

## BANK LENDING AND CRISIS: CASE OF LATVIA

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### Abstract

**Purpose** of the paper is to study the link between bank lending and financial crisis to identify the determinants of imbalances in lending to provide possible solutions for balanced development of bank lending in Latvia.

**Design/methodology/approach:** the analysis is based on the examination of aggregate statistical data of Latvia and selected European countries focusing on the link between bank lending and crisis. Qualitative information is collected using face-to-face communication with staff of financial institutions. The informational and methodological basis of the paper is special economic literature, scientific and research papers, collections of statistical information, and results of research made by the author.

**Findings:** several European countries have experienced financial crises caused by extreme lending expansion in the 1990s. The recent developments in Latvia have shown a similar “scenario”. Based on the bank credit classification of R.A. Werner, analysis of the loans issued by Latvian commercial banks in 2004–2011 is carried out. To identify the main challenges and problems as well as to provide possible solutions for bank lending strategy that allows balanced development of banks and thus the national economy as a whole, analysis of bank lending operations is made. The analysis has shown the main determinants of imbalances in lending, including uneven structure of loan portfolio, overestimation of collateral, insufficient attention to risk adjusted loan pricing etc. Moreover, empirical study of the Latvian case has shown that growth of loans for consumption and speculation purposes resulting in inflation during the study period has exceeded the growth of banks capital more than twice, making banking system more vulnerable.

**Research limitations/implications/future research:** after completion of the necessary database, determination of the quantitative measures to ensure balanced development of bank lending will be carried out.

**Practical implications:** analyzing the course of financial crises in selected European countries (Norway, Finland, Sweden) in early 1990s and Latvia in the beginning of the 21st century, except of some country-specific features the general scenario is identified, showing common features of the course of financial crises following the link between bank lending and financial crisis in Latvia. Changing economic environment has revealed a number of imbalances in banking operations and pushed the banks to cardinaly review their strategy in lending. Responsible lending as a compulsory component of bank lending strategy would allow balanced development of banks as well as would stimulate economic growth that in turn positively effects bank lending and profitability. To provide stability in bank lending taking into account the course of the previous crises, several proposals are worked out for Latvian commercial banks.

**Keywords:** bank lending, changing economic environment, financial crisis, lending expansion.

### 1. INTRODUCTION

Modern economic development is characterized by its' cyclical nature and changing economic environment with new opportunities and challenges. Financial and economic crises have become an integral part of economic development in almost all world countries. Each crisis has its own features that are country-specific, but often it is associated with excessive bank lending. Empirical studies have shown that lending expansion can lead to economic imbalances creating threats to the stability of the financial system as well as to the health of the national economy of the country (Gavin and Hausmann, 1996; Reinhart and Rogoff, 2009; Schinasi and Truman 2010). On one hand, lending to the real sector of economy is one of the most important factors that stimulate economic development of the country. Experience of many European countries has shown that successful economic development, availability of cheap financial resources and bank lending expansion stimulate economic growth (IMF, 2004).

On the other hand, if economic growth is geared predominantly by increased domestic demand, and increased domestic demand is a result of rapid lending expansion, it may lead to overheating of the economy as well as to financial and economic crisis. Under the conditions of economic downturn banks face rapidly rising credit risk and delays in loan repayment that can create huge losses and deteriorate bank performance

indicators as well as future existence and development. Thus, nowadays under conditions of changing economic environment, bank strategic management and lending policy become crucial not only for future development of the bank itself, but also for balanced future development of the country as a whole. Besides, due to globalization, economic problems or crisis in one country (e.g., the USA, several EU countries) can be rather quickly transmitted to another country influencing its further development.

Several European countries have experienced financial crisis caused by extreme lending expansion eventually accompanied by real estate bubble in the 1990s. The recent developments in Latvia have shown a similar “scenario”. The case of Latvian bank lending expansion was not sufficiently studied. Purpose of the paper is to study the link between bank lending and financial crisis to identify the determinants of imbalances in lending to provide possible solutions for balanced development of bank lending in Latvia. Balanced bank lending development is important to ensure balanced growth and profitability of the banking business as well as to milder or avoid future financial distress.

## **2. RESEARCH METHODOLOGY**

In order to identify the general “scenario”, analysis of the economic development and the crises course in several European countries is carried out. For the purposes of analysis three European countries, that have recently experienced similar developments, had been selected: Norway, Finland and Sweden, representing the “Big 5” crises. The analysis is done based on the link between bank lending and crisis that is the research subject. Studying the role of bank lending and its ability to stimulate economic growth, the analysis of the Financial and Capital Market Commission (FCMC) statistical data on bank lending is carried out to analyze the link between bank lending and financial crisis. The case of Latvia is analyzed to determine the main imbalances in lending, to extract lessons for bank lending practice. Research period: 2004–2011. Qualitative information is collected using face-to-face communication with staff of financial institutions. The informational and methodological basis of the paper is special economic literature, scientific and research papers, collections of statistical information, and results of research made by the author.

