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Enea Baselgia



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The Compliance Effects of the Automatic Exchange of Information: Evidence from the Swiss Tax Amnesty

Abstract

This paper studies the effects of the 2017 multilateral automatic exchange of information (AEoI) on tax compliance in Switzerland. Using detailed administrative tax data and difference-indifferences designs, I find significant positive compliance effects. The AEoI prompted 107k taxpayers (2% of all) to participate in the amnesty, disclosing CHF 42.3 billion—over 6% of GDP. At the micro level, once evaders participate in the amnesty, their reported wealth increases by approximately 50% on average, with compliance effects persisting in the medium run. Furthermore, I document that tax evasion in Switzerland is widespread and significantly more evenly distributed than in other countries.

JEL-Codes: D310, F380, F420, H240, H260, K340, K420.

Keywords: tax evasion, AEoI, compliance, enforcement, CRS, tax amnesty, inequality.

Enea Baselgia ETH Zurich, KOF Swiss Economic Institute Leonhardstrasse 21 Switzerland – 8092 Zurich baselgia@kof.ethz.ch

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1 Introduction

Switzerland, long regarded as the world's most infamous tax haven (Zucman, 2015), has undergone a remarkable transformation. Within a decade, it moved from ironclad banking secrecy that facilitated offshore tax evasion on a global scale (Zucman, 2013; Alstadsæter et al., 2018) to participating in the most stringent global effort to counter such practices: the automatic exchange of bank information (AEoI). Since 2017, more than 100 countries annually and automatically share information on bank accounts held by foreign residents with each other.

Despite the significance of this international effort in combating offshore tax evasion, we still know surprisingly little about how the AEoI has influenced tax compliance. While an emerging literature—discussed below—has started to examine its effects, this paper is the first to assess the implications of this landmark policy from a tax haven's perspective. Switzerland's unique transition from minimal tax enforcement and strict bank secrecy to being compelled by international pressure to join this novel global transparency regime offers a valuable opportunity to study the tax compliance effects of the AEoI.

Examining taxpayer compliance behavior in response to policy changes is inherently challenging, as tax evasion is, by its very nature, difficult to observe. This paper addresses this challenge by leveraging detailed administrative tax data and applying various difference-indifferences (DiD) designs. Specifically, I exploit policy variation created by the interplay between the introduction of the AEoI and a permanent tax amnesty program in Switzerland.

In 2010, Switzerland introduced a permanent tax amnesty, which remains in place today. This amnesty provides non-compliant taxpayers a *one-time* opportunity to voluntarily disclose previously hidden assets and income, waiving all fines and criminal prosecution. This program was unexpectedly impacted by the announcement in 2013 that Switzerland would participate in the AEoI by 2017. Before the AEoI, Swiss tax authorities operated with virtually no third-party reporting—neither automatic nor upon request—making it easy for individuals across the wealth spectrum to evade taxes compared to jurisdictions with stricter enforcement mechanisms (see Kleven et al., 2011 for theoretical arguments). Hence, the AEoI marks a pivotal change, giving Swiss tax authorities for the first time access to comprehensive data on *offshore* financial assets of their tax residents, which dramatically increased the perceived probability of detection for those hiding wealth abroad. This unique policy environment allows me to examine compliance behavior through the lens of the Swiss amnesty. Notably, the observed behavioral responses—voluntary in nature—are driven entirely by the increased threat *perceived* due to the AEoI, rather than any actual enhancement in the Swiss tax authorities' enforcement capabilities, which may have occurred in practice.

The results of this paper demonstrate that the AEoI has significantly and persistently increased tax compliance in Switzerland. Thus, even in a traditional tax haven where domestic banking secrecy remains intact—leaving ample opportunities for tax evasion—the provision of international third-party reporting proves effective. This underscores the transformative potential of international coordination in fostering tax compliance, even in jurisdictions with historically low tax enforcement levels. At the same time, these findings highlight an untapped opportunity for Switzerland to further enhance compliance by abolishing domestic banking secrecy and achieving more comprehensive tax enforcement trough domestic thirdparty reporting.

Main results. This paper presents four main findings. First, based on newly collected data, I provide the first comprehensive quantification of the Swiss tax amnesty's scope. Between 2010 and 2020, 155,658 taxpayers—nearly 3% of all taxpayers—participated in the program. Collectively, they disclosed hidden taxable assets totaling at least 66.4 billion 2020 Swiss francs (≈ 66.4 billion US\$), equivalent to 10% of GDP in 2020 or 3.5% of total taxable wealth in Switzerland.¹

Second, using detailed micro-level amnesty data linked to ordinary tax records from the canton of Bern, I examine the distribution of tax evasion across wealth groups and compare these patterns internationally (Section 4). Over the entire sample period from 2010 to 2020, the bottom half of the wealth distribution (P0–P50) owns virtually no amnesty wealth, while the next 40% (P50–P90) disclosed approximately 25% of all amnesty wealth. The top 10% excluding the top 1% (P90–P99) holds about 30%, and consequently, the top 1% alone accounts for roughly 45% of all hidden assets uncovered under the Swiss amnesty. In international comparison (see estimates for Scandinavia by Alstadsæter et al., 2019; the Netherlands by Leenders et al., 2023; and Colombia by Londoño-Vélez and Ávila-Mahecha, 2021), tax evasion appears considerably more evenly distributed across wealth groups. This likely reflects the absence of any third-party reporting in Switzerland prior to the AEoI, which made evasion opportunities accessible not only to the wealthiest taxpayers with access to sophisticated concealment strategies (see Guyton et al., 2021).

Moreover, I explore how the distribution of tax evasion as measured by the amnesty data evolved over time, with particular emphasis on the period surrounding the introduction of the AEoI. Specifically, I show that the distributional patters of evasion are markedly different in the post-AEoI period. It is particularly the wealth "middle-class" (P50–P90) who participates in the amnesty after 2017. This raises the question of whether these descriptive patterns should be interpreted as evidence that the AEoI was particularly effective in incentivizing "middle-class" evaders to disclose hidden wealth under the amnesty, an issue I discuss more carefully in Section 5.5.

Third, moving beyond the descriptive findings, I examine the causal effects of the AEoI on tax compliance (Section 5). At the micro level, using a canonical DiD strategy, I show

 $^{^{1}}$ The Swiss franc traded roughly at parity with the US dollar during the observed sample period 2010–2020. Therefore, I report figures only in Swiss francs throughout this paper.

that the AEoI significantly increased the probability of tax evaders disclosing hidden wealth under the amnesty. Moreover, I provide suggestive evidence on the mechanism driving this behavioral response. Patterns from online search activity (proxied by Google search trends) suggest that the response was likely driven by an increase in the *perceived* threat of detection due to the AEoI, which aligns with institutional details of the reform. This heightened threat perception appears to have been particularly credible among "middle-class" evaders.

Next, I extend this micro-level evidence to the macro level, employing a simplified macrolevel DiD approach to quantify the broader compliance effects of the AEoI under the amnesty. The results suggest that the AEoI prompted approximately 2% of all Swiss taxpayers to participate in the amnesty, leading to the disclosure of 42.3 billion Swiss francs—equivalent to more than 6% of GDP—in previously hidden assets.

Fourth, I study the persistence of these behavioral tax compliance responses using an event-study approach. Specifically, I compare taxpayers who entered the amnesty—whether voluntarily or prompted by the AEoI—to taxpayers with similar ex-ante characteristics. This micro-level analysis reveals substantial and lasting improvements in tax compliance. Upon amnesty participation, reported taxable wealth increased by more than 50% on average and remains elevated relative to non-disclosing taxpayers with comparable ex-ante characteristics over the medium term. Similarly, wealth taxes paid rise immediately and remain approximately 25% higher four years after entering the amnesty. Consequently these results corroborate earlier findings in the literature (Alstadsæter et al., 2022a; Londoño-Vélez and Ávila-Mahecha, 2021), showing only minimal substitution between illegal tax evasion and legal tax avoidance. These persistent effects are particularly encouraging for tax authorities, as they demonstrate sustained increases in tax revenues from previously non-compliant taxpayers over the medium to long run.

Related literature. This paper contributes to three main strands of the literature. First, it adds to the growing body of research studying the effectiveness of cross-border information exchange as a tool for tax enforcement. The empirical literature initially documented that bilateral tax information exchange agreements have been largely ineffective in combating offshore tax evasion (Johannesen and Zucman, 2014; Menkhoff and Miethe, 2019; Johannesen et al., 2020). More recently, several studies have raised similar concerns about the effectiveness of the AEoI, highlighting possible circumvention strategies such as acquiring citizenship in tax havens (Menkhoff and Miethe, 2019; Langenmayr and Zyska, 2023), using non-traditional tax haven countries like the United States (Casi et al., 2020), and investing in non-covered assets such as real estate (Bomare and Le Guern Herry, 2022).²

In contrast, my research is among a first set of studies to provide evidence of the AEoI's

 $^{^{2}}$ The only major economy not participating in the AEoI is the United States, which has introduced its own standard for obtaining financial information on U.S. citizens through the Foreign Account Tax Compliance Act (FATCA). Likewise, evidence suggests that U.S. tax evaders are increasingly investing in alternative assets not covered by FATCA, such as real estate and art (De Simone et al., 2020).

effectiveness in improving tax compliance. Boas et al. (2024) estimate that the AEoI led to a 70% reduction in the offshore tax gap in Denmark, relative to a counterfactual with no AEoI. They attribute this substantial compliance effect to three distinct channels. First, they document that about 40% of hidden wealth was repatriated by Danish taxpayers. Second, an additional 20% was self-reported following the implementation of the AEoI. Finally, about 10% of the hidden wealth remains undisclosed but is now observable to the Danish tax authority.

Similarly, Alstadsæter et al. (2023) provide evidence of positive compliance effects using micro-level bank transaction data from Norway. Their findings highlight significant heterogeneity in the AEoI's effectiveness, driven by differences in enforcement capacities. They document a substantial increase of up to 73% in transfers from tax havens with strong local enforcement to Norwegian banks, contrasted with a null response from jurisdictions with weak enforcement. This underscores the crucial role of local enforcement capacity in determining the efficacy of the AEoI.

The main contribution of my paper is to provide the first assessment of the effects of the AEoI on tax compliance within the institutional context of a tax haven, characterized by historically lax tax enforcement. Thereby, I also relate to the broader literature that emphasizes third-party reporting as a cornerstone of effective tax compliance enforcement (e.g., Kleven et al., 2011; Pomeranz, 2015; Kleven et al., 2016; Slemrod et al., 2017; Naritomi, 2019; Jensen, 2022; Bustos et al., 2022; see Slemrod, 2019 for a review).

Second, this paper contributes to a recent strand of the literature that examines the effectiveness of tax amnesties (Langenmayr, 2017; Johannesen et al., 2020; Londoño-Vélez and Ávila-Mahecha, 2021; Alstadsæter et al., 2022a; Leenders et al., 2023; Londoño-Velez and Tortarolo, 2024). By international comparison, particularly when contrasted with the experience of other European countries, the magnitude of hidden assets uncovered by the Swiss tax amnesty—equivalent to 10% of GDP—is remarkably substantial. While Londoño-Velez and Tortarolo (2024) emphasize a variety of factors, including tax incentives, the threat of detection, favorable political economy, and program salience, as drivers of the Argentine amnesty's success (which, at 21% of GDP, is the largest on record relative to its economy size), the Swiss experience particularly underscores the critical role of the AEoI, that is, the importance of (international) third-party reporting.

Third, this paper contributes to a nascent empirical literature that examines the distribution of tax evasion (Alstadsæter et al., 2019; Londoño-Vélez and Ávila-Mahecha, 2021; Guyton et al., 2021; Leenders et al., 2023; Johannesen et al., 2024). By international standards, amnesty wealth in Switzerland appears to be much more evenly distributed than in other countries where such amnesty data have been analyzed. This pattern is consistent with the fact that evading taxes on assets in Switzerland was (and still is) relatively easy for taxpayers across the wealth distribution due to full self-declaration in tax matters prior to the AEoI, without any cross-validation through third-party information.

Paper organization. Section 2 provides information on the institutional background. Section 3 describes the data. Section 4 provides descriptive evidence on the size and distribution of tax evasion uncovered by the Swiss amnesty. Section 5 documents the effects of the AEoI on tax compliance in Switzerland. Section 6 concludes. Supplementary materials are provided in the Online Appendix.

2 Institutional Background

This section provides an overview of the institutional background. To start, I outline the tax enforcement mechanisms within Switzerland (Section 2.1). Next, I discuss the implications of the AEoI for tax enforcement (Section 2.2). Finally, I offer background information on the current tax amnesty (Section 2.3). More detailed institutional information, including a brief description of the general Swiss tax environment, is provided in Online Appendix A.

2.1 Tax Enforcement inside a Tax Haven

In principle, Swiss taxpayers must *self-report* all global wealth (and income) to the tax authorities. Notably, Swiss tax authorities receive no third-party information from Swiss financial institutions—neither automatically nor upon request.

This makes Switzerland quite exceptional: while tax authorities in many countries may not automatically receive third-party information on financial assets from domestic institutions, they can request it—and such requests are generally granted. This is why tax evaders around the globe—at least prior to the AEoI—typically held evaded assets offshore, as this made hidden wealth much harder to detect. In Switzerland, however, strict (domestic) banking secrecy laws prevent information sharing even upon requests to this day. Consequently, the lack of any domestic third-party reporting makes tax enforcement very challenging (see theoretical arguments in Kleven et al., 2011), particularly for financial wealth.

Switzerland has institutionalized three main measures to foster tax compliance.

(i) Withholding tax. The primary purpose of Switzerland's withholding tax is to deter tax evasion. To this end, a 35% withholding tax is levied by the federal government at source on all *Swiss* income from movable capital assets (see Online Appendix A.2 for details). In practice, however, the Swiss withholding tax has two main limitations in securing tax compliance. First, it can be avoided relatively easily (see Zucman, 2013 for a detailed discussion). Second, given current ordinary income and wealth tax rates, the financial incentives provided by the 35% withholding tax for fully declaring wealth are modest at best (see Online Appendix C.3 for evidence).

(ii) Tax audits. Tax audits, through their impact on the perceived and realized detection probability, are among the most critical enforcement tools available to tax authorities (see Slemrod, 2019 for an overview). Cantonal tax authorities conduct targeted audits to foster tax compliance; however, very little is publicly known about how and to what extent these audit activities are performed.

(iii) Penalties. Audits only foster tax compliance when cases of detected non-compliance carry negative consequences. In Switzerland, a taxpayer caught evading taxes is liable to pay back-taxes for up to 10 years (including interest on arrears) plus a penalty ranging from 33% to 300% of the back-taxes owed, with 100% generally being the default penalty.

2.2 The AEoI an (Unwanted) Information Shock

This section briefly discusses how Switzerland moved from complete banking secrecy to international AEoI in less than a decade, and examines the implications of this shift for *Swiss* taxpayers.

From banking secrecy to AEoI. With its infamous banking secrecy laws, Switzerland has long been the prime destination for international offshore tax evasion (see Zucman, 2013; Zucman, 2015; Alstadsæter et al., 2018; Alstadsæter et al., 2019). The Great Recession, which reduced government revenues globally, likely increased already existing international pressure on Switzerland to abolish banking secrecy. Initially, however, Swiss officials tried to push back. In March 2008, the Swiss finance minister famously declared, "An diesem Bankgeheimnis werdet ihr euch die Zähne ausbeissen."³

Yet, international pressure, especially from the U.S., soon became overwhelming. In August 2009, Switzerland and the U.S. reached a pivotal settlement in a tax dispute involving UBS, resulting in a 780 million USD fine and UBS's disclosure of bank data on 4,450 U.S. clients. This marked the beginning of the end of Swiss banking secrecy, as broader transparency initiatives quickly followed.⁴ Ultimately, sustained international pressure culminated in Switzerland agreeing to participate in the AEoI.

