

The Value of Offshore Secrets: Evidence from the Panama Papers

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Motivation

“The archetypal tax haven may be a palm-fringed island, but [...] **there is nothing small about offshore finance.**

[Tax havens] serve as domiciles for more than 2m companies and thousands of banks, funds and insurers. **Nobody really knows** how much money is stashed away.”

The Economist Feb 13, 2013



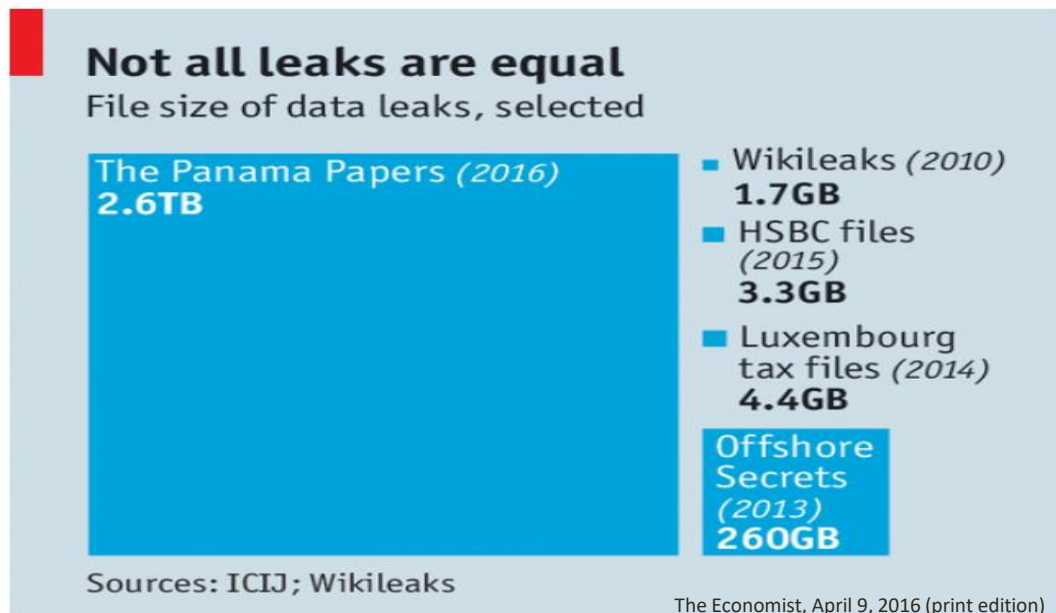
Motivation

- There is nothing small about offshore shelters
 - » \$7-9 trillion parked offshore (Zucman 2014, BCG 2014)
 - » \$21-32 trillion parked offshore (Tax Justice Network 2012)
- Many public firms use offshore subsidiaries
 - » Three in four of the 1,000 largest global firms (Orbis)
 - » One in four of all ~24,000 public firms (Orbis)
- Anecdotaly, firms use secret offshore shelters to...
 - » save taxes and steal from shareholders (Enron; CFO stole \$42mn)
 - » save taxes and steal from shareholders (Parmalat; founder stole \$620mn)
 - » bribe foreign government officials (Siemens)
- This paper
 - » Does the corporate use of secret tax shelters create firm value?
 - » How so? – Evidence of the benefits and costs

Motivation

- Research on offshore activity has by-and-large focused on **observable** offshore vehicles & their use to avoid taxes
 - » Hanlon & Heitzman (2010; literature review)
- We focus on (previously) **unobservable** offshore activities
 - » Anecdotally, secret offshore structures have been used to finance corruption, evade taxes, and expropriate minority shareholders
 - » Such activities are largely illegal but some of them may create firm value
- **Unobservable** offshore activities are... hard to observe
 - » Exploit *Panama Papers Leak*
 - » Link public firms to data leak using subsidiary and officer data
 - » Use these links to explain stock returns around relevant event dates

The Panama Papers Leak



- 2.6TB of data, 11.5mn documents, 214,000 offshore vehicles
 - » British Virgin Islands: 114,000 vehicles (population 28,000, area 153km²)

The Panama Papers Leak

Siemens (in person of Hans-Joachim Kohlsdorf, an executive)

- » Ran slush accounts used to bribe government officials in South and Latin America to generate business.
- » After bribery proceedings against Siemens were over, some undocumented money remained in slush account and later disappeared into Kohlsdorf's UBS account.