The paper is organized as follows: the theoretical framework and review of literature on bank lending and its link to financial crisis; analysis of development peculiarities of Latvian commercial banks after joining the EU as well as the factors leading to credit boom; identification of general crisis “scenario” based on analysis of the course of financial crisis in selected European countries (Norway, Finland, Sweden, and Latvia). Relying on the analysis made, the penultimate section focuses on identification of the main determinants of imbalances in Latvian bank lending. Conclusions highlight the main lessons learned following the link between bank lending and crisis as well as provides several proposals for balanced development of bank lending. Lessons learned for bank lending can help to ensure balanced future development of banks and the national economy as a whole.

## **3. THEORETICAL FRAMEWORK AND LITERATURE REVIEW**

Bank lending is often seen as a key driver of the financial system and the economy as a whole. Schumpeter in 1912 has argued that the capital transfer from old to new more innovative businesses is a key element of growth, in other words, banks can encourage technological innovation by lending to most innovative businesses. Thus, bank lending is crucial for economic growth of the country and is also important for understanding the nature of economic cycles (Minsky, 1992).

Werner studying the role of bank loans has classified loans according to its nature and has identified three types of loans: for production, for consumption and for speculation (Werner, 2009). According to this concept, only loans for production (e.g., corporate loans to the real sector of economy) stimulate economic growth as loans for production help to increase the value added. Loans for consumption (e.g., consumer loans) lead to an increase in GDP but not through the value added, but through inflation. Respectively, loans for speculation result in asset inflation and don't stimulate economic growth of the country. The classification of Werner is used in this paper to analyze lending operations of Latvian commercial banks following the link between bank lending and crisis.

Several scholars have explored the anatomy of the previous financial and economic crisis, and proved the critical role of bank lending (Gavin and Hausmann, 1996; Demirgüç-Kunt and Detragiache, 1998; Diamond and Raghuram, 2009; Werner, 2009 etc.). According to the studies of Reinhart and Rogoff, the crises are

generally preceded by an expansion of bank lending (Reinhart and Rogoff, 2008, 2009, 2010). Considering the experience of Nordic countries at the beginning of 1990, bank lending followed by a simultaneous crisis in the real estate market was seen as one of the main reasons for the crises (Jonung, Kiander and Vart, 2008). The experience of previous lending-driven crises is valuable for bank lending strategy determination for developing countries in order to avoid similar mistakes (Demirgüç-Kunt, 2006; Jonung, 2009). Thus, balanced lending is an engine of economic growth, while extreme lending expansion may lead to overheating of the economy as well as to instability (Kindleberger and Alibaer, 2005; Rousseau and Wachtel, 2009; Rosengren, 2011) or financial and economic crisis (Demirgüç-Kunt and Detragiache, 2005; Demirgüç-Kunt, 2006; Diamond and Raghuram, 2009). It proves the existence of the link between bank lending and financial crisis. This paper studies the link between bank lending and financial crisis based on the development of bank lending and the economy of Latvia in the period of 2004–2011.

#### 4. DEVELOPMENT OF LATVIAN COMMERCIAL BANKS AFTER JOINING THE EU

Regaining of independence in 1991 had required systemic changes in Latvia. In order to build up a market economy, a package of reforms was introduced, e.g., liberalization of prices and trade, macroeconomic stabilization, privatization etc. (Åslund and Dombrovskis, 2011) as well as establishment of the financial system to ensure well-functioning market economy. Over the next years the financial system was built to support economic development of the country. According to Eurostat data, after accession to the European Union in 2004, Latvia had one of the highest GDP growth rates in Europe: the average annual GDP growth rate over the period of 2004–2007 has been 10.38% compared to 2.7% in EU–27 (see Figure 1). The economic growth has been achieved in sectors that were geared predominantly towards the domestic demand.

