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URPP Equality of Opportunity

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Paper structure

Introduction

Issues of income and wealth inequality within rich nations have made a remarkable come-back in the academic and political spheres since the beginning of the new millennium. This trend is also visible in Switzerland, one of the richest countries of the world. New studies about income and wealth distribution, which dovetail in the wide-ranging effort launched, among others, by French economist Thomas Piketty and the http://wid.world research collective, have been published in the recent decade (and will be discussed in the course of this working paper). The popular vote of 26 September 2021 on the «99%» direct democracy initiative launched by the youth group of the Swiss Socialist party and arguing for higher wealth taxation (notably of the «1%» richest) is also a testimony of how such themes and issues have made their way into contemporary political debates. The fact that this proposal failed to pass the vote threshold (it was rejected by 65% of voters) will not make the discussion disappear.

This working paper aims to give a long-term historical background on these contemporary discussions by analyzing how wealth at the tail end of the wealth distribution (the so-called «1%», or «top wealth share» to use a Pikettian vocabulary) has been thematized, researched and debated in Switzerland. Our focus here is thus neither the general history of income and wealth inequality, nor the issue of the overall distribution of wealth. Rather, we begin by charting in the first section of this paper how the issue wealth concentration discussed, criticized and/or legitimized in the Swiss context. In a second section, we discuss then how new sources – published municipal tax records – could be used to develop innovative perspectives on wealth concentration during the first half of the 20th C. In a third and final section, we then propose some preliminary findings and analysis about the composition of the 1% and 0.1% top wealth share in the City of Zurich in Switzerland.

This ongoing contextualization and mapping exercise aims to offer both a state of the art on past and current research on top wealth share in a centennial perspective, as well as a first step towards developing new quantitative and qualitative assessments of the top wealth share in Switzerland in the first half of the 20th C.[1]

1. A centennial perspective on wealth concentration debates and controversies

Before 1914: Making wealth visible

By 1900, Switzerland had already one of the highest GDP per capita in the Western World, with levels overtaking all its neighbors, as well as countries such as the United Kingdom or the United States (Halbeisen et. al. 2012: 60-1, 92-7). The late 19th century, despite witnessing the emergence and consolidation of significant industrial and commercial family dynasties, only offered indirect evidence on

[1] We would like to thank Anna Luna Frauchiger and Lukas Horrer for research assistance.

wealth concentration. The intellectual and political attention of that time was rather focused on the other end of the socio-economic spectrum: "pauperism" and the "social question" were perceived as the burning issues of the time. In the last decades of the 19th century, progressive legislators and intellectuals were thus essentially preoccupied with the establishment of the first modalities of labor and social protection, especially social insurance. The dominant political economy of that time, for example the works of Vilfredo Pareto in Lausanne, tended to naturalize the structure of wealth, rather than to question its legitimacy[2]. The accumulation of significant family fortunes was rarely scrutinized. Inaugurating a pattern that we will encounter repeatedly during the 20th century, it was above all militant intellectuals, for example **Hermann Greulich** (1891) a founding father of Swiss socialism, attempted to use existing tax sources to chart income and wealth distribution.[3]

The situation in Switzerland regarding the publicization – and sometimes the scandalization – of extreme wealth contrasted with that prevailing in other countries. In Great Britain, the public manifested much more interest for the greatest fortunes of the time. After publishing a list of the greatest fortunes bequeathed during the previous ten years, the editors of the *Spectator* wrote in 1872 (quoted in Rubinstein 1981:11) that "the list obtained more readers than the best essays on politics we ever published." The late 19th century witnessed the publications of several books purporting to explain how the richest families came to acquire their wealth. In Germany, the publication of «millionaires' yearbooks» also was also a sensation and provoked heated debates before the First World War (Gajek 2014). To our knowledge, no similar lists or books were published in Switzerland before 1914. Even though Swiss newspapers (see e.g. *Der Bund*, 28.1.1893) evoked from time to time, the existence of "millionaires", no systematic efforts were deployed towards inquiring in that direction.

As we will see in more detail in the second part of this working paper, such research went in parallel with attempts to increase fiscal transparency, notably through the publication of municipal «tax registers» (*Steuerregister*) listing individual taxpayers' names, addresses, professions/occupations, as well as taxed income and wealth. These registers remained however limited to a few Swiss-German municipalities and, except in Zürich, were largely discontinued around 1914. As we will also underscore in this paper, with the exception of their use by historians interested in the social history of the bourgeoisie (see below **Box 1**), these materials have remained underexploited. Moreover, the controversies linked to the publication of individual tax data – something that would be impossible today because of privacy regulations – have been largely forgotten.

The fact that debates about fiscal transparency took place at the municipal and cantonal was of course linked to the fact that the federal government played no role in direct taxation until 1915. As we will see in the following section, from this moment onwards debates about wealth concentration often coincided with political controversies about federal direct taxation.

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2 Pareto (1896) evoked a "natural law" of the distribution of income. On the theorization of the issue of family or individual wealth by French liberal political economists, see Courcelle-Seneuil, Jean-Gustave, (1854), "Fortunes particulières", in Charles Coquelin, Ed., *Dictionnaire d'économie politique*, Tome I, URL: https://books.google.ch/books?id=QU47AAAAcAAJ&pg=PA799 (accessed July 31, 2021).

3 For a commentary, see (Fritzsche 1977: 447-73 – especially pp. 455ss.). See also Tanner (1990).

Box 1

Swiss urban bourgeoisies and the top wealth share before 1914. A brief state of the art

Sarasin (1990) studied the Basel bourgeoisie/patriciat by mobilizing two approaches. First, a micro-historical study of several individuals, representative of this social category. Using as a source these individuals' personal recollections and journals, Sarasin painted a broader portrait of the Basler high society (origins, education, professional activities, importance of networks, socialization patterns, leisure, etc.). Second, using local tax sources Sarasin constituted a database of the richest individuals (with incomes above 20,000 francs in 1896), with variables professions, their origins, their place of residence, and information about their in-laws. This database confirmed the central place, among the bourgeoisie, of old patrician families, still dominant at the end of the 19th century and whose income was significantly superior to individuals of the "new" bourgeoisie (those whose origins could not be traced back to the Ancien Régime). The old patriciate also tended to be much more "homogamous". Despite its pioneering nature – it was the first attempt at quantitatively analyzing the bourgeoisie in Switzerland – Sarasin's "static" and income-centered database suffers from the same drawbacks as those of Sandgruber (2013) and Scott (2021). For example, his chart 23, p. 193, shows that Rudolf Brüderlin's income was very fluctuant over 1879 to 1902, some years at 10,000 francs, some years around 50,000, some even at 0. This chart thus underscored that the criterion of "how much income was generated in one year" is of limited relevance as a measure of "wealth".

Olivier Perroux's (2003) unpublished contribution on Geneva, which covers 1814-1914 insists on the role of family networks (a "toile d'araignée des liens familiaux") to either establish or preserve market shares and business rents. Marriage and inheritance occupy, in that regard, a central place. Homogamy was essential to the protection of the interests of the bourgeoisie, in particular to counterbalance growing influence of the Radical Party in the second half of the 19th century. Perroux's work – unique in that regard in the historiography of the Swiss economic elite – also explores the investment strategies of the Genevan bourgeoisie. Based on inheritance documents, Perroux shows that the Genevan bourgeoisie had built diversified portfolios, with significant international investment. (on Geneva in the 17th and 18th century, see Walker 2018; on Genevan philanthropic networks, see Ginalski and Heiniger, 2016, as well as David and Heiniger, 2019).

Another significant study – probably the most complete to this day – is that of **Albert Tanner (1996),** who focused on the period 1830-1914. Starting from the observation that Switzerland was in the 19th century onwards a "bourgeois" nation *par excellence*, that is, a nation where the political and economic domination of the bourgeoisie remained uninterrupted and went virtually unchallenged, Tanner undertook to reconstruct the traits and fundamental features of this group within a broader "class society" (in which the economic situation and the social status of the individuals are essentially determined by the classes in which they were born, p. 19). Tanner explored in particular bourgeois mentalities, culture, lifestyle, as well as political identity and activities, with a specific focus on Zurich and Bern. Of more direct relevance to the topic of the top wealth share that is our topic, Tanner also dedicated a chapter to wealth and income. He started by providing a few warnings to scholars using tax registers and tax statistics: first, one has to keep in mind that tax avoidance was significant, in particular in the second half of the 19th century (p. 65, & note 157, p. 712).[4] Second, the income and wealth of individuals who were not taxpayers do not show up in the tax statistics. In Zurich and in Bern, 500 francs and 600 francs were the income limits below which one did not have to pay taxes. To assess the repartition of income and wealth, one thus needs to take into account the fraction of the population's income which was not included in the tax statistics (p. 66). Third, some official tax reports mixed natural persons and physical persons.[5] Looking at such mixed figures would therefore tell little about income or wealth distribution. Those caveats expressed, Tanner charted the evolution of the number of taxpayers, classified into four groups, following **Herman Greulich's (1891)** typology (smallest, small, average and large fortunes). He showed that, in Zurich, on average between 1872 and 1912, slightly over half of households had to pay a form of wealth tax. The share of taxpayers with a fortune above 100'000 francs (the "largest fortunes" according to his categorization) remained about constant at around 8% of all taxpayers. He also detailed the repartition of wealth and income per profession, or professional groups: in Zurich, the proportion of individuals from what he calls the "bourgeoisie des talents" (physicians, professors, lawyers, etc.) among the high-wealth taxpayers tended to rise from 1870 (5%) to 1905 (10%). The share of the "economic bourgeoisie" (merchants, bankers, etc.) tended to fall between those two dates (60% to 23%) and that of the "property bourgeoisie" (rentiers, widows, etc) to increase (32% to 66%). Even though Tanner was aware of the existence of nominative "Steuerregister" (both for Bern and Zurich), he did not use them for his analysis. On Neuchâtel, see Mysyrowicz, (1992).

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4 According to Tanner (1996), this was not a problem as far as the study of the relationships between taxpayers was concerned: Tanner seems here to assume (though he does not make it explicit) that all taxpayers escaped taxes to the same degree, see p. 66.

5 Tanner (1996) does not provide any further discussion of that point and does not say which volumes should be treated carefully for this reason and which should not.

1915-1958: Controversies about wealth in the context of World Wars and economic crises

From 1914 onwards, most Western industrialized countries experienced a significant «de-concentration» of wealth, a trend spurred not only by World Wars and economic crises, but also by the expansion of progressive direct taxation. If this de-concentration is visible in many data series elaborated by Thomas Piketty and other scholars, Switzerland however bucked the trend. Until the late 1960s, the top 1% wealth share in Switzerland (around 40%) was thus largely on par with its level before the First World War. By comparison, this same share had tumbled from 40% to 25% in the United States, mainly because of more stringent tax measure (Dell/Saez/Piketty 2007: 491, 493s). As we will see shortly if international controversies about wealth concentration did indeed find an echo in Switzerland, fiscal responses to wealth concentration largely failed to make inroads. Fiscal conservatism was bolstered by the fact that Switzerland had escaped two world wars largely unscathed, and thus the government felt less pressure to cover war costs with increased taxation. Simultaneously, low taxation and fiscal opaqueness were then part of the edge of the Swiss banking place on the expanding international market for wealth management. In this context, any discussion about wealth concentration faced high hurdles.

The financial and fiscal turbulences of the First World War and the ensuing development of direct taxation at the federal (national) level contributed to fuel intellectual and political controversies about wealth concentration and its taxation. These controversies were closely related to specific taxation episodes and only marginally contributed to improving knowledge about wealth concentration.

Despite Switzerland's favored status as a neutral nation, the First World War had imposed an important material burden on the Swiss population, and public debt had risen significantly. This situation motivated the first incursions of the Confederation in the domain of direct taxation: a special war tax (*Kriegssteuer*) and a war profits tax (*Kriegsgewinnsteuer*) were thus hastily enacted. However, these new taxes were meant to be temporary and as soon as the war faded, business and right-wing resistance against the consolidation of wealth taxation at the federal level remained high (Guex/Mazbouri/Lopez 2012: 1089, 1096).

