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Economic and Employment Effects of Microloans in a Transition Country

Guido Baldi¹, Vairis Sadovskis² and Viktorija Šipilova³

January 2014⁴

Abstract

Over the last years, microloans to small and medium-sized enterprises have grown in significance in many countries of Central and Eastern Europe. Empirical evidence on the economic and social impact of microfinance is, however, scant. In trying to shed more light on this important issue, this paper uses a case study and analyzes the economic impacts of the microloan programme of the Latvian development bank *Hipoteku Banka*. We analyse a dataset provided by the Hipoteku Banka and use economic indicators of Latvia and its regions as comparisons. We find that the firms that were granted a loan from Hipoteku Banka on average considerably increased their employment during the loan period. In addition, a survey was carried among the clients of the bank. The survey results imply that the microloan program made a clear contribution to supporting existing firms and establishing new businesses, although the impact varies across sectors of economic activity.

JEL Classification: D31, O11, O12

Key Words: Microcredit, Employment, Economic Growth

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1. Introduction

Microloans to small and medium-sized enterprises are increasingly used in Central and Eastern Europe countries. However, evidence on the impact of microfinance on variables such as employment and future financial access of the supported enterprises is scarce. In an attempt to partly fill this gap, this paper looks at a case study and analyzes the economic and social impacts of the activities of the Latvian development bank Hipoteku Banka.⁵

While microloans are an established tool in pursuit of the goal of poverty reduction in economically low developed countries, microfinance has also become more popular in economically more developed countries such as the nations in Central and Eastern Europe. By providing microloans to businesses with limited access to bank financing, one intends to promote the establishment of small and medium-sized enterprises. Especially, self-employment and the associated creation of micro-enterprises is seen as a way to help unemployed people to escape poverty. This objective is especially pertinent for Latvia, where the economic crisis in 2008 and 2009 was very severe and has cast many people into unemployment and poverty. Thus, increased access to financial services may not only have positive effects on the individual firm level, but can also be expected to contribute to macroeconomic growth and to lower unemployment. While financial development measured by overall loans or deposits in an economy has long been recognized as an important determinant of macroeconomic development (see the seminal contribution by King and Levine (1993)), the importance of the degree of inequality in the access to finance has recently gained more attention (see Beck et al. (2009) and Guiso et al. (2004) for important empirical contributions and e.g. Baldi (2013) for a theoretical analysis).

Microloans can be one way to improve financial access for small businesses. This paper aims at providing further empirical evidence on the economic effects of microloans using as a case study the development bank Hipoteku Banka in Latvia. We analyze the microloan programme of this bank between 2009 and 2011. In our analysis, we focus on the following questions: Did the

⁵ In January 2014, the Hipoteku Banka changed its name and is now called *Latvian Development Finance Institution Altum*.

microloan programme increase employment within the supported firms? And was it able to contribute to the economic development of rural areas and the decrease of inequalities across regions? We analyse a dataset provided by the Hipoteku Banka and supplement the information contained therein by conducting an own survey among the clients of the bank. We find that the firms granted a loan from Hipoteku Banka on average considerably increased their employment during the loan period. While one cannot clearly identify the specific effect of the microloan programme on this employment increase, the rise in average employment is nevertheless a clear sign that Hipoteku Banka supported serious micro-enterprises and on average helped the enterprises through its loans to succeed. The regional spread of the loans has been rather even across the rural regions of the country and there have not been considerable differences in the performance of the supported firms across regions. In addition, the supported firms were later more likely to get access to finance from banks. Thus, one can conclude that the microloan programme made a successful contribution to the economic development of rural areas in Latvia.

This paper is organized as follows. Section 2 surveys the existing literature on the relation between microfinance and small and medium-sized enterprises with a focus on Central and Eastern European countries. Section 3 gives an overview of the economic environment in Latvia and its regions during the years in which the microloan programme was implemented. Section 4 first describes the activities of Hipoteku Banka and the datasets available. Second, the results of the economic impact analysis of the Hipoteku Banka are shown and discussed. Finally, section 5 presents the conclusion.

2. Microloans and the Importance of Small and Medium Sized Enterprises

2.1 The Economic Importance of Small and Medium Sized Enterprises

The crucial role that small and medium sized enterprises (SMEs) play in the modern economy has been thoroughly documented in academic research. The extensive cross-country study by Beck, Demirguc-Kunt and Levine (2003) demonstrates that a large and developed SME sector exhibits a strong positive correlation with GDP per capita growth. As is common for studies of this kind, the authors balk at claiming a distinct causal relationship but do conclude that an elaborate SME sector is undoubtedly characteristic of successful and developed economies. In addition, SMEs are known to be absolutely predominant among businesses in Europe, constituting 95-99% of active enterprises, depending on the specific country. Meanwhile micro enterprises, defined as those with less than 10 employees, are reported to make up 91% of all businesses in EU-27 (Conforti and Kraemer-Eis (2009)). Proponents of SMEs generally mention several arguments to stress the economic importance of SME's. These are consequently used as arguments in favour of aiding the establishment and proliferation of SMEs.

First, it is said that these firms are known to promote competition in their respective industries, as well as spawn innovation that ultimately also benefits the rest of the economy. For example, Almeida (2004) states that SMEs are much better suited to generate technical innovation and improve high-tech information networks. Second, the pro-SME view often emphasizes that SMEs tend to be more labour intensive than large firms. 60-70% of overall economy-wide employment is commonly attributed to the SME sector. Conforti and Kraemer-Eis (2009) bolster this line of argumentation by reporting that apart from 99% of all start-ups falling into the SME category, a third of these are established by unemployed individuals. This implies that SMEs generate employment for the most disadvantaged and unfancied participants of the labour market. Finally, academics tend to characterise SMEs as flexible, able to quickly adapt to local customer needs and successfully occupy profitable market niches (see e.g. Cologhirou et. al. (2004)). For this reason they are thought to be very well-equipped to succeed in rural areas and aid regional development (Info regio (2000)).

2.2 Microfinance as a Way to Stimulate Small Businesses

In view of those positive economic impacts of a strong and developed SME sector brings to the economy, it is no surprise that sustained policy-driven efforts have been made across the globe

on national and international levels to foster the growth of SMEs, as well as address commonplace obstacles to their development.

While some of these are country specific and attributable to cultural and historical peculiarities, the regulatory environment, or alternatively a lack of appropriate expertise, skills or education on behalf of prospective or existing SME entrepreneurs, the bulk of academic discussion has centred on a pressing and seemingly universal problem – lack of access to financial services.

Traditional banking services such as provision of credit are often unattainable for small enterprises, as regular banking institutions view small loans to SMEs as unprofitable due to high levels of risk and transaction and monitoring costs (Armandáriz and Morduch (2010); Cull et al., 2009). As a result, a large proportion of SMEs find themselves altogether excluded from the financial services sector (Littlefield and Rosenberg, 2004). According to Pissarides (1999), liquidity constraints have traditionally constituted an insurmountable challenge for small firms in transition economies of Central and Eastern Europe. This has continued to be the case in more recent years, particularly in light of the severe credit crunch and overall economic downturn in 2008-2009 (Conforti and Kraemer-Eis, 2009).

The above considerations have given rise to microfinance, referring to financial services administered to low-income self employed individuals, ranging from enterprise, consumption and emergency microloans to deposit, payment and insurance services (Ledgerwood, 1999). Despite the other services becoming increasingly popular, enterprise lending remains by far the most important product of microfinance (Woller, 2002). In the CEE region enterprise loans accounted for 51% of overall microcredit provided in 2008, the other major category being consumption loans at 47% (MIX, 2009).

On a general level, enterprise microcredits in Europe are for most part characterised as loans to firms employing less than 10 individuals (or micro-firms), with a notional principal of less than 25 000 EUR (EU-Commission) with the typical amounts within CEE falling significantly short of this upper boundary. Conforti and Kraemer-Eis (2009) provide an average estimate of 4 506 EUR in 2008. Nevertheless, this is still considerably more than the global average of 655 USD, as reported by Buera et al. (2012). Despite the fact that most microfinance institutions (MFIs) fall into the category of commercial banks or credit unions (MIX, 2009), it is a common practice to extend enterprise microloans without requiring the borrowers to commit collateral. This is a crucial feature for these programmes, as most clients cannot provide adequate physical capital. In some regions of the world, some lenders have sought to substitute this shortage of traditional forms of collateral with social capital, commonly built around the notion of group lending, relying heavily on reputational effects and peer pressure of fellow borrowers (see e.g. Woolcock, 2001; Goldmark, 2001). However, this practice is more applicable to consumption loans and is in general uncommon and not appropriate for Central and Eastern Europe

(Armendáriz and Morduch, 2000). In light of the above it is interesting that MFIs face relatively low default rates on their enterprise loans – commonly in the region of a mere 5% (Buera et al., 2012).

