

Going Legal? Risks of Detection and Self-Reported International Tax Fraud

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San Francisco - January 2016

Introduction

- ▶ International tax evasion has become a major source of discontent for tax authorities:
 - ▶ About 8% of the global Financial wealth of households is held in tax havens, of which three-quarters goes unrecorded (ZUCMAN, 2013).
 - ▶ Of these assets (recorded and unrecorded), a large fraction is held or managed in SWITZERLAND, a major offshore financial center and tax haven famous for its strict bank secrecy and data privacy laws.
- ▶ Most important obstacle for tax authorities in their fight against international tax evasion is **lack of information on assets or income located abroad**:
 - ▶ Wealth that is unrecorded cannot be taxed.

Introduction

- ▶ Bilateral tax agreements - Main policy instrument today to fight international tax evasion. However, ...
 - ▶ No automatic exchange of information (require cooperation of tax havens)
 - ▶ No allowance of "fishing expeditions"⇒ Limited effectiveness!
- ▶ Alternative policy instrument:
 - ▶ Discretionary and unilateral acquisition of confidential bank data from tax havens offered for sale by whistle-blowers
 - ▶ This instrument does **not (!)** suffering from the shortcomings of bilateral tax agreements⇒ Effective means to obtain information on assets or income located abroad

Introduction

- ▶ Tax authorities have made repeated use of this tool in recent years, above all in North-Rhine Westphalia (NRW), Germany's most populous federal state.
- ▶ Since 2010, NRW has bought data on ten occasions containing names of suspected tax evaders with accounts in Switzerland.
- ▶ However, little is known yet on the efficacy of such data purchases in enforcing tax compliance.

Introduction

- ▶ This paper:
 - ▶ Using self-compiled data for NRW on the timing and content of data acquisitions and on monthly voluntary disclosures* of international tax evasion involving Swiss banks, we study the effects that such acquisitions had on the evolution of voluntary disclosures over time.
- ▶ Findings:
 - ▶ Purchases of data on potential tax evaders had a positive and sizeable effect on voluntary disclosures.
 - ▶ Various robustness checks and additional explorations corroborate this conclusion.

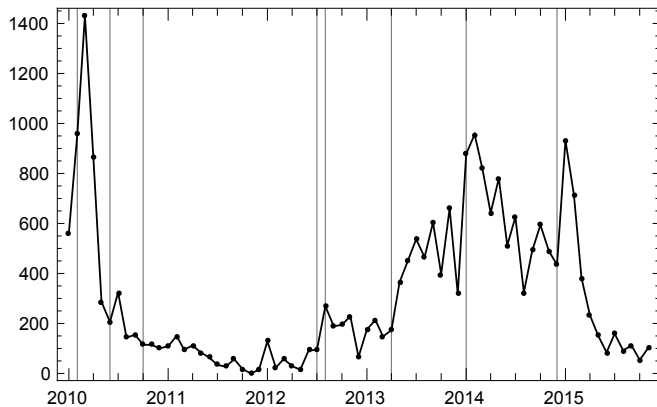
* **Voluntary Disclosure ("Selbstanzeige")**: Voluntary disclosure is an act by which a delinquent taxpayer discloses voluntarily information not previously reported to tax authorities in return for immunity from prosecution for tax fraud. A voluntary disclosure (essentially an amended tax return) is only possible if tax authorities have not started investigations into fraud. If effective, a tax evader has to pay the tax liability plus interest and some penalty surcharges, but no longer faces the risk of being prosecuted for tax fraud.