The violent postwar political campaign against the Socialist initiative for a special postwar tax on wealth (*einmalige Vermögensabgabe*) represented a key point of this fiscal rollback: the proposal was crushed by 87% of negative votes in December 1922. The virulency of the campaign had both domestic and international components (Guex 1994). On the one hand, crushing the initiative was widely considered among its opponents as a tool to delegitimize the whole Socialist postwar reform program, notably in the domain of social policy. On the other hand, obliterating the very idea of a federal wealth tax was also considered a necessity at a time when Swiss banks and financial institutions were witnessing massive influxes of foreign monies eager to evade rising taxation levels in neighboring countries. Already in 1917, Hermann Obrecht, then a prominent cantonal finance minister of the bourgeois Radical Party (FDP) and a future a Federal Councilor, had already predicted that this differential in taxation levels might constitute a brilliant opportunity to position Switzerland as a «favored resort for [foreign] capitalists» («Lieblingsaufenthaltsort der Kapitalisten») after the war (quoted in Guex/Mazbouri/Lopez 2012: 1098.

See also Guex 2021). If the consolidation of the Swiss tax haven and Swiss banks growing edge on wealth management during the 1920s has been analyzed and documented in detail (see: Farquet 2018), information about wealth concentration remains however very thin.[6]

Postwar anti-tax movements as well as the parallel growth of wealth management also had a negative impact on the previous period publicization of tax sources. For example, as we show in the second section of this paper Geneva, a stronghold of private banks managing French wealth, refused in 1926 to create a public tax register such as the ones in existence in several Swiss German cantons.

The topic of wealth concentration resurfaced again during the economic crisis of the 1930s. The international ideological context was of course conducive to the discussion of wealth concentration. In the US, the Revenue Act of 1935, part of President Franklin Delano Roosevelt's New Deal, introduced large tax increases which aimed, in Roosevelt's own words, to prevent "an unjust concentration of wealth and economic power[7]". In 1937, the American journalist Ferdinand Lundberg published *America's 60 Families*, which argued that the US was essentially controlled by a "plutocratic circle" of 60 families. In France the populist image of the "200 familles" had similarly emerged in the wake of the "Front Populaire". Stigmatizing the richest families allegedly wielding enormous power and influence over politics, the notion was frequently mobilized in public debate by both left-wing and right-wing forces (Hamon 1936).

In Switzerland, the notion of *Geldherrschaft* – a direct borrowing from the French "féodalité financière"– could be found in socialist journals, especially in the context of the 1934-35 Socialist campaign for the «Crisis Initiative», an attempt – again refused in popular vote in 1935 – to oppose austerity policies of the Great Depression with a more state-interventionist perspective.[8] The idea found a clear and systematic expression in **Fritz Giovanoli**'s *Unter der Herrschaft des Finanzkapitals* (1934). A member of the Socialist Party, Giovanoli attempted to unveil the facts which, he claimed, proved the existence of a small group of rich and influential individuals in whose hands rested most of the economic and political power. He insisted on the importance in this respect of new legal instruments, such as holding companies which allowed the rich to control vast swaths of the national economy. Giovanoli (1934: 64-7) attempted to show – on the basis of tax statistics produced in Basel and Zurich – the existence of a trend towards a greater concentration of wealth in the hands of a few. Beyond its political charge and polemical tone, Giovanoli's contribution was significant, in that he attempted to describe in a detailed fashion (and by naming names, at that) the existence of a network of actors, positioned at the top of the decision ladder, sitting in the board of the biggest Swiss companies. The radical critique of elites and power concentration was pursued by militant author **Georges Bähler, aka «Pollux»**. A genuine *bête noire* of bourgeois journalists and politicians, «Pollux» hinted at the congruence between influence and wealth, however his focus remained firmly set on societal-political power structures and networks, and not

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6 According to tax data linked to the *Kriegssteuer*, there were 1298 millionaires in Switzerland around 1925 (and among them 3800 in Zürich, 198 in Basel and 185 in Geneva), with 61 persons declaring assets over 5 mio CHF: see. «Les millionaires en Suisse», Gazette de Lausanne, 4.11.1926.

7 Quoted in Roy G. Blakey and Gladys C. Blakey "The Revenue Act of 1935", *American Economic Review*, Vol. 25, No. 4 (Dec., 1935), p. 673. For a synthesis, see (Scheve/Stasavage 2016)

8 See for example "Im Bereiche der Geldherrschaft", in *Die Gewerkschaft*, 35/4, 23.1.1936, p. 1.

wealth concentration.[9] Giovanoli and Bähler/Pollux inaugurated a militant «sociographic» type of publications about elites that would be continued after World War II.

Discussions about wealth concentration were facilitated, and in fact made possible, by the availability of better taxation data on national wealth. The revisions of the 1915 federal "war tax" as well as the federal "crisis tax" in 1934, and finally the introduction of the 1940 «war sacrifice» (*Wehropfer*) – taxes which constituted predecessors of the actual federal income tax – generated data series which scholars and politicians did not fail to exploit. These national data series were in fact the ones used by Dell/Saez/Piketty in their 2007 pioneering article article about income/wealth concentration in Switzerland.

Using war tax and the crisis tax data, socialist economist **Eugen Steinemann** (a statistician in the city of Zurich administration and from 1942 the director of the Swiss Social Archives) thus bemoaned in 1938 what he perceived to be an excessive concentration of wealth into the hands of a few[10]. Steinemann argued moreover that tax statistics probably underestimated the extent of the wealth concentration, given the existence of extensive tax fraud. This study was countered in the *Politische Rundschau*, the journal of the bourgeois FDP party, by an article underscoring the over-proportional contribution of «millionaires» to tax revenues, and thus the social utility of wealth (Frey 1936), an argument that already been used a decade earlier.

Wehropfer statistics were also used in a more prosaic ways, for example by banks studying the spread of financial assets ownership within the population (as well as within various professional groups)[11]. In 1946, Gustav Erhard (an economist commissioned by the right-wing and free market "Redressement national") also used *Wehropfer* statistics to relativize the portrayal of Switzerland as a land dominated by excessive wealth.[12] This claim, Erhard argued, failed to take both the age factor into account (the propertyless were largely young people), and that significant wealth accumulated in pension funds, which the *Wehropfer* statistics did not consider[13]. This argumentation was meant to counteract proposals from the left which argued that the upcoming federal old age insurance (AHV) should be partly financed by a federal wealth tax and/or a federal inheritance tax. These long-standing demands of the left, already put forward in the 1920s, however rapidly petered out. They met stiff resistance at the beginning of the 1950s, when Socialists attempted, again without success, to put forward a «peacetime sacrifice» and tax wealth to finance the significant rise in defense spending of the early 1950s. By 1960, as historian Olivier Longchamp has underscored, all attempts to increase national wealth taxes had been unsuccessful and the 1958 reform of federal finances locked in Switzerland's profile as a low taxation country in international

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9 For a brief introduction on Bähler's work, see Bürgi, Markus: "Baehler, Georges", in: *Historisches Lexicon der Schweiz (HLS)*, Online: https://hls-dhs-dss.ch/fr/articles/015156/2020-01-24/.

10 Steinemann, Eugen (1938), "Der Reichtum der Schweiz und seine Verteilung", *Gewerkschaftliche Rundschau für die Schweiz : Monatsschrift des Schweizerischen Gewerkschaftsbundes*, Vol. 30, No 3, pp. 72-77. On Steinemann, see Walter Hauser, Zum Abschied Eugen Steinemann [1906-1966], in: Rote Revue: sozialistische MOnatsschrift, 45/1966, 272-4. (https://www.e-periodica.ch/cntmng?pid=ror-001:1966:45::580)

11 Bank für Anlegewerte Zürich, (1944), "Der Wertschriftenbesitz in der Schweiz auf Grund des Wehropfers". Abhandlung No 2. In: Schweizerisches Wirtschaftsarchiv: Volkswirtschaft H19.

12 Erhard, Gustav, 1946, "Die Besitzverteilung in der Schweiz" *Zeitfragen der Schweizerischen Wirtschaft und Politik*, No 34,. 1-14.

13 The claim that the *Wehropfer* statistics showed that wealth was actually more broadly distributed as what was sometimes believed was also picked up Der Bund, "Die Verteilung des Volksvermögens", 25 Juin 1948.

perspective. A second expansion wave of wealth management could thus exploit the growing tax differential between Switzerland and the countries of the nascent EEC (Longchamp XXXX: 236-46, 510-23; see also Farquet/Leimgruber 2015).

1960s-1990s. Wealth concentration as scandal and media spectacle

One has then to wait until the 1970s to witness in Europe (and in Switzerland) a new wave of publications on the topics of wealth and the wealthy. In the German-speaking world, this trend was started in 1969 with the German translation of the book *The Rich and the Super-Rich,* published the preceding year in the US, by the American anti-establishment journalist Ferdinand Lundberg (who had already penned the *America's 60 Families* in 1937). The book analyzed the rich as a social class and purported to reveal – a topos present since the 1930s – the hidden power and influence of the wealthiest families (Lundberg 1969). It was followed in 1971 by the publication of *Die Reichen und die Superreichen in Deutschland* by journalist Michael Jungblut. The success and media interest encountered by these two essays encouraged the editor of those volumes – Hoffmann und Campe in Hambourg – to publish two further versions, dedicated respectively to Austria (Wailand 1977) and Switzerland (Holliger 1974).

Carl M. Holliger's *Die Reichen und die Superreichen in der Schweiz* (1974) developed, through the presentation of a handful of prominent families of German-speaking Switzerland, a portrait of the rich, of their lifestyle, of the relationships they maintained with each other, of the strategies they employed to preserve their wealth and to pass it onto the next generation (he pointed out family foundations as playing in that regard an important role). Holliger judged the Swiss wealth structure unsustainable: too much power was concentrated into the hands of the richest families, a situation which exerted polarizing and destabilizing social effects and was threatening democracy. However abundant in information and in names, Holliger's book did not contain any quantitative information about how rich the richest families were – an arguably valuable piece of data, that a reader might legitimately expect to find in a book of this genre. At any rate, the book enjoyed some success. The Swiss French-speaking television network thus dedicated a documentary to the topic – ironically entitled «Our Rich» – including an interview of Holliger as well as several portraits from prominent entrepreneurs and wealthy persons[14].

In parallel to this publication, the depiction of Swiss elites, their corporate networks as well as their international influence was already a topic for further bestsellers. Swiss journalist **Lorenz Stucki**' s *The Secret Empire* (*Das heimliche Imperium: wie die Schweiz reich wurde*) had already presented in 1968 an essay about the prominent families that had contributed to Switzerland's success, whereas sociologist **Jean Ziegler**'s virulent pamphlet about the role of the Swiss «oligarchy» in North-South relations (*Une Suisse au-dessus de tout soupçon*, 1976), reiterated many topics as well as the «sociographic» perspective put forward a generation before by Giovanoli and Bähler/Pollux[15]. The sociographic approach has been

[14] "Nos riches", TSR, 30.1.1975 (https://www.rts.ch/archives/tv/information/temps-present/11065998-nos-riches.html).

[15] In the same vein, see François Höpflinger's *Das unheimliche Imperium: Wirtschaftsverflechtung in der Schweiz*, Zürich 1977. See also Tschäni, Hans (1983), *Wer regiert die Schweiz? Eine kritische Untersuchung über den Einfluss von Lobby und Verbänden in der schweizerischen Demokratie*, Orell Füssli, Zürich.

expanded in a much more systematic fashion by the long-term analyses of Swiss elites launched since the 2000s at the University of Lausanne by the OBELIS research collective (see: <www.unil.ch/obelis>).

The 1970s also witnessed more serious explorations on the topic of wealth distribution. **Hans Kissling**'s dissertation in economics, defended at the University of Zurich in 1973 provided the first meticulous quantitative analysis of the structure of wealth inequalities in Switzerland. Re-asserting a socialist position already present since the 1930s, Kissling advocated the introduction of a federal inheritance tax, meant to alleviate levels of wealth concentration deemed unjust.[16] This dissertation and the proposal it contained formed the basis of a debate in the columns of the *Tages Anzeiger* in May 1974 between its author and Ferdinand Zuppinger, fiscal lawyer and professor at the University of Zurich, the latter claiming that Kissling's solutions were unconstitutional and at any rate inefficient, since they would push the rich to find savvy ways to avoid paying this extra-tax burden.[17] Shortly after this debate, a Socialist Party direct democracy initiative proposing a new federal wealth garnered sufficient signatures. The so-called «Reichtum Initiative» was finally rejected – but not annihilated as its 1922 counterpart – in December 1977: in the aftermath of several tax evasion and banking scandals, the initiative succeeded to reach 44% of «yes» votes, a sensational result for a progressive tax proposal (Fischer 2015; Tobler 2021; Fehr 2017). Kissling – a social-democrat who would lead the Canton of Zurich Bureau of Statistics – published several studies on income and wealth inequalities. Long after his retirement, he would again underscore the "Feudalisierung" topos of the 1930s, and help devise a the 2015 – again unsuccessful – socialist initiative for a federal inheritance tax[18].