2.3 Impact of Microfinance

Since its initiation in the 1970s, the microcredit initiative has grown rapidly. Buera et al. (2012) report that there were 3552 MFIs in 2010, serving an estimated 155 million clients around the globe, representing a six-fold and 12-fold increase in the respective indicators compared to 1997. This also holds for the CEE region, where MFIs have continued to proliferate in recent years, improving their reach and penetration rate (MIX (2009)).

However, whether growth of the microcredit industry has been on merit is still subject to extensive debate among scholars as well as legislators. There is common consensus that one of the most fundamental, overarching goals of the microcredit initiative rests with poverty alleviation and unemployment reduction. Ideally unemployed or self-employed low-income individuals should be able to make use of enterprise microlending to set up and/or advance their own businesses, resulting in lasting income-generating employment for themselves and those they end up employing.

It is thus natural that much of the debate around the effectiveness of microloan programmes in less developed areas centres around mustering a definitive answer to the question of whether microlending is, in fact, an effective tool in helping micro-borrowers overcome poverty. This question is particularly topical when applied to the social impact of Central and Eastern European MFIs and their programmes, as the recent economic recession of 2008-2009 has been extremely devastating for the economies of the region, having, at its height, moved an estimated 22.3% of the region's population below their respective national poverty lines.

On a theoretical and empirical study level, it has been extensively argued that MFIs' ability to target and serve those most in need depends on whether they choose to pursue financial self-sufficiency, as far as their microcredit operations are concerned (e.g. Morduch (2000)). An alternative to this seemingly sustainable mechanism is the situation, where the MFIs concerned accept inability to completely cover their costs, and settle the resulting deficit via donations from public and private welfare institutions. The predominant view on this issue was formed in the 1990s, when a number of studies came to the conclusion that financial self-sufficiency is not merely a desirable state of affairs for MFIs but rather absolutely essential for their long-term survival and success (Gonzalez-Vega, 1994). This assertion has nevertheless been actively

disputed by demonstrating and arguing that sustainability can be and has been achieved in the absence of complete self sufficiency (Woller, 1999).

Specifically, it is being argued that in pursuit of financial self-sufficiency MFIs inadvertently, yet systematically shift towards serving clients of a lower risk profile that are able to assume loans with larger notional balances and are therefore more profitable. As a result of concentrating on these so-called “marginally poor” clients, MFIs are shown to effectively lose sight of their underlying mission of poverty alleviation for those most severely exposed to it (see e.g. Nawaz (2010); Augsburg and Fouillet (2010)). This result is commonly referred to as the “mission drift”.

Eastern European MFIs are generally not known to be actively tracking the income levels of their clients; rather they focus on extending credit to financially constrained entrepreneurs. Combined with the fact that most MFIs of the region tend to adhere to the self-sufficiency principle, this means that compromising depth of outreach is an acute problem of many microcredit programmes in Eastern Europe (Pytkowska and Rataj (2007)).

On the other hand, there is no shortage of opposing findings, bolstering the persuasion that financial self-sufficiency enables extending social outreach to the extremely poor in the longer term, as the said MFIs develop financial robustness over time (Gonzalez and Rosenberg (2006); Schicks (2007); Armendáriz and Szafarz (2011)).

Hartarska and Nadolnyak (2008) show that microcredit programme participants’ businesses progress, gain access to traditional sources of credit and are known to rely less on internally generated funds. On the other hand some studies have produced shocking findings by stating that unemployed impoverished individuals are being moved into long-standing successful self-employment via their microenterprises in only 1% of cases (Schreiner (1999)).

Still others state that microlending can only have the desired poverty alleviating effect if properly grounded in and combined with sound and systematic macroeconomic policies that reinforce the impact of said microcredit initiatives (Woller and Woodworth (2001)). In the absence of such macroeconomic reinforcement poverty alleviation is often a short-term result (see e.g. Chowdhury, et al. 2005). Finally, it is often argued that the vast majority of positive social impact yielding research is marred with selection bias (see e.g. Bateman (2010)).

To sum up, there seems to be a massive rift in opinion and a lot of contention, when it comes to concluding whether microcredit programmes manage to deliver the kind of social welfare impact that constitutes their ultimate reason for being (Banerjee and Duflo (2009)). This study is hence an effort to contribute to the debate highlighted above by providing empirical evidence on the economic and social effects of microloans based on a case study of the microlending programme administered by the development bank Hipoteku Banka in Latvia.

3. Description of the Economic Environment in Latvia during the Years of the Project Implementation

3.1 The Regional Distribution of the Economy and the Population

In this section, we provide a statistical characterization of the Latvian economy.⁶ Understanding the economic situation during the microloan programme is essential, when it comes to interpreting the impact results of the microloan programme. The economic and demographic data of Latvia and its regions will allow us to compare the development of the firms in the microloan programme with developments going on in the Latvian economy.

First, it is interesting to have a closer look at the economic and demographic structure of Latvia, which is divided into five regions: Riga, Vidzeme, Kurzeme, Zemgale and Latgale. As can be seen in Table 1, nearly half of the population live in the region of Riga, where two-thirds of the Latvian GDP is concentrated. The rest of the population is relatively evenly distributed over the other four regions. Also, the level of GDP is similar across these regions, which are more rural and economically less developed than Riga.

Table 1: Regional Distribution of the Latvian Population and GDP (in %)

Region	Population (2010)	GDP (2008)*
Riga	48.8	67.5
Vidzeme	10.4	6.3
Kurzeme	13.3	10.5
Zemgale	12.4	7.8
Latgale	15.1	7.7

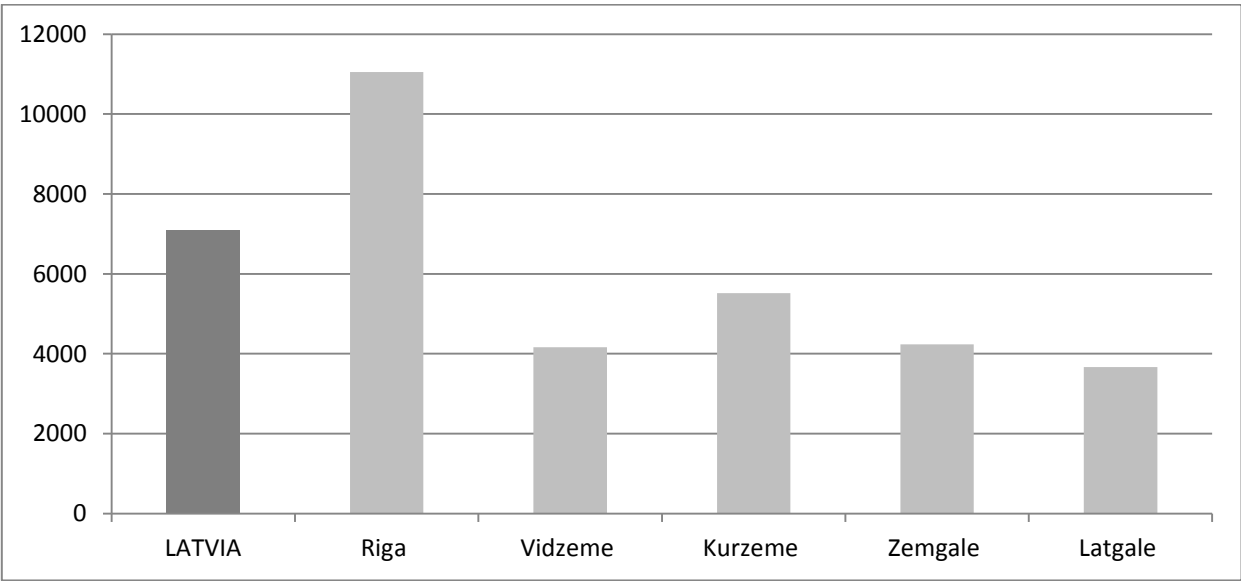
**Data for regional GDP are only available up to 2008*

Source: Central Statistical Bureau of Latvia

⁶ This section heavily draws from Baldi and Sipilova (2013).

The importance of the region of Riga in the Latvian economy can be even better seen in Figure 1. GDP per capita is by far the highest in the region of Riga. The other regions are economically less developed and their GDP per capita is below the Latvian average. In these regions, GDP per capita is rather similar. From the analysis of the demographic and economic structure of Latvia in Table 1 and Figure 1, one can conclude that the similarities across these rural areas make a comparison of the impacts of microloans appropriate across these regions.