Saipem (Italian oil & gas contractor)

- » Used vehicles incorporated by Mossack Fonseca to tunnel US\$ 275 million in bribes to win more than US\$ 10 billion in contracts to build oil and gas pipelines in North Africa



Sun Hung Kai Properties (Asian Property Developer)

- » Thomas Chan Kui-Yen (officer of an MF entity) arrested for bribery -- sparked internal debate within MF



Summary of the paper

- Use Panama Papers leak to study corporate use of secret offshore vehicles
 - » Link 338 out of 23,540 publicly listed firms to the leak through their officers, subsidiaries, and officers of subsidiaries
 - » Run an event study around dates relevant to the leak
- Does data leak destroy firm value?
 - » 338 firms linked to leak lose \$174bn in value—0.9% of their market cap
- Is there evidence of **benefits** of using secret offshore shelters?
 - » Firms engaged in perceptively corrupt regions hurt more by the leak
 - » Tax aggressive firms hurt more by the leak
- Is there evidence of **costs** of using secret offshore shelters?
 - » Firms with high expropriation risk hurt less by the leak

=> Overall, benefits of secret offshore vehicles exceed costs.

Agenda

- **Event**
- Methodology
- Data
- Main Result
- Channels
- Discussion

Event

- Early 2015
 - » Anonymous source offers data to German newspaper *Süddeutsche Zeitung*
- April 3, 2016
 - » News sources around the world report about a data leak of confidential documents concerning activities of Mossack Fonseca, a Panama-based provider of corporate services
 - » Dozens of news stories concerning firms and politicians
- April 26, 2016
 - » ICIJ announces that database of offshore entities run by Mossack Fonseca will be made public on 9 May
- May 9, 2016
 - » Database of offshore entities is made public

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Methodology

- Use event study methodology to study the market response of firms linked to the Panama Paper data leak around announcement of the leak

» Compare returns of linked firms to non-linked firms:

$$CAR_i = \alpha + \beta_1 Panama_Paper_Link_i + \gamma' \mathbf{X}_i + \varepsilon_i, \quad (1)$$

» Study cross-sectional **Firm Characteristics (FC)** of linked firms:

$$CAR_i = \alpha + \beta_1 Panama_Paper_Link_i + \beta_2 FC_i + \beta_3 Panama_Paper_Link_i \times FC_i + \gamma' \mathbf{X}_i + \varepsilon_i, \quad (2)$$

» Robustness: match firms with link to firms without link

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Data

- Key LHS: Firm value from Datastream
 - » Raw returns around 3 event dates (April 3 & 26, May 9)
 - » Alpha around 3 event dates using 1-factor model
- Key control: Link to leaked data (1/0)
 - » Combine two datasets:
 - Subsidiaries of public firms, officers, and officers of subsidiaries from Orbis (2015)
 - Entity, Officer, and Intermediary File from the leaked data (made available by the ICIJ)
 - » Merge by headquarter/home country and fuzzy name
 - » Dummy *Has Link* = 1 if subsidiary or director shows up in Panama Papers

Data

- Fraction of firms linked to the Panama Papers

Firm is connected to offshore vehicle via	<i>N</i> Firms	<i>N</i> Firms w/exposure	% w/exposure
A legal entity (shell)	23,540	89	0.38%
A person	23,540	296	1.26%
An intermediary	23,540	86	0.37%
Any of the three	23,540	397	1.69%
Person or intermediary	23,540	338	1.44%

- 1.7% of sample firms are linked to the Panama Papers data leak, some through various link types
- We focus on plausibly secret links through person & intermediaries
- Note we are likely to understate the true fraction of linked firms

