

Reto Foellmi and Isabel Z. Martínez Inequality in Switzerland: A Haven of Stability?

INTRODUCTION

Economic inequality is again being widely discussed. The reasons for this are manifold: the rise in inequality observed in many countries, the increased globalization with the entry of former emerging markets into the world market, and the (too) slow recovery after the 2008 economic crisis with uncertain growth prospects. The influential book by Thomas Piketty *Capital in the 21st Century* has raised the topic to a broad social and political sphere, suggesting the introduction of a global wealth or a capital transaction tax. More recently, concerns about effects of continuing automation, digitalization and artificial intelligence on the labor market and the distribution of income and wealth entered the discourse on inequality.

In this article, we discuss evidence on the evolution of top incomes in Switzerland, one of the richest countries in the world. Switzerland is a major industrialized economy with a strong financial sector. Furthermore, the absence of wars and the tax competition between its cantons kept the tax burden relatively low and stable over time. These features render the case of Switzerland interesting to understand how income and wealth inequality evolve in the absence of major shocks.

We investigate how top incomes in Switzerland, which lies at the heart of Europe, have evolved compared to neighboring countries and the United States. We show that in Switzerland, similar to other countries, the share of labor income going to the top 1 percent has increased, implying that the recent rise in top incomes is not just attributable to more concentrated capital incomes. We also present new evidence on the income mobility of top earners in Switzerland, i.e. the question how long someone belonging to the top 1 percent stays within this group. Finally, we shed light on the concentration of wealth.

TOP INCOME SHARES IN COMPARISON TO OTHER INDUSTRIALIZED COUNTRIES

To understand the evolution of the income distribution, the development of high incomes is of particular importance. Although such top income shares are, by definition, related to a small part of the

population, this measure of income concentration is important not only for the overall distribution but also from a fiscal and socio-political perspective. On the one hand, the richest taxpayers make a significant contribution to government revenues. On the other hand, ever-increasing top incomes can lead to social tensions or jeopardize a liberal economic and social order. And when economic elites emerge who seek to influence taxation and distribution policies in their favor in particular, this endangers not least the democratic ideals of modern societies – see Gilens and Page (2014) for an empirical investigation in the US context.

Recent research has documented the long-term evolution of high incomes over the last century to the present in different countries, starting with Piketty (2001) for France. Atkinson and Piketty (2007 and 2010) provide a collection of studies on top incomes for countries around the world. The World Inequality Database wid.world hosts series on top incomes and other inequality measures for an even larger set of countries. The majority of these studies use tax data to estimate the share of total income going to top income groups like the top 10 percent or the top 1 percent. Tax data are particularly well suited because they are available over long periods of time and, unlike survey data, also capture the top income from labor and capital. In addition, the Pareto distribution laws make it possible to determine very precisely the proportions of the total income of the upper income distribution classes – even if only aggregated tax statistics and no individual data are available.

Figure 1 shows the income share of the top 1 percent of taxpayers for different countries. In Switzerland, the share of total income going to the richest percent fell from around 11 percent in the 1970s to 8.5 percent, and then rose steadily from the mid-1990s to reach the 11 percent mark again in 2008. At the same time, the income components that the top 1 percent can claim have recently become more volatile and fluctuate more strongly with the business cycle. This suggests that the top incomes are less stable over the course of the business cycle, although the upward trend continues overall. An international comparison reveals that the recent rise in the top 1 percent in Switzerland has been comparatively moderate. Thus, the top income in Switzerland rose less than in neighboring Germany or in the United States, the front-runner of the increasing income concentration among the rich. In neighboring France, on the other hand, the richest percent of income recipients receive 2 to 3 percentage points less of the total national income than in Switzerland. However, note that the series on France and Switzerland do not include any capital gains (these are tax-free on private assets in Switzerland and are therefore not covered by tax statistics). As the series for the United States and Germany show, including realized capital gains, raises the measured income concentration.



