2: Taxable profits per capita, 2019

Notes: Source: Own calculations based on Federal Tax Administration (2022a).

2.3 Corporate tax rates

Corporate profits are taxed by all three government layers, and corporate equity capital is taxed by cantons and municipalities.⁶ The federal government has been raising a constant 7.8% on all taxable profits since 1998.⁷

Given the considerable variety of corporate tax schedules across cantons and municipalities, we report consolidated effective statutory tax rates for a representative firm. By “consolidated” we refer to the sum of tax bills across the three layers of government. By “effective statutory” we mean the combined statutory tax amount of the profit and the capital tax, and we account for the fact that profit taxes are deductible from their own base.

Regular firms

We first consider domestically-oriented firms, subject to regular taxation already prior to the 2020 reform that abolished preferential taxation. They account for around half of the corporate tax base. In order to compare tax rates across cantons and over time, we take the definition

⁶ Federal-level taxation of corporate equity capital was abolished in 1998.

⁷ Strictly speaking, the commonly cited 7.8% federal profit tax rate is an upper-bound approximation of the true effective federal tax rate. The reason is that in Swiss corporate tax law, taxes are themselves deductible from the tax base. The headline federal tax rate is 8.5%. Considering that the tax payment itself can be deducted, and assuming away sub-federal taxes, this implies an effective tax rate on pre-tax profit of 7.83%. When sub-federal taxes are added, and themselves deducted from pre-tax profits, then the effective federal tax rate will fall below 7.83%. In what follows, we abstract from this subtlety and refer to the federal tax rate as amounting to 7.8%.

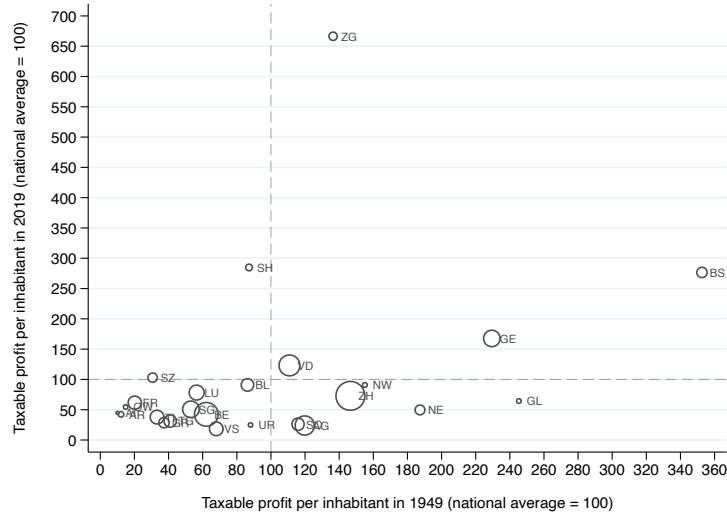


Figure 3: Taxable profits per capita, 1949 and 2019

Notes: The figure shows per-capita taxable profits in the Swiss cantons for 1949 (*x*-axis) and 2019 (*y*-axis). Variable scales are percentage deviations from the national average in the given year. The dotted lines denotes the respective national averages. Circle sizes are proportional to the 2019 canton population. Taxable profits in 1949 are not corrected for deductions due to the firms' shareholdings in other firms. Source: Own calculations based on Federal Tax Administration (1971) and Federal Tax Administration (2022a).

used in available data: an imaginary firm with 2m CHF of equity capital and profits of 240,000 CHF. Such a firm is subject to the top corporate tax rate in most cantons.⁸

Figure 4 maps these tax rates across cantons in 2018, i.e. immediately prior to the recent reform and its associated tax cuts (see Figure 5). Rates ranged from 12.7% in Nidwalden (NW) and 13.6% in Zug, to 25.6% in Basel-City (BS).⁹ Switzerland is probably unique in the world for having such a large variance of corporate tax rates within such a small territory (1.5 times the area of Massachusetts).

In Figure 5, we show the evolution of these corporate tax rates since 1949. Starting from a range of 19.4% to 36.4% in 1949, one can observe a general downward movement in tax rates, and a narrowing of tax differentials – consistent with predictions of tax competition models and with trends observed at the international level (e.g. Fuest and Neumeier, 2023).

The long-run downward trend in corporate tax rates is even more starkly apparent in Figure 6, where we track three different cross-canton averages. Irrespective of weighting, three main phases of corporate tax cutting emerge: the 1980s, the 2000s, and the most recent period since 2019. Average tax burdens weighted by population or by total profits have been above the unweighted average since 2000, suggesting that smaller cantons have cut corporate taxes

⁸ This is also the firm type for which the Swiss Federal Tax Administration provides tax rate data that is closest to the representative firm used by Krapf and Staubli (2020).

⁹ There is also variation within cantons across municipalities, but this variation is much smaller than the one across cantons shown here (see Krapf and Staubli, 2020).

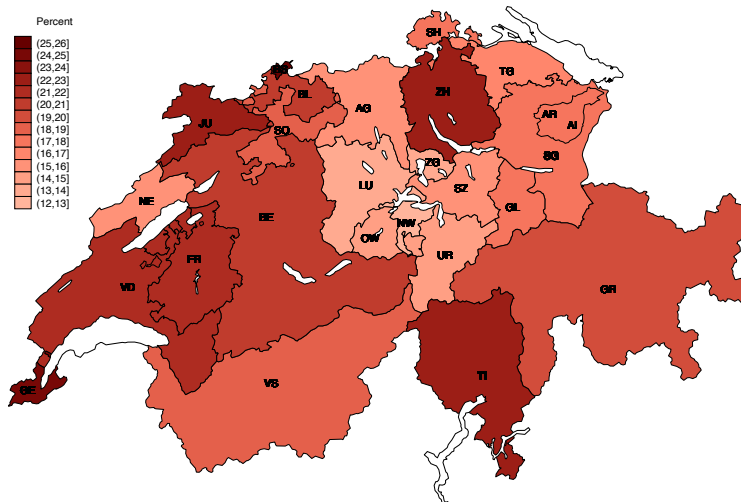


Figure 4: Consolidated effective statutory corporate tax rates on regular firms, 2018

Notes: This figure shows the 2018 consolidated effective statutory corporate tax rate on regular firms in the cantonal capital municipalities. The rate is the consolidated (federal + cantonal + municipal) tax bill for a firm with 2 million capital and 240,000 profit, expressed as a share of that profit. Source: Tax rates from Federal Tax Administration (2018c).

particularly strongly in the last two decades – again consistent with models of (asymmetric) tax competition.

In Figure 7, we illustrate the correlation between changes in tax rates and changes in tax bases, where causation may of course run both ways. Specifically, we show the long-run change in effective corporate tax rates on the two axes, and we draw the symbols proportional in size to the increase in cantons’ per-capita taxable profits over the same time period 1949–2018 (just before the most recent round of canton-level corporate tax reforms). Cantons with below-average corporate tax rates in 2018 turn out on average to have enjoyed somewhat larger increases in taxable profits, a pattern once again most starkly evident for the canton of Zug. This regularity, however, is not universal. The most notable difference is that the three cantons hosting the largest urban areas, Zurich (ZH), Geneva (GE) and Basel-Stadt (BS), have experienced above-average increases in their per-capita corporate tax base despite having moved from the group of cantons with below-average corporate tax burdens in 1949 to the group of cantons with the highest corporate tax burdens in 2018.¹⁰

Tax-privileged firms

Up until the 2020 reform, an important lever of cantons’ strategic tax policy had been special tax privileges granted to firms whose profits were earned mainly or solely abroad: so-called

¹⁰ This observation is consistent with theory and evidence in economic geography suggesting that urban agglomeration economies imply taxable rents (e.g. Brülhart, Jametti and Schmidheiny, 2012). It is also consistent with the finding in Krapf and Staubli (2020) that the corporate tax base reacts less strongly to changing tax rates in urban centers than in more rural jurisdictions.

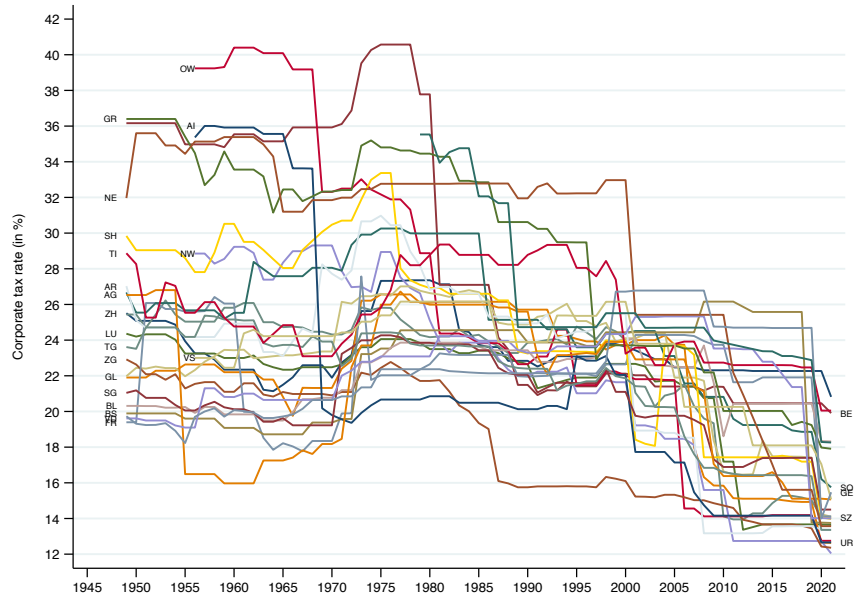


Figure 5: Effective statutory corporate tax rates on regular firms by canton, 1949–2021.

Notes: The figure shows consolidated effective statutory corporate tax rates in the canton capital municipalities from 1949 to 2021 for a firm with 2 million CHF of equity capital and 240,000 CHF in domestically earned profits. Tax rates for the period 1949–1982 were reconstructed using the case of a firm with 1 million CHF of equity capital and 100,000 CHF in domestically earned profit, and linking it to the baseline representative case, for which data are available since 1983. The two series are linked by using the change in tax rates between 1982 and 1983 for the closest case for which the tax rates were available in both years (capital of 100,000 CHF and profit of 20,000 CHF). Source: Tax rates from Federal Tax Administration (Yearly: 1949-2021).

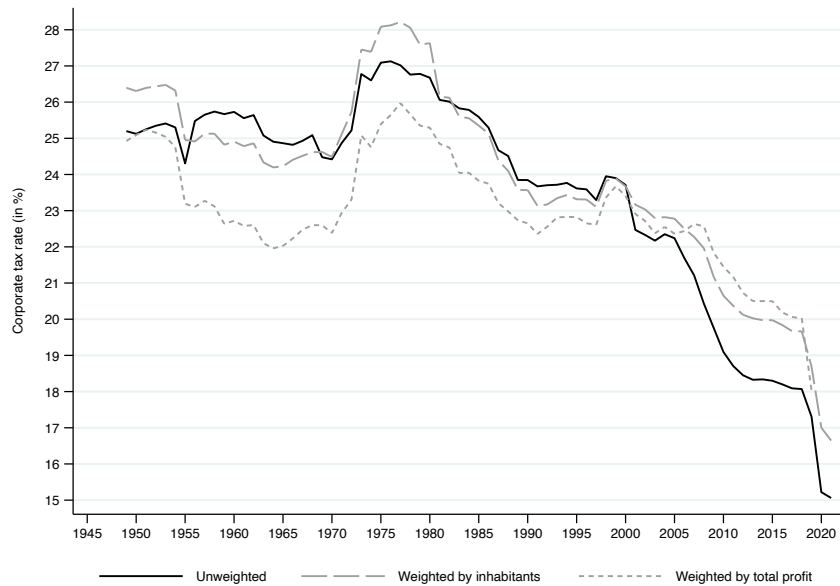


Figure 6: Averaged effective statutory corporate tax rates on regular firms, 1949–2021.

Notes: The figure shows three different averages of consolidated effective statutory profit tax rate across cantonal capital municipalities from 1949 to 2021, for a representative firm with 2 million CHF of equity capital and 240,000 CHF in domestically earned profits. Tax rates for the period 1949–1982 were reconstructed using the case of a firm with 1 million CHF of equity capital and 100,000 CHF in domestically earned profit, and linking to the baseline representative case, for which data are available since 1983. The two series linked by using the change in tax rate between 1982 and 1983 for the closest case for which the tax rates were available in both years (capital of 100,000 CHF and profit of 20,000 CHF). Source: Tax rates from Federal Tax Administration (Yearly: 1949-2021).

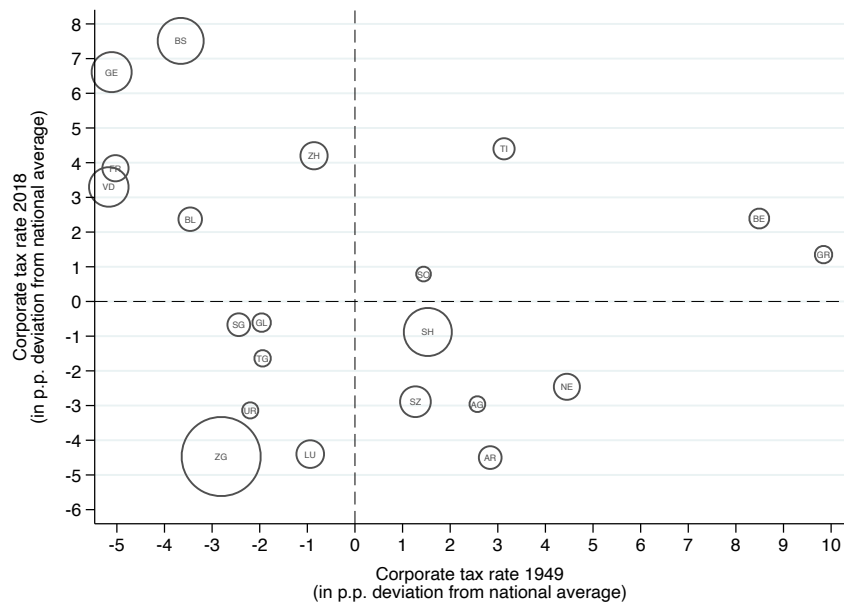


Figure 7: Consolidated effective statutory corporate tax rates and per-capita profits, 1949 and 2018.

Notes: The figure shows the statutory profit tax rate in the cantonal capital municipalities for 1949 and 2018. Tax rates in 1949 are for a firm with 1 million CHF of equity capital and 100,000 CHF in domestically earned profit. Tax rates for 2018 are for a firm with 2 million CHF of equity capital and 240,000 CHF in domestically earned profit. Tax rates are reported in percentage-point deviations from the national average in the respective year. The size of symbols is proportional to the increase in canton-level per-capita taxable profit between 1949 and 2018. Note that tax rates in 1949 are missing in the official statistics for four cantons (AI, NW, OW and VS), because these cantons hosted less than 5 percent of all corporations nationwide (Federal Tax Administration, 1949, p.63). Source: Tax rates from Federal Tax Administration (Yearly: 1949-2021); per-capita taxable profits: own calculations based on Federal Tax Administration (1971) and Federal Tax Administration (2022a).

“status” firms. Those included pure holding and domiciliary firms and “mixed” firms, which report some domestically generated profits and a large share of foreign-sourced profits. Their taxable profits accounted for roughly the other half of the nationwide corporate tax base.

Pure holding firms were - and still are - not taxed by any government layer on the part of profits that they derive from their shareholdings in other firms, a common practice by international standards. More interesting is the case of the so-called domiciliary and mixed firms. Domiciliary firms were fiscally resident in a canton but did not carry out any business activities in Switzerland. Their foreign-sourced income was taxed normally by the federal government but largely exempt from cantonal and municipal corporate taxes.¹¹ “Mixed” firms were allowed to have some profit-generating business activity in Switzerland. For those firms, only the foreign-sourced part of consolidated profits could qualify for exemption from cantonal and municipal corporate taxes. At the federal level, profits of domiciliary and mixed firms were taxed at the standard rate. This has represented an effective backstop on foreign-sourced profits at a rate of 7.8% (since 1998).

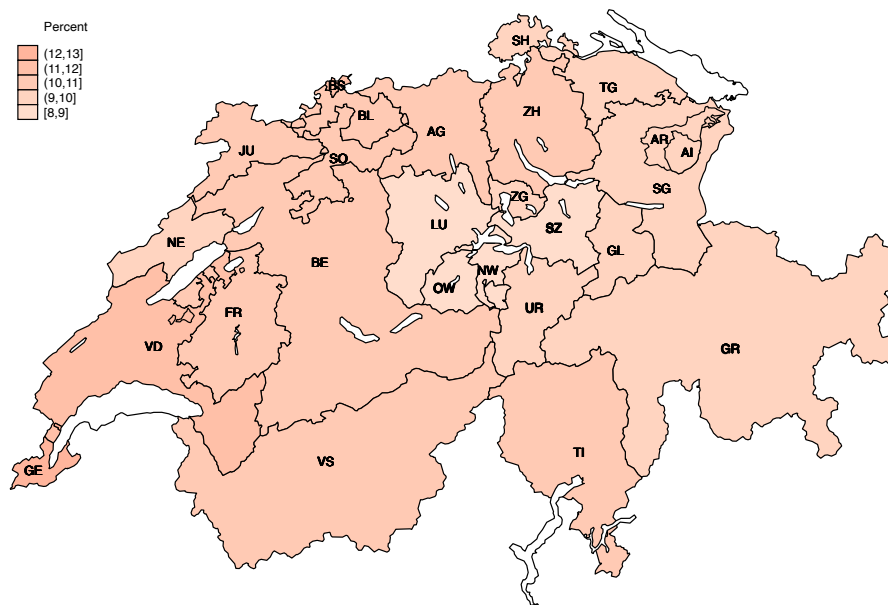


Figure 8: Consolidated effective corporate tax rate on privileged firms, 2016

Notes: The figure maps the 2016 consolidated effective special corporate tax rate in the cantonal capital municipalities. The rate shown is the consolidated (federal + cantonal + municipal) rate for a “mixed” firm with 10 million CHF of equity capital, a 50% rate of return on equity and 95% of foreign-sourced profits. Source: Federal Tax Administration (2018b).

Tax privileges for domiciliary firms have a long history. According to van Orsouw (1995, p. 41), they first emerged 1903, in the canton of Glarus (GL). The exact definition, e.g. whether

¹¹ Domiciliary firms were however subject to taxes on equity capital, and the part of worldwide profits that was attributed to administrative activity in Switzerland was also subject to canton-level taxation. The tax rate on equity capital was lower than for firms subject to regular taxation.

domiciliary firms were allowed to have offices and employees, as well as the extent of tax privileges, differed from canton to canton.¹² These special tax regimes were harmonized in the 1990s (see Section 4).

