PIE STATUTORY AUDIT MARKET CONCENTRATION: EVIDENCE FROM LATVIA

Svetlana Saksonova, University of Latvia
Ludmila Rozgina, IRIS-ALKONA

Abstract. The reform of EU audit legislation was adopted by the Council of the EU in April 2014. The legislation consists of an audit Directive and an audit Regulation. The Directive applies to all statutory audits; the Regulation contains specific requirements for the statutory audits of public-interest entities (PIEs). The Regulation aims both at enhancing audit quality and at promoting competition in the audit market. Mandatory rotation, together with the incentives for joint audit and tendering, as well as the prohibition of certain non-audit services to audit clients - requiring *de facto* that another audit firm provides these services - are examples of measures that should make the market more dynamic and ultimately less concentrated. The **purpose of this study** is to assess the concentration levels in the market for statutory audits of PIEs in Latvia. The methods of the research are systematic, logical and comparative analysis, analysis of secondary data, as well as expert method. Data on market shares is analyzed using the four firm concentration indicators. The principle results of the study provide evidences about the high level of Latvia's PIE audit firms/networks market concentration, the dominant share of non-audit revenue in total revenue for the 6 biggest market players, the auditing oligopoly in the PIE market, the impact of the EU audit reform on the auditor-client relationships in the banking sector. Based on the findings and results of the study, the authors propose a set of recommendations aimed to make the Latvian audit market *more transparent* and *less concentrated*.

Key words: *audit market, audit market concentration, audit firms, public-interest entities*

JEL code: M42

Introduction

The purpose of this study is to assess the concentration levels in the market for statutory audits of PIEs in Latvia. Why is this important? The market for audit services has high and increasing levels of concentration in many European countries (Velte and Stiglbauer, 2012). At the same time audit firms have an important role in maintaining and improving the functioning capital markets. For that reason, a substantial portion of demand in the market is mandated by law (Gerakos and Syverson, 2015) by the requirement for publicly traded firms to have audited accounts. For these reasons, the audit market is a subject of considerable attention both in the literature and from the regulators.

On a European level, a thorough reform of the audit policy was launched in 2010, spurred by the global financial crisis. The most controversial elements of the legislation finally adopted in 2014 included mandatory audit firm rotation, prohibition of non-audit services and a cap on total audit fees (Horton et al. 2017). Although the reforms were controversial, they aimed at enhancing auditors' independence and therefore the credibility of the audit.

While there is substantial literature on audit markets in developed economies, which is reviewed in Section 1, emerging markets and, in particular, Latvia have received less attention. Aizsila and Ikaunieks (2014) provide a qualitative description of the developments in audit profession in Latvia. This paper fills the gap in the literature by documenting the empirical characteristics of the market for statutory audits in Latvia (Section 2.1), measuring its concentration (Section 2.2.) and assessing the changes arising from the impact of the EU audit legislation reform in the banking sector. Section 3 concludes.

1. Literature review

The three key areas targeted by the new European legislation: (i) audit firm rotation, (ii) non-audit services and (iii) audit fees have been extensively analyzed in the literature. Bleibtreu and Stefani (2018) provide an overview of the arguments for and against mandatory audit firm rotation. On the one hand, rotation could strengthen auditor independence and decrease audit market concentration. On the other hand, it would decrease opportunities for learning, which could lower the quality of audits.

Aschauer and Quick (2018) study the effects of the rotation system and the provision of non-audit services jointly. They find that perception of auditor independence and audit quality improves when non-audit services are banned, while the rotation system does not have an unambiguous effect on these perceptions. Cameran et. al. (2016), find that in Italy, where mandatory audit firm rotation has been effective for more than 20 years, the perception of audit quality and reporting conservatism increase in the year before rotation.

The reason that the literature often relies on perceptions is that outside observes sometimes do not have information about internal measures of audit process quality. Aobdia (2018) finds that three measures of audit quality used in the literature have significant association with measures of audit quality used by auditors and regulators – (i) the propensity to restate financial statements, (ii) the propensity to meet or beat the zero earnings threshold, and (iii) audit fees.

