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Credit activity besides other investment activities of commercial banks in Macedonia

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Abstract

The banking sector in developing countries constitutes almost all under the financial system and as such is of particular importance to analyze the core functions; transfer of funds from that deposit agents to agents who borrow for their investment projects. Indeed, this function has taken a multidimensional form where suction and discharge wings of funds have changed. In Macedonia "traditional source" of the creation of bank funds remain deposits, who present at the level of 4.2 billion euros, or represent about 70% of total bank liabilities, and on the other hand loans amounts to 3.2 billion euros or 55% of total banking assets. From this relation stands out that part of bank capital oriented for investment in financial instruments which amount to 1.1 billion euros or 18% of total banking assets. This paper aims to study these phenomena in the banking market in Macedonia, wanting to shine the reason of these relations bank investments in the country, to make comparisons over the years and provide ways to improve credit activity.

Keywords: loans, deposits, financial instruments, risk free asset

1. Introduction

The banking sector, which constitutes almost the entire financial system in Macedonia, is of particular importance as regards the withdraw of the capital into the economy in the form of crediting. The credit portfolios which are placed to the economy are often a very important factor when analyzing the country's economic growth, which comes from the transformation of savings into productive investments. As an intermediary it plays the trade role between the agents which have excess and lack of finance. Similar to financial institutions they accumulate funds from different sources and creating the allocation of loan portfolio, consisting of many different instruments, and in this report to "exchange" between risk and the return they are oriented at maximizing the profits.

The role of bank credit for economic growth has been discussed many times (see Goldsmith 1969, McKinnon, 1973, King and Levine, 1993, Rousseau and Wachtel, 1998). Although it may be hard to say that the literature has reached a consensus, it seems that would most of the studies agree that credit has a positive effect on growth.

By the second half of the 90s, in the countries of Central and Eastern Europe and in Macedonia began the process of a large allocation of loans to the private sector. This intensive wave of growth of the bank crediting over the years was interrupted by the global financial crisis in Macedonia although loans still increased by a slower pace, the post-crisis period also marks the slowest pace of growth of credit allocations.

In Macedonia 3,6 billion euros is marked the credit portfolio towards the private sector in 2014, or 42% of the GDP, where the average growth for the past six years is 200 million Euros per year. On the other hand, the deposits are at the level of 4.67 billion Euros, or 54% of the GDP, where over the years we have increased average deposits for 280-300 million Euros.

Among these are the investments in the securities market, which are recorded at the level of 1 billion euro or 12% of the GDP, for 2014. From this simple relation of the order of the events emerges that " traditional source "of banking capital formation remained deposits, which, to a large extent are directed to the allocation of loans, but also for investments in the financial instrument markets.

Despite the partly allocation of the banking capital oriented to the Central Bank (Central Bank notes), treasury bills and bonds (instruments of government) by which commercial banks see them as free risk[*] instruments, and from this exit is caused the contraction of credit assignment, they also negatively affect because the growing form of bank loans to the state, increase the interest rates and in this form a more expensive credit reduces demand for loans, a phenomenon treated by the neoclassic of economy[1].

The idea that government borrowings may multitude out credit to the private sector is common in the policy discussions and on developing countries. For instance, a recent IMF Report States That "Concerns regarding the Potential Crowding out of private sector credit is an Important reason why Fund supported programs limit domestic financing of the public sector" (IMF, 2005a, P.34).

When the government borrows an euro from domestic banks, this affects the reduction of the credit to the private sector in the developing countries, such as Macedonia? Or perhaps rises the private credit? There is still no reliable or arguable answer to this question in the existing literature, and in this paper we try to contribute especially for the case that was taken for analysis. The arguments can be grouped into two sides (M.Sh.Emran, S.Farazi, 2009); some argue that investment banks in the financial instruments of the state creates opportunities for banks to take greater risk and this leads to the growth of credit to the private sector (model of risk diversification); the alternative argument is that the private sector can create moral hazard and this discourages banks to lend to them, and thus stifling incentives for allocation of loans for profitable business opportunities to the private sector (a model of lazy banks).

2. The balance sheet of the banking sector

The existence of a stable developing banking system is in the interest of the real economic sector. Through the banking operations, the economic entities absorb financial infusions in order to create goods in the economy. The importance of an efficient and stable banking system as one of the main preconditions for a sustainable and developing monetary system is shown from this.

From many empirical studies is concluded that the development of the banking sector is of a very significant and positive effect on economic growth. From a study for the impact of the banking sector on the economic growth in Macedonia (B. Nikoloska 2010) was found that 1%

[*] "Free-risk" means the instruments that have a low risk investment (government instruments, the central bank and other institutions where the government guarantees).

[1] H. Rosen, "Public Finance", 9th edition, 2009,pg.78.

increase of the credit to the private sector to GDP, under ceteris paribus*, GDP is increased to 0.69%. The study also shows that 1% increase in deposits to GDP, under ceteris paribus, increases GDP to 0.52%. Deposit growth has a positive effect on economic growth because through the banks the savings are channeled into more productive investments (through loans)[2].

