Evaluation of Sustainability of Business Models of Scandinavian Bank Subsidiaries in the Baltics

Using the system of key business model indicators, the sustainability of business models of Scandinavian bank subsidiaries in the Baltics is analysed. The aim of the research is to assess if banks keep on doing their business as they are currently, will they continue generating acceptable returns over three years; and to detect key material vulnerabilities.

Keywords: business model, foreign-owned bank, sustainability, profitability.

JEL Classifications: G21/M21.

Introduction

All countries want to build the most advanced banking systems. If each bank in the country creates value for customers, shareholders, employees, public sector and for society as a whole, that impacts the country economy growth and progress significantly.

Some researches in the academic world (Huang, Lin, 2012; Altunbas et al., 2012; Llewellyn, 2013) demonstrated that the banking industry has become too volatile, too interdependent and inflexible in the last ten years. It has become difficult to understand how banks conduct their business. Banks have been operating under non-sustainable business models.

The analysis of banking business models and their sustainability is a relatively new approach towards the banking industry analysis, as well as in prudential supervision. The global financial crisis revealed that a traditional prudential supervision approach, which mainly focuses on the adequacy of bank capital, liquidity and risk management, is insufficient. Therefore, many additional measures were
introduced, among them business model analysis, which should allow at an early stage for supervisors to assess the sustainability of business models and to detect key vulnerabilities. At the end of last year, European Central Bank assumed responsibility for euro area banking and set the assessment of sustainability and viability of business models and profitability drivers as the supervisory priority for 2015 (European Central Bank, 2015).

Baltic banking sectors are dominated by the subsidiaries of Scandinavian banks. After the crisis in 2009, the business models of the subsidiaries have changed significantly: banks have become risk averse and more oriented towards banking safety. However, in new environment bank business models still remain of major concern. This leads to the scientific problem: if business models of Scandinavian banks subsidiaries in the Baltics are sustainable? The object of this research is the bank business model. The aim of this research is to assess these subsidiaries business model sustainability. To meet the aim of the article following objectives were formulated:
1. to perform a literature review of relevant scientific and professional literature on bank business models and their sustainability;
2. to carry out an empirical research seeking to assess whether business models of Baltic subsidiaries are sustainable and to detect key material vulnerabilities;
3. to provide the managerial solutions outlining key focus areas on bank business models in need for some change to ensure their sustainability.

The research methods include: analysis of theoretical and empirical literature on bank business models; the quantitative analysis of three business model components.

Literature Review

Recently the topic of a business model has been often discussed both in the

![Fig. 1. Business Model Canvas](Source: A. Osterwalder and Y. Pigneur (2010).)
professional and academic publications. The concept is usually used as an analytical tool to have a schematic and complete picture of organization business from a high-level perspective. The revolutionary work was carried out by A. Osterwalder and Y. Pigneur (2010), the leaders in the field of business models innovation. They introduced the concept of a business model through the generalized view of 470 practitioners from a number of different countries. They used business models in an attempt to better explain how firms do business. They summarized business models into nine building blocks using a diagram called ‘Business Model Canvas’ (Fig. 1). Many organizations proved that this Canvas is very practical and easy-to-use, it helps in generating new ideas.

The above described business model concept may be used for bank business models, but banking specialness should be taken into account. Banks have always traditionally performed their fundamental roles in the economy. J. Brunel (2015) emphasized that currently the banks should perform the leading role in financing economy, and this function should be more important than profitability and returns generation. On the other hand, the arguments were presented that the performance and efficiency of the banks has a major impact on a country’s overall efficiency and economic performance (Ayadi et al., 2011).

M. Tomkus (2014) summarized business model concepts and emphasized that the main purpose and target of a bank is an optimal financial performance. He emphasized that banks develop business models to manage three main processes: 1) acquisition of necessary funds for operating activities; 2) loan service provision as a means to generate revenues; and 3) risk taking. He narrowed the definition of the business model through a performance as a centric view focusing more on economic value.