AEoI via the Common Reporting Standard. In 2014, the G20 endorsed a procedure developed by the OECD for the automatic exchange of information on financial assets, known as the Common Reporting Standard (CRS).⁵ By September 2017, the first exchanges of bank data took place, with Switzerland beginning to share (and receive) information in September 2018. As of 2022, over 100 jurisdictions exchange information under this AEoI standard, with

³This roughly translates to, "You'll be biting off more than you can chew if you try to make us give up Swiss banking secrecy."

⁴In December 2012, Switzerland and the U.S. agreed to implement the Foreign Account Tax Compliance Act (FATCA), granting U.S. authorities access to information on foreign accounts held by U.S. taxpayers in Swiss banks, effectively ending banking secrecy for U.S. clients (see, e.g., Johannesen et al., 2020 and Johannesen et al., 2024)

 $^{^5 \}rm Whenever I$ use the acronym AEoI, this is equivalent to the CRS.

these AEoI partner states exchanging information on 123 million financial accounts, covering total assets of almost 12 trillion euros (see OECD, 2023).

Compared to previous policy initiatives, the AEoI represents a significant improvement (see Casi et al., 2020 for an overview). First, information is now shared automatically rather than upon request, making it far easier for tax authorities to access the needed data. Second, and most critically, under the AEoI, financial institutions are required to look through shell companies, trusts, and similar financial vehicles to identify the true beneficial owner, drastically reducing opportunities for offshore tax evasion. Online Appendix A.3 provides additional details on the AEoI.

What are the implications of the AEoI for Swiss taxpayers? For honest taxpayers, the introduction of the AEoI has no consequence. For dishonest Swiss taxpayers, however, the impact depends critically on whether they held their hidden financial assets onshore or offshore.

For Swiss evaders with hidden assets in a Swiss financial institution, nothing has changed from a purely legal standpoint. Domestic banking secrecy protects their anonymity to this day.⁶ For Swiss evaders with hidden offshore financial assets held in one of the more than 100 countries with which Switzerland now automatically exchanges information, the change has been significant. As with any first-time third-party information exchange, the (perceived) likelihood of being detected increases dramatically.

2.3 The Swiss Tax Amnesty

In 2008, Switzerland passed a federal law establishing the legal basis for a permanent tax amnesty, which came into effect on January 1, 2010, and remains in force to date. The central feature of the amnesty is that it allows taxpayers to voluntarily self-disclose previously hidden wealth (and income) on a one-time basis, thereby waiving all fines and criminal prosecution. Under the amnesty, two types of cases may be filed.

(i) Ordinary amnesty cases. The primary feature of the amnesty is ordinary cases, in which tax evaders voluntarily disclose previously hidden wealth and/or income to their cantonal tax authority. In this situation, disclosing evaders avoid all penalties and criminal prosecution. However, upon self-disclosure, they are required to pay back-taxes (including interest on arrears) for up to ten tax years.

(ii) Simplified inheritance after-taxation (SIT) cases. The amnesty also introduced a second procedure, known as the SIT case. The intent behind SIT cases was to give heirs

⁶Occasionally, it is suggested that, since the introduction of the AEoI, Swiss banks have been encouraging or urging Swiss clients to disclose undeclared assets (or to leave the bank) to reduce potential legal risks for employees and the institution itself (see, e.g., https://www.nzz.ch/wirtschaft/schweizer-steuersuender-bankangestellte-riskieren-strafklagen-ld .144750). However, there is no direct evidence as to whether and to what extent this has been the case.

of hidden accounts—who were not personally involved in the evasion—an additional incentive to disclose inherited hidden assets while benefiting from reduced back-tax requirements. Specifically, SIT cases allow heirs to legalize hidden wealth (and/or income) as part of the inheritance process. If they do so, they face no financial penalties and, moreover, reduce the number of years for which back-taxes must be paid from the pre-amnesty standard of ten years to just three. Consequently, heirs have a strong incentive to file an SIT case during the inheritance process rather than missing this opportunity and facing the full ten-year back-tax period if they later wish to file an ordinary case.

Both ordinary and SIT cases must be filed in the tax delinquent's canton of residence, as tax sovereignty in Switzerland lies with the cantons (for further details, see and Online Appendix A.4).

3 Data

This section introduces the main data source, the micro tax data of the canton of Bern, along with some other tax data and macroeconomic statistics used in the analysis. More detailed descriptions of all data sources are provided in Online Appendix B.

3.1 Micro Tax Data of the Canton of Bern

The micro-level tax data from the canton of Bern consists of two separate datasets, which I link at the individual level.

Ordinary tax records. This first dataset comprises the universe of individual tax records filed in the canton of Bern from 2002 to 2020. As all residents aged 18 and older are legally required to file a tax return, the micro data thus contains information on the entire adult population in Bern, representing about 12% of Switzerland's total population (see Online Appendix Table C2). To analyze individual responses, I follow the standard convention of equally splitting income and wealth for married couples, who file jointly (see e.g., Piketty et al., 2018). This approach yields approximately 700,000 to 800,000 individual observations per tax year, with some summary statistics provided in Online Appendix Table C1.

Although these micro tax records include highly detailed information on various income and wealth components (see e.g., Martínez, 2022a), the analysis in this paper is restricted to taxable income, taxable wealth, and taxes paid. This limitation arises because the second dataset, described below and essential for studying tax evasion and compliance effects, is confined to these main components.

Special tax records on after-tax procedures. The second dataset includes all after-tax procedures conducted in the canton of Bern from 2002 to 2020. It covers three main types of cases: ordinary amnesty and SIT cases as described in Section 2.3 as well as tax evasion

cases detected through targeted audit activities by the cantonal tax authority.⁷ By linking these cases to individual tax records, this dataset enables a detailed analysis of tax evasion and compliance behavior.

Yet, the data has two important limitations. First, it includes only taxable wealth and taxable income before and after a disclosure, without providing sub-components for either wealth or income.⁸ Second, the data does not indicate whether the disclosed assets and associated income streams were held offshore or domestically.

Representativeness of the Canton of Bern. With the exception of Sections 4.1, all results are based on micro data from the canton of Bern. While not fully representative of Switzerland, Bern offers a reasonable approximation due to its size and diversity. As the second most populous canton, it accounts for approximately one-eighth of Switzerland's total population. Moreover, Bern encompasses urban, rural, and mountainous areas, as well as both French- and German-speaking municipalities, providing a microcosm of the country's geographical and demographic diversity.

Cross-cantonal comparisons indicate that Bern is broadly representative of Switzerland in terms of key characteristics such as GDP and wealth per capita, as well as the shares of elderly residents (see Online Appendix Table C2). However, Bern is somewhat more rural and has a lower share of foreign residents, which likely results in it being less affected by the AEoI compared to border cantons like Geneva or Ticino (see also Online Appendix Table C3).

Finally, Online Appendix Figure C3 illustrates that while taxable wealth is slightly more equally distributed in Bern than at the national level, trends in wealth concentration are closely aligned.

3.2 Other Data

Aggregate data on the Swiss tax amnesty. No detailed national data or statistics on the Swiss tax amnesty are available, as tax sovereignty in Switzerland rests with the cantons, and cantons do not share their micro data with the Federal Tax Administration (FTA). To complement the micro-level analysis and provide a national perspective (see Section 4.1 and last paragraphs in Section 5.4), I compiled a novel tabulated dataset on the Swiss amnesty by directly contacting all 26 cantonal tax authorities.

The resulting dataset, along with details on data harmonization and imputation procedures, is described in detail in Online Appendix B.2. Despite some limitations (described in detail in the Online Appendix B.2), this represents the most comprehensive and concise data collection on the Swiss amnesty at the national level.

⁷The evolution of cases by type from 2008 to 2020 is shown in Online Appendix Figure C1. Additional details on after-tax procedures are provided in Online Appendix B.1.

 $^{^{8}}$ Moreover, the ordinary tax records contain only the "true" values, i.e., the retrospectively corrected data, making it impossible to identify which specific assets or income components were evaded.

Publicly available macroeconomic data. I also incorporate publicly available macroeconomic data to contextualize my results. Detailed descriptions and sources for these data are provided in Online Appendix B.3.

4 The Size and Distribution of Tax Evasion Uncovered by the Swiss Amnesty

This section presents a descriptive analysis of the size and distribution of tax evasion uncovered through the Swiss tax amnesty. First, I document the overall scope of the amnesty (Section 4.1). Second, I examine the distribution of evasion across wealth groups and compare these patterns internationally (Section 4.2). Finally, I explore how these distributional patterns evolved over time, with particular emphasis on the period surrounding the introduction of the AEoI (Section 4.3). These findings establish the descriptive context for the causal analysis of the AEoI's effects on tax compliance in Section 5.

4.1 The Scope of the Swiss Tax Amnesty

Between 2010 and 2020, a total of 155,658 taxpayers participated in the Swiss tax amnesty. This represents nearly 3% of all taxpayers in Switzerland. Collectively, they disclosed previously hidden taxable wealth amounting to 66.4 billion 2020 Swiss francs, equivalent to about 10% of GDP or 3.5% of total taxable wealth declared in the country (see Figure C4 and Table C3 in the Online Appendix for details and a breakdown by canton).⁹

These disclosures generated substantial tax revenue: 5.6 billion 2020 Swiss francs was collected in back-taxes between 2010 and 2020 across all tiers of government (Online Appendix Table C3). Moreover, as the uncovered wealth is largely sustained over time, this will continue to generate significant additional tax revenue in future years (see Section 5.3 for details).

How does this compare internationally? In Western Europe, amnesty participation in Switzerland far exceeds that of other countries. For example, tax amnesties in Norway and Sweden saw 1,422 participants and 6,811 participants, respectively (Alstadsæter et al., 2019; Alstadsæter et al., 2022a)—jointly less than the number of participants in the canton of Bern alone. In the Netherlands, a country with roughly twice Switzerland's population, around 27,000 taxpayers disclosed hidden wealth worth 12.1 billion euros (1.6% of GDP) between 2002 and 2018 (Leenders et al., 2023).

Outside Europe, enforcement initiatives launched by the IRS in 2008 prompted approximately 50,000 taxpayers in the United States to disclose 100 billion US dollars in hidden assets, equivalent to less than 1% of US GDP (Johannesen et al., 2020). Similarly, in Colom-

 $^{^{9}}$ As shown in Online Appendix Figure C4, both the number of amnesty participants and the aggregate amount of hidden assets disclosed surged significantly around the introduction of the AEoI, an issue examined in great detail in Section 5.

bia, nearly 12,000 taxpayers participated in an amnesty between 2015 and 2017, uncovering hidden wealth equivalent to 1.73% of GDP (Londoño-Vélez and Ávila-Mahecha, 2021).

Among global amnesty programs, Argentina's 2016 initiative stands out as one of the largest, with 255,000 participants (0.6% of the total population) declaring hidden wealth equivalent to 21% of GDP (Londoño-Velez and Tortarolo, 2024). While the Argentine amnesty revealed significantly more wealth relative to GDP, it involved fewer participants relative to the population than Switzerland's program.

In summary, the Swiss tax amnesty stands out as one of the most extensive globally, particularly when compared to other European programs. Notably, over the period 2010–2020, the wealth uncovered by the Swiss amnesty (as a share of GDP) corresponds to the estimated global average of offshore wealth as a share of GDP (Alstadsæter et al., 2018).

Understanding the scale of Switzerland's amnesty. The scale of the Swiss amnesty is remarkable not only for its size but also for its unique context. How could such substantial amounts be uncovered in a wealthy country with high-capacity (tax) administrations? Evidence in Section 5 shows that Switzerland, as a prominent tax haven with historically low tax enforcement, was itself profoundly impacted by the introduction of the AEoI. This transformative shift in the tax environment is reflected in the large scope of its amnesty.

4.2 The Distribution of Tax Evasion

This section examines the distribution of tax evasion revealed through the Swiss tax amnesty, focusing on three key dimensions: (i) the likelihood of participating in the amnesty across wealth groups (extensive margin), (ii) the share of hidden wealth disclosed relative to total taxable wealth among participants (intensive margin), and (iii) the overall distribution of disclosed wealth (extensive + intensive margin).

Who participates in the amnesty? To determine who participates in the amnesty, I rank all participants from 2010 to 2020 within the universe of individual taxpayers by their "*true*" net wealth, i.e., including wealth subsequently disclosed through amnesty participation.

The red line in Panel (a) of Figure 1 illustrates the likelihood of participating in the Swiss amnesty across wealth groups between 2010 and 2020. Among taxpayers in the bottom half of the wealth distribution, participation is negligible, with a probability of about 0.6%. However, this probability increases markedly with wealth: 14.2% of taxpayers in the top 0.01% disclosed hidden assets under the amnesty. Taxpayers in the top 0.01% are thus 24 times more likely to have participated than those in the bottom half of the distribution.

Comparing the likelihood of participating in the Swiss amnesty with similar programs in Scandinavia (Alstadsæter et al., 2019), the Netherlands (Leenders et al., 2023), and Colombia (Londoño-Vélez and Ávila-Mahecha, 2021) reveals notable differences. Among the top 1% of the wealth distribution, participation rates are broadly comparable across European countries (see Panel (a) of Figure 1). However, participation patterns diverge sharply lower in the wealth distribution. In both Scandinavia and the Netherlands, almost no taxpayers from the wealth "middle-class" (median to the 90th percentile; P50-P90) participated in their respective amnesties. By contrast, in Switzerland, approximately 3.2% of taxpayers in this group disclosed hidden wealth under the amnesty.

Similarly, participation rates for the top 10%, excluding the top 1% (P90-P99), were significantly higher in Switzerland (5.5%) compared to the Netherlands (1.7%), Scandinavia (0.5%), and Colombia (0.3%).¹⁰ This suggests that tax evasion in Switzerland is relatively widespread across wealth groups compared to international benchmarks. A potential explanation lies in Switzerland's historically lax tax enforcement environment, characterized by the absence of any domestic third-party reporting. This facilitated evasion beyond those who could afford specialized concealment services (see, e.g., Guyton et al., 2021 and the discussion in Section 5.5).

 $^{^{10}}$ In Colombia, the likelihood of tax evasion is concentrated even more heavily among those at the very top (see Panel (a) of Online Appendix Figure C6).



(a) Probability to Participate in a Tax Amnesty



(b) The Distribution of Amnesty Wealth

Figure 1: The Distribution of Tax Evasion Uncovered by Amnesties

Note: This figure shows the distributional patterns of amnesty wealth in Switzerland, the Netherlands, and Scandinavia. Panel (a) shows the probability of amnesty participation across wealth groups (extensive margin). Panel (b) illustrates the fraction of total amnesty wealth held by each group. Data for Switzerland cover the period 2010–2020. Sources for the Netherlands: Leenders et al. (2023); Scandinavia: Alstadsæter et al. (2019). Analogous results for Colombia (Londoño-Vélez and Ávila-Mahecha, 2021) are presented in Online Appendix Figure C6, due to differences in scale.

