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Interrelation of Capital Markets in the Context of Increased Audit Oversight in the European Union – Evidence on Third-Country Auditors

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Abstract: *We identified a notable lack of academic literature on the issue of third-country auditors and the main contribution of our article is to address this gap. This research builds on adjacent audit oversight and capital markets literature and we extend this literature by providing evidence on third-country auditors. Specifically, we test the relationship between market capitalization and number of foreign IPOs of listed companies in representative EU countries (on one hand) and the existence of third-country auditors in those respective countries (on the other hand). Our research was performed in the second half of 2018 and is based on the latest data available. We have found that there are about 200 third-country auditors present in the public registers of audit oversight bodies in 11 EU countries. According to our network analysis, only European countries with a developed capital market have attracted third-country auditors. Most of the relationships of these developed EU capital markets are nurtured with non-EU capital markets that are at the same level of development (e.g. USA, Switzerland, Canada, Israel, and Australia). Our research hypotheses were validated: (1) the higher the market capitalization of a EU country, the higher the likelihood for the registration of third-country auditors; (2) the higher the number of foreign IPOs relative to the total IPOs on the stock exchange market, the higher the likelihood for the registration of third-country auditors.*

***Keywords*:** capital markets; audit oversight; third-country auditors; European Union

JEL Classification: M40, M41, M42, M48

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Introduction

There is a growing argument in favour of an improved public oversight system for statutory auditors across the European Union (EU). In line with the neo-institutional theory which claims that changes in institutional systems are the result of external events (Bengtsson 2011), the demand for such reforms of the public oversight system for statutory auditors in the EU has been triggered in the last two decades by the string of resounding financial scandals, starting with cases such as Worldcom, Parmalat and culminating with the demise of Enron and its auditor Arthur Andersen in early 2000s. As a consequence of these scandals and the negative impact on capital markets, there was a loss of confidence in auditors and the audit process, with investors and other stakeholders questioning the role of the auditors. The demand for institutional change at audit oversight level continued to surge, fuelled by the financial crisis of 2008 and the more recent resounding accounting scandals in various European countries. A good example of concern at a business, public and even political level is the powerful impact case of the collapse of Carillion in the UK in February 2018 where the auditors, one of the Big 4 accounting firms, issued a clean audit report months before the collapse of the firm. Auditors in the EU but also around the world are increasingly questioned on the value of their work and the oversight system for statutory audits would naturally play an important role in mitigating the concerns of the public and perhaps helping to close the audit expectation gap. A significant development in the oversight of the EU audit market came in 2006 when the European Commission issued Directive 2006/43/EC (the Directive, hereafter) amended in 2014 by Directive 2014/56/EU (the Statutory Audit Directive), in which member states are required to organize a public oversight institution which would be responsible for regulating, supervising and disciplining statutory auditors. Part of this initiative was the regulation and oversight of non-EU auditors that were auditing the financial statements of non-EU companies listed on EU capital markets. This is a niche but important subject that has hardly been given any attention before. This article explores this unchartered territory and is structured as follows. First, a literature review is made. Second, the research design is presented and described in detail. The third section presents the research results, while the final section summarizes the findings of the study.

Literature review and research hypotheses

The roots of the need to improve the oversight system for statutory audits are found in the interrelationship between capital markets, listed entities and statutory audits. Recognising the role of the statutory audits and their stakeholder-interest function coupled with the heterogeneity that existed in the public oversight of audits among member

states (Van Tenderloo and Vanstraelen 2008; Maijoor and Vanstraelen 2012), the EU aimed to harmonize the audit oversight system in a drive to increase audit quality in its jurisdiction. In this positive endeavour, the EU has issued Directive 2006/43/EC amended in 2014 by Directive 2014/56/EU, in which member states are required to organize a public oversight institution which would be responsible for regulating, supervising and disciplining statutory auditors. This Directive aims at high-level, though not full, harmonisation of statutory audit requirements and recognises that the public-interest function of statutory auditors means that a broader community of people and institutions rely on the quality of a statutory auditor's work. However, in a recent study, Garcia Osma, Gisbert and de las Heras Cristobal (2017) find that despite having an EU Directive that requires the harmonization of the audit oversight systems, some of the characteristics of the pre-Directive systems perpetuated into the current system and the authors argue that additional supra-national efforts are required to truly harmonize the supervisory procedures of the audit profession in Europe.