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Figure 1
Top 1% Income Share for Switzerland and Various Countries
 1905–2015

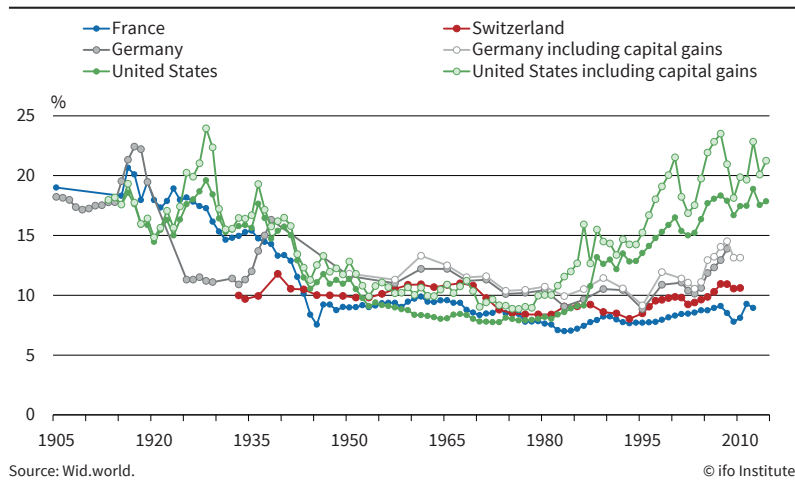


Figure 2
Top 10% Income Share for Switzerland and Various Countries
 1905–2015

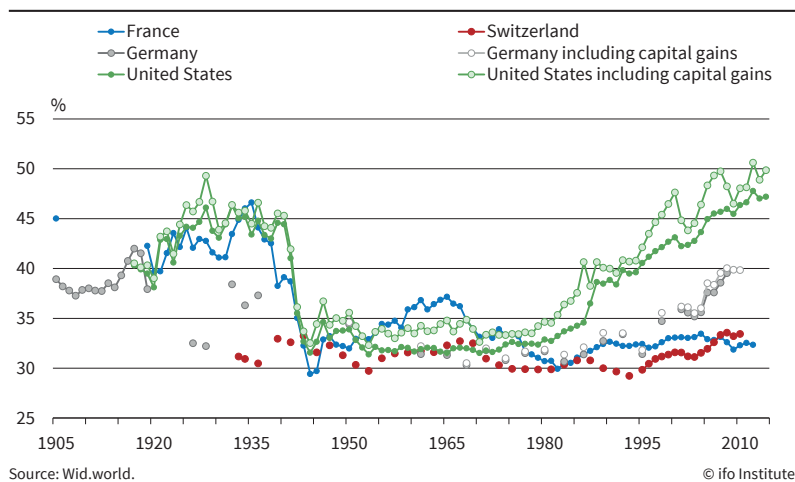
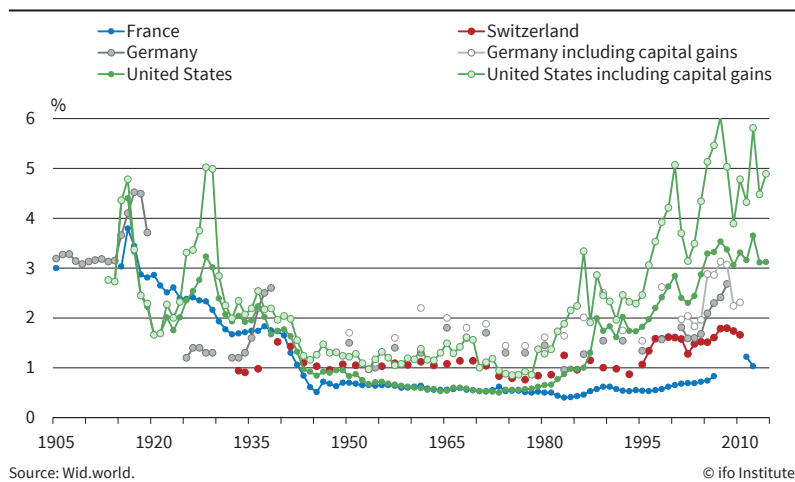