Data

- Fraction of firms linked to the Panama Papers by country

Country	N Firms	N Panama Papers Exposure	Percent Panama Papers Exposure	Avg. N Subs.	Country	N Firms	N Panama Papers Exposure	Percent Panama Papers Exposure	Avg. N Subs.
Hong Kong	161	37	23.0	46	Turkey	279	1	0.4	8
U.K.	1,080	124	11.5	40	Poland	352	1	0.3	9
Russia	100	5	5.0	33	Japan	3,442	1	0.0	16
Belgium	108	5	4.6	36	Argentina	63	0	0.0	7
Austria	66	3	4.6	77	Brazil	251	0	0.0	11
Italy	216	7	3.2	37	Bulgaria	83	0	0.0	9
France	551	17	3.1	49	Chile	111	0	0.0	14
Australia	587	15	2.6	28	Croatia	71	0	0.0	10
Greece	81	2	2.5	18	Egypt	89	0	0.0	11
Germany	493	12	2.4	61	Finland	115	0	0.0	35
Spain	124	3	2.4	86	Indonesia	56	0	0.0	11
Singapore	305	7	2.3	18	Korea	1,681	0	0.0	4
Philippines	90	2	2.2	7	Kuwait	73	0	0.0	13
U.S.	3,506	75	2.1	50	New Zealand	90	0	0.0	15
Netherlands	107	2	1.9	62	Pakistan	129	0	0.0	2
Israel	326	6	1.8	13	Peru	91	0	0.0	3
Norway	127	2	1.6	23	Romania	55	0	0.0	9
Sweden	257	4	1.6	22	South Africa	179	0	0.0	25
Canada	696	9	1.3	12	Sri Lanka	117	0	0.0	8
China	2,269	28	1.2	11	Switzerland	210	0	0.0	39
Mexico	109	1	0.9	20	Thailand	206	0	0.0	9
Denmark	111	1	0.9	27	Vietnam	385	0	0.0	1
Malaysia	602	4	0.7	14	Rest of world	637	10	1.6	18
Taiwan	1,120	7	0.6	7					
India	1,583	6	0.4	7	Total	23,540	397	1.7	23

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Main Result

- Does exposure to the Panama Papers leak explain returns around relevant event dates?