Good audit quality contributes to the orderly functioning of markets by enhancing the integrity and efficiency of financial statements. To this end, one of the merits of the Directive 2006/43/EC is the provision of regulation for the treatment of third-country auditors. The Directive clearly emphasized the need to ensure high-quality work performed by auditors from third countries with respect to the EU capital markets, as well as the need for transparency on the audit market in this respect, with the purpose that the interest of investors for Community capital markets is not deterred. To the best of our knowledge, no empirical research has been carried out so far on the specific topic of third-country auditors (TCAs). This article will explore the relationship between third-country auditors and representative EU capital markets with the aim to better grasp its dynamics.

According to the Directive 2006/43/EC, a 'third-country audit entity' means an entity, regardless of its legal form, which carries out audits of the annual or consolidated accounts of a company incorporated in a third country (i.e. a country other than an EU or EEA country). Third-country auditors are auditors of non-EU incorporated companies that have issued securities on EU regulated markets. Article 45 of the Statutory Audit Directive sets out the regulatory requirements for the registration and oversight of third country auditors, including the external monitoring of audit quality and mechanisms for investigations and sanctions. Article 46 of the Statutory Audit Directive allows member states to derogate from the requirements of Article 45 where the third country auditor is subject to a system of public oversight, inspections and investigations which the European Commission has recognised as equivalent, or where the third country auditor is within transitional arrangements adopted by the European Commission. At the time of writing, the concept of third-country auditors has not been widely used in practice or academic circles but is of high importance for the good functioning of capital markets and the confidence of present or potential investors as users of those markets.

There is a notable lack of previous academic research in the area of third-country auditors. The changes imposed first by the Directive 2006/43/EC, and afterwards by the Statutory Audit Directive have triggered a great amount of research, but none of the papers focus on the topic of TCAs. More recently, there are papers that briefly discuss the major regulatory innovations in the EU relating to auditing and provide general ideas for future research driven by the Statutory Audit Directive (such as Afterman, 2016; Köhler, Quick, Willekens, 2016;). Other studies focus on the implications of the new audit framework for the provision of non-audit services (Holm, 2016; Ratzinger-Sakel & Schönberger, 2015). Some studies explore the potential benefits and costs of the recent audit reforms, such as Kend and Basioudis (2017) who obtain the views of UK-relevant stakeholders on this matter, while Duhovnik (2016) points out problems that could arise in a small European country with just a few public interest entities and a weak audit market. An extensive study of Horton, Tsipouridou and Wood (2018) demonstrates a positive reaction of investors to the proposed EU audit reforms, lifting the aggregate market value by approximately €108,630 million. On a similar note as our research, a connection between the changes on the European auditing market and their potential impact on countries from another area (namely the United States) is made by Afterman (2016).

Our research contributes towards filling in this literature gap and offering insight into the current status of third-country auditors, in the context of the interrelation of capital markets worldwide and on the background of the recent Statutory Audit Directive. The objective of our research is twofold: (1) to create a picture of the interrelation of capital markets, as proxied by the existence of third-country auditors registered in Community countries; (2) to identify determinants of the existence of third-country auditors. Our research hypotheses are the following:

H1: There is a direct positive correlation between a country's market capitalization of listed domestic companies (% of GDP) and the existence of third-country auditors registered in that particular EU country.

H2: There is a direct positive correlation between the percentage of foreign IPOs in the total IPOs listed on the country's stock exchange and the existence of third-country auditors registered in that particular EU country.

Research design

For each of the current 28 countries of the European Union, we have accessed the public register of the statutory audit companies and we have identified the third-country auditors (TCAs) registered in that particular country. The data that was relevant for our study was the number of TCAs in each EU country and the countries of origin for each of the TCAs. We have only collected data on registered audit companies, and not individuals acting as registered auditors.