Figure 1: GDP per Capita across Regions (in Lats, 2008)



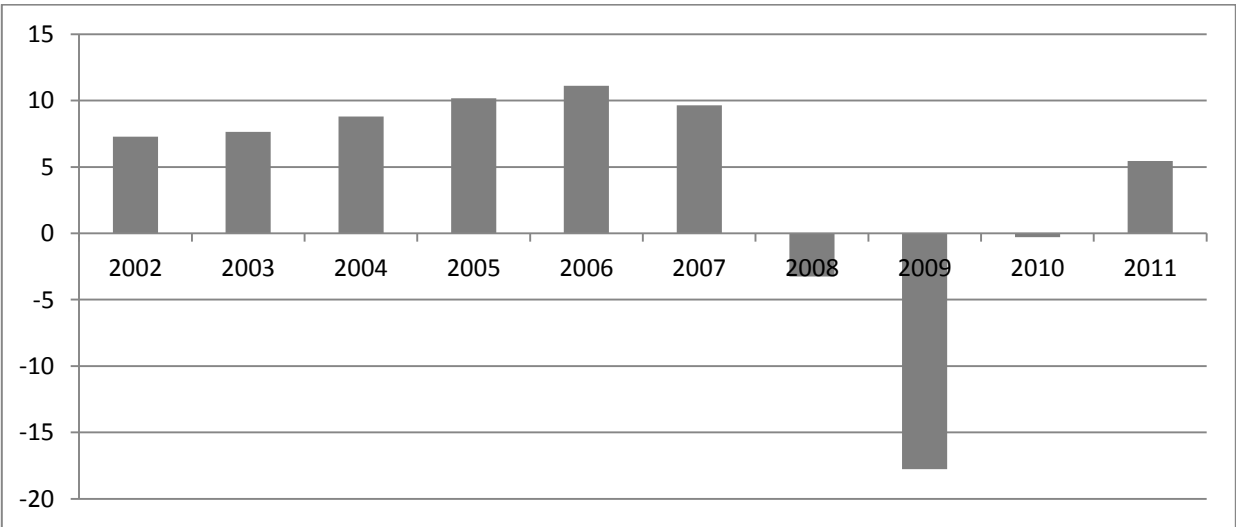
Source: Central Statistical Bureau of Latvia

3.2 The Effects of the Severe Economic Crisis in 2009-2010

Latvia had to bear the consequences of a large economic crisis during the implementation period of the microloan programme of the Hipoteku Banka. After a long period of high growth rates in the 2000s, the economy became overheated and showed the first signs of weakness towards the end of 2007. Latvia was therefore especially vulnerable when the financial crisis occurred in 2008. As a consequence, a severe economic crisis hit the Latvian economy in 2008

and 2009 (see Figure 2), which was associated with fears that Latvia would eventually have to abandon its fixed exchange rate vis-à-vis the euro. Latvia had to obtain financial support from the IMF and the EU, and the Latvian government implemented high spending cuts in order to reduce the budget deficit to sustainable levels. Eventually, a stabilization of the economy and the government budget was achieved during 2010, and the fixed exchange rate vis-à-vis the euro was also able to be maintained. The economy stagnated in 2010 and grew again in 2011.

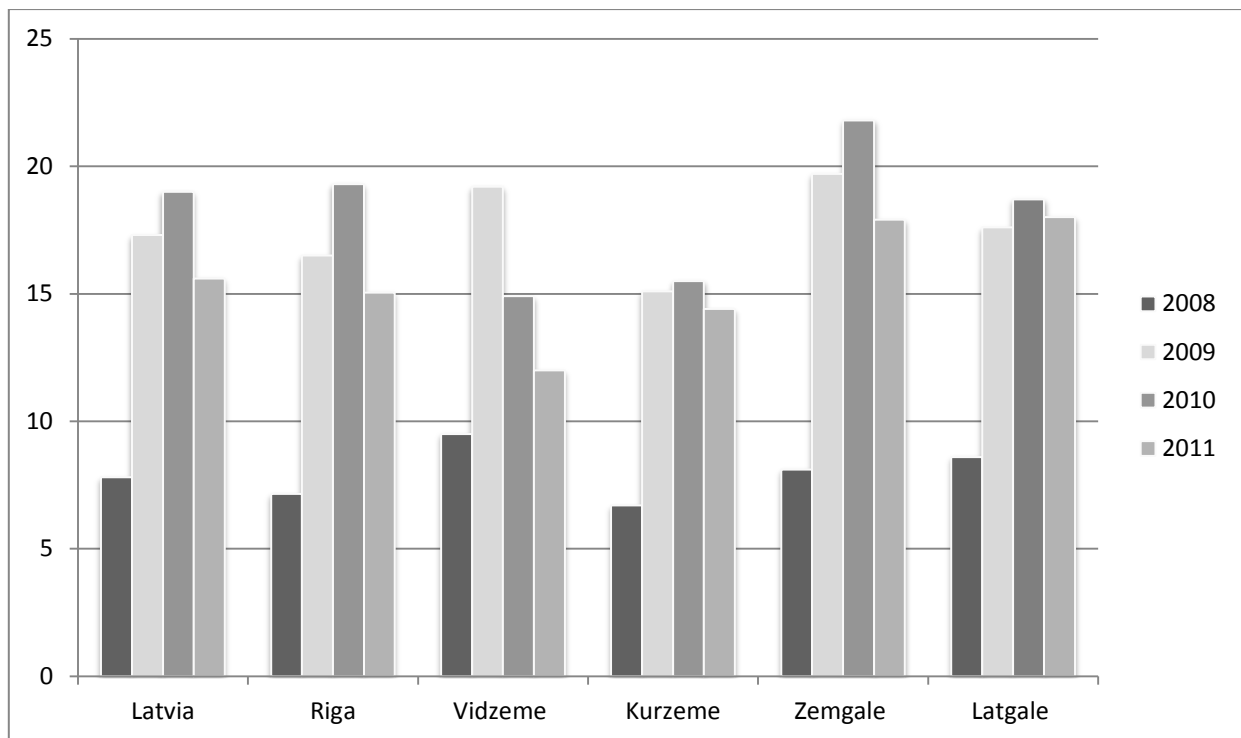
Figure 2: Growth Rate of Real GDP (% change with respect to previous year)



Source: Central Statistical Bureau of Latvia

At the same time as the economy started to contract, unemployment rose sharply from around 7% to nearly 20% in 2010 (see Figure 3). Regarding unemployment, it is interesting to have a closer look at the regional disparities shown in Figure 3. One can see that in most regions, unemployment still rose in 2010, but fell in Vidzeme and stayed roughly constant in Kurzeme. As a result, these two regions showed the lowest unemployment rates of all Latvian regions in 2010. In 2011, unemployment fell considerably in Latvia with Riga, Vidzeme and Zemgale showing the largest decrease. We are going to refer to these regional disparities in unemployment rates again when discussing the impacts of the microloan programme.

Figure 3: Regional Unemployment Rates in Latvia (in %)



Source: Central Statistical Bureau of Latvia

Table 2 provides an overview of employment in those sectors of economic activity which are at the centre of our interest in this paper. One can see that manufacturing, transportation, as well as arts and recreation are among those sectors that show the largest decrease in employment during this period of overall economic contraction. Two sectors, namely agriculture and scientific and technical activities, have seen an increase in employment. This certainly reflects the fact that unemployed people moved to these sectors because they chose self-employment making.

Table 2: Evolution of Employment across Sectors of Activity from 2009 - 2011 (% Change)

Sector of Economic Activity	Employment Increase
Agriculture	12.8
Manufacturing	-18.4
Wholesale and Retail Trade	-7.1
Transportation	-12.6
Accommodation and Food Services	-6.5
Information and Communication	-11.2
Real Estate Operations	-2.3
Scientific and Technical Activities	18.5
Arts and Recreation	-17.5

Source: Central Statistical Bureau of Latvia

3.3. The Sectoral and Regional Structure of the Latvian Economy

Table 3 shows the sectoral and regional structure of the Latvian economy. We focus on those economic activities where most of the firms in the microloan programme are active. In particular, the differences across the Latvian regions are interesting and will be of importance when analyzing the impacts of the microloan programme. The weight of each sector of economic activity with respect to total output is shown. One can again see the differences between Riga and the rest of the country. In particular, Riga depends relatively less on agriculture and manufacturing than the rest of the country, while the services sector is more developed in Riga than in the other regions.