Table 1: Balance sheet of the banking system in Macedonia 2009-2014

Assets	2009 In mil €	%	2010 In mil €	%	2011 In mil €	%	2012 In mil €	%	2013 In mil €	%	2014 In mil €	%
Money to Cen.Bank	523	12	563	11,4	621	11,5	669	11,7	630	10,5	815	12,5
Securities investments	498	11,4	738	14,9	810	15	930	16,2	1,037	17,3	953	14,6
Placements to other banks	550	12,6	660	13,3	707	13,1	701	12,2	722	12	812	12,5
Loans to non-financial entities	2,554	58,5	2,737	55,1	2,943	54,7	3,103	54,1	3,281	54,6	3 612	55,5
Total Assets	4,366	100	4,964	100	5,384	100	5,737	100	6,008	100	6 508	100
Liabilities	**2009** In mil €%		**2010** In mil €%		**2011** In mil €	%	**2012** In mil €	%	**2013** In mil €	%	**2014** In mil €	%
Deposits from banks	293	6,7	298	6	225	4,2	282	4,9	278	4,6	269	4,1
Deposits from non-financial entities	3,054	70	3,467	69,9	3,807	70,7	3,989	69,5	4,216	70,2	4 666	71,7
Liabilities from loans	390	8,9	532	10,7	626	11,6	563	9,8	567	9,4	571	8,8
Capital and reserves	497	11,4	524	10,6	594	11	640	11,2	677	11,3	704	10,8
Total Liabilities	4,366	100	4,964	100	5,384	100	5,737	100	6,008	100	6 508	100

Source: Reports on the banking system in Macedonia, NBRM (Central Bank of Macedonia)

In the balance sheet of the banking sector prevail the traditional banking activities, loans on the assets representatively with 55% and deposits on the liabilities by 70%.

* Ceteris paribus - other factors in the model are unchanged.

2 B. Nikoloska, , „Анализа на улогата на банкарскиот систем во економскиот раст: Случајот на Македонија„ (The Analysis of the role of the banking system in the economic growth: Case study of Macedonia), 2009, pg.49

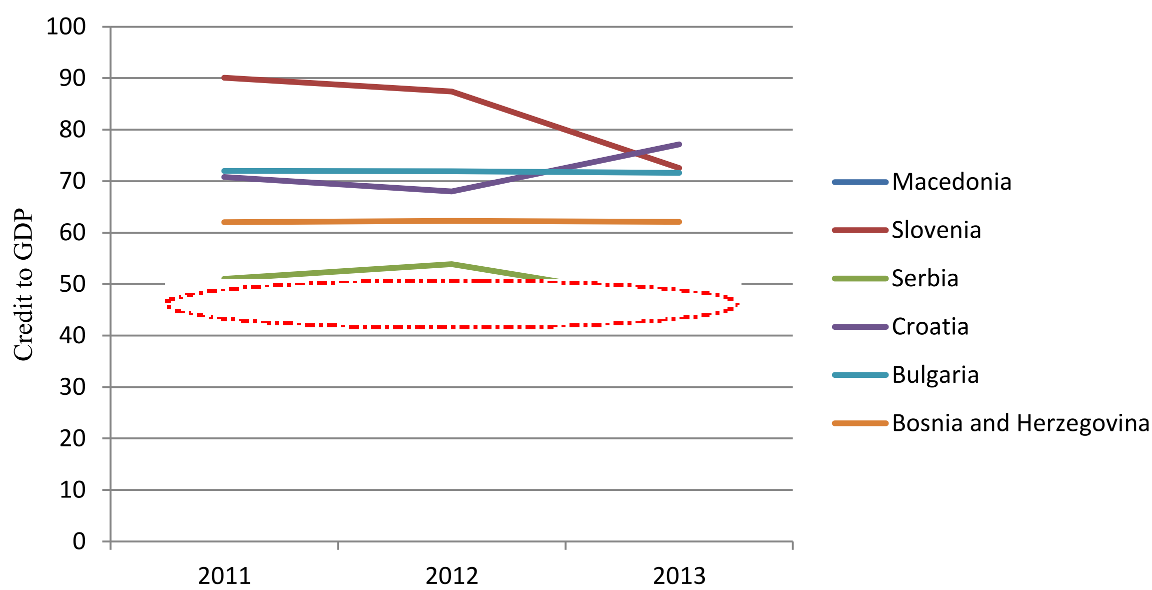
The bank credit as the main activity of the banking sector

The Banks in Macedonia in the past 4 years have provided to the economy loans about 3.2 billion Euros or 41% of the GDP, but compared to other regional countries we can say that it registers at least loans placement in the economy, which can be seen easily from figure 1.