Wealth disclosed conditional on participating in the amnesty. Panel (b) of Online Appendix Figure C7 shows the share of hidden wealth disclosed relative to total taxable wealth, conditional on amnesty participation (i.e., the intensive margin response). Taxpayers in the middle of the wealth distribution (P50-P90) disclosed, on average, 43% of their true

taxable wealth, a significantly higher proportion than taxpayers in the 90th to 99.99th percentiles, who disclosed approximately 25% on average. This pattern aligns with findings from other countries (see Panel (c) of Online Appendix Figure C6).

At the very top of the wealth distribution, however, the share of disclosed wealth relative to true taxable wealth drops markedly. Taxpayers in the top 0.01% disclosed only 11% of their taxable wealth, conditional on participating in the amnesty.

The distribution of amnesty wealth. Panel (b) of Figure 1 illustrates the distribution of total hidden wealth disclosed under the amnesty from 2010 to 2020. Taxpayers in the middle wealth segment (P50-P90) disclosed approximately 25% of all amnesty wealth. The top 10%, excluding the top 1% (P90-P99), accounts for 30%, while the remaining roughly 45% are attributable to the top 1%.

Again, comparisons with other countries reveal notable differences. In Scandinavia and Colombia, the top 1% account for nearly all disclosed amnesty wealth. In the Netherlands, while amnesty wealth is more evenly distributed, it remains concentrated among the top 10%. By contrast, the distribution of disclosed wealth in Switzerland is significantly more evenly distributed, resulting from higher participation rates among wealth "middle-class" taxpayers and lower disclosed wealth shares at the very top of the distribution.

4.3 The AEoI and the Distribution of Tax Evasion

So far, I have examined the distribution of tax evasion in Switzerland over the full amnesty period from 2010 to 2020. As the AEoI is a pivotal factor shaping taxpayer behavior under the amnesty (see Section 5 for details), this section explores the heterogeneity in distributional patterns over time, specifically in relation to the AEoI. I focus on the distribution of tax evasion across three distinct time periods: (i) 2010-2012, the period before the AEoI was announced; (ii) 2013-2016, the period between the AEoI's announcement and implementation; and (iii) 2017-2020, the period after the AEoI's introduction. Figure 2 illustrates striking differences in the distribution of tax evasion across these three phases.

Probability of participating in the amnesty over time. Panel (a) of Figure 2 illustrates the likelihood of amnesty participation across different wealth groups during three distinct periods associated with the AEoI. A comparison of the pre-AEoI period (2010–2012, black line with circles) and the post-AEoI period (2017–2020, red line with squares) reveals two particularly striking differences.¹¹

First, the likelihood of participation in the post-AEoI period is consistently higher across all wealth groups compared to the pre-AEoI period. This increase primarily reflects the

¹¹As the 2010–2012 period covers only three years, whereas the other two periods cover four years each, an adjusted version of the 2010–2012 results scaled to a four-year equivalent is also presented (dashed black line in Figure 2).

substantial surge in amnesty participation following the introduction of the AEoI (see Online Appendix Figure C1 and Section 5 for further discussion).

Second, the gradient of participation likelihood across wealth groups is significantly less steep in the post-AEoI period. From 2017 to 2020, taxpayers in the top 1% of the wealth distribution were approximately twice as likely to participate in the amnesty as those in the wealth "middle-class" (P50–P90). By contrast, during 2010–2012, taxpayers in the top 1% were six times more likely to participate than those in the P50–P90 group.¹²

This pattern indicates that, relative to earlier periods, amnesty participation following the introduction of the AEoI was disproportionately higher among individuals in the middle part of the wealth distribution.

The intensive margin response over time. Online Appendix Figure C8 displays the intensive margin response—the share of hidden wealth disclosed relative to total taxable wealth, conditional on amnesty participation—across different wealth groups and time periods.

Across all three periods, taxpayers in the wealth "middle-class" (P50–P90) consistently disclose a larger share of their true taxable wealth compared to individuals higher up in the distribution. For taxpayers ranked in the top 10%, excluding the top 1% (P90–P99), the intensive margin response remains relatively stable across all three sub-periods.

However, a notable deviation is observed among taxpayers in the top 1% in the post-AEoI period. While some taxpayers at the very top did disclose hidden assets under the amnesty after 2017, these disclosures constituted only a relatively modest fraction of about 13.7% of their total taxable wealth (compared to 23–30% in the periods prior to the AEoI).

The distribution of amnesty wealth over time. Panel (b) of Figure 2 illustrates the distribution of wealth disclosed under the amnesty across wealth groups and over time. The period following the introduction of the AEoI (2017–2020) contrasts sharply with the earlier periods (2010–2012 and 2013–2016). In the pre-AEoI periods, taxpayers in the top 1% accounted for approximately 60% of all disclosed hidden wealth, while the remaining 40% was revealed by the bottom 99%. In the post-AEoI period, this pattern shifted dramatically: the top 1% accounted for just 30% of disclosed wealth, while the remaining 70% amnesty wealth was held by the bottom 99%.

Panel (b) of Figure 2 further distinguishes between *rate-determining* taxable wealth (solid lines) and *effective* taxable wealth (dashed lines).¹³ The distinction between *rate-determining* and *effective* taxable wealth arises because the former includes real estate located outside the canton of residence (in this case, outside the canton of Bern). All taxpayers are required

¹²From 2013 to 2016, taxpayers in the top 1% were 6.5 times more likely to participate than those in the wealth "middle-class" (P50–P90). Participation rates during 2010–2012: P50–P90 = 0.3%, P90–P99 = 0.9%, P99–P100 = 2.0%; during 2013–2016: P50–P90 = 0.7%, P90–P99 = 1.7%, P99–P100 = 4.4%; and during 2017–2020: P50–P90 = 2.2%, P90–P99 = 2.9%, P99–P100 = 4.3%.

 $^{^{13}}$ Online Appendix Figure C2 documents the evolution of *rate-determining* and *effective* taxable wealth disclosed over time.

to self-declare such "offshore" real estate for determining their correct tax rate (hence, ratedetermining), although these assets are not taxed by the canton of Bern but rather in the jurisdiction where the property is located (hence, not included in effective taxable wealth).¹⁴

As shown in Panel (b) of Figure 2, no significant differences between *rate-determining* and *effective* taxable wealth are observed along the distribution in the pre-AEoI periods. However, in the years after 2017, taxpayers in the wealth "middle-class" (P50–P90) disclosed a relatively larger share of *rate-determining* taxable wealth compared to *effective* taxable wealth. This suggests that, following the introduction of the AEoI, taxpayers in the middle wealth segment revealed substantial "offshore" real estate holdings, whereas taxpayers higher up the wealth distribution disclosed such assets to a much lesser extent.

 $^{^{14}}$ In addition to real estate held outside the canton of residence, rate-determining taxable wealth may also include business operations and permanent establishments located outside the canton. Unfortunately, the data does not allow for a precise distinction between these components. However, tax officials from the canton of Bern have confirmed that the vast majority of the difference between *rate-determining* and *effective* taxable wealth consists of real estate held outside Switzerland.



(a) Probability to Participate in the Amnesty



(b) The Distribution of Amnesty Wealth

Figure 2: The Distribution of Tax Evasion over Time

Note: This figure illustrates the distributional patterns of tax evasion uncovered by the Swiss amnesty over time. Panel (a) shows the probability of amnesty participation across wealth groups (extensive margin), while Panel (b) presents the fraction of total amnesty wealth held by each wealth group. Panel (b) further distinguishes between *rate-determining* taxable wealth (solid lines) and *effective* taxable wealth (dashed lines), as explained in the main text. Additionally, Online Appendix Figure C8 provides complementary insights into the intensive margin response—the share of hidden wealth disclosed relative to total taxable wealth, conditional on amnesty participation.

The distribution of "offshore" real estate wealth revealed? The bulk of "offshore" real estate wealth was disclosed in the post-AEoI period, particularly during 2017 and 2018 (see Online Appendix Figure C2). Online Appendix Figure C9 shows the distribution of "offshore" real estate wealth disclosed during the full amnesty period, 2010–2020. Notably,

taxpayers in the wealth "middle-class" (P50–P90) disclosed 56.3% of all "offshore" real estate wealth, while those in the top 10%, excluding the top 1% (P90–P99), contributed another 25.6%. This leaves taxpayers in the top 1% with just 15.3% of disclosed "offshore" real estate wealth, a stark contrast to their overall share of 45.3% in total disclosed hidden wealth.

In summary, "offshore" real estate wealth revealed under the amnesty was heavily concentrated among the wealth "middle-class", with very limited disclosures from the wealthiest taxpayers. This striking pattern is revisited in the discussion in Section 5.5.

4.4 Discussion

Using amnesty data to study tax evasion. In Figure 1, I show who evades taxes using amnesty data. Given that taxpayers self-select into tax amnesties, there is, naturally, concern that such data samples are not representative of the general population of tax evaders. To test for self-selection, previous studies (Alstadsæter et al., 2019; Londoño-Vélez and Ávila-Mahecha, 2021; Leenders et al., 2023) have benchmarked amnesty data against more random samples from offshore leaks, such as the Panama Papers and the HSBC leak. These studies suggest that self-selection is a minor issue and that amnesty data are a valuable source for analyzing the distribution of tax evasion. Unfortunately, Swiss tax authorities do not allow linking leaked data to individual tax records, preventing cross-verification of the distributional patterns presented here with alternative data sources.

The AEoI and the measured distribution of evasion. A key observation from the descriptive analysis in this section is the distinct shift in the distribution of measured tax evasion around the introduction of the AEoI. As shown in Figure 2, the share of hidden wealth revealed by the top 1% dropped substantially—approximately 60% in the pre-AEoI periods to about 30% after the AEoI's introduction. This raises an important question: does the pattern observed before or after the AEoI better reflect the "true" distribution of tax evasion?

The "true" distribution of evasion in Switzerland? The "true" distribution of tax evasion is much more likely to resemble the patterns observed prior to 2017. First, the pre-AEoI periods (2010–2016) are less confounded by the critical policy shift introduced by the AEoI. Unlike the post-AEoI period, these earlier years are not (to the same extend) influenced by the unique behavioral responses triggered by the AEoI, which likely skewed the distributional patterns of disclosed wealth (see Section 5). Thus, the pre-AEoI samples may be considered a more random representation of the underlying evasion behavior.

Second, financial incentives to evade taxes are significantly larger for wealthier taxpayers, who are subject to wealth taxation in Switzerland (see Online Appendix C.3 for details). As a result, wealthier individuals are expected to hold a higher fraction of total hidden wealth than their share in total reported wealth. This expectation aligns with both theoretical arguments

and international evidence, where "true" evasion is typically much more concentrated at the top of the wealth distribution. However, in the post-AEoI period, the top 1% held only about 30% of hidden wealth, despite accounting for roughly 40% of total reported taxable wealth (see Online Appendix Figure C3). In the pre-AEoI period, the top 1% held about 60% of hidden wealth, which appears much more consistent with theoretical predictions and the international evidence.

In summary, the patterns observed in the periods prior to the AEoI (2010–2012 and 2013–2016) are likely to provide a more accurate indication of the "true" distribution of tax evasion in Switzerland. By contrast, the patterns in the years after 2017 are shaped by the very specific effects related to the introduction of the AEoI and are thus not representative of "true" underlying distribution of evasion.

5 The automatic exchange of information and tax compliance

This section examines how the AEoI has affected tax compliance through the lens of the Swiss tax amnesty. By equipping tax authorities with third-party information that improves their ability to detect dishonest taxpayers, the AEoI created strong incentives for offshore tax evaders to participate in the amnesty before its implementation to avoid higher penalties. Section 5.1 begins by documenting the relationship between the AEoI's rollout and amnesty participation. In Section 5.2, I estimate the effect of the AEoI on amnesty participation at the micro level using an event study design and discuss the mechanisms driving this extensive margin response. Section 5.3 examines the tax compliance behavior of amnesty participants conditional on their participation (intensive margin response). These findings are expanded to the macro level in Section 5.4. Finally, Section 5.5 concludes with a broader discussion.

5.1 AEoI and Amnesty Participation

Figure 3 shows the number of taxpayers in the canton of Bern participating in the tax amnesty between 2010 and 2020 (black dots), along with the number of countries with which Switzerland newly enacted the AEoI in each year (blue diamonds).¹⁵ Consistent with my expectations, there is a clear and strong surge in the number of amnesty participants around the timing of the AEoI introduction. Indeed, the association between amnesty participation and the rollout of the AEoI is very strong, with a raw correlation of 0.90. To more rigorously assess the impact of the AEoI on tax compliance, the next two sections turn to a micro-level analysis.

¹⁵It should be noted that Switzerland initially implemented the AEoI with its close economic and political partners such as France, Germany, other neighboring and EU countries through a multilateral approach. However, unlike most countries that adopt a fully multilateral approach to the AEoI implementation, Switzerland handles non-EU countries bilaterally. This means that treaties are signed with each non-EU country (sometimes a set of countries) to activate the AEoI. The list of AEoI partner countries and the date of implementation is available from the State Secretariat for International Finance (SIF): https://www.sif.admin.ch/sif/en/home/multilateral-relations/exchange-information-tax-matters/automatic-exchange-information/financial-accounts.html.



Figure 3: Rollout of the AEoI and Amnesty Participation, 2010-2020

Note: This figure shows the rollout of the AEoI and its relationship with amnesty participation from 2010 to 2020. The black line with circles represents the number of amnesty participants in the canton of Bern, while the blue line with diamonds shows the number of foreign countries with which Switzerland signed the AEoI into force in a given year.

5.2 Micro Estimation: Extensive Margin Response

Research design. To estimate the effect of the AEoI—announced in 2013 and introduced in 2017—on amnesty participation, I employ a standard DiD event study design. Specifically, I estimate a two-way fixed effects (TWFE) linear probability model of the form:

$$Y_{i,g,t} = \sum_{j \neq 2016} \beta_j \cdot \operatorname{Year}_{t=j} \cdot \operatorname{Treat}_g + \alpha_g + \gamma_t + \Theta_g \cdot t + \Psi_{i,g,t} + \epsilon_{i,g,t}$$
(1)

where $Y_{i,g,t}$ is an indicator variable that equals 1 if taxpayer *i* in group *g* participates in the amnesty in year *t*, and 0 otherwise. In this specification, ordinary amnesty participants constitute the treatment group (i.e., $\text{Treat}_g = 1$), while SIT participants serve as the control group (i.e., $\text{Treat}_g = 0$; see below for further details). The variable $\text{Year}_{t=j}$ is a dummy equal to 1 when the year equals *j*, and 0 otherwise.

The terms α_g and γ_t capture group and year fixed effects, respectively. The interaction $\Theta_g \cdot t$ allows for differential linear time trends between the treatment and control groups. The term $\Psi_{i,g,t}$ includes taxpayer-level covariates to control for observable characteristics, and $\epsilon_{i,g,t}$ is the error term, clustered at the taxpayer level *i*. By omitting the interaction term for

2016, the coefficients β_j capture the difference in the probability of participating in the tax amnesty between the treatment and control groups for each year j, relative to 2016—the year immediately preceding the introduction of the AEoI.