The global «1968» moment, with its accompanying critique of capitalism and bourgeois power relations, was of course a catalysator for such critical insights. Public attention about the very top wealth share was also beginning to take some other, less radical forms. Echoing, although with a rather different perspective, the old «millionaires' lists» of the early 1900s, the American magazine *Forbes* published in 1981 its first "Forbes 400" list of America's richest individuals.[19] If the magazine had already published a shorter list in 1957 (containing 76 names), the 1981 ranking captured the new spirit of the age: presenting rankings of the super-rich inaugurated an annual ritual in a decade witnessing both a buoyant stock market and a neoconservative celebration of the market and entrepreneurs.

The format was imported in Switzerland by the magazine *Bilanz/Bilan*, which published in 1989 its first list of the 100 (and then, by 1999, the 300) wealthiest Swiss. If *Bilanz* approach and the tone still contained, at least in its early years, echoes of Holliger's 1970s critique, wealth was increasingly portrayed in a much more positive light (Dommann 2016). Wealth accumulation was not viewed as a threat to

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16 Kissling, Hans (1973), "Die Umverteilung bestehender Vermögenswerte als Mittel der Vermögenspolitik", PhD Dissertation, University of Zurich.

17 *Tages-Anzeiger Magazin*, No 21, 25 May 1974, pp. 7-13. Federle, Freddy (1978), "Vermögenspolitik in der Schweiz, Die Verteilung des Vermögens, Möglichkeiten einer breiteren Streuung", PhD Thesis, Hochschule St Gallen für Wirtschafts- und Sozialwissenschaften.

18 Kissling, Hans . Reichtum ohne Leistung. Die Feudalisierung der Schweiz, Zürich, Chur : Rüegger Verlag , 2008. Yves Wengelin, Erbschaftssteuer. Ohne einen Finger zu krümmen, WOZ Die Wochenzeitung, 2.4.2015

19 "Birth Of The Forbes 400: The Story Behind Forbes' First Rich List", Forbes online, URL: https://www.forbes.com/sites/chasewithorn/2017/09/19/birth-of-the-forbes-400-the-story-behind-forbes-first-rich-list/?sh=68f89a635db2 (accessed August 4, 2020).

democracy or as the result of the monopoly – or even feudal – position enjoyed by a few patrician families, but rather, as the product of business wisdom, risk taking, entrepreneurship, and savvy investment decisions. Some portraits of the first *Bilanz* ranking were thus flat-out laudatory. Stephan Schmidheiny, the second richest man in Switzerland according to the ranking, was described as someone who had succeeded in "developing a contemplative philosophical thought, if judged based on his in-depth thoughts on the over-consumption society, the short-term success strategies, the destruction of the environment and the necessity of a greater solidarity with the third world."[20] The intellectual context, after all, had profoundly changed since 1974. Neo-conservative and pro-market currents, often subsumed under the «neo-liberal» tag, had made decisive ideological forays to counter the new left intellectual stances.

As *Fortune*, *Bilanz* provided a ranking, but was not exactly clear as to what methodology was used to measure wealth. Editors vaguely mentioned the use of "market capitalization, the estimation by competitors, the evaluation of experts and specialists, archives, indiscretion (...), the frank openness of many of the richest Swiss."[21] They also acknowledged that significant errors were likely to mar their estimates. But *Bilanz*'s ranking had indeed the merit of existing, and of providing some sort of estimation of the scope of the wealth belonging to the richest Swiss (as well as, increasingly, the richest foreigners residing in Switzerland), an endeavor that had until then not been undertaken. In fact, these annual rankings do serve as a source for economists and social scientists studying wealth and the wealthy (Baselgia/Martinez 2021; Mäder et al. 2010). An exploration of the sort of questions that this strand of research is tackling, as well as of the main approaches used, will be developed in the following section.

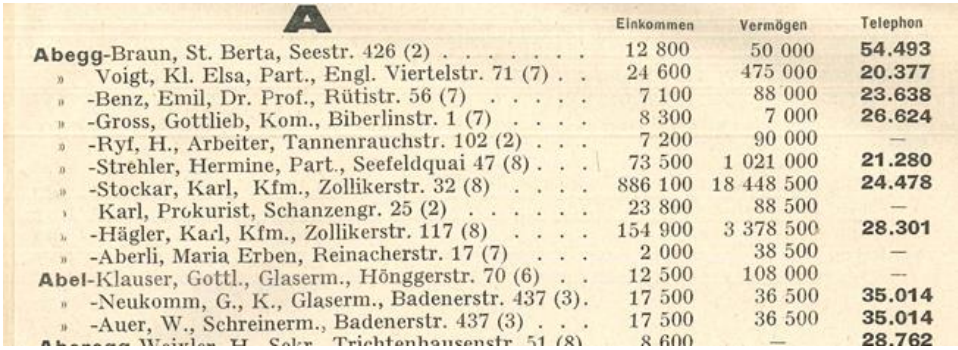
2. New sources for top wealth research: the «Steuerregister der Stadt Zürich»

As the preceding section has shown, studies on wealth concentration have tended to use three types of sources: first, tax statistics, either at the federal (Dell et al, 2007; Martínez and Föllmi, 2017) or at the cantonal levels (Kissling, 2008). These sources provide aggregate information, regarding the weight and repartition of the tax burden, and their evolution over time. They enable the measurement of wealth concentration and its dynamic (how the share of the 1% evolved over time, for example). Second, media-produced rankings of the top wealth share, such as the *Bilanz* lists (Baselgia and Martínez, 2021). Third, data relative to inheritance flows and values, collected from notarial sources (Perroux, 2003) or official statistics (Brülhart, 2019).

[20] "Les Suisses les plus riches," Bilan, 1990, p. 135. (We refer here to the pages of the French edition, published after the German one).

[21] Ibid., p. 132.

Figure 1: Extract of the "Kaufkraft der Stadt Zürich" (1932)



A	Einkommen	Vermögen	Telephon
Abegg-Braun, St. Berta, Seestr. 426 (2)	12 800	50 000	54.493
» Voigt, Kl. Elsa, Part., Engl. Viertelstr. 71 (7)	24 600	475 000	20.377
» -Benz, Emil, Dr. Prof., Rütistr. 56 (7)	7 100	88 000	23.638
» -Gross, Gottlieb, Kom., Biberlinstr. 1 (7)	8 300	7 000	26.624
» -Ryf, H., Arbeiter, Tannenrauchstr. 102 (2)	7 200	90 000	—
» -Strehler, Hermine, Part., Seefeldquai 47 (8)	73 500	1 021 000	21.280
» -Stockar, Karl, Kfm., Zollikerstr. 32 (8)	886 100	18 448 500	24.478
» Karl, Prokurist, Schanzengr. 25 (2)	23 800	88 500	—
» -Hägler, Karl, Kfm., Zollikerstr. 117 (8)	154 900	3 378 500	28.301
» -Aberli, Maria Erben, Reinacherstr. 17 (7)	2 000	38 500	—
Abel-Klauser, Gottl., Glaserm., Hönggerstr. 70 (6)	12 500	108 000	—
» -Neukomm, G., K., Glaserm., Badenerstr. 437 (3)	17 500	36 500	35.014
» -Auer, W., Schreinerm., Badenerstr. 437 (3)	17 500	36 500	35.014
[illegible]	8 600	—	28.762

Source: "Kaufkraft der Stadt Zurich" (Bopp, 1932), p. 1. Excerpt of the Steuerregister of 1931, see Table 1 below.

We present here a source which has, to the best of our knowledge, remained unexploited, and whose use would allow to shed new light on the history, and the structure of wealth in Switzerland: the "Steuerregister" (tax registers) which were published in various municipalities (*Gemeinden*) in the late 19th and early 20th century. Those documents typically contained alphabetical lists of all taxpayers, and displayed their address, profession, and finally taxable wealth and income (see **Figure 1** above). To be more precise, we refer here to the *published* and *printed* versions of the Steuerregister, and not the unpublished, hand-written versions of those registers, kept in municipal archives. Though valuable as a source these unpublished sources remain much more difficult to exploit.

In contrast with tax statistics, published tax registers provide information at the individual level, and enable to precisely identify the individuals and families at the top of the wealth ladder. They also contain wealth and income information produced by tax authorities, according to a precise and identifiable administrative procedure (see box below). It therefore avoids the pitfall of the media-produced lists, whose methodologies have remained at best unclear and above all opaque. Last, in contrast to notarial inheritance data, these tax registers provide information on "living wealth", rather than "wealth at death". Moreover, given the fact that those lists are printed and published, they are more easily exploitable. Of course, different kinds of source are complementary, rather than substitute, and offer the opportunity to look at the same historical question under different angles.

Before diving into the utility of the printed *Steuerregister* for historians of wealth and the wealthy, it is important to understand the context in which those volumes were produced.

Tax transparency debates around 1900

In the late 19th and early 20th century, Swiss taxpayers were, at least in some municipalities, allowed, for a few days per year, to consult the – typically handwritten – local tax registers, kept in the communal tax offices. This limity publicity gave for example to creditors an opportunity to verify the solvency of potential debtors. Taxpayers could also check the validity of the information that the volumes contained. The visit was sometimes exclusively reserved for people who could present a legitimate reason to consult

the volumes, and sometimes, a fee had to be paid[22]. The consultation periods were typically advertised in local newspapers.[23]

In the last decades of the 19th century, a movement in favor of the full, printed publication of municipal tax registers gained momentum – the "publicité des registres [also named "rôles"] de l'impôt" in French, or "Veröffentlichung der Steuerregister" in German. The idea, promoted by the Grütliverein and the Socialist Party (founded in 1888), was advertised as a means to fight tax fraud and to increase the efficiency of the tax levy.[24] The status quo, which consisted in allowing taxpayers to consult tax registers for a limited number of days, was criticized as unsatisfactory and impracticable, especially for larger municipalities[25]. In addition, the matter was presented as one of fairness, since after all, the wages of all public workers were known.[26] The idea to print tax registers was received with suspicion in conservative circles, which usually fought the measure when it was brought forward in municipal parliaments.[27] In Bern, after a first failed attempt at making the tax registers public (a city-wide vote rejected the measure in 1888[28]), the publication was eventually authorized in 1897, and, in 1900, a first version came out in print.[29] The municipalities of Zug, Winterthur and Luzern the issue was likewise resolved in favour of the publication.[30]

The issue was also discussed in Western Switzerland. In Neuchâtel, the tax register was published in 1876, in a context marked by concerns about tax frauds, and by discussions relative to the introduction of a progressive tax (Anor 2018; Mysyrowicz 1992).[31] In Lausanne, the radical municipal deputy Emile Paccaud proposed that each taxpayer could consult tax registers, in their original forms or as copy ("motion Paccaud", December 1897). The municipal council mobilized on that occasion Vilfredo Pareto's expertise, who advised against the publication (and the accessibility for that matter) of the tax registers. Pareto advanced two arguments: first, it would distort competition, in favor or large producers, who would then have access to the details of the financial health of the small competitors they are trying to bankrupt; second, it would encourage people to evade taxes more, and thus reduce the product of the tax levy.[32] Paccaud's proposition was eventually not followed up on. In the wake of postwar controversies on a national wealth tax, a socialist initiative (1926) in favor of the publication of the Geneva tax registers

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22 *Engadiner Post*, 1 Septembre 1904, p. 2.

23 See for example, *Der Murtenbieter*, 5.12.1900, p. 3.

24 For a typical defense of the publication, see *Täglicher Anzeiger für Thun und das Berner Oberland*, Vol. 11, No 18, 22 .1.1887, p. 3.

25 As the Argovian Jakob Rahm stated it, "Es ist nun einmal nicht Jedermanns Sache, auf öffentlichem Bureau im umfangreichen Steuerbuche zu blättern, Auszüge zu machen, Notizen zu sammeln, Beschwerdepunkte aufzuspüren." (Rahm, Jakob, 1897, "Die Publikation der Steuerregister", *Schweizerische Blätter für Wirtschafts- und Sozialpolitik*, p. 420).