From figure 2 we can also see that the growth rates of loans to economic agents fell sharply during the global financial crisis (although a decline in loan was not marked). The panic in the public for a crisis to be followed in our financial system as well, impacted the loan applications by reducing its number, as well as banks hesitating in providing loans and the determination of monetary policy was based on increase of interest rate and monetary tightening. After the period of 2010 gradually credit growth pace rose, although it never reached the level of the pre-crisis period.

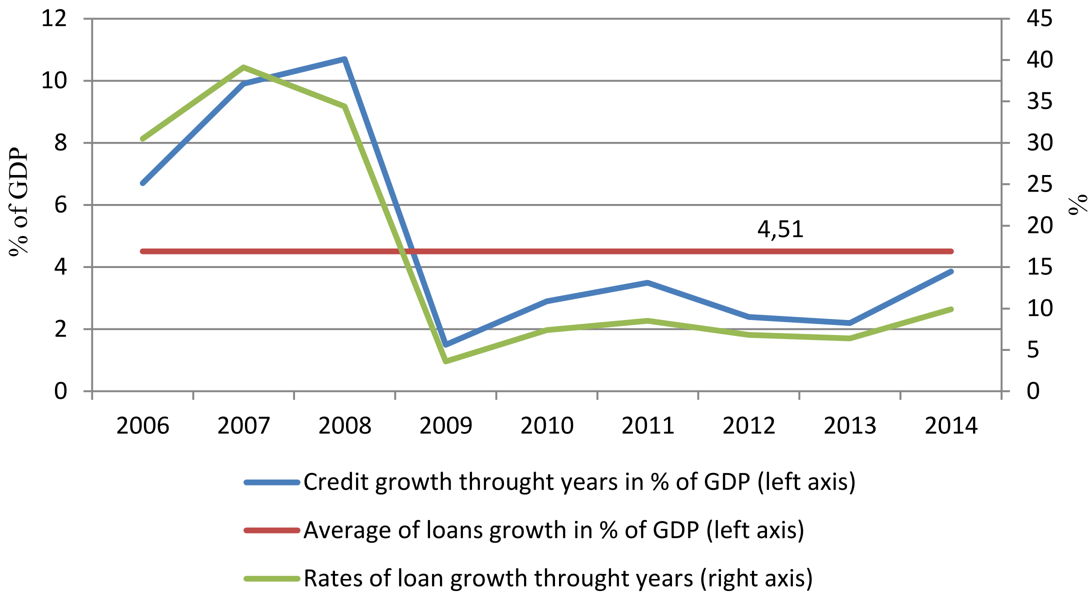
On average loan portfolio in the banking sector has reached 360 million Euros or 4.5% of the GDP (Chart 2), while in the period of financial crisis and later this average could not be exceeded which is mainly because of the growth before 2009.

Figure 1: Bank Credit to GDP in Macedonia and the region



Source: FSI, IMF statistics.

Figure 2: Growth of credit expressed as a ratio over the years and towards the GDP



Source: Reports on the banking system in Macedonia, NBRM (Central Bank of Macedonia)

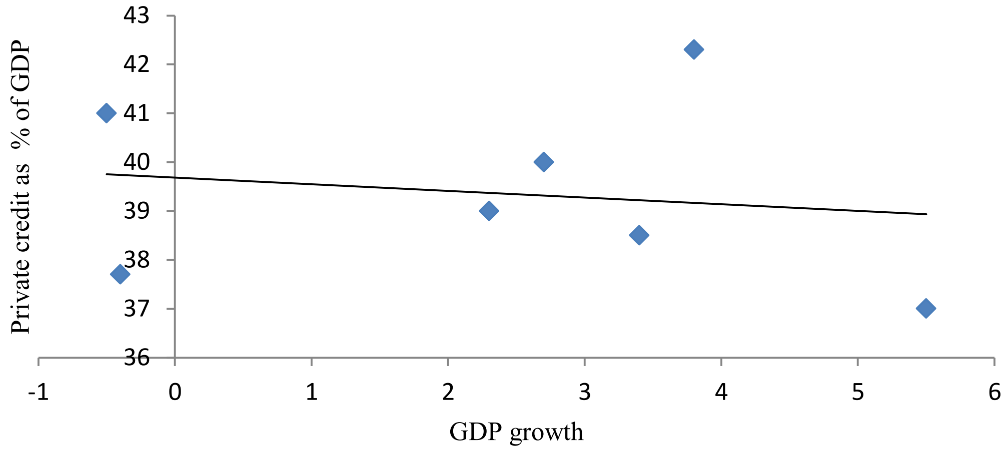
Normally the anticipation is as theoretically based that bank credit and economic growth are variables that are positively related and in inter-action with one another. With the growth of economy, the country has greater opportunities for investments and consequently higher credit opportunities, as well as higher levels of credit provisions giving added value to the final output. This is not the logic on Figure 3, which reviews the simple correlation between these two variables, but on the other hand we must understand that a correlation does not imply causality, even empirical analysis show that these two factors are not always in positive connection. From the chart we can see that there is not a very strong link between these two variables.