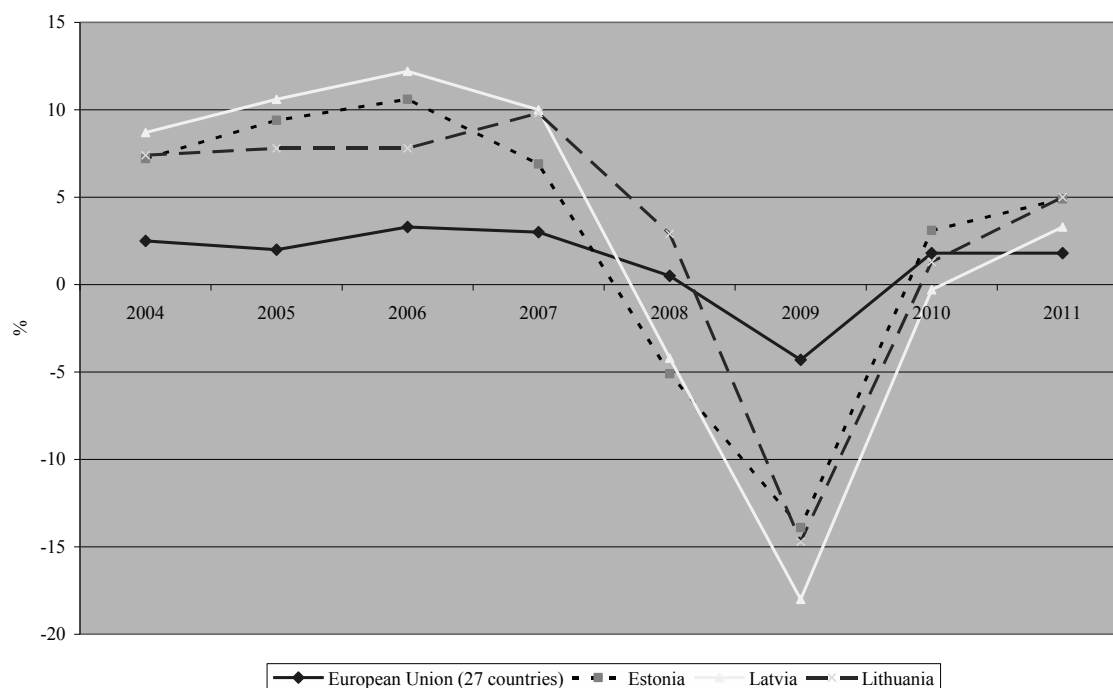


Figure 1. Real GDP growth rates in the Baltic States and EU–27, 2004–2011

Source: Eurostat

Growing consumption, rise in investments, EU funds, growing capital inflow etc. have contributed to quick development of economy. Favourable economic conditions until 2007 have promoted successful development of the banking sector (see Figure 2), on the other hand, banks have contributed substantially to the development of favourable economic environment, thus, stimulating economic growth.

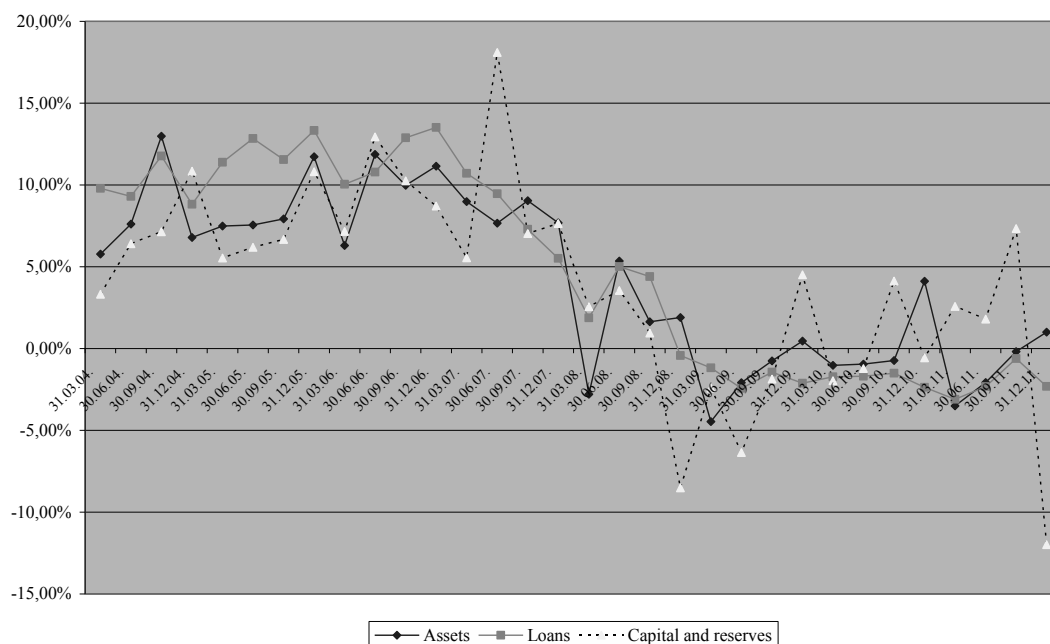


Figure 2. Growth of selected balance sheet items of Latvian commercial banks, 2004-2011, %

Source: FCMC

According to data of FCMC, by the end of 2008 Latvian commercial banks invested ca.68% of its resources in lending operations and the interest income on the loans issued to non-banks accounted for 61% of the aggregate income of commercial banks. Thus, lending has become an important core business of Latvian commercial banks with growing share of loans in total assets (on average 65.9% in the research period). Moreover, in the period of 2004–2007 the average annual growth of loans was 49.6%. This period can be characterized as a period of financial deepening, as loans issued by Latvian commercial banks grew more quickly than GDP of the country. Moreover, according to IMF methodology, lending can be defined as excessive lending (or lending boom) if it exceeds the standard deviation of that country's credit fluctuations around trend by a factor of 1.75 (IMF, 2004). Previous research has shown that the period of 1Q 2004 to 4Q 2006 can be characterized as excessive lending or credit boom (Ertuganova, 2010). It was possible due to several reasons. Positive economic outlook as well as improved scores from international rating agencies have added optimism to all Latvian economic entities, including non-financial companies and households. Rising asset prices (especially real estate prices) had improved private sector balance sheet and had positive wealth effects. It has stimulated an increase of creditworthiness of potential and current borrowers as well as their willingness to borrow. On the other hand, availability of credit resources through parent banks or in the international financial market have contributed to quick lending expansion.

