EFFICIENT FINANCE REGULATOR AS SUPPORTER FOR FINANCIAL STABILITY OF INHABITANTS

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Abstract. Recent developments in banking sector in Latvia especially related with PNB Bank where bank accounts of many retired people were located leads to requirements for proficiency of Finance Regulator which has to be efficiently financed, stable and professional. In different countries Finance Regulators have different models of their financing. Aim of the study is to investigate different approaches for Finance Regulator financing and analyse expert views on possible development of Finance Regulator financing model in Latvia. Research methods applied: scientific publications and previous conducted research results analysis and expert survey for possible financing model changes in Latvia. In expert survey for analysis of expert views in many cases it was used evaluation scale 1-10 to better analyse expert views. For analysis of expert views it was used indicators of descriptive statistics, cross-tabulations and factor analysis. Research results indicated that Latvia has a great challenge for best possible model of Finance Regulator financing as the current financing model causes problems as currently Finance Regulator is financed by existing finance institutions which Finance Regulator has to monitor.

Keywords: *account location for retired people, financial literacy, finance regulator, finance system stability*.

JEL code: G18, G28, G53, I38

Introduction

The relatively recent global crisis has highlighted the need for supervisory models to change and the importance of regulation in the financial system, both nationally and globally. Recent developments in banking sector in Latvia especially related with PNB Bank where bank accounts of many retired people were located leads to requirements for proficiency of Finance Regulator which has to be efficiently financed, stable and professional. In different countries Finance Regulators have different models of their financing. The Single Supervisory Mechanism was established in Europe at the end of 2014, reinforcing macro-prudential supervision, which focuses on ensuring stability at the level of individual financial institutions to ensure the stability of the financial system as a whole and cooperation between ECB and EU competent authorities (financial market supervisors) (FKTK, 2014). Financial and capital market regulation and supervision in Latvia has become more prominent in 2018, with particular attention to certain aspects of supervision and its importance in combating financial crime in a global context. Due to the weaknesses of the financial system, as demonstrated by the situation with AS ABLV Bank, risk reduction in the financial sector has been initiated in Latvia, which in turn leads to a significant outflow of financing from Latvian banks. The share of foreign deposits in Latvian commercial banks in September 2019 is 19.5%, since 2015 this proportion has decreased by 34 pp (FKTK, 2019). This, in turn, poses a risk to the financing of the Latvian financial regulator.

In 2019, the banking sector is still questioning the public in the shadow financial supervision segment, as five Latvian commercial banks, which are almost a third of Latvian commercial banks, are exposed to high risk. This is also evidenced by the suspension and liquidation of AS PNB Banka, where many pensioners had their money. In addition to the ability of the financial regulator to be effectively funded, there is a very significant ability to communicate with the public about financial literacy issues

The status of the Latvian financial regulator analyzed in the study is a derivative public entity with the status of an autonomous public authority and with its own resources, and its purpose is to regulate and supervise the Latvian financial and capital market and its members and to encourage investors, depositors and insurers. Protection of personal interests and development and stability of the financial and capital market in Latvia.

The topic of the research is topical because the financing of the Latvian financial regulator has become very topical both for the regulator and society, because finance regulator needs to obtain the necessary funds for its financing. The financial market regulator needs to develop a financing model that can cover the operating costs of the regulator, as well as capital and development-oriented costs, both for research, functional audits and change management consultancy, in order to fulfill its regulatory and the priorities set in the monitoring strategy. In order for the financial regulator to purposefully provide the prerequisites for it to function as a modern and socially beneficial organization that ensures systemic protection of clients' interests and financial market stability, safe financial market regulation according to Latvian conditions, it needs an appropriate financing management solution corresponding with best praxis in developed counties.

The aim of the study was to study the financing models in the world for financial and capital market supervisors, and to find out the financial and capital market supervisors' opinion with the results of the survey and financial sector experts with the results of the Latvian financial regulator principles for improving the financial regulator's finances.

The research question was to ensure the sustainability of the FCMC's funding, is there a need to change the FCMC's funding principles?