Figure 3
Top 0.01% Income Share for Switzerland and Various Countries
 1905–2015

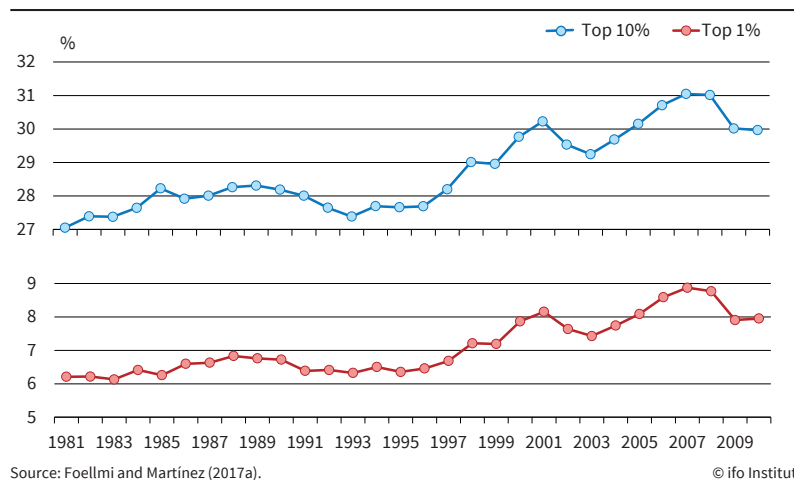


If one focuses on the broader group of the top 10 percent (Figure 2), Switzerland displays a level of income concentration below that of neighboring countries and the United States throughout most of the 20th century. Likewise, the upward trend observed over the past 20 years was moderate in Switzerland. What stands out in the graph, however, is that France barely experienced any increase in top incomes. Looking at different fractiles within the top 10 percent, we find an increasing spread of income distribution at the upper end, which takes place in all countries: the further up one moves along the income distribution, the more concentrated are top incomes (Figure 2).

The income share of the super-rich is also pronounced in Switzerland, albeit to a lesser extent than in countries such as the United States or Germany. While the share in total income of the top 0.01 percent was still slightly above or even below 1 percent until the early 1990s, in the last 20 years it has risen to almost 2 percent – i.e. 200 times the average income. This level is as high as ever since the First World War. Again, France stands out as the country with the lowest concentration in top incomes among the countries compared here. Note, however, how when looking at the very top, the richest 0.01 percent of taxpayers, the Grande Nation also could not escape the global trend of rising top incomes.

What are the reasons behind this development? To shed light on this, we look at labor incomes and the international composition of the top income group. The evolution of the highest labor income is similar to the incomes of the top income

Figure 4
Top Labour Incomes
1981–2010



recipients (Figure 4). This suggests that the observed increase in the highest total income is not primarily due to increasing asset concentration and high capital incomes but is rather driven by (managerial) top salaries. The rise in top salaries implies further that the average salary since the 1990s has increased more than the median salary measured in the social security data.¹

Some economists argue that technological change and the concomitant increase in average company size favor the top talent and earners (see Gabaix and Landier 2008). It is only in a large market that successful decisions by a manager can have a major leverage effect. The same is true when CEOs are rewarded for luck, which has been shown to be the case in earlier research (Bertrand and Mullainathan 2001). In Foellmi and Martínez (2017a), we examined the relationship between top incomes and the market capitalization of listed companies relative to GDP. Switzerland, the seat of many multinational companies, has a very high relative market capitalization by international comparison, which has also risen sharply since the 1990s. The country is attractive to many multinational companies with well-paid top jobs. Market capitalization increased from 80 percent in 1990 to over 300 percent of GDP in 1990, only to converge to around 200 percent of GDP after the financial crisis. These levels are among the highest in the OECD, even before financial centers such as Luxembourg. The United States, with its highly developed stock market, only has a market capitalization of around 100 percent; the values for France and Germany are again significantly lower, at 70 percent and 50 percent, respectively. In fact, this rising market value in Switzerland is accompanied by an increase in (labor) incomes of the top 10 percent and top 1 percent (Figure 4). However,

¹ Note that social security contributions in Switzerland are uncapped and include salaries, bonuses, gratifications, deferred stock options and the like (all valued at pay out). The data further includes all personal income from self-employment.

even after this increase, the income concentration remains lower than in other industrialized countries (see Figure 1).