An empirical study of 39 developing and developed countries, did a research on the moves of the private credit and the economic recovery for the post financial crisis period, where they found different results from the theory, which is that lower bank loans does not necessarily mean economic decline rates, what is also shown in chart 3. Results showed that there is no correlation between economic growth and the bank crediting towards the private sector in the first two years of recovery from the financial crisis[3]. It is obvious that the pace of credit recovery and the output have not been in harmony, for instance: Abiad et al (2011); Bijsterbosch and Dahlhaus (2011) estimated that the recovery of crediting is slower than the economic recovery.

A very important determinant of the bank crediting to the private sector is also the attitude of real interest rates in the credit market. As shown by different theories, an increase in interest rates makes borrowing more expensive and consequently its contraction, although some have argued that the rise of interest rates increases bank deposit base by making them more "generous" in credit giving. In Macedonia from the figure we see that the increase in interest rates and the credit to the private sector are negatively correlated, i.e low interest rates has increased the credit giving in the market.

[3] E. Takatas & Ch.Upper " Credit and growth after financial crises", Bank for International Settlements, 2013, pg.7

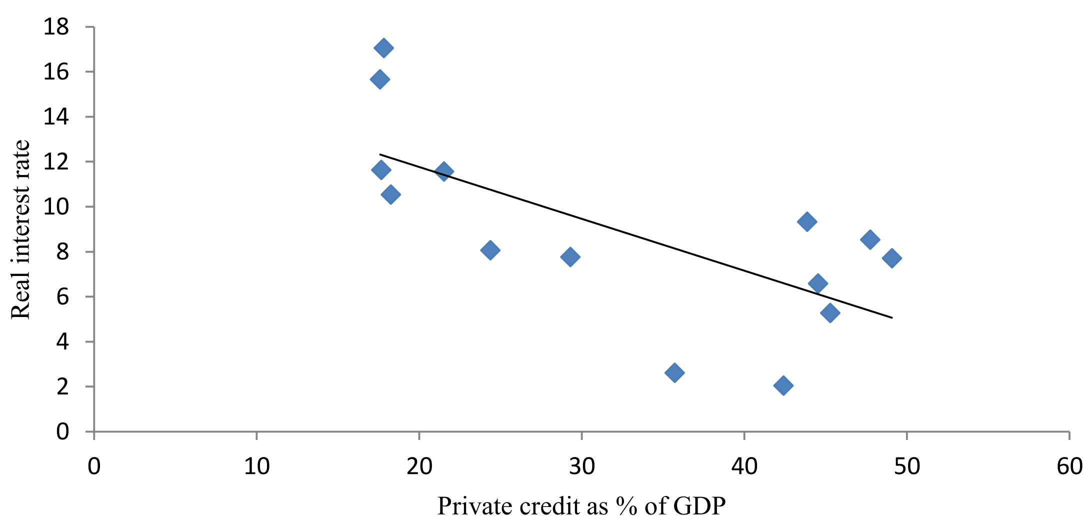
Figure 3: Correlation between bank credit and economic growth from 2008-2012



Source: Reports on the banking system in Macedonia, NBRM and M. Finance statistics.

In accordance with this is also the study for the determinants of the credit (A. Mitrevska, 2006), where there is a weak correlation between these two variables and it is claimed that 1% increase of interest rate causes a decrease of 0.0014% of credits . Another study conducted for 52 countries, among which are the countries of Southeastern Europe, for the analysis of the credit measures is also presented as a factor the real interest rate, which has a negative correlation with the credit towards the GDP, and it is noted that the growth of the real interest rate for 1%, the credit as a ratio to GDP will be decrease by 0.002%.[4]

Figure 4: The correlation between real interest rate and the credit to the private sector



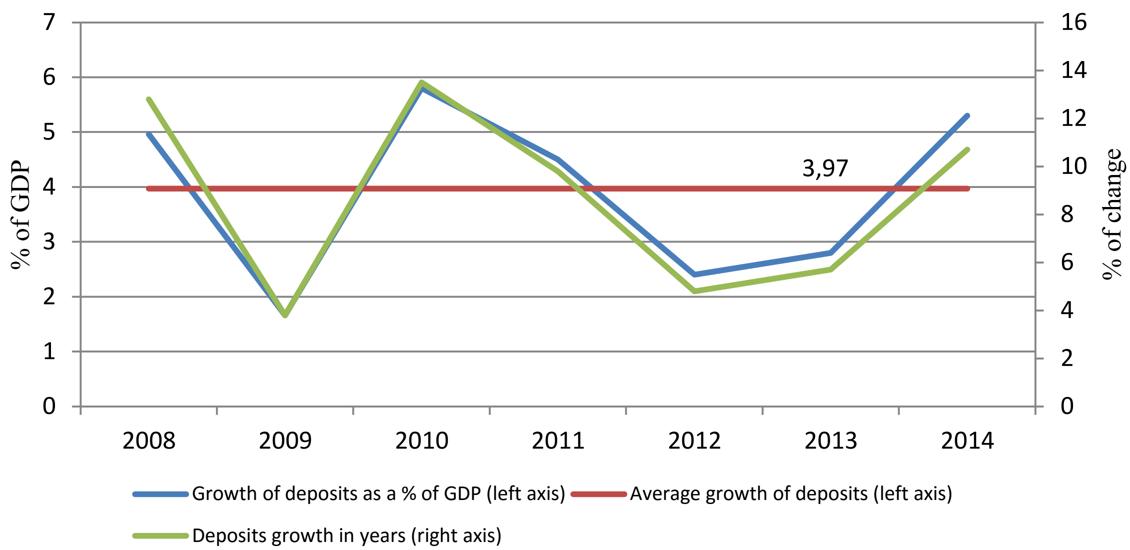
Source: World Bank data.