Bell et. al. (2015) use the data from internal evaluations of audit quality in a Big 4 firm to investigate the impact of tenure of audit firms and non-audit services (NAS) on audit quality. They find that first-year audits are assessed as lower quality and that quality improves shortly thereafter, but declines for private clients as tenure becomes very long. On the other hand, for publicly traded companies, probability of high quality audit reaches a maximum with long tenure. Another approach has been tried by Elder et.al. (2015), who study government audit market in Florida, a setting where procurement policies vary, and find that rotation policies are associated with higher audit quality, though primarily due to selection of better firms rather than auditor independence.

The impact of the restrictions on the non-audit services has been considered, for example, by Ratzinger-Sakel and Schönberger (2015), who analyzed existing restrictions in France, Germany and the UK, which are similar in spirit to the ones now implemented in the EU and found that the EU-wide restrictions may not be effective or efficient.

One of the industry's arguments against the provision of non-audit services has been that it would lower the quality of audits by limiting knowledge spillovers to the audit part of the business. This had some support in the literature, for example, Krishnan and Yu (2011), conclude in favor of the idea of knowledge spillovers based on the strongly negative relationship between audit and non-audit fees in the US companies. Similarly, Knechel et.al. (2012) also support the hypothesis of knowledge spillovers based on the relationship between non-audit fees and audit lag in New Zealand. On the other hand, van Liempd et. al. (2018) find that the joint provision of non-audit and audit services is negatively associated with perceived auditor independence, although perceptions differ by stakeholder group and types of services.

Quick and Warming-Rasmussen (2015) investigate the effects of non-audit services and non-audit fees on independence perceptions of German individual investors. They conclude that while general restriction on non-audit services does not seem to be necessary, a cap on non-audit fees might be reasonable, because high non-audit fees negatively impact perceived auditor independence. There is also a question of setting the cap at an appropriate level, for example, van Liempd et. al. (2018) find the European cap too high. Hohenfels and Quick (2018) echo this conclusion – in their study of German listed firms, they find that higher levels of NAS fees negatively affect asset quality and that a cap on NAS fees imposed by the EU fails to prevent this impairment.

Thus, one can see that a rich literature exists on the key controversies of the EU audit reform. Before insights from this literature can be applied to Latvian circumstances, however, one first needs to understand the key characteristics of the market for audit services in Latvia, particularly for statutory audits of PIEs. This is the topic of the next section.

2. Empirical results and findings of research

2.1. Features and structure of the PIE audit firms market in Latvia

According to the register held by the Ministry of Finance of the Republic of Latvia, there were 13 firms of certified auditors auditing PIEs in 2017 (MF, n.d.). The analysis of the financial statements of these firms and their associates enables the authors compiled a list of the 8 biggest PIE audit players for fiscal year (FY) 2017.

The results in Table 1 indicate that the total turnover of Latvian audit firms/networks auditing PIEs increased from almost 38 million euros in 2016 to over 41 million euros in 2017. Of that amount, 85.5 percent was earned by the entities comprised within the Big Four – *Ernst &Young* (EY)*, Deloitte, KPMG, PricewaterhouseCoopers* (PwC). Compared to 2016, their combined market share declined by 0.9 percentage point. These results provide evidence that the PIE audit market in Latvia remains highly concentrated. Concerns emanating from the high concentration include a lack of choice, a lack of innovation, higher audit fees, conflicts of interest, a lack of independence, a systemic risk if one Big Four firm should fail, and, above all, poor-quality audit reducing the credibility and reliability of audited financial statements for the world's largest companies (EC, 2016).

Apart from the Big Four member firms, Latvia's PIE audit firms also include the entities that belongs to 3 other global networks – *Grant Thorton*, *Nexia*, *BDO*. Their aggregated turnover was amounted to 4 million euros in FY 2017 (as compared to 2016, it increased by 0.48 million euro). Only one local firm (*Potapoviča un Andersone* SIA) with the turnover of 0,9 million euros was able to get close to the turnover of the global networks in 2017. Information about the Top 7 audit firms/networks revenue by service line is provided in Table 2.