EXPENDITURE-BASED TAX UNITS AND OTHER SPECIAL CASES

Our top income shares estimates for Switzerland (Foellmi and Martínez 2017a) include expenditure-based and other ‘special cases’ in the tax statistics. An important question is therefore what role these taxpayers play at the top and how their share

among top groups has evolved over time. Switzerland is well-known as an attractive country for high-income residents thanks to its mild tax climate. Especially its expenditure-based tax regime for wealthy foreigners (sometimes referred to as ‘tax deals’ in reference to practices in the area of corporate taxation), has attracted both widespread attention and international critique.

Contrary to common wisdom, expenditure-based taxpayers do not get a special tax deal in the sense that they negotiate over a different tax rate.² The difference is that expenditures (i.e. consumption) replace income as the tax base. Expenditures are mainly based on living expenditures for the taxpayer, the spouse and dependents. The sum of these expenditures has to equal at least five times the (imputed) rent (in case of home-owners). For taxpayers living in hotels, pensions or homes for the elderly, the tax base has to equal at least twice their expenditures for room and board.³ In addition, a control calculation makes sure that the tax is not lower than the regular tax on Swiss income sources would be, namely real estate incomes and all kind of capital incomes, patents and pensions from Swiss sources. Incomes from abroad are further added to the tax base if the taxpayer claims an exemption from foreign income tax that would normally arise on these incomes.

Expenditure-based taxation is available to foreign taxpayers who relocate to Switzerland, under the condition that they do not work in Switzerland. It not only decreases the tax burden but also reduces the costs associated with tax filing. If income streams are a complex mix of different sources from different countries, opting for an expenditure-based tax deal

² It is necessary to apply and obtain a tax ruling from the local tax administration, who considers each case on an individual basis. This may explain the confusion.

³ The rules have become stricter as of 1 January 2016: seven times (imputed) rent or three times the expenditures for accommodation and board, respectively. In addition, a minimum tax base was introduced at the federal (400,000 CHF) and cantonal (varying) levels.

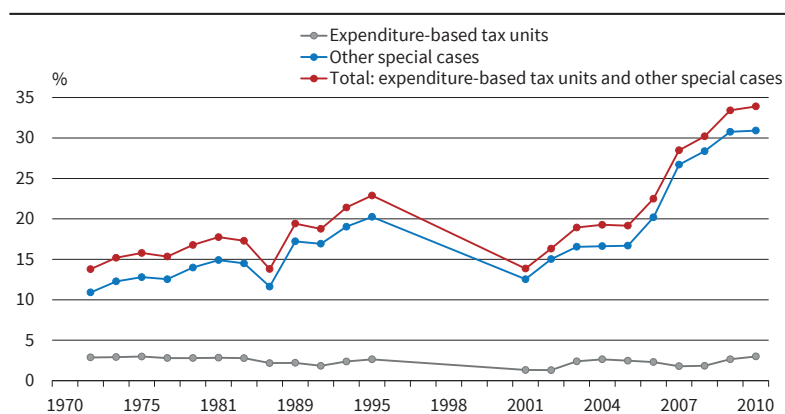
may be less costly, and it guards the taxpayer from falling under suspicion of tax fraud in other countries, since they legally pay their taxes in Switzerland (Weibel 2014). Note that expenditure-based taxation is not available in all cantons. The first to offer these preferential tax treatments for foreigners were Vaud (1862) and Geneva (1928). Over the 20th century, the other cantons followed. Since 2009, five out of the 26 cantons – including Zurich – revoked their expenditure-based taxation.

Although on average we expect these taxpayers' income to be larger than their reported tax base, there is at least some anecdotal evidence that expenditure-based taxpayers sometimes pay more taxes than they would on a regular basis. When the canton of Zurich abolished the expenditure-based taxation in 2010, about half of the 201 expenditure-based taxpayers left the canton, and among those who stayed, only 47 (i.e. approximately 50 percent) paid higher taxes (Finanzdirektion Kanton Zürich 2012).

It turns out, that over the period 1971-2010 a very stable fraction of about 3 percent of the top 0.1 percent were taxed based on expenditures (Figure 5). A much more important and increasing category at the very top are the so-called special cases. These are tax units with taxable income below rate-determining income. They have incomes which were already taxed abroad (e.g. foreign real estate), or they are not subject to taxation in Switzerland for the entire fiscal year (e.g. tax units who emigrate). This allows a distinction to be made of taxpayers who generate income abroad, a particular feature of the Swiss tax data. In these cases, the Swiss tax rate is calculated upon the whole income but is only applied to the income taxable in Switzerland. Again we cannot know by how much the statistics underestimate true income, but it is possible to report these cases.

