The 7th AIEE Energy Symposium

Current and Future Challanges to Energy Security

- The energy crisis, the impact on the transition roadmap -

Session 15: Economic and financial aspects of the energy market

"Financial Transparency and Cross-Border Mergers and Acquisitions in the Extractive Industries"

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Financial Transparency and Cross-Border M&A

- Exogenous, regulatory changes and cross-border M&A: public Country-by-Country Reporting and its impact on cross-border transactions in the extractive industries.

- **What?**
  - We examine the effects of public Country-by-Country Reporting on M&A activity of European and Canadian extractive industry firms. (sector-specific, firm and country-level set up).
- **Why?**
  - Extractive industry is subject to corruption, misuse of funds, illicit financial flows.
  - Financial transparency has become a global phenomenon, for instance in the extractive sectors such as O&G and mining.
  - Little research on the impact of financial disclosure regulations on M&A.
  - Policy relevant: By mid-2024, similar financial transparency rules will be introduced in the EU.
- **How?**
  - Difference-in-difference analysis with non-affected global extracting firms as a control group.

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Prior Transparency Initiatives and CbCR

- The Extractive Industries Transparency Initiative (EITI), founded in 2011.
- To complement the EITI and increase transparency and accountability of the host governments and extractive firms; CbCR is adopted in the European Economic Area and Canada.
- Mandatory disclosure of public CbCR for European and Canadian extracting industry firms.
- Country-by-country reporting (CbCR) requirements for companies from logging and extractive industries stemming from Directive 2013/34/EU and Directive 2013/50/EU.
- Staggered international implementation (2015-2017) of the regulation.
- Quasi-natural experiment to identify causal effects.
- Public CbCR contains disaggregated financial information about MNEs global economic activities and is reported on an annual basis.
- Accessible information for the civil society, non-governmental organizations, and others. agencies.

Prior Literature

- Johannesen & Larsen (2016) show negative share price reactions for the EU extractive industry around the announcement date of public CbCR
- Public CbCR in the extractive industries leads to reduced capital expenditures of regulated firms and decreased investments (Rauter, 2020)
- Rossi and Volpin (2004) show that higher investor protections, better accounting standards and law increases the number of M&A deals. However, high standards in institutions, financial transparency, strict legislations can create additional costs to counterparts, especially to the acquirers for cross-border M&A.
- For instance, O&G and extractive industry is highly impacted by politics, policy changes and regulations (Özgür and Wirl, 2020).

• **Theoretical channels of public CbCR** that may negatively impact M&A activity: Increased scutiny from tax authorities, reputational pressure from activists, i.e., NGOs, Proprietary costs.

Country-by-Country Reporting – Country-Level

9.3.1 Reporting by country and type of Payment

(in k$)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
EUROPE AND CENTRAL ASIA	**1,063,539**	**-**	**25,154**	**799**	**-**	**10,442**	**100,560**	**1,200,494**
Bulgaria	-	-	169	-	-	-	-	169
Denmark	265,034	-	5,098	-	-	-	-	270,132
Greece	-	-	258	295	-	-	-	553
Italy	59	-	336	-	-	36	-	431
Kazakhstan	41,081	-	-	504	-	10,406	52,838	104,829
Netherlands	(37,600) [a]	-	1,271	-	-	-	-	(36,329)
Norway	567,885	-	7,567	-	-	-	-	575,452
Russia	20,382	-	74	-	-	-	47,722	68,178
United Kingdom	206,698	-	10,381	-	-	-	-	217,079
AFRICA	**3,139,947**	**-**	**56,002**	**152,318**	**6,188**	**66,343**	**2,274,817**	**5,695,615**
Angola	840,918	-	12,521	151,794	-	-	2,159,257	3,164,490
Côte d'Ivoire	-	-	1,590	-	-	-	-	1,590
Democratic Republic of the Congo	-	-	900	-	-	340	-	1,240
Gabon	224,365	-	6,008	425	6,188	21,749	-	258,735
Kenya	-	-	403	-	-	108	-	511
Mauritania	-	-	2,987	-	-	-	-	2,987
Mozambique	-	-	2,184	-	-	-	-	2,184
Namibia	-	-	105	-	-	-	-	105
Nigeria	1,372,888	-	3,523	-	-	44,146	111,132	1,531,689
Republic of the Congo	701,776	-	26,400	99	-	-	4,428	732,703
Senegal	-	-	2,396	-	-	-	-	2,396
South Africa	-	-	274	-	-	-	-	274
Uganda	-	-	(3,289) [b]	-	-	-	-	(3,289)

Source: TotalEnergies, 2018.

