

# Going Global or Staying Local: Determinants of Domestic and International Corporate Bond Issues in the Baltics

**Oskars Vainovskis, Tenis Lenerts**

Stockholm School of Economics in Riga, Latvia

**Natalja Tocolovska**

Riga Graduate School of Law, Latvia

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In the period 2017-2022, there has been a notable growth in international bond placements by Baltic companies, which is distinct from corporate bond issuance in the European Economic Area. While the Baltic governments have demonstrated an increased focus on the corporate bond market development – the pan-Baltic Capital Markets Union launched in 2017 and covered bond law as adopted in Latvia in 2021, those activities are not directly linked to the ongoing shift to international corporate borrowing. In the academic literature, the determinants affecting corporate bond issuance are getting certain attention while studying separately the country-level determinants and the firm-level determinants, which are further split into domestic and international corporate bond issuance. For the Baltic countries, rare academic research has focused on the corporate bond market development of an individual Baltic country. This paper aims to discover the determinants for domestic and international corporate bond issuance of Baltic companies. While providing theoretical insight into corporate bond issuance rationale for both domestic and international placements, the paper focuses on factors that have contributed to firms choosing to issue bonds internationally. The methods applied in this study are scientific publication analysis, document analysis, expert survey, in-depth interviews, and statistical data analysis. For the statistical analysis, macroeconomic data was acquired from Cbonds, The World Bank, and International Monetary Fund databases in combination with company-specific data gathered from Nasdaq CSD, Orbis, Lursoft, Storybook, and Rekvizitai. The authors have employed a panel regression model for domestic and international bond issuance, and probit regression for all issued bonds in the Baltics in the period 2003-2022 to estimate the probability of pursuing bond financing internationally. The findings of this paper indicate that in the Baltics the main firm-level determinants for domestic corporate bond issuance are the company's financial performance, its geographic exposure, documentation and listing costs, and access to alternative funding sources; on the country-level, the determinants are the share of sovereign international bonds of GDP, corruption perception, and exports as a share of GDP. For issuing international corporate bonds, the main determinants on the firm-level are bond placement size, company size, equity ratio, a satisfactory credit rating, and appropriate yields in the context of higher competition for international investor attention; on the country-level, GDP per capita, country's export share, interest rate spread, regulatory quality, and political stability play an important role.

**KEYWORDS:** corporate bonds, domestic and international, factors, market development, Baltics.

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## Abstract



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## Introduction

Lately, companies in Estonia, Latvia, and Lithuania have substantially increased their borrowing volumes in foreign capital markets as compared to the funding raised domestically. In five years from October 2017 to October 2022, the total value of outstanding Eurobonds issued in the Baltics has grown by 23.3% on average per annum (Lithuania 47.5%, Estonia 16.8%, and Latvia 16.4%) (Cbonds, 2022). This shift in bond placement preference in the Baltics is unique when compared to other markets in the European Economic Area (EEA) where the outstanding Eurobonds in the same period have grown by 0.7% on average per annum. Moreover, the pan-Baltic Capital Markets Union launched in 2017 and covered bond law as adopted in 2021 have further influenced the development of corporate bond issuance in the region within that period (Ministry of Finance of the Republic of Latvia, 2018; EBRD, 2017). In the EEA region, the outstanding Eurobond volumes over the period of 2017-2022 have been proportional to the outstanding domestic corporate bond volumes but that has not been the case in the Baltics where the proportion of outstanding Eurobonds has increased by 19.1 percentage points (Cbonds, 2022).

This research aims to discover the determinants for domestic and international corporate bond issuance of Baltic companies. While providing theoretical insight into corporate bond issuance rationale for both domestic and international placements, the research focuses on factors that have contributed to firms choosing to issue bonds internationally. The research provides a limitation for the international bond definition where the authors refer to Eurobonds as international bonds issued by companies outside of their jurisdiction (Nasdaq, 2023). The authors contend that the net change in outstanding bond values to analyse the development of fixed-income markets of countries is better reflecting the development of the market and is less impacted by bond refinancing decisions which may inflate statistics such as the total placement value of bonds.

