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PAPER

COVID 19 and Credit Cycle: Evidence for Bulgaria

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Abstract The pandemic of COVID-19 has dramatically affected about every aspect of the economy. The credit cycle transforms from the record long benign to a stressed one. This paper seeks the access to credit from before the unexpected global health crisis to its immediate and extended impact and the performance of key indicators of the nature of credit cycles. The focus is on the non-financial corporate credit market. At the end of 2019 the firms increased their debt to take advantage of record low interest rates. After the unexpected global health crisis the conditions on the credit market deeply changed. From one site, credit has been used by governments as instrument for recovery of economy and it could be expanded the volume of credit. From other site, during the pandemic time, the demand of credit increases, but not due to effective new projects. By the balance sheet transmission mechanism, credit uses usually as tool to ensure the balance between in- and outflows in the firms during the financial crises. The higher demand raises the price of borrow money. It is change the position of the non-financial companies at credit market and credit cycle goes to new stage.

Keywords: COVID-19, credit cycle.

JEL Classification: E32, E51, G21.

Introduction

The pandemic of COVID-19 has dramatically affected about every aspect of the economy. The credit cycle transforms from the record long benign to a stressed one. This paper seeks the access to credit from before the unexpected global health crisis to its immediate and extended impact and the performance of key indicators of the nature of credit cycles. The focus is on the non-financial corporate credit market.

The capital market is under development in Bulgaria. The volume of bank credit is over bond lending. The absence of the latter (with a few exceptions) is one of the most significant reasons the borrowing for the companies (more middle and small) to come from Commercial banks. Due to it, this research investigates only bank lending of firms.

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1. Level of Corporate Debt as a portion of GDP and Equity before pandemic of COVID 19

In the corporate debt are included: bank credit – short and long, corporate securities – bond and short trade securities, trade credit and advances received. Before the pandemic of COVID 19 the corporate debt has high volatility: from 117% as a portion of GDP to pick in 2010 from 188 % from GDP and in 2014 – 181 % from GDP. From 2015 this ratio decreases. But corporate debt, has increased enormously to perhaps dangerous levels. It may provoke missed repayment installment and/or interest payments. For the banks risk comes from the "bad credits". For bond 'creditors new level of the debt results in a loss from par value, were increasing compared to prior years. For the companies raise default risk, which include distressed exchanges of credit and in the end may go to bankruptcies.Below is the total corporate debt as a Proportion of GDP in Bulgaria.

Table 1. Ratio Corporate Debt/GDP for period 2005-2018

Ratio Corporate Debt/ GDP	%
2005	117
2006	137
2007	161
2008	170
2009	179
2010	188
2011	180
2012	173
2013	177
2014	181
2015	158
2016	152
2017	143
2018	139

Source: National Statistic

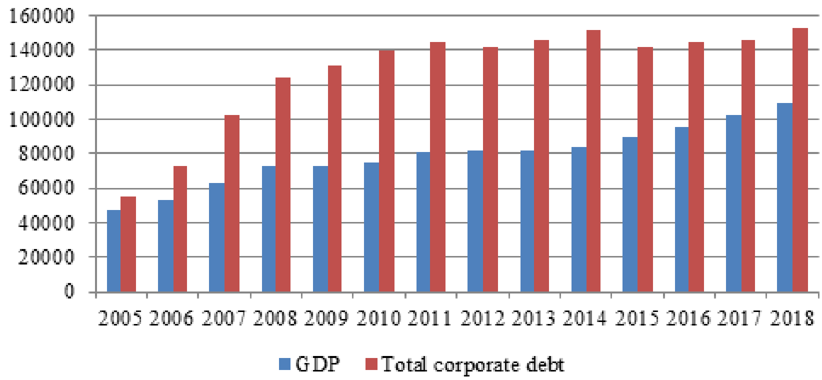

Figure 1. GDP and Total Corporate debt for period 2005-2018 (mln BGN)
Source: National Statistic

Debt/ equity ratio changes from 299% in 2005 to 425% in 2018. The worst situation is in 2013. For the last year of investigated period the ratio is 125% more than in 2005.