Data

- ▶ Baseline Specification - main variables of interest:
 - ▶ Dependent variable:
official data on the monthly absolute number of voluntary disclosures involving Swiss banks made by NRW residents to tax authorities in NRW
 - ▶ (Set of) Explanatory variables (leads/lags):
self-compiled data on the respective calendar months in which purchases of data on potential tax evaders from NRW by tax authorities in NRW have been made public in the press.
- ▶ Robustness checks/additional explorations:
 - ▶ Dependent variable:
keyword searches from google trends ("voluntary disclosure", i.e. "*Selbstanzeige*")
 - ▶ Additional explanatory variable:
monthly exchange rates between the Euro and the Swiss Franc

Data

Monthly voluntary disclosures involving Swiss banks and the 8 calendar months of (the 10) purchases of Swiss bank data between February 2010 to November 2015:



Empirical Strategy

- ▶ To identify the effect of purchases by NRW tax authorities of Swiss bank data on the number of voluntary disclosures by NRW residents, we estimate variants of the following model:

$$y_t = \alpha + year_t + \sum_{i=1}^z \gamma_i \times month_t^i + \sum_{j=-1}^{n=5} \beta_j \times data_{t+j} + \varepsilon_t \quad (1)$$

where:

- α is a constant.
- $year_t$ is a full set of year dummies.
- $\sum_{i=1}^z \gamma_i \times month_t^i$ is a polynomial of degree z in calendar time.
- $\sum_{j=-1}^{n=5} \beta_j \times data_{t+j}$ is a set of indicator variables capturing whether the current month t is leading a data purchase by 1 month, coinciding with the month of data purchase, or lagging the time of data purchase by 1 to n months.
- ε_t is an error term with the usual properties.

Results - Main Results

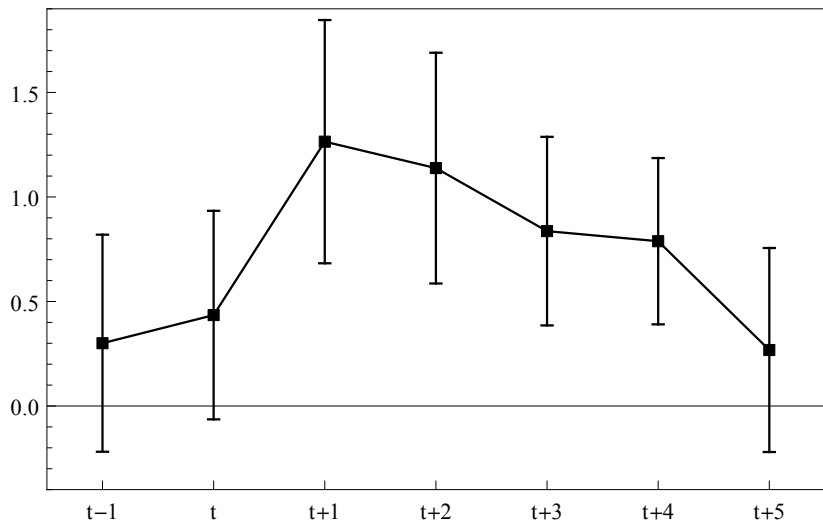
Table: MAIN REGRESSION RESULTS

	(I)	(II)	(III)	(IV)
$data_{t-1}$	0.249 (0.300)	0.305 (0.310)	0.300 (0.259)	0.248 (0.259)
$data_t$	0.361 (0.318)	0.334 (0.298)	0.435* (0.249)	
$data_t \times (\leq 2 \text{ weeks})$				-0.061 (0.236)
$data_t \times (> 2 \text{ weeks})$				0.735*** (0.272)
$data_{t+1}$	1.035*** (0.333)	0.974*** (0.298)	1.265*** (0.290)	1.229*** (0.287)
$data_{t+2}$	0.720** (0.316)	0.781*** (0.267)	1.138*** (0.276)	1.133*** (0.276)
$data_{t+3}$	0.701*** (0.205)	0.667*** (0.208)	0.837*** (0.225)	0.846*** (0.221)
$data_{t+4}$	0.506* (0.267)	0.604** (0.236)	0.788*** (0.199)	0.804*** (0.207)
$data_{t+5}$	0.053 (0.295)	0.103 (0.287)	0.268 (0.244)	0.257 (0.241)
year indicators (2011-2015)	yes	yes	yes	yes
monthly trend (linear)	no	yes	no	no
monthly trend (linear-quadratic)	no	no	yes	yes
R^2	0.63	0.69	0.75	0.76