The study is organized as follows: first, the authors explore the academic research to identify the corporate bond determinants literature to set the context of the research and support the chosen methodology. Second, the authors present the data and methodology and the further analysis of the results obtained. As the result of the literature review, analysis of the primary data obtained via the questionnaires and the in-depth interviews as well as the statistical analysis of the country-level and firm-level determinants, the main determinants as influencing the choice of the Baltic corporate bond issuance in the local or international market are presented. This study contributes to the current research on the corporate bond issuance determinants in two ways: the authors provide an in-depth analysis of the determinants of the Baltic corporate bond issuance in two dimensions: domestic and international issuance, country-level and firm-level determinants; the authors have collected and analysed the primary dataset on the Baltic corporate bond issuance, which is the first attempt to analyse the Baltic corporate bond market as a region. The methods applied in this study are scientific publication analysis, document analysis, expert survey, in-depth interviews, and statistical data analysis. For the statistical analysis, macroeconomic data was acquired from Cbonds, The World Bank, and International Monetary Fund databases in combination with company-specific data gathered from Nasdaq CSD, Orbis, Lursoft, Storybook, and Rekvizitai. The expert survey and in-depth interviews were conducted in the period from November 2022 to January 2023.

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## Literature Review

There is vast academic research on corporate bonds where authors predominantly focus on returns. The recent development of the green bond market gets an increasing academic interest in the field. The determinants affecting corporate bond issuance are getting certain attention where the outstanding research can be divided into two groups: studies covering country-level determinants and firm-level determinants. The academic research on the country-level determinants presents the main division into government and corporate bonds, and the studies on

the firm-level determinants produce the split into domestic and international corporate bond issuance. The study of Gaspareniene *et al.* (2019) further divided the determinants into general economic determinants, bank sector determinants, money market determinants, and specific characteristics of a company.

Academic research on the country-level determinants of the corporate bond markets typically is applied to a bigger sample of countries. Smaoui *et al.* (2017) examined a sample of 22 developing countries and found economic size (GDP expressed in purchasing-power-parity), trade openness (exports to GDP), investment profile (risk rating derived from a combination of contract expropriation, profits repatriation, and payment delays), bureaucratic quality (estimate of bureaucratic autonomy from political pressure and its conservatism), banking concentration (sum of largest three banks' assets measured against the total assets in the supervision of commercial banks), and lastly the foreign exchange rate volatility (standard deviation of the nominal exchange rate logarithm difference) to be important. Tocolovska *et al.* (2018) analysed 31 country-sample revealing GDP per capita, amount of domestic savings, real GDP growth, amount of government bonds as the share of GDP and regulatory quality on the amount of outstanding corporate bonds. Mu *et al.* (2013) studied 24 corporate bond markets and identified that economic size, GDP per capita, and land area variables were significant. Bae (2012) analysed 43 countries and concluded that the outstanding government bonds as a share of GDP and the domestic credit issued by banks as a share of GDP are positively related to the share of outstanding corporate bonds to GDP.

The examination focused on per-country corporate bond issuance determinants provides more controversial results. Lee & Goh (2019) confirmed the crucial impact of the well-functioning sovereign market as the determinant for the domestic corporate bond market in Malaysia. Baslaviak (2019) discovered the factors that challenged the development of the corporate bond market in Belarus: focus on the bank financing and savings by companies and households respectively, large issuance costs, secondary market factors: institutional investors, benchmark, illiquidity of the secondary market. Neemey & Sahay (2019) identified that the Indian corporate bond market was associated with economic, monetary and fiscal variables neither negatively nor positively, nor at a significant rate. The study further emphasised GDP in percentage as the only one among the selected variables. The liquidity factor as influencing the corporate bond market attracts the attention of academics. Liquidity as an issue of the developing markets was studied by Berrich & Dabbou (2023) for the Tunisian corporate bond segment. The determinants recognised by the paper were: the absence of a corporate bond yield curve, a narrow investor base, market participants' lack of financial education and authorities' attitudes. The study of Odemir-Dilidugun *et al.* (2022) examined the liquidity factor from the corporate bond pricing side for Turkey, an emerging market, and Europe. For Turkey, the study revealed the link to the benchmark treasury bond liquidity and corporate bond market liquidity, for the Eurozone equity market, liquidity and government bond benchmark were revealed.