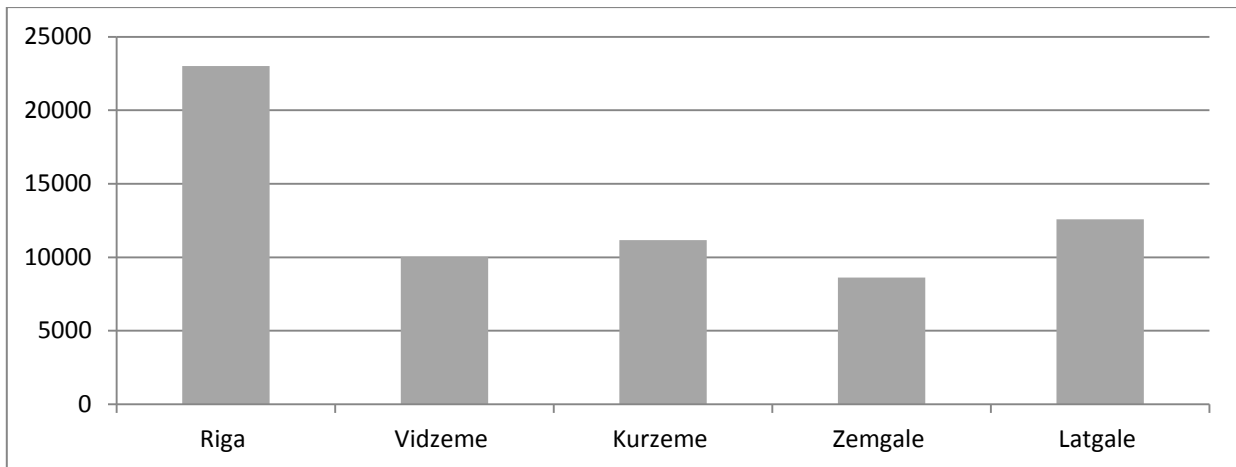
Table 3: Number of Firms according to Economic Activity (in % of total, 2009)

	Latvia	Riga	Vidzem	Kurzem	Zemgale	Latgale
Agriculture	3.8	1.6	9.7	7.0	12.3	3.8
Manufacturing	10.8	8.9	16.4	14.8	15.4	12.0
Wholesale and Retail Trade	15.3	17.1	12.5	10.6	13.0	11.8
Transportation	11.1	12.4	4.1	14.5	4.6	7.9
Accommodation and Food Services	1.6	1.7	1.4	1.3	1.0	1.3
Information and Communication	4.3	5.9	1.1	1.4	1.1	1.8
Real Estate Operations	9.3	9.0	9.8	10.0	9.7	9.7
Scientific and Technical Activities	4.8	6.3	1.7	2.4	1.6	1.4
Arts and Recreation	1.7	1.7	1.5	1.8	1.5	1.8

Source: Central Statistical Bureau of Latvia

In Figure 4, we now turn to the regional distribution of small enterprises across Latvia. Since the microloan programme is meant for small businesses, studying the regional distribution of these enterprises across Latvia is interesting for the interpretation of the results in section 4. As for the other economic indicators, one can see that the region of Riga has many more small businesses than other regions in the country. Across the other regions, the number of small businesses is relatively similar. However, one can nevertheless detect some differences showing that Latgale has more small firms than the other rural regions, while Zemgale lagged behind the other regions in 2009.

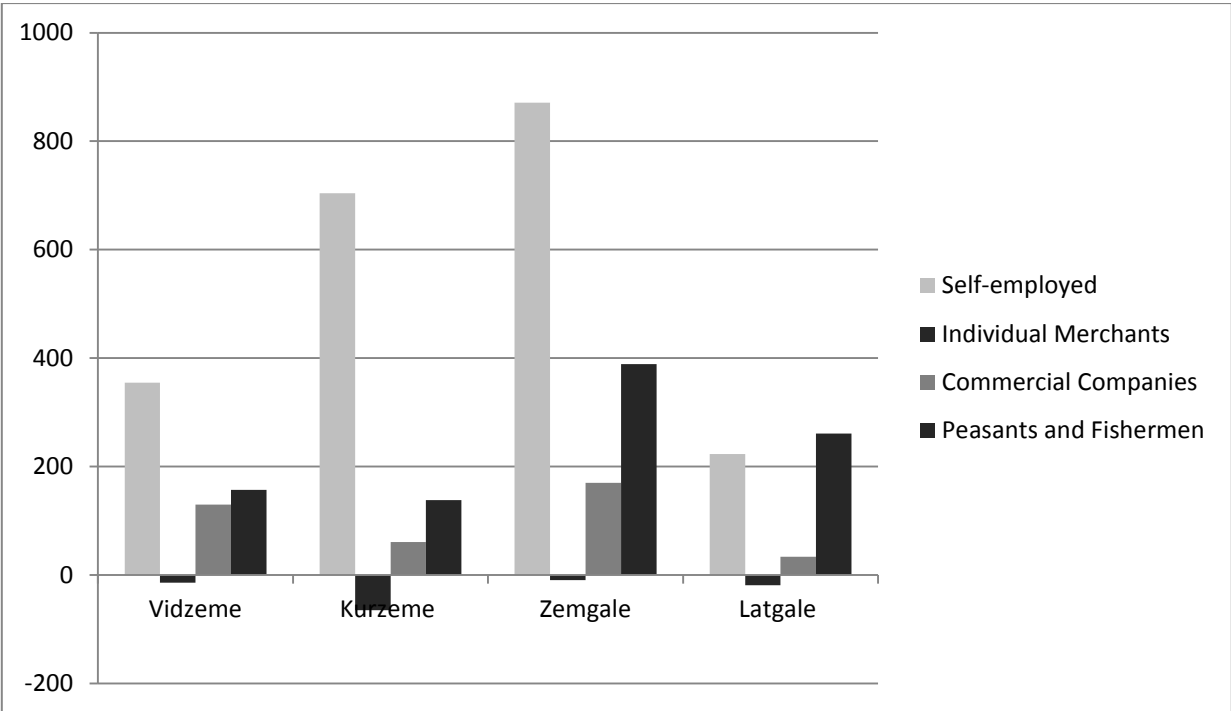
Figure 4: Number of Small Enterprises across Regions (2009)



Source: Central Statistical Bureau of Latvia

In Figure 5, the net increase of enterprises across Latvian regions is depicted for 2010. It contains a number of interesting pieces of information that will become relevant in section 5. The most eye-catching feature is that Zemgale saw a considerable increase in the number of firms, especially regarding self-employed people. The situation of the economy in Zemgale, which is characterized by relatively few firms (compare with Figure 4) and the highest unemployment rate in Latvia (compare with Figure 3) seems to have encouraged many people to choose self-employment as a way to escape unemployment and poverty. In contrast, the region of Latgale, which has a relatively high number of small firms (compare with Figure 4), only registered a relatively modest increase in the number of firms in 2010.

Figure 5: Net Increase in the Number of Enterprises across Latvian Regions (2010)



Source: Central Statistical Bureau of Latvia

3.4 Access to Finance

In this section, we have a closer look at the distribution and evolution of loans in Latvia. Table 4 shows the structure of loans across those economic activities which are at the center of our analysis.

Table 4: Amount of Loans by Sector (in % of total, 2008)

Agriculture	4.3
Manufacturing	14.0
Wholesale and Retail Trade	12.5
Transportation	4.9
Accommodation and Food Services	2.4
Information and Communication	0.2
Real Estate Operations	30.9
Arts and Entertainment	0.3
Other	30.5

Source: Latvian Banking Commission

As a consequence of the economic crisis, the credit supply was strongly reduced as can be seen from Table 5, which shows the evolution of loans for those economic sectors that are at the center of our analysis. One can see that after a slight decrease in 2009, there was a considerable contraction of loans supplied to the economy in the years 2010 and 2011. Considering that the amount of loans had often grown by double digit rates in the years before, the decrease in the loan supply during the economic crisis becomes even more dramatic. In 2010, the sectors hardest hit by the credit crunch were the manufacturing and the retail trade sectors. Also agriculture, and arts and recreation saw a considerable decrease in credit supply. In 2011, the situation improved for agriculture, manufacturing, retail trade as well as for arts and recreation. For the other sectors, however, the situation further deteriorated.

Table 5: Change of Amount of Loans by Sector (in %)

	2009	2010	2011
<i>Total</i>	-1.6	-10.3	-9.3
Agriculture	-3.0	-8.6	-0.1
Manufacturing	-1.3	-13.3	-7.4
Wholesale and Retail Trade	-4.4	-15.4	-10.6
Transportation	10.2	1.1	-6.9
Information and Communication	47.6	18.8	-25.3
Accommodation and Food Services	6.1	-6.3	-11.8
Real Estate Operations	3.2	-6.2	-8.6
Arts and Recreation	17.3	-8.4	-5.5
Other	-8.9	-15.8	-11.9

Source: Latvian Banking Commission

The following Table 6 shows results from a survey conducted by the *Central Statistical Bureau of Latvia* questioning enterprises about their problems. Access to finance was found to be one of the main problems of the firms in the survey. Interestingly, small enterprises mentioned access to loans more often than larger enterprises. This highlights the potential benefits of microloans granted to small enterprises.

**Table 6: Percentage of Firms in the Respective Category
Mentioning Access to Finance as a Main Problem (Results for 2011)**

Large Enterprises	11.30
Medium Enterprises	14.34
Small Enterprises	21.51

Source: Central Statistical Bureau of Latvia

4. The Economic Impacts of the Microloan Programme

This section gives an overview of the data used and presents the results of the research conducted on the basis of the questions raised in the introduction, namely the regional distribution of the loans and the impact on employment.

4.1 Description of the Data and the Questionnaire

The microloan programme of the Hipoteku Banka studied in this paper lasted from 2009 to 2012 and the dataset comprises 580 supported businesses. Data on initial and final employment in each enterprise, the location of the business and its sector of economic activity are available. In addition, a survey was carried out. The questions of the survey are listed in the appendix. The questions mainly concern previous and subsequent access of the bank's clients to financial access from other commercial banks.