Table 2. Ratio Corporate Debt/ Equity and other own capital for period 2005-2018

Ratio Corporate Debt/ Equity and Other own capital	**%**
2005	299
2006	325
2007	313
2008	328
2009	401
2010	406
2011	421
2012	453
2013	527
2014	446
2015	463
2016	441
2017	429
2018	425

Source: National Statistic

Figure 2. Total Corporate Debt and Equity, other own capital for period 2005-2018 (mln BGN)
Source: National Statistic

2. Theoretical approach

The credit transmission channel includes bank and balance sheet types. The bank credit channel is based on the understanding that banks play a special role in the financial system. The large companies can attract resources by selling commercial papers and other forms of credit by increasing their debt. The small and middle businesses have limited access to financial markets. They are not able to take funds from there. The gap between large and small firms widens mainly during a recession. Less access to other forms of credit markets than to banks makes small businesses extremely dependent on the actions of the banks and monetary institution.

The balance sheet channel focuses on the potential impact of changes in monetary policy on borrowers‘ balance sheets and their incomes, including their net wealth, liquid assets and cashflows. The firms often finance investments and current expenses by borrow and sometimes increasing their loans earlier in the economic cycle. The consumers also want to borrow at a time when their income is declining and when credit conditions are poor, and then the volume of credit increases. Such an inverse relationship is not contained in the credit channel theory, which requires firms and households to reduce their loans during the recession and after it.

3. Credit Storm before pandemic

Before the global health crises, overall economic and financial stability in Bulgaria leads to strong increasing of lending.

The crisis in the second half of the 1990s led to the suspension of any financial intermediation for some time. The policy followed, aimed at reducing inflation, high GDP and rapidly growing incomes and profits, exacerbated the need for credit, and changed banks ‘views on borrowers’ requirements. The Enter of foreign banks to the market, as well as the strengthening of Commercial banks audit in the sector, led to a return the confidence of the public in banks, and hence an increasing of deposits. On the other hand, improved economic conditions predetermined the growth of foreign cash flows, mainly coming from foreign banks in Bulgaria. All factors have led to strong need to find ways to invest accumulated funds to bring income. The changes in the credit cycle could be divided into several stages over the research period 2005-2020. During the **first stage** - the period 2005-2008 - the credit expanded. Together with the macroeconomic stability and the privatization of the banking sector can be mentioned following factors influence on supply of business credit:

- access to international capital markets;
- low interest rates on world markets;
- the decrease of the cost of the resource - as a consequence of the repeated increase of the country's credit rating;
- struggle to increase the market share of Commercial banks;
- higher savings;
- reducing of risk in the real economy due to the improved information environment.

The first stage is before the country's accession to EU. At this stage, the following factors have a strong influence on demand:

- Expected earnings growth, higher permanent income (according to Friedman's monetary theory) encourages increased consumer lending;
- The rise of real estate prices increases the demand for mortgage loans;
- Future participation in the European common market implies new investment in real assets to improve the competitiveness of local economy;
- The higher regulatory European requirements (for example - environmental) require additional investments to be financed with credit;

The **second stage** is after accession and before the crisis in 2008. At this stage the demand of business credit depends on following factors:

- Economic growth. Large numbers of projects with high returns are available and it allows to be financed at a higher price of the borrowed capital;
- Rising property prices due to increased demand. The part of it is local, driven by the level of savings in the country. Another reason is the rate of return by real estate investments. The part of the demand is formed by non-residents attracted to the local market by the high return on their investments;
- Sharp increasing of earnings;
- Low real interest rate.

The factors affect the supply of credit during the second stage is:

- Inflow from parent banks;
- Increasing local savings due to good economic activity;
- Low "price" of attracted funds;
- Low level of debt in different sectors;
- Positive economic results.