26 *Grütlianer*, 28 January 1888, p. 1.

27 See for example, the results of the Parliamentary debate in Bern in November 1897: "Für die Veröffentlichung stimmten ein Teil der Freisinnigen und alle Sozialdemokraten; dagegen alle Konservativen und ein Teil der Freisinnigen", *Der Bund*, Vol. 48, No 315, 13 Novembre 1897, Ed. 2, p. 3.

28 *Der Bund*, Volume 39, Numéro 29, 30 janvier 1888, p. 3.

29 Verzeichnis der Steuerpflichtigen der Gemeinde Bern 1898, 1900, Bern: Ott & Bolliger.

30 Auszug aus dem Steuerregister der Stadtgemeinde Zug pro 1883-1884, Zug : Verlag von Fr. Weiss, 1884; Verzeichnis der Steuerpflichtigen der Stadt Winterthur, 1906, Winterthur: Geschwister Ziegler; Verzeichnis der Steuerpflichtigen der Stadtgemeinde Luzern, Genossenschafts-Buchdruckerei, 1911.

31 See also : *Rôle des contribuables à l'impôt direct de la République et Canton de Neuchâtel : année 1875,* Le Locle : Impr.-Libr. E. Courvoisier, 1876.

32 Pareto, Vilfredo (1898 [1989]), "Lettre à Bertold van Muyden 16 janvier 1898", *Oeuvres complètes: Tome 30, Compléments et additions, Lettres et correspondances*, Droz: Genève.

gave rise to heated debates. Bourgeois parties waged an intense – and eventually successful –- campaign against the initiative and insisted upon the potentially morally nefarious consequences that such a publication could bring about. The *Journal de Genève* warned that, in the event of a publication, "the citizens will be continuously exposed to suspicions, slanders, denunciations made by revenge and without proof".[33]

In Zurich, the issue of the publicity of the tax register was not completely new in the late 19th century. A printed tax register had already been published in 1833, in a context marked by the rise of the "Regeneration" movement. The publication was meant to allow "each individual to verify whether his fellow citizens contribute according to their duty and with good conscience to the common good and that no privilege through concealment prevails[34]". The issue re-emerged in the late 19th century, at the initiative of the Socialist Party, which pushed forward the idea of a regular publication of the registers.[35] The proposition was however rejected, on the grounds that it was "double-edged sword and an appeal to dubious human feelings such as envy and hatred."[36] The question came back yet again in the early 1900s, in the context of debates regarding the elaboration of a new tax law at the cantonal level. On that occasion, Socialist politician Otto Lang attempted to make the publication of tax registers mandatory for all municipalities of the canton,[37] a proposition which was turned down.[38]

Yet, private publishers, scenting a demand for this kind of information, found their way around public restrictions. In the early months of 1905, an anonymous volume entitled "Schematische Uebersicht von Vermögen und Einkommen in der Stadt und im Kanton Zürich" started circulating in Zurich (for the relatively high price of 15 francs, or around ¾ of a weekly wages for a male worker in the machine industry[39]) and was received with apparent "astonishment" by the population.[40] One later found out that the indiscretion had been committed by a Luzern publisher, J. Burckhardt, who – it was said – had hired a team of copyists to discreetly collect the information in the tax office during the official public consultation period[41]. A cheaper and shorter version of the same list (covering only the city of Zürich) came out soon after, at the initiative of the Zurich publisher Arnold Bopp.[42] Somewhat ironically, Burckhardt sued Bopp and requested 20,000 francs of compensation for the business damages caused. The commercial court in

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33 *Journal de Genève*, 12 August 1927, p. 5.

34 Sprenger, J. (1833), Verzeichnis derjenigen Steuerpflichtigen des Bezirks Zürich, Zürich : R. Wüst.

35 *Zürcherische Freitagszeitung*, No 7, 14 February 1896, p. 2.

36 *Neue Zürcher Nachrichten*, Vol. 1, No 43, 23 May 1896, p. 3.

37 *Neue Zürcher Nachrichten*, Volume 8, Numéro 94, 25 November 1903, p. 2.

38 *Zürcherische Freitagszeitung*, Numéro 14, 1 April 1904, p. 2.

39 www.hsso.ch , Table G04, Nominale Stundenlöhne, 1866-1921. In 1905, the hourly wage in this sector was 45.7 centimes. Which translated, very roughly, and assuming a 50 hour work week, a 20 francs weekly wage.

40 *Neue Zürcher Nachrichten*, No 106, 16 April 1905, p. 1. See also, *Neue Zürcher Nachrichten*, No 68, 9 March 1905, p. 2 and *Chronik der Stadt Zürich*, No 14, 8 April 1905. The publication of this list was treated humoristically in a feuilleton which came out in the *Neue Zürcher Nachrichten*, Numéro 126, 6 May 1905, p. 1: "Ich mache noch den Vorschlag, bei Ballanlässen oder sonstigen Veranstaltungen, wo das schönere Geschlecht besonders reichlich vertreten ist, neben der Tanzordnung für die Zukunft auch das Steuerregister, das ja bequemes Taschenformat hat, mitzutragen. Selbstredend wird man dann alles tun, um recht bald den Namen der Tänzerin zu erfahren. Ist dies gelungen, geht man in der Pause abseits und blättert im Steuerregister unbemerkt nach, wie hoch die Dame taxiert ist. Und so wird man auch wissen, wie weit man nachher mit der Liebenswürdigkeit der Schönen gegenüber gehen darf."

41 *Neue Zürcher Nachrichten*, No 150, 30 May 1905, p. 2.

42 Auszug aus dem Steuerregister der Stadt Zürich, 1905, Zürich: Arnold Blopp.

charge of the affair rejected the claim, on the grounds that "the tax registers put into circulation d[id] not enjoy copyright protection".[43]

Table 1. Published "Steuerregister" in Zurich, 1905-1931

Official and commercial versions (abstracts) of the *Steuerregister*	Publication date	Minimum… (in CHF) … income to be included on the lists	… wealth
Schematische Übersicht von Vermögen und Einkommen in der Stadt und im Kanton Zürich	1905	n/a	10'000
Auszug aus dem Steuerregister der Stadt Zürich	1905	n/a	10'000
Steuerregister der Stadt Zürich vom Jahre **1905**	1906	600	500
Steuerregister der Stadt Zürich vom Jahre **1909**	1910	600	500
Steuerregister der Stadt Zürich vom Jahre **1912**	1913	600	500
Steuerregister der Stadt Zürich - Amtliche Publikation der Taxationen von **1929**	1931	1000	1000
Die Kaufkraft der Stadt Zürich. 17000 kaufkräftige Steuerzahler	1932	8000	20'000

Source: Authors' own research

These events probably contributed to lower the inhibition of the municipal authorities regarding the publication of the tax registers. The information was, after all, already out there. Eventually, in February 1906, the Zurich municipal council (Grosser Stadtrat) decided to organize and finance the publication of the tax register[44]. Between 1906 and 1913, three editions came out. With the beginning of World War I, and the heavy burden it imposed, the priorities of the municipal authorities changed and credits for the publication of the registers were not renewed. Eventually, the coming of the left-wing "Rote Zürich" in the late 1920s contributed to bring back the topic to the fore, and in December 1930, the municipal executive council decided to publish yet another instalment of the register (which came out in 1931).[45] **Table 1** above lists, for Zurich, all the editions of the published tax registers, from 1905 to 1931. Debates surrounding the publicity of the *Steuerregister*, which touch upon the heated issue of fiscal transparency, lingered after the 1930s. Propositions to publicize and/or publish the tax registers reappeared from time to time in various cantons, with the same arguments being often presented on both sides of the debate. The Socialist party in Geneva proposed in 1984, and later again in 1994, (both times unsuccessfully) to introduce more fiscal transparency through the publicity (but not the publication) of the tax registers, a measure presented as a means to fight fiscal fraud.[46] Likewise, the issue was frequently debated in various cantons of German-speaking Switzerland.[47] No homogeneity prevails to this day on that matter.[48]

43 *Zürcherische Freitagszeitung*, No 39, 29 Sept. 1905, p. 3.

44 *Chronik der Stadt Zürich*, No 8, 24 February 1906, p. 57.

45 *Neue Zürcher Nachrichten*, Volume 26, Numéro 336, 11 décembre 1930, p. 2.; *Neue Zürcher Nachrichten*, Vol. 27, No 270, 6 Octobre 1931, p. 3.; *Neue Zürcher Nachrichten*, 15 Octobre 1931, p. 2.

46 *Journal de Genève*, 21 April 1984, p. 20, and 12 February 1994, p. 15.

47 *Der Bund*, 15 .1.1953, p. 8; *Walliser Volksfreund*, 12.6.1976, p. 5; *Freiburger Nachrichten*, 1.3.1986, p. 6; *Der Bund*, 11.6.1990, p. 22.

48 Schweizerische Steuerkonferenz SSK (2019), "Öffentlichkeit der Steuerregister (Stand der Gesetzgebung: 1. Januar 2019)." *Dokumentation und Steuerinformation / ESTV*, Bern.

The City of Zurich case

The case of Zurich therefore stands out, in that the period covered by the printed tax registers spans about 25 years (1905-1931). In contrast, in Bern, the volumes cover only 1898 to 1910, and in Luzern, 1899 to 1911.[49] Moreover, Zurich is the only commune where a volume was published after the First World War. This is all the more valuable that the post-1914 period has remained understudied in the historiography of the Swiss bourgeoisie (see **Box 1** in the preceding section). Last, as Zurich was already in the first decades of the 20th century the richest city of Switzerland (along with Geneva), the city constitutes a "natural" terrain for any historical study of wealth. In 1926, for example, Zurich had more millionaires than Basel and Geneva combined (389 against 178 and 185, respectively)[50].

How were the wealth and income figures which ended up printed in those volumes, produced in the first place? How were those values determined? Those questions can be answered through a succinct presentation of the tax system which prevailed in Zurich in this period, which is to be found in **Box 2** below.

The rules and procedures governing the production of wealth and income figures which ended up in the tax registers were explicit and plain. But the extent to which taxpayers respected those rules and declared their actual wealth and income, remains unclear. The issue of tax fraud was indeed constantly present in the debates regarding the reform of the tax system in Zurich between 1870 and the revision of 1917. According to Praz (2018, p. 62), who uses as a source the canton of Zurich *Rechenschaftsbericht*, the amount of undeclared wealth oscillated between 30 and 40% over the period 1894-1918. Those are significant numbers indeed. Praz (2018, pp. 165-166) argues that the law of 1917 contributed to reduce tax avoidance. In any case, those considerations suggests that actual wealth values were significantly higher than those printed in the registers. This issue is however not specific to Zurich but represents a limit to all historical inquiry founded on the use of tax data as a source. In addition, if the existence of tax fraud introduces a bias in the absolute wealth figures, there is no reason to believe that it introduces a non-random bias in the relative figures, especially at the top of the wealth ladder. In other words, there is no reason to assume (at least in the absence of contrary evidence) that some individuals populating the top 1% of the wealth share defrauded the tax authorities more than others, and therefore that this phenomenon introduces a bias in the *ranking* that we develop in the latter section of this working paper.

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49 Auszug aus dem Polizei-Steuerregister der Stadtgemeinde Luzern pro 1899.

50 *Oberländer Tagblatt*, Vol. 50, No 255, 1 November 1926, p. 2.

Box 2

The Zurich tax system around 1900

(Thank to Sylvain Praz, University of Lausanne, for providing several of the sources on which this box is based)

From 1870 to 1917, the "Gesetz betreffend die Vermögens-, Einkommens- und Aktivbürgersteuer" regulated the organization of the cantonal tax system. This law included a progressive tax on both wealth and income. In 1870, the tax rates for income went from 2 *Zehntheil* until 1500 francs per year, to 10 *Zehntheil* for income above 40,000 francs per year, with three intermediary rates in between. The rates for wealth went from 5 *Zehntheil* for the lower bracket (until 20,000 francs), to 10 *Zehntheil* for the upper bracket (wealth above 200,000 francs), with four intermediary tax rates in between. Were subjected to those taxes the persons, both legal (corporations) and physical (individuals), residing in the canton. Interest and yield resulting from the ownership of assets already included in the taxable wealth were excluded from taxable income. Incomes below 500 francs also remained untaxed. The taxable wealth was composed of all assets, located in and outside of the canton, movable and immovable, minus the liabilities. The values of objects such as books, jewelry, clothes, wine bottles, equipment and furniture necessary to the working of a household were however excluded, but included as soon as they could be considered serving a speculative purpose, or as soon as their value or quantities stood above what could be considered typical or customary for an household.