Country-by-Country Reporting – Project-Level

9.3.2 Reporting of Payments by Project and by type of Payment, and by Government and by type of Payment

(in k$)	Taxes	Royalties	License fees	License bonus	Dividends	Infrastructure improvements	Production entitlements	Total of Payments
ALGERIA								
Payments per Project								
Tin Fouyé Tabankort	62,806 [a]	-	-	-	-	-	186,293 [b]	249,099
Timimoun	3,338	-	-	3,059	-	-	-	6,397
Groupement Berkine	331,342 [c]	-	-	-	-	-	-	331,342
Tin Fouyé Tabankort II	13,754	-	311	-	-	-	-	14,065
Organisation Orhoud	66,728 [d]	-	-	-	-	-	-	66,728
TOTAL	**477,968**	**-**	**311**	**3,059**	**-**	**-**	**186,293**	**667,631**
Payments per Government								
Direction Générale des Impôts, Direction des Grandes Entreprises c/o Sonatrach	460,876 [e]	-	-	-	-	-	-	460,876
Direction Générale des Impôts, Direction des Grandes Entreprises	7,552	-	311	-	-	-	-	7,863
Agence Nationale pour Valorisation des Ressources en Hydrocarbures (ALNAFT)	9,540	-	-	-	-	-	-	9,540
Sonatrach	-	-	-	3,059	-	-	186,293 [f]	189,352
TOTAL	**477,968**	**-**	**311**	**3,059**	**-**	**-**	**186,293**	**667,631**

Note: This table shows parts of an example public CbCR report from TotalEnergies SE 2018.

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Implementation of CbCR

TABLE 1

Implementation Details of Extraction Payment Disclosures

Country	EPD Entry-Into-Force Date	Applicable for Fiscal Years Starting on/after
Austria	Jul 20, 2015	Jan 01, 2016
Belgium	Jan 01, 2016	Jan 01, 2016
Bulgaria	Jan 01, 2016	Jan 01, 2016
Canada	Jun 01, 2015	Jun 01, 2015
Croatia	Jan 01, 2016	Jan 01, 2016
Cyprus**	Sep 23, 2016	Jan 01, 2016
Czech Republic	Jan 01, 2016	Jan 01, 2016
Denmark	Jul 01, 2015	Jan 01, 2016
Estonia	Jan 01, 2016	Jan 01, 2016
Finland	Jan 01, 2016	Jan 01, 2016
France	Dec 31, 2014	Jan 01, 2015
Germany	Jul 23, 2015	Jan 01, 2016
Greece*	Jul 07, 2016	Jul 07, 2016
Hungary	Jan 01, 2016	Jan 01, 2016
Iceland	Oct 30, 2015	Jan 01, 2016
Ireland**	Jun 09, 2017	Jan 01, 2017
Italy	Jan 01, 2016	Jan 01, 2016
Latvia	Jan 01, 2016	Jan 01, 2016
Liechtenstein	Oct 30, 2015	Jan 01, 2016
Lithuania	Jul 01, 2015	Jan 01, 2016
Luxembourg	Dec 28, 2015	Jan 01, 2016
Malta	Jan 01, 2016	Jan 01, 2016
Netherlands	Nov 10, 2015	Jan 01, 2016
Norway	Dec 05, 2013	Jan 01, 2014
Poland	Sep 23, 2015	Jan 01, 2016
Portugal	Jun 02, 2015	Jan 01, 2016
Romania	Jan 01, 2016	Jan 01, 2016
Slovakia	Jan 01, 2016	Jan 01, 2016
Slovenia	Aug 08, 2015	Jan 01, 2016
Spain	Jul 21, 2015	Jan 01, 2016
Sweden	Jan 01, 2016	Jan 01, 2016
United Kingdom	Dec 01, 2014	Jan 01, 2015