Tasks of the research included analyzing special literature on sustainable financial planning, analyzing financing models of foreign financial sector supervisors, analyzing the activities of Latvian financial regulator and regulating its activities, including financing legislation, as well as financial sector expert, opinion on the current financing model of the Latvian financial regulator and possible changes, to find out the opinion of Latvian financial and capital market participants on the financing of their supervision, to analyze and evaluate the FCMC's goals, tasks for sustainable development,

The research methods were scientific literature and legislation of the Republic of Latvia, foreign law, data analysis published by foreign competent authorities; the justification of their application are based on scientific articles, publications, databases and internet resources of empirical management scientists and economists and empirical methods: empirical data acquisition method – expert survey of financial and capital market participants, as well as industry experts' survey;, data processing methods (qualitative data processing with discourse analysis, quantifiable questions with descriptive statistics characteristics - central tendency or location indices (arithmetic mean, mode, median), indicators of variability - range, standard deviation, standard error of arithmetic mean standard error correlation analysis, factor analysis with varimax rotation. Empirical data analysis performed with SPSS data processing software,

Literature Review

Structural reforms of financial system regulators in the world

The rapid development of the financial system has led to structural reforms of financial regulators, which also include financing issues.

Supervision and regulation of the financial sector is vital to the development of the financial system and the economy. In Latvia, the stability, competitiveness and development of the financial and capital market are promoted by the Financial and Capital Market Commission (FCMC), which regulates and supervises the activities of Latvian financial and capital market entities.

A 2009 personal analysis by S.Seelig and A.Novoa (Novoa, Seelig,,2009.) of the governance structure and practices of supervisory authorities and policies related to public transparency and accountability in the world ((Novoa, Seelig, 2009), covers 140 organizations from 103 countries, and Table 1 shows the variety of types of monitoring structures that exist in the world.

Table 1

Types of Finance Regulation Supervisory Authorities in 2007

	Number	Proportion,%
Banking supervision	44	31
Insurance supervision	16	11
Supervision of the financial instruments market (securities market)	25	18
Consolidated supervision [1]	18	13
Integrated supervision [2]	32	23
Another	5	4

Souce: Author's construction based on IMF documents

Latvia currently represents the consolidated supervisory model and, as Table 1 shows, is not the dominant supervisory body. Among the surveyed, 31% was represented by the European region, covering 74% of the potential European bodies. In his study, E. Wymeersch found that several models of financial supervision in Europe have evolved over time: from the traditional three-pillar or institutional model (banking, insurance and securities) to an intermediate "double-peak" model closer to the functional approach , Unified or Integrated Model (Wymeersch, 2007).

The IMF study (Novoa, Seelig, 2009) have indicated that the independence (in the context of the study, it is defined as the ability of a financial supervisor to carry out its activities without undue political or commercial interference, focusing on operational independence)) of the financial sector supervisor is one of the key factors influencing supervisory effectiveness. Such aspects are evaluated as very important also by other researchers (Preda, 2005; Fallon, 2015; Qiao, 2013). According to IMF study (Novoa, Seelig, 2009), 60% of financial sector supervisors are managed by a board or council and have the following functions:

- defining and monitoring the strategic direction of the institution;
- development of regulatory and supervisory policies;
- approve / ratify key supervisory activities, including sanctions and license revocations.

In accordance with good management practice, many financial supervisors managed by a board of directors are entrusted to the executive director and only a small majority of the supervisory board is chaired by the head of the supervisory authority, as is the case with Latvia. Such a management model is not common (Novoa, Seelig, 2009) in the management of consolidated supervision.