On the third stage - after the crises in 2008- the consequences of the growth of the deposit base require searching of ways for investing the accumulated funds are. It makes continued and very dynamic growth of lending by commercial banks. For

2010-2019 period business lending shows the following trends: low increase of the loans to 2.42% at the end of 2010, 5.43% - in 2011, approximately the same increase 4.99% - in 2012. In 2013 there is a strong contraction of corporate lending, with an increase of 0.07% at the end of the year. It is due to the slow and difficult recovery from the crisis and the still shrunken markets of the Bulgarian exports. The risk is kept at high level, which makes both companies and banks cautious. In 2014, as a result of problems in the banking system and in particular in one of the largest banks in the middle of the year, business lending sharply declined by minus 11.62% at the end of the year compared to the same period of the previous year. This trend has preserved in 2015.From 2016 to 2019 business bank lending increases with small pace between 1.01% to1.06 percent on annual base.

During this period, the factors affecting demand of business lending are:

- Income fall or keep on the same level in real terms;
- Real estate prices have fallen;
- Increasing of BGN equivalence in foreign currency loans.

The factors influencing the supply during this stage are:

- Recovering part of the deposits lost by banks during the crisis;
- Reducing risk in the economy;
- Economic activity slowly recovers. The return of projects is increased and therefore companies tend to be financed at a higher cost of the loan;
- A positive outlook for income growth and a propensity for consumption, leading to increased willingness to use the loans and expand the share of market for the companies.

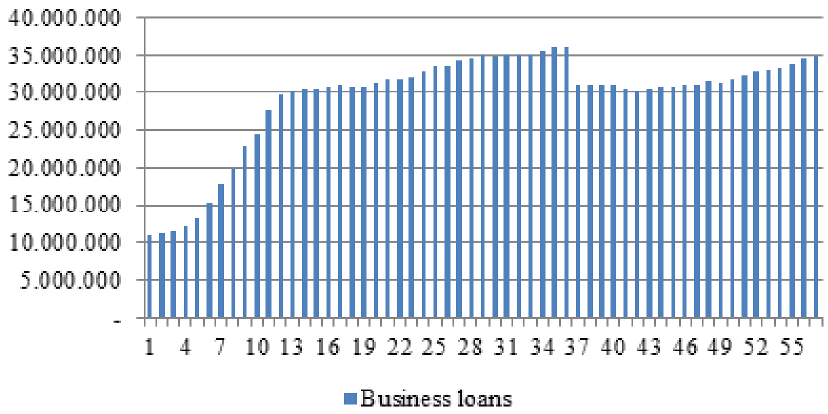

Figure 3. Corporate bank loans for period 2005-2019 (thousand BGN)
Source: Bulgarian National Bank

During this third stage the interest rate of bank loans decreases continually:

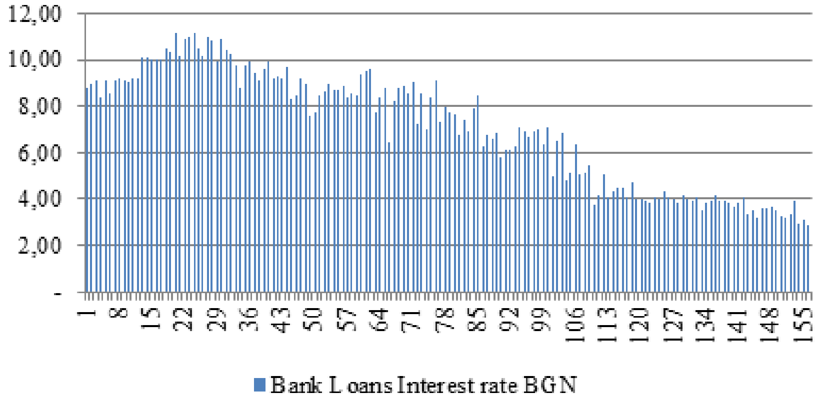

Figure 4. Corporate Bank Loans Interest rate BGN for period 2007- 2019 (%)
Source: Bulgarian National Bank