Table 1

Latvian PIE audit firms/networks' market share for turnover in FY2016- 2017

Rank	Firm/network	Year end	Net turnover, MEUR			Market share		
			2017	2016	Change	2017	2016	Change
1	Ernst & Young Baltic	30.06.	11.44	10.84	0.6	27.7%	28.6%	-0.9
2	Deloitte[1]	31.12.	8.96	7.93	1.03	21.7%	20.9%	0.8
3	KPMG Baltics	30.09.	7.94	7.43	0.51	19.2%	19.6%	-0.4
4	PwC[2]	30.06.	6.99	6.53	0.46	16.9%	17.2%	-0.3
-	The Big 4 total	-	35.3	32.73	2.57	85.5%	86.4%	-0.9
5	Grant Thorton Baltic	30.06.	1.56	1.29	0.27	3.8%	3.4%	0.4
6	Nexia[3]	31.08.	1.5	1.36	0.14	3.6%	3.6%	-
7	Potapoviča un Andersone	30.09.	0.91	0.77	0.14	2.2%	2.0%	0.2
8	BDO[4]	31.12.	0.88	0.81	0.07	2.1%	2.1%	-
9	Others	-	1.12	0.9	0.22	2.7%	2.4%	0.3
-	TOTAL	-	41.3	37.86	3.44	100%	100%	-

Source: authors' calculations based on Latvian audit firms' and their associates' annual reports for FY 2017

It emerged that the financial statements of Latvia's PIE audit firms and their associates do not include disclosure regarding: (i) revenues by business lines; (ii) services provided to the audited clients. The study also found that among the 13 audit players only nine firms created and published the transparency report for FY 2017. Of that 9 firms, only six firms disclosed information about: (i) revenues from the statutory audit of PIEs; (ii) revenues from permitted NAS to

[1] *Deloitte Latvia* SIA and *Deloitte Audits Latvia* SIA

[2] *PricewaterhouseCoopers* SIA and *PricewaterhouseCoopers Information Technology Services* SIA

[3] *Nexia Audit Advice* SIA and *CBB konsultaciju birojs* SIA

[4] *BDO Latvia* AS and *BDO Audit* SIA

audited entities. Since only six audit firms from the Top 8 disclosed all relevant information[5], the analysis of the level of *non-audit to audit fees* ratio in Latvia was carried out only regarding the Top 5 PIE audit firms (see Table 3).

Table 2

The top 7 Latvian PIE audit firms/networks revenue in 2017, by service line

	2017					Change vs 2016			
Firm/network name	**Total fee income**	**Audit fee**		**Non-audit fee**		**Audit fee**		**Non-audit fee**	
	TEUR	**TEUR**	**%**	**TEUR**	**%**	**TEUR**	**%**	**TEUR**	**%**
EY	11 441	3 890	34%	7 551	66%	683	21.3%	-83	-1.1%
Deloitte	8 964	2 960	33%	6 004	67%	-125	-4.1%	1 162	24.0%
KPMG	7 943	3 337	42%	4 606	58%	-287	-7.9%	802	21.1%
PwC	6 990	3 239	46%	3 751	54%	532	19.7%	-71	-1.9%
The Big 4 total	35 338	13 426	38%	21 912	62%	803	6.4%	1 810	9.0%
Grant Thorton	1 566	457	29%	1 109	71%	n/a	n/a	n/a	n/a
Nexia	1500	738	49%	762	51%	68	10.1%	70	10.1%
Potapoviča …	911	804	88%	107	12%	147	22.4%	-3	-2.7%
TOTAL	39 315	15 464	39%	23 851	61%	n/a	n/a	n/a	n/a

Source: authors' calculations based on Latvian audit firms' transparency reports for FY 2016 and 2017)

Among the Big Four entities working in Latvia, *Ernst &Young Baltic* SIA has the largest market share. In the year ended 30 June 2017, the firm earned net turnover of more than 11 million euros, having strong year-to-year increase of 600 thousand euros (EY, 2017, p.19; EY, 2016, p.21). As Table 2 shows, the bulk of Ernst &Young's revenues comes from providing of *non-audit services* (NAS). Additionally, the firm reported over 2 million euros in *non-audit* revenues earned from audit clients in FY 2017 (see Table 3). Their *non-audit to audit fees* ratio for FY 2017 was the highest out of the Big Four audit firms.