Within the last decade the banking industry has experienced a substantial

### Table 1

<table>
<thead>
<tr>
<th>Author</th>
<th>Identified bank business model types</th>
<th>Implications on</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Erins, J. Erina, 2013</td>
<td>Investment Wholesale Retail Universal</td>
<td>ROE ROA</td>
</tr>
<tr>
<td>M. Tomkus, 2014</td>
<td>Investment Retail Universal</td>
<td>–</td>
</tr>
<tr>
<td>R. Roengpitya et al, 2014</td>
<td>Trading Wholesale-funded Retail-funded</td>
<td>Bank performance</td>
</tr>
</tbody>
</table>

Source: formed by the author.
transformation, banks business models have changed markedly as well. Today banks are facing rapid and irreversible changes across technology, customer behaviour and regulation. The net effect is that the industry’s current shape and operating business models are no longer sustainable into the future.

Some research work (Ayadi et al., 2011, 2012, 2014; Roengpitya et al., 2014; Tomkus, 2014) has already been carried out on business model analysis of the biggest European and American banks (Table 1).

R. Ayadi et al. (2011) were among the first researchers who performed a unique, systematic and comprehensive empirical study of different bank business models and their implications on risk characteristics, system stability, bank performance, efficiency, and governance issues. One of the main findings of R. Ayadi et al. (2011) study was the assignment of each of the sampled banks to one of three distinct business models: retail banks, investment banks, and wholesale banks using cluster analysis. The second phase of R. Ayadi et al. (2012) pioneering work added a new category of business models to the three previously identified: diversified retail banks. The Banking Business Models Monitor 2014 was the first edition of a new series of publications and extended the previous research of the authors under R. Ayadi et al. (2011, 2012).

In contrast to R. Ayadi et al., which focused only on Europeans banks, R. Roengpitya et al. (2014) used balance sheets data for 222 banks from 34 countries. Drawing rough parallels with the classification of R. Ayadi et al. (2014), capital markets-oriented bank corresponds to the investment bank model, the two wholesale models correspond to each other, and retail-funded model corresponds to the diversified and focused retail banks.

However, the situation in the Baltic countries was quite different compared to the advanced countries. So far, only one academic paper, which analysed bank business models and the changes in Central and Eastern Europe countries during the period from 2006 until 2011 (Erins, Erina, 2013), has been written.

Classification of business models is helpful very generally to understand how bank business models differ. However, bank business models identification through simple labels is not sufficient for decision making (especially for supervisors). For supervisors business model analysis is part of the supervisory review and evaluation process (SREP), and it allows to detect at an early stage when a bank may generate risks that ultimately lead to its failure and they are also used for forming forward-looking supervisory judgments (European Banking Authority, 2014d).

Before the crises, supervisors focused on whether the institutions meet minimum regulatory requirements, paid some attention to external vulnerabilities such as macroeconomic issues, risks associated with financial markets and partners’ situation (counterparts, borrowers) but featured less prominently. The crisis revealed that certain characteristics of weak business models were one of the main causes of the turmoil and that they also turned out to be key determinants of banks’ resilience.

Then crisis showed that traditional prudential supervision approach was insufficient; consequently, many additional measures, as well as business model analysis, were introduced. In European Banking Authority (2014d).
Authority document “Guidelines on common procedures and methodologies for the supervisory review and evaluation process (SREP)” (2014d) it is indicated that this analysis should allow for supervisors to assess at an early stage business model viability (current) and sustainability (future) and detect key vulnerabilities that ultimately can lead to its failure.

European Banking Authority (2014d) defined that determination of business model sustainability means institution “ability to generate acceptable returns over a forward-looking period of at least three years, based on its strategic plans and financial forecasts”. As supervisors have power to receive all the information needed for supervisory purposes and have other instruments for banks supervision (on-site examinations, off-site supervision, meetings with banks management), objective assessment of business models and their sustainability, determination of key vulnerabilities is a very important supervisory measure. Supervisory approach requires identification of banks businesses in depth and assessment of each business model component. Such approach allows a better identification of risks and vulnerabilities associated with the overall bank business model and their sustainability.

Empirical Research on Bank Business Model Sustainability

Research Methodology

In order to assess the sustainability of business models of Scandinavian banks subsidiaries in the Baltics, empirical research, using quantitative research method, was carried out.

All nine Scandinavian banks subsidiary groups operating in the Baltic countries were selected for the analysis (Table 2).

In each Baltic country three subsidiaries from three different banking groups operate. Subsidiaries were analysed on the consolidated level.

The three largest banks (SEB, Swedbank, and DNB) hold 68.6 % of the Lithuanian banking sector, 71.4 % of Estonian and 35.9 % of Latvian (Fig. 2).