Figure 8 maps corporate tax burdens on a representative multinational firm in 2016, i.e. prior to the recent abolition of such privileges. The scale of the tax rates shown, ranging from 8.7% to 12.1% makes it clear how attractive those privileges were, in both national and international comparison. Recall that regular rates were up to twice as high, ranging between 12.7% and 25.6% (Figure 4). Differences across cantons in consolidated tax rates on multinational profits were considerably smaller than those in regular tax rates – which is partly a mechanical effect of the 7.8% federal tax rate which imposed a nationwide floor. Like the regular rates, low preferential rates were concentrated among mostly smallish cantons in central Switzerland, whereas the highest preferential rates were applied in the urban cantons of Geneva (GE) and Basel (BS).¹³

Tax privileges aimed at multinational profits conducive to cross-border shifting were abolished in 2020, following a nationwide referendum in 2019 (for details, see Appendix A.3). The impetus for this reform came from outside of Switzerland, through political pressure from the OECD and other supranational bodies. As a response, most cantons further lowered their regular corporate tax rates between 2019 and 2021 (Figure 9), in line with the prediction of tax competition models (e.g. Keen, 2001).¹⁴

2.4 Corporate tax revenue

We map the geography of per-capita sub-federal corporate tax revenues in Figure 10. These revenues are the result of multiplying corporate tax bases (Section 2.2) with the relevant corporate tax rates (Section 2.3). The large intra-national variance once more becomes apparent: per-capita corporate tax revenues in the highest-revenue canton (Zug, ZG) exceed that of the lowest-revenue canton (Uri, UR) by a factor of 12. The geography of revenues does not, however, correlate particularly well with the geography of tax rates (Figures 4 and 8). The historically relatively high-tax urban cantons of Basel-Stadt (BS), Geneva (GE) and Zurich (ZH) all collect above-average per-capita corporate tax revenues – evidence again consistent with taxable urban agglomeration rents.

¹² Appendix Table 3 provides a list of all rules governing taxation of holding and domiciliary firms in the Swiss cantons in 1947. The status of “mixed” firms appeared later, unofficially first in Zug, and then spread to other cantons through tax-base harmonization, see Sections 3.3 and 4. All cantons bar Appenzell Innerrhoden (AI) and Uri (UR) have long granted special tax treatment to holding firms, either in the form of deductions in proportion to their shareholdings in other firms or by applying only a special tax on equity capital.

¹³ Differences in privileged rates stemmed entirely from differences in regular rates (from which status firms were partly exempt). There were no legal differences in privileged tax regimes across cantons, but administrative practices could have varied

¹⁴ In addition, new tax instruments were introduced that are internationally accepted while allowing to keep effective rates low on some particularly mobile segments of corporate income. The main instruments are patent boxes and additional deductions for R&D expenditure. See Appendix A.3. An interesting detail is that while the urban cantons of Geneva (GE) and Basel-Stadt (BS) reduced their regular rates strongly, Zurich (ZH), the largest urban canton, did not do so (see Figure 9). This appears to be motivated by Zurich needing to maintain a high tax rate in order to be able to introduce an allowance for corporate equity (ACE) that favors its large financial services sector. Despite largely harmonized tax bases (see Section 4), cantons’ policy toolkit continues to contain instruments beyond the statutory tax rate, allowing them to optimize in different ways.

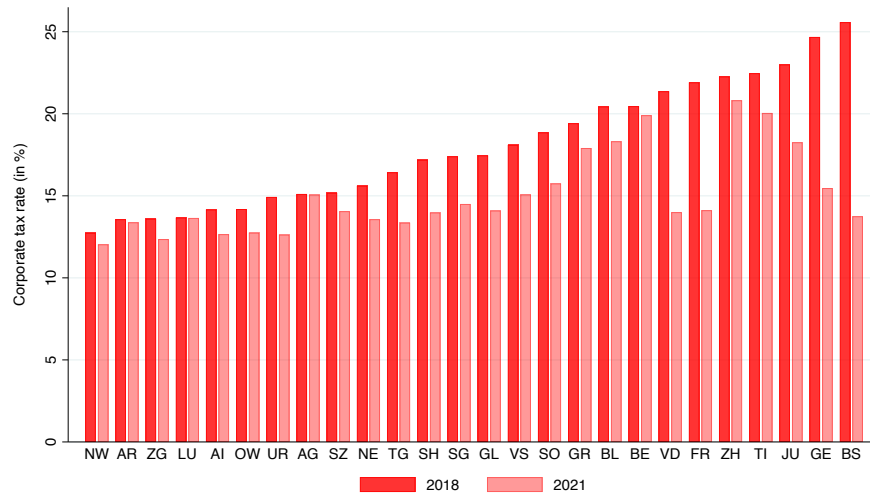


Figure 9: Consolidated effective statutory corporate tax rates before and after the 2020 reform

Notes: This figure shows the 2018 and the 2021 consolidated effective statutory corporate tax rate in the cantonal capital municipalities. The rate is the consolidated (federal + cantonal + municipal) tax bill for a firm with 2m CHF of equity capital and 240,000 CHF of taxable profit, expressed as a share of that profit. Source: Tax rates from Federal Tax Administration (2021b, 2018c).

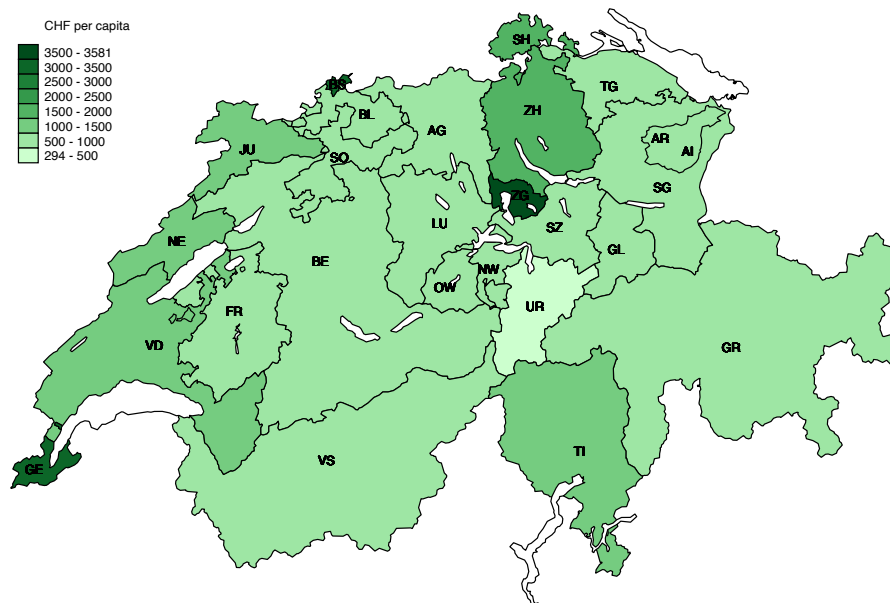


Figure 10: Sub-federal corporate tax revenue, 2020

Notes: The map shows consolidated cantonal plus municipal revenue from profit and corporate equity capital taxation in 2020. Source: Federal Department of Finance (2023b).

Revenue from corporate taxation has been steadily increasing in recent decades, both in per-capita real terms (Figure 11) and as a share of total tax revenue (Figure 12). The revenue-share perspective of Figure 12 is particularly interesting. It shows that, scaled by total tax revenues, the income from sub-federal corporate taxation has overall been flat. Hence, the static revenue loss from falling tax rates (Figures 5 and 6) was roughly compensated by the expansion of the corporate tax base (Figure 1).

A very different pattern emerges at the federal level. Despite an unchanged effective 7.8% corporate tax rate since 1998, federal per-capita corporate tax revenue has more than doubled since then (increase of 140%, see the thick black line in Figure 11). As a result, the share of corporate taxes in total federal tax revenue has almost doubled over the same period (increase of 87%, see the thick black line in Figure 12). In purely fiscal terms, the main beneficiary of the expanding tax base, therefore, has been the federal government.

Federal-level corporate taxation has acted as a “backstop” to a race to the bottom in cantonal taxes. It did so mechanically, by raising the floor of the consolidated corporate tax rate, and perhaps also strategically, by lessening the incentives for additional canton-level tax cuts. Such an incentive effect can arise from the vertical externality in a federation with tax-base cohabitation by more than one government layer. In such a system, lower-level jurisdictions may not internalize tax-base effects on the federal government and therefore will not push down tax rates on mobile bases as far as in the absence of a federal government layer (Keen and Kotsogiannis, 2002). According to that, the cantons would have lowered their corporate tax rates even more in a counterfactual scenario without a federal government.¹⁵

3 Tax competition among the cantons

Switzerland is often thought of as a sort of fiscal microcosm, especially with respect to tax policy choices by jurisdictions that compete for mobile tax bases. But is tax competition really a plausible driver of the fiscal landscape we observe in the Swiss cantons? After all, competition is not a directly observable mechanism. We therefore aim in this section to add further evidence on the importance of tax competition to cantons’ policy choices.

Several patterns already documented in Section 2 are consistent with corporate tax competition as a significant determinant of canton-level corporate taxation:

- Cantons have gradually lowered their corporate tax rates, but the (much larger) federal government has not.
- Smaller/rural cantons lowered their corporate tax rates more than larger/urban cantons.
- Cross-canton differences in corporate tax rates have narrowed over time.
- Cantons reacted to the abolition of privileged taxation of particularly mobile multinational profits in 2020 by cutting their regular corporate tax rates sharply.

¹⁵ A more carefully specified empirical analysis of Swiss sub-federal taxes suggests that the predictions of models with vertical tax externalities hold also in the Swiss context (Brühlhart and Jametti, 2006).

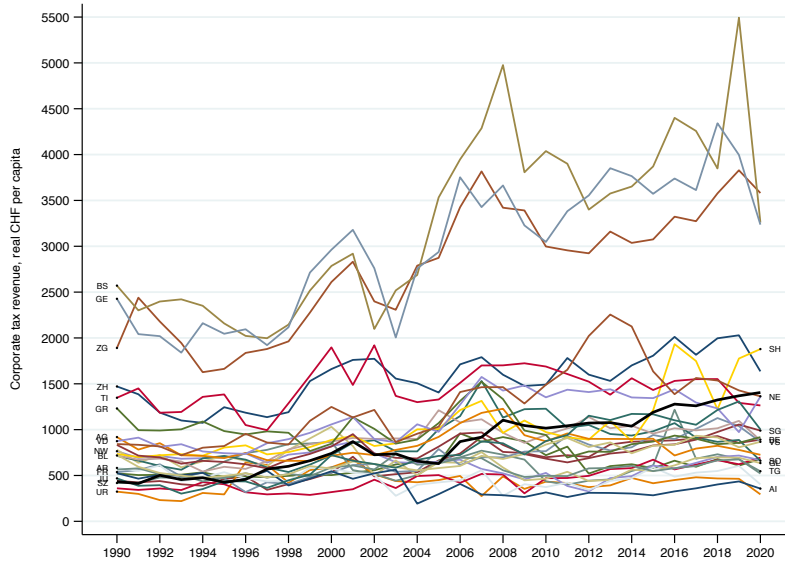


Figure 11: Corporate tax revenue per capita, 1990–2020

Notes: The figure shows consolidated cantonal plus municipal revenue from corporate taxation in constant CHF per capita (2015 prices). The thick black line shows federal-level corporate tax revenue. Source: Swiss Federal Finance Administration and State Secretariat for Economic Affairs.

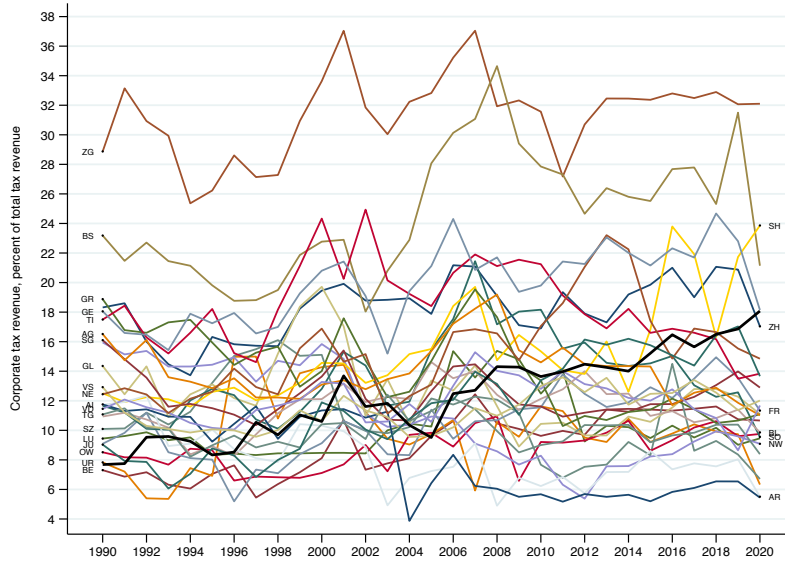


Figure 12: Corporate tax revenue as a share of total tax revenue, 1990–2020

Notes: The figure shows consolidated cantonal plus municipal revenue from corporate taxation as a share of total tax revenue. The thick black line shows federal-level corporate tax revenue as a share of total federal tax revenue. Source: Swiss Federal Finance Administration.

Below, we provide three additional pieces of evidence on this issue: estimates of the elasticity of the corporate tax base, estimates of spatial tax reaction functions, and a case study of the fiscally particularly successful canton of Zug.

3.1 The elasticity of canton-level taxable profits

The key parameter determining optimal corporate tax policy in a small open jurisdiction is the elasticity of taxable corporate income. Loosely speaking: the greater the elasticity and the more it is driven by mobility, the stronger are the pressures of tax competition.

Krapf and Staubli (2020) have estimated this elasticity using data for Swiss cantons and municipalities. They find the elasticity to be large in remote locations and essentially zero in cities. This finding is in line with previous research that found agglomeration economies to attenuate tax-base elasticities in Switzerland (Brühlhart et al., 2012; Luthi and Schmidheiny, 2014).¹⁶

In the following, we take a closer look at the experience of the canton of Lucerne, which cut its corporate tax rate by more than one third in the early 2010s.¹⁷

Figure 13 shows the evolution of corporate tax rates in Lucerne and in a group of comparison cantons used to form a ‘synthetic control group’. Lucerne lowered its corporate tax rate by 7.6 percentage points between 2010 and 2012 (left-hand panel of Figure 13), which corresponds to an increase in the net-of-tax rate of 9.6% (right-hand panel).¹⁸

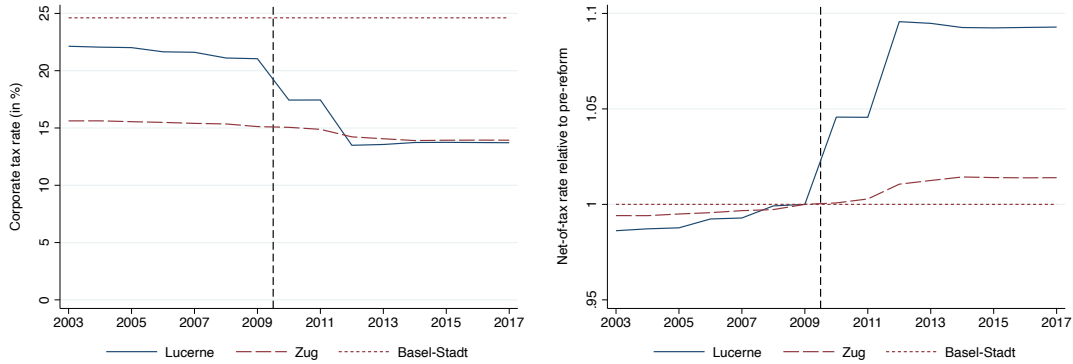


Figure 13: The treatment: Lucerne vs. comparison cantons

Notes: The figures show evolutions of the consolidated (federal + cantonal + municipal) effective corporate tax rates (average across municipalities weighted by profits) and the corresponding net-of-tax rates in the treatment canton Lucerne and in the comparison cantons used to construct synthetic controls for the two experiments.

¹⁶ Estimating a distributed-lag model on a panel including the universe of Swiss municipalities, Krapf and Staubli find that an increase in a jurisdiction’s corporate net-of-tax rate by 1% results in an increase in aggregate corporate taxable income of around 3.5%. This effect becomes small and insignificant if they weight by initial tax base, which is large in cities.

¹⁷ For details, see Krapf and Staubli (2020).

¹⁸ Lucerne’s tax cut seems not to have been endogenous to (anticipated) changes in the corporate tax base. In the spirit of Romer and Romer (2010), Krapf and Staubli (2020) analyze the official information booklet provided to voting citizens by the Lucerne government prior to the referendum that sanctioned the proposed tax cuts. They find no evidence that the government reduced tax rates in response to prior increases in taxable profits or because they anticipated an increase in profits which enabled them to lower tax rates.

Figure 14 shows that the reform was followed by a significant increase in taxable profits. Given the cumulative increase in the consolidated net-of-tax rate by 9.6%, the observed response by 2012 implies a net-of-tax-rate tax-base elasticity of around 5, or an elasticity with respect to the tax rate of -1.4 . This is close to the break-even elasticity, estimated for Lucerne to have been around -1.5 .¹⁹ In other words, the corporate tax base may have grown sufficiently for the Lucerne corporate tax cut to have been revenue neutral – especially if revenue effects through other cantonal taxes, e.g. on personal income, were added to the calculation. This example shows that, from the point of view of an individual canton, the corporate tax base can be highly elastic.

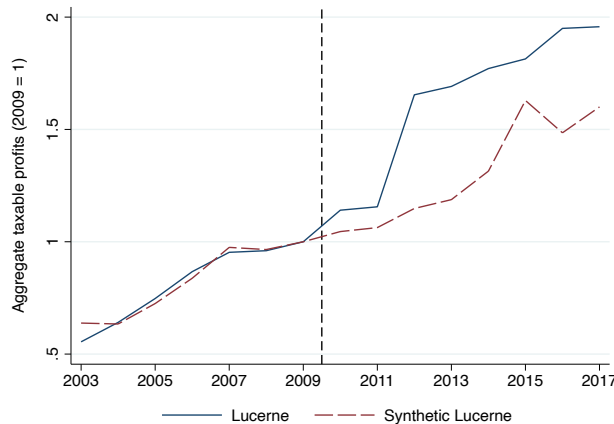


Figure 14: Treatment effects: Lucerne vs. comparison cantons

Notes: The figure shows aggregate taxable profits in the treated canton Lucerne vs. the synthetic counterfactual relative to the pre-reform year 2009. ‘Synthetic Lucerne’ consists of the cantons of Zug (75.4%) and Basel-Stadt (24.6%).