The second largest share in the market is held by the firms that belong to *Deloitte* network. The total turnover for this firms increased from 8 million euros in 2016 to 9 million euros in 2017. This increase was achieved only due to the record growth in revenues from *non-audit services* (see Table 2). It should be noted that the data on Deloitte's *non-audit fees* earned *from audited clients* are available for *Deloitte Audits Latvia* SIA only (Deloitte, 2018, p.12), since the consulting firm *Deloitte Latvia* SIA does not disclose the revenue sources.

Table 3.

The top 5 Latvian PIE audit firm's revenue from audited clients in 2017

Firm name	**Audit fee, TEUR**	**Non-audit fee from audited clients, TEUR**	**Non-audit/ audit fees ratio, %**
Ernst & Young Baltic	3 890	2 069	53.2%
Deloitte Audits Latvia	2 960	3	0.1%
KPMG Baltics	3 337	733	22.0%
PwC	3 239	794	24.5%
The Big 4 total	13 426	3 599	26.8%
Grant Thorton Baltic	457	1.5	0.33%
TOTAL	13 883	3 600.5	25.9%

Source: authors' calculations based on Latvian audit firms' transparency reports

Among the largest Latvian PIE audit firms/networks, KPMG *Baltics* SIA was ranked third. Compared with 2016, its net turnover increased by 0.51 million euros and reached to 7.9 million euros in the year ended 30 September 2017 (KPMG, 2018, p.31; KPMG, 2016, p. 32). The firm demonstrated the second largest increase in total fees from *non-audit*

[5] They do not comply with the requirements regarding the transparency report (BDO Audit, Nexia Audit Advice).

services. At the same time, KPMG's revenues from *non-audit services* to audited clients equalled only 22 percent of their audit fees in FY 2017 (see Table 3).

The fourth position in the Latvian PIE audit firms service market is occupied by the firms that belong to *PwC* network. In the year ended 30 June 2017, their total turnover increased by 0.46 million euros to 7 million euros. They are far distant from the next largest audit firm in Latvia, that is *Grant Thorton Baltic* SIA. *PwC* demonstrated the highest share of audit revenue in total revenues among the Big Four firms in Latvia (see Table 2). *PwC*'s revenue from *non-audit services* to audited clients was 24.5 percent of the audit fee income received by the firm in 2017 (PwC 2017, p. 34). The figure does not include the possible provision of *non-audit services* to such clients by *PwC IT Services* (maximum per 184 thousand euros).

The results in Table 4 indicate that the total revenues from statutory audit of Latvian PIEs and entities belonging to a group of undertakings whose parent company is a PIE amounted to 4,6 million euros in 2017. Of that amount, 98.3 percent (4.5 million euros) was earned by the Big Four. Among the Big Four entities working in Latvia, *KPMG Baltics* SIA has the largest PIE statutory audit market share – 39%. The second largest share in the market is held by *PwC* SIA – 34%. The third position in the Latvian PIE audit service market is occupied by *Ernst & Young Baltic* SIA.

Table 4.

Latvian firm's revenue from PIE statutory audits in 2017

Rank	**Firm name**	**Audit fees from PIE clients, TEUR**	**Market share, %**
1	KPMG Baltics	1 787	39%
2	PwC	1 577	34.3%
3	Ernst & Young Baltic	907	20%
4	Deloitte Audits Latvia	246	5%
-	The Big 4 total	4 517	98.3%
5	Others	78	1.7%
	TOTAL	4 595	100.%

Source: authors' calculations based on Latvian audit firms' transparency reports

Summarizing, in Latvia, the Big Four represented almost 85.5 percent of the aggregated turnover of the networks or firms auditing PIEs in FY 2017. Based on audit fees, the four-firm concentration ratio for PIE clients was even higher – 98.3%.

2.2. Concentration of audit firms by PIE category

Starting from 1 of January 2017, the following companies are defined as PIEs for audit purposes under Latvian *Audit Service Act* [*Revīzijas pakalpojumu likums*]: (i) financial institutions: credit institutions, investment fund management companies, alternative investment fund managers, insurance companies, branch of a non-Member State insurer, reinsurance companies, branch of a non-Member State reinsurer or private pension fund; (ii) companies with transferable securities listed on EU regulated markets (The Audit… 2001).