In Table 7, we depict the distribution of the supported enterprises across sectors. For comparison, we also show their corresponding share in the Latvian economy. The activities reflect the focus of the Hipoteku Banka, which is mainly active in rural areas. Hence, a relatively high share of the supported businesses can be found in the agricultural sector. Also, small businesses active in sectors like manufacturing, transportation, and information and communication take a higher share in the microloan programme than in the Latvian economy as a whole.

Table 7: Number of Firms according to Economic Activity (in % of total)

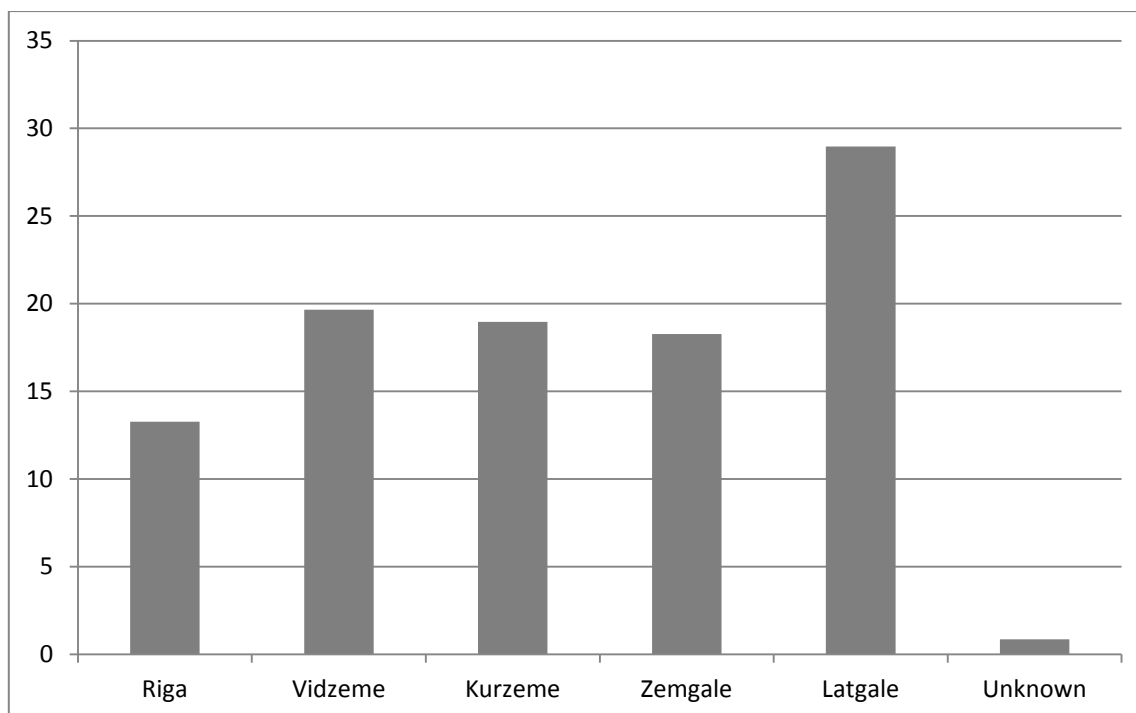
	Firms in the Microloan Programme*	Firms in the Whole Economy (2009)
Agriculture	48.1	3.8
Manufacturing	10.2	10.8
Wholesale and Retail Trade	1.0	15.3
Transportation	9.7	11.0
Accommodation and Food Service	3.6	1.6
Information and Communication	6.4	4.4
Real Estate Operations	0.3	9.3
Scientific and Technical Activities	1.4	4.8
Arts and Entertainment	1.4	1.7
Other	18.0	37.5

**The total of firms in the microloan programme consists of the total of supported firms whose sector of activity is known.*

Source: Own calculations based on data from Hipoteku Banka and the Central Statistical Bureau of Latvia.

Figure 6 displays the regional distribution of supported businesses. As discussed above, the Hipoteku Banka focuses its activities on rural and economically less developed regions. The low number of 13% for Riga, where microloans are not promoted as much as in other regions, can therefore be easily explained. The region of Latgale, which shows the lowest GDP per capita level in Latvia, shows a high share of supported businesses. Small businesses in Kurzeme, Vidzeme and Latgale attracted approximately the same number of microloans.

Figure 6: Regional Distribution of Supported Projects (in % of Total)



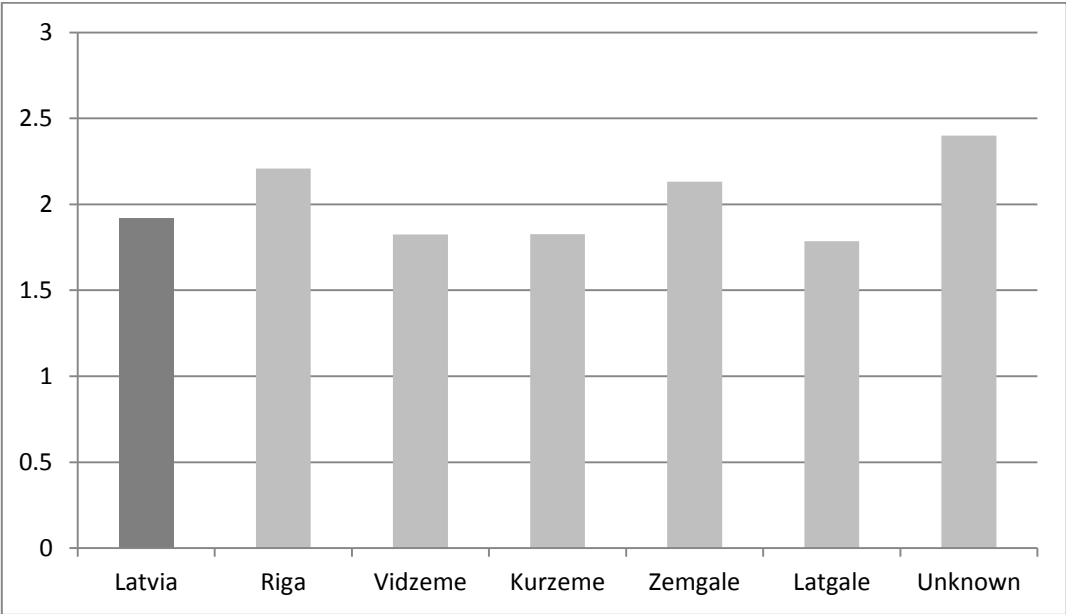
Source: Own Calculations based on data provided by Hipoteku Banka

4.2 The Effects on Employment

Before looking at the effects on employment, we depict in Figure 7 the average initial employment in the supported enterprises. Although Hipoteku Banka in general grants loans to entrepreneurs with up to 9 employees, it mainly supports smaller enterprises or start-ups, which is in accordance with its goals. The average number of employees in the supported enterprises is slightly less than 2. These generally low figures imply that the loans indeed go mainly to small start-ups or unemployed people who want to become self-employed. Average initial employment in the enterprises lies between 1.5 and 2.4 in the Latvian regions. The low figure for Latgale may reflect the fact that there are tend to be less start-ups in this region as was shown in the last section. Also, the agricultural sector, where people are often self-employed, is less important in Latgale. For Zemgale, the high figure probably reflects the fact

that high unemployment in this region may have led to a high number of start-ups and self-employment.

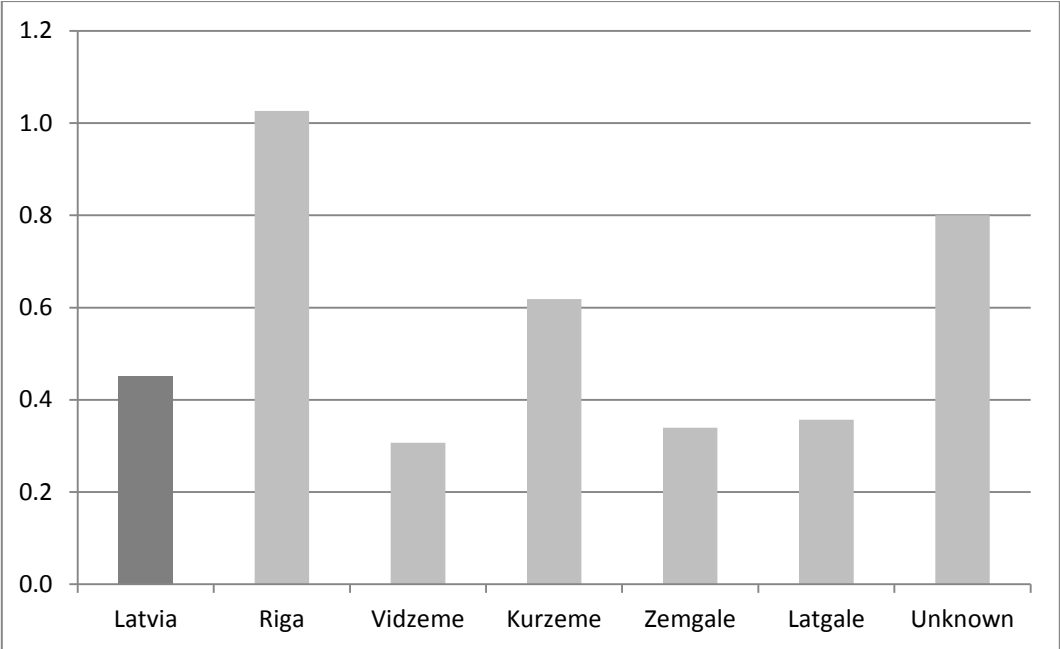
Figure 7: Average Initial Employment in Supported Enterprises



Source: Own Calculations based on data provided by Hipoteku Banka

In Figure 8, one can see that employment in the supported enterprises increased during the period of the microloan programme. This is remarkable, because there was only a slight decrease in unemployment in 2012. Supported enterprises in the regions of Riga and Kurzeme seem to have outperformed the rest of the country. In the other regions, the employment increase was lower despite the fact that initial employment was similar to the one observed in Riga and Kurzeme.