The independence of the Latvian financial sector supervisory authority is enshrined in the Law on the Financial and Capital Market Commission *Saeima, 2000). It does not follow from this law that decisions taken by the FCMC should be challenged, nor does it determine the higher authority to which the FCMC would be subject to its functions (Supreme Court of the Republic of Latvia, 2019). Accordingly, other regulatory enactments, which detail the competence of the FCMC and provide for control of the legality of its decisions (eg, Law on Credit Institutions, Law on Payment Services and Electronic Money, Law on the Financial Instruments Market) do not provide for contestation of the FCMC's decisions (Supreme Court of the Republic of Latvia, 2019). Thus, the decisions of the FCMC can be appealed immediately in court. Consequently, the claim for compensation for the losses caused by the decision of the FCMC must also be filed in court (Supreme Court of the Republic of Latvia, 2015). The FCMC Council has the right to approve the FCMC budget and to determine the payments of financial and capital market participants to finance the activities of the Commission, presenting them to the FCMC advisory financial and capital market council, which has the right to express their opinion on them. These decisions of the FCMC Council are also not open to challenge. Thus, it can be concluded that in Latvia the independence of the financial supervisory authority from the legal point

[1] Single, fully consolidated supervisors supervising the entire financial sector (banks, insurance and securities firms).
Single, fully consolidated supervisors overseeing the entire financial sector (banks, insurance and securities market companies).
[2] Integration of different levels of supervision, usually through the supervision of different combinations of two types of financial intermediaries (eg banks and insurance companies, banks and securities firms, etc.).

of view is ensured, thus, there are preconditions for the institution to achieve high operating results, also ensuring its efficiency.

With regard to the financing of supervisory authorities, the study by the IMF (Novoa, Seelig, 2009) indicates that an important factor for both the independence of the supervisory authority and its effectiveness is its ability to determine its budget and funding allocations. Nearly 60% of all supervisors in the financial sector indicated that they had these opportunities. With the exception of the Integrated Supervisory Authorities, most supervisors have indicated in the survey that they have de facto power to set final budgets and allocations. This relationship exists geographically, with the exception of Latin American countries, where supervisory authorities are more likely to lack budgetary independence. Given that the quality of financial sector supervision depends to a large extent on the ability of the supervisory authority to attract and retain sufficient qualified staff, the ability to determine wages and the number of employees is a very important factor in the supervisory mandate.

The IMF study identifies three sources of funding for supervisors:

- central banks;
- regulated entities or supervisory entities;
- Government grants.

The study (Novoa, Seelig, 2009) points out that central bank money is the most important source of funding for financial sector supervisors. 90% of supervisors at central banks are financed mainly by their central banks. In addition, central bank money is often used to cover the costs of financial sector supervisors outside the central bank.

The second largest source of funding for supervisors comes from the fees charged to supervisors. About 76% (Novoa, Seelig, 2009) of insurance and securities market regulators alone receive funding from market participants – this argument is supported also by other researchers (Palepu, et al., 2008; Haslam, 2010; Holland, 2009). However, only 35% of bank regulators depend on bank payments. The IMF study (Novoa, Seelig, 2009) concludes that a much higher percentage outside central banks depends on the income from market payments. Some researchers have stressed communication importance (Liff, Wahlström, 2018) and also money laundering aspect has to be taken into account (De Koker, 2009).

Slightly more than a quarter of supervisors receive grants from their central government, according to an IMF study (Novoa, Seelig, 2009), with 45% of securities regulators citing government appropriations as the second most important source of funding. A quarter of insurance regulators receive state funding, but only 8% of banking supervisors receive state funding.

With regard to supervisory authorities whose revenue comes from payments made by supervisors, half of them have indicated that fees are set by law. The majority of other supervisors (36%) (Novoa, Seelig, 2009) imposed regulatory payments, which often involve consultation with the responsible government body, the ministry, according to an IMF study.

The authors (Novoa, Seelig, 2009) have mainly researched the funding models of supervisors in EU Member States and concluded that supervisors are financed by:

- from the state budget;
- from the state budget, but the supervisors cover the operating expenses of the supervisory authority according to the prescribed procedure by making payments to the state budget;
- from central bank financing;
- from payments made by supervisors, with contributions paid into the supervised current account.

Accountability mechanisms are one of the most important tools by which governments protect and improve the functioning of public sector organizations. The key question is: how will public sector responsibility become more effective? (Schillemans, 2016). And stresses importance of the role of the government (Cooray, 2011). Thomas Schillemans has stressed that in order to answer this question, it is necessary to combine two largely separate lines of research: public administration research on real-world organizations and pilot studies on the impact of different forms of accountability on decision-making. T. Schillemann has developed a calibrated model of public accountability (the CPA model) that can be used to explore how accountability can be calibrated to meet the requirements of organizations' tasks.