The corporate bond market of the Baltic region is scarcely analysed by academics. Tocolovska *et al.* (2018) studied the Latvian corporate bond market from both country-level and firm-level determinant perspectives. Lithuanian corporate bond market is either studied in a bigger sample of countries for government debt issuance or in the context of alternative to bank-base borrowing. Gaspareniene *et al.* (2019) identified the link between corporate borrowing in the financial markets and bank requirements for borrowers based on the strict legal regulation of the banking sector. Levisauskaite *et al.* (2014) included both Latvia and Lithuania in their analysis of the link between the stock market and sovereign bond markets in the European Union (EU) countries, while one of the conclusions indicated that the Lithuanian market distinguished from other European countries as assumed by the authors, potentially caused by lack of data, different indi-

ces used or the country being among new members of the European Union. Arefjevs&Braslins (2013) analysed the Latvian sovereign bond segment from the perspective of the credit rating and found that GDP growth rate and unemployment explain the credit ratings of Latvia for the period analysed. Hvozdenka (2018) studied the government bond market for the Baltic region and indicated the deepening of bond market convergence after the European Union accession with continuous integration.

Milzen et al. (2012) studied the firm-level determinants and first defined the determinants that brought companies to the bond market and second the determinants that motivated the choice of an international or local market. The authors indicated that company size and the time traded on the stock market had a positive influence on the decisions to issue bonds. At the same time, Datta *et al.* (2000) noted that growth businesses with significant financial demands were more inclined to issue debt securities compared to companies with fewer growth opportunities. Ahwireng-Obeng & Ahwireng-Obeng (2020) identified that risk, leverage, size, and age were the determinants to influence companies' decisions to issue in the African emerging bond markets. Tcelovska *et al.* (2019) concentrated on the financial sector corporate bond issuers in Latvia, where the reputation a company gets as the result of the bond issue, strategical ambition to be present in the public market, cost of funding in the long-term (more than 3 years) were recognised as the main determinants of the corporate bonds issues.

The analysis of academic papers reveals the motivation of companies to issue international bonds as compared to domestic bonds, revolves around the cost incentives: Calomiris *et al.* (2022), Massa & Žaldokas (2013), Black & Munro (2010), McBrady & Schill (2007), Baker *et al.* (2003); risk management practices: Siegfried *et al.* (2007), and specific characteristics of the issuance type. Additionally, Calomiris *et al.* (2022) emphasized the desire to be present in an index, Black & Munro (2010) the demand to diversify the funding, both by employing multiple types of financial instruments and multiple markets, Siegfried *et al.* (2007) the diversity of the investor base. while Dimic *et al.* (2022) indicated that first-time off-shore bond issuances by US companies had a short-term positive effect on company valuations which was mainly caused by the information asymmetry effect, the lack of impact on the companies' valuation or performance metrics was acknowledged by Gozzi *et al.* (2010).

In recent years, the growing attention of academics is present in the green bond segment including the determinants influencing the issues. Green bonds are present in the Baltic market still on a limited scope. Cicchiello *et al.* (2022) focused on the determinants that affected companies' decisions about issuing green bonds instead of conventional bonds. The study found that the green bond was a more desirable choice for a firm with a high percentage of females on the board and a long-term debt structure thus identifying the combined effect of board gender diversity and the issuer's debt structure is associated with a higher probability of issuing a green bond. The gender factor was further discovered by Garcia *et al.* (2023) who studied the green bond issuers with a focus on the corporate governance determinants. The authors found that that issue green bonds issuers have a higher environmental score, a lower volume of CO<sub>2</sub> emissions, a board with a higher percentage of women, and a sustainability committee.