The following table illustrate how many Latvian entities fell under each category defined as a PIE in 2017. The table also include information about their statutory auditors.

Table 4

Information about PIE statutory audit market in Latvia (based on data of FY2017)

	2017			Change vs 2016		
	Big Four	**Others**	**Total**	**Big Four**	**Others**	**Total**
Number of entities in each category defined as PIEs, including:						
(a) Listed companies	10	15	25	1	-3	-2
(b) Non-financial corporate bond issuers	5	7	12	1	-1	-
(c) Commercial banks	16	-	16	-	-	-
(f) Investment funds	12	2	14	3	1	4
(d) Insurance undertakings	5	1	6	-	-	-
(e) Pension funds	6	-	6	-	-	-
TOTAL	54	25	79	5	-3	2

Source: authors calculations based on Latvian PIEs' annual reports for FY 2017

As Table 5 shows, of all Latvian entities falling under the new definition of a PIE, the largest number in 2017 were listed companies – 25 out of 79. They followed commercial banks (16), investment fund managers (14) and non-financial corporate (NFC) bond issuers (12). In addition, there were 6 insurance undertakings and 6 private pension fund managers in Latvia in 2017. It can be observed from Table 4 that, in 2017, the Big Four had consolidated its dominant position in the number of Latvian entities falling under the new definition of a PIE. The Big Four auditors cover 100% of PIEs in the banking sector and pension funds sector, whereas have the smallest share in the number of listed companies and NFC bond issuers. However, in terms of clients' size the Big Four firms achieved a 95 percent of the Latvian listed companies' market capitalization and almost 89 percent of Latvian NFC bonds outstanding at the end of 2017 (see Tables 5 and 6).

Table 5

Audits of Latvian listed companies: share based on audited clients' market capitalization at the end of 2017

	2017			Change vs 2016		
	Big Four	**Others**	**Total**	**Big Four**	**Others**	**Total**
Number of clients	10	15	25	1	-3	-2
Market cap[6] MEUR	1 204.4	61.7	1 266.1	450.3	11.2	461.5
Share	95.1%	4.9%	100.0%	1.4	-1.4	-

Source: authors' calculations based on Nasdaq Baltic data base (Nasdaq Baltic, 2017a) and PIEs' annual reports for 2016-2017

Table 6

Audits of Latvian NFC bond issuers: share based on audited clients' bonds outstanding at the end of 2017

	2017			Change vs 2016		
	Big Four	**Others**	**Total**	**Big Four**	**Others**	**Total**
Number of clients	5	7	12	1	-1	-
Amount[7] MEUR	194.2	25.0	219.2	-46.9	2.2	-44.7
Share	88.6%	11.4%	100.0%	-2.7	2.7	-

Source: authors' calculations based on Nasdaq Baltic data base (Nasdaq Baltic, 2017) and PIEs' annual reports for FY 2017

It should be clarified, therefore, that the Big Four consolidated share in Latvian PIE statutory audit market varied from a concentrated oligopoly among companies with listed securities to monopoly among commercial banks.

[6] As of December 29, 2017

[7] As of December 29, 2017

2.3. Impact of the changes arising from the EU Audit reform in the banking sector

The following table (Table 7) provides data on audits of the Latvian commercial banks in 2017. As Table 7 shows, in 2017, *KPMG Baltics* SIA continued to have the largest audit market share in Latvia's banking sector by the number of banks (8 out of 16) as well as their assets value (11.2 billion euros, with a 41% market share at the end of 2017). PwC was the second-largest provider of statutory audit to Latvian banks − its clients were five credit institutions with the combined assets of 5.34 billion euros (a 19.6% market share). The third position based on client number, was taken by *Ernst & Young Baltic* working with the 2th largest *Luminor Bank* (former *DNB Bank* and *Nordea Bank* AB Latvia Branch*)* and the 10th largest *Regionala investiciju banka*. The fourth spot was occupied by *Deloitte Audits Latvia* SIA which every year since 2000 has been the auditor of Latvia's largest *Swedbank*. Compared with 2016, the main changes in the sector were associated with the transition of *Nordea Bank's* Latvian branch to DNB Bank, the deposit outflow from KPMG's clients and the rotation of auditor of *Regionala investiciju banka.*