### Table 2

<table>
<thead>
<tr>
<th>Country</th>
<th>Name of the bank</th>
<th>Short name in this paper</th>
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</thead>
<tbody>
<tr>
<td>Lithuania</td>
<td>AB SEB bank</td>
<td>SEB LT</td>
</tr>
<tr>
<td></td>
<td>“Swedbank”, AB</td>
<td>SW LT</td>
</tr>
<tr>
<td></td>
<td>AB DNB bank</td>
<td>DNB LT</td>
</tr>
<tr>
<td>Latvia</td>
<td>JSC &quot;SEB bank”</td>
<td>SEB LV</td>
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<tr>
<td></td>
<td>“Swedbank” JSC</td>
<td>SW LV</td>
</tr>
<tr>
<td></td>
<td>JSC DNB bank</td>
<td>DNB LV</td>
</tr>
<tr>
<td>Estonia</td>
<td>AS SEB Bank</td>
<td>SEB EE</td>
</tr>
<tr>
<td></td>
<td>“Swedbank” AS</td>
<td>SW EE</td>
</tr>
<tr>
<td></td>
<td>AS DNB Bank</td>
<td>DNB EE</td>
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</tbody>
</table>

Source: formed by the author using Banks Annual Reports (2014).
The research data extracted from publicly available information: banks annual reports, disclosed information on individual banks in websites of the Baltic central banks and Financial and Capital Market Commission of Latvia, Financial Supervision Authority of Estonia, the Associations of Commercial Banks of Lithuania, Latvia and Estonia; data from 2014 ECB Comprehensive assessment (stress tests) results on individual banks, BANKSCOPE data, SNL data, as well as other online documents from the websites of the analysed banks.

Sustainability of bank business model was assessed using quantitative method: key business model sustainability indicators were selected based on European Banking Authority documents (2013, 2014d) as well as personal knowledge and experience (key business model sustainability assessment indicators are presented in Appendix). This quantitative analysis focused more on P&L providing understanding of bank performance in the context of its risk appetite. The key indicators were selected using two priorities: 1) the most suitable for nine subsidiaries business model sustainability analysis; 2) the most important for business model sustainability analysis.

Two business model elements correspond to Business model Canvas elements:
1. Revenues streams – focus on income structure (composition of income and sources of net interest income, net fees and commission income, other income);
2. Cost structure – focus on cost structure (composition of cost and Sources).

Based on European Banking Authority (2013 and 2014d) a new element called Risk appetite and performance was introduced to understand bank financial performance.
in the context of its risk appetite. It was focused on prudential requirements. Some key business model indicators were compared with the secondary data from the literature (e.g. EU average, parent banks indicators, EU survey data).

As subsidiaries disclose very limited information about their strategies (strategic plans and forward-looking forecasts), business model analysis and sustainability assessment were based on quantitative analysis of publicly available information. A lack of standardised information was a major issue concerning the data collection for this research.

**Analysis of the Main Business Model Components**

**Size, performance and risk appetite.** A large balance sheet is a key indicator of systemic importance, influencing banks business models. Scandinavian banks operating in the Baltics have different positions in these countries based on their size (Fig. 3). The SW EE takes the leading position in the Baltics, which stands out compared to other subsidiaries. SW has the leading positions in Estonia and Latvia and holds the second position in Lithuania. SEB is the largest bank in Lithuania; however, it has the second position in Latvia and Estonia. DNB LT has the third position in Lithuania (the gap between them and SEB LT and SW LT is quite large). In Latvia and in Estonia, DNB subsidiaries are less significant institutions (according to the ECB identification). DNB EE is one of the smallest banks in the Baltics, operating only for 4 years as a subsidiary.

SEB and SW subsidiaries in all three Baltic countries are the largest banks, playing a leading role and benefiting from being the largest in the countries; however, they pose a systemic risk in each country they operate in.

![Fig. 3. Size of Scandinavian bank subsidiaries in the Baltics, 31/12/2014](source: formed by the author using Banks Annual Reports (2014).)
Profitability of Scandinavian banks operating in the Baltics has varied markedly across banks (Fig. 4). Since the crisis in 2009, when all operating banks suffered losses (all banks experienced very large losses in 2009 and modest losses in 2010), gaining a relevant level of profit, and ROE became a big challenge.