This study employs qualitative analysis to gain a deeper understanding of the Baltic corporate bond market. Data was collected through a survey of the corporate bond issuers and in-depth interviews with the lead managers organising the issues. Although other stakeholders, such as investors and legal advisors, are involved in the process, issuers and issuer agents are the ones who make significant decisions regarding funding attraction and advisory processes. The expert surveys and in-depth interviews were conducted from November 2022 to January 2023. The

expert survey was sent to the Baltic corporate bond issuers in the period 2017-2022 when the majority of the total corporate bond placement amount value in the Baltics (approximately 63%) took place. As a result of the survey, 38 responses were compiled from 158 representatives of 168 companies, resulting in a response rate of 24%. Each company was contacted 2-5 times via email with the following reminders via LinkedIn network and phone. The twenty questions in the survey (Likert scale) were divided into three parts: 1) the choice of funding, 2) the specifics of issuing bonds, and 3) background information about the respondent and the represented company. In-depth interviews were conducted with lead managers who have assisted Baltic companies in issuing domestic or international bonds during 2017-2022. The data on the lead managers of Baltic corporate bond issues was collected from Cbonds and later cross-referenced with statistics available on Nasdaq Baltic. The authors were able to identify seven lead managers who each had organized more than seven corporate bond issues between 2017 and 2022: Siauliu bankas, Luminor Bank, Orion Securities, Signet Bank, BlueOrange Bank, LHV, and SEB. The interviews were conducted with four lead managers (interview response rate of 57%).

As part of the quantitative analysis, this study employs a fixed effects panel regression model to analyse bond market development from a country-level perspective, adapting the methodology from Smaoui *et al.* (2017), Mu *et al.* (2013), and Tocolovska *et al.* (2018). This approach accounts for unobserved country-specific factors, is more robust to omitted variable bias than pooled ordinary least squares, and is less restrictive than the random effects model. Data was collected from the Cbonds database, and the authors run two regression models with dependent variables representing the amounts of outstanding corporate domestic and international bonds as a share of GDP. Macroeconomic indicators from the International Monetary Fund (IMF) and World Bank were used as regression variables, supplemented by relevant World Bank factors. A panel regression analysis was chosen due to limited observations for Latvia and the need to employ multiple regressors. The sample includes all EEA countries, except Liechtenstein, Luxembourg, and Iceland, due to a lack of observations and outlier status. Such extension of the sample was done to increase the number of available observations for the regression, consequently increasing the diversity of the sample which can improve the robustness and generalisability of the achieved results. Additionally, by increasing the sample size the authors have covered a larger share of the financial markets which provides a more comprehensive view of the market dynamics affecting bond issuance when accounting for the country-specific effects due to the fixed effects regression model. The authors believe that the EEA countries can be comparable with each other due to having a mutual agreement to strengthen the trade and economic relations of all the involved parties (Eurostat, 2023). The states are specifically focusing on creating a strong internal market by providing access to goods, services, people, and capital among each member. The final sample consists of 27 countries over 20 time periods (2001-2021), leading to 540 observations.

$$Y_{c,t} = \alpha \omega_{c,t} + \mu_t + \epsilon_{c,t}$$

The variable  $Y_{c,t}$  represents the outstanding corporate (domestic and international) debt securities as a share of GDP for country  $c$  in time  $t$ . This equation is linearly dependent on the vector  $\omega_{c,t}$  that includes country-specific market development variables, and  $\mu_t$  including time-fixed effects.  $\epsilon_{c,t}$  is the error term for the equation. The variable  $Y_{c,t}$  was calculated by dividing the outstanding corporate debt security values in USD acquired from the Cbonds database by the country-specific Gross Domestic Product in current prices reported in USD; therefore, avoiding any manual exchange rate conversions.