4. Credit cycle after the pandemic of COVID 19

After the start of health crises in China, local GDP sharply decline on the first stage of world pandemic. It made difficult functioning of supply chain to other parts of world. As it known, the world economy depends on the China delivery. As results it has declined produced supply in other part of world. On second stage, after the lockdown in more of countries all over the world, many sectors of economy were closed and it additionally reduces produced GDP in these countries. The Bulgarian economy as small and open economy is very sensitive to outside conditions. The lockdown in the many countries in the world impacts on Bulgarian Net export orientated mainly to the countries of EU. Their demand declines and it directly reduce Bulgarian GDP. During the pandemic the investments in Bulgaria collapsed due to expected recession all over the world. Third part of GDP – consumption also reduces. More consumers have temporarily or long time unemployed, the incomes were reduced due to insecure situation. All these efforts forced sharp reduction of consumption. The situation have not changed by withdraw of 1 milliard BGN saving from the banks. Last part of GDP – public spending does not compensate the lost by other three components of GDP.

The Bulgarian National Bank has introduces several measures, including following:

- “temporary moratorium on bank loans repayment, following the EBA Guidelines on legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis (EBA/GL/2020/02)
- The state Fund Manager for Financial Instruments in Bulgaria announced a new package of measures to support various business and public groups through financial instruments. The Fund will provide bank guarantees in of BGN 170 million (EUR 87 million), which should serve to secure a loan portfolio of up to BGN 850million. Loans under the scheme will have a term of up to 10 years and the possibility of interest-free loans….”[1]

[1] European Commission, Directorate General Economic And Financial Affairs(2020), Policy measures

From other side, when businesses that have had to lay off workers need to start operating again and to see the demand for their products and services rebound quickly, if indeed they survive the downturn. The new stimulus package from the Government perhaps the catalyst for a change in the credit cycle. The companies may redirect payment installments for later period after lockdown and take new loans to cover differences between in- and outflows. They could take the credit to recovery the business.

Table 3. Loans' changes during the lockdown (quarterly)

Total and Corporate loans' changes during the lockdown (on annual base)	**% March 2020**	**% June 2020**
Loans total	7,20	4,32
Business loans	5,42	1,85

Table 4. Loans' changes during the lockdown (monthly)

Total and Corporate loans' changes during the lockdown (on annual base)	**% April 2020**		**% March 2020**	**% June 2020**
Loans total	1,14	-	-0,23	0,49
Business loans	1,79	-	-0,45	0,19

Source: Bulgarian National bank

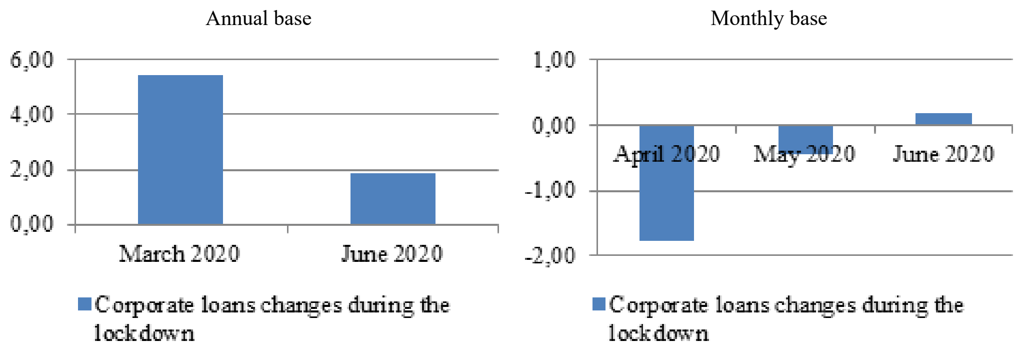

Figure 5. Corporate loans changes during the lockdown
Source: Bulgarian National bank

taken against the spread and impact of the Coronavirus – 17 July 2020

The fourth stage of the credit cycle is after the lockdown. During this period, the factors affecting demand of business credit are:

- The companies reduce their investments due to the stage of market;
- Negative tendency in Net Bulgarian export;
- Financing of negative cash flows;
- Income fall or keep on the same level;
- Unemployment;
- The factors influencing the supply are:
- Reducing of part of the deposits by banks during the crisis;
- Increasing risk in the economy;
- The return of projects is reduced;
- Economic activity freezes for several months. Therefore companies to be financed negative cash flow.