Since 2011, the banks carried out their activities in two different ways seeking to

**Fig. 4. Profit drivers of Scandinavian bank subsidiaries in the Baltics, 2014**


**Fig. 5. ROAE ratios, 2014**

increase income and at the same time to reduce costs. One of the strategic priorities for all the banks became the improvement of the operating efficiency. In fact, moderate results were achieved by increasing non-interest income and escalating operational expenses. Before the crisis, banks focused more on traditional banking business deriving profits from the interest income.

Comparing the performance results across the banks analysed (Fig. 5), the highest ROAE and ROAA were reported by all SW subsidiaries. SEB LT and SEB EE fell behind slightly from SW subsidiaries; however, SEB LV fell behind even more sharply. SW subsidiaries and SEB LT and SEB EE had ROAE higher than the EU average, however, with a decrease in 2014 (except for SEB LT). The lowest ROAE and ROAA were fixed in all DNB subsidiaries (lower than the EU average). This shows that major differences exist between banking groups which policies have more influence on bank performance than the country specific factors.

Comparing the profitability ratios of the subsidiaries in 2014 with the parent bank group ratios, the generation of returns on equity in subsidiaries was markedly worse. Moreover, the parent bank target ROAEs are significantly higher (SEB and SW – 15 %, DNB > 12 %) than their subsidiaries. These subsidiaries generate sharply lower returns compared to their historic performance before the crisis in 2009 (Fig. 6).

Before the crisis, all the banks generated strong returns (from 15 to 36 %). In 2008, there was a sharp fall of ROAE (the biggest fall was fixed in SEB LT: minus 85 %). From 2012, the banks started to generate moderate returns.

The analysis of banks performance in the context of their risk appetite was
performed. Scandinavian subsidiaries in the Baltics are well-capitalised and can contribute to economic growth of the countries by providing the needed financing to corporations and households. Since Scandinavian banks subsidiaries in the Baltics are averse to risk, they should change into more risk tolerant banks, more adaptive to local countries environment and contribute more to the economic recovery.

Banks have low risk appetite, meet prudential requirements with large reserves, loan to deposit ratio is improving, non-performing loans ratio decreased, assets quality was tested by the ECB. This showed that subsidiaries business models are more oriented on banks safety, but their sustainability perspective on acceptable return generating capacity are on concern.

**Revenue streams.** Banks have two revenue streams: the first one is the interest income from lenders; and the second one is the fees and commissions that they charge for different kinds of operations. These two revenue streams were analysed.

Net interest income is the main source of income, but from 2011 the share of non-interest income increased significantly. In 2014, all banks (except DNB EE) have substantial non-interest earnings, most from fees, commissions, and other earnings (Fig. 7).

In recent three years, net interest income level stayed on average the same (with modest growth or slight decrease) in majority of banks (an increase was in DNB LV and DNB EE).

The volume of interest income, especially comparing pre-crisis income level, shrunk significantly. Moderate growth of the loan portfolios and the currently low interest rate environment makes pressure on the interest income generating capacity.

Banks can increase their interest rate by increasing the volume of the loan portfolio or by increasing an interest rate.

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**Fig. 7.** Composition of income of Scandinavian bank subsidiaries in the Baltics, 2014

(margin). Without usual attempts to increase loan portfolio, some banks did special activities, which had influence on the interest income. SW LT actively did loan portfolio reprising which resulted in slight increase of the interest income. In low interest environment, banks have a limited possibility to increase interest rate (margin) for loans.

In 2012 and 2013, banks reduced interest expenses significantly. Different funding structures determine different funding cost in banks. These transformations (from the parent bank funding to local deposits, from term to current deposits) allowed reducing interest expenses significantly.

The decreasing funding cost was the main driver of the quite stable net interest income level. Without significant growth in the loan portfolio and amid the prevailing low interest rates environment, the possibilities for banks to increase their income are limited.

The stable (decreasing) level of net interest income has been accompanied by growth in net fee and commission income. Especially steady growth was in Latvia before the adoption of the euro in 2013, and in Lithuania in 2014. The growth of net income from commissions and services was mainly influenced by higher activity of the Bank’s customers, which stimulated the quantitative growth of the performed bank operations.

After the adoption of the euro, net fees and commissions in Latvians banks decreased slightly due to the reduced payment transfer fees. More negative impact was on the operating income in 2014. In Latvian banks, operating income in 2014 decreased by 10–17 % compared to 2013 operating income, payment transfer fee – by 15–26 %. The biggest impact was for profit from FX exchange – it decreased by 62–82 %. Banks can be expected similar impact in Lithuania in 2015 and later. Banks will lose profit from FX exchange and commission income from payment transfers.