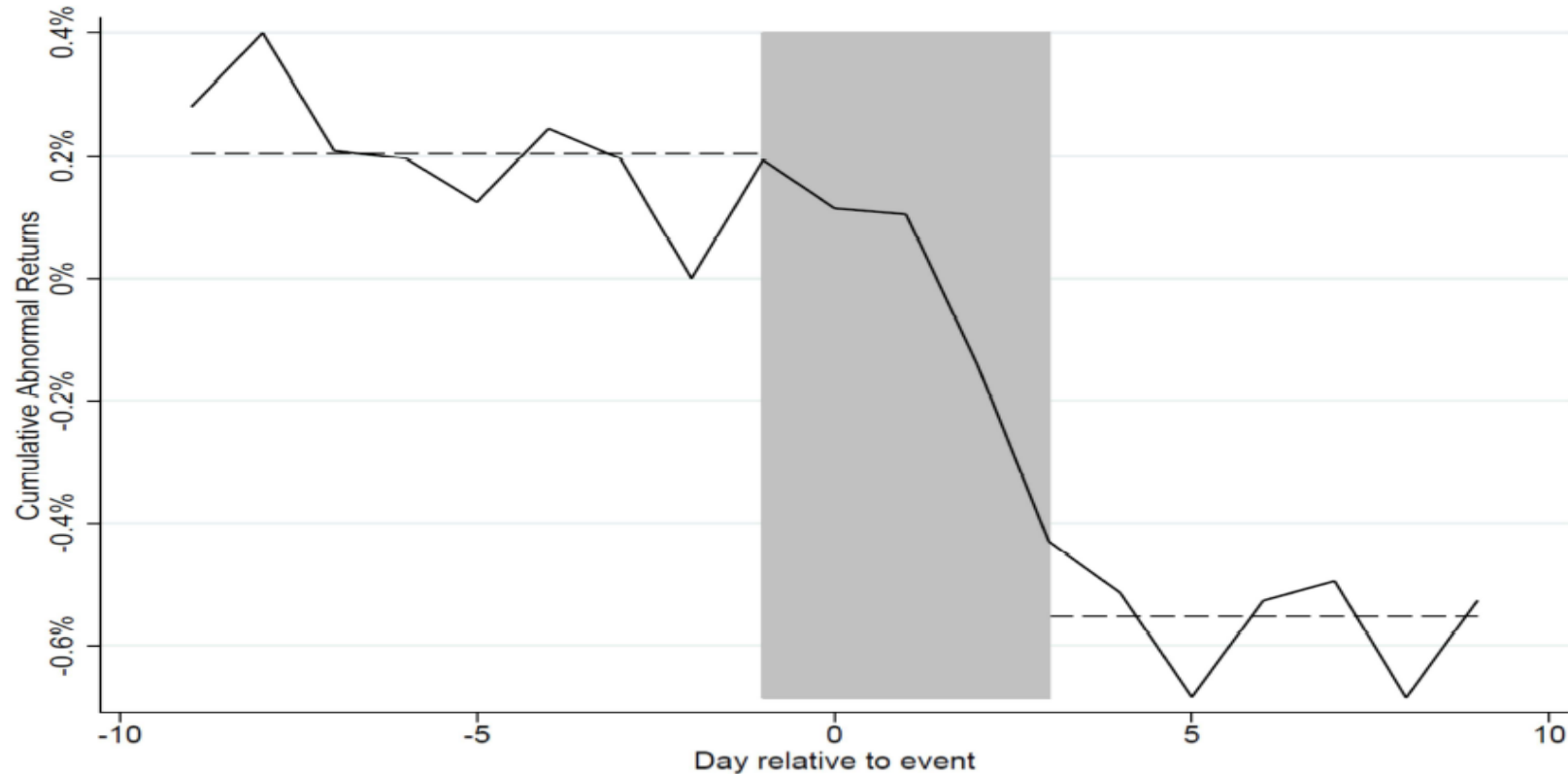
Dependent variable	(1) Raw Return	(2) Raw Return	(3) Abnormal Return	(4) Abnormal Return
<i>Has Panama Papers Exposure</i>	-1.878*** (-3.39)	-1.260*** (-3.48)	-1.036** (-2.36)	-0.909*** (-3.62)
Size		-0.261*** (-3.22)		-0.054 (-0.55)
Country FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
<i>N</i>	23540	23540	23540	23540
Adj. R ²	0.167	0.170	0.094	0.094

- Firms with link to leaked data lose 0.9% in firm value ~ US\$174bn

Main Result—Additional Evidence/Robustness

- Secret vs. observable offshore activities
 - » Some activities revealed by the leak were potentially observable prior to the leak, while other activities were likely secret
 - » Find: All results are driven by firms with previously secret offshore exposure
- Panama Papers exposure vs. Tax Haven exposure
 - » Negative effect on exposed firms may merely reflect shock to tax haven firms in general
 - » Find: negative effect of the leak on exposed firms goes beyond tax haven effect
- Standard event study robustness tests
 - » 3- and 5-factor models (local, global)
 - » Matching by industry, country and size
 - » Portfolio approach
 - » Fama-McBeth approach

Main Result—Additional Evidence/Robustness



Main Result—Information Flows

- **Full Sample:** Firms exposed to the leak have most negative share price response on second event date rather than third event date—why is that?
 - » April 3, 2016: First reports about the Panama Papers leak
 - » April 26, 2016: Announcement that database will be made public on May 9
 - » May 9, 2016: Database is made public—**exposed firms can be identified**
- **Compared to plausibly linked ('shady') firms:** Firms exposed to the leak have most reliably negative share price response on third event date

	(3)	(4)	(5)
Dependent var.	1-Factor AR	1-Factor AR	1-Factor AR
Period	Event	Event	Event
	Day 1	Day 2	Day 3
<i>Has PPE</i>	0.141 (0.61)	-0.316 (-1.35)	-0.389** (-2.48)
Controls	Yes	Yes	Yes
Country FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
<i>N</i>	2582	2560	2558
Adj. R^2	0.140	0.093	0.042