Favourable lending conditions and strong competition between the commercial banks as well as simple loan provision procedures and loan availability have made banks extremely important for capital raising by Latvian companies. It has determined considerable changes in capital structure of companies. According to data of the Central Statistical Bureau of Latvia, in 2004 debt capital has constituted 40.9% of the total capital of Latvian companies, but five years later, in 2009, the share of debt capital has increased to 74.2%. Especially high use of debt capital and particularly bank loans could be noticed in manufacturing, wholesale and retail trade, real estate activities, moreover, debt capital constituted more than 90% of the total capital in two sectors: construction, and accommodation and food service activities. Moreover, company-level data show not only high level of leverage, but also liability dollarization. Under changing economic conditions such capital structure has made Latvian companies more vulnerable, highly sensitive to changes of interest rates and possible cash flow problems as well as highly dependent on banks as creditors.

Private individuals and non-profit institutions servicing households were also active in borrowing. During the research period loans to households and non-profit institutions servicing households were growing constantly, average annual growth till 2008 was 69.3%. Moreover, the largest part of loans granted to households were loans for housing purchases (see Figure 3). Household indebtedness in Latvia was defined as “moderate, significantly increasing” (Dubois and Anderson, 2010).

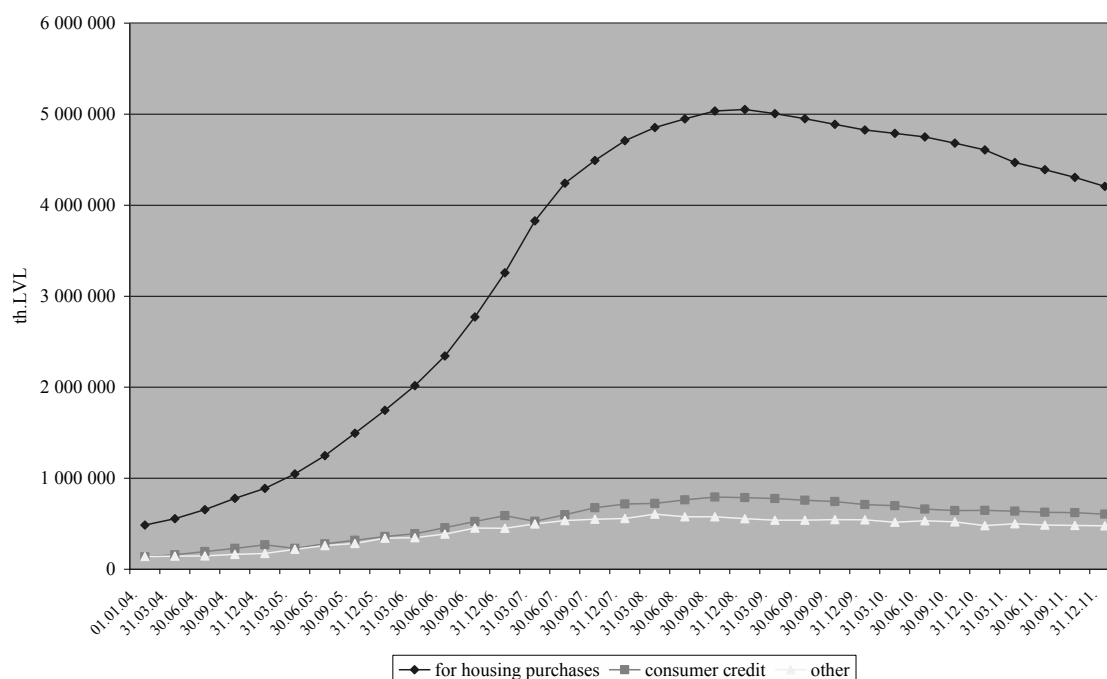


Figure 3. Loans to households and non-profit institutions servicing households, 2004-2011, thousand LVL  
Source: FCMC

In the period of 2004-2008 growth of loans granted to the private sector (non-financial companies and households) considerably exceeded the GDP growth. Moreover, major contribution to growth of the loan portfolio of the commercial banks was made by the loans to private individuals for real estate purchase. As a result of the credit boom, in the period of 2007–2010 volume of bank loans granted to local households and private non-financial companies exceeded nominal GDP with its peak in 2009 – 118.05%. Excessive lending geared a considerable increase in domestic demand that was considered as one of the main reason for overheating of the economy. The following economic downturn became serious examiners for all economic entities, including commercial banks.

## 5. BANK LENDING AND FINANCIAL CRISIS: IS THERE A “COMMON SCENARIO”?

Global recession as well as global financial meltdown had negative impact on economy – in 2009 Latvia has experienced double-digit GDP contraction. Scarcity of liquidity in the international financial markets had also limited availability of resources to Latvian banks and increased the funding costs. Changed current economic situation and reassessed economic outlook forced Latvian banks to change their lending policy and tighten lending conditions.