EU initiatives and regulations will also influence some fees and commissions rates and will have a negative impact on the volume on this income. EU Regulation on Multilateral Interchange Fees (MIFs) set the cap on interchange fees at 0.2 % and 0.3 % for debit and credit card transactions respectively. In the Baltic countries, where the current level of interchange fees is well above the caps (more than 1 %), the Regulation should have a substantial impact on banks.

Also, majority of the banks (SEB LT, SW LT, DNB LT, DNB LV, and SW EE) reported a significant share of other income (net gain on operations with securities and financial derivatives, net FX result, net gain on sale of property). However, this income is not sustainable (for example, DNB LT in 2014 received net gain from financial derivatives 4.6 million EUR, but the same amount was showed as loss from financial derivatives in 2013; SEB LV also had 6.4 million EUR profit from trading with financial instruments, but in 2014 it experienced 0.5 million EUR loss).

Summing up the key revenues streams, it is important to highlight that as loans portfolio growth is moderate, from 2011 banks started to focus more and more on non-interest income activities. Non-interest income is more sensitive to the market and regulatory changes and has a limited growth possibility. Moreover, in the race towards higher profits, banks can unbalance their business base by paying too much attention to non-interest income activities, not focus on traditional banking
business, deriving profits from interest income.

**Cost structure.** The cost structure for subsidiaries was analyzed. Since the crisis in 2009, all banks have given particular attention to the improvement of their operating performance by using the same cost cutting policy (banks strictly limited their expenses). To improve operating efficiency, the banks have been reducing operating costs through the promotion of e-banking development. At the same time banks have been reducing the number of customer service units and putting self-service centres in place, shifting more operations to Internet and to mobile phones use. In this way banks seek to optimise retail network and the related costs.

Most banks decreased the number of their employees (especially SW subsidiaries); however, personnel expenses were not significantly reduced.

To solve profitability problems, the banks also focused on the optimisation of the branch network. Seeking to cut costs, many banks closed some of their branches (customer service units) and reduced the number of employees.

As banks significantly reduced physical meeting places for customers, they started to move actively to digital banking services. The Baltic countries are advanced in the use of information technology and telecommunications innovations, but according to the Survey performed by Social Information Centre in Lithuania (at the end of 2014) in the field of banking services is still at a beginner level (Association of Lithuanian banks, 2015b). Lithuanian banking association commented that this Survey showed that a large part of the population relationship with the banks is quite superficial. Most of the respondents (83 %) have a current account, a debit card

![Fig. 8. Composition of costs of Scandinavian bank subsidiaries in the Baltics, 2014](image-url)

*Source: formed by the author using Banks Annual Reports (2014).*
(72 %); bank transfers carried out by 43 % population. It means that banks need to invest in the clients’ financial education in order to promote the use of digital services proposed by the bank.

Scandinavian banks are more oriented towards the advanced Customer’s habit of doing their day-to-day banking digitally which is gaining foothold. Banks have been investing in the improvement of the digital accessibility: IT systems, online banking smart phones, ATMs.

The shift from branches to mobile and internet banking places higher demands on protection against external threats. Banks need to implement a wide range of measures, from electronic securities and active shutdown of fictitious and infected websites to providing information directly to customers. Its banks long term work to modernise, consolidate and improve efficiencies in the IT infrastructure, which limit operational risks.

Preparation for the euro introduction in Latvia in 2013 and in Lithuania in 2014 increased costs for IT systems. Some banks (SEB LT, DNB LT) introduced new core banking platforms, which provide a solid technological basis for sustainable growth of the banks in the long-term perspective, but increased costs. There are plans to introduce new core banking platforms in all SEB and DNB subsidiaries. Due to these projects, the costs will increase in the future.

To sum up, search for cost-effectiveness changed bank business models – they changed focus from physical meeting places to digital. In this stage banks need to invest more (cost will increase) in other areas like IT and security, new digital support, customers education to use new types of services.

Managerial Solutions on the Identified Business Model Sustainability Challenges

As Scandinavian banks subsidiaries in the Baltics are medium profitable in the context of the economic landscape, current regulatory changes and technological developments, to generate acceptable returns in the future are of concern. Today’s acceptable financial performance is no guarantee of tomorrow’s performance. A negative trend has already been observed. A significant challenge therefore is to understand what actually drives future profitability, not just what worked well in the past. All banks need to find suitable key profitability drivers and review their business models. Based on the results of the performed quantitative analysis of business models components, key profitability drivers were summarised in Table 3.