In modern governance systems, many (quasi) public organizations provide public policy. This has made responsibility increasingly important for regulating, coordinating and controlling organizations involved in public policy (Christensen, Lægreid. 2011). Public sector organizations are now operating in an increasingly frequent "accountability network" where they need to explain and justify their decisions and performance to various "accountability forums" (Bovens, Schillemans, Goodin. 2014) such as government audits, auditors, critical clients and the media. Over the last decade, research interest in 'accountability' has doubled across different academic disciplines (Schillemans, 2016), on failures of bank management and problems in finance regulator activities (Holland, 2019), on legal aspect challenges (Zekos, 2003). Several researchers have pointed out problems in regimes of regulators (Murphy, 2006). On those issues some other aspects could be researched deeper.

Research results and discussion

Characteristics of the factors characterizing the financial market of Latvia for the structure of financing

In order to find out the opinion of Latvian financial market subjects on FCMC financing issues and their close relation with the supervision and regulation service provided by the FCMC, a targeted survey was conducted - to find out and summarize the views of market participants:

1) the most appropriate components for determining funding;
2) the adequacy of the payment base to market participants;
3) on changes in the financing of the functions of the FCMC;
4) the independence of supervision and the adequacy of the payment for the service.

The paper will analyze survey questions that address factors that share common features in the relationship between a supervisor / regulator service and funding, or the size, relevance, distribution, or other proportion of funding.

At the end of 2017, the FCMC oversaw 309 market participants, but by mid-2018 they were already 314 without capital market participants.

The survey included 43 insurance market participants, 24 monetary financial institutions, 7 monetary non-financial institutions, 14 financial instruments and seven private pension funds. Unfortunately, neither the depositary, the stock exchange nor the issuers participated in the survey.

The financial market participants were prepared with 11 statements, which they had to answer on a scale of 1 to 10. The scale evaluated the extent to which the respondent agreed with these statements, with 1 strongly disagreeing and 10 strongly agreeing.

The analysis of the replies to the claims led to the conclusion that they are united by common factors resulting from a complex factor analysis, the results of which are presented in Table 2.

Table 2

Results of factor analysis of survey ratings

Initial factors evaluated by experts	Complex Factors			
	1	2	3	4
FCMC funding to be provided by market participants (those overseen by the Financial and Capital Market Commission)	0,454	0,755	0,066	-0,025
Direct financing through payments from market participants provides independent market monitoring and regulation	0,437	0,812	0,022	-0,071
The payment base currently set for the market participant you represent is adequate for determining the payments for FCMC financing	0,849	0,132	0,000	0,019
The amount charged to market participants is currently fair across market segments (conditionally related to industry monitoring / regulatory costs)	0,798	0,149	-0,018	0,010
Market participants should provide / finance supervision / regulation of other market participants (if a segment is small / underdeveloped / other reasons)	0,149	-0,109	0,803	0,034
Market participants should be categorized according to their risk profile and, accordingly, be assigned an increase in funding for riskier market participants and a reduction in funding for less risky market participants	-0,050	0,379	0,631	-0,332
Market participants are to be classified according to their size, grouped into groups and fixed for each year according to their size	-0,010	0,198	0,679	0,163
All market participants need to set a minimum annual fee to fund the FCMC	0,002	0,572	0,345	0,229
It is necessary to limit the maximum annual payments to all market participants in the financing of the FCMC	-0,306	0,302	0,029	0,754
Financial technology start-ups, which represent the innovative segment, should facilitate the financing of the FCMC	0,333	-0,171	0,066	0,775
Payment made to FCMC provides appropriate monitoring / regulation service	0,695	0,216	0,148	0,030

Method of Extraction of Complex Factors: Principal Component Analysis

Rotation method: varimax with Kaiser normalization. . Rotation converged in 8 iterations

Source: Author's construction based on Rita Vajnaga conducted expert survey in 2019,

Evaluation scale 1-10, where 1- not important; 10-very important

As result of factor analysis there were calculated four complex factors indicating main principles could be taken into account from big amount of initial factors.