As can be seen from Figure 5, special cases with global incomes are much more relevant within the top income groups than wealthy foreigners taxed according to their expenditures, and their share has been increasing since the 1970s. Not surprisingly, the share of special cases increases towards the top of the income distribution. This fact entails two interesting findings. First, top income earners in Switzerland are more prone to have incomes from abroad than the average taxpayer, a finding that becomes more accentuated towards the very top of the income distribution. Furthermore, the share of individuals earning income abroad has increased substantially over time, notably among very top groups. While in the 1970s around 12 percent of the top 0.1 percent income

Figure 5
Expenditure-based Tax Units and Special Cases among Top 0.1%



Note: Other special cases have direct income sources from abroad, hence they are an indication of how international the top 0.1 percent of taxpayers are.

Source: Foellmi and Martínez (2017a).

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earners were special cases, by 2010 this share had increased to 34 percent. In our view, this goes hand-in-hand with the observation that while Switzerland has a relatively equal wage distribution, inequality at the top resembles more the Anglo-Saxon countries. The very top income earners in Switzerland belong to a class of fortunate global citizens: they seem to be able to take advantage of globalization more than the average, and their income process follows the corresponding worldwide trends for top incomes. Second, the presence of tax deals does not play a central role for a possible downward bias of top income shares. Very rich persons with income sources from abroad seem to find attractive tax conditions in Switzerland even without a special tax deal. For our overall results, these findings indicate that our estimates on the evolution of top income shares should be taken as a lower bound and that the bias arising from special cases with several international income sources becomes larger over time and for groups at the very top.

MOBILITY AMONG TOP EARNERS

Top income shares have become a widespread inequality measure, yet they remain cross-sectional snapshots. They say little about the persistence of top earners at the top or changes in lifetime inequality. If the likelihood to drop out of the top 1 percent has increased as well, lifetime inequality may not have changed that much after all. Earlier studies on top income mobility in the United States have found that transitions in and out of the top 1 percent are relatively high (Kopczuk, Saez and Song 2010; Auten, Gee and Turner 2013; Guvenen, Kaplan and Song 2014). Thanks to the panel nature of social security data, it is possible to document the persistence of top earners at the top of the labor income distribution (Martínez 2018).⁴

⁴ This analysis covers only incomes from labour and self-employment, while tax data covers all income sources. Swiss tax data has only a limited panel dimension and mobility cannot be studied

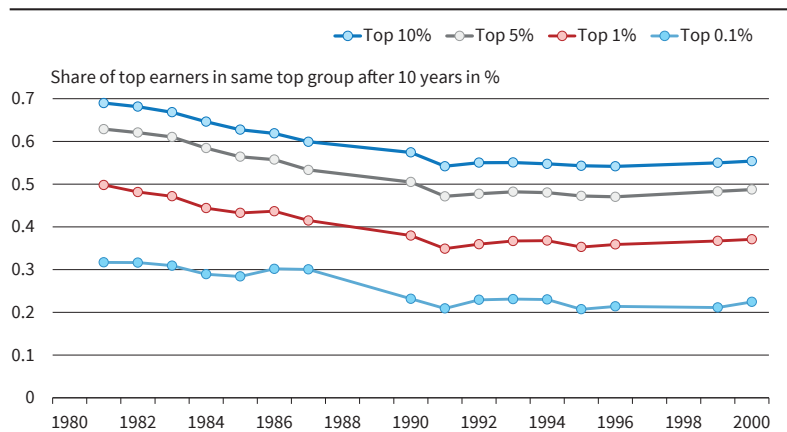
Of those belonging to the top 1 percent in 2009, 77 percent were still in the same percentile one year later. This persistence rate is slightly lower than it was in 1981, when still 81 percent of those in the top 1 percent kept their position after one year. While there clearly is movement in and out of the top 1 percent group over time, after 5 (10) years still around 60 percent (40 percent) of the members are found in that group again (unconditional on being at the top throughout the whole time span though). After 15 years, a third of a working life, 25 percent still make it into that group. Conditional on being a member of the top 1 percent throughout the entire time span, persistence rates are only about 10 percentage points lower. This suggests that many of those observed again at the top a few years later were there throughout the whole time. As one moves further to the top, persistence rates decrease. For the top 0.1 percent, the probability of being at the top again in 5 years was 50 percent. Figure 6 summarizes the (unconditional) persistence rates for different top groups over a time span of 10 years. Over time, the persistence rates of all top groups have been decreasing, and therefore mobility at the top did increase. However, this increase in mobility happened in the 1980s and early 1990s. Since the mid-1990s, when we see top incomes rising, mobility has remained constant. Income mobility could therefore not counteract the rise in income inequality. This is why overall inequality, measured by the Gini index, as well as top income shares rose also in permanent incomes (measured as five-year centered averages).