Each taxpayer was responsible for the declaration of his or her own wealth and yearly income and had to fill in a form and send it for verification to the tax authorities. More specifically, this task was attributed to "tax commissions", which operated at the communal level (at the Kreis level for the city of Zurich). This valuation was to be repeated every three years. Values were to be reported in a tax register, available for public consultation for fourteen days per year. The tax commission could impose a fine on the taxpayers who provided incomplete formulars, or who refused to provide the requested information or documents. The taxpayers found guilty of having consciously concealed assets (or of having exaggerated the values of their liabilities) could be imposed a penalty consisting in the payment of ten times the value of the evaded tax.

If the law of 1917 ("Gesetz betreffend die direkten Steuern") did not change the underlying principle of the tax system – the existence of a progressive taxes on both income and wealth, for both natural and physical persons –, it did however modify the organization of the tax administration and the way the commissions were to work to verify the validity of the information transmitted by the tax payers. The new law introduced a systematic administrative inventory at death, which facilitated the detection of wealth underreporting and tax avoidance. While sanctions in case of underreporting already existed under the regime of 1870, they became automatic in the law of 1917. The sanctions were also made harsher. Prison sentences up to 6 months for tax avoidance, and to two months for complicity, were introduced. The tax formulars were also modified in the direction of a greater degree of precision. Tax commissions were "professionalized", and their members became full time employees. These modifications all in all probably contributed to reduce the extent of the tax avoidance (Praz 2018).

Research perspectives

Tax registers open several perspectives for renewing historiography of the bourgeoisie in Switzerland and Zurich, and for wealth research in general.

First, a fundamental question in wealth research in general is that of the **origin of wealth**, or, to put it differently, how have the richest individuals acquired their wealth? Is inheritance a decisive factor, or *the* decisive factor, in explaining accession to wealth? And how does the influence of inheritance evolve over time? Recent social science research has tended to use media generated lists of the richest individuals to tackle this question. Kaplan and Rauh (2013) have studied the question for the US, using as a source the Forbes 400 rankings and have argued that the foundation of a successful company explains the presence in the ranking, rather than inheritance. Using the same source, Korom, Lutter and Beckert (2017) have argued that the presence of heirs in the ranking tended to be more stable than that of entrepreneurs. The latter tended to step in and out of the ranking more frequently. Baselgia and Martínez (2021), focusing on Switzerland, have documented decreasing wealth mobility over the last thirty years, and a significant increase of the importance of inheritance as a source of wealth (thus 75% of the persons in the 2019 *Bilanz* list were heirs). Kissling (2008) has also used the *Bilanz* lists to argue that Switzerland was becoming a "feudal society." Last, Brülhart, Dupertuis and Moreau (2018), have shown, using aggregate

data at the Confederal level, that, over the period 1911 to 2011, private wealth is attributable at around 30 to 40% to inheritance.

The city of Zurich "Steuerregister" offer an opportunity to look at those issues for an earlier period. One can measure the importance of inheritance as a factor in the accession to wealth. One way to deal with this issue would be to identify, among the lists of the richest individuals in 1929 (defined, for example, as the 1% of the richest taxpayers), those whose parents were already in the lists of 1912, or of 1905. The question of "**new wealth**" can be also studied. What was the economic activity of the individuals who were in the list in 1929 but whose wealth cannot be traced back to an inheritance? A social and economic portrait of those "new rich" in the context of the economic boom of the 1920s can be sketched. Do sectors in particular stand out? The question of **downward mobility** can also be studied. In particular: can we document cases of individuals who were in the ranking in 1912, still alive in 1929, but disappeared from the ranking in between? What explains those "disappearances"? Likewise, can we observe similar patterns between 1903 and 1912? Last, the Steuerregister do allow to carry out an **international comparison**. Were the richest Zurich people as rich as the richest Parisian or Londoner at the same period?

Second, to what extent is there an **overlap** between the "economic elite" and the "wealth elite"? Significant progress has been made in recent years on the question of the structure of the economic/decisional elite (defined as individuals sitting in the boards of the main companies) in Switzerland. Mach, David, Ginalski, Bühlmann (2017, see also <www.unil.ch/obelis>) have painted a broad social portrait of this group and its evolution over the 20th century. But are economically powerful individuals the same as the wealthy? The Zurich tax registers allow to quantify the extent of the overlap. Naturally, the question arises of the identity and background of the individuals who figure among the richest, but who do not appear as belonging to the "economically powerful". What was their education, their political loyalties, their religious affiliations? Was this group mainly composed of widows? Wealth networks and influence networks do not necessarily overlap, but connections do naturally exist. In fact, can a sort of informal division of tasks be observed, for example within a single family? Could it be that some members of the family were responsible for the representation and the political and economic presence within important firms, and that other members were responsible for the management of the wealth? Those are hypothesis that a systematic comparison of the economic elite database (OBELIS) and a to-be-built database make possible to test.

Third, the tax registers make possible a **deeper understanding of the structure of the bourgeois family**, and its economic role in a context of a rapidly growing and industrializing capitalist economy such as Switzerland in the first three decades of the 20th century. Such an issue is difficult to tackle – in a contemporary context – with the *Bilanz* lists. Indeed, those lists mix together families and individuals, which constitutes one of the main methodological hurdles faced by researchers using this source. Since the Zurich tax registers of the early 20th century are essentially lists of individuals, we could trace family links between those various individuals. Do patterns of alliances emerge? Can we identify a network, with a core constituting the center of gravity of family wealth? The bourgeois family was in the early 20th century an economic and business entity, within which power and influence could be exercised. Looking

at the family as an economic entity, rather than the business firm, thus provides another angle to look at the issue of "economic power". This naturally leads to the exploration of the question of matrimonial strategies as a mean to preserve and expand family wealth. Michel Pinçon and Monique Pinçon-Charlot (1996) have documented the homogamy prevailing inside the French bourgeoisie, and its economic rationale. A cursory look at the "Steuerregister" suggests that homogamy was also prevalent in Zurich. Can we quantify or at least "map" such a phenomenon?

A natural extension of such questioning concerns the **role of women** at the top of the economic ladder. From the "economic power" perspective (the board of the biggest companies), women appear to play a marginal role in the early 20th century (Mach, David, Ginalski, Bühlmann, 2017, p. 33-43). For the contemporary period, Mäder and Streuli (2002) observe an underrepresentation of women at the top of the wealth ladder, which they interpret as the product of discrimination and social prejudice (pp. 40-41). Baselgia and Martínez (2021) also insist on the significant underrepresentation of women in the *Bilanz* lists. The Steuerregister gives an opportunity to discuss and quantify this issue. In fact, a preliminary look at the *Steuerregister* (see next section) suggests that the share of women was higher than what previous research would have us spontaneously assume.

This discussion is directly linked with those pertaining to the role of women within the bourgeois family in the late 19th and early 20th century. How was power distributed within the bourgeois family? Blosser and Gerster (1985, p. 17) in their study of women in the Swiss high bourgeoisie in 1900, have argued that women were detached from business affairs. In contrast, Dolores Augustine (1994, p. 104-117), looking at the context of the German Kaisserreich, has argued in contrast that women were closely involved in the elaboration of decisions which had significant business implications (matrimonial decisions were one of those). Naturally, even though the "Steuerregister" open the door to a quantitative approach of those issues, the mobilization of complementary, qualitative sources (for example, pertaining to family trusts) is required, to carry out a full discussion.

To test some of these research questions, we offer in the third and last section of this paper some perspectives on the 1% and 0.1% top wealth share in the City of Zurich.

3. An exploratory study of the top 1% and 0.1% wealth shares in the City of Zurich, 1909-1929

This micro-level study is based on materials extracted from two *Steuerregister* covering respectively the years 1909 and 1929. The two dates were chosen as they were close to two benchmark years used in the OBELIS Swiss Elites Database (namely 1910 and 1937, see <https://www2.unil.ch/elitessuisses/>). We could then benefit from the extensive biographical research undertaken by OBELIS. To circumscribe the number of taxpayers that could be included in both the 1% and 0.1% for both these, we started from the overall number of persons, residing in the city of Zurich, paying cantonal wealth taxes. In 1909, 24'317 taxpayers paid the wealth tax, and in 1929 this number amounted to 29'875. Those two populations

represented respectively, 12.8% and 13% of the total number of inhabitants of the city.[51] We then defined the «threshold» wealth value needed to be included in the 1% and 0.1% groups by using the «wealth classes» detailed in the cantonal tax statistics (see Table 2). Finally, we extracted individual names and information from the *Steuerregister* to fil in the 0.1% lists that we discuss in this section, and that are presented in Appendices 1 and 2. In other words, those represent the wealthiest individuals, within an already restricted group of persons = subjected to the wealth tax.

Table 2. Definition of the 1% and 0.1% top wealth shares, 1909 and 1929, City of Zurich

		All	1%	0.1%
Taxpayers submitting to the cantonal wealth tax	**1909**	24'317	242	24 (**Appendix 1**)
	1929	29'875	299	30 (**Appendix 2**)
Minimal «Threshold» wealth to be included in both the 1% and 0.1% samples	**1909**	/	0.51 Mio. CHF	1.97 Mio CHF
	1929	/	1.25 Mio. CHF	6.23 Mio. CHF

Source: Authors' research and Zurich tax statistics

The 1% and 0.1% as cohesive social groups

What was the **demographic profile** of the individuals populating the top wealth (0.1%) rankings of 1909 and 1929? The typical individual was around 60 years old. Naturally, some were (much) younger and some older (see below, **Table 3**). The youngest to figure in the 1909 ranking was 10 years old Martin Bodmer – son of industrialist Hans Conrad Bodmer-Zoelly (himself at rank #2 in 1909) –, who was already the owner of a fortune valued at 0.7 Mio CHF. Such a case was of course exceptional and reflected the fact that his parents had early on arranged inter vivo transfers. A direct reflect of their longer longevity, women were more numerous among the eldest individuals than in the overall group. They represented 60% of the individuals above 80 years old in the ranking of 1909 (respectively 50% in 1929). Overall, the men and women who populated our two lists were born around the years 1850-1870 and had been socialized in an epoch, characterized by a significant economic expansion, booming industrialization and urbanization, and by an intensification of the global trade flows of labor, commodities and capital.

Table 3: Age and gender of the top 1% and 0.1% wealth share (Zurich 1909 and 1929)

		Number of taxpayers	Minimal age	Average age (median)	Women (%)
1909	1%	242	10	58 (57)	31%
	0.1%	24	37	64 (67)	25%
1929	1%	299	21	59 (60)	25%
	0.1%	30	38	58 (61)	20%

Source: Steuerregister, Stadt Zürich, 1909 & 1929

[51] In comparison, 71'466 persons paid the income tax in 1909 (37.7%% of the total population of the city), and 139'284 in 1929 (60.4% of the total population of the city).

Interestingly, **the share of wealthy women was significant** and amounted to 31% among the 1% in 1909, and 25% in 1929 (shares for the 0.1% hovered between 20-25%). In comparison, the share of women among the board of directors of the biggest 110 Swiss companies was 0.5% in 1910 (Mach et. al, 2017, p. 35). This significantly higher percentage of women among the wealthy suggests that, if women remained excluded from formal participation in business operations, they played – not least because of their higher life expectancy, key roles in the preservation and transmission of family wealth. Older women usually collected the wealth at the death of their husband, before these assets were distributed among the (mostly male) heirs of the next generation. In addition, their widowhood period could be very long: 38 years, for example, for Wilhelmina Schwarzenbach-Zeuner, and 42 years for Susanna Escher-Hotz[52]. Wealthy widows thus enjoyed a certain control over the way wealth was spent and allocated; they enjoyed, in other words, – at least within the uppermost layers of the capitalist class – a certain degree of economic power. We will come back later to this general issue and to those examples in greater detail.