3.2 Tax reaction functions

Estimated spatial tax reaction functions can serve as another indirect indicator of competition over a mobile tax base (see e.g. Brueckner, 2003). The idea is straightforward: if cantons’ tax policy were indeed driven at least in part by competition over a mobile tax base, we would expect their close neighbours to respond more strongly than cantons located further away, because firms likely consider proximate cantons as closer locational substitutes than distant cantons (see e.g. Agrawal, 2015).

Results for panel regressions of canton-level corporate tax rates on lagged neighbor-canton tax rates are shown in Table 1. These estimates are based on a rather small dataset, and it is therefore not surprising that the estimates are somewhat imprecise, especially when we condition on time fixed effects and other controls. However, we note that all coefficients that pass statistical significance tests at conventional levels are positive. In other words, this evidence

¹⁹ This estimate considers both the vertical fiscal externality, whereby the canton also partly benefits from increased federal tax revenue, and the mechanical effect, whereby taxable income increases after a tax cut even absent a behavioral response because of the deductibility of the tax itself.

Table 1: Tax reaction functions across cantons, 2004-2011

	Regular firms			Tax-privileged firms		
	[1]	[2]	[3]	[4]	[5]	[6]
Tax rate neighbor in $t - 1$	-0.327 (0.334)	-0.139 (0.233)	0.118 (0.227)	-0.056 (0.117)	0.304* (0.168)	0.341 (0.223)
Tax rate neighbor in $t - 1$ x Post 2008	0.383*** (0.132)	0.241 (0.158)	0.023 (0.188)	0.268*** (0.096)	-0.010 (0.059)	-0.100 (0.091)
Canton fixed effects	yes	yes	yes	yes	yes	yes
Time fixed effects	yes	yes	yes	yes	yes	yes
Canton-specific trends	no	yes	yes	no	yes	yes
Controls	no	no	yes	no	no	yes

Notes: Panel regression with $N = 208$ observations (26 cantons, 8 years). Dependent variable is the effective consolidated (federal + cantonal + municipal) profit tax rate for a firm with 2m CHF equity capital and 160,000 CHF taxable profit and for e for a “mixed” firm with 10m CHF equity capital, a 50% rate of return on equity and 95% of foreign-sourced profits. The explanatory variable is the average profit tax of all adjacent cantons for the previous year. The interaction with a dummy variable for 2008 and thereafter stands for the introduction of a new fiscal equalization scheme. Controls are population in logs, real estate price index, crime rate, share non-working population, share foreigners, share underage population, share older population. Robust standard errors robust clustered at the canton level. R2 after partialling out canton effects. Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Source: Brühlhart and Schmidheiny (2013).

is consistent with neighbor-canton corporate tax rates being strategic complements. We also note that spatial correlations of tax rates on regular firms are more positive after 2008, i.e. subsequent to the introduction of a new nationwide fiscal equalization system (which we discuss in detail in Section 5).

Distance-based spatial interaction functions that neighboring jurisdictions are fiercer competitors than jurisdictions located far from each other. Therefore, they are informative about strategic interactions only to the extent that firms’ locational preferences, conditional on local corporate tax rates, are distributed smoothly in space. In reality, however, those preferences may be highly irregular, with firms seeking to co-locate in clusters (e.g. in financial services) or requiring certain exogenous locational amenities. The canton of Zug, which we analyze next, is a case in point.

3.3 The interesting case of the canton of Zug

The small canton of Zug (population 127,000) is known within Switzerland for its low statutory tax rates (Figure 7) and its exceptionally large per-capita taxable profits (Figure 8). How did Zug become this economically highly successful low-tax location? In Figure 15, we track

the evolution both of corporate tax rates and of per-capita taxable profits over the last seven decades.²⁰

Zug emerged from World War II with per-capita taxable profits close to the national average. Taxable profits then suddenly more than doubled in the late 1950s, and continued to increase until 1980, by which time they had reached a level equivalent to ten times the national average. In a ranking of cantons by per-capita taxable profits, Zug jumped from eighth in 1950 to first in 1959, a position which it has held ever since (see also Figure 2).

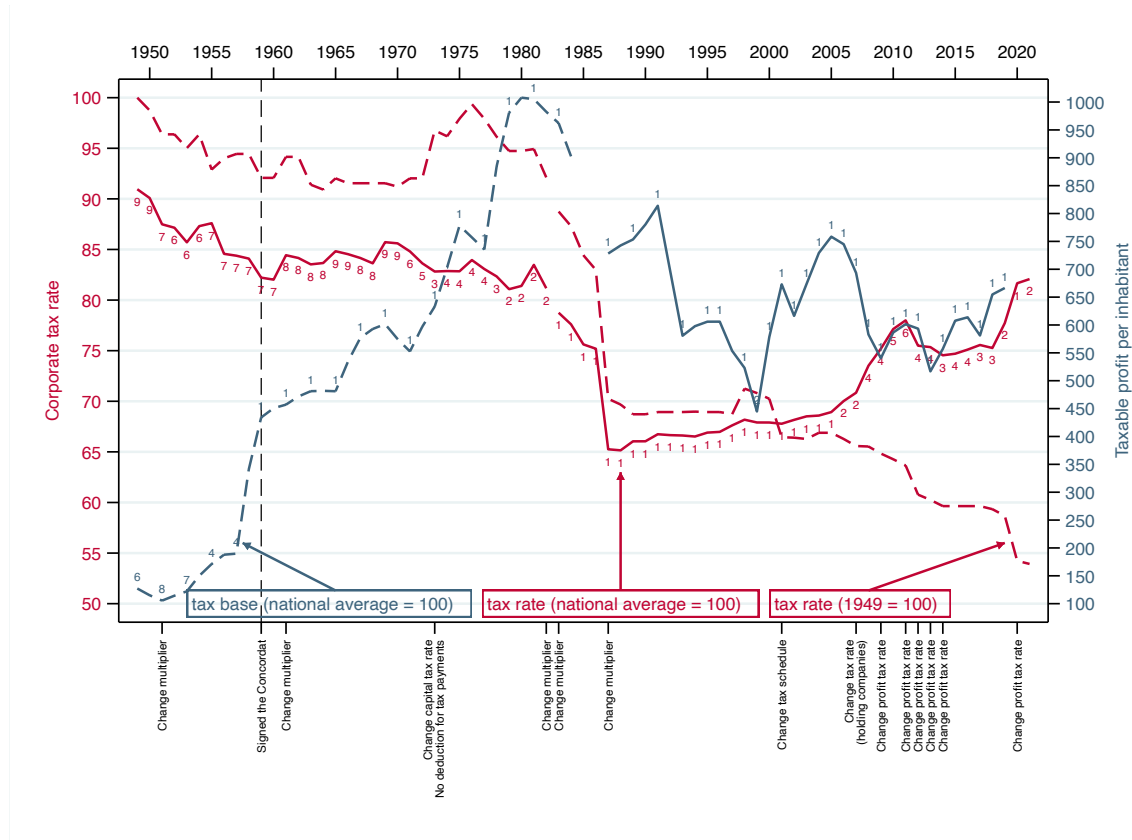


Figure 15: Tax reforms and per-capita taxable profits in Zug, 1949–2021.

Notes: The figure shows the evolution between 1949 and 2021 of the consolidated effective statutory profit tax rate in the capital municipality of the canton of Zug (left scale, red solid line: in percent deviation from national average; red dashed line: in percent deviation from 1949), and of the per-capita canton-level corporate taxable profit (right scale, solid blue line: with deduction for shareholdings in other firms; dashed blue line: without deduction for shareholdings in other firms). The tax rate for 1949–1982 corresponds to the statutory tax rate for a firm with 2 million CHF of equity capital and 240,000 CHF in profits. Tax rates for the period 1949–1982 were reconstructed using as baseline the case of a firm with 1 million CHF of capital and 100,000 CHF in profits, and combining it with the above-mentioned case available for the period 1983–2019. The two series have been combined by using the change in tax rate between 1982 and 1983 for the closest case for which the tax rates were available in both years (equity capital of 100,000 CHF and profit of 20,000 CHF). Numbers next to lines refer to the rank among all cantons. The main changes to the corporate tax code are reported below the x-axis. Source: Tax rates from Federal Tax Administration (Yearly: 1949–2021). Per-capita taxable profit: own calculations based on Federal Tax Administration (1971) and Federal Tax Administration (2022a).

Could tax policy explain this evolution? Zug has indeed been cutting its corporate tax rate by about half since 1949 (dashed black line in Figure 15). As shown in Section 2, Zug was not

²⁰ These are new data series compiled from recently digitized archival documents kept by the Swiss Federal Tax Administration.

alone in cutting corporate taxes (see Figure 5). However, its tax-rate reductions were stronger than the average, moving it from the 9th-lowest tax rate in 1949 to the lowest in 1983 (solid black line in Figure 15).

Interestingly, however, Figure 15 shows that Zug’s taxable profits soared before the main tax cuts were enacted. We observe dramatic increases in the corporate tax base in the late 1950s and throughout the 1970, with a largely unchanged level since 1980. Yet, Zug’s corporate tax rate fell more strongly after 1980 than before – both in absolute terms and relative to the other 25 cantons. The main statutory tax cuts were enacted around 1985, at a time when growth of the corporate tax base had already peaked. It therefore appears that, at least in the sense of Granger causality, tax cuts were a consequence rather than a cause of soaring taxable profits.

An additional indication that low statutory corporate taxes were not the main determinant of Zug’s success as host for taxable profits can be found when considering the post-2000 period in Figure 15. Because of corporate tax cuts in other cantons, Zug lost its status as the canton with the lowest corporate tax rate around 2005, and temporarily slid to 6th place. This notwithstanding, taxable profits booked in Zug do not seem to have shrunk, and Zug has maintained its position as the canton with the highest per-capita profits.

What, then, were the causes for Zug’s success in attracting profitable firms, considering that strategic cuts to statutory tax rates do not seem to be a plausible explanation? Was Zug lucky, perhaps by dint of its geography (close to Zurich), and was its fiscal policy more reactive than strategic? It turns out that the initial jump in taxable profits of the late 1950s occurred shortly before Zug signed a “concordat” of consenting cantons to rule out individual tax deals and to exchange information (see Section 4.1 below). A possible explanation for the sudden increase in corporate profits could be favorable individual tax deals granted shortly before they became illegal. Another (complementary) explanation is the practice of privileging so-called “mixed (domiciliary) firms”. Cantons defined domiciliary firms very differently but all of them would forbid any business activity within Switzerland. In the late 1950s, Zug was the first canton to allow domiciliary firms to have up to 20% of domestic turnover (van Orsouw, 1995, p. 112).²¹ Only a quarter of the income generated abroad by such firms was subject to tax, while the income generated in Switzerland was taxed in full. This practice arguably attracted many domiciliary firms into the canton of Zug, thereby growing the tax base and allowing rates to be cut.²² The neighboring canton of Schwyz later adopted this practice. In both cantons, however, there was no written documentation and no legal basis other than a generous application of the domicile privilege (van Orsouw, 1995, p. 113). This practice was later codified and spread in all cantons through the formal tax harmonization of cantonal tax laws. We take a closer look at

²¹ van Orsouw (1995, pp. 65-9) documents extensive lobbying by Zurich-based corporate lawyer Eugen Keller-Huguenin as early as the 1920s. Keller-Huguenin argued that it would be politically impossible to confer tax privileges to domiciliary and holding firms in a canton as large and socially divided as Zurich (van Orsouw, 1995, p. 56). Zug, as a small canton within commuting distance within the city of Zurich and having an attractive lakeside location, seemed more suitable to him. van Orsouw (1995, p. 104) argues that a “service-oriented attitude of the cantonal tax administration,” a favorable political environment and the presence of specialized lawyers and trustees were other reasons for Zug’s eventual success.

²² Newspaper reports confirm that the Zug government repeatedly justified statutory tax cuts with higher-than-expected tax revenue (Die Tat, 1955; Neue Zürcher Nachrichten, 1977).

the history of (corporate) tax harmonization in Switzerland in Section 4.

In sum, it would appear that the emergence of Zug as a low-tax magnet for corporate profits was driven less by deliberate and transparent forward-looking policy on statutory tax rates and more by less visible changes to important details of tax-base delineation and tax administration. Which in turn implies that attempts at coordinating corporate taxation among fiscally autonomous jurisdictions need to focus not only on statutory rate schedules but also – and perhaps more so – on statutory and applied definitions of the corporate tax base. This is the issue to which we turn next.

4 The long road to tax base harmonization

A central feature of the current Swiss system is “formal” tax harmonization among the cantons: despite cantonal sovereignty, largely consensual agreement has been found over time to constrain intra-national tax competition to statutory tax rates as the sole policy instrument. Tax bases were harmonized in two main steps: (a) a voluntary “Concordat” first signed by consenting cantons in 1949 to rule out individual tax deals and to exchange information, and (b) a landmark federal law, mandating common tax base definitions for all cantons since 1993 (Federal Tax Harmonization Act, FTHA).

In this Section, we briefly describe the content and genesis of those two harmonization agreements, and we seek to identify the economic and political forces that gave rise to them.

4.1 Voluntary cooperation and its limitations: the “Concordat”

Following sporadic but unsuccessful initiatives going back several decades, a group of canton-level finance ministers decided in the late 1940s to take joint measures against the proliferation of special deals granted by cantonal tax authorities to individual taxpayers.²³ Tailored individual agreements had become common, especially in order to facilitate the establishment of new businesses in economically lagging regions and to lower the tax burden on businesses in which the public sector held significant stakes. Other, less transparent deals, also seemed to be offered. Such agreements came to be viewed as fanning increasingly fierce competition among cantons to attract lucrative taxpayers, and as complicating tax administration.

A subset of cantons agreed to act collectively: the Conference of Cantonal Finance Directors (CCFD) sought a solution by way of a voluntary agreement, named “Concordat”. Thirteen of the then 25 cantons agreed on the Concordat in 1948, which came into force after approval of the Federal Council in 1949 (NZZ, 1949; Federal Tax Administration, 2018a). Most of the initial

²³ A discussion about harmonizing canton-level taxes first arose after the federal government introduced its own taxes on income and wealth in 1916. In 1920, the tax law professor Ernst Blumenstein prominently called for the cantonal tax laws to be harmonized with the federal tax law (Blumenstein, 1932/33, cited in Cavelti and Greminger, 2010). The idea was not taken up by policy makers at the time. After the Second World War, in 1945, the Canton of Zurich submitted a cantonal initiative (“Standesinitiative”), which called for the federal government to address tax harmonization (SRF, 1977). The federal government rejected this initiative, arguing that it would violate cantonal tax sovereignty (Federal Tax Administration, 2022b).

13 signatory cantons were majority-Protestant and German-speaking, with the Catholic dominated and non-German-speaking cantons joining later. Cultural and political allegiances would therefore seem to have been the main drivers of self-selection into the agreement, dominating economic and fiscal interests.

The national debate about canton-level individual tax deals continued and culminated in a constitutional amendment which authorized the federal parliament to enact legislation against individual agreements with “unjustified tax advantages”. This amendment was passed in a nationwide referendum in 1958. The federal government announced that it would not take any measures against signatories of the Concordat, which prompted all remaining cantons to join by 1960.

Through the Concordat, the cantons committed to abstaining from concluding tailored agreements with individual taxpayers. However, full or partial tax holidays lasting to up to ten years were still permitted for newly opened industrial plants deemed to be of broader economic interest. The Concordat moreover instituted an early form of tax information exchange: origin and destination cantons of relocating households and firms committed to sharing their respective tax assessments upon request.

In the 1960s, expert opinion came to perceive a remaining need for greater harmonization. According to NZZ (1969), the impetus did not come from voters or lobby groups but from experts and canton-level policy makers, who recognized the increasing complexity of administering 25 different tax laws when an increasing number of firms and individuals had taxable income in multiple cantons.²⁴

In 1971, an official working group proposed an intercantonal agreement to implement full harmonization of tax bases, and a new Concordat was drafted (NZZ, 1971). During those deliberations, the involved experts and canton representatives concluded that it was important also to align federal income taxes with the harmonized principles (vertical tax harmonization; Höhn, 1973). However, already in 1969, doubts had been raised by experts that a voluntary agreement would be sufficient unless the federal government was given the competence to enforce it if necessary (NZZ, 1969). One reason was that a new Concordat would only allow horizontal but not vertical tax harmonization. A second reason was that joining the Concordat would be voluntary for the cantons, and that compliance by all was therefore not assured (Federal Council, 1976; Cavelti and Greminger, 2010).

4.2 Mandated cooperation: the Federal Tax Harmonization Act

The legal definition of taxable profits and capital has been harmonized across all cantons as well as across the three government layers since 2001, based on a law adopted by nationwide

²⁴ “Important preparatory work” (SRF, 1971) had been carried out in 1967 under the supervision of Ernst Höhn at the University of St. Gallen. The study compared cantonal tax laws and brought to the attention of the public and of policy makers how confusing the Swiss tax system was. Swiss television summarized the study saying that “we not only have a hopeless tax mess, but also that the tax regulations of the cantons are moving further and further apart from each other” (SRF, 1977).

referendum in 1990 and in force since 1993: the Federal Tax Harmonization Act (FTHA).²⁵

4.2.1 The genesis of the FTHA

The 1990 FTHA is a much more comprehensive set of rules than the agreement of the 1949 Concordat. It makes effective tax differentials across cantons highly transparent: since tax bases are harmonized by law, it now suffices to compare tax rates. The law was passed in 1990 by large parliamentary majorities (121 votes to 4 in the National Council, 35 to 2 in the Council of States). The law is based on a constitutional amendment approved in 1977 by 61.2% of voters nationwide (it had been adopted by parliament with 183 votes to 1 in the National Council, 22 to 3 in the Council of States).

The cantons had eight years after the federal law came into force in 1993 to bring their tax laws into line with the FTHA.²⁶ The law regulates the tax liability, the tax object, the timing of assessment, the procedure and the criminal tax law.²⁷ The FTHA obliges cantons to levy a tax on personal and corporate income and on personal wealth and corporate equity capital, among others. For these taxes, the law regulates how the tax base is to be determined.²⁸ To this end, the law contains rules on taxable income components and admissible deductions. The FTHA stipulates the principle that the income statement under commercial law also determines taxable profits, unless the tax law provides for a deviation.²⁹ The FTHA also generalized the rule that corporate taxes themselves should be deductible, and it standardized the privileges for status firms.

What were the economic and political forces behind this agreement, and could there be parallels to current discussions on corporate tax harmonization at the international level? We attempt to shed light on these questions by providing a selective summary of the genesis of the FTHA.