The economic downturn of 2008-2009 has pushed the banks to review their lending policies, limiting lending to companies and households. These changes were made in order to limit losses of the non-repayment of loans. Under conditions of economic downturn, in 2010 comparing to 2008 the volume of loans issued to enterprises has decreased by 14%, to households and non-profit institutions servicing households – by 11%. Economic downturn and collapse in real estate prices have caused considerable deterioration in bank assets quality and increase of non-performing loans. As a result of deterioration of loan quality (in 2010 26% of total loans were loans with delays in repayment), the volume of special loan loss provisions to cover anticipated losses on loans in the period of 2004 to 2010 has increased more than 27 times, constituting ca. 13% of nominal GDP. Under such conditions banks have experienced considerable decline of performance losing their profitability. Economic slowdown, increase of non-performing loans and special loan loss provisions have resulted in sharp decline of return on equity and return on assets – both were negative since 2009 with a slight recovery in the middle of 2011. Thus, development of Latvian

banking sector in 2008 can be characterized as Type 2 banking crisis or financial distress, according to banking crisis classification of Reinhart and Rogoff (2008).

Similar crisis “scenario” was experienced several times in economic history of European countries. In order to identify common features of the course of financial crises following the link between bank lending and crisis, analysis of the financial crises course of late 1980s and early 1990s in selected European countries of “Big 5”<sup>41</sup> is made, based on analysis of experience of Norway (1987), Finland (1991), Sweden (1991). Except of some country-specific features the general scenario is identified (see Figure 4). The analysis has shown that economic downturn was preceded by credit expansion accompanied by increase in domestic demand, rising assets prices and as a result high inflation. A similar crisis scenario has appeared in Latvia in 2008.

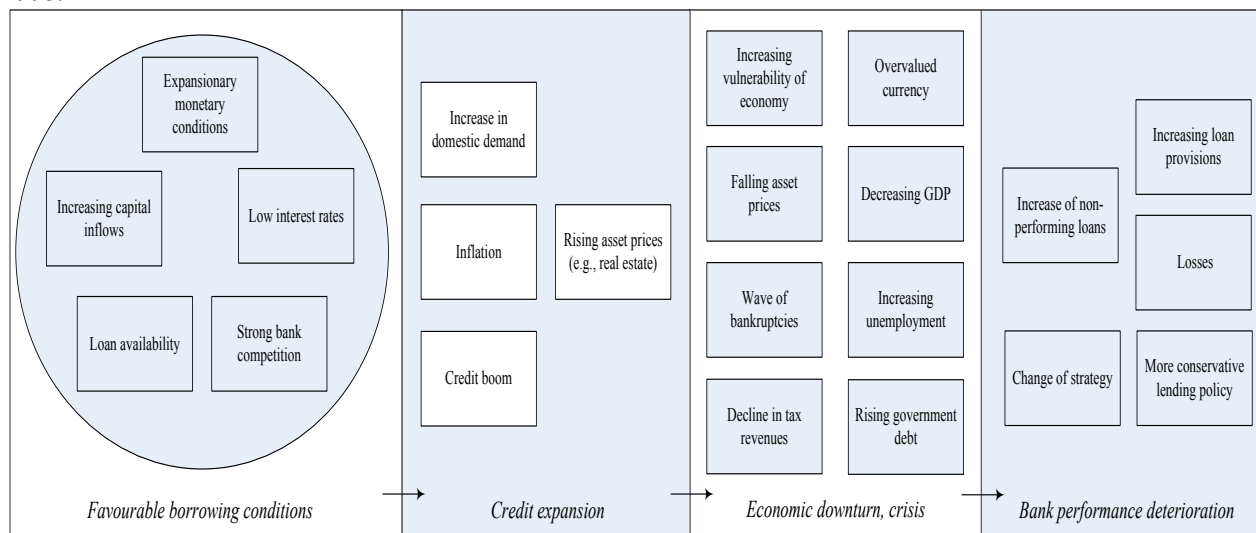


Figure 4. General crisis scenario

Several factors, including credit market deregulation leading to larger loan availability as well as the tax system favouring borrowing and relatively high inflation leading to very low or negative real interest rates have contributed to rapid credit expansion in the Nordic countries (Ingves, Lind, Shirakawa, Caruana, Martínez, 2009). In Sweden credit expansion in late 1980s led to considerable increase in debt – in five years the GDP ratio for private sector debt increased from 85% up to 135% (Bäckström, 1997). The following financial crisis has led to increasing vulnerability of the countries as well as to considerable loss of real income – 24.6 percentage points in Finland, 13 percentage points in Sweden and 12.4 percentage points in Norway (Jonung, L., Hagberg, T., 2002). The changed economic conditions have also deteriorated bank performance mainly due to considerably rising share of non-performing loans. In Sweden aggregated loans losses increased to 12% of the GDP of the country (Bäckström, 1997).