The regression model includes the following regressors: GDP per capita, GDP growth rate, inflation rate, Worldwide Governance Indicators like Rule of law, Regulatory Quality, Government Effectiveness, Political Stability, and Control for corruption, along with exports to GDP ratio, bank net interest rate margin as a proxy for interest rate spread, sovereign bond to GDP ratio, exchange rate volatility, domestic savings to GDP, a dummy variable for the period of Global financial crisis, and time time-fixed effects.

Additionally to the country-level analysis, a probit regression model is employed for firm-level analysis, linking the choice of issuance for international corporate bonds in the Baltics to bond and market characteristics. This approach is based on the methodology of Black and Munro (2010), and supported by Mizen et al. (2012). The authors specifically chose a binary dependent variable for the regression analysis as this was the only approach that would fit the characteristics of the acquired dataset. Data for the regression is sourced from the Cbonds database, which includes bond characteristics such as issuer name, date, maturity, placement amount, industry, currency, type, status, coupon amount and frequency, listing exchange, and market participants. The dataset contains 826 data points, with 618 observations remaining after filtering out outliers and missing values. Out of the 618 observations domestically issued bonds for Latvia comprise 164 issues, Lithuania - 239, and Estonia - 171. Internationally issued bonds for Latvia have 11 data points, Lithuania - 9, and Estonia - 24. The data covers Baltic bonds from 17/03/2003 to 07/11/2022. Additionally, company financial data was acquired from multiple sources, including Orbis, Lursoft, Storybook, and Rekvizitai, and contains balance sheet entries for companies' total assets and liabilities. The following regression formula is employed for each Baltic country dataset:

$$\Pr(\text{International}_{f,c,t}) = \alpha\omega_{f,c,t} + \mu_c + \epsilon_{f,c,t}$$

The variable  $\text{International}_{f,c,t}$  is a dummy variable that equals one if a bond has been issued internationally by a company  $f$ , in country  $c$ , and in time  $t$ . This equation is linearly dependent on the vector  $\omega_{f,c,t}$  that includes specific company and market-level characteristics.  $\mu_c$  contains country-fixed effects, while  $\epsilon_{f,c,t}$  is the error term for the equation. The probit model includes the following regressors: bond placement amount, bond tenor, company asset size, company equity ratio, a dummy variable for the period of Global financial crisis, and a dummy variable for financial companies alongside country-specific factors like GDP per capita, exports to GDP ratio, Political stability, Regulatory quality, bank net interest rate margin, and country-fixed effects for all of the Baltic countries.

## Results

After summarizing the findings from the qualitative and quantitative parts of the study the authors have validated them by industry experts. The results are divided into interrelated sections that collectively explain the development of the Baltic capital markets and determinants of domestic and international corporate bond issuance. These sections investigate the bond issuance environment, market determinants, the impact of regulations and taxation, and the investor base.

From the perspective of the domestic and international corporate bond issuance environment in the Baltics, the data presented indicate that companies across various industries and sizes in the Baltics consider bond financing as a viable alternative to traditional bank financing. Companies seek to diversify their creditors and experience the flexibility offered by bond financing, such as the lack of maintenance covenants and the possibility of bullet repayment at maturity.

A noteworthy distinction between domestic and international bond placements lies in the investor base. While domestic placements cater to both institutional and retail investors, international

placements are exclusively geared toward institutional investors. This is further supported by the involvement of credit rating agencies, which play a significant role in assessing a company's creditworthiness and attracting more interest from international investors. Additionally, international bond placements face high requirements from international institutional investors in terms of placement size, with the optimal threshold being set at EUR 300 - 500 million, a range that few Baltic companies can attain. This fact is also supported by the firm-level regression analysis which reveals there is a positive relationship between the placement size of the bond and the probability to issue internationally, indicating that historically large issuers need to rely on markets outside of the Baltics to facilitate their demands, which is in line with the conclusions of Carlos & Ross (2015). Additionally, the questionnaire results indicate that the long-term cost of funding (more than 3 years) is one of the main factors influencing their decision to pursue bond placement. This observation is also supported by the previous studies indicating that companies reduce their demand for issuing bonds when the interest rate spread is high as it is very expensive to attract new financing. The regression analysis also confirms this relationship by demonstrating that the interest rate spread proxied by the bank net interest rate margin has a negative effect on the outstanding values for international bonds as a share of GDP. The firm-level analysis also supports that the bond tenor positively influences the probability of international listing, supporting the long-term narrative of international markets.