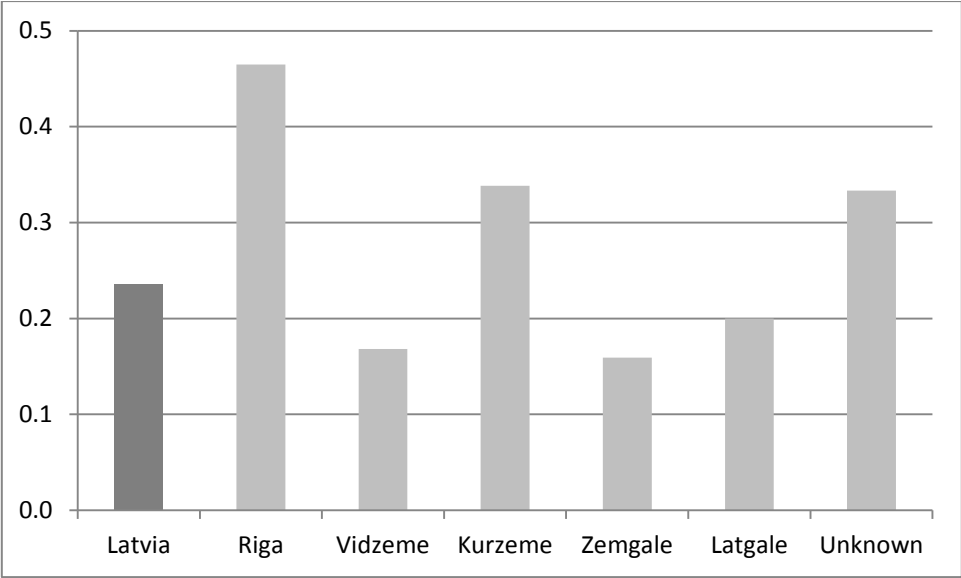
Figure 8: Employment Increase per Supported Project



Source: Own Calculations based on data provided by Hipoteku Banka

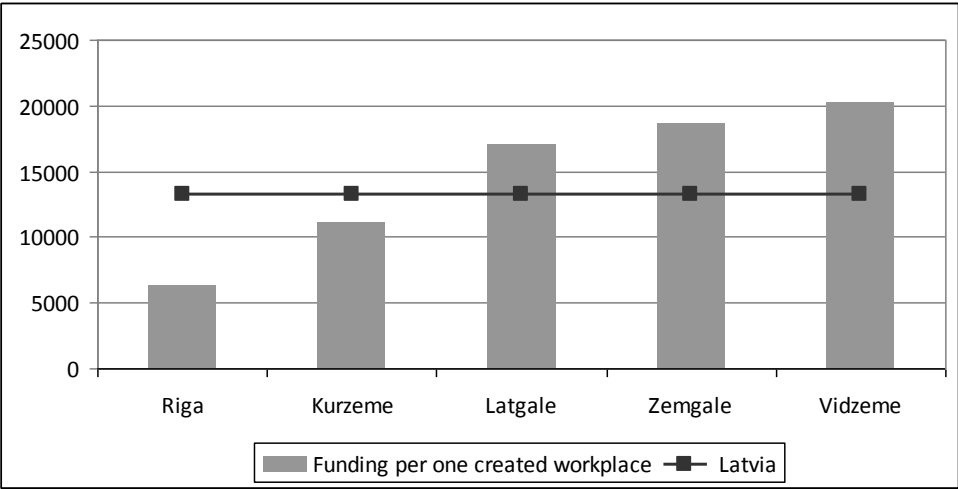
For the employment increase as a ratio of initial employment, one can see again in Figure 9 that on average, employment increased by a remarkable 23 percent. The two regions Riga and Kurzeme are above average with increases of 46 percent and 32 percent respectively, while Vidzeme, Zemgale and Latgale lag behind showing numbers between 17 percent and 20 percent. Interestingly, funding per one created workplace was lower in the Riga and Kurzeme region (see Figure 10).

Figure 9: Employment Increase as a Ratio of Initial Employment



Source: Own Calculations based on data provided by Hipoteku Banka

Figure 10: Funding per one created workplace in Latvia by regions



Source: authors' calculations by the data of the Hipoteku Banka

4.3 The Employment Effects across Sectors of Economic Activity

In this section, we describe the evolution of average employment across different sectors of activity. The numbers show interesting tendencies and differences across sectors (see Table 8). The highest increase can be found in manufacturing, trade and real estate operations. In agriculture, however, the increase is only modest. Yet, one should take into account that there are limited possibilities to increase employment in this sector.

**Table 8: Jobs Created per Sector of Economic Activity
(jobs created in relation to the number of enterprises)**

Sector of Economic Activity	Employment Increase
Agriculture	0.2
Manufacturing	2.4
Wholesale and Retail Trade	2.3
Transportation	1.8
Accommodation and Food Services	1.8
Information and Communication	1.2
Real Estate Operations	2.0
Scientific and Technical Activities	1.4
Arts and Recreation	-0.1
Other	1.8

Source: Own Calculations based on data provided by Hipoteku Banka

5. Questionnaire Results

5.1 Portrait of the Microloan User in Latvia

The questionnaire results provide the characteristics and opinions of microloan users from the development bank Hipoteku Banka, as well as indicators for possible improvements in implementing the microloan program in Latvia in the future. The questionnaire⁷ included answers from 56 microloan users. The results were classified according to the purpose of the microloan (investments in existing business or investments in establishing a new business) and the branch of economic activity.

This classification could contribute toward understanding the extent to which the microloan program contributes to the development of new businesses and the branches where these processes occur more actively. In addition, the survey results provide insight into the microloan program's contribution to maintaining and increasing employment. The analysis of the results is based on:

1. general characteristics of firms;
2. loan history of firms;
3. attitude to the financial institutions and ability to give loans;
4. collaboration with Hipoteku Banka; and
5. changes in employment.

Experiences and opinions about the microloan program that was implemented by Hipoteku Banka were shared from 56 firms. According to the survey results, most lenders asked for the loan in order to increase investments in existing businesses (34 firms); more than half of the businesses were in the agricultural sector. About 50% of the lenders had more than 20 years of experience in entrepreneurship. A similar result was established 2 to 5 years before this survey

⁷ The detailed questionnaire can be obtained from the authors upon request.

took place. These entrepreneurs were mostly characterized by positive revenue and positive profit after taxes during the period analyzed from 2009 to 2012 (see Appendix: Tables 9a and 9b).

Interestingly, a relatively large number of new firms (19) were created through the microloan program. Most firms were in the service sector, while only 26% of the microloans were opened for businesses in the agricultural sector. Most of the activity for establishing new businesses happened during the global economic downturn between 2008 and 2011. Generally, during this period the new firms had positive revenue and zero profit after taxes.

The possibility of an SME obtaining a loan is often limited as microloan programs are not yet widely spread in Latvia. The experiences of the respondents confirm this fact. Only 41% of existing business representatives tried to secure loans from other sources and only 7% dealt with microloan institutions. However, data indicate that in 30% of the cases the financial support from Hipoteku Banka was not enough and entrepreneurs sought additional financial support.

Of the respondents, 68% who received a loan from Hipoteku Banka for establishing a business did not try to get financial support from other sources; in addition, 74% of them did not search for additional finance (see Tables 10a and 10b).

Entrepreneurs with a short business experience (58% of respondents), as well as entrepreneurs with a long business experience (43% of respondents) evaluated the level of trust in the banks as medium. Respondents evaluated the ability to be a creditor differently depending on the kind of debtor. In cases where relatives or friends sought the loan, about 37% of respondents were able to provide it; however, if the acquaintance was recently made, this number decreased to 7% (see Table 11).

This position was also reflected in respondents' behavior. For example, when searching for the loan representatives of both existing and establishing businesses mostly called financial institutions and not private persons or businesses (see Tables 10a and 10b).

