

Transparency Rule and Stock Market Reactions: An Analysis of Country-by-Country Reporting in Developing Countries

Bathusi Gabanathlong

Charles University, Prague



CHARLES
UNIVERSITY

August 28, 2024

Motivation

- ▶ Higher amount of international corporate tax avoidance depleting countries' tax bases worldwide.
- ▶ The OECD introduced the BEPS action plans aimed at curbing tax avoidance by MNCs.
- ▶ Under BEPS Action 13, all large multinational corporations must submit Country by Country reports (CbCR) to the tax authorities covering their financial information.
- ▶ Despite this widespread adoption, there is no empirical evidence of the effect of CbCR news on the capital market in the global south context.

Research Questions

To explore the capital market reaction in developing countries, namely South Africa, Nigeria, Kenya, Mauritius, Tunisia, and Morocco, I ask the following questions;

- ▶ How do multinational firms respond to the implementation of CbCR?
- ▶ What are the differences in the response of local and foreign investors to CbCR announcements for stocks of the same firms listed in local and foreign markets?
- ▶ How do tax-aggressive firms respond to the CbCR news?

Main highlights

- ▶ I find a negative market response for the affected multinational corporations.
- ▶ A variation in the market response of investors in the emerging and developed markets in the presence of global and local information publicly available to both foreign and local investors.
- ▶ A pronounced negative market reaction for the tax-aggressive firms.

Contribution

- ▶ The extant literature investigating the reaction of investors to tax transparency rules in Australia (Chen, 2017; Hoopes, 2018), the CbCR news focusing on European countries (Johannsen et al., 2016; Dutt et al., 2018; Muller et al., 2021).
- ▶ To the best of my knowledge, no prior study has analysed the announcement effect of CbCR news on the capital market in the global south context.
- ▶ In contrast to these studies focusing on public CbCR, this paper examines the market response to private CbCR.
- ▶ Contributes to the literature on tax avoidance, tax transparency, and the global south.

Country by Country Reporting Requirement

- ▶ BEPS Action Plan 13 covers a transfer pricing three-level approach.
- ▶ This approach includes the transfer pricing documentation and CbCR, which requires large MNEs to provide tax authorities with comprehensive and relevant financial information covering the location of their subsidiaries, number of employees, revenue, profits and taxes paid as part of their annual reports.
- ▶ These reports contain confidential information for internal use by the local tax authority and are shared with foreign tax authorities in terms of the Multilateral Competent Authority Agreement (MCAA).
- ▶ Developing countries signed the MCAA on various dates.

Event dates

Country	TPCbCR Report (a)	Signatory (b)	Integration (c)
Nigeria	05/10/2015	27/01/2016	08/01/2018
South Africa	05/10/2015	27/01/2016	09/04/2016
Mauritius	05/10/2015	26/01/2017	19/02/2018
Morocco	05/10/2015	25/06/2019	
Tunisia	05/10/2015	26/11/2019	
Kenya	05/10/2015	9/09/2022	

Event dates

- ▶ Event date ranges from 2016 to 2022
- ▶ classify events into two categories: domestic and global news.
- ▶ The global news category includes releasing the transfer pricing and CbCR documentation by the OECD and signing the CbC MCAA by these African countries.
- ▶ The domestic news category encompasses the publication of national CbCR regulations.

Data

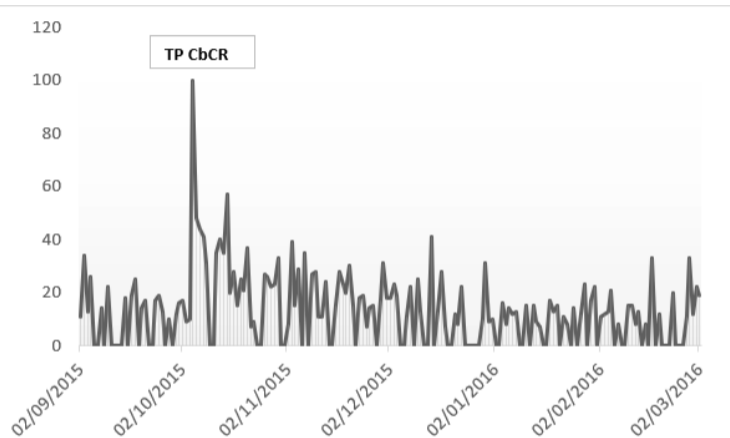


Figure: Google Trends Index

Data

- ▶ Obtain news from different sources such as the OECD website, each country's tax authority, and tax auditing company's websites such as KPMG and Deloitte.
- ▶ Morocco, South Africa, Nigeria, Mauritius, Tunisia, Kenya
- ▶ the daily stock price of each firm from REFINITIV
- ▶ financial data from the financial statements of each company

Methodology

$$R_{it} = \alpha_i + \beta_i \cdot R_{mt} + \epsilon_{it}$$

- ▶ R_{it} represents the return of the individual stock i
- ▶ R_{mt} denotes the market return

$$AR_{it} = R_{it} - (\hat{\alpha}_i + \hat{\beta}_i \cdot R_{mt})$$

- ▶ AR_{it} represents the abnormal returns of the individual stock i

$$CAAR = \frac{1}{n} \sum_{i=1}^n CAR$$

- ▶ $CAAR$ represents the average stock market responses

Methodology

- ▶ Identify heterogeneity of the effect and find out determinants of the heterogeneity using Generalised Random forest (GRF) pioneered by Susan Athey (2019).
- ▶ No need to pre-specify how the effect varies.
- ▶ The GRF partitions the sample adaptively according to variation in the treatment effect, which can effectively detect heterogeneity.