In the regressions applied at both country and firm-level the authors also looked at market-level determinants which influenced the outstanding international and domestic corporate bond amount as a percentage of GDP. The key finding is that the ratio of exports to GDP is statistically significant in all of the regressions where an increase in exports negatively affected domestic corporate bond issuance while positively influencing international corporate bond issuance. This observation is also consistent with the previous research indicating that as a country's economy becomes more open, the need for external financing increases, leading to greater penetration of international bond markets. On the other hand, the exports to GDP negatively influenced Baltic companies to pursue international listing which can be explained that there are only a small number of issuers from the Baltics with the capabilities and needs to attract a large amount of financing. The interviews have confirmed that for most Baltic companies it does not make financial sense to pursue international funding due to the large amount of fixed listing costs associated, therefore, supporting the argument of slow economic growth and lagging capital market development. The sovereign international bonds as a share of GDP have a positive effect on the local bonds as a share of GDP. The World Bank has classified it as a relevant factor in assessing the depth aspect of financial market development. The conclusions also go in line with the previous studies suggesting that a developed government bond market can indirectly promote corporate bond issuance as it helps to advertise fixed-income securities.

Regarding the World Governance Indicators, corruption levels, and regulatory quality have a negative influence on international bond issuance. This finding is in line with Miller & Puthenpurackal (2002), linking lower creditor protection with higher expected premiums for bonds, leading to unfavourable conditions for international placements. For one of the regressions, regulatory quality exhibited a positive correlation to the local bond issuance, leading to the hypothesis that there might be a capital transfer back from international to domestic markets due to an improvement in the perception of the local government's regulatory quality. Political stability is positively related to both country-level and firm-level international bond issuance thus the public's perception of the government seems to influence the choice of issuing corporate bonds. See [Table 1](#) for country-level and firm-level relationships between the independent and dependent variables which are significant at a 5% significance level and are robust across multiple regressions.

**Table 1**

Country-level and firm-level regression result overview

Country-level regressions	Impact on:		Firm-level regression	Impact on:
	Regression variable	Local bonds (as % of GDP)		
GDP per capita	-	Positive	Bond tenor	Positive
GDP growth	-	Negative	Firm's assets	Positive
Inflation	-	Negative	Placement amount	Positive
Sovereign bonds (as % of GDP)	Positive	-	Equity ratio	Negative
Regulatory quality	-	Negative	Exports (as % of GDP)	Negative
Corruption	Negative	-	Political stability	Positive
Political stability	-	Positive		
Exports (as % of GDP)	Negative	Positive		
GFC dummy	-	Positive		
Bank net interest margin	-	Negative		

Source: Author's construction based on Cbonds, The World Bank, International Monetary Fund, Orbis, Nasdaq CSD, Lursoft, Storybook, and Rekvizitai data (2023)

From the perspective of regulation and taxation, the prospectus regulation, as stipulated by the European Parliament (European Securities and Markets Authority, 2020; EUR-Lex, 2021), plays a crucial role in shaping the corporate bond issuance landscape in the Baltics. While it aims to reduce the burden on smaller issuers, the current thresholds, below which a prospectus is not required, may still hinder the growth of bond placements. The interviewees suggested that both aligning the thresholds among the Baltic states and increasing them would facilitate an increase in placement volumes, thus promoting market development. Differences in regulations among the Baltic countries, such as the absence of a "collateral agent" concept in Latvia, can lead to increased legal risk and hinder the development of the market. Taxation is another factor that impacts corporate bond issuance. The Latvian withholding tax has been criticized for discouraging retail investors and imposing administrative burdens on issuers and is relatively unfavourable when compared to Estonia and Lithuania (Finance Latvia Association, 2021). However, while writing this research paper, a decrease of the withholding tax from 20% to 5% for non-resident investors from the EU or EEA has been done in Latvia (Sorainen, 2022).