[4] V. Coudert & C.Pouvelle, " Assessing the sustainability of Credit Growth: The case of CEEC", European Journal of Comparative Economies, 2010, pg.21

Deposits as the main activity of the banking sector

The Banks in Macedonia have a deposit base that exceeds the loan portfolio, which for 2014 has a value of 4.66 billion euro (see Table 1), and in relation to the total output it is in the amount of 54% of the GDP , on average to be increased for 320 million euros per year or 3.97% in relation to the GDP (analyzing it for the past 5 years, figure 5).

Figure 5: Growth rates of deposits over the years and in relation to the GDP



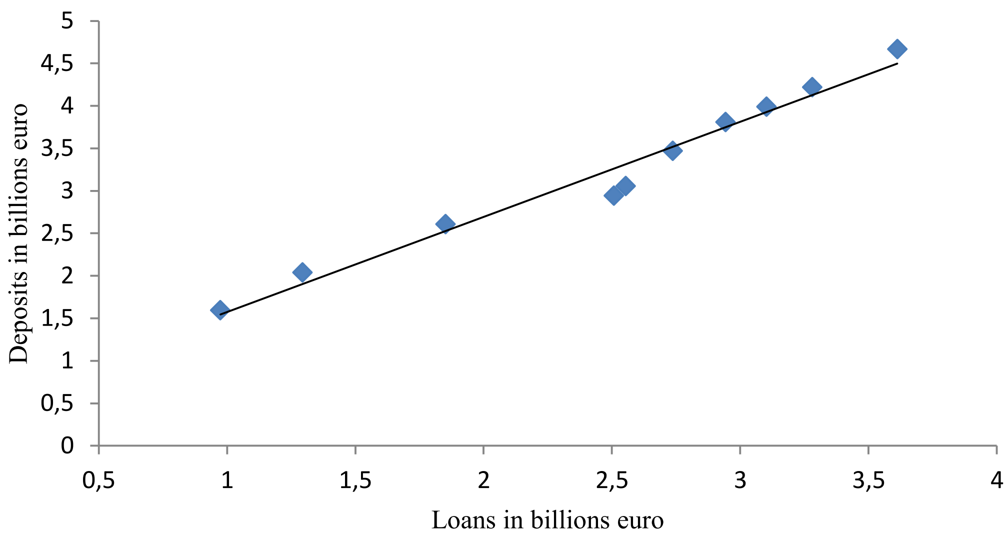
Source: Reports on the banking system in Macedonia, NBRM.

The movement trends of the increasing rates of deposits shows it has been shifting over the years, in which period is also included the public panic during the financial crisis (as seen from the figure 5 of 2009 with savings decline), which made it reluctant but not so much for savings. It is remarkable for Macedonia, that each year there is an increase of deposits in periods of financial crisis, in the periods when interest rates for savings is not high and profitable, still there is an increase in savings. One reason why this is happening can be shown by the argument of the increase level of intermediation in the banking sector although it is still far from the intermediation level in the developed countries of Europe (where based on the relations Assets /GDP, Macedonia notes 76% while European developed countries over 250%). The other argument lies on the fact that with the split up of Yugoslavia the confidence on the banking sector was lost and the surplus money remained "under the pillow". Circumstances and the indicators have changed since, the trust on the banking institutions has increased, therefore even in crisis periods and unfavorable situations for savings, still savings have increased and especially it is recorded deposits of denars.

While the deposits are still the “traditional” source of credit financing, that is we expect a very strong connection between these two indicators, as it can be seen from the graph on the correlation between the deposits and the loans (see figure 6), the strong correlation between these two factors is very obvious which also consist the biggest part of the bank's balance sheet. With the increase of the financial depth (deposits), the capital base is established for the allocation of the loans to the public. The deposits are one key factor for the credit growth, although not the only one. 55.6% of the bank assets go for loans, while 70.6% of liabilities is bank deposit, while the ratio for the coverage of loans with deposits on average for the past 7 years is 78%[5], as shown in figure 7. From this we can notice that deposits in addition of financing the public by providing loans they are also oriented in other investment activities (such as government securities and Central Bank notes).