For this empirical strategy to correctly identify the effects of the AEoI on amnesty participation, two critical assumptions must hold. First, the parallel trends assumption requires that, in the absence of the AEoI, amnesty participation rates for the treated and control groups would have evolved similarly over time. While this assumption cannot be tested directly, I provide evidence of parallel pre-treatment trends to support its credibility. Second, the Stable Unit Treatment Value Assumption (SUTVA) requires that there be no spillover effects on the control group. In other words, SIT cases should remain unaffected by the AEoI. I discuss this assumption in greater detail below.

Validity of the control group. Identifying a suitable control group for tax evaders potentially affected by the AEoI is inherently challenging. Although SIT cases may not be the theoretically ideal choice, in practice, they provide a suitable control group and yield empirically robust and consistent results. Several factors support the assumption that SIT cases were (largely) unaffected by the AEoI, thereby satisfying the SUTVA assumption.

First, while ordinary cases are voluntarily initiated by taxpayers themselves, SIT cases are exogenously triggered by the death of a decedent and must be filed as part of the tax inventory process within a year. This procedural distinction makes SIT cases likely considerably less sensitive to policy changes like the AEoI. Second, coordinated evasion among heirs is highly impractical. To keep a joint inheritance concealed, all heirs must agree to continue evading taxes, as disclosure by any single heir would reveal hidden assets. This collective constraint significantly reduces the likelihood of continued evasion in SIT cases with multiple heirs, further reinforcing their validity as a control group. Third, SIT cases exhibit only minimal responsiveness to policy changes, likely due to lower salience. For instance, the 2010 amnesty reform, which reduced back-tax years from 10 to 3 for SIT cases, had at best a very minor impact on the number of such cases filed (see Online Appendix Figure C1). In contrast, ordinary cases increased substantially, despite facing smaller changes in financial incentives. This suggests that SIT cases are generally far less sensitive to tax policy changes.

While SIT cases, for the above reasons, are likely a valid control group, spillovers from the AEoI onto these cases cannot be entirely ruled out. For instance, some heirs may have chosen to disclose (additional) hidden wealth during the inventory process due to concerns about increased scrutiny under the AEoI. Such spillovers imply that the estimates presented below should be viewed as lower bounds of the true average effect of the AEoI on amnesty participation.

Results. Figure 4 shows the DiD results from Equation 1, estimated using standard OLS. The figure displays estimates along with their 95% confidence intervals for two specifications

separately, with one including only treatment group and year fixed effects (black line with circles) and the other additionally incorporating time-varying taxpayer controls and a linear treatment group time trend (red line with diamonds). Both specifications yield qualitatively similar results: the introduction of the AEoI led to a substantial and statistically significant increase in the probability of amnesty participation for ordinary relative to SIT cases.

Immediately following the introduction of the AEoI, the probability of participating in the tax amnesty rose by approximately 25% for ordinary cases compared to the control group. This effect persists into the second year of AEoI implementation, during which Switzerland brought the information agreement into force with a second large set of partner countries (see Figure 3), with participation rates remaining 15–20% higher for the treatment group. It is worth noting that some of this response might reflect anticipatory effects, as taxpayers could have adjusted their behavior before the agreements with specific partner countries were formally enacted. Interestingly, after 2018, the AEoI no longer appears to affect amnesty participation, with participation probabilities returning to pre-AEoI levels or even falling slightly below them for ordinary relative to SIT cases.

The pre-treatment estimates are small and hover around zero in both specifications, with and without controls for time-varying confounders and linear trend correction. However, in the parsimonious specification with only fixed effects, some pre-treatment estimates are statistically significantly different from zero, warranting caution in their interpretation. In contrast, the more comprehensive specification yields pre-treatment estimates that are not statistically significantly different from zero (except for 2010), providing evidence in support of parallel trends assumption.

Overall, the above DiD analysis suggests that the AEoI had a statistically and economically significant impact on the likelihood of amnesty participation, particularly in the years of its implementation.



Figure 4: Effect of the AEoI on Amnesty Participation

Note: This figure displays the effect of the AEoI on the probability of amnesty participation, based on Equation 1. The black line with circles shows estimates from a specification with only treatment group and year fixed effects. The red line with diamonds shows results from a specification that additionally incorporates time-varying taxpayer controls and a linear treatment group time trend. Point estimates are reported with their corresponding 95% confidence intervals, with standard errors clustered at the taxpayer level.

Mechanism. The introduction of the AEoI led many taxpayers to voluntarily disclose hidden assets under the amnesty. This observation aligns with prior evidence highlighting the key role of third-party reporting in promoting tax compliance (see, e.g., Kleven et al., 2011; Slemrod, 2019). By providing (Swiss) tax authorities with an unprecedented volume of international third-party financial information, the AEoI fundamentally strengthened their potential ability to detect tax evasion.

However, recent research suggests that international third-party reporting is less effective than domestic reporting. This limitation may stem from the overwhelming volume and complexity of international financial information under the AEoI, which can exceed tax authorities' capacity to process and utilize this information effectively. Furthermore, auditing foreign financial institutions poses significant challenges and is often infeasible, further limiting the AEoI's effectiveness to some extent (see Alstadsæter et al., 2023 and Boas et al., 2024 for details). The extent to which Swiss tax authorities effectively leverage the newly available international information from the AEoI for enforcement purposes remains unclear and is beyond the scope of this paper.

The behavioral responses documented in this paper, however, are entirely driven by tax-

payers' perceptions of increased detection probabilities, rather than any direct change in the operational capacity of Swiss tax authorities. Participation in the amnesty is a voluntary decision, making perceived rather than actual changes in enforcement the primary driver.

Indeed, the introduction of the AEoI heightened the perceived threat of detection, as evidenced by increased online search activity for terms related to the AEoI and the tax amnesty during this period. As shown in Online Appendix Figure C10, Google search interest in the terms AEoI and *self-disclosure* surged significantly around 2017. The raw correlations between Google search interest and observed amnesty participation rates are remarkably high, ranging from 0.70 to 0.97.¹⁶

5.3 Micro Estimation: Intensive Margin Response

The previous section documented a significant and immediate effect of the AEoI on amnesty participation, highlighting the extensive margin response. This section focuses on the intensive margin response by analyzing the dynamic tax compliance behavior of ordinary amnesty participants, conditional on their participation.

A key question is whether amnesty participants, after disclosing hidden wealth under the amnesty, remain more tax compliant over time. Specifically, it is important to examine whether these former tax evaders substitute to legal tax avoidance or revert to illegal tax evasion following their voluntary self-disclosure. Understanding the extent to which previously non-compliant taxpayers substitute between illegal forms of evasion and more legal forms of tax avoidance is critical for evaluating the medium to long-term impact of the AEoI and the amnesty program.

To address this issue, this section investigates the persistence of tax compliance responses at the micro level, employing an empirical strategy adapted from prior research (Londoño-Vélez and Ávila-Mahecha, 2021; Alstadsæter et al., 2022a) to quantify the degree of substitution between illegal tax evasion and legal tax avoidance.

Research design. The empirical strategy compares the tax compliance behavior of amnesty participants to that of non-participating taxpayers with similar ex-ante characteristics. To do this, I estimate the following event study model in logs using OLS:

$$\log(Y_{it}) = \alpha_i + \gamma_t \times \chi_i + \Theta_{it} + \sum \beta_k D_{it}^k + \epsilon_{it}, \qquad (2)$$

where $\log(Y_{it})$ is the log of the outcome of interest for taxpayer *i* in year *t*. The outcomes Y_{it} analyzed are (i) reported taxable wealth and (ii) wealth taxes paid. Specifically, I estimate two separate specifications of Equation 2: a parsimonious model with only individual fixed effects α_i and year fixed effects γ_t and a richer specification that includes $\gamma_t \times \chi_i$, allowing for

¹⁶As discussed in Section 5.5, this perceived increase in detection probabilities was likely not uniformly distributed among tax evaders. It appears to have been particularly pronounced among wealth "middle-class" taxpayers, who disclosed substantial hidden "offshore" housing assets in the post-AEoI period.

differential time trends based on observable characteristics and some time-varying controls Θ_{it} , capturing changes in individual characteristics, such as marital status and the number of children. In the richer model, χ_i captures ex-ante taxpayer characteristics through 50 dummies: 20 each for taxable wealth and income ventiles, and 10 for age groups.¹⁷ The income and wealth dummies reflect "true" amounts, while the left-hand side outcome Y_{it} measure self-reported values on tax returns.

The coefficients of interest β_k capture percentage changes in the outcomes relative to the pre-event year, normalized such that $\beta_{-1} = 0$. Thus, the β_k coefficients reflect the effects of amnesty participation on reported taxable wealth and wealth taxes paid, beyond changes observed for non-disclosing taxpayers with similar characteristics. Standard errors are clustered at the taxpayer level, and all point estimates are reported with 95% confidence intervals. The estimation sample includes all individualized taxpayer data from the canton of Bern between 2002–2020, comprising approximately 14.8 million taxpayer-year observations from 909,000 unique taxpayers. Among these, 10,967 participated in the amnesty (see Online Appendix Figure C1).

The key identifying assumption of this empirical strategy is that compliance outcomes for amnesty participants and non-participants (the control group) would have evolved similarly in the absence of amnesty participation. Individual fixed effects (α_i) play a central role in addressing selection concerns, while the inclusion of $\gamma_t \times \chi_i$ adds robustness but is not critical for the validity of the results (for more discussion on threads to identification see below).

Heterogeneity-Robust Estimation. Recent advances in a fast-growing econometrics literature have shown that standard TWFE estimation can yield biased results in settings where treatment effects vary across units or over time (see e.g., De Chaisemartin and d'Haultfoeuille, 2020; Goodman-Bacon, 2021; see Roth et al., 2023 for a review). In my empirical setting, where amnesty participation is determined by taxpayers' voluntary self-disclosures, treatment timing naturally varies across individuals and spans the period 2010 to 2020. This raises concerns that TWFE estimation may not yield unbiased results.

To address these concerns, I adopt the "heterogeneity-robust" estimator proposed by De Chaisemartin and d'Haultfoeuille, 2020, which is specifically designed to account for staggered treatment adoption and heterogeneous effects. This approach ensures that the estimates of Equation 2 accurately capture the tax compliance dynamics of amnesty participants.¹⁸

Threats to Identification. As discussed extensively in Alstadsæter et al. (2022a), selfselection into amnesty is the key challenge, as participants voluntarily choose to disclose hidden assets, effectively "selecting into treatment". Without random assignment, identifying

¹⁷Taxable wealth and income dummies rank taxpayers into ventiles based on their "true" taxable wealth and income, that is including amounts disclosed during the amnesty. Age dummies group taxpayers into ten-year intervals, e.g., 10–19, 20–29, etc.
¹⁸For robustness, I also estimate the model using standard TWFE methods, which produce highly similar results. These

¹⁸For robustness, I also estimate the model using standard TWFE methods, which produce highly similar results. These results are not shown in the paper but are available upon request.

a valid control group is non-trivial. This challenge is addressed by including fixed effects and controlling for a broad set of ex-ante taxpayer characteristics. The absence of differential pre-trends should support the validity of this empirical strategy.

Another potential concern is reverse causality. Taxpayers may decide to participate in the amnesty based on expected changes in their taxable assets. For instance, participants might disclose hidden wealth to access credit or capitalize on profitable investment opportunities. Such behavior would bias the estimation. However, as shown in Section 5.2, the introduction of the AEoI was the primary driver of amnesty participation. This supports the argument that causality predominantly runs from tax enforcement to amnesty participation, rather than in some reverse direction.

Results. Figure 5 presents the dynamic tax compliance effects. Panel (a) shows that reported taxable wealth increases by an average of about 50-55% once a tax evader participates in the amnesty, relative to taxpayers with similar ex-ante characteristics. This compliance response is economically substantial and statistically significant (Figure 5 reports point estimates with 95% confidence intervals based on clustered standard errors at the individual taxpayer level). While there is some statistically significant pre-trend differential in both specifications, it is very small to the estimated effect size (in particular in the more parsimonious specification with only fix effect). The immediacy with which the micro level compliance response unfolds upon amnesty participation provides reassurance that the observed rise is indeed driven by participation, rather than being attributable to any idiosyncratic shocks that may have affected the wealth holdings of both amnesty participants and the control group differentially. Moreover, the estimated effect on taxable wealth is largely persistent four years after a voluntary disclosure—although there is somewhat of a decline in the preferred parsimonious specification.

Panel (b) provides the analogous analysis for wealth taxes paid. Two key aspects are worth highlighting. First, wealth taxes paid increase by approximately 30% at the time of disclosure. Notably, four years after participation in the amnesty, wealth taxes remain about 25% higher relative to the control group, indicating that the compliance effect is largely persistent. Second, the economic magnitude of the effect for wealth taxes paid is smaller compared to taxable wealth. This is expected, as not all disclosed hidden wealth results in higher tax liabilities. Exemption thresholds and the treatment of "offshore" real estate—which increases the tax rate but does not contribute to the taxable base for wealth tax purposes (see Section 4.3)—limit the direct tax implications. Unfortunately, the available data do not allow for further disentanglement of behavioral responses with respect to different wealth components.

Also, there exits a small negative pre-trend differential in the periods -3 and -2, which necessitates some caution in interpreting these results. However, the magnitude of the pre-

trends is relatively minor compared to the estimated effect size, providing reassurance that the observed effects are attributable to annesty participation.

Overall, the evidence presented in Figure 5 may be summarized as follows. Both reported taxable wealth and wealth taxes paid increase sharply immediately after a taxpayer enters the amnesty. While this is not (too) surprising, given the nature of voluntary self-disclosure, the key takeaway for tax enforcement is that these compliance responses are largely sustained over time. The limited decline in compliance suggests minimal substitution between illegal tax evasion and legal tax avoidance. Consequently, these results corroborate previous findings by Londoño-Vélez and Ávila-Mahecha, 2021 and Alstadsæter et al. (2022a) and highlight the potential of strengthened tax enforcement measures—such as the AEoI—to achieve lasting improvements in tax compliance. From the perspective of tax authorities, this evidence is particularly encouraging, as it indicates that amnesty programs, combined with strengthened enforcement measures, have effectively increased tax revenues from previously non-compliant taxpayers in the medium to long run.



(b) Wealth Taxes Paid

Figure 5: Dynamic Tax Compliance Response of Amnesty Participants

Note: This figure shows dynamic tax compliance effects for amnesty participants using the specification shown in Equation 2. Panel (a) reports the estimation result for reported taxable wealth and Panel (b) for wealth taxes paid. The black line with circles corresponds to a specification with fixed effects only, while the red line with diamonds corresponds to a specification that additionally controls for observable characteristics and differential time trends. The point estimates are reported with their 95% confidence intervals based on clustered standard errors at the individual taxpayer level.

5.4 Macro Estimation

The preceding sections have demonstrated that the AEoI, by raising the perceived threat of detection, significantly increased amnesty participation. This shift led many tax evaders to become more compliant, resulting in higher reported taxable wealth and increased tax payments at the individual level. However, these micro-level estimates alone do not provide a comprehensive macro-level assessment of the AEoI's overall impact. To address this gap, this section conducts a straightforward empirical exercise aimed at quantifying the aggregate effects of the AEoI on three key amnesty outcomes Y: (i) amnesty participation, (ii) disclosed hidden taxable wealth, and (iii) back-taxes collected.

Empirical strategy. As established in Section 5.2, SIT cases may serve as a valid control group for ordinary amnesty participants. In this section, I therefore leverage SIT cases to construct a counterfactual for ordinary amnesty cases using a simplified aggregate DiD strategy.