An important factor influencing bond issuance is cost attributed when following all of the necessary regulations. The results of the survey and interviews are contradicting: the results of the survey indicate that documentation costs associated with the issuance process and market entrance costs, like listing and registration fees, are the least relevant issuance obstacles, whereas the evidence from the interviews points to the importance of these costs. The authors root this contradiction in the skewness to the larger issuers as participants of the survey - the identifiable companies that answered the survey contributed to about 55% of the total corporate bond placements while contributing to a 24% survey response rate. Previous studies support that larger companies are associated with larger placement amounts and entering international markets;



therefore, the relative placement costs in proportion to the raised amount would be small, which the authors have observed from the survey results. The notion of larger companies issuing more international bonds is also supported by the firm-level regression where the asset size of the company has been positively related to the probability of issuing internationally. As a result, the authors are more inclined to the perspective of the lead managers indicating that the fixed and legal costs are not proportional for smaller companies that want to attract relatively small bond financing. A similar view on the issue was recently expressed publicly by Mintos Marketplace AS - a global crowdlending platform with headquarters in Latvia. They suggested increasing the EU-wide threshold for the prospectus requirement to a unified EUR 12 million and allowing the prospectus summary to be drawn in English only. Currently, the issuers have an obligation to translate the prospectus summary to all the countries' local languages where the bond placement would be offered. Additionally, the issuers are expected to draw the full prospectus even in the case of the placement not exceeding the threshold. This leads to major additional costs associated with international placements that may deter small and medium-sized enterprises (SMEs) from choosing to offer their placements in international markets (European Commission, 2023). The experts have indicated that there are new initiatives in process with support from the EU funds in Latvia and Lithuania. They would include temporary subsidies to cover a part of the listing fees for public equities and corporate bonds for SMEs. The authors believe that the development of the Baltic debt capital market can be directly related to smaller companies pursuing these bond financing options, therefore, increasing the overall market liquidity and advancement. The investor base for Baltic corporate bond placements is predominantly composed of local institutional investors. However, approximately 10% of the total domestic placement value is covered by international investors. Attracting a wider international investor base often requires hiring a credit rating agency to rate the issuer's creditworthiness, partnering with well-established investment banks to lead the placement process, and offering competitive yields that reflect the credit appetite of institutional investors.

Additionally, the previous literature has indicated that high leverage can be an indication of good credit quality due to the company's ability to attract a high level of debt. This also seems to be supported by the firm-level regression analysis which indicates a negative relationship between the equity ratio and the probability of international bond issuance. The equity ratio can be interpreted as a proxy for higher credit quality in Baltic companies that issue bonds internationally, as a higher liability base increases this international issuance probability. On the other hand, this value can also be impacted by the fact that about 56.2% of all international bond placement volume expressed in EUR was issued by banks or other financial institutions which have completely different balance sheet structures when compared to regular companies. From the dataset of this research, the authors observe that financial institutions for the most part have relatively low equity ratios. Although the authors sought to capture the potential effect borne by companies that operate in the financial sector by introducing a financial institution dummy variable, the results did not turn out to be significant. This indicates that the negative equity ratio relationship might not be only due to the presence of financial institutions in the dataset but there is a different reason for this value.

- » In the academic literature outstanding the determinants affecting corporate bond issuance are getting certain attention where the existing research can be divided into two groups: studies covering country-level determinants and firm-level determinants. The studies on the country-level determinants focus on government or corporate bond segments, while the studies on the firm-level determinants produce the split into domestic and international corporate

bond issuance. Academic research on the country-level determinants of the corporate bond markets typically was applied to a bigger sample of countries and found economic size, GDP growth, amount of domestic savings, trade openness, amount of government bonds, regulatory quality, lending activity in the banking sector as the affecting determinants revealed by the various studies. The examination focused on per-country corporate bond issuance determinants provided more controversial results. For the Baltic countries, the rare academic research focused on the corporate bond market development of an individual Baltic country.