Even from the empirical studies of the developing countries is concluded that deposits are a very important factors for the credit growth. So, for instance one study of variables of the banking credit for the developing countries notes that 1% of the bank deposit growth in relation to the credit, bank credit will increase with 0.5%[6].

Figure 6: Correlation between the loans and the deposits

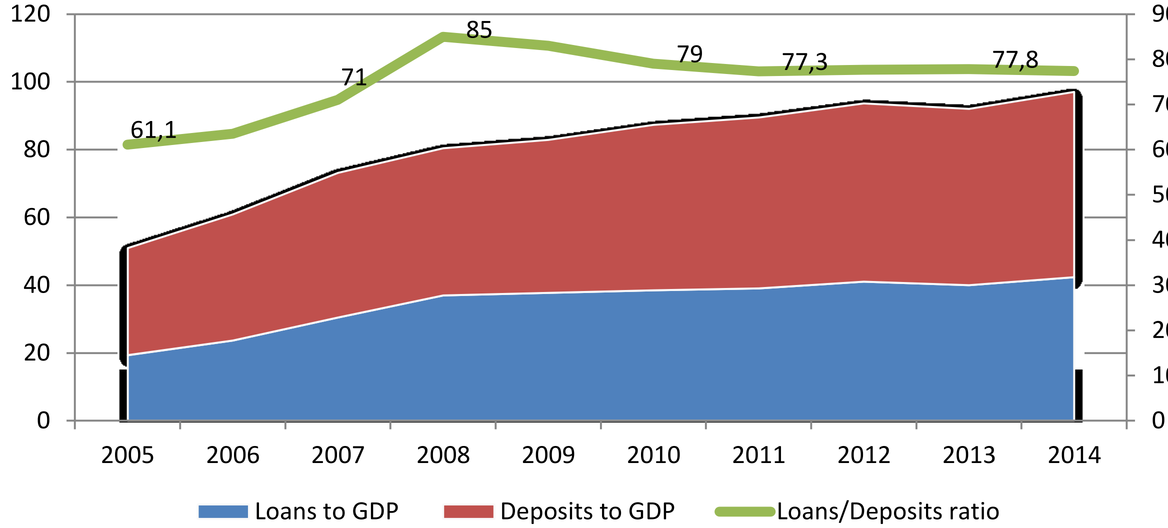


Source: Reports on the banking system in Macedonia, NBRM (Central Bank of Macedonia)

[5] When the relation credit/deposit is high it implies that the banks probably have no sufficient liquidity for the coverage of different requests/applications, and when the relation is low it implies that the banks do not profit as much as they can.

[6] K. Guo, V. Stepanyan, " Determinant s of Bank Credit in Emerging Market Economies", IMF, 2011, pg.10

Figure 7: The amount of coverage loans with bank deposits



Source: Reports on the banking system in Macedonia, NBRM (Central Bank of Macedonia)

Investments of the Banking sector in the markets of the financial instruments

The governments of the developing countries are often limited in raising the level of the budget revenues, by being limited from a less developed economy (Sah & Stiglitz, 1992). On the other hand, one high degree of economic informality eliminates a large portion of revenues in the form of taxes and duties. The growing trade liberalization which is every year greater and greater and the integration in the wide trade and economic structure has also limited goods from the revenue from the customs. Confronting with this kind of restrictions the governments of the developing countries have many reasons to finance government spending by borrowing domestically or internationally. Given the fact that many developing countries do not have much opportunity to get obliged in foreign markets, than the domestic market remains as an alternative. From this sequence of arguments we expect an influence from the government crediting to the private crediting. The relationship between the government borrowings from the banks and the private credit is always thought of as a negative element from the media and discourse. However, at least on theoretical level, the relationship is not so clear. The discourse why they are expected to have a negative correlation it is justified on the basis of events in the balance sheet of the banking sector, and if the government borrows one more euro from the banking sector, then the banks have one euro less to lend to the private sector.

The results from the various studies on the effect of government borrowing and private loans prove that these two indicators have a negative correlation which moves in the interval [-1.3, -1.6], which means that $ 1 of borrowed money by the government from the banking sector leads to a "crowding out" effect on more than $ 1 to private loans (Emran & Farazi, 2009).