In most cases the amount of the loan provided by Hipoteku Banka was below or equivalent to 10,000 LVL, as noted by approximately 81% of the respondents representing existing business areas and about 74% of respondents representing establishing business areas. Only 8% of respondents received loans over 10,000 LVL for investments in existing businesses and 21% for investments in the process of establishing a business.

Real estate and machinery were widely spread collateral for all debtors. It should be noted that about 92% of representatives of existing businesses and 100% of representatives of just established businesses had not previously collaborated with the Hipoteku Banka for loans (see Table 12).

The portrait of the microloan user in Latvia, according to the results of the questionnaire, contained the following general characteristics:

- existing businesses established between 1991 and 1999 in the agricultural sector;
- positive revenue and profit after taxes from 2009 to 2012;
- did not try to obtain loans from other institutions before applying to the Hipoteku Banka;
- had a medium level of trust in banks in Latvia;
- likely gives loans to relatives and friends, but is unlikely to give loans to recently made acquaintances;
- the amount received from the Hipoteku Banka between 2011 and 2012 was \leq 10,000 LVL with real estate as collateral;
- had no experience concerning loans with the Hipoteku Banka; and
- had not faced changes in employment from 2009 to 2012.

5.2 Employment and the Microloan Program in Latvia: Portrait of the Active Workplace

A crucial goal for the SME and microloan programs is to increase and maintain employment. The data in Table 5 indicates that the average employment among respondents varied between 0.55 employees in just established businesses in the agricultural sector to 2.85 employees in businesses with relatively long experiences in other branches. Although independent of the duration of business activities and branch of economic activity, the employment among respondents was relatively low, but very important in processes of maintaining and increasing employment in the regions.

A negative aspect that should be noted in getting a loan was the decrease in employment. The biggest decrease in employment (three persons) was observed in one enterprise in the agricultural sector. Approximately 53% of existing businesses showed no change in employment (see Table 13). The questionnaire results showed that 35% of existing businesses and 79% of just established businesses showed an increase in employment. In most cases the increase was a single employee; however, two respondents indicated that they had hired between 6 and 9 new employees during the period analyzed.

The businesses that were most active in the process of job creation were the agricultural sector and enterprises that had a relatively long business experience. However, start-up companies showed higher and faster results compared with the total number of newly established businesses.

In agreement with the questionnaire results, the portrait of the active workplace that was created contained the following characteristics:

- established business in 2012 in sector defined as „other branches”;
- had positive revenue and profit after taxes;

- did not try to get loans from another institution before applying to the Hipoteku Banka;
- had no experience in loans with the Hipoteku Banka;
- perhaps gives loans to relatives or friends and is unlikely to give loans to recently made acquaintances.
- the amount received from the Hipoteku Banka between 2011 and 2012 was less than 10,000 LVL without collateral; and
- had medium level of trust in the banks in Latvia.

The questionnaire results specify the role and importance of the microloan program in processes of maintaining and creating employment.

The questionnaire results show that the program implemented by the Hipoteku banka provides significant support of the existing business and just established business, as well as diversification of the economic activity. The questionnaire results show that the characteristics of the „microloan user” and „active workplace creator” differ. Duration of business experience and the sector of economic activity are factors that lead to these differences. The most active microloan user is the representative of the existing business in the agriculture sector, but the most active new workplace creator is the representative of just established business in position “other branches”. Generally the microloan program helps representatives of existing businesses maintain employment, but in cases of just established businesses the microloan program contributes to creation of employment.

6. Conclusion

In this paper, we studied the economic impacts of microloans using a case study from Latvia. We used a dataset provided by the Latvian development bank *Hipoteku Banka* and compared the results with economic indicators of Latvia and its regions. Both the results from a dataset provided by the banks and the findings of a survey conducted among the banks' clients find that the firms that were granted a loan from *Hipoteku Banka* on average considerably increased their employment during the loan period. The employment increase applies to both established and newly created firms. While one cannot clearly identify the specific effect of the microloan programme on this employment increase, the rise in average employment is nevertheless a clear sign that *Hipoteku Banka* supported serious micro-enterprises and on average helped the enterprises through its loans to succeed. The regional spread of the loans has been rather even across the rural regions of the country and there have not been considerable differences in the performance of the supported firms across regions. All these factors considered, one can conclude that the microloan programme made a successful contribution to the economic development of rural regions in Latvia.

References

- Almeida, P. (2004). Small Firms and Innovation, "Entrepreneurship in the 21st Century", Conference Proceedings, 26th April 2004, SUA
- Armendáriz, B. and J. Morduch (2010): "The Economics of Microfinance", The MIT Press, edition 2, Massachusetts.
- Armendáriz, B., and A. Szafarz (2011): "On Mission Drift in Microfinance Institutions" in B. Armendáriz and M. Labie, ed. "The Handbook of Microfinance", Toh Tuck Link, Singapore: World Scientific Publishing Co. Pte. Ltd, pp. 341-366.
- Armendariz, B., J. Morduch (2000): "Microfinance Beyond Group Lending", Economics of Transition 8, 401-420.
- Augsburg, B., C. Fouillet (2010): "Profit Empowerment: The Microfinance Institution's Mission Drift." Perspectives on Global Development & Technology 9(3/4): 327-355.
- Baldi, G. (2013): "Physical and Human Capital Accumulation and The Evolution of Income and Inequality," Journal of Economic Development, vol. 38(3), pages 57-83, September.
- Baldi, G. and V. Sipilova (2013): "How Big are the Economic Effects of Microloans? Evidence from a Case Study in Latvia," mimeo.
- Banerjee, A. and E. Duflo (2009): "The Experimental Approach to Development Economics," Annual Review of Economics, Annual Reviews, vol. 1(1), pages 151-178, 05.
- Bateman, M. (2010): "Why Doesn't Microfinance Work?: The Destructive Rise of Local Neoliberalism", Zed Books Ltd, London.
- Beck, T., A. Demirguc-Kunt and R. Levine (2005): "SMEs, Growth, and Poverty: Cross-Country Evidence," Journal of Economic Growth, Springer, vol. 10(3), pages 199-229, 09.

- Beck, T., A. Demirguc-Kunt and P. Honohan (2009): "Access to Financial Services: Measurement, Impact, and Policies," World Bank Research Observer, Oxford University Press, vol. 24(1), pages 119-145, February.
- Buera, F.G., J. P. Kaboski, Y. Shin (2012): "The Macroeconomics of Microfinance," NBER Working Papers 17905, National Bureau of Economic Research, Inc.
- Caloghirou Y., A. Protogerou, Y. Spanos, L. Papagiannakis (2004): "Industry-Versus Firm-specific Effects on Performance: Contrasting SMEs and Large-sized Firms", European Management Journal Vol.22, No.2 pp.231-243, 2004.
- CGAP and MIX (2009): "Eastern Europe and Central Asia Microfinance Analysis and Benchmarking Report 2009", Washington.
- Chowdhury, M, D. Ghosh, R. Wright (2005): "The Impact of Micro-credit on Poverty: Evidence from Bangladesh", Progress in Development Studies, Vol. 5, No. 4, 298-309.
- Conning, J. (1999): "Outreach, Sustainability and Leverage in Monitored and Peer-Monitored Lending", Journal of Development Economics 60(1): 51-77.
- Cull, R., A. Demirguc-Kunt and J. Morduch (2009): "Banks and Microbanks", Policy Research Working Paper Series 5078, The World Bank.
- De Soto, H. (2000): "The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else", Basic Books, 1st edition.
- Eriksson, P.-E, Krämer-Eis, H. and Conforti A. (2011): "Microfinance in Europe" In: APS Bank Occasional Papers No. 10, 49-86. April 2011.
- European Commission (2010): "Gaining Scale in Microcredit: Can Banks Make it Happen?", Luxembourg.
- Goldmark, L. (2001): "Microenterprise Development in Latin America: Towards a New Flexibility", Journal of Socio – Economics 30, 145-149.