Another important structure of the very rich was that they belonged to closely-knit family clusters. As **Figure 2** (next page) strikingly underscores, the few dozen individuals belonging to the 0.1% in both 1909 and 1929 occupied a relatively coherent social space. Even if this tentative «wealth tree» remains uncomplete, we could already place half of both samples on it. Moreover, these halves already amount to 80% of the overall top 0.1% wealth share. **Figure 2** also highlights the importance of the intergenerational preservation of wealth within these family clusters. In other words, the social space of the Zurich wealthy individuals was at least until 1929 very exclusive. Extending this schema for a third generation might help us understand whether these family clusters held their position by the mid-20th century, or, on the contrary, the number of «newcomers» increased. What we know is that the richest Zurich individual in 1945, weapons manufacture and art collector Emil G. Bührle, was truly a newcomer and into a league of his own. However, we do not know yet if the meteoric rise of his wealth – which exploded from 150'000 CHF in 1929 to the staggering amount of 160 Mio. CHF by 1945 – (Leimgruber 2021) was representative of wider changes among the 0.1% or simply an exceptional outlier case. Another fact that is clear is that figures such as the ultra-wealthy foreigners establishing themselves in Switzerland, notably for tax reasons, who have become fixtures of the late 20th C. «rich lists» (see Baselgia/Martinez 2021) cannot (yet) be found in our rankings.[53]

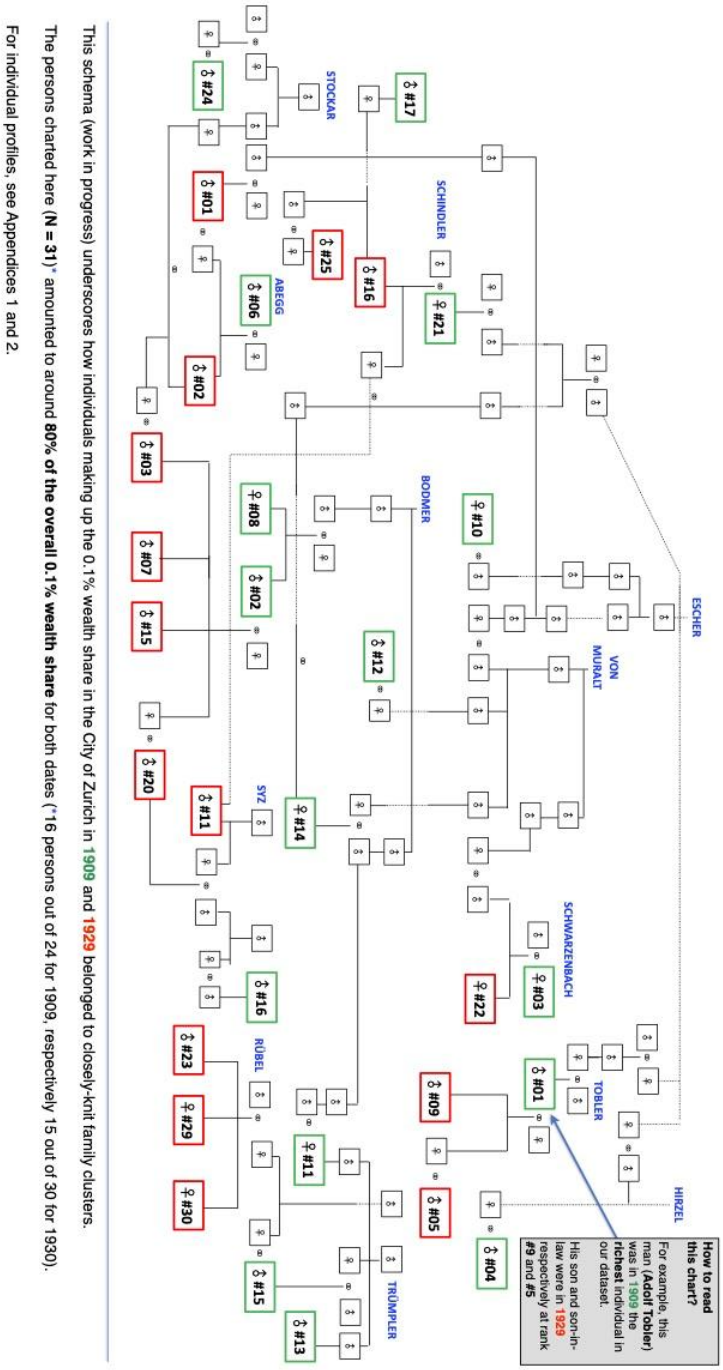
Besides belonging to closely-knit family clusters, the wealthiest Zurich residents were also often neighbors. A summary study of the 10 wealthiest streets in the City of Zurich (see **Table 4** below), prestigious addresses in the south-east and south-west Districts/Kreise around Lake Zurich, confirms that these witnessed a very significant concentration of wealth. In a recent research paper on the Zollikerstrasse, the paramount «millionaires' street» in Zurich, Manuel Weber (2020) has not only underscored that the 127 residents of the Zollikerstrasse (0.086% of taxpayers) owned not less than

[52] Those long periods were partly, but not entirely, attributable to the fact that the women tended to marry older men; in the two examples given here, the age difference was of 23 and 10 years, respectively.

[53] In 1909, the only persons of foreign origins within the top 0.1% wealth share were the heirs of Emanuel Henry Brandt (1831-1908), a Russian-German-British trader who had established himself in Zurich in 1879 (and acquired a decade later the *Bürgerrecht*).

3.46% of *overall* taxable wealth in the municipality but has also analyzed the architectonic differentiation of this ultra-wealthy street as well as the extensive familial connections between owners of the largest estates. A classical theme for wealth research, the study of wealthy neighborhoods and other similar spatial perspectives will be developed further in our project.

Figure 2. Family clusters of the 0.1% top wealth share in Zurich (1909 & 1929)



Source: see Appendices 1 and 2. Authors' research.

Table 4. The 10 «wealthiest streets» in the City of Zurich in 1929

Street	Kreis/District	Number of residents belonging… to the 1%	to the 0.1%	Total 1% «street wealth» (Mio. CHF)
Zollikerstrasse	8	13	2	65.5
Scheideggstrasse	2	7	2	55.4
Utoquai	8	12	2	40.4
Freiestrasse	7	6	2	30.5
Parkring	2	7	1	29.5
Zürichbergstrasse	7	7	3	25.7
Hohenbühlstrasse	7	5	2	24.4
Seestrasse	8	7	1	23.1
Bellerivestrasse	8	8	1	21.7
Klausstrasse	8	4	1	19.9
		76 (1/3 of the overall 1% social group)	**16** (50% of the overall 0.1% social group)	**336.1 Mio CHF** (around 1/3 of the overall 1% top wealth share)

Source: Authors' research

How rich were the wealthy? **Table 5** below indicates the wealth distribution within the 1% of taxpayers. To belong to this golden layer, one had to own at least 0.51 Mio. CHF in 1909, and 1.25 Mio. in 1929. And to belong to the upper crust within this layer, namely to the 0.1%, one had to possess a wealth of 1.97 Mio. CHF in 1909, and 6.23 Mio CHF in 1929. Appendices 1 and 2 contain the list of the individuals making up the 0.1% in both dates, with their fortunes and their annual income. However, one needs to keep in mind that the fortunes reported in the Steuerregister were very probably *underestimated*, notably because of extensive tax evasion. According to Praz (2016, p. 183), the underestimation in the case of inheritances, for the canton of Zurich as a whole and on average over the period 1898-1918, amounted approximately to 28%, although the tax reform of 1917 probably contributed to reduce the extent of the phenomenon.

Table 5. Wealth repartition within the 1% and 0.1% top wealth shares (1909 & 1929, Zurich)

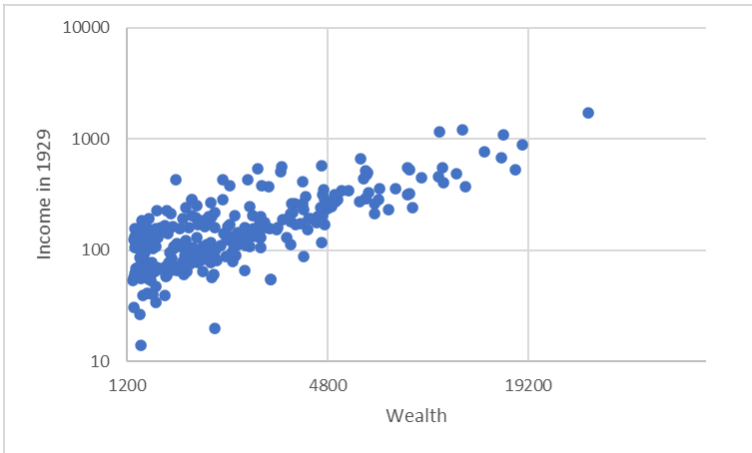
		1909		1929
0.1% wealth share	**78.82 Mio. CHF**	**N = 24**	**314.26 Mio. CHF**	**N = 30**
Wealth range	>10 Mio.	1	> 25 Mio	1
	5 to 10 Mio.	2	15 to 18.4	4
	3 to 5 Mio.	6	10 to 15 Mio.	8
0.1% threshold >	**1.97** to 3 Mio.	15	**6.23** to 10 Mio.	17
	0.51 to 1.9	80	2 to 6.2 Mio.	128
	0.51 to 1 Mio.	138	1.25 to 2 Mio.	141
1% wealth share	**284.5 Mio. CHF**	**N = 242**	**942.30 Mio. CHF**	**N = 299**
	(from 0.51 to 1.9 Mio. CHF)		(from 1.25 to 6.22 Mio. CHF)	

Source: Steuerregister, Stadt Zürich, 1909 and 1929

Wealth rankings vis-à-vis income rankings

The figures we mention above always focus on net wealth (how much an individual possessed, minus his/her liabilities), rather than income. But were the highest net wealth individuals the same as those with the highest yearly incomes? As the Steuerregister reported both wealth and income, we can shed some light on this issue. **Figure 3** below charts a positive, although imperfect, relationship between income and wealth for the year 1929. In fact, our ranking would be significantly different if we would have selected income rather than wealth as the decisive criteria. 43% of the individuals (13 out of 30) among the 0.1% (criteria wealth) would disappear from the list if the latter was established using annual income. Using income rather than wealth would also significantly bias the ranking in terms of gender. Among the 30 individuals with the highest incomes, only 1 (that is, 3,3%) was a woman (against 25% women in the "wealth ranking"). Naturally, this reflects the fact that most of women present in the wealth ranking were either heirs or widows, and that their income was exclusively capital income, and did not include income resulting from business operations.

Figure 3. The relationship between income and wealth in 1929 among the top 1% wealth share



Source: Steuerregister, Stadt Zürich, 1929. Log scale for both variables.

The fact that the "wealth" and "income" only imperfectly coincide with one another enables us to question the relevance of the use of income as a proxy for wealth – a method which has recently been used in historical wealth research, for example for studying either the Vienna "millionaires» in 1910 (Sandgruber 2013) or their British equivalents in 1928/29 (Scott 2021). Such an approach tends to introduce a bias in favor of i) either individuals who do receive business income, or ii) of those whose capital is invested in income-generating assets. The individuals whose capital, in contrast, is composed of unrented real estate, or of artworks, will thus be underrepresented. It is, after all, very possible for an individual to be at the same time wealth-rich and income-poor, or wealth-poor and income-rich. The use of income as a measure of wealth is even more problematic when one considers one benchmark year only (Sandgruber 2013 and Scott 2021 indeed proceed in such a way), rather than a several benchmarks. It is possible for a merchant to strike one year a lucrative deal, but fail to reiterate the feat, and thus fail to become rich (measured in net worth). Net worth thus appears overall as a more suitable variable to look

at wealth, as it may highlight long term economic success, and – in the case of family wealth – as well as the accumulation of capital over several generations.

A preliminary typology of the 0.1% top wealth share

We propose here a rough typology based on five categories:

- "**Continuators**", who led firms founded by their fathers or forefathers and essentially kept on doing business in the same branch.
- "**Diversifiers**", who rechannelled the capital and/or the business structure they had inherited away from the traditional focus points of the family and towards new activities and/or sectors.
- "**Dropouts**", who chose to pursue a career in either science or the arts, rather than to take over business responsibilities in the family firm.
- "**Newcomers**", who were initially not born in an already wealthy family, but nevertheless succeeded to accumulate significant capital, without the initial backing of family money. We also include among these "Newcomers" individuals from (in relative terms) modest backgrounds, who became wealthy through marriage.
- "**Heirs and widows**", a category covering exclusively women present in our sample. According to gender norms of the epoch, these were not expected to take over the family business, and their presence in our rankings can be explained by inheritance of large amounts of capital from either their parents or from their deceased husbands.