The interest rate of bank loans is with high volatility in the begging of 2020. After the pandemic of COVID 19 rate decreases sharply.

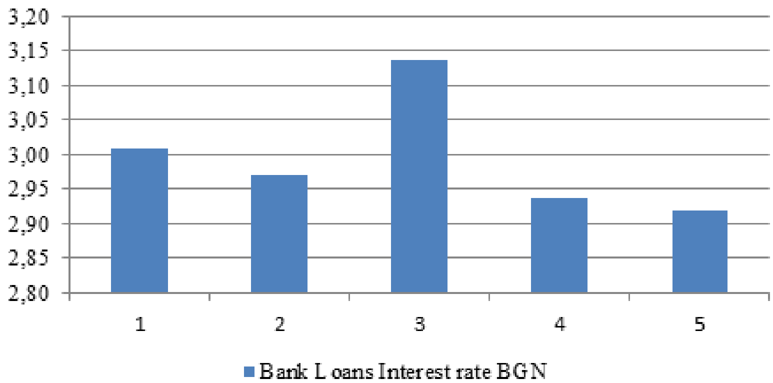

Figure 6. Corporate Bank Loans Interest rate BGN for period 2020/01-2020/05 (%)
Source: Bulgarian National bank

The Bulgarian economy could develop by two scenarios: slowly and difficult recovery or for short period of time returns to pre-pandemic level. The credit recognizes important role by two scenarios. The factors will change the demand of business credit:

- The recovery of economy will need new investments. It includes the relocation of some of them from China and Asia to USA and Europe. It hit Bulgarian economy too. These needs require new borrow from the banks, especially for small and middle enterprises;
- The recovery of supply chain after the pandemic will need new investments too;
- Liquidity problems for more of companies keep the tendency to take credits for balance of in- and outflow;
- Interest rate near zero level support to increases the credit to bridge through a period of economic disruption.

The factors will change the supply of credit after the pandemic are following:

- The role of Government is increasing. From one side, the Government introduces temporary regulatory adjustments to encourage and allow banks to expand their balance sheets to support businesses;
- The Government could provide banks with a cost-effective source of funding to support additional lending to the real economy;
- The eventual government financing or guarantee ensure low level of interest rate for lending;
- In other side, the risk in economy raises and it will keep the volume of credits for the real economy.

Conclusion

The pandemic of COVID-19 has dramatically affected just about every aspect of the economy. The credit cycle transforms from the record long benign to a stressed one. This paper seeks the access to credit from before the unexpected global health crisis to its immediate and extended impact and the performance of key indicators of the nature of credit cycles. The focus is on the non-financial corporate credit market. The capital market is under development in Bulgaria. The volume of bank credit is over bond lending and the absence of the latter (with a few exceptions) is one of the most significant reasons the borrowing for the companies (more middle and small) to come from Commercial banks. Before the global health crises, the corporate debt, were increasing enormously to perhaps dangerous levels. It may provoke missed repayment installment and/or interest payments. For the banks risk comes from the "bad credits". By the bonds, for creditors it results in a loss from par value, were increasing compared to prior years.

The Bulgarian economy as small and open economy is very sensitive to outside conditions. After the pandemic of COVID 19 the national economy depends on them. They impact on all sectors. The new stimulus package from the Government perhaps the catalyst for a change in the credit cycle.The credit cycle after the lockdown goes in new state with reducing the loans for a business for two months by the starting of the pandemic of COVID 19 and slowly raise after it for covering of liquidity gap and recovery the business activity.

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