Table 7

Audits of Latvian commercial banks:
share based on audited clients' total assets at the end of 2017

		2017			Change vs 2016		
Rank	**Auditor**	**Number of clients**	**Total assets,[8] billion EUR**	**Share of the total assets,%**	**Number of clients**	**Total assets, billion EUR**	**Share**
1	KPMG Baltics	8	11.2	41.2%	-	- 0.9	- 6.2
2	PWC	5	5.34	19.6%	-1	- 0.56	- 3.5
3	Ernst & Young Baltic	2	5.33	19.6%	1	3.13	11.0
4	Deloitte Audits Latvia	1	5.33	19.6%	-	0.03	- 1.3
	Total	16	27.2	100.0%	-	1.7	-

Source: the authors based on the FLA (FLA, 2018) and Latvian banks' annual reports for FY 2017

The following table provides statistics on number of Latvian commercial banks and its market shares (% of total assets) in different categories of audit tenure at the end of 2017.

Table 8

Information on audit tenure among Latvian commercial banks (December 2017)

	2017		Change vs 2016	
Length of tenure	**Number of banks**	**Total assets market share, %**	**Number of banks**	**Total assets market share, %**
15 – 19 years	5	48.15%	-1	-6.85
10 -13 years	3	20.4%	1	18.4
5 - 9 years	3	11.55%	2	2.55
1 - 4 years	5	19.9%	-2	-14.1
Total	16	100.0%	-	-

Source: the authors based on the FLA (FLA, 2018) and Latvian banks' annual reports for FY 2017

As Table 8 shows, at the end of 2017, almost half of the banks' assets in Latvia were owned by five credit institutions that had not changed auditors for 15 -19 years. They will be forced to rotate their audit firms in the short term. Compared with 2016, the number of banks in these group decreased by one bank (*Regionala investiciju banka*) but their share of the total assets decreased by 6.85 percentage points due to the transfers of *Nordea Bank's* Latvian branch assets to *DNB Bank*.

[8] As of December 29, 2017

Another 20 percent of the banks' assets belonged to three credit institutions the auditors of which had been the same for 10-13 years. They required to have a tender process when considering either the selection of a new auditor or the reappointment of the existing auditor. Compared with 2016, the number of banks in these group increased by one bank (the 2th largest *Luminor Banka*).

Only one-fifth of all banking sector assets belonged to five credit institutions that rotated the auditors during the previous 4 years. Therefore, the new regulations would appear to be likely to cause significant disruption to the audits of leading commercial banks in Latvia.

Starting from 29 November 2016, Latvian credit institutions should disclose, in the notes to their statutory accounts, the remuneration for services provided by the statutory auditor in each of the following categories: (i) audit of the bank's annual accounts and consolidated accounts; (ii) other assurance services; (iii) tax advisory services, and (iv) other non-audit services (FCMC, 2006).

The study found out that the number of Latvian commercial banks fully comply the disclosure requirement in respect of the remuneration paid for services provided by the statutory auditors reached 11 in 2017 (see Table 9). Four Latvian commercial banks with a 46% market share disclosed the remuneration only for the audit of their 2017 accounts. The largest *Swedbank* was included in this group since its audit firm (*Deloitte Audits Latvia* SIA) does not provide *non-audit services*. They are provided by *Deloitte Latvia* SIA which remuneration is formally outside the scope of Latvia's transparency requirements. However, within the EU Audit reform context, information regarding the value of these services (if they were provided during the year) is essential and need to be properly disclosed.

At the same time, it emerged that only one Latvian commercial banks (ABLV Bank[9]) with combined assets amounted to 3.7 billion euros (a 13.6% market share) at year-end 2017, did not disclose any information regarding the statutory auditor's remuneration in their annual reports.