The general course of the crises in the Nordic countries resembles the developments in Latvia. Thus, taking into account experience of Norway, Finland and Sweden, it is necessary to analyze bank lending operations to timely reveal imbalances in bank operations. A retrospective analysis of banks strategy in lending can help to develop a strategy that allows banks to milder or avoid future financial crisis.

## 6. THE MAIN DETERMINANTS OF IMBALANCES IN LATVIAN BANK LENDING

Due to the historical developments, commercial banks and financial system as a whole are relatively young in Latvia. Various factors, including lack of experience, have determined several imbalances in Latvian bank lending.

<sup>41</sup> See Reinhart and Rogoff (2008) for “Big 5” crises data (Spain 1977, Norway 1987, Finland 1991, Sweden 1991 and Japan 1992).

## 6.1 The funding gap

Analysis of bank assets and liabilities shows the existence of a funding gap since the 3<sup>rd</sup> quarter of 2005 (see Figure 5). The majority of banks increasingly used resources of international financial markets to close this gap. The liabilities of Latvian banks to MFI's rose constantly till the end of 2008, when the liabilities had almost reached the level of deposits accumulated by the banks. Moreover, from the 3Q 2004 till the end of 2007 (except the 2Q 2007) liabilities to MFI's (except the Bank of Latvia) had grown faster than loans and bank assets.

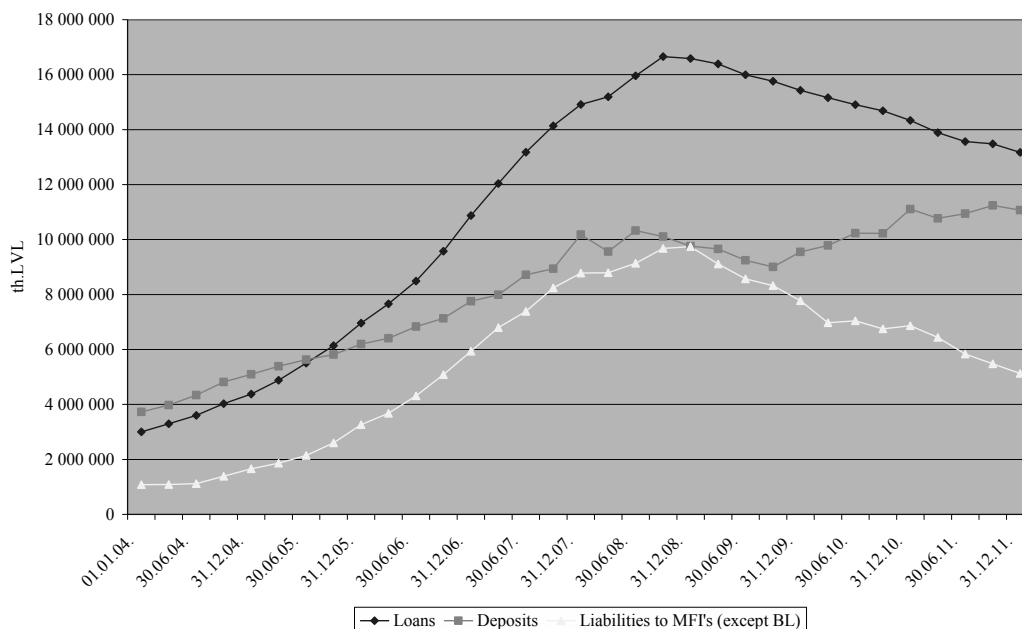


Figure 5. Selected balance sheet items of Latvian commercial banks, 2004–2011, thousand LVL

Source: FCMC

Latvian commercial banks actively used financial markets mainly through their foreign parent banks. Thus, foreign-owned banks had access to cheaper funding and could easily expand lending. On one hand, existence of a parent bank gave Latvian commercial banks the possibility to get cheap resources and have an advantage in tight bank competition. But, on the other hand, it increased their dependence on parent banks and made the banks more vulnerable to changes in parent bank strategy as well as in international financial markets. Thus, in order to ensure balanced bank lending development it is necessary to regulate the size of the funding gap.

## 6.2 Uneven loan portfolio structure

One of the main determinants of imbalances in lending was uneven structure of the loan portfolio. According to Werner, only loans for production (lending to the real sector of economy) stimulate economic growth (Werner 2009). Analysis of bank loan portfolio of Latvian commercial banks shows that in 2008 only 42% of the total loan volume were loans to private enterprises, but 38% of these loans were loans granted to the real estate sector stimulating further growth of real estate prices. Thus, less than 1/3 of the total volume of loans granted during for-crisis years could help to create the value added, stimulating economic development. Moreover, growth of loans for consumption and speculation purposes resulting in inflation has exceeded the growth of banks capital more than twice, making banking system more vulnerable. Thus, loan portfolio structure of Latvian banks was not adequate to stimulate economic growth that raises the need for optimization of bank loan portfolio.