This typology seems to us more relevant than the standard binary "self-made-man vs. heir" categorization generally used in the literature (Piketty et al., 2014; Korom et al., 2017; Baselgia and Martínez, 2021). If we adopt this binary classification, we would have mix together individuals with significantly different profiles and trajectories. Thus, Albert Hürlimann, who had inherited in 1887 from his father the largest Swiss brewery in 1888, was an heir (Knobel, 1999, p 34), and not a "self-made" entrepreneur. But Hürlimann himself significantly contributed to the growth of the firm, and under his leadership, the production of the family firm more than quintupled. Hürlimann, was thus a very different kind of heir than, say, Martin Bodmer-Naville, who inherited a vast amount of wealth, but was never active in the business world, and spent most of his lifetime and energy in assembling and curating a world-famous book collection. In other words, mixing Hürlimann and Bodmer in the same category would not do justice to the complexity and variety of individual profiles, and would fail to capture many facets of this very exclusive social milieu.

In their use of the binary categorization, Piketty et. al. (2014) propose a quantitative criterion to allocate individuals in either one of the two categories: "inheritors" or "rentiers" are the persons whose assets are smaller than the capitalized value of the wealth they inherited; whereas "self-made individuals" describes those whose assets are larger than the capitalized value of the wealth they inherited. At least for the purpose that we are pursuing in this paper, those labels are more confusing than clarifying. Such a method would lead us, for example, to classify Carl Abegg-Arter, a banker-trader, into the "self-made" category, although he was born in a family of wealthy silk manufacturers (Schmid, 1972). Likewise, the concept of "rentier" conveys a negative whiff of idleness, which evokes images of someone merely living off the interest of his/her capital (Piketty, 2013). Although some of the individuals composing the 0.1% of the wealthiest were clearly rentiers in that use of term, the majority was not. These "rentiers" did not only inherit vast amounts of family wealth, they also inherited the responsibility to make the family business

prosper and grow, a mission which often ruled out a life of idleness. Likewise, the idea – at least implicit in Piketty et. al. (2014) – that we could somehow distinguish the contribution of "inheritance" from the contribution of an individual's own labour and saving, is problematic. In fact, one of the central contributions of inherited family capital was that it *multiplied* the product of the inheritor's individual labour. Inheritance acted as a leverage. Family wealth often gives an individual the opportunity to take risks (Toft and Friedman, 2021) and to venture into new business branches. In addition, rich families did not only bequeath financial capital, but also social capital, and the heir could build upon the network to further advance the financial interest of the family.

Table 6 below presents the distribution of the individuals within the 5 categories discussed above. For both 1909 and 1929, most individuals in the 0.1% were men who took over business responsibility within a family business which they inherited: **Continuators** and **Diversifiers** made up together around 50% of the sample (50% in 1909 and 53% in 1929). Within this group, Continuators represented the majority, though their share had diminished by 1929. The share of **Heirs of widows** remained on the other hand relatively stable between the two dates, at around 25%. The proportion of **Dropouts** and **Newcomers** remained small for both benchmarks.

Table 6: Repartition of 0.1% within ideal typical categories (Zurich, 1909 & 1929)

Category	1909 (N = 24)	1929 (N = 30)
Continuators	10 (42%)	10 (33%)
Diversifiers	2 (8%)	6 (20%)
Heirs or widows	6 (25%)	7 (23%)
Dropouts	2 (8%)	4 (13%)
Newcomers	2 (8%)	1 (3%)
Unidentified/Unclear	2 (8%)	2 (7%)

Source: Authors, based on Steuerregister, Stadrt Zurich 1909 & 1929.

The Stehlis: a typical family of continuators. Many, or even most, «continuators» in our sample were active in the textile branch. The *Stehli family* is in that regard representative. Rudolf Stehli-Hausheer, who belonged to an old patrician family (*Bürgerrecht* of Zurich in the 15th century) had established in 1838 a textile manufacture in the district of Affoltern. Originally devoted to cotton production, the manufacture switched to silk, where competition was perceived to be less vigorous and whose production was sold on international markets. Rudolf's son Emil Stehli-Hirt (born 1842, **ranking #16 on the 1909 list in Appendix 1**) was gradually introduced in the business operations of the family firm and eventually took over the business's leadership in 1884.[54]

Emil Stehli-Hirt's business outlook was resolutely international. After a commercial and technical education in Lyon, he had also established extensive business relationships in this stronghold of Europe's silk production. In 1876, Stehli-Hirt sent his son-in-law – Max Fröhlicher – in New York to establish an agency tasked with facilitating the penetration of Stehli's products into the North American market. In

[54] On the Stehli, see Stehli-Zweifel, Robert, 1940, *Stehli & Co, Zürich und New York*, Zürich: Art. Institut Orell Füssli; Stehli, Henry E. (1947), *Emil J. Stehli, 1868-1945, A Short Account of his Career*, Privately Printed, Zürich.

1889, Stehli-Hirt then entrusted his son, Robert, to establish the US "Stehli Silks Corporation". To bypass US tariffs, which hampered Stehli's access to the American market, Robert Stehli-Zweifel finally took in 1897 the initiative to create a silk plant in Pennsylvania. The management of the American interests of the family was this time attributed to Robert's younger brother, Emil. The latter permanently settled in the US (he obtained citizenship in 1904) and established the American branch of the Stehli dynasty. The ties with Switzerland were however never really severed: Emil J. Stehli spent most of his summers in Zurich, and the Swiss Stehli made frequent trips to the US – one of them, on board of the RMS Titanic in April 1912, almost turned out fatal for Stehli-Hirt's daughter Margaretha and her husband Max Frölicher-Stehli.

Robert Stehli-Zweifel directed the Zurich branch of the company, along with his father, until the latter's withdrawal in 1919. The firm turnover (excluding the American branch) grew significantly under his leadership. His sons, Robert II and Alfred, integrated the century-old family firm in 1924 and 1928 respectively. Both had been, like their grandfather, educated in Lyon as silk specialists. The Great Depression – and the significant fall of the price of raw silk which accompanied it – eventually put a sudden halt to the growth of Stehli, whose turnover was divided by more than 4.5 between 1927 and 1936.[55]

The Abeggs as paramount «diversifiers». As the case of the Stehli family exemplifies, specialization could put the family firm at the mercy of a systemic shock, such as the Great Depression or the sudden fall in the price of raw materials. The capacity of a family firm to survive over the very long term was sometimes conditioned by its capacity to diversify its "portfolio" of economic activities, to abandon declining branches, and, with the capital accumulated over several generations, to invest in fast growing and promising sectors.

The case of the Abeggs (Carl Abegg-Arter, his son Carl Abegg-Stockar, and his grand-son Carl Julius Abegg) is in that regard telling (Schmid, 1972). Even though the family was mainly involved, until the early 1880s, in the silk business and even though this original branch was never abandoned, the Abeggs relentlessly diversified their activities. The Abeggs belonged to the high society of the commune of Küsnacht (canton of Zurich), where Carl Abegg-Arter's father – owner of vineyards and of valuable properties acquired through inheritance – had established a silk fabric in 1850. After studying commerce in Milan and working for a few years in the silk company of Salomon Rütschi, a relative of his mother, Carl Abegg-Arter, desirous to establish a company of his own, founded in 1861 *Rübel & Abegg*, with August Rübel, an associate of German origins who had settled in Zurich in 1858, and who Abegg had met during a business trip to New York. The silk business flourished and made both men wealthy. Following internal disputes, *Rübel & Abegg* was eventually dissolved in 1883. With the prestige and capital he had acquired as silk producer and merchant, Carl could freely pursue other business interests. In April 1883, a few months after Alfred Escher's death, Abegg-Arter became president of Crédit Suisse, a position he would hold for 28 years. During the last two decades of the 19th century, Abegg-Arter (**#6 on the 1909 list**) sat on the board of directors of many of the major companies of the time, in insurance, railways, electricity or

[55] Stehli-Zweifel, Robert, 1940, *Stehli & Co, Zürich und New York*, Zürich: Art. Institut Orell Füssli, p. 111.

in the nascent and rapidly growing investment trusts. As the Abegg family biographer wrote, "It is impossible to list all the companies in which Abegg-Arter was involved as a member of the Board of Directors." (Schmid, 1972, p. 77). In other words, his business interests extended far beyond the silk industry, from which his wealth initially derived.

The trajectory of Abegg-Arter's son – Carl Abegg-Stockar – resembled that of his father. He first served as an apprentice in the factories of his father's company in Milan, and then spent a few years in New York. With the backing of his father, he first founded in 1885 in Zurich *Abegg & Co*, a silk production company as well as in 1894 several factories in Russia. These were expropriated by the Bolsheviks following the Russian revolution of 1917, an event which resulted in significant financial losses for Abegg-Stockar. But by then, his business interests already saddled many sectors: by the 1910s, Abegg-Stockar (**#2 on the 1929 list**) sat on the boards of Swiss Re, Credit Suisse, Zurich Insurance, and Maggi. Abegg-Stockar's son Julius Abegg followed the path which his grand-father and father had paved: apprenticeship in Milan, international travels during his youth, direction of the family textile business, and then involvement in the board of directors of some of the large Swiss companies (Maggi, Nestlé, VITA Insurance, Swiss Re, Zurich Insurance, etc.).

A «dropout»: Eduard Rübel Blass as gentleman scientist. In the upper bourgeoisie of the 19th century, male offspring often felt the pressure, exerted by their social milieu, to take up a business career, and follow in their father's footsteps. As Schmid (1976) wrote about Carl Julius Abegg, "Given his literary inclination (...) studies at the university, such as in the field of Germanistic, suggested themselves; but the destiny determined by family ties soon proved to be the stronger force." (p. 186). The pressure was all the stronger when the child was the only son.

Yet this "force" was not overwhelming. Some, contrary to what was expected of them, shunned the business life, to focus their attention on other activities, typically scientific or artistic. One of those "dropouts" was Eduard Rübel Blass, son of the German businessman August Rübel, associate of Carl Abegg-Arter in the silk company *Rübel & Abegg*, and co-founder of the *Maggi* food company (See Rübel-Kolb, 1970). Eduard's mother, Rosalie Däniker, was herself the daughter of a rich merchant Zürich merchant, who had operated a trade house in Rio de Janeiro for 25 years. The commercial culture thus permeated the life of the family and determined individual family members career choices. As Eduard was finishing high school his father was focusing on the development of Maggi, and naturally thought of chemistry as a promising area of study for his son, who then duly obtained a doctorate in this field at the Federal Institute of technology (ETH). However, Eduard found chemistry courses "dull and mundane" (Rübel-Kolb, 1970, p. 9) and much preferred botanic. During his ETH studies, he studied botanic as an option and participated in expeditions organized by German botanist and ETH Professor Carl Schröter.

Despite his intellectual inclinations, Eduard Rübel could not avoid the commercial and formative business «grand tour» around Europe and in the US, traditional for young men of the wealthy bourgeoisie. From 1901 to 1903, he resided alternately in London, New York, and Berlin, where he worked in various banking houses managed by close business relationships of his father.

Upon his return to Zurich in 1903, the question of a career choice was posing itself urgently. Edaurd found the idea to work as a chemist in a Maggi factory unappealing and realized that a business career would leave him with little time to pursue his scientific interests. His son, Eduard Rübel-Kolb, wrote in a biography dedicated to his father, that "the year 1903/1904 was a depressing year of uncertainty" (1970, p. 13). Following the advice of his former ETH professor Carl Schröter, he eventually decided to dedicate himself fully to botanic as an independent researcher. Such a choice was of course made possible by his personal financial situation. The Steuerregister of 1904 indicates that he was already the owner of a (inherited) fortune amounting to 1.25 million francs, a sum which, well invested, could bring him an annual income of around 30,000 to 40,000 francs, larger indeed than the salary of a university professor. Until his death in 1960, Rübel **(#23 on the 1929 list)** pursued research in botanics, was involved in many learned societies in Switzerland and around the world, and financed research through donations to various institutions and through the establishment of grants. He never, however, completely abandoned the business world and, from 1904 onwards, sat on the Maggi board of directors, the firm which his father had co-founded.