²⁵ Federal Law: Bundesgesetz über die Harmonisierung der direkten Steuern der Kantone und Gemeinden (FTHA) vom 14. Dezember 1990. Available online at https://fedlex.data.admin.ch/eli/cc/1991/1256_1256_1256. Circulars by the federal tax administration, harmonizing details of implementation: Kreisschreiben und Rundschreiben der Eidgenössischen Steuerverwaltung seit 1980, bzw. 2004. Available online at <https://www.estv.admin.ch/estv/de/home/direkte-bundessteuer/fachinformationen-dbst/dbst-kreisschreiben.html> and <https://www.estv.admin.ch/estv/de/home/direkte-bundessteuer/fachinformationen-dbst/rundschreiben.html>.

²⁶ The FTHA is limited to income and wealth taxes (often referred to as “direct” taxes, as opposed to consumption taxes, referred to as “indirect” taxes). Not affected by harmonization, moreover, are a range of fiscally less important taxes such as inheritance and gift taxes and specific taxes on real estate and real-estate transactions.

²⁷ This form of federal-level intervention in cantonal autonomy is referred to in Switzerland as “formal” tax harmonization – distinct from “material” or “substantive” harmonization, which would involve constraints on tax rate schedules. To this date, the Swiss constitution explicitly forbids “material” tax harmonization. Federal taxes also had to conform with the principles of the FTHA. The corresponding adjustments to the federal corporate and personal income tax came into force in 1995.

²⁸ An important aspect in terms of tax administration is that the FTHA prescribes one-year present-based tax assessment (“postnumerando”). This means that taxpayers owe taxes in a given year for income earned in that same year. Before the FTHA, biannual backward-looking tax assessment had been standard (so-called “praenumerando”). This meant, for example, that taxpayers in 1993 and 1994 owed taxes for average income and wealth in 1991 and 1992.

²⁹ Art. 24 paragraph 1 the FTHA states three adjustments that have to be made for tax purposes starting from the income statement: correct for expenses charged to the income statement that are not justified by the business (e.g. if the manager-owner’s wage is higher than what is in line with market wages); add capital gains, liquidation gains and revaluation gains not credited to the income statement; and add interest on hidden equity.

The initiative for the first concrete steps towards achieving tax harmonization beyond the Concordat came from canton-level finance ministers.³⁰ In 1968, the CCFD appointed a commission of practitioners and academics to craft a model law for the cantons (NZZ, 1973c; JdG, 1973c; SRF, 1977).³¹ The commission published its final report in 1972. As mentioned above, the commission and the CCFD came to share the viewpoint previously put forth by experts, that a voluntary agreement would not suffice.

The text proposed by the commission and endorsed by the CCFD limited the competence of the federal government to the establishment of principles of taxation and explicitly left the determination of tax rates within the competence of the cantons. The constitutional article adopted by nationwide referendum in 1977 largely kept this wording. The provision was also incorporated into the new Constitution as part of the 1999 constitutional reform without relevant substantive changes (Cajacob and Yuan, 2019/20).

Concurrently with the work by the cantons themselves, a number of initiatives were launched in the federal parliament, and two nationwide referenda were held.³² None of these initiatives succeeded, and the cantons' own proposals – limited to tax-base harmonization but leaving the cantons' autonomy over rates untouched – ended up being adopted in the constitutional amendment of 1977. This represented a win not only for the cantons but also for center-right political parties. Calls for the harmonization of tax rates had emanated mainly from members of left-of-center parties.

4.2.2 Competing arguments and interests in the debate about tax base harmonization

If we want to understand the economics and politics behind the FTHA and thus to gauge the external validity of processes at play among Swiss cantons in the 1970s and 1980s, we need to ask what arguments were invoked for and against different harmonization models, and by whom.

Most economists would probably view the main potential benefit of harmonization to arise from mitigating inefficient tax competition (e.g. Wilson and Wildasin, 2004) and spatial dispersion in tax rates (e.g. Fajgelbaum, Morales, Suarez Serrato and Zidar, 2019). Even if constrained to tax bases, harmonization, may limit horizontal fiscal externalities. However, partial coordination of tax instruments could also result in welfare losses (e.g. Cremer and Gahvari, 2020), and tax competition could be a second-best optimal mechanism when governments are revenue maximizers (e.g. Brülhart and Jametti, 2019).

In the Swiss policy discussions, however, more practical concerns took center stage. Advocates of formal tax harmonization emphasized two main advantages: (a) administrative simplification for increasingly mobile and spatially connected firms and households, and (b) the facilitation of federal-level tax and equalization policies. We briefly discuss each of them in turn.

³⁰ For further details, see Appendix A.4.2.

³¹ The commission was chaired by Willi Ritschard, then finance director of the canton of Solothurn and later Minister of Finance in the federal government. Hence the popular term “Ritschard commission”.

³² See Appendix Sections A.4.2 and A.4.2 for details.

Administrative simplification

With the increasing economic interconnections among cantons, the costs of administering structurally different tax systems gradually increased, for both taxpayers and tax authorities. Certain inconsistencies between cantonal tax codes also became more visible over time.³³

A prominent issue was the time period of tax assessments (JdG, 1973b). Suppose a taxpayer (firm or household) moved from canton A to canton B in year t . Suppose also that canton A practised present-period annual taxation, whereby taxpayers pay taxes in year t on income and assets as declared in t . Suppose, finally, that canton B practiced backward-looking biannual taxation, whereby taxpayers pay taxes in year t on average income and assets as declared in $t - 1$ and $t - 2$. For those years, however, the taxpayer had already paid taxes in A .³⁴

Such inconsistencies distorted location decisions. With increasing intercantonal mobility, they were perceived to occur more frequently and to make the tax system appear increasingly unfair and administratively burdensome.

Prior to formal tax harmonization, cantons furthermore used different tax declaration forms, often with different terminologies and information requirements. This placed a high administrative burden on conglomerate and multi-establishment firms subject to taxation in every canton in which they have a legal entity or a permanent establishment.

In corporate taxation, the lack of a harmonized tax base increased the administrative burden in particular in the case of tax apportionment. When apportioning tax liability across cantons, taxable profits were (and are) determined for the firm as a whole and then allocated between legal entities and/or permanent establishments (Section 4.3). Whenever legal entities or permanent establishments were located in cantons with different definitions of the tax base, apportionment became very complicated. This was a burden on corporate tax planning as well as on tax assessment by the cantonal authorities.

To facilitate the taxation of firms operating in multiple cantons, Art. 39 of the FTHA (Swiss Parliament, 1990a) regulates the exchange of information between jurisdictions' tax administrations. To our knowledge, this exchange of information works largely informally in practice, often via phone calls among tax officials.

The non-harmonized tax system also prevented the establishment of nationwide case law that would have ensured legal certainty (JdG, 1973b). Because cantonal tax laws used widely different terminology, a court decision on a case in one canton could not necessarily be applied to a similar case in another canton.

³³ Appendix Table 2 provides an overview of the main differences across cantons in 1947 related to the deductibility of tax payments, tax holidays for new firms representing an important economic interest, loss carry-forward rules and the time period of tax assessments. These differences were largely harmonized through the FTHA.

³⁴ A vivid example to illustrate such inconsistency is the relocation his a private bank by wealthy businessman Martin Ebner. He moved his bank from Zurich to Schwyz in 1997 and, could thereby exploit an inconsistency in the timing of the tax assessment of declared profits (Tagesspiegel, 1998). At that time, the canton of Zurich practised backward-looking taxation, while the canton of Schwyz had a present-based tax system. Through the timing of the move, profits made in 1997 escaped taxation at the canton level. This case occurred after the FTHA had been passed but not yet adopted by all cantons. Martínez, Saez and Siegenthaler (2021) have exploited the transition from the backward-looking to the present-based taxation as a natural experiment to estimate taxpayers' intertemporal substitution elasticities.

Overall, it appears that the benefits of administrative simplification for both firms and tax administrations was an important driver behind the push for harmonization. Business interests fighting harmonization to protect potential sheltering opportunities seem to have played a comparatively smaller role. This dynamic may well have been due to the smallness of cantons, which implies both a very high volume of cross-border economic activity and limited administrative resources. In that sense, the Swiss experience is likely different from the configuration of business and political interests at the international level.

Facilitation of federal-level policies

Efficient implementation of federal-level policies also requires a degree of canton-level harmonization. Therefore, the presence of a tax-raising and revenue-distributing central government acted as a catalyst for harmonization in two main ways: because co-occupancy of tax bases by vertically nested layers of government raises the administrative cost of non-harmonization, and because equitable fiscal equalization requires that tax bases and tax burdens be comparable.

Co-occupancy of tax bases implies that work towards the FTTHA was linked to the simultaneous drafting of a permanent legal basis for direct taxation of personal and corporate income at the federal level (Swiss Parliament, 1990b). This process started in the 1950s and took decades.³⁵ When multiple vertically nested layers of government tax the same base, it is administratively easier for that base to be defined in the same way for all government layers. Conversely, the greater the divergence between those definitions, the greater the requirements for differentiated tax filings and tax assessments by government layer.

A case in point are loss carryforward rules: for federal taxes, losses from up to seven financial years preceding a given tax year can be deducted if in the firm's interest. Prior to the FTTHA, this federal tax provision was more generous than the corresponding provisions of many cantons, which generated considerable complexity for tax planning and filing. The fact that the cantonal tax authorities collecting the federal tax were known sometimes to mistakenly apply their own loss-carryforward rules to the federal tax was a source of administrative complexity and irritation. Since 2001, those rules are the same everywhere.

The implementation of fiscal equalization across cantons provided another rationale for harmonization. In the post-War decades, fiscal equalization transfers from the federal government to the cantons were partly based on cantons' tax revenue from income and capital. Experts emphasized the importance of formal tax harmonization to enable accurate comparisons of cantons' fiscal situation (NZZ, 1969, 1970, 1973a). Because canton-level tax systems differed in many respects, it was often difficult to tell whether a canton had low tax revenue because of low effective tax rates or because of small effective tax bases, i.e. the fiscal capacity to generate tax revenues. A frequently stated aim for formal tax harmonization was therefore to create trans-

³⁵ According to the Federal Council (1976, p. 1475), federal-level taxation had acted as a spur to canton-level harmonization even earlier: "The historically rooted differences in the design of the individual cantonal tax laws were somewhat mitigated under the influence of the federal legislation that began to take effect in this area from 1916 onward (in particular, the crisis levy from 1934-1940, the defense tax from 1941 onward), but they are still considerable today."

parency in this respect and, thereby, to open up options to adopt a fiscal capacity equalization system that only depends on the cantonal tax base (see Section 5 for a detailed discussion).

The need for coordinating federal and sub-federal tax rules is a feature of the Swiss context that does not fit with the international setting. In this respect, cantons are different from countries. As long as e.g. the EU does not introduce supranational corporate taxes, the Swiss experience cannot be taken as a small-scale version of ongoing international harmonization efforts. One might, however, interpret the provisions defining the corporate tax base for the application of the BEPS Pillar-2 top-up tax as equivalent to a supranational tax law. The Swiss experience suggests that those provisions might spur some harmonization of national corporate tax laws as well. Indeed, Switzerland might have an incentive to align its corporate tax-base rules with the “GloBE” standards of BEPS Pillar 2, which would be reminiscent of the forces at play within Switzerland several decades earlier.

Opposition to tax harmonization

Sifting through official documents and press reports, it is striking how little open opposition to formal tax harmonization there was. Nonetheless, the process to the final adoption of the FTHA took more than two decades, which suggests that political hurdles needed to be overcome.

The most critical voices, to the extent that we can discern them in the available documentation, were not directed against formal tax harmonization per se, but against the idea of harmonizing tax bases as a “slippery slope” towards harmonizing tax rates as well (SRF, 1977). Material tax harmonization, they argued, would undermine cantons’ sovereignty and ultimately lead to a general increase in tax rates because the disciplining effect of tax competition would be lost. This was the argument invoked by the free-market Liberal Party, one of the only two (smallish) parties who recommended a no vote in the 1977 constitutional referendum on tax harmonization.³⁶

Experts later also pointed to the role of tax competition as a laboratory for innovation in tax policy, which was to some extent constrained by formal harmonization. Baur, Daepp and Jeitziner (2010) cite as examples of such bottom-up innovations canton-level limits on the double taxation of profits (at the firm level and at the shareholder level), deductions for childcare costs, and the introduction of special tax regimes for holding firms.

What may seem surprising from a current vantage point is the apparent lack of opposition from business interests. The main nationwide employers’ and business associations supported both the constitutional amendment in 1977 and the FTHA in 1990, as did the trade unions and all main parties from centre-right to centre-left. It would appear that for most of the business establishment, the gains in administrative efficiency outweighed any potential tax-saving opportunities through arbitrage among non-harmonized cantonal tax systems.

When digging deeper into official documents, some dissent can however be made out. According to the the public consultation on the constitutional amendment (Federal Tax Admin-

³⁶ The other formally opposed party, the far-left Workers’ Party, made exactly the reverse argument, claiming that to limit harmonization to tax bases would set back the cause of harmonizing tax rates and might even exacerbate tax competition.

istration, 1975), for instance, the (small) Association of Holding and Finance firms did “not view federal-level involvement in tax harmonization as a policy priority” (p. 1773). Similarly, the tax authorities of the cantons of Geneva and Vaud expressed support for a weaker form of agreement without federal involvement, analogous to the Concordat. These two cantons have historically hosted a large share of internally mobile firms and wealthy individuals.

In the referendum of 1977, the main small-business organization did not issue a voting recommendation, which implies significant resistance among their ranks. We see two reasons for a status-quo preference by some small and medium-sized firms. First, a lack of harmonized tax laws might have shielded them to an extent from out-of-canton competition in sectors with a need for permanent establishment (e.g. retail or hospitality). Second, owners of such businesses likely had the knowledge and political connections that allowed them to take advantage of complicated canton-specific legislation and/or they had higher relocation costs (Marceau and Smart, 2003; see also Appendix A.4.1).

The dissenting voices suggest that certain business interests and some jurisdictions did expect to lose from reduced tax sheltering opportunities when tax bases were harmonized through federal law. Those dissenters, however, remained a minority throughout.

4.3 Allocation of taxing rights

Coordinated taxation among fiscally autonomous jurisdictions requires a system of rules for allocating taxing rights over profits of multi-establishment firms. This is a surprisingly non-contentious even though only partially codified area of tax policy in Switzerland.

Swiss tax rules conform with international principles that date back to the League of Nations “1920s Compromise” on the taxation of cross-border activity. These principles comprise three main elements. First, according to the “single entity approach”, every legal entity of a corporate group is taxable in the jurisdiction in which it is tax resident. The group itself is not taxable, only the legal entities of the group are. Second, there can be no taxation without a permanent establishment. If a legal entity that is tax resident in one jurisdiction has a permanent establishment in another jurisdiction, the jurisdiction of the legal entity must cede part of its taxing rights to the jurisdiction of permanent establishment. Third, according to the arm’s-length principle for transfer pricing, services exchanged among entities of the same group, are valued for tax purposes using the price that independent third parties would be expected to agree on.

Based on these principles, two types of allocation of taxing rights can be distinguished: (1) the allocation of taxing rights among legal entities, and (2) the allocation of taxing rights among legal entities and permanent establishments.

Allocation of taxing rights among legal entities

Legal entities maintain their own financial accounts, which allows them to be treated as independent firms for tax purposes. Profit is allocated via transfer prices in accordance with the arm’s length principle.

Transfer pricing among legal entities within Switzerland is governed by the OECD’s guidelines. It is rarely contentious. At the international level, however, this is a source of considerable conflict. To our knowledge, no research exists on this issue in Switzerland. Two explanations strike us as plausible. First, tax-rate differentials across cantons, while significant (see Figure 4), are not as large as cross-country differentials. Tax-rates rarely vary by more than 10 percentage points across cantons, while they can vary by up to around 35 percentage points internationally. Second, Switzerland is small, with a consensus-oriented political and administrative culture. Canton-level finance ministers and tax officials know each other and their largest taxpayers, and they interact frequently. This likely contributes to potential conflicts over profit apportionment and taxing rights being settled at the technical-administrative level rather than in the political or judicial arenas.³⁷ These are, however, speculative explanations, as a scientific analysis of this issue is so far lacking.

Tax apportionment

The allocation of taxing rights among legal entities and permanent establishments, or among establishments only, is referred to as tax apportionment. Since permanent establishments are not considered legal entities, they do not hold separate tax liability, and it is generally not possible to allocate profits based on transfers prices.

Two main methods are used for intercantonal tax apportionment. For “producing” (mainly manufacturing) firms, tax apportionment is usually based on labor and capital costs (physical capital, or capitalized rent and wages). For trading firms (e.g. retailers and wholesalers), tax apportionment is usually based on sales. These rules are similar to the formulary apportionment proposed under Pillar 1 of the OECD-led global corporate tax reform. However, unlike under Pillar 1, a physical presence is required for the allocation of taxing rights within Switzerland.

These rules are coordinated by an association of canton-level and the federal tax administrations (the “Swiss Tax Conference”) and published as semi-formal circulars. These documents regulate specific cases on which the tax administrations recognize a need for harmonization or clarification. Seven circulars regulate issues specifically related to tax apportionment.³⁸ The rules in the circulars are not legally binding. However, since these rules are established by the cantonal tax administrations, they are widely respected and applied.

The apparent non-contentiousness of tax apportionment is similarly striking to that of transfer pricing, and would make for an interesting research topic.

³⁷ There are, however, recorded cases of conflict. An example is a Federal Court decision of 2019 on transfer pricing for electricity (Federal Supreme Court of Switzerland, 2019). Lowland cantons (e.g. Aargau and Solothurn) that host headquarters of large energy firms (e.g. Alpiq and Axpo) were in disagreement with Alpine cantons that host those firms’ hydroelectric power plants. The Alpine cantons (e.g. Valais) sought to impose transfer prices based on market prices, but the Federal Court ruled in favor of the “cost-plus” method stipulated by OECD guidelines, because the only partially liberalized Swiss electricity market would not allow a market price to be properly determined. This ruling happened to favor the headquarter cantons.

³⁸ These circulars concern: (1) tax apportionment for real estate leasing firms, (2) tax apportionment for banks, (3) tax apportionment for the national postal service, (4) procedure in special cases affecting multiple tax jurisdictions, (5) tax apportionment for insurance firms, (6) taxation of concessionary transport and infrastructure firms, (7) tax liability of health insurance firms.