- Gonzalez-Vega, C. (1994): "Stages in Evolution of Thought on Rural Finance: A Vision from The Ohio State University", Occasional Paper No. 2134, Rural Finance Program, Ohio State University.
- Gonzalez, A., and R. Rosenberg (2006): "The State of Microcredit: Outreach, Profitability and Poverty", MIX and CGAP, Washington DC.
- Guiso, L., P. Sapienza and L. Zingales (2004): "Does Local Financial Development Matter?," The Quarterly Journal of Economics, MIT Press, vol. 119(3), pages 929-969, August.
- Hartarska, V. and C. Gonzalez-Vega (2006): "What Affects New and Established Firms Expansion? Evidence from Small Firms in Russia", Small Business Economics 27, 195-206.
- Inforegio (2000) Documents – Official Texts. "Sixth Periodic Report on the Social and Economic Situation and Development of Regions in the European Union",
<<http://www.inforegio.org/wbdoc/docoffic/official/radi/page68%5Fen.htm>>.
- King, R. and R. Levine (1993): "Finance and Growth: Schumpeter Might Be Right," The Quarterly Journal of Economics, MIT Press, vol. 108(3), pages 717-37, August.
- Kraemer-Eis, H., A. Conforti (2009): "Microfinance in Europe – A Market Overview", Working Paper Series 2009/001, The European Investment Bank.
- Ledgerwood, J. (1999), Microfinance Handbook: "Sustainable Banking with the Poor. An Institutional and Financial Perspective", The World Bank, Washington D.C.
- Littlefield, E., J. Morduch, and S. Hashemi, (2003): "Is Microfinance an Effective Strategy to Reach the Millennium Development Goals", CGAP, Focus Note 24.
- Morduch, J., (2000): "The Microfinance Schism", World Development 28, 617-629.
- Nawaz, A. (2010): "Issues in Subsidies and Sustainability of Microfinance: An Empirical Investigation." Working paper 10/010, Solvay Brussels School of Economics and

Management, Centre Emile Bernheim, Université Libre de Bruxelles.

Pissarides, F. (1999): "Is Lack of Funds the Main Obstacle to Growth? EBRD'S Experience with Small-and-Medium-Sized Businesses in Central and Eastern Europe", *Journal of Business Venturing* 14, 519-539, Elsevier Science Inc.

Pretes, M. (2002): "Microequity and Microfinance", *World Development* 30, 1341-1353.

Pytkowska, J., M. Rataj (2007): "The State of Microfinance Industry in Eastern Europe and Central Asia", *Microfinance Centre for Central and Eastern Europe and New Independent States*.

Schicks, J. (2007): "Developmental Impact and Coexistence of Sustainable and Charitable Microfinance Institutions: Analysing BancoSol and Grameen Bank", *European Journal of Development Research* 19(4): 551-568.

Schreiner, M. (1999): "Self-employment, Microenterprise, and the Poorest Americans", *The Social Service Review* 73, 496-523.

Shankar, S. (2007): "Transaction Costs in Group Microcredit in India", *Management Decision* 45(8): 1331-1342.

Woller, G., (2002): "From Market Failure to Marketing Failure: Market-Orientation as the Key to Deep Outreach in Microfinance", *Journal of International Development* 14, 305-324.

Vento, G. (2011): "Recent Trends in Microfinance Industry: Regulation, Supervision, and the Principles of the Basel Committee", in *Microfinance Regulations for Development: Global Experiences* (edited by I. Rahman and L. Rashid), The University Press Ltd.

Woller, G., C. Dunford, W. Woodworth, (1999): "Where to microfinance", *International Journal of Economic Development* 1, 29-64.

Woller, G., W. Woodworth (2001): "Microcredit as a Grass-roots Policy for International Development", *Policy Studies Journal* 29, 267-282.

Woolcock, M., (2001): "Microenterprise and Social Capital: A Framework for Theory, Research, and Policy", *Journal of Socio – Economics* 30, 193-198.

World Bank (2004): "SME", *World Bank Group Review of Small Business Activities*, Washington, DC: World Bank.

Appendix

Table 9a: General characteristics of the firms

Respondent s' groups	Numb er of respon dents	Year of Establishment				Changes in Revenue			Changes in Profit after Taxes			
		1991-1999	2000-2007	2008-2011	2012	„+”	„-”	„0”	„+”	„-”	„0”	No answer
Existing business	34	15	4	12	3	31	3	-	21	6	4	3
Agriculture	22	13	1	6	2	20	2	-	14	3	2	3
Other branches	12	2	3	6	1	11	1	-	7	3	2	-
Established business	19	-	1	10	8	17	-	2	7	1	11	-
Agriculture	5	-	-	3	2	5	-	-	1	-	4	-
Other branches	14	-	1	7	6	12	-	2	6	1	7	-

* one respondent did not give the answer

Source: authors' calculations based on the questionnaire results

Table 9b: General characteristics of the firms

Respondents' groups	Number of respondents	Year of Establishment				Branch for position „Other branches”*					
		1991-1999	2000-2007	2008-2011	2012	Transportation	Wholesale and retail trade	Accommodation and food services	Manufacturing	Arts and recreation	Other
Existing business	34	15	4	12	3	-	1	-	2	-	9
Agriculture	22	13	1	6	2	-	-	-	-	-	-
Other branches	12	2	3	6	1	-	1	-	2	-	9
Established business	19	-	1	10	8	3	2	1	-	1	6
Agriculture	5	-	-	3	2	-	-	-	-	-	-
Other branches	14	-	1	7	6	3	2	1	-	1	6

* one respondent did not give the answer

Source: authors' calculations based on the questionnaire results

Table 10a: The loan history of the respondents

Respondents' groups	Number of respondents	Did you try to get a loan from another financial institution or private person in the three years before applying at the Hipotekua Banka?*		From whom did you try to borrow this money?*			
		Yes	No	Other financial institution	Micro-finance institution	Relative/Friend	Other
Existing business	34	13	20	8	1	3	1
Agriculture	22	10	12	6	1	3	-
Other branches*	12	3	8	2	-	-	1
Established business	19	4	13	4	-	-	-
Agriculture	5	2	3	2	-	-	-
Other branches	14	2	10	2	-	-	-

* one respondent did not give the answer

Source: authors' calculations based on the questionnaire results

Table 10b: The loan history of the respondents

Have you received any other loan after receiving a loan from Hipoteku banka?		Who provided the loan?				Did the institution that gave you this loan show interest in your history as a client of Hipoteku Banka?	
Yes	No	Other financial institution	Micro-finance institution	Relative/Friend	Other	Yes	No
11	22	5	1	4	1	6	4
9	11	4	1	3	1	6	3
2	10	1	-	1	-	-	1
4	14	2	-	2	1	3	2
1	3	1	-	-	-	1	-
3	11	1	-	2	1	2	2

* one respondent did not give the answer

Source: authors' calculations based on the questionnaire results

Table 11: The attitude of the respondents to the financial institutions and ability to provide the loan

Respondents' groups	Number of respondents	How would you in general describe your level of trust in the banks in Latvia?						Imagine that a member of your family or a friend presents a good-looking business plan to you and asks for a loan. If you had the financial means, would you provide this loan ?*				Imagine that a recently met acquaintance presents a good-looking business plan to you and asks for a loan. If you had the financial means, would you provide this loan to this person ?			
		Low	Low to medium	Medium	Medium to high	High	No answer	Very/ Rather unlikely	Perhaps	Yes, very likely/ Likely	No answer	Very/ rather unlikely	Yes, very likely/ Likely	Perhaps	No answer
Existing business	34	3	5	18	6	1	1	4	12	15	2	21	-	11	2
Agriculture	22	1	4	9	6	1	1	2	7	11	2	14	-	6	2
Other branches*	12	2	1	9	-	-	-	2	5	4	-	7	-	5	-
Established business	19	1	3	11	4	-	-	5	6	8	-	12	4	3	-
Agriculture	5	-	3	2	-	-	-	2	-	3	-	3	2	-	-
Other branches	14	1	-	9	4	-	-	3	6	5	-	9	2	3	-

* one respondent did not give the answer

Source: authors' calculations based on the questionnaire results

Table 12: Collaboration with the Hipoteku Banka

Respondents' groups	Number of respondents	Amount of the loan*		In which year received*		Which collateral did you provide?					Have you already paid back the loan to Hipoteku banka? *		Do (or did) you have any difficulties repaying the loan or the interest ?		
		≤ 10 000	> 10 000	2008-2010	2011-2012	Machinery	Real estate	Other	Family member / relative salary/ Co-signer	No collateral	Yes	No	Yes	No	
Existing business	34	30	3	2	31	10	13	4	4	3	1	3	2	3	31
Agriculture	22	19	3	1	20	7	12	1	1	1	1	2	0	2	20
Other branches	12	11	-	1	11	3	1	3	3	2	-	1	2	1	11
Established business	19	14	4	4	13	5	4	3	2	5	-	1	9	4	15
Agriculture	5	4	1	-	5	1	3	1	-	-	-	5		2	3
Other branches	14	10	3	4	9	4	1	2	2	5	-	1	4	2	12

* one respondent did not give the answer

Source: authors' calculations based on the questionnaire results

Table 13: Changes in employment

Respondents' groups	Number of respondents	Average employment	Changes in employed persons								
			"-3"	"-2"	"-1"	"0"	"+1"	"+2"	"+3"	"+6"	"+9"
Existing business	34	2.13	1	1	2	18	5	4	1	1	1
Agriculture	22	1.73	1	1	-	13	5	2	-	-	-
Other branches	12	2.85	-	-	2	5	-	2	1	1	1
Established business	19	1.04	-	-	-	4	11	-	4	-	-
Agriculture	5	0.55	-	-	-	2	3	-	-	-	-
Other branches	14	1.21	-	-	-	2	8	-	4	-	-

Source: authors' calculations based on the questionnaire results