We have different literature dealing with the "crowding out" effect stipulated by the government borrowing or the budget deficit which they often associate with the indicators of the private credit and the interest rates (Ardagna et al. 2007; Blanchard 2007; Friedman 2005), ex: Blanchard (2007) stating that: According to the empirical evidence there is an unexpected result where the effect of the government debt with the interest rates has a very small connection. There are also numerous other reasons why this same link might be even lower for the developing countries. Here are some of the reasons:

• When banks have excess liquidity, loaning to the government means not reducing crediting to the private sector;

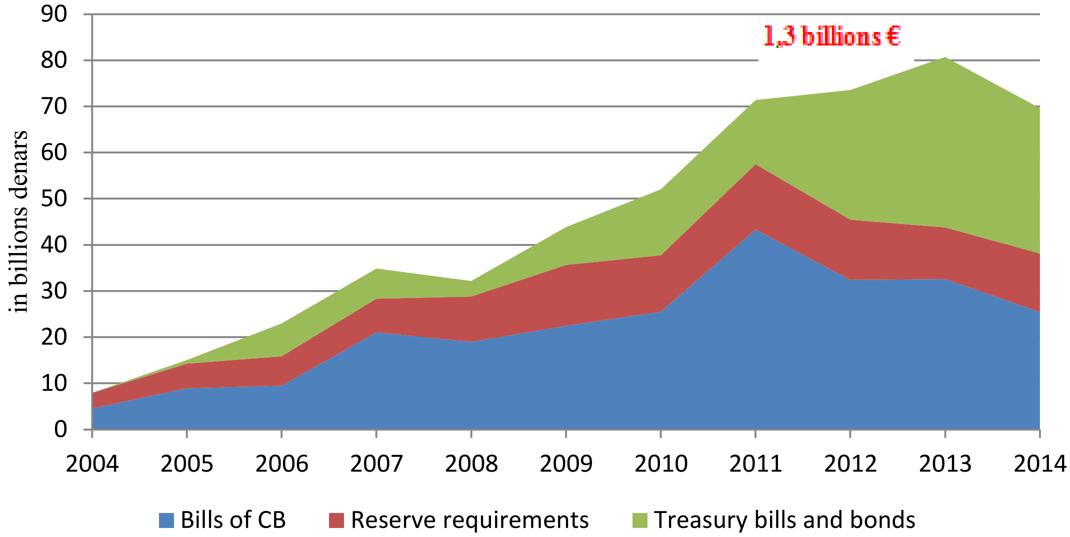
• Lending to the government can stimulate the banks to take a greater risk since the bank asset portfolio instruments allows to become more risky (Kumhof & Tanner 2005).

One very important phenomenon in in the Macedonian economy is the high number of investments in securities that banks accomplish. Especially during the global financial crisis, the banks even more oriented their assets towards liquidity "risk free". As it can be seen the banks more and more see these instruments risk-free as profit opportunity, which even from a study was confirmed that the investment in treasury bills has a positive relationship with the banking profitability, in terms of ROA and ROE.[7]

For the period of 2008-2014 on average they comprise 15% of the total banking assets of the bank, whose voice in 2013 went to 1.05 billion Euros. The Banks from the deposits record 4.6 billion euros, with 3.6 billion euro loan yield and 1.05 billion euros invest in the securities (open market operations, treasury bills, government obligations, etc.). They finance government projects, fill in the budget deficit, and likewise are withdrawn from the circulation by the Central Bank interventions through the open market operations (as cash receipts) see Figure 8. Only in 2011 were recorded 704 million euros closed in the treasures of the Central Bank, in order to maintain exclusively a fixed exchange regime rate. Although in 2012 it changed the operational framework of monetary policy (NBRM auctions were declined, too limited to investment in the CB securities) in order to use liquidity of the banks for productive investment banks, the banks were skeptic, and these assets were oriented towards the market government securities. Up to 2013 there were oriented 1.3 billion of assets for investment in securities and the Central Bank intervention for the withdraw of liquidity from the banks (open market operations, treasury bills and required reserve), which they comprise 16% of the GDP and 21% of the total assets of the bank (Chart 8).

[7] N.S. Kimera, “ Commercial banks’ investment in loans and treasury bills and their profitability in Uganda”, 2002

Figure 8: Investments in securities and monetary instruments, for 2004-2014



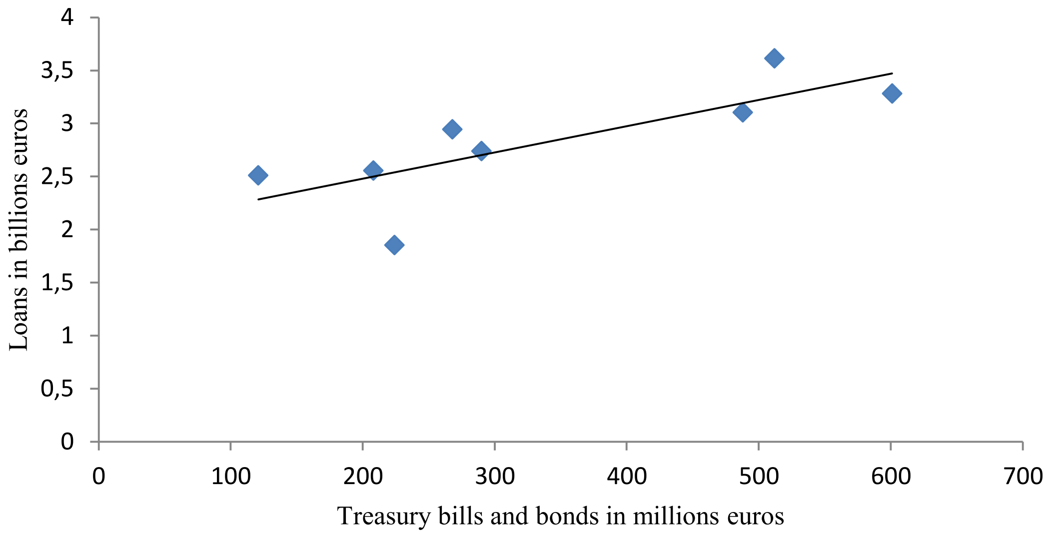
Source: Reports on the banking system in Macedonia and the annual reports of the NBRM.