This empirical strategy thereby assumes that, in the absence of the AEoI, the outcome of the treated (ordinary cases) and control (SIT cases) would have followed parallel trends, as per the canonical difference-in-differences assumption. Under this assumption, the counterfactual represents the hypothetical trajectory of ordinary cases had the AEoI not been introduced, enabling me to estimate the share of the outcome Y (i: number of participants; ii: hidden wealth disclosed; iii: back-taxes collected) that can be attributed to the AEoI during the amnesty period from 2010 to 2020. To do so, I normalize the outcome of interest Y for SIT cases (counterfactual) to the level of ordinary cases in the pre-announcement year of 2012, and then compute the macro effect of the AEoI simply as:

AEoI Macro Effect =
$$\frac{\sum_{t=2010}^{2020} (Y_{\text{actual},t} - Y_{\text{counterfactual},t})}{\sum_{t=2010}^{2020} Y_{\text{actual},t}},$$
(3)

While this simplified empirical design is valid under the canonical DiD assumption, it is important to acknowledge its limitations. Specifically, any differential pre-trends between the treated and control groups (see Figure 6) pose a potential threat to valid identification. Consequently, the estimated *AEoI Macro Effect* should not be interpreted as a classical microlevel average treatment effect. Instead, this empirical exercise provides an approximate—but, in my view, convincing—macro-level quantification of the AEoI's impact under the amnesty. By complementing the micro-level results, this analysis offers valuable insights into the broader role of the AEoI in driving tax compliance within the context of the Swiss tax amnesty.

Results. Figure 6 illustrates the macro effects of the AEoI on tax compliance as revealed through the Swiss tax amnesty. Panel (a) shows that, relative to the counterfactual, the number of amnesty participants rises only very moderately following the AEoI announcement in 2013, with only minor pre-trend differentials observed before this point. However, a sharp increase is observed only after the policy's implementation in 2017, consistent with the evidence presented in Figure 4. Specifically, the number of annual amnesty participants in the canton of Bern increases dramatically from 545 in 2015 to 3,768 in 2017, representing a nearly

six-fold rise.

Amnesty participation remains elevated in 2018, likely driven by Switzerland's implementation of AEoI agreements with a second major group of partner countries (see Figure 3). Strikingly, and reassuringly for the validity of the empirical approach, by 2020—once Switzerland had implemented AEoI agreements with all its primary financial and economic partners—the number of amnesty participants returns to the counterfactual level. This suggests that the macro effect of the AEoI had fully materialized by this point. The simplified macro DiD estimate based on Equation 3 indicates that 68.7% of all taxpayers who participated in the amnesty since 2010 did so as a result of the AEoI.

Panel (b) in Figure 6 presents the analogous analysis for the aggregate amount of hidden wealth disclosed. Pre-trends for disclosed taxable wealth fairly closely track those of the control group prior to the AEoI announcement in 2013, providing further reassurance about the validity of the empirical approach. However, unlike the number of cases, the amount of hidden wealth revealed begins to diverge somewhat earlier, with a modest increase observable shortly after the announcement of the policy change. Nevertheless, the most pronounced surge occurs in 2017, when Switzerland implements the AEoI. In that year alone, over 750 million Swiss francs in hidden assets were disclosed under the amnesty in the canton of Bern—approximately seven times the counterfactual estimate for that year. The simplified macro DiD estimate suggests that more than 60% of all hidden wealth disclosed during the 2010–2020 period may be attributed to the AEoI.

Similar to the trend observed for the number of participants, the effect on disclosed wealth diminishes after 2019. By 2020, the observed amount of disclosed wealth closely aligns with the estimated counterfactual, indicating that the AEoI's impact on tax compliance fully materialized within a few years of its implementation.

Lastly, Online Appendix Figure C11 illustrates the macro effect of the AEoI on back-taxes collected. Unsurprisingly, the patterns in Panel (b) of Figure 6 and Online Appendix Figure C11 are closely aligned, as back-taxes are linked to the amount of disclosed hidden wealth. The macro DiD estimate indicates that just over 50% of total back-tax revenue collected during the 2010–2020 amnesty period may be attributed to the AEoI. This slightly lower proportion compared to disclosed wealth is likely due to the fact that not all disclosed assets directly translate into higher back-taxes. As such, certain wealth components, in particular "offshore" real estate, affect the tax rate but do not contribute to the wealth tax base (see Section 4.3 for a discussion).





(b) Aggregate Hidden Wealth Disclosed

Figure 6: The Macro Effects of the AEoI on Tax Compliance, 2010–2020

Note: This figure shows the actual time-series for ordinary amnesty cases (solid line) and a corresponding counterfactual based on SIT cases (dashed line). Panel (a) shows the number of amnesty participants per year. Panel (b) displays the aggregate amount of hidden wealth disclosed per year. Additionally, Online Appendix Figure C11 shows total amount of back-tax payments collected. The *AEoI Macro Effect* indicated in the top right of the figures is computed as described in Equation 3.

Scaling Evidence to a National Estimate. The findings above, combined with the descriptive results on the aggregate Swiss amnesty presented in Section 4.1, allow for a scaling of the evidence to the national level. Of the 155,658 taxpayers who participated in the Swiss amnesty between 2010 and 2020, an estimated 68.7%—approximately 107,000 taxpayers—

may be attributed to the AEoI under the assumptions of the simplified empirical design. Similarly, around 42.3 billion Swiss frances in hidden assets were disclosed due to the AEoI, representing more than 6% of Swiss GDP.

While this analysis provides a informative macro-level quantification of the AEoI's impact, it should be treated with some caution given the limitations of the empirical design discussed earlier. Nonetheless, the evidence strongly indicates that the AEoI played the pivotal role in driving increased taxpayer participation and disclosed wealth under the Swiss amnesty.

5.5 Discussion

A key finding from the descriptive analysis in Section 4 is that approximately 25% of all hidden wealth disclosed under the amnesty originated from wealth "middle-class" taxpayers (P50– P90). Moreover, it is particularly striking that a relatively large number of these "middleclass" evaders participated in the amnesty only after the introduction of the AEoI (see Figure 2). Should these patterns be interpreted as evidence that the AEoI was particularly effective in incentivizing "middle-class" evaders to disclose hidden wealth, while having less impact on tax evaders higher up in the wealth distribution? Although the evidence in Sections 4 and 5 does not provide a definitive answer to this question, I discuss below some additional suggestive evidence that aligns with this interpretation.

First, Switzerland has historically been one of the world's most prominent tax haven, characterized by relatively lax domestic tax enforcement and widespread accessibility to evasion opportunities. In contrast, jurisdictions with stricter enforcement are likely to see tax evasion (opportunities) concentrated among high-wealth individuals who can afford specialized concealment services (see, e.g., Guyton et al., 2021 for a discussion). Consequently, Switzerland's broader baseline prevalence of tax evasion likely played a critical role in shaping the AEoI's impact across wealth groups. Specifically, the AEoI in Switzerland had the potential to uncover hidden wealth not only from the very wealthy but also from "middle-class" evaders, who might have been deterred from engaging in such evasion activities in jurisdictions with stricter enforcement.

Second, conditional on participating in the amnesty, "middle-class" evaders disclosed relatively more wealth post-AEoI compared to the pre-AEoI period (see Online Appendix Figure C8). By contrast, top-wealth evaders revealed a smaller share of their hidden assets after 2017, likely reflecting differences in perceived detection risks or enforcement salience. Specifically, high-wealth individuals may have prioritized only disclosing assets deemed most vulnerable to detection under the AEoI, rather than opting for full disclosure under the amnesty. This divergence suggests that the AEoI's compliance effect was particularly pronounced for "middle-class" taxpayers, who faced a relatively higher perceived enforcement threat and fewer avenues for mitigation.
Third, and closely related to the above, the AEoI prompted substantial disclosures of "offshore" real estate wealth (see Online Appendix Figure C2). This is particularly notable because "offshore" real estate is not covered under the AEoI. The fact that such disclosures were predominantly made by "middle-class" evaders (see Online Appendix Figure C9) suggests that they perceived the AEoI as a much more credible threat, potentially fearing that these assets might be detected indirectly—for example, through linked bank accounts or other financial ties.

A plausible driver of this behavior may have been a series of public awareness campaigns conducted by migrant organizations, NGOs, and left-wing political parties. These campaigns specifically targeted migrants, particularly from Southern Europe—many of whom had been living and working in Switzerland for decades—warning them of the risks associated with undeclared "offshore" real estate assets in their home countries and encouraging them to file voluntary disclosures.¹⁹

Conversely, evaders at the top of the wealth distribution, with access to specialized tax lawyers and accountants, likely perceived the risk of detection for "offshore" real estate holdings under the AEoI as much lower (which was likely a more accurate assessment). This is consistent with the finding that the top 0.1% disclosed virtually no "offshore" real estate wealth, despite accounting for 20% of the total wealth disclosed under the amnesty.

Finally, it is important to acknowledge that the (differential) effects of the AEoI across wealth groups are likely influenced, in part, by the persistence of domestic banking secrecy, which continues to shield the anonymity of tax evaders within Switzerland. The findings in this paper demonstrate that, despite the limitations imposed by domestic banking secrecy, enhanced tax enforcement can significantly improve tax compliance, even when certain avenues for evasion remain accessible. However, these results also highlight the untapped potential for further improving tax compliance in Switzerland through the abolition of domestic banking secrecy. Quantifying the wealth that remains concealed by Swiss taxpayers in domestic banks and analyzing its distribution present both a significant challenge and an exciting opportunity for future research.

6 Conclusion

This paper provides novel evidence on the size and distribution of tax evasion in Switzerland, as well as the effectiveness of the introduction of the AEoI in enhancing tax compliance.

Exploiting policy variation arising from the interaction between the introduction of the

¹⁹For an overview, see this news article: https://www.swissinfo.ch/ger/wirtschaft/besteuerung_rekordzahl-von -selbstanzeigen/43833466. The video accompanying this article reports that between 200 and 300 informational events were held for Italian guest workers alone. Furthermore, the Social Democratic Party's section for migrants actively encouraged its members to amend their tax returns and disclose any ownership of property abroad to the Swiss tax authorities in 2017. For further details, see their press release in German: https://www.sp-ps.ch/partei/sp-migrantinnen/ haus-im-ausland-in-steuererklaerung-angeben/.

AEoI and a permanent amnesty program, and leveraging extensive administrative tax data, I present several key findings.

First, I document that tax evasion in Switzerland is more equally distributed across wealth groups than in other European economies. This pattern is likely driven by Switzerland's historically lax tax enforcement environment, characterized by the absence of third-party reporting and the persistence of domestic banking secrecy, which continues to shield Swiss taxpayers from scrutiny. In this context, hiding wealth from tax authorities has been relatively accessible for all types of tax evaders, not just those at the top of the wealth distribution.

Second, the introduction of the AEoI triggered substantial tax compliance responses. At the micro level, the AEoI significantly increased the probability of tax evaders disclosing hidden wealth under the amnesty. This response was likely driven by a perceived increase in the threat of detection, particularly pronounced among "middle-class" tax evaders (P50–P90). Furthermore, once taxpayers entered the amnesty—whether voluntarily or as a result of the AEoI—they exhibited persistent improvements in tax compliance. Reported taxable wealth increased by more than 50% on average and remained elevated relative to non-disclosing taxpayers with similar ex-ante characteristics. Similarly, wealth taxes paid were about 25% higher four years after entering the amnesty.

Third, complementing these micro-level results, a simplified macro-level DiD analysis quantifies the broader effects of the AEoI. The findings suggest that the AEoI prompted approximately 2% of all Swiss taxpayers to participate in the amnesty, resulting in the disclosure of 42.3 billion Swiss francs—more than 6% of GDP—in previously hidden assets.

Taken together, these findings demonstrate that stricter tax enforcement through enhanced (international) third-party reporting can substantially improve tax compliance, even or in particular in a tax haven with low baseline enforcement levels. Yet, these results also underscore the untapped potential for further improving tax compliance in Switzerland. Specifically, the persistence of domestic banking secrecy remains a significant barrier to more comprehensive tax compliance. Addressing this, future research should focus on studying the extent of wealth hidden in domestic banks, a highly policy-relevant task that provides critical insights into the welfare costs and benefits of abolishing Swiss banking secrecy, guiding future reforms for more comprehensive tax compliance.

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Online Appendix

The Compliance Effects of the Automatic Exchange of Information: Evidence from the Swiss Tax Amnesty

Enea Baselgia

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A Institutional Details Appendix

Online Appendix A supplements Section 2 and provides more detailed background information on the institutional environment in Switzerland.

A.1 The Swiss Tax Environment

A federal tax system. The Swiss tax system is highly decentralized, with tax rights allocated to the federal government, 26 cantons, and approximately 2,100 municipalities (see Hänni, 2021 for a detailed overview of the Swiss tax system).²⁰ Despite Switzerland's federal system, the AEoI and tax amnesty program are national policies applied uniformly across cantons (see Sections 2.2 and 2.3). However, because tax rights are allocated by default to the cantons, they are responsible for collecting personal income and wealth taxes and administering the amnesty, which implies that detailed micro tax data are available only at the cantonal level (see Section 3).

Special tax treatment for wealthy foreigners. Wealthy foreigners without Swiss citizenship who become residents in Switzerland and do not earn any labor income can opt for a special tax regime known as expenditure-based taxation. Under this preferential system, the *tax base* for these wealthy taxpayers is not their actual income and wealth, but rather an estimate of their annual living expenses (see Baselgia and Martínez, 2024a). Consequently, the introduction of the AEoI is not relevant for *these* taxpayers, as their tax liability is largely independent of their true wealth holdings. Additionally, it is important to acknowledge that, due to this special tax treatment, these taxpayers appear significantly poorer in tax data than they truly are (see Baselgia and Martínez, 2024b).

Wealth taxation. Switzerland is one of the few countries in the world that still imposes a wealth tax. In fact, the Swiss wealth tax covers a relatively large share of the population (approximately 40% of taxpayers) and is designed to be only moderately progressive (see Scheuer, 2020 and Brülhart et al., 2022). The tax base is harmonized across cantons (with tax rates varying by canton) and is highly comprehensive: all wealth held within or outside of Switzerland enters the tax base, with the exception of tax-exempt pension wealth and standard durable household goods. Consequently, all assets—such as real estate, land, non-incorporated businesses, financial assets (including cash, shares, bonds, private loans, etc.), cars, art, jewelry, and collectibles—net of debt, are taxable and must therefore be *self-reported* by taxpayers in their tax returns.

²⁰As personal taxes are residence-based, an extensive literature has examined tax competition across Swiss local jurisdictions (e.g., Schmidheiny and Slotwinski, 2018; Parchet, 2019; Eugster and Parchet, 2019; Martínez, 2022b; Brülhart et al., 2022; Baselgia and Martínez, 2024a).

A.2 Details on Tax Enforcement in Switzerland

Withholding tax. The primary purpose of the Swiss withholding tax is to deter tax evasion. To achieve this, a 35% withholding tax is levied by the federal government at source on all *Swiss* income from movable capital assets, particularly interest and dividends. Swiss lottery winnings (at 35%) and certain insurance benefits (subject to a rate of 8% or 15%) are also subject to the withholding tax.²¹

In practice, the withholding tax is levied and refunded as follows. Consider an account holder at Swiss Bank "X" who earns 100 Swiss francs in interest on their deposit. Of this 100 Swiss francs, Bank "X" transfers 65 Swiss francs directly to the account holder, while 35 Swiss francs are withheld and sent to the FTA without any information on the identity of the account holder.²² If the account holder properly self-declares the bank account and the income derived from it (in this case, 100 Swiss francs), the withheld 35 Swiss francs are refunded, and the taxpayer pays ordinary income taxes at a progressive rate on the entire declared amount of 100 Swiss francs.