Having analysed opportunities and vulnerabilities of key profitability drivers, it was determined that banks have the possibility to increase the volume of financial services or their price. As it was presented in Table 3, a price increase for financial services can negatively impact bank business: 1) in a low interest rate environment, a price increase can be unacceptable by customers and enhance reputational risk; 2) new EU initiatives focus on the decrease of financial service rates, and banks must comply with these regulations; 3) banks provide more and more financial services in a digital way, and this trend towards further digitalisation is increasing; customers expect lower prices due to digitalisation; 4) competitors from the non-banking sector provide financial services at lower prices; and 4) after the adoption of the Euro, the rate of payment transfer fees decreased.
### Key possible profitability drivers for Scandinavian banks subsidiaries in the Baltics

<table>
<thead>
<tr>
<th>Key Profitability Drivers</th>
<th>Opportunities</th>
<th>Vulnerabilities</th>
<th>Rate of importance*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net interest income</strong></td>
<td><strong>Volume</strong>&lt;br&gt; Increase the volume of loan portfolio, focus on SMEs financing (productive sectors, innovative companies)&lt;br&gt;In line with EU initiatives</td>
<td>Possible bigger credit losses&lt;br&gt;Higher operational expenses due to costly customer (project) risk assessment using more flexible approach</td>
<td>*</td>
</tr>
<tr>
<td><strong>Price</strong></td>
<td>Increase interest rate (margin) for new loans, reprising previously issued loans</td>
<td>Interest rate (margin) increase in the low interest rate environment can enhance bank reputation risk</td>
<td></td>
</tr>
<tr>
<td><strong>Net fees and commissions</strong></td>
<td><strong>Volume</strong>&lt;br&gt; Increase penetration rate (payment cards, payment transfer, other financial services)&lt;br&gt;Banks need to invest in the customer financial education</td>
<td>Limited possibility to increase the volume of financial service operations due to operating only in one jurisdiction</td>
<td>**</td>
</tr>
<tr>
<td><strong>Price</strong></td>
<td>Increase fees and commissions rates for financial services</td>
<td>Fees and commissions rates increase can enhance reputational risk&lt;br&gt;Pressure of new EU regulation and initiatives to decrease these rates&lt;br&gt;After adoption of the euro payment transfer fees decreased</td>
<td></td>
</tr>
<tr>
<td><strong>Other income</strong></td>
<td>Focus on non-traditional banking – trading activities, derivatives</td>
<td>After adoption of the euro profit from FX exchange decreased&lt;br&gt;Limited possibility in the low interest rate environment to increase income from securities, derivatives</td>
<td></td>
</tr>
<tr>
<td><strong>Cost Efficiency</strong></td>
<td>Cost cutting (further decrease of employees, branch offices, buildings)&lt;br&gt;Automation where possible</td>
<td>Limited possibility to cost cutting due to unbalance business base&lt;br&gt;Need higher investments in digital security, IT, against cyber criminality&lt;br&gt;Need higher investments to comply with regulatory requirements, risk management, internal control and governance</td>
<td></td>
</tr>
<tr>
<td><strong>Risk-taking (credit, operational)</strong></td>
<td>Increase a risk tolerance level</td>
<td>Banks capital allows to increase risk tolerance only in the areas where banks can generate higher returns and create value for society (as lending to economy)</td>
<td>**</td>
</tr>
</tbody>
</table>

*Note: * – the most important driver; ** – important driver.

*Source:* formed by the author based on results of the research.
A price increase can be successful if the bank’s competitive advantage is differentiation (banks invest money in their brand and the ability to differentiate). Subsidiaries benefit from bank group brands, but they do not focus enough on differentiation of products and services. They focus more on cost efficiency (leadership).

Another possibility to increase profitability is to increase the volume of their loan portfolio or the quantity of bank financial operations. The peak of growth of performed financial operations in Latvia and Lithuania was before the adoption of the Euro (in 2013 and 2014, respectively). As it has already been mentioned, the survey done on the use of bank financial services showed that a large part of the population in relationship with banks is quite superficial; therefore, it is necessary to invest in customer financial education in order to increase financial service penetration rate. Banks have the possibility to increase their volume of operations and increase fees and commissions rate, but there are some limitations when the bank operates only in one jurisdiction (limited number of population and companies).