Figure 8 shows the share in top labor incomes going to the top 1 percent when measured in annual or permanent incomes. Clearly, both series start increasing in the mid-1990s. The spikes in annual incomes in the graph further show that top income shares have a non-negligible transitory component. These transitory incomes make up 5–10 percent of the income share going to the top 1 percent and are highest right before the economy enters a recession. Systematic analyses of the cyclicity and earnings risks in the United States have shown that labor incomes of

Continued Footnote 4:

over long time spans and with as much detail as with social security data. As the literature on top income shares for many countries including Switzerland has found a rising share of income coming from labour even at the very top (Foellmi and Martínez 2017a; Piketty and Saez 2007), the analysis is still meaningful for total income mobility.

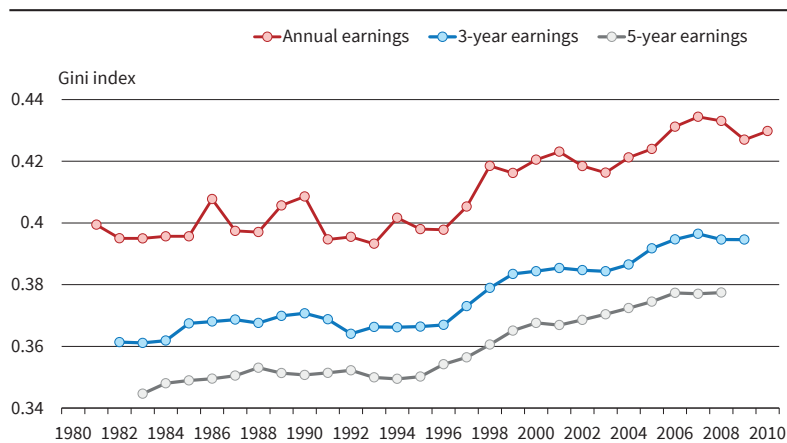
Figure 6
Persistence of Top Income Earners over a Period of Ten Years in Switzerland



Calculations are based on social security data.
Source: Martínez (2018).

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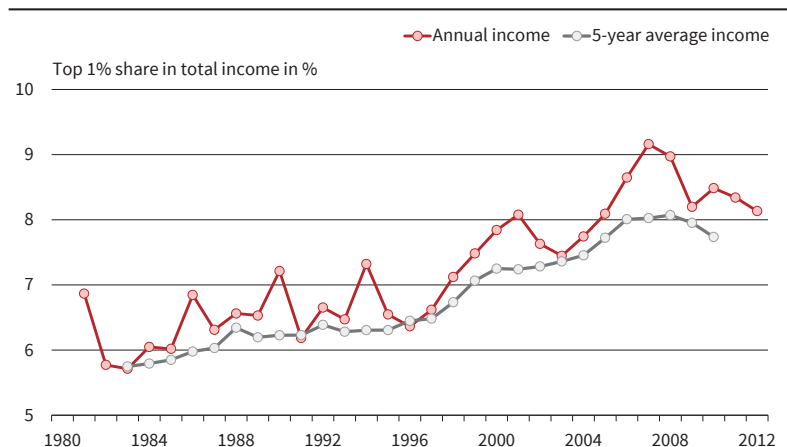
Figure 7
Top Labour Income Shares in Annual and Permanent Income



Source: Martínez (2018).