5 Fiscal equalization

The decentralized Swiss system is complemented by sophisticated equalization schemes designed to limit fiscal disparities across jurisdictions. Equalization policies have been implemented for a long time, both within and among cantons.³⁹

Intercantonal equalization originally evolved through a piecemeal process. Numerous equalization grants were introduced in the form of matching grants, where the matching rate was higher for poorer cantons. Some payments were linked to canton's tax rates. Over time, discontent arose with this opaque and sometimes incoherent system of intergovernmental transfers (Frey, Spillmann, Dafflon, Jeanrenaud and Meier, 1994). In particular, the jumble of measures did not follow the Tinbergen rule, whereby every policy goal should be addressed by a separate instrument. Different layers of government were involved in the provision of public services via a variety of fiscal instruments, which made it challenging for voters to see which governmental layer was responsible for each policy and to hold politicians of different government layers to account.

5.1 Intercantonal equalization since 2008

Based on a constitutional clause adopted by nationwide referendum in 2004, a codified and carefully calibrated system of fiscal intergovernmental relations has been in force since 2008. Federal rules define fiscal transfers among cantonal and federal governments and assign expenditure responsibilities. The total systems annually redistributes public funds worth some 0.7% of GDP, of which around a third are paid by contributor cantons and two thirds by the federal government.

Redistributive transfers among cantons aimed at reducing disparities in fiscal capacity are the main pillar of the equalization scheme. They are based on the notion of a representative tax system.⁴⁰ This means that transfers are determined by differences in fiscal capacity, i.e. in per-capita tax bases, and not by differences in per-capita tax revenue. Tax bases considered in the calculation of cantons' fiscal capacity include taxable profits as well as personal income and wealth.

The different cantonal tax bases are aggregated into a canton-level fiscal capacity index.⁴¹ This index relates a canton's aggregate tax base to the nationwide average per-capita tax base, set equal to 100. Cantons with an index value above 100 pay into the system in proportion to the

³⁹ Some rudimentary equalization system already existed from the middle of the 19th century onwards. The goal of fiscal equalization was enshrined in the Swiss constitution in 1958, and equalization transfers gradually increased thereafter (Rey, 2017). In this paper, we focus on equalization among cantons. For a rich account of within-canton equalization schemes, see Rühli (2013).

⁴⁰ In this respect, the Swiss system resembles those of other countries, including Canada and Germany. The other two pillars of the equalization scheme are targeted at disparities in (i) geographical and topological conditions that influence the cost of providing public services, and (ii) socio-economic characteristics of cantons that influence the need for public services.

⁴¹ To date, a certain amount of regular taxable profits is given the same weight in the calculation of the fiscal capacity as a that same amount of taxable personal income. Starting in 2024, profits will be gradually weighted down, to reach a level currently estimated at around 33% by 2031, to account for their lower tax yield of corporate relative to personal income. The wealth tax base enters the calculation with a weight of approximately 1.5%.

goals, and the ultimate redistributive implications dominate the public debate. The system is intended to level the playing field among cantons with different exogenous conditions while still allowing them to engage in fiscal competition.

Concerns that equalization transfers may have an effect on tax competition among cantons have been repeatedly voiced, in particular by donor cantons. Part of their concern is the potential fiscal response of transfer-receiving cantons: they might lower their tax rates rather than spending transfers on public services.⁴⁴ While the evaluation of this hypothesis is empirically demanding, the literature on incentive effects can shed light on important aspects of the issue.

5.2 Incentive effects

In general, equalization transfers can have income and substitution effects on canton-level policy choices.

The income effect describes how the change in public resource influences tax and expenditure policies, whereby higher transfers might be “spent” in the form of tax cuts. Recent empirical work by Koethenbueger and Loumeau (2023) finds no evidence of such income effects.⁴⁵ An absence of income effects runs against the hypothesis that transfers will fuel tax competition. The available evidence is instead consistent with the flypaper effect, whereby transfers fully or even more than proportionally “stick” to the public budget they are sent to, and a too small a part of transfers (if any at all) is passed on via lower taxes (Bradford and Oates, 1971; Hines and Thaler, 1995).⁴⁶

Equalization formulas can also generate substitution effects.⁴⁷ Relative to a system that resorts to actually-collected tax revenues, a representative tax system such as the Swiss one has the advantage that cantons do not have an incentive to lower their tax rates to mechanically lower tax revenues and, hence, the measure of fiscal wealth that is used to allocate transfers. However, the tax bases included in the calculation of a canton’s fiscal capacity index are a function of the respective canton-level tax rates. This creates incentives to increase the tax rate since any resulting loss of tax base is at least partially compensated by higher transfer payments (Smart, 1998; Koethenbueger, 2002). In a similar vein, public infrastructure spending that expands the tax base leads to a reduction in transfers, creating disincentives to spend on such items.

Incentive effects are typically quantified through the system’s tax-normalized (or “effective”) absorption rate, which takes account not only of the equalization formula but also of the tax rate actually applied by a given canton and its municipalities. This is illustrated in Figure 17. The four panels show the revenue effect of a hypothetical one million CHF arrival of taxable profits

⁴⁴ This is vividly illustrated in the following newspaper report (NZZ, 2023): “The finance minister of the canton of Zurich has long been irritated by the fact that some cantons that receive money from fiscal equalization and thus indirectly from Zurich use it to reduce their taxes and then poach firms or taxpayers from the canton [of Zurich]. This should not happen again.” (own translation).

⁴⁵ Analyzing tax rate choices at the municipal level, they find transfers to have no effect on tax rates. Rather, transfer income is found to increase spending, and even to crowd in additional debt-financed spending.

⁴⁶ The reference point is the combination of spending increase and tax rate reduction that the population would prefer.

⁴⁷ See Smart (2009) for an overview.

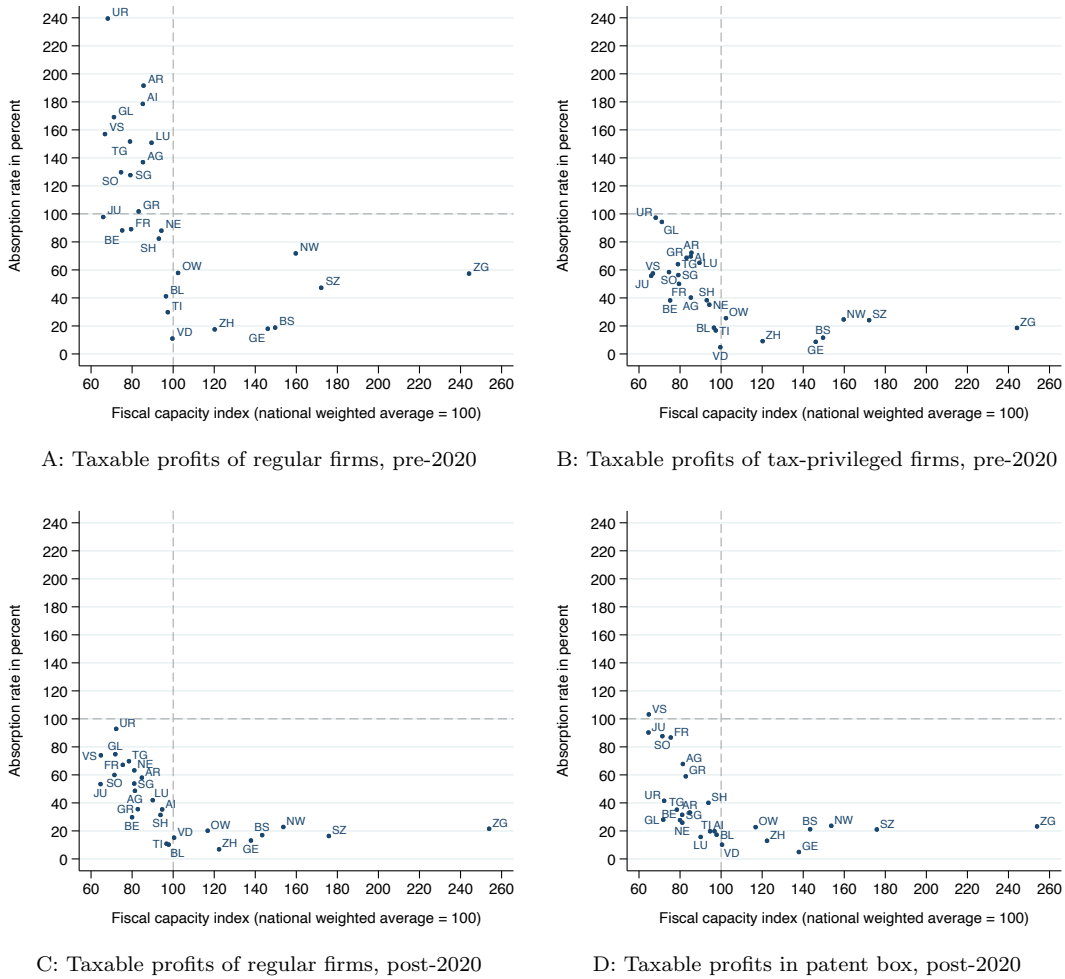


Figure 17: Tax-normalized absorption rates in the Swiss tax equalization scheme

Notes: The index on the horizontal axis measures the fiscal capacity of a canton based on all its different tax bases (personal income, wealth, profits). Cantons with an index value above the population-weighted average (=100) pay into the tax equalization scheme while cantons with an index value below 100 receive transfers. Absorption rates express how much of the additional cantonal and municipal tax revenue due to attracting corporate profits is taken away by the equalization scheme. A rate above 100% means that the canton loses revenue when the tax base increases, and vice-versa. We simulate the change in the tax equalization payments when a firm with taxable profits of 1 million CHF moves to the cantonal capital from abroad. The left-hand-side graphs show the equalization rates for regular firms before (panel A) and after (panel C) the 2020 corporate tax reform. Post-reform equalization rates are computed based on system parameters as they will apply after the full phase-in period in 2032. The corresponding effective tax rates are shown in Figure 9. The top right figure (panel B) shows the equalization rate for a multinational firm subject to privileged taxation, with tax rates shown in Figure 8. The bottom right figure (panel D) shows the equalization rate for patent-box profits. Data source: Own calculations based on Federal Department of Finance (2018a,b, 2020, 2021, 2023a); Federal Tax Administration (2018b,c, 2021b).

from abroad.⁴⁸ The equalization system absorbs part of such an increase in the corporate tax

⁴⁸ In computing tax-normalized absorption rates, we follow Leisibach and Schaltegger (2019) and account for adjustments in the different parameters and average values used in the equalization formula. We use fiscal capacity indices for 2018 (pre-2020) and 2021 (post-2020) from Federal Department of Finance (2018b, 2021), weights for privileged profits in 2018 from Federal Department of Finance (2018a), estimated weights for profits inside and outside the patent box after the 2020 reform from Federal Department of Finance (2020), corporate

base. The tax-normalized absorption rate measures the change in transfer payments relative to the change in tax revenue that follows from the inflow of taxable profits. An absorption rate above 100 implies that a tax base that grows faster than the national average is fiscally loss-making for the canton concerned.

Absorption rates differ between donor and recipient cantons. Figure 17 shows the rates for 2018, when privileged tax regime for “status” firms were still in force, and for the year 2021, after the abolition of the old privileges. In all cases, absorption rates are higher for recipient cantons (fiscal capacity index below 100). This is in part due to the progressive nature of the equalization scheme. For instance, in 2018, the canton of Uri (UR) faced an absorption rate of 250% on regular profits (panel A of Figure 17). This implies that following an inflow of taxable profits, incoming transfer payments would shrink 2.5 times more than the increase in corporate tax revenue. For privileged (multinational) profits, Uri faced an absorption rate of around 100% (panel B of Figure 17). Hence, viewed through a purely fiscal lens, recipient cantons such as Uri had no incentive to compete for mobile firms and their profits. Absorption rates were considerably lower for donor cantons, leaving them with a stronger incentive to compete for mobile profits.

The 2020 tax reform abolished the privileged corporate tax regimes but introduced patent boxes, which offer lower corporate tax rates on qualifying income from intellectual property. At the same time, profits were down-weighted in the calculation of the fiscal capacity index. These changes will be gradually introduced over the phase-in period 2020–2031. We report projected post-transition incentive effects, i.e. with the parameters that will apply in 2032 but with fiscal capacity values and tax rates of 2021. As a result, absorption rates for regular taxable profits will fall as the the new rules are phased in (panels C and D in Figure 17). This implies that intra-national competition over taxable profits might further intensify in coming years, as the fiscal penalties implied by the equalization scheme will be significantly lowered.

Some empirical evidence exists on the effect of changing absorption rates on policy choices: higher absorption rates are found to increase observed tax rates (Buettner, 2006; Egger, Koethenbueger and Smart, 2010; Mauri, 2023), and to reduce infrastructure spending (Hauptmeier, Mittermaier and Rincke, 2012). To the extent that corporate tax rates are inefficiently low with unfettered tax competition, and infrastructure spending inefficiently high compared to public consumption spending (Keen and Marchand, 1997), these findings are consistent with the idea that fiscal equalization enhances efficiency in addition to its redistributive effect. From this perspective, the equalization system might be seen as an implicit, and largely unintentional, tax coordination device.⁴⁹

tax rates in the cantonal capitals in 2018 and 2021 as in Figure 9 from Federal Tax Administration (2018c, 2021b), corporate tax rates for privileged firms in 2016 from Federal Tax Administration (2018b) and cantonal tax rebates for profits in the patent box from Federal Department of Finance (2023a).

⁴⁹ The argument is not restricted to corporate taxation and also extends to personal income taxation and wealth taxation; the other two tax bases that enter the fiscal equalization scheme. These two tax bases significantly respond to tax rate changes. See Brühlhart, Gruber, Krapf and Schmidheiny (2022) and Koethenbueger, Naguib, Stettler and Stimmelmayer (2023), among others.

6 Concluding discussion

It is tempting to look to the Swiss experience for clues on the possible future evolution of international tax policy. After all, Switzerland embarked on tax coordination about half a century ahead of the OECD-led international initiatives. The country started from similarly heterogeneous conditions, to end up with a finely calibrated, democratically endorsed system that balances cantonal autonomy and tax competition with strong elements of coordination and equalization.

Until the early 20th century, the 26 cantons had set their tax policies entirely autonomously, with no formal coordination. The federal government did not yet possess any general taxing powers. As we document in this paper, a consciousness emerged toward the middle of the century that greater coordination was needed, especially in the area of corporate taxation. The motivations echo some current-day concerns: increasing cross-border business activities calling for administrative harmonization, and targeted low-tax strategies by some cantons being perceived as unfair competition by others. As we also document, Switzerland shows the classic hallmarks of corporate tax competition:

- a mobile and thus elastic tax base,
- opportunistic low-tax strategies pursued by smaller jurisdictions and aimed at particularly mobile multinational profits,
- steadily falling first and second moments of the cross-cantonal distribution of corporate tax rates, and
- large, urban cantons nonetheless sustaining comparatively high tax rates.

This configuration initially spurred bottom-up coordination efforts by a subgroup of cantons. In the 1949 “Concordat”, half of the cantons agreed to abstain from discretionary tax rulings and to practice a rudimentary form of tax information exchange. This voluntary process, however, did not seem to tend endogenously towards universal adoption, and it was through federal-level legislation that recalcitrant cantons ended up being pushed into joining. Similarly, the second big leap towards coordinated tax policy, the harmonization of tax bases negotiated in the 1970s and 1980s and implemented in the 1990s, was led by the federal government and parliament, albeit with broad support from the cantons themselves. This evolution toward gradually less decentralized coordination resembles the shift of emphasis at the international level: coordination based on bilateral double-taxation treaties is gradually being superseded by multilateral agreements backed by the weight of the OECD, the G20 and the Inclusive Framework. Although these bodies have no formal jurisdiction over their member states, the political and economic importance of their largest members gives them effective powers not unlike those of federal-level policy makers within Switzerland. An extrapolation from the Swiss experience would lead one to expect the importance of those (or similar) supranational bodies to increase further, at least in the area of tax policy coordination.

The main feature of tax harmonization among cantons is its limitation to tax-base definitions, without any direct bearing on tax rates. In that sense, the 15% minimum tax rate agreed under the OECD's Pillar 2 agreement exceeds any coordinating measure ever implemented within Switzerland. Apart from the headline minimum tax rate, Pillar 2 rules also define corporate tax bases and reporting requirements. In that respect, they resemble the harmonization measures adopted within Switzerland in the 1990s quite closely.

Why did the Swiss cantons never agree on minimum tax rates, whereas such an agreement was feasible at the politically and economically much more heterogeneous international level? We see two particularly plausible reasons.

One possible explanation is that the federal corporate tax, with an effective rate around 8%, has provided an effective floor to the race to the bottom. Of the federal tax revenue, 17% have been rebated to the cantons (21.2% since 2020) and thus effectively imply a canton-level minimum tax rate of some 1.4%. The remaining federal tax revenue was allocated to the federal general budget, allowing any one canton's success in attracting taxable profits to be shared by the entire nation. Fiscal equalization further contributed to spreading around the benefits from growth in the tax base of individual cantons. A political culture featuring strong cantonal allegiances and favoring low taxes and a limited role for the public sector, especially among the German-speaking majority, could also have limited the appetite for additional harmonization (see Eugster and Parchet, 2019).

The other important factor is the country's small size: unlike, say, policy for the OECD as a whole, corporate tax policy of Swiss cantons is largely aimed at attracting mobile profits from outside their own grouping. As we have shown, preferential tax treatment of multinational profits has been associated with Switzerland serving as a popular location for multinational profit reporting. In that sense, canton-level corporate tax competition was a positive-sum process from the fiscal perspective of the country as a whole. The smallness of the country and resulting familiarity of canton-level decision makers probably also contributed to the relative non-contentiousness of profit apportionment and transfer-pricing decisions between cantons.

In a nutshell, the experience of the Swiss cantons confirms that tax-base harmonization, increasingly centralized coordination, and efforts at equalizing revenues, are natural corollaries of growing economic integration and mobility. At the same time, Switzerland as a whole has been a successful tax competitor in the international arena, which in turn has held in check its appetite for stronger internal harmonization measures, especially tax-rate harmonization. That external dimension, however, is less important for larger countries and for groupings such as the G20 or the OECD. Therefore, global political forces for further supranational harmonization may end up being even stronger than those for intra-national harmonization have ever been in Switzerland.