In summary, the key profitability driver and the biggest opportunity for banks is the increase of the volume of their loan portfolio. Banks have an opportunity to focus on SMEs financing, especially on more productive sectors and innovative companies. To achieve this goal, banks need to set SMEs financing as a strategic priority, and make fundamental changes in their lending policy. The EU and local governments should give financial support for SMEs to strengthen this sector, and that should encourage banks to finance SMEs more actively as well.

Conclusions

A useful interpretation of a business model, which simply represents the activities on a common framework, helps to understand how different entities of a business come together to create value for customers, shareholders, and society. Business Model Canvas (Osterwalder, Pigneur, 2010) can be considered the best schematic model representing a simplified version of an organization business from a high-level perspective.

Banking business performs special functions in providing services and plays a fundamental role in the economy. Many researchers emphasize that in the current situation banks should perform a leading role in financing economy. The performance of banks has also a major impact on the country’s economy.

Researches on business models classification revealed that it is possible to categorize banks into some business model types and measure their implications on risk characteristics, bank performance and other issues. These business models classifications can be helpful to understand generally how bank business models differ. Bank business models identification through simple labels such as retail banks or investment banks is not sufficient for decision making (especially for supervisors).

The analysis of bank business models and assessment of their viability and sustainability is a new approach in prudential supervision and it goes beyond the traditional approach. It allows detecting at an early stage when a bank may generate risks and it is used for forming forward-looking supervisory judgments.

Using the system of key business model sustainability indicators, analysis
of three main business model components (revenue streams, cost structure and risk appetite) was performed. The main conclusions of this analysis are the following:

1. Majority of the analyzed banks are significant banks in each country and pose a systemic risk;
2. Recently, medium profitability was achieved by increasing non-interest income and escalating operational expenses. Subsidiaries ROAE is higher than the EU average, but markedly worse than in a parent bank group and at the pre-crisis level. A negative trend of profitability was established for the future;
3. Net interest income (NII) was not growing, and a share of NII in income was decreasing. Modest growth of the loan portfolio and currently low interest rate environment makes pressure on the interest income generating capacity. From 2011 banks started to focus more on non-interest income activities, the income is more sensitive to the market and regulatory changes and has a limited growth possibility;
4. Banks focus on higher operating efficiency. Due to cost cutting, the number of employees and branches decreased. Banks reduced operating costs through the promotion of digital banking services. In this stage banks need to invest more in IT security;
5. The research showed that subsidiaries business models are more oriented towards banks safety, but their sustainability perspective on acceptable return generating capacity is on concern.

Having analysed opportunities and vulnerabilities of key profitability drivers, it was determined that the biggest opportunity for banks in a low interest rate environment is to focus on increasing the volume of interest bearing assets. Financing SMEs, especially in productive sectors and innovative companies, could be the best outcome for banks and Lithuania's economy. To achieve this goal, banks need to set SMEs financing as a strategic priority, and make fundamental changes in their lending policy. The EU and local governments should give financial support for SMEs to strengthen this sector, and that should encourage banks to finance SMEs more actively as well.

References

## Appendix

### Key business model sustainability indicators

<table>
<thead>
<tr>
<th>Business model elements</th>
<th>Key business models indicators</th>
</tr>
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</table>
| **Size**                | Share of total assets (% total assets banking sector)  
Share of net loans (% net loans banking sector)  
Share of Customer deposits (% Customer deposits banking sector) |
| **Revenues streams (structure of income)** | Share of interest income/non-interest income (% total operating income)  
Share and sources of net interest income (% total operating income) (Sources of interest income: on due from banks; on loans; on securities)(Interest expense: on due to banks, on customer deposits, on debt securities issued, payments to Deposit Insurance Guarantee Fund)  
Share and Sources of net commission and fees income (% total operating income) (Sources: Net Payment transfer services, Net payment cards services, other income)  
Share and Sources of other income (% total operating income) (Sources: net gain on sale property, rent of property; operations with securities and derivatives, etc.)  
Share of Reversal of Impairment (% total operating income)  
Net Interest Margin % |
| **Cost structure**      | Share of Staff expenses (% Total Non-Interest Expenses (administrative expenses))  
Other administrative expenses (% Total Non-Interest Expenses (administrative expenses))  
Share of Cost related with office facilities, IT (technology) cost, Consulting and professional fees (% Other administrative expenses)  
Loan impairment charges (% Total GOP (gross operating profit)) |
| **Risk appetite and performance** | Capital: Capital adequacy ratio, CET 1 ratio, Leverage ratio  
Liquidity: Loan to deposit ratio, LCR, NSFR  
Performance: ROAE, ROAA; Cost to Income ratio  
Quality and riskiness of assets: Risk-weighted assets (% total assets), Non-performing loans (NPL)/net loans; Net allowances for credit losses/net loans; NPL impairment Coverage ratio (specific allowances for loans (% total gross impaired loans)  
Growth: Annual market share growth: annual growth rates of assets, total loans, and customer deposits |