## 6.3 Loan currency

Financial integration, currency peg to EUR as well as access to international financial markets through the parent banks made it possible to grant relatively cheap loans without considerable additional currency risk

for borrowers. Lower interest rates for EUR-loans have determined extreme dollarization of private sector liabilities. Analysis of bank loan portfolio structure in terms of currency has shown that extremely large share of loans are issued in EUR – since the end of 2007 more than 80% of total loans are loans in EUR (see Figure 6).

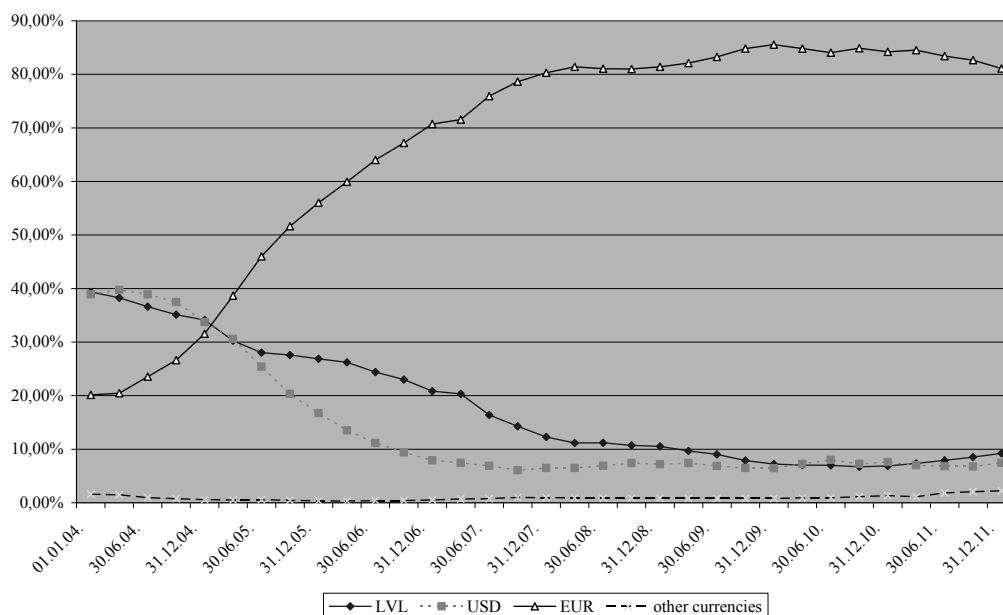


Figure 6. Loan portfolio structure of Latvian commercial banks by currency 2004–2011, %

Source: FCMC

This loan portfolio structure as well as high level of liabilities to foreign MFI complicated the use and reduced effectiveness of traditional monetary policy instruments, thus, reducing ability of the Central Bank to break growth of loans and prevent overheating of economy.

#### 6.4 Underestimation of credit risk

Favourable economic conditions have led to private and public sector over-optimism about future earnings and rising asset prices as well as allowed optimistic risk assessment by both sides – banks and borrowers. Till 2008 credit risk was relatively low, loan losses were minimal, and growth of assets and loans was seen as the key indicator of bank success. Besides, large share of loans was granted to non-production activities, thus, leading to asset inflation (e.g., increase of real estate prices) without stimulation of economic development, but providing higher value of collateral. On the other hand, increase of the market share as a central target and strong competition among the banks have resulted in rather aggressive strategy in lending, e.g., in excessive lowering of interest rates to attract borrowers. Crucial in this case was economically unsound undervaluation of risk, e.g., in case of over-leveraging of Latvian companies.

Experience of several European countries has shown that a long period without losses can lead to economically unsound underassessment of risk. Too low credit risk margins reduce the value of the bank as a business. However, if the margins are too high and the expected losses are overestimated borrowers will be frightened by too high loan interest rates. Thus, under changing economic conditions it is crucial to implement a consistent quantitative assessment of the credit risk and standardize the price determination process, adjusting the loan price to the borrower risk profile. In this case, determination of credit risk adjusted loan pricing could provide basis for efficient use of resources that, in its turn, improves the indicators of the bank cost-effectiveness as well as helps to ensure consistency, strict lending culture and stability of current and future bank operations.

#### 6.5 Overestimation of collateral

Another important issue was overestimation of the importance of collateral, particularly in the form of mortgage. The period before the crisis was notable with high reliance on mortgage. Besides, the existence of the loan collateral allowed borrowers to receive better lending terms. By the end of 2008 73% of the loans

were secured by mortgages. Economic downturn and sharp fall in real estate prices pushed the banks to make conceptual change in loan security assessment as well as to limit supply of credit. On the other hand, fall in asset prices has negatively influenced private sector balance sheets affecting also spending and borrowing decisions of households and companies. Thus, the creditworthiness of the borrower should be evaluated without taking into account the existence and value of the loan collateral. It allows consequent assessment of borrowers independent of asset (e.g., real estate) prices and helps to maintain stability in bank lending under conditions of changing economic environment.