If the taxpayer does not declare the 100 Swiss francs, the FTA retains the 35 Swiss francs. Thus, a refund of the withholding tax is granted only if the taxpayer duly self-declares both the financial asset and the capital income derived from it in their tax return. In this way, the Swiss withholding tax ensures a minimum effective tax rate of 35% on undeclared income. However, given current ordinary income and wealth tax rates, the financial incentives provided by the Swiss withholding tax to fully declare (financial) wealth are modest at best. To illustrate this trade-off, I provide an additional analysis of the financial incentives taxpayers face when deciding whether to declare or hide their financial wealth in Online Appendix Section C.3.

Tax audits. Cantonal tax authorities, responsible for securing tax compliance, conduct tax audits to some extent. However, very little is publicly known about how these audits are performed or how effective they are.

In the canton of Bern, for which I have access to micro-level data (Section 3), the tax authority conducts targeted audits to ensure compliance, but no random auditing program exists—and to my knowledge, no other canton conducts such a program either. Specifically, the tax authority in Bern assesses the plausibility of changes in net wealth, requiring that these changes align with reported income. If inconsistencies are detected, a more thorough investigation is initiated.²³ In this regard, Brülhart et al. (2022) also note that such auditing increases the risks for tax evaders attempting to quietly disclose large amounts of hidden wealth outside of the amnesty program.

²¹More detailed information on the withholding tax is available from the FTA: https://www.estv.admin.ch/estv/de/ home/verrechnungssteuer.html

 $^{^{22}}$ The FTA transfers the funds to the cantonal tax authorities only if the amount is reclaimed.

²³See Article 174 StG and the entry for "Vermögensentwicklung": https://www.taxinfo.sv.fin.be.ch/taxinfo/display/taxinfo/6.+Verfahren.

It remains unclear whether other cantonal tax administrations conduct audits in the same manner as the canton of Bern, as no detailed statistics on audit practices or effectiveness are publicly available. However, according to the tax authority of the canton of Bern, they do not consider their tax audits to be systematically different from those of other cantons.

A.3 Details on AEoI via the CRS.

Compared to previous policy initiatives to fight offshore evasion—such as the European Savings Tax Directive (Johannesen, 2014; Martinez-Toledano and Roussille, 2023) or bilateral TIEAs (Johannesen and Zucman, 2014; Menkhoff and Miethe, 2019)—the AEoI implemented via the CRS represents a significant improvement for a number of reasons (for a systematic overview, see Table 2 in Casi et al., 2020).

First, tax information is exchanged automatic and annual. By contrast, with bilateral TIEAs, information was exchanged upon request, with tax authorities already having to know the identity of the potential tax evader in order to make a request, on top of having to establish that the information requested was "foreseeably relevant" (see Johannesen and Zucman, 2014 for a discussion). Clearly, with the AEoI, it is much easier and more cost-effective for tax authorities to obtain the information they seek.

Second, the CRS, with its multilateral framework agreement, the Multilateral Competent Authority Agreement (MCAA), provides a significantly more efficient mechanism for handling the AEoI than with bilateral tax treaties. Simply because it avoids the conclusion of thousands of bilateral agreements to establish a sufficiently large network. Consequently, this multilateral approach resulted in far greater country coverage (currently over 120 countries) than any previous international policy effort to combat offshore tax evasion.²⁴

Third, the AEoI via the CRS has a much broader scope than any prior policy. Specifically, the following information is exchanged: name (including address and state of residency), account and financial details, tax identification number, information on the reporting financial institution, account balance, and capital income. This comprehensive data sharing may enable tax authorities to fight evasion more effectively, provided they can manage this vast amount of information (see Alstadsæter et al., 2023).

Lastly, while the AEoI represents substantial progress in international cooperation to combat offshore evasion, it is limited to financial assets, which may be considered a signif-

²⁴See country list: https://www.oecd.org/tax/automatic-exchange/about-automatic-exchange/crs-mcaa-signatories.pdf. Details on the implementation of AEoI via CRS can be found in the *Implementation Handbook* and the annual AEOI implementation reports, which can be found here: https://www.oecd.org/tax/transparency/documents/key-publications-and-documents.htm#AEOI. Moreover, The OECD offers in-depth and up-to-date information on the Automatic Exchange Portal: https://www.oecd.org/tax/automatic-exchange/. For instance, one can find a country-specific overview of the concrete implementation of the AEoI: https://www.oecd.org/tax/automatic-exchange/ crs-implementation-and-assistance/crs-by-jurisdiction/.

icant constraint. Recent research indeed suggests that non-financial assets, particularly (offshore) real estate, could increasingly serve as substitutes for offshore financial wealth (see, e.g., Bomare and Le Guern Herry, 2022; Alstadsæter et al., 2022b).

A.4 Details on the Swiss Tax Amnesty

In 2010, Switzerland introduced a *voluntary disclosure program* (i.e., tax amnesty).²⁵ In recent years, numerous countries have implemented tax amnesties, leveraging the momentum created by the introduction of the AEoI. The OECD (2015) provides a comprehensive overview of 47 countries that have adopted similar programs, including the case of Switzerland. The key features of the Swiss amnesty are discussed in Section 2.3.²⁶

Even before the amnesty was introduced in 2010, taxpayers technically had the option to voluntarily disclose previously hidden assets to the cantonal tax authorities. However, these disclosures incurred financial penalties amounting to 20% of the back-taxes owed. As shown in Online Appendix Figure C1, almost no taxpayers took advantage of this option prior to 2010, when the amnesty eliminated all financial penalties (the increased salience of the amnesty program likely also positively influenced participation). Similarly, if a taxpayer submits a voluntary disclosure more than once in their lifetime (including after 2010), a 20% penalty on the back-taxes owed is imposed.

²⁵I use the term "tax amnesty" instead of "voluntary disclosure program." The federal law establishing the legal basis for the permanent tax amnesty can be fond here: https://www.admin.ch/opc/de/federal-gazette/2008/2321.pdf ²⁶The FTA provides additional information here: https://www.efd.admin.ch/de/straflose-selbstanzeige -vereinfachte-erben-nachbesteuerung

B Data Appendix

This appendix supplements Section 3 by providing additional details on the data sources used in this study. First, I elaborate on the micro tax data from the canton of Bern (Section B.1). Second, I offer an extensive description of the newly collected aggregate Swiss tax amnesty dataset (Section B.2). Finally, I provide details and sources for the publicly available macroeconomic data used (Section B.3).

B.1 Details on the Special Tax Records on After-Tax Procedures

This subsection provides additional information about the *special tax records on after-tax procedures* and their linkage to the *ordinary tax records* in the canton of Bern (see also Section 3.1).

The *special tax records* comprise records of all after-tax procedures conducted in the canton of Bern from 2002 to 2020. These records capture three main types of cases:

- 1. Ordinary amnesty cases are voluntary self-disclosures by taxpayers under the Swiss tax amnesty program (see Sections 2.3 for details).
- 2. Simplified inheritance after-taxation (SIT) cases allow heirs to disclose previously hidden wealth during the inheritance process and benefit from reduced back-tax requirements (see Section 2.3 for details).
- 3. **Detected tax evasion cases** are identified by the cantonal tax authority through targeted audit activities.

To clarify how this data is recorded, consider the following scenario: A taxpayer approaches the cantonal tax administration and discloses previously hidden assets under the amnesty program (ordinary case; though the process is similar for the other case types). The tax administration re-examines and reassesses (up to) the last ten tax returns of this taxpayer, incorporating the newly disclosed assets and income. Consequently, the dataset records the value of taxable wealth and taxable income per year before and after the self-disclosure for all reassessed tax years (on average, 7.5 tax years per ordinary amnesty case).

Once the after-tax procedure is closed, the ordinary tax data are retrospectively corrected. This means that the ordinary tax records no longer reflect the income and wealth self-reported for a given tax year but instead capture the "true" levels, including amounts later disclosed through the amnesty. As a result, it is not possible to analyze evasion by any specific subcomponents of wealth or income, as the special tax records only include aggregated values of taxable wealth and income, and the ordinary tax records reflect retrospectively corrected data. Additionally, the *special tax records* includes the amounts of back-taxes owed (i.e., the difference between the taxes due and the taxes paid), interest on arrears, and penalties (in cases of tax evasion detected by the authorities). In general, back-taxes are reported as the sum of these three components.

B.2 Aggregate Data on the Swiss Tax Amnesty.

To date, no administrative micro data or aggregate tabulated statistics on the Swiss tax amnesty are available at the national level. This is because tax sovereignty in Switzerland lies with the cantons, which retain exclusive access to detailed data on ordinary amnesty cases (and other tax-related matters). The only systematic information available to the FTA is the name of the filer and, consequently, the number of ordinary amnesty cases filed in each canton.²⁷ However, this data on the number of ordinary cases recorded by the FTA is both incomplete and subject to time lags, as cantons often report cases with significant delays (discussed further below).²⁸

An aggregate analysis of the Swiss amnesty—including the "exact" number of cases, aggregate hidden wealth revealed, and total back taxes paid—is only feasible based on cantonal tax data. Consequently, I contacted all 26 cantonal tax authorities and requested the following *yearly* data for the period 2010–2020: (i) the number of self-disclosures, (ii) aggregate hidden wealth disclosed, and (iii) total back-taxes paid.²⁹

Given the absence of any obligation by the federal government to collect such data, the information provided to me by the cantons upon request varies significantly in quality, level of detail, and underlying definitions.³⁰ Table B1 summarizes data availability by canton. A value of zero indicates that no data are available for the specified outcome, while a value of one indicates complete data coverage for all years from 2010 to 2020. While I successfully obtained the necessary data for most populous cantons, the lack of data from the canton of Vaud in particular, and to a lesser extent from the canton of Zug, represents a notable limitation.³¹

²⁷The cantons must supply the name of the disclosing taxpayer to the FTA to ensure that each taxpayer in Switzerland can only participate in the amnesty once in their lifetime without facing a penalty. The total annual number of voluntary self-disclosures at the national level is published by the FTA here: https://www.estv.admin.ch/estv/de/home/die-estv/ steuerstatistiken-estv/kennzahlen/kennzahlen-asu.html. The numbers of ordinary cases published by the FTA change regularly, including retrospectively. Upon request, I received the number of ordinary amnesty cases by canton and year (data received on January 18, 2022).

²⁸The number of ordinary amnesty cases recorded by the FTA between 2010 and 2020 is shown by the blue line in Panel (a) of Appendix Figure C5. Column 2 of Appendix Table C3 provides a breakdown by canton.

²⁹For (iii) total back-taxes, I asked cantons to provide the following breakdown if available: (iv) municipal back-taxes, (v) cantonal back-taxes, and (vi) federal back-taxes (i.e., item (iii) = (iv) + (v) + (vi)). Cantons provided varying levels of detail in this regard. In many cases, I received only the combined sum of cantonal and municipal back-taxes (i.e., (iv)+(v)).

 $^{^{30}}$ Certain cantons, particularly those with smaller populations, do not maintain an overview of aggregate data from voluntary self-disclosures made under the amnesty.

 $^{^{31}}$ Despite repeated requests, both cantons were either unable or unwilling to provide the requested data.

canton			share of years (2010–2	(020) for which data	a is available
no.	name	inc. SIT	amnesty participants	wealth disclosed	back-taxes
1	ZH	No	1.00	1.00	1.00
2	BE	No	1.00	1.00	1.00
3	LU	Yes	1.00	1.00	1.00
4	UR	Yes	1.00	0.36	0.36
5	SZ	No	1.00	0.91	0.91
6	OW	No	1.00	0.00	1.00
7	NW	Yes	1.00	0.55	1.00
8	GL	No	1.00	1.00	1.00
9	ZG	Yes	1.00	0.00	0.00
10	\mathbf{FR}	Yes	1.00	1.00	1.00
11	\mathbf{SO}	Yes	1.00	0.91	0.00
12	BS	Yes	0.82	0.55	0.82
13	BL	Yes	1.00	0.82	0.00
14	\mathbf{SH}	Yes	1.00	0.00	0.00
15	\mathbf{AR}	No	0.00	0.00	0.00
16	AI	No	0.00	0.00	0.00
17	\mathbf{SG}	No	1.00	1.00	1.00
18	GR	Yes	1.00	1.00	1.00
19	AG	Yes	1.00	1.00	1.00
20	TG	No	1.00	1.00	1.00
21	TI	No	1.00	1.00	1.00
22	VD	No	0.00	0.00	0.00
23	VS	No	1.00	1.00	0.00
24	NE	Yes	1.00	1.00	1.00
25	GE	Yes	1.00	0.82	1.00
26	JU	Yes	1.00	1.00	1.00
	\mathbf{CH}		0.88	0.69	0.66

Table B1: Availability of Cantonal Amnesty Data, 2010–2020

Note: The coding of the cantons follows the standard numbering of the Swiss cantons. Column 3 reports whether the data obtained by the cantons include SIT cases. Columns 4-6 show the fraction of years for which data is available per main variable of interest. A zero implies that no data are available for the indicated variable, while one means that data is available for all years from 2010–2020. So, any number between 0 and 1 gives the simple fraction of years for which data is available. The percentages for Switzerland are simple averages.

Data imputation – general remarks. The nature and the limited availability of the data for certain cantons require the imputation of missing values in order to obtain a national estimate of ordinary amnesty cases and wealth disclosed under amnesty. The imputations are all performed conservatively, ensuring that the estimates obtained from these aggregate data, such as those shown in Figure C5, should be viewed as lower bounds.

Below, I outline the main imputations used to harmonize the data across cantons.³²

Data imputation – handling SIT cases. The Swiss annesty introduced a second procedure alongside ordinary amnesty cases, namely SIT cases (as described in Section

 $^{^{32}}$ Both the raw data and the code that performs the imputations and harmonizations will be made available once the paper is published.

2.3). The availability of SIT case data varies across cantons. Some cantons record only ordinary amnesty cases, others report ordinary and SIT cases separately, while most aggregate them without distinction. Column 3 of Table B1 indicates which cantons include SIT cases and which do not. Where possible, I *excluded* SIT cases for two reasons.

First, the main focus of this paper is on the filing of ordinary amnesty cases. Second, excluding SIT cases is a somewhat more conservative approach compared to imputing them for cantons where this information is not available. Notably, SIT cases are comparatively rare and therefore unlikely to substantially alter any conclusions.³³

Data imputation – filed vs processed cases. The introduction of the AEoI led to a strong surge in the number of amnesty cases filed in 2017 and 2018 (see Section 5). This surge overwhelmed many cantonal tax authorities, making it impossible to process all cases within the same year they were filed.³⁴ Consequently, the data provided by several cantons reflect a time lag, as their records typically include only fully processed cases.

In cantons where both the number of cases filed and settled per year are known (e.g., Zurich, Lucerne, Basel-Landschaft), a clear discrepancy between the two time series is evident. For instance, in Zurich, 6,200 cases were filed in 2017, but only 3,800 were settled. Conversely, in 2019, 3,400 cases were terminated, while only 2,350 new cases were filed. Micro data from the canton of Bern further corroborate this pattern. As shown in Figure Online Appendix Figure C5, the FTA records cases from the canton of Bern with a substantial delay. This issue extends to the national level as well.