*Source: formed by the author.*
Evaluation of Sustainability of Business Models of Scandinavian Bank Subsidiaries in the Baltics

Aldona JOČIENĖ

SKANDINAVIJOS BANKŲ PADALINIŲ BALTIJOS ŠALYSE VERSLO MODELIŲ TVARUMO VERTINIMAS

S a n t r a u k a

Kiekvienai šaliai svarbu turėti stiprą bankų sistemą, nes ji atlieka fundamentalų vaidmenį šalies ekonomikoje. Kuo šalyje veikia patikimesnė ir jos poreikius atitinkanti bankų sistema, tuo konkurencingesnė šalies ekonomika. Daugelio mokslininkų tyrimai (Huang ir Lin, 2012; Altunbas ir kt., 2012; Llewellyn, 2013), atlikti po pasaulinės finansų krizės, patvirtino, kad bankų sektorius buvo išbalansuotas, siekė tumpalaikų tikslų, prisiešęs pernelgy didele riziką, nelankstus, bankų verslo modeliai netvarūs.

Baltijos šalių bankų sistemos dominuoja skandinaviški bankai. 2009 m. krizė juos stipriai paveikė. Šių bankų taikomi verslo modeliai gerokai pasikeitė, tačiau jie ir toliau kelia susirūpinimą. Šio tyrimo tikslas yra nustatyti, jei Baltijos šalių bankai vykdys tokį veiklą, kaip vykdys šiuo metu, ar jie galėtų generuoti priimtinus grąžas trejų metų laikotarpyje, kokios yra pagrindinės grėsmės, ir pateikti pelningumo didinimo galimybes.


Tyrimo rezultatai parodė, kad Baltijos šalyse veikiantys skandinaviškių bankų padaliniai yra mažmeniniai bankai, vykdantys veiklą vienoje jurisdikcijoje, labai priklausantys nuo besivienijančių bankų sprendimų, vengiantys rizikos, dedantys pastangų gauti daugiau nepalūkaninių pajamų ir pasiekti didesnį veiklos efektyvumą, besiorientuojantys į bankų saugumą (vykdo riziką ribojančius normatyvus su didele atsarga), jų pelningumas vidutinis, pelningumo tendencija atiteikė neigia. Nustatyta, kad jei šie bankai veiklą vykdytų taip, kaip vyko šiuo metu, jų galimybės generuoti priimtinas grąžas ateityje bus problemiškos.

Straipsnyje pateikti pasiūlymai, kokių veiksmų turėtų imtis bankai ir šalies valdžios institucijos, siekdami padidinti pelningumą trejų metų laikotarpyje. Didžiausią galimybės įsivertinti, kad jei šie bankai veiklą vykdytų taip, kaip vyko šiuo metu, jų galimybės generuoti priimtinas grąžas ateityje bus problemiškos.

Straipsnyje pateikti pasiūlymai, kokių veiksmų turėtų imtis bankai ir šalies valdžios institucijos, siekdami padidinti pelningumą trejų metų laikotarpį, didžiausią galimybę įsivertinti, kad jei šie bankai veiklą vykdytų taip, kaip vyko šiuo metu, jų galimybės generuoti priimtinas grąžas ateityje bus problemiškos.

Šio tyrimo rezultatai turėtų būti naudingi finansų priežiūros institucijoms ir centriniams bankams, taip pat Skandinavijos bankams, rengiantiems besivieniavancias bankų strategijas, ir valdžios atstovams, kurie yra atsakingi už šalies bankų sistematos strategiją ir MVĮ sektoriaus stiprinimą.