Results

Firms	TP and CbCR Report	Signatory	Integration
All MNCs	0.012 (0.555)		
Required to submit	0.007 (0.222)	-0.105*** (-3.091)	0.067** (2.505)

Table: CAAR following the market model. t-test statistics in parenthesis, with *, **, and ***, indicating statistical significance at 10%, 5% and 1% level, respectively. 294 MNCs and 76 affected MNCs.

Results for cross-listed firms

Firms	TP and CbCR Report	Signatory	Integration
all cross-listed firms	0.020*** (8.498)		
Required to submit	0.030*** (6.310)	-0.016*** (-7.584)	-0.012*** (-3.247)

Table: CAAR following the market model. t-test statistics in parenthesis, with *, **, and ***, indicating statistical significance at 10%, 5% and 1% level, respectively. 109 all cross-listed MNCs and 48 affected MNCs

Results - tax-aggressive firms

Firms	TP and CbCR Report	Signatory	Integration
tax aggressive firms	-0.121 (-1.123)	-0.253*** (-3.656)	-0.001*** (-2.645)
tax aggressive 3-year-average	-0.050 (-0.368)	-0.281*** (-3.072)	0.001* (1.699)

Table: CAAR following the market model. t-test statistics in parenthesis, with *, **, and ***, indicating statistical significance at 10%, 5% and 1% level, respectively. 36 tax aggressive MNCs and 28 tax aggressive 3-year-average

Robustness checks

Firms	TP and CbCR Report	Signatory	Integration
Required to submit	-0.082 (-1.283)	-0.187*** (-4.240)	0.002*** (8.160)
aggressive firms	-0.169 (-1.253)	-0.412*** (-4.791)	-0.001*** (-2.645)
not required to submit	0.003 (0.713)	0.0248 (1.173)	0.000 (1.599)

Table: CAAR following the market model. t-test statistics in parenthesis, with *, **, and ***, indicating statistical significance at 10%, 5% and 1% level, respectively. 187 MNCs not required to submit

Results - Heterogeneity of the CATE

	ATE	ATT	ATC
CAR	0.0015*** (0.00063)	0.0016*** (0.00059)	0.0016*** (0.00059)

Table: standard errors in parenthesis, with *, **, and ***, indicating statistical significance at 10%, 5% and 1% level, respectively.

Results - Heterogeneity of the CATE

Table 9: Regression Results

Dependent variable: CAR

leverage	-0.006 (0.006)
return_on_equity	0.00001 (0.00004)
average_etr	-0.007* (0.004)
tangible_assets	-0.0001 (0.0002)
firm_age	0.00001 (0.00002)
marketcap	0.0001 (0.0004)
Constant	0.003 (0.006)

Note: *p<0.1; **p<0.05; ***p<0.01

Figure: BLP regression results

Heterogeneity test

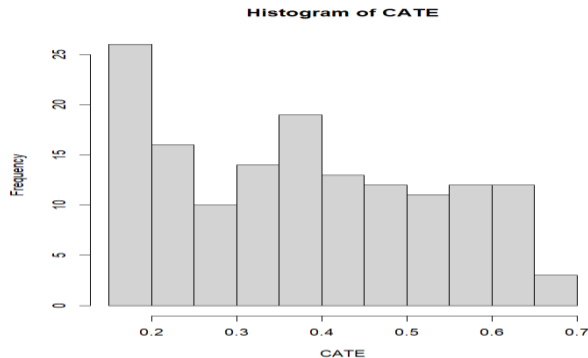


Figure: Distribution of the CATE

Figure: This shows the distribution of the CATE. The y-axis shows the CATE and the x-axis is the proportion in each bin. Note: CATE is heterogeneous if it shows variation across different sub-groups

Sources of heterogeneity

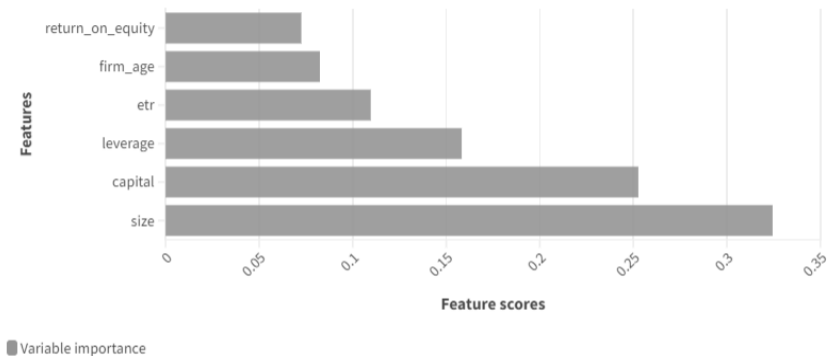


Figure: Feature importance for heterogeneous treatment effect

Figure: This highlights the key features in explaining heterogeneity, particularly emphasising the significance of the size, capital, leverage and etr which exhibit high feature importance.

Conclusion

- ▶ I find a negative market response for the affected multinational corporations.
- ▶ A variation in the market response of investors in the emerging and developed markets in the presence of global and local information publicly available to both foreign and local investors.
- ▶ A pronounced negative market reaction for the tax-aggressive firms.

Thank you!

Bathusi Gabanathong
Institute of Economic Studies, Charles University
batsegobai@gmail.com