- Policy design offers an interesting research setting as the legal implementation dates of the transparency regulation vary across EEA member states and Canada. *Source: Rauter (2020).*

Data and Model: Staggered Diff-in Diff Design

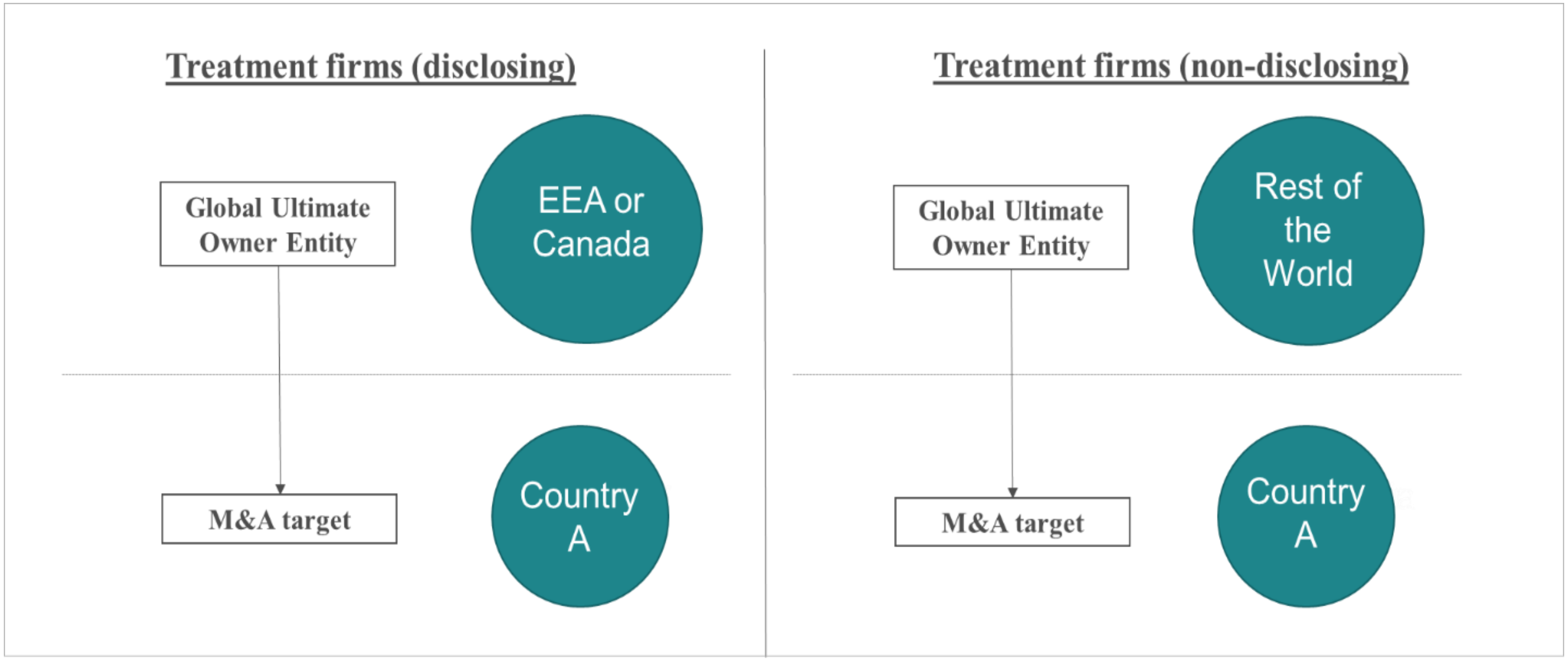
$$\underbrace{\boxed{y_{it}}}_{\text{e.g., the number of M\&A deals; deal count}} = \beta_0 + \underbrace{\boxed{\beta_1}}_{\text{Coefficient of interest}} \overbrace{EEA/CAN_i}^{\text{Firm dummy 0/1}} * \underbrace{PostCbCR_t}_{\text{Time dummy 0/1}} + \underbrace{\beta_j X_{it}}_{\text{Vector of control variables, i.e., firm size, profitability, etc…}} + \varepsilon_{it}$$

Data: (i) All completed cross-border M&A transactions between 01/01/2010 and 31/12/2019, where the acquirer parent firm is headquartered in the EEA or Canada.