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A Appendix

A.1 Supplementary figures

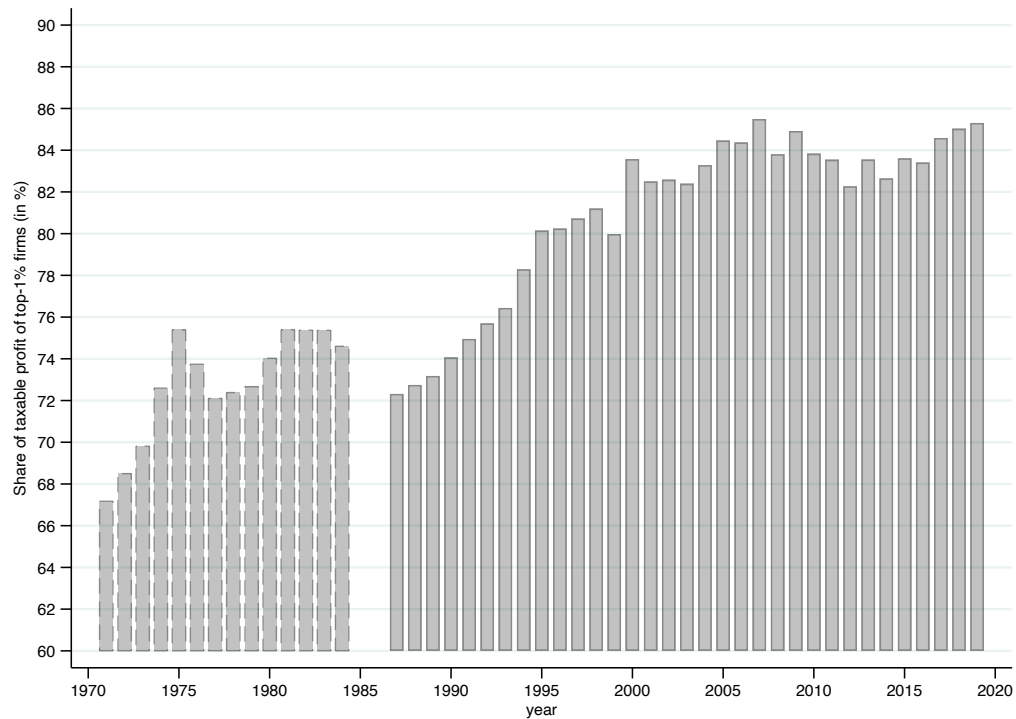


Figure 1: Taxable profit from top-1% firms

Notes: This figure shows the evolution of the share of total taxable profit in Switzerland accruing to the top-1% of firms. The figures before 1987 do not correct the taxable profit for the deductions due to the firms' participation in other firms. Source: own calculation based on Federal Tax Administration (2022a).

A.2 Supplementary tables

Table 1: Municipal tax autonomy and maximum tax rates in 1947

Canton	Cantonal multiplier	Municipality tax autonomy	Minimum tax	Maximum tax
AG	No	No	Minimum profit tax rate given by tax schedule = 4.25%	Maximum profit tax rate given by tax schedule = 17%
AI	Yes	Yes, multiplier	No	No
AR	Yes	Yes, multiplier	No	No
BE	Yes	Yes, multiplier	No	No
BL	No	Yes, effective tax rate (same as for private households)	No	No
BS	No	No	Minimum profit tax rate given by tax schedule = 3%	Maximum profit tax rate given by tax schedule = 23%
FR	No	Yes, can choose among a multiplier or a proportional tax		Municipalities cannot set a multiplier higher than 100%. Maximum cantonal and municipal tax rate = 14%
GE	Yes	Yes, multiplier	No	No
GL	Yes	No	Minimum profit tax rate given by tax schedule = 4.2%	Maximum profit tax rate given by tax schedule = 16.8%
GR	Yes	Yes, effective tax rate (base and tariff could be different from canton. Tariff cannot be more progressive than cantonal tax schedule)	No	No
LU	Yes	Yes, multiplier	No	No
NE	No	Yes, multiplier	No	Municipalities cannot set a multiplier higher than 200%. Maximum profit tax rate given by tax schedule and maximum multiplier = 36%
NW	Yes	Yes, multiplier	No	No
OW	Yes	Yes, multiplier	No	No
SG	Yes	No	Minimum profit tax rate given by tax schedule = 9.1%	Maximum profit tax rate given by tax schedule = 31%
SH	Yes	Yes, multiplier	No	No
SO	Yes	Yes, can choose among a multiplier, own progressive tariff or same tariff as for income of private households	No	No
SZ	Yes	Yes, multiplier	No	No
TG	Yes	Yes, multiplier	No	No
TI	No	Yes, multiplier	No	No
UR	No	Yes, effective tax rate (same base as canton)	No	No
VD	No	Yes, multiplier or effective tax rate (same base as canton)	No	Maximum cantonal and municipal profit tax rate = 20%
VS	Yes	Yes, effective tax rate	No	Municipal tax rate cannot exceed 3 per mil.
ZG	Yes	Yes, multiplier	No	No
ZH	Yes	Yes, multiplier	No	Municipalities cannot set a multiplier higher than 250%. Maximum profit tax rate given by tax schedule and maximum multiplier = 36%.

Notes: The tables reports the autonomy granted by cantons to their municipalities in setting a municipal corporate tax rate, as well as the minimum and maximum tax rates (if any) in 1947.

Table 2: Differences in tax practices across cantons in 1947

Canton	Deductability of tax payments	Tax holiday for new firms	Loss carry forward	Taxation period	Period for tax base calculation
AG	No	No	n.a.	1 year	Previous year
AI	No	No	No	1 year	Previous year
AR	No	Yes	Yes	2 years (also 1 year depending on size of firm)	Average of previous 2 years
BE	No	Yes	No	2 years	Average of previous 2 years
BL	Yes	Yes	No	1 year	Previous year
BS	Yes	No	No	1 year	Previous year
FR	Yes	Yes	n.a.	1 year	Previous year
GE	Yes	No	No	1 year	Previous year
GL	Yes	No	No	2 years	Average of previous 2 years
GR	No	No	No	1 year	Previous year
LU	Yes	No	No	2 years	Average of previous 2 years
NE	No	Yes	No	1 year	Previous year
NW	No	Yes	Yes	1 year	Previous year
OW	No	No	No	4 years (also 2 years or 1 year depending on size of firm)	Average of previous 2 years or the previous year in case of a taxation every year
SG	Yes	No	No	1 year	same as taxation period
SH	No	No	No	1 year	Previous year
SO	No	No	No	1 year	Previous year
SZ	Yes	Yes	Yes	2 years	Average of previous 2 years
TG	Yes	No	No	1 year	Previous year
TI	Yes	Yes	No	1 year	Previous year
UR	No	No	No	1 year	Previous year
VD	Yes	No	No	1 year	Previous year
VS	No	No	No	1 year	Previous year
ZG	Yes	No	Yes	2 years	Average of previous 2 years
ZH	No	No	Yes	1 year	Previous year

Notes: The tables reports the main differences in tax practices across cantons in 1947.

Table 3: Tax treatment of holding, investment and domiciliary firms in 1947

Canton	Holding firms	Investment firms	Domiciliary firms
AG	Same as investment firms. Cantonal government may grant special tax reduction	firms that hold at least 20% of the capital of other firms. Profit from participation not taxed. Maximum reduction of 75%.	Not recognized. Taxed as regular firms.
AI	Not recognized. Taxed as regular firms.	Not recognized. Taxed as regular firms.	Not recognized. Taxed as regular firms.
AR	Profit and capital tax not levied. Proportional special tax of 0.03% on paid-in capital. Non paid-in capital, open and hidden reserves not taxed. No multiplier.	n.a.	Not recognized. Taxed as regular firms.
BE	Profit and capital tax not levied. Proportional special tax of 0.05% on capital. No multiplier. The Government Council may also grant special tax reductions.	firms that hold at least 20% of the capital of other firms. Profit from participation not taxed.	Not recognized. Taxed as regular firms.
BL	Profit and capital tax not levied. Proportional special tax of 0.05% on paid-in capital and of 0.025% on non paid-in capital. Open and hidden reserves not taxed.	Not recognized. Taxed as regular firms.	The canton and the municipalities levy the same tax (set by the cantonal government).
BS	Profit and capital tax not levied. Proportional special tax of 0.1% on paid-in capital and on open reserves. Tax of 0.025% on non paid-in capital. Hidden reserves not taxed.	Not recognized. Taxed as regular firms.	Not recognized. Taxed as regular firms.
FR	At the request of the taxpayer, the ordinary profit and capital taxes are not levied. The cantonal government sets a special proportional tax on capital.	Not recognized. Taxed as regular firms.	Same as for holding firms
GE	Profit and capital tax not levied. Proportional special tax of 0.1% on paid-in capital and on open reserves. Tax of 0.05% on non paid-in capital. Multiplier.	Not recognized. Taxed as regular firms.	Same as for holding firms
GL	Profit and capital tax not levied. Proportional special tax of 0.05% on capital. Minimum tax of CHF 50. No multiplier.	Not recognized if employees in the canton.	Same as for holding firms
GR	Profit and capital tax not levied. Proportional special tax of 0.1% on paid-in capital and on open and hidden reserves. Tax of 0.05% on non paid-in capital. No multiplier.	n.a.	Profit and capital tax not levied. Proportional special tax of 0.05% on paid-in capital and on open and hidden reserves. Non paid-in capital not taxed.
LU	Profit and capital tax not levied. Proportional special tax of 0.01% on paid-in capital and on open and hidden reserves. Non paid-in capital not taxed. No multiplier.	firms that hold at least 20% of the capital of other firms. Profit from participation not taxed. Tax on capital as for regular firms.	Not recognized. Taxed as regular firms.
NE	Profit and capital tax not levied. Proportional special tax of 0.05% on paid-in capital. No multiplier.	Not recognized. Taxed as regular firms.	Not recognized. Taxed as regular firms.
NW	Special tax agreement possible.	Special tax agreement possible.	Special tax agreement possible.
OW	Profit and capital tax not levied. Proportional special tax on paid-in capital, open and hidden reserves.No multiplier.	Same as for holding firms	Profit and capital tax not levied. Annual special tax, the type and amount of which shall be determined by the Government Council. No multiplier.
SG	Profit from participation not taxed. The capital tax can be replaced by a flat-rate tax to be determined by the cantonal government.	Same as for holding firms	Not recognized. Taxed as regular firms.
SH	Profit and capital tax not levied. Proportional special tax of 0.05% on paid-in capital and on open and hidden reserves. No multiplier.	firms that hold at least 40% of the capital of other firms. Profit from participation not taxed. No reduction for the capital tax.	Legal entities with head office in the canton, but no business operations. Profit and capital tax not levied. Proportional special tax of 0.01% on paid-in capital and on open and hidden reserves. No multiplier.
SO	Reduction of profit and capital taxes by a maximum of 80%. The cantonal government decides on the reduction individually for each firm.	Not recognized. Taxed as regular firms.	Not recognized. Taxed as regular firms.
SZ	firms that hold at least 20% of the capital of other firms. Profit from participation not taxed. Cantonal and municipal multipliers.	Same as for holding firms	Not recognized. Taxed as regular firms.
TG	Reduction of 20% of the tax amount. No reduction for the capital tax.	Same as for holding firms	Not recognized. Taxed as regular firms.
TI	Profit and capital tax not levied. Proportional special tax of 0.04% on the paid-in capital and of 0.02% on the non paid-in capital. Open and hidden reserves not taxed. No multiplier.	Not recognized. Taxed as regular firms.	Same as for holding firms
UR	Not recognized. Taxed as regular firms.	Not recognized. Taxed as regular firms.	Not recognized. Taxed as regular firms.
VD	Reduction of 75% of the tax amount on profit and on capital. Special multiplier of 20% on the reduced tax amount.	Not recognized. Taxed as regular firms.	Not recognized. Taxed as regular firms.
VS	Profit and capital tax not levied. Proportional special tax of 0.05% on the paid-in capital and on open reserves. Cantonal multiplier. Capital tax for municipalities as for regular firms but can be reduced.	Not recognized. Taxed as regular firms.	Same as for holding firms
ZG	Profit and capital tax not levied. The canton levies a special tax from 0.05% to 0.15% on paid-in capital. Rate decided on a case-by-case basis by the cantonal tax commission. No multiplier.	firms that hold at least 20% of the capital of other firms. Profit from participation not taxed. Tax on capital as for regular firms	Same as for holding firms
ZH	Profit and capital tax not levied. Proportional special tax of 0.05% on paid-in capital, open and hidden reserves. Cantonal and municipal multipliers as for regular firms	Same as for holding firms	The extension of the holding privilege to domiciliary firms decided on a case-by-case basis.

Notes: The tables reports the main differences in tax practices across cantons in 1947 for holding, investment and domiciliary firms.

A.3 The 2020 corporate tax reform

Aiming to align its corporate tax law with international standards, Switzerland abolished privileged taxation for holding, domiciliary, and mixed firms as of 2020, based on a 66% majority vote in a 2019 nationwide referendum. These tax privileges had been qualified as “harmful tax practices” by the OECD under Action 5 of the “Base Erosion and Profit Shifting” (BEPS) project.

Taxable profits of multinational “status” firms that had been eligible for preferential taxation have been shown to be significantly more tax sensitive than profits of firms that were subject to regular taxation (Brühlhart and Staubli, 2017; Daepf and Staubli, 2018). New relief measures were therefore introduced, motivated at least in part by a desire to remain attractive for internationally active firms and their taxable profits. Those measures apply only to sub-federal taxation, as had the former privileges. The federal government continues to levy an unchanged 7.8% tax on all taxable profits. The new relief measures include the following:

- *Patent Box:*

Profits derived from patents and similar intellectual property rights are now partially exempt from sub-federal corporate income taxation. Cantons are obliged by federal law to provide this tax relief. They can set the extent to which qualifying profits are exempt to no more than 90%. In the interest of practicality, a patent or a similar intellectual property right is typically both a necessary and sufficient prerequisite to qualify for the patent box. This framework is designed to conform with current international standards, particularly the OECD’s modified nexus approach.

Because they are obliged to by federal law, all cantons have introduced the patent box. More than half of them have set the maximum relief to the maximum 90% according to federal law. Geneva, Glarus and Lucerne have set the maximum relief at 10%. They apparently do not want firms to use this instrument (cf. the comments below on the relief limitation).

- *Deduction for R&D expenditure:*

Cantons may offer firms the option to claim an additional deduction of up to 50% for research and development (R&D) expenditure. This measure targets domestically conducted R&D (as does the patent box, given the nexus requirements). In the context of Swiss law, the definition of R&D is quite comprehensive, encompassing fundamental and applied research as well as knowledge-driven innovation. For the sake of simplicity, these deductions are calculated solely based on labor costs. However, to acknowledge other types of R&D expenditures, a supplementary uplift of 35% is provided. Most cantons have adopted this new deduction.

- *Allowance for corporate equity:*

Cantons are given the right to grant an interest deduction on equity. This deduction aligns with the imputed interest on what is known as “security equity”. Security equity refers to

the portion of taxable equity capital in Switzerland that surpasses the long-term business activity's required equity capital. To date, only the canton of Zurich has implemented such a provision.

- *Reduction in sub-federal corporate tax rates:*

While it was not formally part of the nationwide reform, most cantons lowered their corporate tax rates as a countermeasure to the tax rises resulting from the phase-out of status privileges. As we show in Figure 9, most cantons cut their regular tax rates contemporaneously with the reform. Cantons that hosted a high share of firms with status privilege cut their tax rates particularly strongly (see Portmann and Staubli, 2020).

- *Cap on total tax relief:*

The cumulative tax relief arising from the patent box, additional deductions for R&D, and the allowance for corporate equity is not allowed to exceed 70% of the taxable profit. Cantons may set this limit at a lower level. This means that, assuming the cantonal relief limit is set at $x\%$, the corporate tax base will be determined by the greater of two values: taxable profit after tax relief, or $(1-x)\%$ of taxable profit before tax relief. About half of the cantons have set the cap at 70%. Some cantons, however, set the cap at 20% or lower, such that it is unlikely to be worthwhile for firms to take on the administrative burden of claiming patent-box or additional R&D deductions.

At the time of writing, the data available on the aftermath of the reform are not yet sufficient for a rigorous ex-post evaluation. This will be an interesting setting for empirical research in a few years' time. Some ex-ante evaluation of the tax reform is provided in Chatagny, Koethenbueger and Stimmelmayer (2017).

A.4 The Federal Tax Harmonization Act (FTHA)

The exact relationship between the direct federal tax and tax harmonization at the cantonal level is an open question. The discussion in Section 4.1, however, suggests that voluntary cooperation without federal involvement would have been limited. We, therefore, first describe the history of the federal government and direct taxation before the FTHA, followed by a discussion of the emergence of the FTHA. We then discuss the relationship between the FTHA and cantonal fiscal equalization and, finally, some important implications of the FTHA for corporate taxation.

A.4.1 A brief history of the fiscal role of the federal government

Political parties

The Swiss Confederation as a federal state came into being in 1848 after a civil war. After this war and indeed throughout much of the 20th century, three political parties were relevant in Switzerland. These parties had different points of view in the run-up to the creation of a direct federal tax.

The socially conservative Christian Democratic People's Party⁵⁰ and related regional groups represented the Catholic minority. Having lost the civil war of 1847 that led to the creation of the federal state, Swiss Catholics were traditionally opposed to measures that strengthened the central government and to harmonizing legislation in Catholic cantons with legislation in Protestant cantons.

The party that long dominated the federal government (and even the parliament until electoral reform in 1918) was the liberal Free Democratic Party⁵¹, which represented the winners of the civil war of 1847. The Free Democratic Party's position toward a federal direct tax was ambiguous. The argument that taxes tend to be economically harmful did not feature as prominently in the Free Democratic Party as one would expect nowadays. There was even support for building a democratic state and centralized government, which included functioning taxation. However, the Free Democratic Party generally preferred indirect taxes. One stronghold of anti-centralism besides Catholics were French-speaking cantons and their Free Democratic Party representatives who feared domination by a German-speaking majority (see e.g. Freiburghaus and Buchli, 2003, p. 35).⁵²

The Social Democratic Party, and the labor movement more broadly, have always favored centralization. They had been pushing for (permanent) direct federal taxes since World War I (Grossmann, 1943, p. 274/5), which was crucial for the legislation that would eventually

⁵⁰ The party united with the Conservative Democratic Party of Switzerland and changed its name to "The Centre" in 2021.

⁵¹ The party united with the Liberal Party and changed its name to "FDP.The Liberals" in 2009. "FDP" was the acronym of the Free Democratic Party ("Freisinnig-Demokratische Partei" in German).