For the purpose of testing the correlation between different factors and the existence of TCAs in a certain EU country, we have applied the biserial correlation coefficient, which is appropriate to measure the relationship between one continuous variable and one binary variable. We have defined the binary (dummy) variable, as follows: 1 if there is at least one registered TCA in that EU country; 0 if no TCAs are registered in that EU country. Regarding the continuous variable, we have used (1) the market capitalization as percentage of GDP as at the year end of 2017; and (2) the percentage of foreign IPOs in the total IPOs listed on the EU markets during a 5-year period (2013-2017). To double-check the results and obtain a p-value, we have run a Pearson correlation test, too.

The value of the indicator 'market capitalization of listed domestic companies (% of GDP)' was extracted from the statistics published by the World Bank as at the year-end 2017, whereas the data source regarding the foreign IPOs on the European Union markets was the annual statistics published by the Federation of European Securities Exchange (FESE) for their members.

Regarding both the European Union countries where TCAs are registered and the TCAs' countries of residence, we have reduced the granularity of data by applying the Russell FTSE classification of equity markets, which comprises four main categories: Developed, Advanced Emerging, Secondary Emerging, and Frontier. Out of 28 EU countries, only 11 countries have third-country auditors registered. The countries where the TCAs reside and were part of the analysis amount to 39.

Based on these data, a social network analysis has been performed. The incidence matrix had 11 rows (number of EU countries with TCAs – X) and 39 columns (number of countries where TCAs reside – Y). We considered that there is a tie between two countries if a country from the X array registered an auditor from the Y array. Self-ties have been excluded.

Results

Out of 28 EU countries, only 11 countries have third-country auditors registered, respectively: Austria, Belgium, Denmark, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Spain, and United Kingdom. Table 1 shows the number of third-country auditors and their weight in the total of 211 third-country auditors. The top three countries are United Kingdom (with 116 registered TCAs, accounting for more than half of the total existing third-country auditors in the European Union); Luxembourg (with 31 registered TCAs, accounting for 15%) and France (with 17 TCAs, accounting for merely 8%).

Table 1: Number of third-country audit entities across the EU

No.	Country	No. of third-country auditors	Weight
1	United Kingdom	116	55%
2	Luxembourg	31	15%
3	France	17	8%
4	Germany	10	5%
5	Netherlands	10	5%
6	Ireland	8	4%
7	Belgium	7	3%
8	Italy	7	3%
9	Denmark	3	1%
10	Austria	1	0%
11	Spain	1	0%
	Total	211	100%

Source: author-collected data

Table 2 displays the countries where TCAs reside, along with the number of TCAs and their weight. Most of the third-country auditors have originated from USA (33 TCAs), Switzerland (18 TCAs), Canada (11 TCAs) and Israel (11 TCAs), between them making up 35% of the total 211 third-country auditors registered in all EU countries. Australia and Russia follow, each having 10 TCAs present in different European countries.

Table 2: Countries where TCAs reside

No.	Country	No. of TCAs	% of TCAs
1	USA	33	16%
2	Switzerland	18	9%
3	Canada	11	5%
4	Israel	11	5%
5	Australia	10	5%
6	Russia	10	5%
7	South Africa	9	4%
8	Japan	7	3%
9	Kazakhstan	7	3%
10	Korea (Republic of)	7	3%
11	China	5	2%
12	Turkey	5	2%

No.	Country	No. of TCAs	% of TCAs
13	Bermuda	4	2%
14	Brazil	4	2%
15	Egypt	4	2%
16	Lebanon	4	2%
17	United Arab Emirates	4	2%
18	Cayman Islands	3	1%
19	Georgia	3	1%
20	Hong Kong	3	1%
21	India	3	1%
22	Morocco	3	1%
23	New Zealand	3	1%
24	Nigeria	3	1%

No.	Country	No. of TCAs	% of TCAs
25	Singapore	3	1%
26	Tunisia	3	1%
27	Zimbabwe	3	1%
28	Argentina	2	1%
29	Bahrain	2	1%
30	Chile	2	1%
31	Curaçao (Netherlands)	2	1%
32	Oman	2	1%
33	Pakistan	2	1%
34	Taiwan	2	1%
35	Azerbaijan	1	0%
36	Bahamas	1	0%
37	Barbados	1	0%
38	Faroe Islands	1	0%
39	Indonesia	1	0%
40	Isle of Man	1	0%
41	Jersey (UK)	1	0%
42	Jordan	1	0%
43	Kenya	1	0%
44	Malaysia	1	0%
45	Mauritius	1	0%
46	Philippines	1	0%
47	Qatar	1	0%
48	Vietnam	1	0%