- ⇒ $\hat{\beta}_{-1}$ of the lead variable $data_{t-1}$:
Insignificant (no evidence for anticipatory effects, systematic wrong post-dating of news of a new purchase)
- ⇒ $\hat{\beta}_0$ of the contemporaneous variable $data_t$:
Positive and of much larger magnitude, but also imprecisely estimated.
- ⇒ $\hat{\beta}_1 \dots \hat{\beta}_5$ on the lag variables $data_{t+1} \dots data_{t+5}$:
Show a strong positive and hump-shaped response of monthly voluntary disclosures in the first four months after a new data purchase by tax authorities in NRW has been made public in the press.

Results - Main Results

Graphical representation of treatment leads and lags



Results - Robustness Checks

- ▶ Robustness Checks:
 - I. Use trimmed samples.
 - II.a Add the log (mean) monthly CHF/EUR exchange rate.
 - II.b Add a dummy variable, which takes value zero (one) before (from) November 2012 to capture any level effect on voluntary disclosures of the failure on November 23rd of a long-awaited tax treaty between Germany and Switzerland.

- ▶ Additional Explorations:
 - I. Use the log of Google trends measure of the relative search frequency of "*Selbstanzeige*" ("voluntary disclosure") as dependent variable to see whether data purchases spurred public interest in voluntary disclosures.
 - II. Differentiate between purchases of data from Switzerland which have been linked in the press to specific banks in Switzerland and purchases which have not.

Results - Robustness Checks I

Table: TRIMMED SAMPLES

	Trimmed sample, excluding:			
	$t \leq 3$ (1)	$t \leq 6$ (2)	$t \geq T - 3$ (3)	$t \geq T - 6$ (4)
$data_{t-1}$	0.372 (0.267)	0.403 (0.283)	0.233 (0.248)	0.136 (0.244)
$data_t$	0.378 (0.234)	0.422 * (0.245)	0.431 (0.260)	0.394 (0.282)
$data_{t+1}$	1.185 *** (0.298)	1.200 *** (0.286)	1.282 *** (0.280)	1.222 *** (0.256)
$data_{t+2}$	1.202 *** (0.277)	1.080 *** (0.272)	1.134 *** (0.265)	1.040 *** (0.243)
$data_{t+3}$	0.872 *** (0.195)	0.913 *** (0.190)	0.824 *** (0.220)	0.753 *** (0.218)
$data_{t+4}$	0.840 *** (0.176)	0.866 *** (0.184)	0.745 *** (0.198)	0.641 *** (0.220)
$data_{t+5}$	0.334 (0.238)	0.350 (0.234)	0.234 (0.230)	0.143 (0.239)
year indicators (2011-2015)	yes	yes	yes	yes
monthly trend (linear-quadratic)	yes	yes	yes	yes
R^2	0.75	0.75	0.77	0.79
N	68	65	68	65

NOTES: Specification (1) omits the first three months from our observation period, specification (2) the first six months, specification (3) the last three months, and specification (4) the last six months. Otherwise, estimations samples, specifications and covariates considered in these regressions are identical to those of our baseline specification (III) of Table 1 (see notes to Table 1). ***, **, * denote statistical significance at the 1%, 5%, and 10% level. Robust standard errors are used.