For cantons where the distinction between filed and processed cases is available, I consistently use the number of cases filed, as this is the relevant measure for analysis. Additionally, I adjust the values of disclosed wealth and back-taxes collected to align with the number of filed cases. However, for most cantons, this distinction is unavailable, making it impossible to fully account for time lags in the aggregate cantonal data.

While the total number of cases will eventually converge as cantons settle all cases and report them to the FTA, the timing remains distorted. This limitation renders the FTA's data unsuitable for analyzing the drivers of taxpayer participation in the amnesty, particularly the role of the AEoI. Consequently, I rely on the high-quality micro data from the canton of Bern for this purpose (see Section 5).

Data imputation – accumulated vs effectively disclosed wealth. Certain cantons (LU, UR, GL, BS, NE) report *accumulated* rather than *effectively* disclosed hidden wealth in their aggregate statistics. This creates a significant discrepancy, as it reflects the total value of hidden assets across all back-taxation years rather than the actual amount

³³For example, in the canton of Bern, where high-quality micro data are available, there were 10,939 ordinary amnesty compared to 3,203 SIT cases between 2010 and 2020 (see Figure C1). ³⁴Besides, in more complex cases, cantonal authorities often require additional time for processing, which can exceed one

³⁴Besides, in more complex cases, cantonal authorities often require additional time for processing, which can exceed one year.

disclosed in any given year.

To clarify, consider the following example: A taxpayer discloses 100,000 Swiss francs of previously hidden assets. Ideally, this amount is recorded as the effectively disclosed wealth for that year. However, some cantons instead sum the hidden wealth over the last *ten* years, which could result in an accumulated value of 1 million Swiss francs ($10 \times 100,000$) being reported in the aggregate statistics.

To adjust for this discrepancy, I estimate the effectively disclosed wealth per year by dividing the accumulated wealth by the average number of back-tax years considered.³⁵ Micro data from the canton of Bern indicates an average of approximately 7.5 back-tax years for ordinary amnesty cases. Similarly, data from Zurich suggest an average of 7.06 back-tax years, with annual values ranging from 6 to 8. Therefore, for all cantons reporting accumulated wealth, I divide the total reported value by 7 to approximate the effectively disclosed wealth.³⁶

Data imputation – **based on own cantonal information.** As shown in Table B1, data availability varies across cantons and time periods for some variables. Whenever feasible, imputations are based on average values from the same canton to ensure consistency.

For the sake of concreteness, consider, for instance, the data imputation performed for the canton of Schwyz. For the canton of Schwyz, data on the number of amnesty participants is complete, but information on wealth disclosed and back-taxes is missing for the year 2010. To impute these values, I calculate the per-case averages for disclosed wealth and back-taxes over the period 2011–2020 and multiply them by the number of amnesty participants reported for 2010. Similar imputation procedures are applied for other cantons, as described in the commented code used to generate the final dataset.

Data imputation – **based on other cantons.** As shown in Table B1, the cantonal tax authorities in AI, AR, SH, VD, and ZG did not provide any data on the Swiss tax amnesty. For cantons AI, AR, and SH, this missing data is of minor concern, as together these cantons account for only 1.8% of the total Swiss population (see Table C2). However, the absence of data for the canton of Vaud (VD), and to a lesser extent for Zug (ZG), represents a more substantial limitation.

To estimate national totals for hidden wealth disclosed and back-taxes collected, the missing values for these cantons are imputed by multiplying the number of reported ordinary amnesty participants by the corresponding averages for all other cantons in the same year. This approach allows for a national estimate, yet it is obviously only an approximation. Two caveats, in particular, should be noted:

 $^{^{35}}$ This assumes that the level of evaded wealth remains constant across the back-tax years.

 $^{^{36}}$ As a precaution, I consulted tax officials in the cantons of Lucerne and Basel-Stadt, who confirmed the appropriateness of this approach. Indeed, Basel-Stadt also uses an average of 7 back-tax years for internal evaluations.

First, imputing values based on other cantons inevitably affects the quality of the final cross-canton panel dataset. Any panel analysis using this dataset may therefore be prone to (potentially severe) measurement error, necessitating caution in interpretation.

Second, this imputation approach is likely to yield a lower bound. For the canton of Vaud (and similarly for AI and AR, although their impact is minimal), the number of amnesty cases recorded by the FTA is used as the basis for the imputation. However, the FTA's numbers are known to be significantly underestimated (see Columns 2 and 3 in Table C3), resulting in a conservative estimates of disclosed wealth and back-taxes collected.

The final aggregate dataset on the Swiss tax amnesty. The final cantonal panel dataset on the Swiss tax amnesty for the period 2010–2020 was constructed through a transparent imputation process, designed to address data gaps and inconsistencies. While the estimates provided are subject to revision as better data becomes available, the dataset offers a consistent and comprehensive basis for analysis. To facilitate further research, both the raw data and the code used for imputations will be made available for scientific purposes. This enables other researchers to replicate the analysis or apply alternative imputation methods as needed.

The dataset represents a significant step forward by allowing, for the first time, a transparent and systematic quantification of the total hidden assets disclosed under the Swiss tax amnesty. This contributes to a better evaluation of this large-scale policy reform. Summary statistics for the final dataset covering the full period 2010–2020 are provided in Table C3.

B.3 Details on Publicly Available Macroeconomic Data.

In addition to the primary data sources, the analysis incorporates publicly available macroeconomic data to illustrate and contextualize the results. Specifically, the following data sources are used:

- **CPI:** All monetary values are expressed in real terms, with the Swiss Consumer Price Index (CPI) used to deflate nominal Swiss franc values.³⁷
- **Population:** Population data are obtained from the Federal Statistical Office (FSO).³⁸
- **GDP:** GDP data, including a breakdown by canton, are also provided by the FSO.³⁹

³⁷The data is available at: https://www.bfs.admin.ch/bfs/en/home/statistics/prices/consumer-price-index.html. Note that one Swiss franc is roughly equivalent to one USD during the study period.

³⁸The data is available at: https://www.bfs.admin.ch/bfs/en/home/statistics/population.html.

³⁹The data is available at: https://www.bfs.admin.ch/bfs/en/home/statistics/national-economy/national-accounts/gross-domestic-product-canton.html.

• **Taxable wealth:** To put disclosed wealth in perspective, federal tabulated wealth tax statistics from the Federal Tax Administration (FTA) are used.⁴⁰

⁴⁰The data is available at: https://www.estv.admin.ch/estv/de/home/die-estv/steuerstatistiken-estv/allgemeine -steuerstatistiken/gesamtschweizerische-vermoegenssteuerstatistik.html. These data are also used for comparing top wealth shares between the canton of Bern and Switzerland (see Online Appendix Figure C3).

C Supplementary Results Appendix

C.1 Additional Tables

Table C1: Summary Statistics of the Individualized Micro Data Set, 2002–2020

	share of married population								
year	no. taxpayers	mean	P0-P50	P50–P90	P90	mean	P0–P50	P50–P90	P90
2002	722,722	0.57	0.51	0.63	0.59	48.8	41.2	54.5	64.5
2005	733,571	0.55	0.49	0.62	0.59	49.3	41.7	54.9	64.8
2008	$745,\!199$	0.54	0.48	0.61	0.59	49.7	41.9	55.6	65.1
2011	759,289	0.53	0.47	0.59	0.59	50.2	42.4	56.1	65.1
2014	776,236	0.52	0.46	0.58	0.58	50.6	42.8	56.6	65.4
2017	$784,\!446$	0.51	0.45	0.57	0.57	51.1	43.4	57.2	65.7
2020	$787,\!589$	0.50	0.43	0.58	0.57	51.7	43.8	58.0	66.1
2002-2020	$14,\!424,\!275$	0.53	0.47	0.60	0.58	50.2	42.4	56.1	65.2

Panel A: Taxpayer characteristics

Panel B: Taxable wealth

		in	thousand	2020 Swiss	in	percent of	total	
year	no. taxpayers	mean	P0-P50	P50–P90	P90-P100	P0-P50	P50–P90	P90-P100
2002	722,722	147.5	-16.1	128.5	1,041.2	-0.05	0.35	0.71
2005	$733,\!571$	164.6	-15.1	132.6	$1,\!190.9$	-0.05	0.32	0.72
2008	$745,\!199$	170.0	-14.3	129.3	1,254.0	-0.04	0.30	0.74
2011	759,289	177.9	-14.9	135.2	1,313.1	-0.04	0.30	0.74
2014	776,236	196.5	-15.0	145.3	$1,\!459.2$	-0.04	0.30	0.74
2017	$784,\!446$	216.9	-15.7	155.2	1,627.0	-0.04	0.29	0.75
2020	$787,\!589$	241.8	-11.3	189.7	1,715.5	-0.02	0.31	0.71
2002-2020	$14,\!424,\!275$	185.9	-15.0	142.6	1,363.8	-0.04	0.31	0.73

Panel C: Taxable income

		in thousand 2020 Swiss francs			in	percent of	total	
year	no. taxpayers	mean	P0–P50	P50–P90	P90-P100	P0-P50	P50–P90	P90-P100
2002	722,722	29.9	21.5	31.7	64.4	0.36	0.42	0.22
2005	$733,\!571$	30.2	21.6	32.2	65.2	0.36	0.43	0.22
2008	$745,\!199$	31.6	23.1	33.3	67.5	0.37	0.42	0.21
2011	759,289	31.9	22.9	33.8	69.4	0.36	0.42	0.22
2014	776,236	33.6	24.2	35.4	73.1	0.36	0.42	0.22
2017	784,446	35.3	25.4	36.8	78.8	0.36	0.42	0.22
2020	$787,\!589$	34.9	25.7	38.1	67.7	0.37	0.44	0.19
2002-2020	$14,\!424,\!275$	32.6	23.5	34.4	70.7	0.36	0.42	0.22

Note: This table provides summary statistics for the universe of individualized ordinary tax records provided by the tax administration of the canton of Bern for the period 2002-2020. For illustration purposes, I show only certain years. For all three panels, the distribution breakdowns are based on the taxable wealth distribution.

				populati	on		
	canton			share in total population		taxable wealth	GDP
no.	name abbrv.		(in thsnd)	foreigners	over 65-year-old	(p.c. in 2020-CHF)	(p.c. in 2020-CHF) $$
1	Zürich	ZH	1,466	0.26	0.17	268,500	99,289
2	Bern	\mathbf{BE}	1,017	0.15	0.20	$165,\!858$	$77,\!686$
3	Luzern	LU	399	0.18	0.17	208,358	66,469
4	Uri	UR	36	0.11	0.19	184,071	52,738
5	Schwyz	SZ	154	0.20	0.17	723,229	60,425
6	Obwalden	OW	37	0.14	0.17	327,268	$65,\!683$
7	Nidwalden	NW	42	0.14	0.19	$681,\!884$	75,411
8	Glarus	GL	40	0.23	0.19	189,362	$68,\!809$
9	Zug	ZG	122	0.27	0.16	$495{,}570$	$158,\!601$
10	Fribourg	\mathbf{FR}	307	0.22	0.15	99,755	59,775
11	Solothurn	SO	266	0.21	0.19	102,381	66,746
12	Basel-Stadt	BS	192	0.35	0.20	$294,\!251$	171,941
13	Basel-Landschaft	BL	283	0.22	0.21	$156,\!636$	72,244
14	Schaffhausen	SH	80	0.25	0.21	159,827	$85,\!190$
15	Appenzell A.Rh.	AR	55	0.16	0.19	259,423	57,723
16	Appenzell I.Rh.	AI	16	0.11	0.18	$316,\!105$	62,527
17	St. Gallen	\mathbf{SG}	499	0.24	0.17	208,242	73,976
18	Graubünden	\mathbf{GR}	197	0.18	0.20	308,882	71,738
19	Aargau	AG	654	0.24	0.17	176,452	64,050
20	Thurgau	TG	267	0.24	0.17	206,304	$60,\!451$
21	Ticino	TI	352	0.28	0.22	$179,\!581$	84,726
22	Vaud	VD	773	0.34	0.16	186,280	69,730
23	Valais	VS	336	0.23	0.19	152,392	$54,\!563$
24	Neuchâtel	NE	178	0.26	0.18	108,035	$87,\!395$
25	Genève	GE	485	0.41	0.17	247,200	$103,\!919$
26	Jura	JU	73	0.14	0.20	101,428	64,525
	Switzerland	CH	8,327	0.25	0.18	$216,\!590$	80,751

Table C2: Cross Cantonal Comparison: Population, Wealth, and Income in 2015

Note: This table shows total population (in 1,000) as well as the cantonal share of foreign nationals and individuals over 65 years of age for all Swiss cantons for the year 2015. The last two columns of the table display real taxable wealth and real GDP (both in per capita terms) for 2015, respectively. The no. of the cantons follows the standard numbering of the Swiss cantons.

	amnesty p	articipants	wealt	th disclosed (in m	back-taxes	
canton	FTA	own	total	(in $\%$ of GDP)	(in $\%$ of wealth)	(in mil. 2020-CHF)
ZH	$13,\!975$	$27,\!300$	$12,\!156$	0.08	0.03	996
\mathbf{BE}	11,033	$10,\!939$	3,218	0.04	0.02	249
LU	$5,\!013$	6,513	2,552	0.10	0.03	171
UR	307	424	85	0.04	0.01	4
SZ	$2,\!340$	$3,\!089$	$1,\!356$	0.15	0.01	46
OW	364	646	145	0.06	0.01	11
NW	711	748	692	0.24	0.02	30
GL	887	840	185	0.07	0.02	11
ZG	1,502	1,535	613	0.03	0.01	52
\mathbf{FR}	2,593	$3,\!328$	1,509	0.08	0.05	119
SO	3,040	3,969	1,012	0.06	0.04	84
BS	$3,\!498$	4,247	1,058	0.03	0.02	86
BL	4,101	6,209	1,045	0.05	0.02	189
\mathbf{SH}	741	920	352	0.05	0.03	30
\mathbf{AR}	386	386	141	0.05	0.01	12
AI	175	175	70	0.07	0.01	6
\mathbf{SG}	4,756	6,004	2,949	0.08	0.03	206
GR	3,229	$3,\!808$	1,316	0.09	0.02	84
AG	3,066	$6,\!124$	2,000	0.05	0.02	174
TG	1,971	1,835	1,066	0.07	0.02	67
ΤI	2,059	$10,\!250$	9,707	0.33	0.14	871
VD	$22,\!587$	$22,\!587$	7,944	0.14	0.05	635
VS	$3,\!608$	$2,\!639$	2,281	0.12	0.04	134
NE	1,774	1,814	895	0.06	0.05	172
GE	12,726	$25,\!939$	$11,\!343$	0.22	0.08	$1,\!107$
JU	1,511	3,390	679	0.15	0.10	63
CH	$107,\!953$	$155,\!658$	66,369	0.10	0.03	$5,\!609$

Table C3: The Swiss Tax Amnesty by Canton, 2010–2020

Note: This table shows the total number of (i) amnesty participants, (ii) disclosed wealth, and (iii) back-taxes collected by canton for the period 2010–2020. Columns 2 and 3 report the number of ordinary amnesty cases recorded by the FTA and my own data collection, respectively. Column 4 displays aggregate wealth disclosed under the amnesty from 2010–2020 by canton in millions of 2020 Swiss francs. Columns 5 and 6 present this figure as a share of 2020 GDP or of total 2019 taxable wealth in the respective canton. The last column shows total back taxes (incl. federal, cantonal and municipal taxes) collected by the Swiss tax amnesty.