⁵² In October 1959, for example, NZZ (1959) reports that member of the National Council Piot of the Free Democratic Party urged fellow party members from the French-speaking cantons to abandon their opposition against direct federal taxation arguing that "our national defense must not be guided by Khrushchev's smiles or tantrums." Arguments concerning national defense had previously already been decisive for reforms leading to increased centralization, especially in the run-up to the constitutional reform of 1874, as a result of which the military was largely placed under the control of the federal government (Freiburghaus and Buchli, 2003, p. 33).

happen. The main motivation for the Social Democratic Party's position does not seem to have been a negative stance toward tax competition. Two other reasons can be documented from contemporary sources. First, the Social Democratic Party wanted to abolish indirect taxes, which in their view disproportionately burdened the workforce. Second, they primarily associated the fractionalization of Swiss tax laws with rent-seeking behavior of local authorities at the expense of working-class people and thought that, at the national level, organized labor would be better able to protect them.

The congress of the Social Democratic Party in 1916, for example, decided that they would not approve of any federal tax reforms that did not include direct taxes (*Solidarität*, 1916). They also wanted to replace tariffs, a form of indirect taxation as argued by (Robmann, 1918), with direct taxes. As a compromise between the political camps, both direct and indirect taxes would eventually be introduced.⁵³

These party-specific differences seem more salient during the period until the 1950s, during which federal direct taxation was still controversial. Afterwards, when a consensus had been reached, this appears not to have been that much of an issue anymore.⁵⁴

Direct taxation in the cantons until the 1940s

Swiss cantons have been making use of direct taxation since the mid-19th century. Until then tariffs had been their major source of tax revenue. In 1848, after the war that led to the creation of a federal state, cantons lost the right to impose tariffs, which implied a substantial decrease in overall revenue because many cantons had not yet developed the capacity to rely on direct forms of taxation. It took cantons much time to build fiscal capacity.

Eugen Grossmann (1879-1963), professor of public finance at the University of Zurich, paints a bleak picture of the situation in the cantons until the 1940s. Quoting Grossmann (1945), Tanner (2012, p. 33) argues that not a single canton had a “reasonably up-to-date tax administration” before World War I. Wage statements, lists of securities and debt documents were “unknown concepts.” Seligman (1914, p. 358) discusses shortcomings of wealth taxation in Swiss cantons and a widespread culture of under-reporting, arguing that the income tax might “work just as badly” or even be “still more unsuccessful than the general [wealth] tax.” Tanner (2012, p. 33) notes that there was “a veritable proliferation of cantonal and municipal tax concessions.” Referring to Grossmann (1935, pp. 107/8), Tanner (2012, pp. 44/5) argues that, as late as during the 1930s, the taxation procedure was “completely outdated.” Many cantons thought “that they were able to master the problem of taxation almost without any legally and economically trained civil servants.” Information asymmetries that favored politically connected taxpayers

⁵³ An extensive article in *Rote Revue* (1926), a party newspaper of the Social Democratic Party, discussed the common theme of harmonization and direct federal taxation. The article not only addressed the context of Swiss history and constitutional considerations, but also came up with international examples. A reform in the course of the French Revolution, in which a single direct tax was introduced instead of a multitude of both regional and indirect taxes, is mentioned as an inspiration for the Social Democratic Party's policy proposals. The article cites a 1920 reform in the German Empire as an example that similar tax unification can succeed in a federal state.

⁵⁴ A fourth party that initially emerged from mostly urban-rural divisions within the Free Democratic Party and became powerful later on during the 1990s is the euro-skeptic and fiscally conservative Swiss People's Party. The Green Party and Green-Liberals became influential after the turn of the millennium.

abounded.

The practice of basing the personal and corporate income tax on the previous (two) years' income, referred to as "praenumerando method", is one example of cantons' inability to adequately administer taxation. Lacking the capacity to assess taxable income in time, under praenumerando, cantonal administrations would make the assumption that taxable income was the same as (a mean of) previous years' taxable income. Federal Council (1983, p. 14) mentions that during the 1930s, there were three cantons (Schwyz, Aargau, Thurgau) that used a six year period as base years. Many cantonal tax administrations claimed that the praenumerando method reduced bureaucracy because taxpayers only had to fill out tax returns every two years. In numerous cases, however, cantonal tax administrations had to make interim assessments due to sharp fluctuation in income or changes in tax liability, which according to Federal Council (1983, p. 15) more than nullified this advantage.

Hürlimann (2015, pp. 37/8) discusses knowledge transfers between the cantonal and federal tax administrations. She explains that, while after the federal government first introduced direct taxes in 1916, it benefited from cantonal expertise (specifically expertise from the canton of St. Gallen), during the late 1940s the establishment and expansion of the Federal Tax Administration led to a surge in professionalization in many cantons.⁵⁵ Relatedly, Tanner (2012, p. 35) mentions that data and estimates published by the federal government in the course of collecting the war tax after 1915 differed substantially from declared wealth as assessed by the canton of Zurich's tax administration. The canton subsequently expanded its tax administration starting in the late 1910s.

Direct taxation at the federal level before 1959

Eugen Grossmann laid the intellectual foundations for a direct federal tax in Switzerland, sometimes referring to Edwin R. A. Seligman (Grossmann, 1943, p. 278). Seligman's writings had previously influenced the legislation that followed the adoption of the 16th Amendment, which allowed for a progressive federal income tax in the United States (e.g., Seligman, 1893).

Direct taxation at the federal level only emerged after, as a consequence of World War I, tariff revenue collapsed at the federal level. In a referendum on June 6, 1915, a vast majority of Swiss voters (and cantons) voted in favor of a progressive one-time "war tax" ("Kriegssteuer") levied on personal wealth and earnings as well as on corporate equity capital (Hürlimann, 2015, p. 32/3). Grossmann (1943, p. 274/5) emphasizes the influence of the labor movement and social democracy, at whose urging this vote came about. The union newspaper *Gewerkschaftliche Rundschau* (1915) called for a "war profits tax" that went beyond this and provided estimates of the expected revenue.⁵⁶

⁵⁵ van Orsouw (1995, pp. 82-99) discusses one example where, following the example of the federal government in 1935, the canton of Zug switched from taxing earned income to taxing broadly defined income in 1947. The canton of Basel-City had pioneered the taxation of broadly defined incomes during the 19th century.

⁵⁶ World War I, which brought widespread poverty and social tensions culminating in a strike in 1918, was a turning point for Swiss politics more generally. After electoral reform was agreed upon in 1918, the ruling Free Democratic Party lost its absolute majority in the Swiss Parliament. Also, WWI led to the implementation of "Bismarck-style" social reforms, although to a limited extent only (see, e.g., Lengwiler and Leimgruber, 2018,

After the introduction of the one-time war tax, the Social Democratic Party came up with a proposal for a permanent federal direct tax, which was voted down by 54% of the electorate in a popular referendum in 1919 (Tanner, 2012, p. 36). Even more strikingly, 87% of Swiss voters voted against a Social-Democrat proposal for a one-time capital levy to finance the burden of WWI in December 1922 (Tanner, 2012, pp. 36/7). The war tax, originally intended to be a one-time tax, was, however, renewed in 1919 during an economic crisis, maintained until 1932 and subsequently replaced with a “crisis levy” (“Krisenabgabe”; Hürlimann, 2015, pp. 33, 36).

A federal-level tax on corporate income was first enacted in 1933 during the Great Depression and was only supposed to last for four years (1934-37). When World War II began and the economy did not improve, these temporary laws were repeatedly extended or replaced with laws that similarly allowed for direct taxation in 1938 and 1941. Since 1941, there has been a “direct federal tax” (“direkte Bundessteuer”), which until 1983 was referred to as “defense tax” (“Wehrsteuer”). In addition, the government introduced sales tax as a political compromise (“Warenumsatzsteuer”; Hürlimann, 2015, pp. 36/7). Swiss voters voted down a proposal for a permanent direct federal tax in 1950. Eugen Grossmann had played a leading role in drafting this failed tax reform. Instead, the electorate decided to retain the existing regulation until 1954.

An attempt (prepared by Social Democratic Party member of the Federal Council Max Weber, who subsequently resigned) to introduce a definitive new regulation failed in another referendum in 1953 (Freiburghaus and Buchli, 2003, p. 47). Since then and until today, Switzerland has been in a state of “permanent provisionalism”, in which the federal government has the right to levy taxes, but this right must be confirmed by the people at regular intervals.

A turning point: constitutional basis for federal direct taxes

In 1958, the federal direct tax was constitutionally enshrined in the Federal Financial Code (“Bundesfinanzordnung”; Hürlimann, 2015, p. 29). In May, the electorate approved a “federal decree on the constitutional reorganization of the federal financial budget” (“Bundesbeschluss über die verfassungsmässige Neuordnung des Finanzhaushalts des Bundes”). At the same time, federal wealth taxes were abolished as a concession to the cantons (Hürlimann, 2015, p. 39).

This initiated a long-standing legislative mandate for the federal government: “Since 1959, the Federal Government has had the constitutional task of transforming the [...] defense tax decision [‘Wehrsteuerbeschluss’] [...] into ordinary statutory law.” (Federal Council, 1983, p. 6). A process of 25-30 years began, during which various politicians, political commissions and government agencies drafted legislative bills.

Freiburghaus and Buchli, 2003, pp. 40/1 and Hürlimann, 2015, pp. 35).

A.4.2 The development of the FTHA

The Federal Direct Tax Act (FDTA) and the Federal Tax Harmonization Act (FTHA)

Although it remains unclear whether cantonal taxes would have been harmonized in the absence of federal direct taxes, in practice, the drafting of the Federal Tax Harmonization Act (FTHA Swiss Parliament, 1990a) was closely linked to the simultaneous drafting of legislation on direct taxation of personal and corporate income at the federal level (FDTA, Swiss Parliament, 1990b). This process lasted almost a quarter of a century until 1983. It then took another 7 years until the Swiss Parliament approved the FTHA in 1990. Key references on the process that led to the FTHA and the FDTA are the draft legislation published by the federal government (“Botschaften des Bundesrates”) in 1977 and 1983 to convince both chambers of Switzerland’s national parliament (Bundesversammlung) of new legislation drafted by the federal government (Federal Council, 1976, 1983).

Initiatives by the cantons

Following the principle of subsidiarity, cantonal finance directors first tried to harmonize taxes without conferring a new competence on the federal government. All efforts by the cantons to harmonize taxes were strictly limited to tax base harmonization (“formal tax harmonization”). At no time was harmonization of tax rates an option for the cantons (“material tax harmonization”).

In 1968, the Conference of Cantonal Finance Directors (CCFD) appointed a commission of practitioners and researchers. The mandate was to craft a model law for the cantons (NZZ, 1973c). This so-called “Ritschard commission” was chaired by Willi Ritschard, at the time finance director of the canton of Solothurn and later member of the Federal Council (federal government).⁵⁷ The Federal Department of Finance (FDF) already previously installed a commission under the leadership of Lucerne cantonal member of government Bühlmann (Christian Democratic People’s Party) to prepare preliminary legislative drafts on federal direct taxation. This commission presented its legislative proposals in 1970.

In 1970, Federal Councilor Nello Celio and the CCFD agreed to coordinate the legislative proposals on a direct federal tax and on a model law on the direct taxes of the municipalities and cantons (Ritschard, 1972; Höhn, 1973). As a result, the FDF and the CCFD established a joint “Coordination Commission for Tax Harmonization” in November 1970, consisting of members of the aforementioned commissions. This commission, which was initially chaired again by Willi Ritschard, should draw up joint legislative proposals for the FTHA and the FDTA. The Coordination Commission started drafting legislation for the FDTA basically from

⁵⁷ Federal Councilors Willi Ritschard and Otto Stich (both serving as finance ministers) played key roles in the legislative process between the late 1960s and mid-1980s. Both had already been involved in drafting legislative proposals for tax harmonization before their time in the Federal Council. While both were Social Democrats, they each got into the Federal Council through votes from the bourgeois majority and against Social Democratic Party election nominations.

scratch considering the Bühlmann Commission’s drafts written in technical language that was difficult to understand.⁵⁸

In 1971, a working group headed by Ernst Höhn, then professor at the University of St. Gallen, proposed an intercantonal agreement (concordat) as one possibility to realize tax harmonization.⁵⁹ The CCFD subsequently mandated the Ritschard commission to prepare a draft of a concordat based on the draft of the model law (NZZ, 1971). At the end of 1972, the Ritschard commission completed its work.

The concordat solution proposed by Höhn was ultimately not pursued (Ritschard, 1972, p. 104). As early as 1969 Höhn had himself already raised doubts that a concordat would be sufficient, unless the federal government was given the competence to enforce it if necessary (NZZ, 1969). The CCFD later also came to this conclusion. One reason was that a concordat would only allow horizontal but not vertical tax harmonization. A second reason was that joining the concordat would be voluntary for the cantons (Federal Council, 1976; Cavelti and Greminger, 2010). But if not all cantons were on board, then the goal of tax harmonization was not achieved. See also Section 4.1 for the limitations of voluntary cooperation among cantons without involvement of the federal government

At a meeting on June 14/15, 1973, the CCFD declared its support for the creation of a constitutional amendment for the creation of a tax harmonization law. It also suggested a wording for the new constitutional article (JdG, 1973a,d; NZZ, 1973b), which limits the competence of the federal legislative body to the establishment of principles of taxation (formal tax harmonization) and explicitly leaves the determination of tax rates within the competence of the cantons. This CCFD proposal prevailed in the subsequent political process along its broad lines. The constitutional article largely corresponds to the wording proposed by the CCFD at the time. Furthermore, on June 14/15, 1973, the CCFD approved the revised model law and recommended it “as a basis for further work on tax harmonization among the cantons, for revisions of cantonal tax laws and for the enactment of the future federal law on direct federal taxation.” (NZZ, 1973b)

⁵⁸ After his election to the Federal Council in 1974, he was succeeded by Wolfgang Loréan (CSPO, a regional Catholic party), a member of the Valais cantonal executive and president of the CCFD. Other chairmen of the coordination commission, which was active until 1980, were the Zurich cantonal executive Albert Mossdorf (Free Democratic Party) and the Lucerne cantonal executive Carl Mugglin (Christian Democratic People’s Party).

⁵⁹ in previous academic work, Höhn had documented and quantified differences in taxation in the individual cantons. The Ritschard Commission began its work only after the emergence of Höhn’s studies, which it drew upon extensively (Ritschard, 1972, p. 103). In Höhn (1971, pp. 8/9), Höhn explains why he thought harmonization was necessary at this point. Different tax rates in different cantons did not necessarily constitute an injustice, as circumstances in the cantons differed in other respects as well. With regard to the differences in deductibility documented by Höhn, for example, between pension contributions and pension benefits, however, the situation was different. Additionally, Höhn (1968, p. 269) mentions that tax harmonization within the European Economic Community (EEC), which was advanced during the 1960s, could serve as a model for cantonal tax harmonization in Switzerland (Ritschard, 1972, p. 101, mentions this argument, too). He also quotes statements of Federal Councilor Nello Celio (Free Democratic Party), who emphasized the need of adapting Swiss laws to EEC legislation (Höhn, 1968, pp. 275/6).

Initiatives by members of the federal parliament

There were numerous proposals from members of the federal parliament. In contrast to the initiatives from the cantons, they focused from the beginning on creating a constitutional basis that would give the federal parliament the authority to legislate in the area of tax harmonization. Some of these initiatives went beyond formal tax harmonization including varying degrees of material tax harmonization. There was a lively debate in federal parliament, also in connection with referenda (see Section A.4.2), about how far harmonization should go.

There are several kinds of proposals, which members of parliament can submit. The most important ones are motion, postulate, and parliamentary initiative. They can all be approved or rejected by parliament. A motion mandates the Federal Council to prepare a draft legislation. A postulate mandates the Federal Council to examine and report on the appropriateness of preparing a draft legislation or other measures to be taken. With a parliamentary initiative, a member of parliament may propose a draft legislation.

The proposals in parliament relating to tax harmonization included:

- 3 December 1968, postulate submitted by Max Weber, member of the National Council (Social Democratic Party, Bern): The Federal Council should evaluate the possibility to transfer the right to corporate taxation to the federal government. The postulate was approved by the National Council on 13 March 1969.
- March 1969, two identical motions submitted by Hans Conzett (12 March), member of the National Council (Swiss People's Party, Zurich) and Heinrich Herzog (20 March), member of the Council of States (Swiss People's Party, Thurgovia): they requested the Federal Council to evaluate the undesired consequences of the disharmonized tax system in Switzerland. The Federal Council agreed with the general principles of the proposals and requested that the motions be converted into postulates. They were approved as postulates by the National Council (12 June 1969) and by the Council of States (17 June 1969).
- 26 November 1969, a committee of the Council of States submitted a motion which demanded that the Federal Council draw up a constitutional reform bill to harmonize income and wealth taxes in Switzerland. The corresponding committee of the National Council submitted an identical motion. Both the National Council and the Council of States accepted the proposals on 24 June 1970. The motion was submitted in connection with the deliberations on the amendment of the Federal Financial Code, which was later voted down in a referendum.
- 11 March 1971, motion submitted by Walter Biel, member of the National Council (of the now defunct party "Landesring", Alliance of Independents, Zurich): he requested the Federal Council to draft a reform proposal to introduce a federal tax on both individuals and firms which would replace cantonal taxes. Within a certain margin, the determination of the tax allowances may be left to the cantons. This proposal asked for full formal tax

harmonization and far-reaching material tax harmonization, i.e. harmonization of tax rates and schedules.⁶⁰ The Federal Council opposed the proposal but agreed to take it on board as a postulate. It was approved as a postulate by the National Council (19 March 1973). Ultimately, the motion was not successful (Hürlimann, 2015, p. 44).