- » Academic studies on the firm-level determinants for entering the bond market have identified the firm's size, the time traded on the stock market, its risk profile and leverage, the reputation gained through bond issuance, strategic ambitions to access public markets, and the long-term cost of funding (more than 3 years) as key factors. For companies opting for international bonds over domestic bonds, the motivation typically revolves around cost incentives, risk management strategies, and the unique characteristics associated with the type of issuance.
- » The findings of this research indicate that from the issuance environment perspective, the main determinants for domestic bond issuance included the share of sovereign international bonds of GDP, corruption perception, and exports as a share of GDP. For issuing international bonds, GDP per capita, country's export share, interest rate spread, and WGI indicators like regulatory quality and political stability seem to play an important role. Regarding the firm-level perspective, the main determinants for the domestic bond issuance included the company's financial performance (assessed through EBITDA, debt to EBITDA ratio, ICR, and equity ratio), its geographic exposure, documentation and listing costs, access to alternative funding sources, and regulatory requirements. For international bond issuance, the main determinants include the bond placement size, company size, equity ratio, a satisfactory credit rating, and appropriate yields in the context of higher competition for international investor attention. From the perspective of regulation, the prospectus regulation plays a crucial role in shaping the corporate bond issuance landscape in the Baltics. The research recommends raising the EU-wide prospectus threshold to EUR 12 million and permitting English-only summaries. Taxation is gradually getting more favourable.
- » From the perspective of the domestic and international corporate bond issuance environment in the Baltics, the data presented indicate that companies across various industries and sizes in the Baltics consider bond financing as a viable alternative to traditional bank financing. A noteworthy distinction between domestic and international bond placements lies in the investor base. While domestic placements cater to both institutional and retail investors, international placements are exclusively geared toward institutional investors. The investor base for Baltic corporate bond placements is predominantly composed of local institutional investors. However, approximately 10% of the total domestic placement value is covered by international investors. Regarding the World Governance Indicators, corruption levels, and regulatory quality have a negative influence on international bond issuance. Addressing the previously identified barriers, such as market liquidity and the relative cost of bond issuance compared to alternative funding sources, could encourage more companies to enter the bond market. Additionally, harmonizing regulations in terms of issuance thresholds, collateral agents, and tax regimes across the Baltic countries could further facilitate cross-border investments and foster the integration of the Baltic capital markets.
- » The authors recommend further research to be conducted from the perspective of the investors rather than the issuers, in order to provide a more comprehensive understanding of the Baltic corporate bond market. Such an approach could yield valuable insights into the behaviour and preferences of investors, as well as their impact on the development and efficiency of the market.

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## About the authors

### **OSKARS VAINOVSKIS**

#### **BSc**

Stockholm School of Economics in Riga

#### **Fields of interests**

Corporate bonds, capital markets, financial instruments, private equity

#### **Address**

Strelnieku iela 4a, Rīga,  
LV-1010, Latvia  
+371 28854342

[ovainovskis@sseriga.edu](mailto:ovainovskis@sseriga.edu)

### **TENIS LENERTS**

#### **BSc**

Stockholm School of Economics in Riga

#### **Fields of interests**

Corporate bonds, capital markets, financial instruments, private equity

#### **Address**

Strelnieku iela 4a, Rīga,  
LV-1010, Latvia  
+371 28868807

[tlenerts@sseriga.edu](mailto:tlenerts@sseriga.edu)

### **NATALJA TOCELOVSKA**

#### **Assistant Professor, PhD**

Rīga Graduate School of Law

#### **Fields of interests**

Corporate bonds, financial markets, financial instruments

#### **Address**

Strelnieku iela 4 k-2, Rīga,  
LV-1010, Latvia  
+371 29138802

[Natalja.Tocelovska@rgsl.edu.lv](mailto:Natalja.Tocelovska@rgsl.edu.lv)