C.2 Additional Figures



Figure C1: Tax Evaders in the Canton Bern, 2008–2020

Note: This figures shows the number of three different categories of evasion cases which can be distinguished in the micro data of the canton of Bern for the period 2008 to 2020. The black line with circles corresponds to ordinary amnesty cases. The red line with squares shows SIT cases. Both ordinary amnesty and SIT cases as described in Section 2.3. Finally, the blue line with diamonds indicate evasion cases that were detected by the cantonal tax authorities themselves.



Figure C2: Rate-Determining vs. Effective Taxable Wealth Disclosed in the Canton of Bern, 2008–2020

Note: This figure compares rate-determining taxable wealth (black line with circles) and effective taxable wealth (blue line with diamonds) disclosed under the amnesty in the canton of Bern from 2008 to 2020. The main difference is that real estate (but also business operations and permanent establishment) owned outside the canton of residence (Bern) is included in the rate-determining series, but not in the effective series.



Figure C3: Top Wealth Shares for Switzerland and the Canton Bern, 2003–2019

Note: This figure shows wealth shares of the top 1% and the top 10% in the period 2003-2019 for Switzerland (in blue) and for Bern (in black), respectively. Methodologically, these estimates are obtained by Pareto interpolation of tabulated wealth tax statistics as described in Föllmi and Martínez (2017). The data source is described in Section B.3 of the Online Appendix.



Figure C4: The Size of the Swiss Tax Amnesty, 2010–2020

Note: This figure shows the scope of the Swiss amnesty from 2010 and 2020. The black line with the circles corresponds to the number of ordinary amnesty participants, while the blue line with diamonds represents aggregate disclosed wealth in billions of 2020 Swiss francs.



(a) The Evolution of Ordinary Amnesty Cases at the National Level



(b) Time Patterns in Ordinary Amnesty Participation

Figure C5: Comparison of Amnesty Participation across Data Sources, 2010–2020

Note: This figure compares the number of amnesty participants from two data sources: my *own* data collection and the official data provided by the *FTA* (see details in Online Appendix B.2). Panel (a) depicts the total number of ordinary amnesty cases in Switzerland from 2010 to 2020. The black line with circles represents the number of cases from my data, while the blue line with diamonds shows the corresponding figures reported by the FTA. Panel (b) provides an indexed comparison of the two data sources, with all series normalized to 1 for the year 2010. The solid black line with filled circles reflects my national-level data, and the dashed black line with hollow circles shows the FTA data at the national level. Similarly, the blue line with diamonds represents my data (as shown in Figure C1), while the blue dashed line with hollow diamonds reflects the FTA data for the canton of Bern. The key takeaway is that the FTA data exhibits a significant time lag in reporting the number of ordinary amnesty cases, both at the national level and for the canton of Bern.











(c) Disclosed Wealth as Share of Total Wealth

Figure C6: The Distribution of Tax Evasion in International Comparison

Note: This figure shows the distributional patterns of amnesty wealth in Switzerland, the Netherlands, Scandinavia, and Colombia. Panel (a) indicates the probability of amnesty participation for taxpayers in different parts of the wealth distribution (i.e., the extensive margin response). Panel (b) reports the fraction of total amnesty wealth held by the different wealth groups. Panel (c) shows the the share of hidden wealth disclosed relative to total taxable wealth conditional on amnesty participation (i.e., the intensive margin response). Note that the international data for the intensive margin response are restricted to the top 5% of the wealth distribution. Figure C7 presents the intensive margin of tax evasion for Switzerland for a wider range of the wealth distribution. The data for the Netherlands are taken from Leenders et al. (2023), from Alstadsæter et al. (2019) for Scandinavia, and from Londoño-Vélez and Ávila-Mahecha (2021) for Colombia.



Figure C7: Disclosed Wealth as a Share of Total Taxable Wealth

Note: This figure shows the share of hidden wealth disclosed relative to total rate-determining (solid line) and effective (dashed line) taxable wealth, conditional on amnesty participation, across different wealth groups (i.e., the intensive margin response). The main difference between rate-determining and effective taxable wealth is that the former also includes real estate (but also business operations and permanent establishment) owned outside the canton of residence (i.e., outside the canton of Bern).



Figure C8: Disclosed Wealth as a Share of Total Taxable Wealth over Time

Note: This figure shows the share of hidden wealth disclosed (rate-determining) relative to total rate-determining taxable wealth, conditional on amnesty participation, across different wealth groups (i.e., the intensive margin response) and time periods.



Figure C9: The Distribution of "Offshore" Real Estate Wealth Disclosed under the Amnesty

Note: This figure shows the distribution of "offshore" real estate wealth disclosed under the amnesty in the canton of Bern. Specifically, it illustrates the difference between rate-determining and effective taxable wealth, which primarily reflects real estate held outside the canton of residence (Bern). To a lesser extent, it may also include business operations and permanent establishments located outside the canton (unfortunately, the data does not allow for a precise distinction between these components).



Figure C10: Google search interest for AEoI and Amnesty

Note: This figure illustrates Google search interest (blue line with diamonds) related to the AEoI and the Swiss tax amnesty alongside the number of ordinary amnesty participants (black line with circles). Each panel represents a different search term: Panel (a) "AIA"; Panel (b) "Automatischer Informationsaustausch"; Panel (c) "CRS"; and Panel (d) "Selbstanzeige". The simple raw correlation between the two time series is displayed in the top-right corner of each panel.



Figure C11: The Macro Effects of the AEoI on Total Back-Taxes Collected

Note: This figure displays the macro effect of the AEoI on back-tax payments collected under the Swiss amnesty, complementing the main results shown in Figure 6. The solid line represents the actual time-series for back-tax payments, while the dashed line shows the counterfactual based on SIT cases. Again, the *AEoI Macro Effect* indicated in the top right is computed using Equation 3.

C.3 The Swiss Withholding Tax: An Effective Tool for Tax Compliance?

The primary purpose of the (Swiss) withholding tax is to limit tax evasion. To this end, a withholding tax of 35% is levied at source on all *Swiss* capital income (see Section 2.1 and Section A.2). Only if the capital earnings (and the related financial assets) are properly declared in the tax return (and thus taxed at ordinary rates), the 35% withholding tax will be refunded, otherwise it will be definitively incurred. Consequently, when deciding whether or not to properly declare a **marginal** Swiss franc in financial wealth W, taxpayer i faces a specific marginal financial trade-off, which can be described as follows⁴¹:

$$W_i \tau_i^w + r_i W_i \tau_i^y = r_i W_i \tau^{WH} + p_i [2(W_i \tau_i^w + r_i W_i \tau_i^y)]$$

$$\tag{4}$$

The left-hand side of Equation 4 shows the taxes due when taxpayer *i*, belonging to a specific part of the wealth distribution, decides to declare a marginal unit of wealth truthfully in the tax return. In this case, taxpayer *i* owes the marginal wealth tax τ_i^w on additionally reported wealth W_i and pays the marginal income tax τ_i^y on the capital income r_iW_i earned from that marginal wealth reported. Here, the marginal wealth tax τ_i^w , the marginal income tax τ_i^y , and the return on wealth r_i are *i*-specific (i.e., they all depend on how wealthy taxpayer *i* is).

The right-hand side of Equation 4 illustrates the situation that occurs when taxpayer i decides to hide a marginal Swiss franc in financial assets (and related income) from "ordinary" taxation. If so, taxpayer i cannot reclaim the withholding tax τ^{WH} on his or her marginal capital income r_iW_i , which means that it has definitely been incurred.⁴² Moreover, in the case of tax evasion, there always exists some probability p_i —which varies along the wealth distribution (see Panel (c) of Figure C12)—that the tax authority will detect and punish that evasion. Upon detection, the standard penalty in Switzerland is 100% of the back-taxes owed. Consequently, as indicated in square brackets, the total amount owed (back-taxes + penalty) if caught is simply the regular marginal tax liability (as shown on the LHS of Equation 4) times two.⁴³ From the taxpayer's perspective, the only uncertain parameter, but one that is critical to their decision whether or not to evade taxes, is the detection probability p_i .

Solving Equation 4 for the withholding tax, we can determine the size of $\bar{\tau}_i^{WH}$ that makes taxpayer *i* indifferent between properly declaring or evading an additional Swiss franc in financial wealth, i.e.:

⁴¹Note that I here implicitly assume risk neutrality to simplify the exposition. Also, I do not consider any non-financial motives for (not) engaging in tax evasion. ⁴²Note that τ^{WH} is not *i*-specific, this is because the withholding tax is not progressive. I abstract here from the fact

⁴²Note that τ^{WH} is not *i*-specific, this is because the withholding tax is not progressive. I abstract here from the fact that withholding tax is not due on interest-bearing income below 200 Swiss francs.

 $^{^{43}\}mathrm{For}$ convenience, I omit interest on arrears here.

$$\bar{\tau}_i^{WH} = (1 - 2p_i) \left[\frac{\tau_i^w}{r_i} + \tau_i^y \right] \tag{5}$$

The intuition of the Equation 5 is as follows. The higher either the marginal income tax rate τ_i^y or the marginal wealth tax rate τ_i^w , the greater the financial incentives for tax evasion, which consequently requires a higher withholding tax $\bar{\tau}_i^{WH}$ to prevent evasion. Conversely, the higher the probability of detection p_i , the less bite the withholding tax (i.e., the lower its rate) must have to prevent tax evasion. The reason that $\bar{\tau}_i^{WH}$ decreases with r_i is that, from a taxpayer's point of view, a wealth tax is worse when the returns on wealth r_i are very low. That is, the lower the returns on wealth, the higher the withholding tax evasion.

Using the micro tax data of the canton of Bern (described in Section 3), I estimate Equation 5 for individual taxpayers from the following wealth percentiles *i*: P20-P30; P30-P40; P40-P50; P50-P60; P60-P70; P70-P80; P80-P90; P90-P99; P99-P99.9; P99.9-P99.9; P99.99-P100.

To do so, I employ information on (i) marginal income tax rates τ_i^y , (ii) marginal wealth tax rates τ_i^w , (iii) the detection probability p_i , and (iv) on the returns of financial wealth r_i , that vary along the net wealth distribution $i.^{44}$ In Figure C12, I show these inputs employed to estimate the size of $\bar{\tau}_i^{WH}$ using Equation 5. Below, I briefly discuss the specific inputs.

The marginal income tax rate τ_i^y is calculated by first ranking all individual taxpayers along the net wealth distribution. Next, I derive the average (rate-determining) taxable income for all the specific wealth groups (i.e., the wealth percentiles). Based on this average taxable income per wealth group, I compute the marginal tax rate based on the official statutory tax rates. The marginal tax rate shown in Panel (a) of Figure C12 includes income taxes at the municipal, cantonal and federal level.⁴⁵

The marginal wealth tax rate τ_i^w is calculated analogously. First, taxpayers are ranked based on their net wealth holdings. Second, the average (rate-determining) taxable wealth per wealth group is derived. Third, based on this average (rate-determining) taxable wealth the marginal wealth tax rate is computed.⁴⁶

 $^{^{44}}$ To simplify tax rate data requirements, this analysis focuses on the three tax years from 2014 to 2016. However, the detection probabilities cover the entire observation period from 2010 to 2020.

⁴⁵Cantonal income tax rates are taken from the cantonal tax law (I use the rates for singles with no children), see Art. 42 par. 2: https://www.belex.sites.be.ch/app/de/texts_of_law/661.11/versions/1040. This simple tax rates are multiplied by a factor of 4.687896 (cantonal multiplier of 3.06 + average municipality multiplier over the period 2014 to 2016). The tax rates for the direct federal tax (DBST) apply in addition to the municipal and cantonal taxes and can be found here: https://www.estv.admin.ch/estv/de/home/direkte-bundessteuer/dbst-steuertarife.html.

⁴⁶Cantonal wealth tax rates are again taken from the cantonal tax law, see Art. 64 par. 1: https://www.belex.sites .be.ch/app/de/texts_of_law/661.11/versions/1040. Again, this simple tax rates are multiplied by a factor of 4.687896 (cantonal multiplier of 3.06 + average municipality multiplier over the period 2014 to 2016). There is no federal wealth tax that is to be added.

The detection probability p_i is calculated from micro-level data on after-tax procedures, where I observe all successful cases detected by tax authorities through targeted audits. Panel (c) in Figure C12 shows the average probability of being caught by the tax authority of the canton of Bern over the period 2010–2020 by wealth group. It is important to note that this statistic does not account for differences in underlying evasion probabilities or audit likelihoods across different groups. Rather, it simply represents the realized average probability of detection by wealth group per year.

The (taxable) return on financial wealth r_i is derived directly from micro-level tax data. First, taxpayers are ranked according to their net wealth. Then, I calculate (i) the average income from financial wealth (including savings deposits, bonds, shares, and other securities) and (ii) divide it by the average financial wealth held by each wealth group. The resulting estimate is shown by the solid line in Panel (d) of Figure C12. As illustrated, this yields relatively low returns, below 2% across the entire wealth distribution.

This low return can be attributed to the fact that *capital gains* are tax-exempt in Switzerland and thus are not recorded in tax returns. Consequently, the solid line represents a lower bound for the actual return on financial wealth, including capital gains. Given that the estimation of $\bar{\tau}_i^{WH}$ is sensitive to the level of r_i (see Equation 5), I conduct a simple robustness exercise by scaling r_i by a factor of two and three, as shown by the two dashed lines in Panel (d) of Figure C12. In my baseline specification, I use r_i scaled up by a factor of two.



Figure C12: Inputs for Estimating Equation 5

Finally, Figure C13 presents the main result, displaying the evasion-preventing withholding tax rate $\bar{\tau}_i^{WH}$ across the wealth distribution for three different levels of financial wealth returns, as shown in Panel (d) of Figure C12.

The key insight from this exercise is as follows: the statutory withholding tax rate of 35% (blue line with diamonds) is only sufficient to prevent tax evasion for taxpayers who are not liable for the wealth tax. Indeed, $\bar{\tau}_i^{WH}$ intersects the statutory withholding tax rate at the P70-P80 wealth threshold, which corresponds to the point in the wealth distribution where marginal wealth tax rates become positive (see Panel (b) of Figure C12). That is, once a taxpayer becomes subject to the wealth tax—which applies to approximately one-third of all taxpayers in the canton of Bern—the financial incentives to evade taxes outweigh the deterrence provided by the withholding tax at all reasonable levels of asset return r_i .⁴⁷

In summary, this analysis suggests that the current Swiss withholding tax rate is

Note: This figure shows the inputs used to estimate the size of $\bar{\tau}_i^{WH}$ using Equation 5. The single components are described in detail in the main text.

⁴⁷Note that higher returns reduce the incentives to evade, as indicated by the downward shift of the dashed lines.

insufficient to prevent (wealth) tax evasion, particularly in high-tax cantons like Bern and especially among top wealth holders, who control the vast majority of wealth in the economy.⁴⁸



Figure C13: Evasion-Preventing Withholding Tax Rate, $\bar{\tau}_i^{WH}$

Note: This figure shows the results of estimating Equation 5 with the inputs shown in Figure C12. See the main text for details.

 $^{^{48}}$ Recall that the top 10% of the wealth distribution controls approximately three-quarters of all taxable wealth (see Online Appendix Figure C3).