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Figure 8
Top Labour Income Shares in Annual and Permanent Income



Source: Martínez (2018).

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the top 1 percent are more cyclical and are subject to larger earnings risks than those of the rest of the population (Guvenen, Kaplan and Song 2014; Guvenen, Ozkan and Song, 2014; Guvenen *et al.* 2017).

WEALTH INEQUALITY

Economic inequality affects not only income but also wealth – and in all countries with available data, wealth is more unequally distributed than income. This is not surprising, since wealth accumulates through savings, whose rates are increasing in income. Figure 9 shows that Switzerland’s wealth concentration is among the highest in the world, with the richest 1 percent accounting for around 40 percent of total assets – about twice as much as France and England (see OECD Wealth Distribution Statistics). This is surprising, given the balanced income distribution in Switzerland. One reason is the attractiveness of Switzerland for top earners and multinational companies, which is reflected in the high shares of the top 0.1 and top 0.01 percent of the income distribution. This manifests itself in very high asset shares of these internationally successful individuals. However, Figure 9 also shows impressively the continuing political stability of Switzerland. Fortunes are a much longer-term indicator than income because they are accumulated over several decades through savings and capital gains. The absence of wars and the associated economic policy changes never let the top 1 percent share break down over an entire century – in contrast to the comparison states.

In Foellmi and Martínez (2017a), however, we qualify this extreme concentration. The available assets are based on tax statistics, which do not take into account the tax-exempt assets in pension funds. By contrast, the ranks of the other countries in Figure 9 also include pension assets (with the exception of future pension promises of state pension schemes such as Swiss AHV). If we consider this fact,

the top 1 percent’s wealth share in 2011 falls from 40 percent to around 27 percent.

CONCLUSION

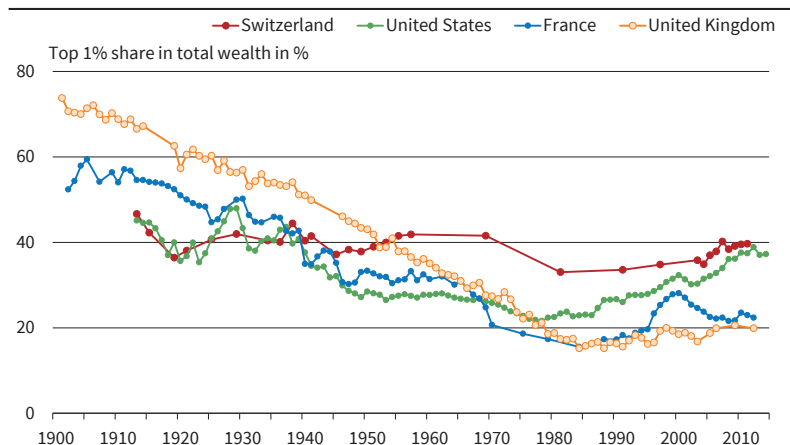
Although income inequality and top income have repeatedly led to lively discussions around distribution issues, Switzerland is a haven of stability in terms of income inequality for the general population, especially in international terms. The present article also shows that Switzerland, with its well-functioning dual education system and its associated high level of labor market participation, succeeded in achieving relatively high and balanced income for broad sections of the population compared to other industrialized countries. However, income inequality of market incomes has increased, measured by top income shares and by the Gini index of gross incomes, as well. This increase in inequality is mainly due to the increase in top income since the 1990s. The latter was driven by an increase among the very top, where Switzerland resembles the path of Anglo-Saxon countries. This mirrors our result that the very top income earners in Switzerland have become more globalized, and they seem to be able to reap the fruits of globalization more than the average. We did not analyze whether the increase in primary income inequality leads to higher inequality in disposable incomes. As discussed in Foellmi and Martínez (2017b), the distribution of net income when measured by surveys has remained constant, so the increase in inequality has been largely offset by increased redistribution.

To assess changes in lifetime rather than annual inequality, mobility patterns have to be taken into account. Martínez (2018) provides evidence that indeed income mobility at the top is higher than it was in the 1980s. However, the increase in mobility happened mainly in the 1980s. The years since the mid-1990s that saw an increase in top income inequality was not accompanied by higher mobility. Overall,

when measuring permanent incomes, the increase in mobility was not sufficient to offset the increase in inequality.