To be more precise from all this display of numbers and figures we want to be clear and to know "additional cost" of financing government expenditure from domestic sources and from this we will have a information that a country is populated by lazy bank or not.

From figure 9 which describes the correlation between bank loans and bank investments in government securities (treasury bills or government bonds) cannot be observed what the hypothesis of the "lazy banking" promotes, although we must be careful because a simple correlation between the two variables cannot lead us genuine conclusions. Regardless of that we can see from the trend that the banks over the analysis period have increased the investment in the securities as well as in bank loans.

Banks respond to a higher government borrowing by adjusting their loan portfolio optimally given the risk-return characteristics of different assets and liabilities. There are alternative models of bank behavior in this regard. For example, a common argument is that when banks have excess liquidity, a higher lending to the government may not result in any significant reduction of credit to the private sector. Another argument is that access to safe government assets allows the banks to take more risk and thus increase their lending to the private sector; “risk diversification model”.

Chart 9: The correlation between the bank investment in the governmental securities and banks loans to the private sector



Source: Reports on the banking system in Macedonia and the annual reports of the NBRM.

Most empirical studies to verify the connection between domestic government borrowing from the banking sector and private loan on the other hand come up with conclusions that they have a negative correlation, respectively, with the increase in bank investments in government securities, loans to the banking sector lower. In this line it is a Egyptian study confirms the hypothesis of "lazy banking" where a one monetary unit loan tp government narrows private loan for 1.6 to 1.8 monetary units[8]. Another study of 60 developing countries confirms the same with these two indicators have a negative correlation between them which moves at a magnitude of [1.3-1.6] [9].

[8] S.Shetta, A.Kamalz, "Does the budget deficit crowd-out private credit from the banking sektor?The case of Egypt", 2014,American University Cairo, pg.16.

[9] M.Sh.Emran,S.Farazi, "Lazy Banks?Government borrowing and private credit in developing countries", Institute for International Economic Policy Working Paper Series, 2009, pg 18.

3. Conclusions

The existence of a stable banking system and develop it to the best of support to the real sector of the economy. In Macedonia there is a growing banking intermediation watched by all indicators, where the Assets/GDP is 76%.

Banks in Macedonia in the past 4 years the economy lend nearly 3.2 billion euros or 41% of GDP, compared with the regional countries can say that it records at least placing credit in the economy. Until the global financial crisis credit growth rates were too high, then panic the public for a crisis that will be followed in our banking and financial system, made the demand for loans to fall significantly, as well as banks hesitate in placing credit and monetary policy determination was due to rising interest rate and monetary tightening. After the period 2010 gradually seen signs of credit growth although unlike in the pre-crisis period.

From our analysis shows not a strong enough link between bank lending and increased total output. Interest rates appear to be an important determinant of bank credit, where there is a negative correlation as well as expected from theory.

Banks in Macedonia have a deposit base that exceeds the loan portfolio, where 2014 marks a value of 4.66 billion euros or 56% of GDP. From the data we can see that "the traditional source" of capital formation for placing credit remain to be deposits where loan/deposit ratio for the last 7 years is 78%, which also presented figures express a high level of correlation.

In developing countries show an increase in government domestic borrowing by the banking sector dried for placement of loans to the private sector. In theory and practice remain two hypotheses; "Lazy banks' argue that the private sector can create moral hazard and this discourages banks to lend to them, and thus stifles credit incentives for placing profitable business opportunities in the private sector, on the other hand “risk diversification model” say that ” banks respond to a higher government borrowing by adjusting their loan portfolio optimally given the risk-return characteristics of different assets and liabilities. There are alternative models of bank behavior in this regard, a common argument is that when banks have excess liquidity, a higher lending to the government may not result in any significant reduction of credit to the private sector. Another argument is that access to safe government assets allows the banks to take more risk and thus increase their lending to the private sector.

In Macedonia there is a tendency of growth as credit to the private sector as well as financial investments in government securities, by showing that they have been positively correlated to the analysis period. We must be careful that it only shows a link to a narrow period and analyzing only these two factors and not other factors that may have contributed to this report.

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