Factor analysis focused the factors - the authors' calculations show four complex factors for the initially 11 identified factors:

Complex Factor I: Finance market participants' satisfaction with existing financing arrangements: consisting of initial factors: The payment base currently set by the market participant you represent is adequate for determining payments to the FCMC; The level of the fee charged to market participants is currently fair across market segments (determined relatively according to industry monitoring / regulatory costs); Payment made FCMC provides appropriate monitoring / regulation service.

Complex Factor II: Supervisory interaction (and its financing) factor consisting of initial factors: The FCMC must be funded by market participants (those supervised by the FCMC); Direct financing through market participant payments provides independent market monitoring and regulation; All market participants need to set a minimum annual fee to fund the FCMC.

Complex Factor III: The classification factor for market participants consisting of initial factors: Market participants should quote / finance supervision / regulation of other market participants (if segment is small / underdeveloped / new segment or other reasons); Market participants should be categorized according to their risk profile and, accordingly, be assigned an increase in funding for a more risky player and a decrease in funding for a less risky player; Market participants should be categorized according to their size by grouping them and fixing a fixed level of funding according to their size on an annual basis.

Complex Factor IV: Factor in the granting of incentives to market participants consisting of initial factors: It is necessary to limit the maximum annual payments to all market participants in the financing of the FCMC; Financial technology start-ups, which represent the innovative segment, should facilitate the financing of the FCMC.

To analyse deeper the expert opinions it was calculated main indicators of descriptive statistics on expert evaluations related to incentives of financial market participants – main results are included in table 3.

Table 3

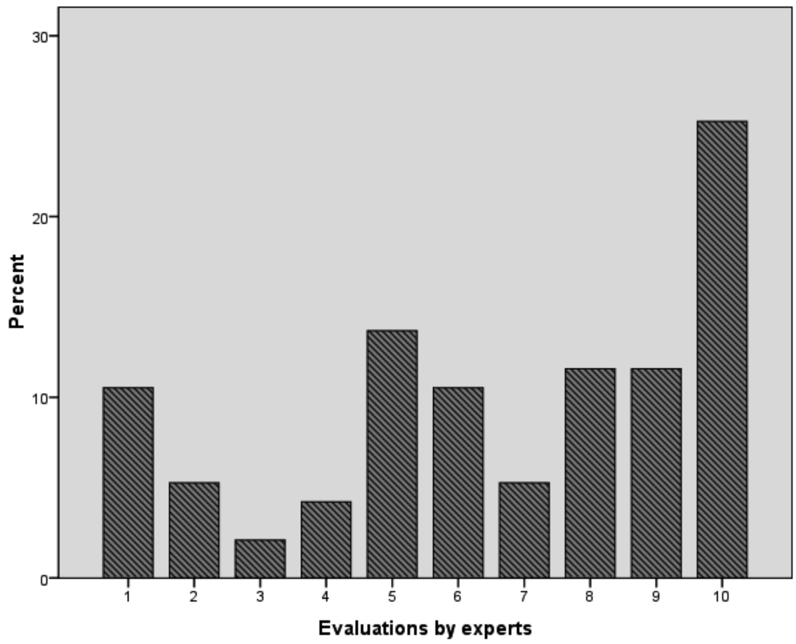
Main indicators of descriptive statistics on expert evaluations on incentives to market participants

Statistical Indicators		Financial technology start-ups, which represent the innovative segment, should facilitate the financing of the FCMC.	It is necessary to limit the maximum annual payments to all market participants in the financing of the FCMC
N	Valid	95	95
	Missing	0	0
Mean		5.49	6.62
Standard Error of Mean		0.306	0313
Median		5	7
Mode		5	10
Standard Deviation		2.982	3.046
Range		9	9
Minimum		1	1
Maximum		10	10

Source: Author's construction based on Rita Vanaga conducted expert survey in 2019,

Evaluation scale 1-10, where 1- not important; 10-very important

As data included in table 3 indicate that the expert views are quite different as the whole evaluation scale is covered with bigger variability for evaluated aspect "It is necessary to limit the maximum annual payments to all market participants in the financing of the FCMC" with arithmetic mean 6,62 and most often given evaluation – 10, characterised by mode; half of experts gave evaluation 7 or less and half of experts gave evaluation 7 or more. Distribution of evaluations of experts are included in figure 1.