The absence of wars, the long-term stability of Switzerland and its strong federal structure with tax competition have never led to abrupt changes in economic policy, as evidenced by the extremely stable currency. All of these factors led to a very persistent distribution of assets over time in international comparison. The degree of wealth inequality is very high: the richest 1 percent of taxpayers owns

Figure 9
Wealth Share of Top 1% in International Comparison
1900–2015



Source: Wid.world; Foellmi and Martínez (2017a).

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about 40 percent of all taxable assets. However, it is important to relativize this number. On the one hand, part of the high wealth inequality lies in Switzerland's long-standing attractiveness for the very affluent. On the other hand, and as we show in Foellmi and Martínez (2017a), concentration clearly falls when the tax-exempted assets from the Pension Fund and the voluntary 'Pillar 3a' pension plans are taken into account. The richest percent still owns just over 25 percent of wealth, which would put Switzerland in the international comparison of top wealth shares in the midfield of asset concentration.

REFERENCES

- Atkinson, A.B. and T. Piketty (2007), *Top Incomes over the Twentieth Century: A Contrast between Continental European and English-Speaking Countries*, Oxford: Oxford University Press.
- Atkinson, A.B. and T. Piketty (2010), *Top Incomes: A Global Perspective*, Oxford: Oxford University Press.
- Auten, G., G. Gee and N. Turner (2013a), "Income Inequality, Mobility, and Turnover at the Top in the US, 1987–2010", *American Economic Review* 103, 168–172.
- Auten, G., G. Gee and N. Turner (2013b), "New Perspectives on Income Mobility and Inequality", *National Tax Journal* 66, 893–912.
- Bertrand, M. and S. Mullainathan (2001), "Are CEOs Rewarded for Luck? The Ones without Principals Are", *The Quarterly Journal of Economics* 116, 901–932.
- Finanzdirektion Kanton Zürich (2012), "Einkommenssteuerbelastung jetzt spürbar über dem schweizerischen Mittel", Press Release, 16 March.
- Foellmi, R. and I.Z. Martínez (2017a), "Volatile Top Income Shares in Switzerland? Reassessing the Evolution between 1981 and 2010", *The Review of Economics and Statistics* 99, 793–809.
- Foellmi, R. and I.Z. Martínez (2017b), *Die Verteilung von Einkommen und Vermögen in der Schweiz*, UBS International Center of Economics in Society Public Paper 6.
- Gabaix, X. and A. Landier (2008), "Why Has CEO Pay Increased So Much?", *The Quarterly Journal of Economics* 123, 49–100.
- Gilens, M. and B. Page (2014), "Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens", *Perspective on Politics* 12, 564–581.
- Guvenen, F., G. Kaplan, G. and J. Song (2014), "How Risky Are Recessions for Top Earners?", *American Economic Review* 104, 148–153.
- Guvenen, F., S. Ozkan and J. Song (2014), "The Nature of Countercyclical Income Risk", *Journal of Political Economy* 122, 621–660.
- Guvenen, F., F. Karahan, S. Ozkan and J. Song (2017), "Heterogeneous Scarring Effects of Full-Year Nonemployment", *American Economic Review* 107, 369–373.
- Kopczuk, W., E. Saez and J. Song (2010), "Earnings Inequality and Mobility in the United States: Evidence from Social Security Data since 1937", *The Quarterly Journal of Economics* 125, 91–128.
- Martínez, I.Z. (2018), *Who Is a Top Earner and for How Long? Top Income Mobility in Switzerland*, mimeo.
- Piketty, T. and E. Saez (2007), "Income and Wage Inequality in the United States 1913–2002", in: Atkinson, A.B. and T. Piketty (eds.), *Top Incomes over the Twentieth Century: A Contrast between Continental European and English-Speaking Countries*, Oxford: Oxford University Press.
- Piketty, T. (2014), *Capital in the Twenty-First Century*, Cambridge MA: Harvard University Press.
- Weibel, J. (2014), "Pauschalsteuer: Der Himmel auf Erden", *Die Zeit*, 25 September.