Results - Robustness Checks II & Additional Explorations I

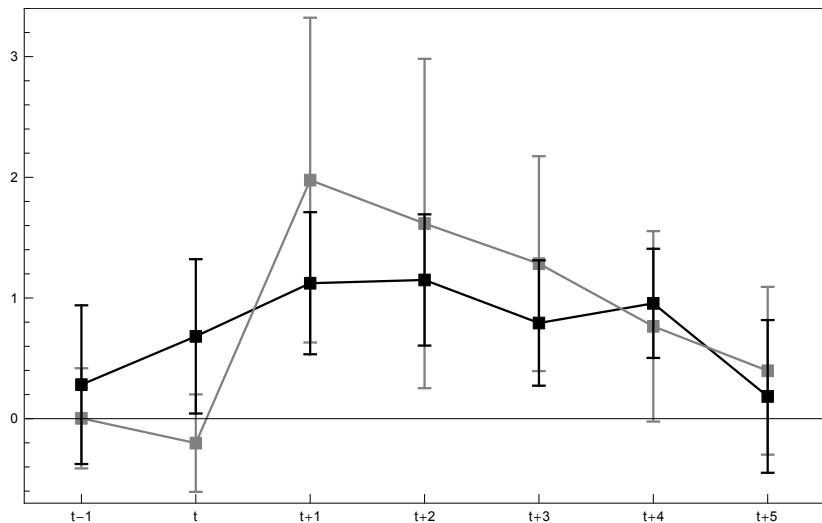
Table: ROBUSTNESS CHECKS II (EXCHANGE RATE, TAX AGREEMENT FAILURE), ADDITIONAL EXPLORATIONS I (GOOGLE TRENDS)

	(1)	(2)	(3)	(4)
$data_{t-1}$	0.300 (0.259)	0.293 (0.257)	0.317 (0.270)	-0.112 (0.135)
$data_t$	0.435 * (0.249)	0.418 * (0.246)	0.475 * (0.256)	0.568 ** (0.225)
$data_{t+1}$	1.265 *** (0.290)	1.199 *** (0.314)	1.269 *** (0.285)	0.370 *** (0.127)
$data_{t+2}$	1.138 *** (0.276)	1.100 *** (0.304)	1.142 *** (0.269)	0.218 (0.210)
$data_{t+3}$	0.837 *** (0.225)	0.803 *** (0.246)	0.742 *** (0.218)	0.176 * (0.103)
$data_{t+4}$	0.788 *** (0.199)	0.743 *** (0.244)	0.590 *** (0.193)	0.026 (0.113)
$data_{t+5}$	0.268 (0.244)	0.252 (0.251)	0.165 (0.269)	-0.117 (0.109)
CHF/EUR exchange rate (in logs)		3.417 (5.993)		
tax agreement failure			0.858 * (0.441)	
R^2	0.75	0.75	0.76	0.67

NOTES: Column (1) re-produces the results from our baseline specification (III) in Table 1. Column (2) reports results when we add the log of the EUR/CHF exchange rate to the set of regressors in our baseline specification, and column (3) results when we add a dummy variable that takes value one from November 2012 (and zero otherwise). Finally, column (4) reports results from our baseline specification when we use as dependent variable the log of the monthly relative search frequency in Google for the German keyword 'Selbstanzeige' (voluntary disclosure) in Germany in our observation period (February 2010 to November 2015). Estimations samples, specifications and covariates considered in these regressions are otherwise identical to those of our baseline specification (III) of Table 1 (see notes to Table 1). In particular, all regressions include year dummies (base year is 2010) and a second-order polynomial in time (calendar months). Sample size in all regressions is 71. ***, **, * denote statistical significance at the 1%, 5%, and 10% level. Robust standard errors are used.

Results - Additional Explorations II

Treatment leads and lags when differentiating between data purchases which have been linked to specific banks (black) and purchases which have not (gray).



Conclusion

- ▶ International tax evasion is a major concern to policy makers and tax authorities.
- ▶ Lack of information on domestically owned assets held abroad is at the heart of states' inability to enforce tax compliance of its citizens.
- ▶ We investigated the discretionary and unilateral use of data purchases to identify untaxed wealth held abroad.
- ▶ Our results suggest that such data purchases are effective in promoting tax compliance by inducing tax evaders to identify themselves and declare untaxed assets by way of voluntary disclosure.
- ▶ As such, state purchases of confidential bank data from tax havens are a viable and also valuable tool of government policy.