A rare newcomer: Johannes Spörri. The vast majority of individuals populating the top 0.1% wealth share belong to the Zurich high society and/or to old wealthy families. In fact, complete outsiders were extremely rare. Johannes Spörri (**#5 in 1909**), whose parents were farmers and who grew up, along with his six siblings, in a relatively modest environment, in the commune of Embrach, was one of them. After an apprenticeship in a Winterthur textile shop, Spörri worked as a sales clerk and accountant in the Lausanne textile house Bonnard. Equipped with this commercial knowledge, he returned to Zurich, and, at age 25, opened there a necktie shop. Little is known about the origins and dynamics of his subsequent commercial success. Obituaries produced by some of his friends mention however that he exploited trade disturbances brought about by the Franco-Prussian war, extended his activity to the manufacturing of of silk products, and that he established shops in Zurich's most prestigious neighborhoods (Bahnhofstrasse, Zentralhof), as well as subsidiaries in in Paris, Vienna, and Berlin. As a reaction to what he perceived to be a shortage of qualified workforce, he founded in 1889 a school dedicated to the commercial and technical education of female employees for the garment industry (*Frauenfachschule für das Bekleidungsgewerbe*). This one is still in existence in 2021 under the name Modeco. Spörri was also active as a patron of various charitable organizations, notably in the fight against alcoholism.

Johannes Spörri appears as a contrasting figure in our 0.1% list, not only because he came from a modest background and ascended rapidly to the upper echelons of the wealth hierarchy, but also because he did not leave any heir, nor did he marry a woman of the local patriciate – a modality of social ascension to which successful businessmen commonly resorted. Contrary to other successful silk merchants, such as Rudolf Stehli-Hausheer, Spörri did not create a family dynasty. As we lack documentation, the post-mortem destiny of his vast wealth remains unknown.[56]

[56] On Spörri, see *Zum Andenken an Herrn Johannes Spörri*, Jacques Bollmann, A.-G, 1921.

Heirs and widows: a world of their own. Women within the top 0.1% wealth share undoubtedly deserve a category of their own: their individual profiles were, to a large extent, similar, more similar indeed that those of their male counterparts. Social expectations within the wealthy bourgeoisie were strongly gendered: female offspring were not expected to take over business responsibilities. They were however expected to marry well, that is, within the same social milieu. Once this was achieved, they were expected to manage the household, to represent it vis-à-vis the outside world, and to maintain the vast network of relationships which typically gravitated around the bourgeoisie family. This was not directly business-relevant, but indirectly, women played a crucial role, as family networks and business networks often overlapped (Kümin and Kälin, 2020; Tanner, 1996).

Most of the women present in our samples were widows of wealthy businessmen. It was the case of the third richest person in the ranking in 1909, Wilhelmina Schwarzenbach Zeuner (**#3, 1909**), wife of the silk magnate Robert Schwarzenbach, and herself the daughter of a wealthy silk manufacturer.[57] Likewise, Berta Rieter-Bodmer (**#8, 1909**) was the wife of the textile industrialist Fritz Rieter. The third woman in the ranking, Susanna Escher-Hotz (**#10, 1909**), was also the widow of a wealthy textile industrialist (Emil Escher, a cotton manufacturer). As for Anna Julia Bodmer-Trümpler (**#11, 1909**), she was the widow of Heinrich Bodmer, a silk merchant. At the death of her husband (in 1895), Anna Julia Bodmer-Trümpler was 41 years old, and lived with her eight children in the illustrious Villa Seeburg (Zollikerstrasse 60), which had been built by her father-in-law, and which she ended up inheriting.[58]

Besides widows, a few heirs populated the 0.1%. Those were single women, who became wealthy through vertical inheritance, that is, through their parents (in opposition to horizontal inheritance, through the husband). Among them: the Rübel sisters (**#29 and #30, 1929**), siblings of Eduard Rübel-Blass, mentioned above. Against the social norms of their social milieu, both stayed all their life single, and mostly occupied themselves with caritative activities. Another example is that of Maria Gnehm (**#17, 1929**), the daughter of a chemist commercially active in the pharmaceutical industry. Maria Gnehm found herself, in 1926, at her father's death, the sole inheritor of his significant wealth, as her mother and her brother had passed away before that date. Maria Gnehm figures however as acontrasting figure within the women belonging to the 0.1%, as she herself - treading in that regard in the footsteps of her father – pursued scientific activities (she obtained a PhD in medicine). As she stayed single, her nephews and nieces ended up inheriting most of her wealth, along with several scientific institutions, such as the ETH – an institution which she had in the last decades of her life faithfully supported (Kümin and Kälin, 2020).

[57] F. K. (1904), «Robert Schwarzenbach-Zeuner», Mitteilungen über Textil-Industrie, No 14, 15 Juli 1904, pp. 229-232. URL : https://www.e-periodica.ch/digbib/view?pid=tex-001%3A1904%3A11%3A%3A136&referrer=search#136

[58] *Julie Bodmer-Trümpler, 4. November 1854-31. August 1939*, Zürich: Schulthess, 1939.

Conclusive remarks

This paper first presents a broad overview of the public discussions and controversies on wealth accumulation and, more specifically, the wealth elite, which have agitated Switzerland since the early 20th century. We underscore that these issues began to attract more attention during the interwar period, in a context of economic instability and heated controversies about progressive income and wealth taxation. The Swiss debates echoed similar foreign controversies (e.g. the French controversies surrounding the so-called «200 families»). Likewise, the global «1968 moment» and the end of the postwar growth decade triggered a new wave of interest and critique about the wealthiest, which manifested itself in a series of publications – often of a polemical– on the topic. Ever since, the interest has not ebbed out, and from the 1990s onwards, *Bilanz*, a business weekly capitalized on the general curiosity regarding extreme wealth by publishing on an annual basis a ranking of the wealthiest individuals and families. Again, such developments mirrored similar publications abroad (e.g. the US *Forbes* lists date from the 1970s). The discursive and publication waves summarily presented in this working paper remain to be studied in more detail as well as on a comparative perspective.

We also underscore in this paper that these recurring debates and controversies have however often been plagued by a lack of reliable information about the precise nature of top wealth in Switzerland. To improve knowledge about top wealth, we use in this working paper a new source and methodology which would allow an in-depth study of top wealth at the local level, namely in the context of the city of Zurich. We use the communal tax registers, which provide at least until the early 1950s extensive information on wealth and income declared by individual taxpayers. Focusing on the 0.1% highest taxpayers, namely the top strata among «Zurich millionaires», we discuss the origin of wealth, its social profile, the transmission of wealth, and the local geography of wealth. The data we have gathered further allows us to reconstruct, with the help of minutious genealogical research, the familial components of wealth distribution, transmission, and persistence. Finally, the granularity of our unique dataset enables us to question frequently admitted conceptions regarding the way the wealthy population can be classified between «inherited» vs «entrepreneurial/self-made» wealth.

Again, the topics and issues briefly sketched out in this paper all represent promising venues for further research that we will continue to explore in future contributions.

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Source for both Appendices: Steuerregister Stadt Zurich, 1909 & 1929. Authors' own research.

Appendix 1: The wealthiest 0.1% taxpayers in the City of Zurich in 1909 (N = 24)

#	Last Name	First Name	Woman	Birth	Death	Age in 1909	Income (Mio. CHF)	Wealth (Mio. CHF	OBELIS Data	Category
1	Tobler Blumer	Adolf		1850	1923	59	0.003	12.50	√	Dropout
2	Bodmer Zoelly	Hans Konrad		1851	1916	58		5.30	√	Diversifier
3	Schwarzenbach Zeuner	Elisabetha Wilhelmina	X	1852	1942	57	0.07	5.20	√	Heir or widow
4	Hürlimann Hirzel	Albert		1857	1934	52	0.1	3.90	√	Continuator
5	Spörri	Johannes		1837	1921	72		3.55	√	Newcomer
6	Abegg Arter	Karl		1836	1912	73	0.05	3.35	√	Continuator
7	Rieter Bodmer	Berta	X	1857	1938	52		3.20	√	Heir or widow
8	Reiff Franck/Sertorius	Herrmann		1856	1938	53		3.20	√	Continuator
9	Meyer Fierz	Friedrich Fritz		1847	1917	62		3.10		Continuator
10	Escher Hotz	Susanna	X	1827	1911	82		2.75		Heir or widow
11	Bodmer Trümpler	Anna Julia	X	1854	1939	55		2.73		Heir or widow
12	Wunderli von Muralt	Hans		1842	1921	67	0.025	2.70	√	Continuator
13	Trümpler Ott	Adolf		1837	1918	72		2.67		Continuator
14	Escher Bodmer	Karoline	X	1829	1915	80		2.65		Heir or widow
15	Ott Däniker	Gustav		1829	1912	80		2.50		Dropout
16	Stehli	Emil		1842	1925	67	0.05	2.40	√	Continuator
17	Huber	Emil		1836	1915	73	0.03	2.35	√	Diversifier
18	Zollinger Jenny	Ernst		1857	1943	52		2.33	√	Continuator
19	Wenner Mauke	Julius		1837	1914	72		2.20		Continuator
20	Schmid	Friedrich		Unidentified			0.02	2.15		?
21	Schindler Escher	Elisabetha	X	1833	1918	76		2.25		Heir or widow
23	Koch Vlierboom	Arnold		1849	1935	60		2.00		Continuator
22	Brandt	Emanuel Henry		1831	1908	77		2.00		?
24	Seiler Hess	Albert		1872	1935	37		1.97		Newcomer

Appendix 2: The wealthiest 0.1% taxpayers in the City of Zurich in 1929 (N = 30)

#	Last Name	First Name	Woman	Birth	Death	Age in 1929	Income (Mio. CHF)	Wealth (Mio. CHF	OBELIS Data	Category
1	Escher Abegg	Wilhelm C.		1859	1929	70	1.72	29.0	√	Continuator
2	Abegg Stockar	Karl		1860	1943	69	0.88	18.5	√	Continuator
3	Bodmer Abegg	Heinrich		1889	1947	40	0.53	17.6	√	Diversifier
4	Hürlimann Hirzel	Albert		1857	1934	72	1.09	16.1	√	Continuator
5	Dürler Tobler	Alfred		1875	1956	54	0.68	15.9	√	Newcomer
6	Koch Vlierboom	Arnold		1849	1935	80	0.77	14.1	√	Continuator
7	Bodmer Naville	Martin		1899	1971	30	0.37	12.4	√	Dropout
8	Stehli Zweifel	Robert		1865	1951	64	1.22	12.1	√	Continuator
9	Tobler	Hans		1891		38	0.49	11.6	√	Continuator
10	Hahnloser	Karl E.					0.41	10.6		?
11	Syz Schindler	John		1859	1939	70	0.55	10.6	√	Continuator
12	Schoeller Meyer	Walter		1889	1979	40	1.16	10.3	√	Continuator
13	Schindler Escher	L. Sofie	X	1871	1957	58	0.45	10.3		Heir or widow
14	Stoll Geraud	Hermann		1863	1947	66	0.45	9.1	√	Diversifier
15	Bodmer Stünzi	Hans		1891	1956	38	0.24	8.6		Dropout
16	Schindler Huber	Dietrich		1856	1936	73	0.53	8.4	√	Diversifier
17	Gnehm	Maria	X	1883	1944	46	0.32	8.4		Heir or widow
18	Schwarzenbach Zeuner	Wilhelmina	X	1852	1942	77	0.31	8.3		Heir or widow
19	Wehrli Brunner	Hans		1862	1951	67	0.55	8.3		Continuator
20	von Schulthess-Rechberg Bodmer	August Georg		1885	1951	44	0.35	7.6	√	Diversifier
21	Meyer Stünzi	Franz		1889	1962	40	0.23	7.3	√	Diversifier
22	Rudolph Schwarzenbach	Emmy	X	1863	1926	66	0.35	6.8	√	Heir or widow
23	Rübel Blass	Eduard		1876	1960	53	0.28	6.8	√	Dropout
24	Meyer Schelling	Margrit	X		1946	?	0.26	6.6		Heir or widow
25	Baumann Naef	Moritz		1868	1950	61	0.21	6.6	√	Diversifier
26	Nager Reinhard	Felix		1877	1959	52	0.33	6.3	√	Continuator
27	Zeiss	Albert		??		?	0.49	6.3		?
28	Heusser Staub	Jakob		1862	1941	67	0.47	6.2	√	Continuator
29	Rübel	Cécile	X	1863	1942	66	0.29	6.2		Heir or widow
30	Rübel	Helene	X	1862	1953	67	0.29	6.2		Heir or widow