Table 9

Information on the disclosure of auditor remuneration among Latvian commercial banks (December 2017)

	2017		Change vs 2016	
	Number of banks	**Total assets market share, %**	**Number of banks**	**Total assets market share, %**
Disclosed	11	40.62%	2	3.52
Partly disclosed	4	45.78%	1	10.38
Not disclosed	1	13.6%	-3	-13.9
TOTAL	16	100.0%	-	-

Source: the authors based on the FLA and Latvian commercial banks' annual reports for FY 2016-2017

Among the 15 banks disclosed their audit firms' remuneration, the price of auditing varied from 38 to 296 thousand euros in 2017, comprised 1.49 million euros in total. Compared to 2016, the value of all assurance services provided in Latvia's banking sector grew slightly due to the non-resident banking industry.

The EU regulation 2014 establishes that when an audit firm has been providing permissible *non-audit services* to the audited PIE for a period of three or more consecutive financial years, the total fees for such services shall be limited to a maximum of 70% of the average of the fees paid in the last three consecutive financial years for the statutory audit(s) of the audited entity and, where applicable, of its parent undertaking, of its controlled undertakings and of the consolidated financial statements of that group of undertakings (EU, 2016).

As Table 9 shows, only 11 out of 16 Latvia's banks disclosed the costs of *non-audit services* provided by their auditors. Due to the lack of disclosed information on Latvian largest banks (*Swedbank, ABLV Bank, Rietumu Banka)*, it is

[9] On February 26, 2018, ABLV Bank announced its decision on voluntary liquidation

impossible to estimate the total value of *non-audit services* provided by statutory auditors in the banking sector in 2017. The results of the study support previous findings that Latvian PIEs should encourage improvement in the disclosures regarding the services provided by the statutory audit firms and their associates (Nasdaq Baltic, 2015, 8).

Conclusions and recommendations

1. The analysis of the data on Latvian PIE audit firms/networks revenues revealed the *high level of market concentration* – the Big Four represented almost 85.5 percent of the aggregated turnover of the networks or firms auditing PIEs in FY 2017. Based on audit fees, the four-firm concentration ratio for PIE clients was over 98 percent.
2. The results of the study indicate that Latvia's PIE audit firms *are not transparent fully*. Among the 13 audit players only nine firms created and published the transparency report for FY 2017. Of that 9 firms, only two firms disclosed information about: (i) revenues from the statutory audit of PIEs; (ii) revenues from permitted NAS to audited entities. At the same time, it emerged that the financial statements of the audit firms and their associates do not include disclosures regarding: (i) revenues by business lines; (ii) services provided to the audited clients. To improve their transparency, firms auditing PIEs are recommended to strengthen the transparency reporting controls that are designed to meet the prescribed information requirements. Entities related to PIE-audit firms need to disclose in the annual reports information about revenue earned from the clients audited by their associates.
3. The analysis of the Big Four audit firms' revenues showed an increase in the share of revenue from *non-audit services* which averaged 62 percent in 2017. Also, the analysis showed that their *non-audit to audit fees* ratio averaged of less than 27 percent in 2017. However, this ratio was calculated without taking into account the data on the structure of *non-audit fee* income of *Deloitte Latvia* SIA (5,86 million euros) and *PwC IT* SIA (0,18 million euros). As for the market leader *Ernst & Young Baltic* SIA, it noted a significant economic dependence on the provision of *non-audit services* to its audit clients.
4. The Big Four auditors consolidated its dominant position in the number of statutory audits of the Latvian PIEs in 2017. They created a monopoly in the market of statutory audit of commercial banks, whereas had the smallest share in the number of listed companies and NFC bonds issuers. However, in terms of client size, the Big Four covered about 90% of Latvian listed audit market in 2017. Mandatory *rotation*, together with the incentives for *joint audit* and *tender*ing, as well as the prohibition of certain *non-audit services* to audit clients - are examples of measures that should make the Latvian audit market *more dynamic* and *less concentrated*.
5. The study found out that, in 2017, five out of sixteen Latvia's commercial banks had not changed auditors for 15-19 years. They will be forced to rotate their audit firms in the short term. Another three credit institutions which auditors had been the same for 10-13 years required to have a tender process when considering either the selection of a new auditor or the reappointment of the existing auditor.
6. It is apparent that Latvia's commercial banks should encourage improvement in the disclosures regarding the services provided by the statutory audit firms and their associates.
7. Future research could be extended on the current analysis by examining a wider period of time to examine the EU Audit reform impact on the market concentration and the ratio of non-audit to audit services fees.

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