- Suggestive of sophisticated traders identifying & trading firms that 'look like they might be exposed to the leak' around event date 2

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 - » Benefits(*) of using offshore shelters
 - » Costs(*) of using offshore shelters
- Discussion

(*)for firm value

Model

- Desai, Dyck, and Zingales (2007):
 - » Firms can set up a tax avoidance *vehicle* (good for shareholders)
 - » But opaque nature of such *vehicle* allows for stealing from minority shareholders by managers/majority shareholders [at some detection cost] (bad for shareholders)
 - » => We will look at the tax channel and expropriation (governance).
- Opaque nature of *vehicle* also allows for violation of sanctions, such as anti-bribery sanctions, anti-trade sanctions (e.g., Siemens) (good for shareholders)
 - » => We will look at the bribery channel.

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Benefits of using offshore shelters

- **Financing corruption**

- » **Measure** likelihood of meeting corrupt government official by *firms' exposure to perceptively corrupt countries* (Transparency International's CPI) and *exposure to countries with exposed government officials*

- » **Find:**

- Firms exposed to the Panama Papers & perceptively corrupt countries have more negative share price response
- These firms lose sales from perceptively corrupt countries

- **Aggressively avoiding taxes**

- » **Measure** tax aggressiveness by the *statutory tax rate less the effective tax rate after controlling* for ROA, industry, and country fixed effects

- » **Find:**

- Tax aggressive firms exposed to the Panama Papers have more negative share price response
- These firms become less tax aggressive

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Costs of using offshore shelters

- **Expropriation / lack of transparency**

- » **Measure** likelihood of expropriation using firm-level governance and country-level expropriation measures

- High expropriation risk is proxied by weak governance
 - Firm-level: foreign inst. ownership, spons. ADR, US subsidiary
 - Country-level: property rights, ICRG, minority SH protection

- » **Find:**

- low-governance firms and firms in high-expropriation countries have more negative share price response
 - Too early to provide evidence on changes in firm-level governance in response to Panama Papers leak

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Discussion

- Corporations use offshore vehicles
 - » Out of 23,540 public global firms, 397 are users of offshore vehicles
 - » 338 of the 397 users conduct secret (previously unknown) offshore activities
 - » This is likely the **tip of the ice berg**
 - E.g. Mossack Fonseca's market share is 5-10%, suggesting **14-29% of public firms use secret offshore vehicles**
- In this setting, use of offshore vehicles creates firm value overall
 - » Panama Papers leak destroys some of that value
 - » Channels:
 - **Reduced future cash flows:** Implicated firms lose sales in perceptively corrupt regions and become less tax aggressive
 - **Fines** for past (illegal) actions: Even implicated firms whose offshore vehicles are no longer active experience negative share price response

Discussion

- Real implications of the Panama Papers leak
 - » Tax aggressive firms exposed in the leak become less tax aggressive
 - Tax evasion investigations against firms and individuals across the globe
 - » Firms exposed to the leak and corrupt regions lose sales in these regions
 - Anti-bribery investigations against firms across the globe
 - » Some firings of company officers implicated by the leak
 - » [March 2018: Mossack Fonseca shuts down]
- Panama Papers leak vs. other leaks
 - » Detection of tax shelters by the press: tax avoidance (Graham and Tucker 2006)
 - » LuxLeaks: (legal) tax avoidance (e.g., Nesbitt, Outslay & Persson 2016)
 - » Panama Papers: illegal offshore activities
 - » Paradise Papers

Summary

- Exploit Panama Papers leak on April 3, 2016 to identify 338 public firms that use secret offshore vehicles
- Firms linked to leaked data lose US\$174bn in value around event dates (0.9% of their market cap)
- Secret offshore shelters **help finance corruption and be tax aggressive**—this creates firm value
- Secret offshore shelters **help expropriate shareholders**—this destroys firm value