Source: author-collected data

The resulting incidence matrix is a directed rectangular (asymmetrical) matrix and this is why most of the network analysis indicators are not applicable. We have partitioned the initial incidence matrix. The purpose was to obtain a more clear display of the various connections between capital markets on global level. Tables 3 displays the block density matrixes comprising the relative values (proportion of ties in a block). Interesting to note is that only EU countries that have their capital market classified by FESE in the category 'Developed' have registered TCAs, while at the same time, most of the countries of origin for the TCAs belong also to the group 'Developed'. The average density is 0.0448.

Table 3: Block density matrix (proportion of ties)

	Developed	**Advanced Emerging**	**Secondary Emerging**	**Frontier**
Developed	0.3333	0.1667	0.1091	0.1074
Advanced Emerging	0.0000	0.0000	0.0000	0.0000
Secondary Emerging	0.0000	0.0000	0.0000	0.0000
Frontier	0.0000	0.0000	0.0000	0.0000

Source: authors' design

Table 4: Out-degrees in descending order

	out-degrees
UK	32
Luxembourg	17
France	9
Netherlands	7
Germany	6
Ireland	3
Belgium	3
Italy	2
Denmark	2
Austria	1
Spain	1

Source: authors' design

The result of the biserial correlation between market capitalization as percentage of GDP and the (non-)existence of third-country auditors is of 0.701541. This coefficient indicates a relatively strong positive correlation. The result is also supported by the Pearson correlation test, in which case the coefficient was 0.5689287 and the p-value of 0.002999 was extremely low. Our first hypothesis was validated and we conclude that the higher the market capitalization of an EU country, the higher the likelihood for the registration of third-country auditors.

The result of the biserial correlation between the percentage of foreign IPOs in the total IPOs on an EU capital market and the (non-)existence of third-country auditors is 0.425236. This coefficient indicates a medium positive correlation between the two variables. The result is also supported by the Pearson correlation test, where the correlation coefficient was 0.7916521 and the p-value of 0.001261 was extremely low. Our second hypothesis was validated and we conclude that the higher the number of foreign IPOs relative to the total IPOs on the stock exchange market, the higher the likelihood of finding registered third-country auditors in the country of that stock exchange.

Conclusion

The role of the statutory audits in protecting stakeholder interests and consolidating trust in capital markets was openly recognised by European Union representatives, which made continuous efforts to harmonize the audit oversight system and to promote transparency on the audit market. Both the Directive 2006/43/EC and the new Statutory Audit Directive 2014/56/EU acknowledge the need to ensure high-quality work performed by auditors from third countries with respect to the EU capital mar-

kets. Their provisions require transparency on the audit market in this matter, with the purpose to maintain the attractiveness of Community equity markets in the eyes of potential non-EU investors. Our research brings evidence that the desideratum of transparency and increased audit oversight was achieved in what the third-country auditors are concerned. The mere existence of third-country auditors is a proof of the interrelation of capital markets worldwide. Currently, there are 211 third-country auditors present in the public registers of audit oversight bodies in 11 EU countries.

Our findings indicate that only European countries that have a developed capital market (as defined by the Federation of European Securities Exchange) have attracted third-country auditors. Most of the relationships of these developed EU capital markets are nurtured with non-EU capital markets that are at the same level of development. Thus, most of the third-country auditors originate from other developed capital markets: USA (33 TCAs), Switzerland (18 TCAs), Canada (11 TCAs), Israel (11 TCAs), and Australia (10 TCAs). Moreover, our research results suggest there is a strong positive correlation between the market capitalization of an EU country and the likelihood for the registration of third-country auditors in that particular Member State. Additionally, research shows that the higher the number of foreign IPOs relative to the total IPOs on a particular EU stock exchange market, the higher the likelihood for the registration of third-country auditors there. These results are in accordance with our expectations derived from the existent body of research and current debates among practitioners and legislators. The figures add up evidence on the current interrelation of capital markets worldwide and reinforce the need for public oversight and transparency on the audit market.

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