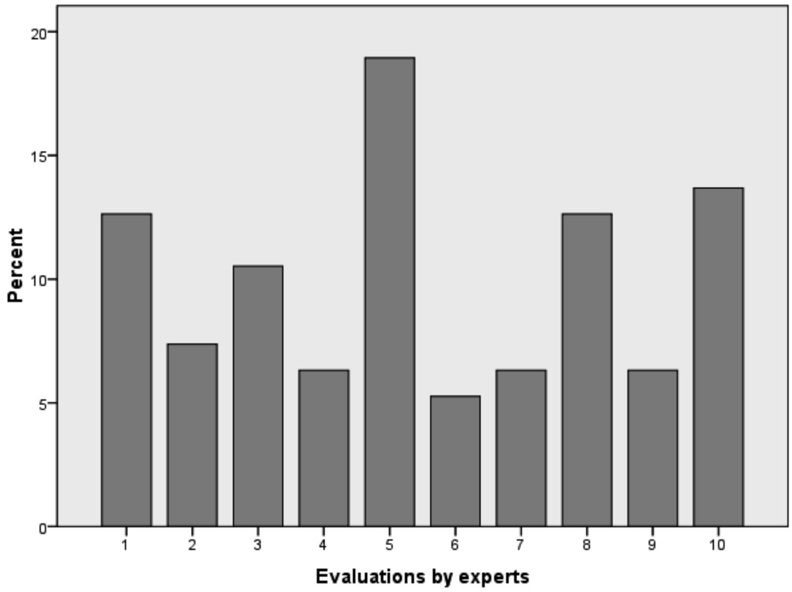


Source: Author's construction based on Rita Vanaga conducted expert survey in 2019,

Evaluatuon scale 1-10, where 1- not important; 10-very important

Fig. 1. **Distribution of evaluations by experts on analysed aspect "It is necessary to limit the maximum annual payments to all market participants in the financing of the FCMC"**

As data included in table 3 indicate that the expert views are quite different as the whole evaluation scale is covered also for evaluated aspect "Financial technology start-ups, which represent the innovative segment, should facilitate the financing of the FCMC" with arithmetic mean 5,49 and most often given evaluation – 5, characterised by mode; half of experts gave evaluation 5 or less and half of experts gave evaluation 7 or more. Distribution of evaluations of experts is included in figure 2.



Source: Author's construction based on Rita Vanaga conducted expert survey in 2019,
Evaluation scale 1-10, where 1- not important; 10-very important

Fig. 1. **Distribution of evaluations by experts on analysed aspect "Financial technology start-ups, which represent the innovative segment, should facilitate the financing of the FCMC"**

Results of expert evaluations indicate that the financing model of finance regulator in Latvia has to be prepared using more detailed analysis of advantages and disadvantages of each financing model in other countries – more detailed research of experience in other countries could be studied in bigger detalisation and used for preparation of decisions.

Conclusions, proposals, recommendations

1. Different models of finance regulator's organisation, management and financing have several advantages and disadvantages as it is indicated in experience analysis and research results investigation.
2. Most important aspects are related to public trust for finance regulators to avoid problems for society, especially most sensitive part of inhabitants to those aspects – retired persons and not so well educated persons of society.
3. Expert views in Latvia are related to four most important factors affecting finance regulator financing aspects: finance market participants' satisfaction with existing financing arrange; supervisory interaction (and its financing) factor; the classification factor for market participants.
4. Financing model of finance regulator in Latvia has to be prepared using more detailed analysis of advantages and disadvantages of each financing model in other countries.

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