- 17 March 1971, parliamentary initiative submitted by Otto Stich, member of the National Council (Social Democratic Party, Solothurn; later he was elected a member of the Federal Council and assumed the role of Minister of Finance). He proposed a constitutional amendment which allowed the federal parliament to legislate “in order to promote tax harmonization among the cantons”. The initiative was mostly limited to formal tax harmonization, but it included all taxes (not only on income and wealth). By allowing the federal parliament to prescribe an uniform regulation of the taxation of holding and domiciliary firms, however, the initiative provided for an element of material harmonization. As outlined in the report of the Commission of the National Council (1975), Otto Stich justified his proposal also with the large differences in the tax burden in the cantons, even though his proposal was largely about formal harmonization. He further argued that the taxation of holding and domiciliary firms differed greatly across cantons. In some cantons it was sufficient for taxation at the preferential rate that the assets consisted mainly of participations. Other cantons had stricter regimes giving rise to distortions and huge differences in tax rates across cantons. The legislative work was assigned to the committee of the National Council. In the report released on 17 March 1975, the committee rejected the initiative and proposed a constitutional amendment which was very close to the one drafted by the Ritschard commission.
- September 1972, identical motions submitted by Hans Letsch (18 September), member of the National Council (Free Democratic Party, Argovia) and Ulrich Luder (19 September), member of the Council of States (Free Democratic Party, Solothurn): The motions proposed delegating a mandate to the Federal Council to draft a constitutional amendment that would facilitate formal tax harmonization among the cantons. However, this harmonization would explicitly exclude the harmonization of tax rates. The Federal Council agreed with the general principles of the proposals and requested that the motions be converted into postulates. They were approved as postulates by the National Council (Letsch’s proposal, 19 March 1973) and by the Council of States (Luder’s proposal, 7 March 1973).
- 28 September 1972, postulate submitted by Albert Rüttimann, member of the National Council (Christian Democratic People’s Party, Argovia): The postulate asked the Federal Council to prepare a constitutional amendment which allows for federal legislation prohibiting unjustified tax deals and granting the authority to prescribe to the cantons, if

⁶⁰ Biel’s arguments quoted in SRF (1976) primarily relate to personal income taxes. They are, however, similar to the arguments discussed today in the context of the OECD reforms. For example, Biel addresses the fact that high-income taxpayers can minimize their tax burden by moving to a different municipality. He also mentions that municipalities with relatively low-income taxpayers often provide more public goods because they charge higher taxes.

necessary, a minimum tax for certain income categories. The postulate, which also comprised elements of harmonization of tax rates, was approved by the National Council (4 December 1972).

- December 1973, parliamentary initiative by Laurent Butty (Christian Democratic People's Party, Fribourg): He proposed a constitutional amendment that would transfer the authority to levy personal income and wealth taxes to the federal government. At most 25% of the revenue would go to the federal government, at least 75% would be distributed among cantons (proportional to the population). The cantons could still add a surcharge on the federal tax and keep the revenue. Corporate taxation would remain within cantonal sovereignty. This initiative therefore provides for a far reaching harmonization, both formal and material, of personal income and wealth taxation. Very much like Otto Stich, he justified his proposal with the the large differences in tax burdens across cantons. He argued that a formal tax harmonization would not lead to a convergence in tax rates (Commission of the National Council, 1975). The legislative work was assigned to the committee of the National Council. In the report released by the commission on 17 March 1975 it also rejected this initiative.

The most important result from the list of political proposals was the report of the commission. The report that was released by the committee on 17 March 1975 was the result of deliberations from 1971 to 1975. The committee examined the parliamentary initiatives Stich and Butty and the proposal of the CCFD (prepared by the Ritschard commission) and formulated its own proposal, which was substantively very close to the CCFD proposal. A public consultation was held on all these options. Based on the responses to the consultation, the committee has revised its proposal editorially but left it substantively largely unchanged. Following the CCFD proposal, the committee's proposed wording limits the competence of the federal government to the establishment of principles of taxation (formal tax harmonization) and explicitly leaves the determination of tax rates within the competence of the cantons. Furthermore, also following the CCFD, the tax harmonization would only apply to direct taxes. The commission refrained from a material tax harmonization, because it wants to hold on to the financial and tax sovereignty and therefore the federal law "has to respect the regional differences in the population and economic structure".

Popular initiatives

There were two popular initiatives for tax harmonization in the 1970s. Both initiatives went beyond formal tax harmonization and included at least elements of material tax harmonization. They were voted down, the first on 21 March 1976 and the second on 4 December 1977. For both initiative, the rejection rate was between 50% and 60%. The rejection rate was thus surprisingly low, considering that both initiatives called for a fundamental overhaul of the Swiss tax system and aimed at eliminating tax competition completely or to a large extent.

A popular initiative is a democratic right prescribed in the constitution. It allows 100,000

citizens to sign an initiative for a constitutional amendment and to bring it to the ballot (50,000 signatures were required until 25 September 1977). In most cases, the constitution is not directly applicable. For instance, a constitutional provision conferring to the federal legislator the right to levy an income tax is not a sufficient legal base to collect taxes. For this purpose, the legislature must first implement the constitutional provision in a law. The aim of a popular initiative is therefore to instruct the legislature to enact a law in the sense of the constitutional provision according to the initiative.

As Dubach (2010a) argues, the two initiatives were launched in the wake of deteriorating federal finances, providing a fertile ground for popular initiatives on the tax system. At the beginning of the 1970s, federal finances fall into deficit, partly because of growing federal subsidies to the cantons and social security system. The situation worsened with the global economic crisis as of 1974. We base our summary of the two popular initiatives on Dubach (2010b) and Dubach (2010a), which appeared in a collection that summarizes all referendums in Switzerland from 1948 to 2007.

- **Initiative “For a reform of the tax system (fairer taxation and abolition of tax privileges)”**

The referendum was initiated by the Alliance of Independents and took place on March 4, 1976. It called for a uniform tax system throughout Switzerland and to abolish tax privileges. The initiative’s goal was to replace the cantonal tax laws with a uniform federal law. The federal law would regulate both the tax base and the tax rates. The initiative did not define tax rates, but it prescribed a progressive tax schedule for personal income and a proportional tax for corporate income (flat rate without exemption level). The cantons would have received part of the revenue to cover their financial needs. The initiative allowed cantons levy an extra revenue by applying multipliers to the federal tax. The initiative was rejected with 57.8% of the votes and 24 out of 25 cantons at the time. It got very little support from political stakeholder. The left-of-center parties and the trade unions did not issue a voting recommendation. The Federal Council and the Parliament rejected the initiative together with the center-right parties and business associations.

Opponents argued that the initiative disregarded the federal structure of the country and that it undermined the ongoing, urgently needed and more adequate tax reform efforts. The proponents argued that material tax harmonization is fairer emphasizing the negative effects of tax competition (SRF, 1976).

- **Initiative “For tax harmonization, greater taxation of wealth and relief for lower incomes (taxation of the wealthy initiative)”**

The referendum was initiated by the Social Democratic Party and took place on December 4, 1977. It called for formal tax harmonization and for higher tax rates for high income and high wealth individuals. For corporate taxation it called for both formal and material harmonization. The demand for formal tax harmonization was substantively the same as what had already been passed in the June referendum in 1977 (see Section 4.2.1). This

demand had thus become redundant. The initiative went further, however, by calling for greater progressivity in income and wealth tax. For the federal income tax, incomes below 40,000 were to be exempt. For incomes of 100,000 Swiss francs, the tax rate should be at least 6%, for incomes of 200,000 Swiss francs at least 10%, and for incomes of one million Swiss francs at least 14%.

For the cantons, the initiative called for minimum tax rates. This is a material intervention in cantonal tax policy, which would not be possible without such a constitutional amendment. For the cantonal income taxes, incomes up to subsistence level should remain tax-free. For incomes of 100,000 Swiss francs, the tax rate should be at least 21%, for incomes of 200,000 Swiss francs at least 27% and for incomes of one million Swiss francs at least 33.4%.

For corporate taxation, the initiative sought full formal and material harmonization, i.e. harmonization of both tax bases and tax rates. The taxation of corporate income and corporate capital would have been transferred entirely to the federal government. According to the initiative, the cantons would receive at least one third of the revenue. On corporate income, the initiative left the determination of tax rates to the federal legislature.

The initiative was rejected with 55.6% of the votes and 22 out of 25 cantons at the time. It got support from the left-of-center parties and from a part of the trade unions. The Federal Council and the Parliament rejected the initiative together with the center-right parties and business associations.

Opponents of the initiative argued that the initiative would weaken capital formation and investment activity. This weakening of competitiveness would ultimately also endanger jobs. Furthermore, the initiative would not respect the diversity of the cantons. The proponents emphasized that higher taxation of the wealthy and the tax reliefs for of lower incomes would increase tax justice and eliminate tax evasion and tax competition between the cantons.

Harmonization of tax bases only or also of rates and schedules?

Although all efforts to harmonize tax rates across cantons failed in the end, such proposals did play a role in public discussions.

In a 1972 article, Ritschard (1972, pp. 106/7) wrote that, in his opinion, a majority of the population probably favored material harmonization at the time. However, Ritschard saw practical obstacles and considered formal harmonization as a necessary precondition for harmonization of tax rates. According to Ritschard, the per capita GDP in the then richest canton of Basel-Stadt (CHF 17,410) exceeded that of the then poorest canton of Appenzell-Innerrhoden (CHF 7,635) by a factor of 2.3. If each canton had continued to levy its taxes independently, harmonization of tax rates would have meant that either tax revenues would have increased immensely in Basel-Stadt, or that they would have decreased sharply in Appenzell-Innerrhoden. Ritschard considered tax base harmonization as a prerequisite for better fiscal equalization and

better financial equalization as a prerequisite for a necessary reduction of inter-cantonal income differences.

In retrospect, things have not turned out as Ritschard had intended. Tax competition may even have intensified after tax bases had been harmonized. And while fiscal equalization may work better today, the FTHA has not helped level inter-cantonal differences, either. According to the latest figures for 2020, per-capita GDP in Basel-Stadt, still the canton with the highest per-capita GDP (CHF 189,354), is 3.4 times higher than in Valais (CHF 55,313), now the canton with the lowest GDP per capita, and 2.9 times higher than in Appenzell-Innerrhoden (CHF 64,358).⁶¹

The position of business associations and representatives on tax harmonization

Both Höhn (1971, p. 8) and Ritschard (1972, p. 101) mention the difficulties that firms face in operating their business in several cantons as a main motivation why they thought tax harmonization was necessary.

“Big business” as a consequence was emphatically in favor of tax harmonization. Swiss corporate union *economiesuisse* endorsed harmonization. *SGV/USAM*, representing mostly smaller businesses, on the other hand, neither formally endorsed nor opposed it.

Tax harmonization made it easier for larger corporations, especially in retail, to scale their operations and operate in multiple cantons. The growth of these larger businesses, such as supermarket chains, which were able to operate at lower costs than local businesses allowed for welfare gains.

The increased competition could have been to the detriment of remote jurisdictions if not only the tax bases but also the tax rates had been harmonized. The results of Krapf and Staubli (2020) suggest that economic activity would be concentrated in urban centers if tax rates had been harmonized in addition to tax bases (see Section 3.1).

If there was any interest group for whom the pre-harmonization situation was beneficial, then it was probably small businesses that only operated in one canton. We see two reasons: First, lack of harmonized tax laws shielded them to an extent from competition by larger corporation that operated in multiple cantons. Second, owners of these small businesses likely had the knowledge and political connections (as opposed to working class people) that allowed them to take advantage of complicated legislation in the cantons. Tax harmonization curtailed smaller local businesses of this edge that they previously had and may have forced many of them out of the market.

Completion of the legislative procedures

On June 12, 1976, a vote was held on Federal Council resolutions on the one hand on a “reorganization of the sales tax and direct federal tax”, and on the other hand on tax harmonization. Although the electorate rejected the bill on direct federal tax, it voted in favor of the tax

⁶¹ <https://www.bfs.admin.ch/bfs/de/home/statistiken/volkswirtschaft/volkswirtschaftliche-gesamtrechnung/bruttoinlandprodukt-kanton.assetdetail.23526480.html>.

harmonization bill. This vote was preceded by parliamentary initiatives by the two national councilors, Otto Stich (Social Democratic Party, Solothurn) in 1971 and Laurent Butty (Christian Democratic People's Party, Fribourg) in 1973, which differed in how far the harmonization should go and whether, for example, it should include only direct taxes or all taxes. A commission of the National Council decided against the two parliamentary initiatives and decided instead, in coordination with the CCFD, to submit proposals of the Ritschard Commission to the electorate for vote. This vote led to the new Article 42quinquies in the federal constitution, which mandated the federal government, in cooperation with the cantons, to harmonize direct federal, cantonal and municipal taxes. After a phase as a cantonal executive in the canton of Solothurn, National Councilor Otto Stich would succeed Willi Ritschard as Federal Councilor in the Finance Department (FDF) from 1984-95.

In 1983, the federal government proposed a law on tax harmonization, i.e. the unification of cantonal legislation with regard to tax bases in particular. It was part of this proposal that the tax itself not be part of the taxbase. Moreover, the federal government proposed to abandon the progressive schedule it had applied to corporate income in favor of a proportional tariff. It took seven years until this law on tax harmonization (FTHA) was approved of in 1990. The FTHA became effective in 1993.

A.4.3 The FTHA and fiscal equalization

At the time of the discussion on the introduction of formal tax harmonization, the financial equalization between the cantons was structured differently than it is today. The cantons received money from the federal government for specific projects (e.g. for the construction of infrastructure or a school building).

How much financial support cantons received from the federal government depended on the so-called "financial capacity" of a canton. The financial capacity was determined by, among other things, the amount of tax revenue of the canton. A canton with low per-capita tax revenue tended to receive more money from the federal government, a canton with low per-capita tax revenue tended to receive less money from the federal government.

Numerous media reports (NZZ, 1969, 1973a, 1970; JdG, 1973b,c) emphasized the importance of formal tax harmonization to enable the comparison of cantons' fiscal capacity for purposes of the financial equalization scheme. There were concerns that recipient cantons would deliberately reduce their revenues by lowering taxes and then requesting financial support from the federal government. According to the NZZ (1973c), "it is unacceptable that a canton deliberately manipulates the elements used to determine financial capacity in such a way that it is placed in the group of financially weak cantons and accordingly receives high federal funds." Federal Council (1976) describes the leitmotiv according to which the cantons should first "try to help themselves with all possible means before asking for solidarity from others".

However, because the tax systems in the cantons were completely different, it was practically impossible to gauge the actual financial needs of a canton. In other words, it was hardly possible to tell whether a canton had low tax revenues because of low taxes or because of little financial

capacity. Formal tax harmonization was meant to create transparency in this respect. Cantonal tax laws would differ only in the tax rates. Other provisions, like the way the tax base was determined or the frequency with which tax holidays were granted, ceased to play a role. Thus, the harmonization of the tax base would allow the federal government to tell whether a canton used all the reasonable measures to raise sufficient public funds on its own.

As mentioned above, some actors assumed or hoped that a more efficient financial equalization would lead to a reduction in differences in per capital income and eventually in tax rates across cantons (Ritschard, 1972, pp. 106/7). Some spoke of an indirect path to some degree of harmonization of tax rates in the cantons. When Leo Weber, the Rapporteur of the Committee, spoke to the National Council on 22 June 1976 he said that the Commission had explicitly ruled out direct material harmonization. However, formal tax harmonization should indirectly path the way to convergence in tax rates via financial equalization (loosely translated). (Commission of the National Council, 1975)

These arguments were criticized for being somewhat unclear. At that time, there was no concrete plan on how to solve the identified problems in fiscal equalization after tax harmonization had been realized. JdG (1977) noted that the situation remains very unclear as to how to improve the financial equalization scheme subsequent to tax harmonization. This main argument for tax harmonization, that it would enable more efficient and fairer financial equalization, never manifested itself to any relevant extent. In any case, a revision of the financial equalization system was prepared in the 1990s, so that contributions to and from the cantons no longer depended on how much the cantons utilize their fiscal capacity. The reform of financial equalization came into force in 2008, two years after the transition period for the cantons to implement tax harmonization in cantonal law had ended.

A.4.4 The FTHA, the FDTA and corporate taxation

Specific implications of the FTHA for corporate taxation

Four components of the FTHA draft of 1983 were of particular importance for corporate taxation (e.g. Federal Council, 1983, p. 5):

1. The FTHA stipulated that the taxes themselves should be deductible from the tax base. This had previously been handled very differently by the cantons. Also, there was some controversy around this with some cantons trying to make deductibility of the tax itself optional in the FTHA (Federal Council, 1983, p. 53).
2. The cantons should retain sovereignty over tax rates (Federal Council, 1983, p. 54-9). It was also discussed whether the FDTA should include measures to mitigate the economic double burden of corporate tax. However, the Coordination Commission ultimately rejected this (Federal Council, 1983, pp. 54-58).
3. At the federal level, the three-tier schedule was replaced with a proportional schedule (Federal Council, 1983, pp. 53/4 and pp. 78/9).

4. The cantonal privileges for holding and domiciliary firms were to be standardized (Federal Council, 1983, pp. 61-3).

In 1998, the federal tax on corporate capital was abolished. Cantons still tax corporate capital. Following the lead of the federal government, most cantons have, however, moved towards proportional schedules on taxable profits as documented in Portmann and Staubli (2020).

Praenumerando vs. postnumerando

Plans to eliminate the practice of basing income tax on previous years' incomes were a central albeit the most controversial component of the efforts that led to the FTHA. The federal government considered the "standardization of temporal assessment" to be one of the "important goals of harmonization" and "an explicit objective of the constitutional mandate" (Federal Council, 1983, pp. 17-20). There was opposition from the cantons, but less in relation to corporate tax and more in relation to personal income tax. The federal government had already drafted a legislative proposal in 1973, but the cantons decided to delay arguing that standardization should coincide with the introduction of direct federal taxation. In 1980, the Conference of Cantonal Finance Directors (CCFD) even decided by a majority to uniformly apply the system with a two-year tax period and past assessment for personal income tax. Cantons that had already switched to the one-year tax period (BS, GE, NE, SO) and present assessment (BS) were to be obliged to reverse reforms. The federal government thought it could break the fierce opposition from some cantons by including the standardization of the time-based assessment in its bill for the FTHA of 1983. The version of the FTHA that was approved in 1990, however, prescribed past assessment and left cantons the choice between one- or two-year assessment period. In the late 1990s and early 2000s, however, Swiss cantons still moved towards a standard system with one-year tax period and present assessment. A revised version of the FTHA, which reflects this new reality, has been in force since 2014.

Tax loss carryforward

The provision in the FDTA (Swiss Parliament, 1990b, Art. 31) regarding losses carried forward continues a practice that has existed since 1978 (Federal Council, 1983, pp. 96/7). According to this practice, losses from the seven financial years preceding the tax period can be deducted if they could not be taken into account in the calculation of the taxable income of these years. It should, however, be mentioned that, especially prior to the FTHA, the cantons, out of convenience, often applied their own legal regulations to the federal tax, which they are in charge of collecting, as well. This provision in the federal tax was initially more generous than it was in many cantons before the introduction of the FTHA, which often provided for less than seven years. While the drafts in the FTHA were therefore oriented towards the FDTA with regard to loss carryforwards, they did not provide for an obligation to adopt the regulations of the FDTA. The draft legislation for the FTHA, which allowed loss carry-forwards for up to seven years, left the cantons the option to follow the rules applicable to the federal direct tax (Federal Council,

1983, Art. 28 Abs. 2, p. 301). Since a change in the law in 2001, the FTHA, however, uses the same rule as the FDTA (Swiss Parliament, 1990a, Art. 25 Abs. 2).