(ii) Control group: all other cross-border M&A deals of non-disclosing firms, acquirer parent firms is headquartered in the rest of the world.

2010 2015 2017 2019

Data and Model: Identification Strategy



- This figure shows two examples of cross-border M&A activity of treatment and control firms.
- Our treatment group (left) consists of firms that are headquartered in countries with public CbCR legislation in place. Our control firms (right) are headquartered in countries without public CbCR legislation.

Regression Results – Main Test

The Effect of Public CbCR on Cross-Border M&A Activity

	(1)	(2)	(3)	(4)
VARIABLES	POISSON	POISSON	NEGATIVE-BINOMINAL	NEGATIVE-BINOMINAL
pCbCR*Post	**-0.251**	**-0.365***	**-0.244**	**-0.364***
	(0.189)	**(0.206)**	**(0.199)**	**(0.218)**
Total Assets		0.0115		-0.0298
		(0.121)		(0.102)
Profitability		0.0207		0.0498
		(0.171)		(0.168)
Leverage		-2.035***		-2.283***
		(0.714)		(0.758)
Intangibles		-0.630		-0.269
		(0.784)		(0.744)
ETR		-0.00763		0.148
		(0.302)		(0.313)
Loss		-0.430**		-0.372*
		(0.181)		(0.191)
Constant			0.0148	1.473
			(1.110)	(2.545)
Observations	1,313	1,104	1,313	1,104
Firm and Year FE	yes	yes	yes	yes

Suggests a relative reduction of M&A deals by -30.58%
[(e^-0.365 - 1) x 100]

- Negative and statistically significant DiD coefficient.

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Regression Results – Robustness Test

The Effect of Public CbCR on Cross-Border M&A Activity: Large vs. Small Firms

	(1)	(2)	(3)	(4)
VARIABLES	POISSON	POISSON	NEGATIVE-BINOMINAL	NEGATIVE-BINOMINAL
Large Firms*Post	**-0.549****	**-0.423**	**-0.640****	$\boxed{\textbf{-0.525*}}$
	(0.245)	**(0.275)**	**(0.269)**	**(0.298)**
Total Assets		0.220		0.0262
		(0.201)		(0.141)
Profitability		0.0575		0.206
		(0.294)		(0.288)
Leverage		-3.727***		-4.202***
		(1.180)		(1.229)
Intangibles		-0.802		-0.594
		(1.175)		(1.115)
ETR		-0.320		-0.0370
		(0.432)		(0.458)
Loss		-0.559**		-0.386
		(0.245)		(0.264)
Constant			-0.190	0.665
			(1.109)	(3.342)
Observations	717	566	717	566
Firm and Year FE	yes	yes	yes	yes

- Robustness test is based on sub-sample (only based on disclosing firms)
  - Negative and statistically significant DiD coefficient

*** Negative effect concentrated in large extracting firms

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Preliminary Conclusion and Next Steps

- We compare the average number of M&A deals for CbCR-disclosing vs. CbCR non-disclosing firms and find a negative impact of the transparency regulation on the M&A behavior of affected extractive firms.
- Negative and significant result in the difference-in-difference estimations and the effect seems concentrated in large firms.
- Results indicate that large and visible firms might carry the bulk of the disclosure costs and reduce their cross-border M&As more strongly.
- However, currently we do not control for firms' home/host country characteristics, e.g. GDP or the level of corruption.
- Results might change if various control variables are included.
- Results are relevant for policy makers as we highlight spill-over effects of mandatory transparency regulation on cross-border investments.

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Thank you for your attention!

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