## 6.6 Lowering of lending standards

The loan products offered by banks are very similar with the main difference in interest rates that makes it to be the crucial factor in competition. As a result of pre-crisis developments, a tendency of descending interest rates could be observed in the market. In the conditions of tough competition, banks offered their customers loans at very low interest rates, even granting loans with a minimal profit margin. Moreover, banks tended to ease lending conditions to increase the market share. Considering the experience of several European countries at the beginning of 1990s, the problem of lower lending standards and credit risk in the banking market becomes more acute in situation of intensive lending growth and tough competition, thus, leading to falling loan quality. Similar developments had been noticed also in Latvia. Analysis of bank performance indicators shows that considerable deterioration of loan portfolio quality has started in the last quarter of 2008 when the share of non-performing loans in total bank loan portfolio rose from 0.73% (30.09.2008) to 2.37% (31.12.2008). In its turn, in 2009 the share of general loan loss provisions has rocketed (see Figure 7) leading to deterioration of bank performance.

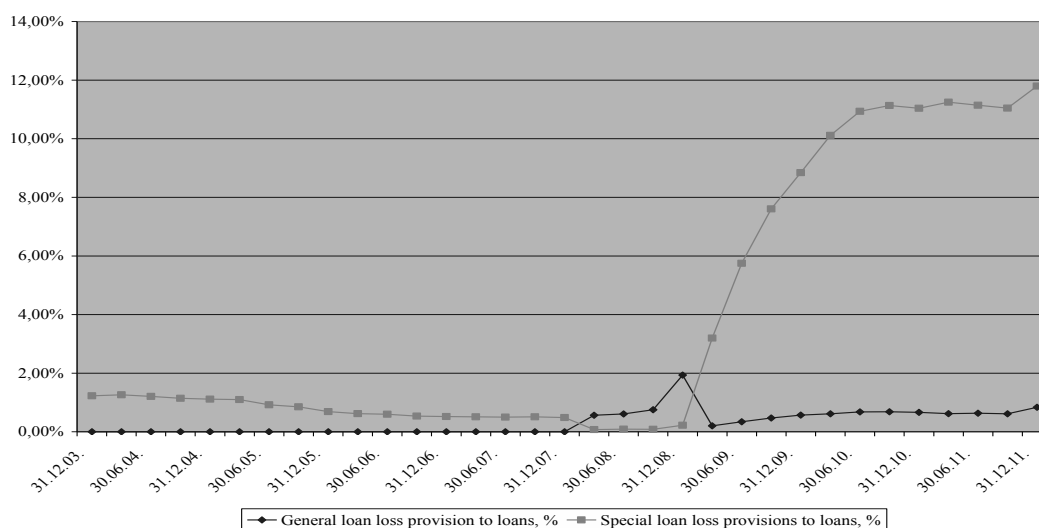


Figure 7. Loans loss provisions to gross loans, 2004-2011, %

Source: FCMC

Thus, it is extremely important to maintain consistency in lending standards to ensure stability of bank operations. Analysis of the main determinants of imbalances in Latvian bank lending can help to ensure balanced future development of bank lending and avoid financial distress.

Nowadays an issue of fair banking and bank social responsibility becomes topical. Positive signal to the financial market is the working paper of the European Commission “Responsible Mortgage Lending & Borrowing” (2010). In author’s opinion, the term “responsible” should be extended to the whole lending business to stimulate lending for productive purposes and ensure balanced economic development of the country that in its turn ensures balanced growth and profitability of the banking business as well as can help to milder or avoid financial distress.

## 7. CONCLUSIONS

The paper analyzes the topical issue of bank lending under conditions of changing economic environment. Successful economic development, increase in domestic demand and foreign investments,

decrease of interest rates are considered to be the reasons for rapid lending growth in Latvia that was pro-cyclical. Empirical study has shown that growth of loans for consumption and speculation purposes resulting in inflation during the study period has exceeded the growth of banks capital more than twice, making banking system more vulnerable. Changing economic environment has revealed a number of imbalances in banking operations and raised the necessity to review bank strategy in lending. According to the analysis made, the main imbalances in lending are the funding gap, uneven loan portfolio structure, loan currency, underestimation of credit risk, overestimation of collateral, and lowering of lending standards. Changing economic situation has pushed the banks to cardinaly review their strategy in lending that is not effective from the point of view of bank strategic management and business stability. To provide stability to bank lending taking into account the course of the previous crises, several proposals were worked out:

- to provide consistency in loan granting standards in order to ensure balanced growth of the bank;
- to ensure risk adjusted loan pricing in order to determine the loan price that covers the expected loss;
- to give priority to lending to projects that can create the value added, thus, stimulating economic growth;
- to set maximally acceptable private indebtedness ratio to GDP and optimize loan portfolio in order to limit lending to non-productive projects.

Moreover, government support is needed to develop bank lending strategy that allows banks to stimulate lending, contributing to the creation of value added and economic development of the country. Responsible lending as a compulsory component of bank lending strategy would allow balanced development of banks as well as would stimulate economic growth that in turn positively effects bank lending and profitability.

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