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BANK LENDING DURING THE COVID-19 CRISIS: EVIDENCE FROM SWITZERLAND

Abstract. This paper is devoted to the analysis of the influence of bank lending on the economy in Switzerland during COVID-19 pandemic. Analysis of the main economic indicators (GDP and its components, inflation, monetary supply) before and during corona-crisis proves that the impact of corona-crisis is stronger than that of the 2008—2009 financial crisis. A sharp decline of GDP, exports and imports is underlined. The components of GDP that were most stable over the last 12 years and did not decrease during the 2008—2009 financial crisis, namely «Households Consumption Expenditures» and «Total Consumption Expenditures», had a negative trend in 2020. It outlines the non-economic nature of the crisis. The pandemic period is characterized by growth of inflation and changes of the money supply structure, such as a reduction of deposits in transaction accounts by half. The most vulnerable economic entity was the population, whose solvency decreased significantly. It led to the consumption and transactions reduction. It is underlined that in such conditions bank lending can be used to boost consumption, consumer demand, stimulate economic growth. The authors' analysis demonstrates that the amounts of credit lines and utilisation were higher in 2020 during ongoing pandemic compared to the previous year. Loans to individuals remain the most significant in banks credit portfolio, its share was 66 % at the end of 2020. At the same time corporate loans grow faster during the crisis, which indicates businesses have higher demand for credit and use it as a crisis management tool. Contrary to the existing opinion on the negative impact of bank lending on inflation, the article proves that the increase of bank lending as part of fiscal and monetary policy measures has a positive impact on economic recovery during and after the crisis. The analysed Swiss experience can be used in Ukrainian realities.

Keywords: bank loan, mortgage loan, corporate loan, lending, Switzerland, COVID-19. **JEL Classification** E42, E50, F29, G21

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БАНКІВСЬКЕ КРЕДИТУВАННЯ ПІД ЧАС КРИЗИ COVID-19: ДОСВІД ШВЕЙЦАРІЇ

Анотація. Присвячена аналізу впливу банківського кредитування на економіку під час пандемії COVID-19 на прикладі швейцарського досвіду. За результатами дослідження

динаміки основних макроекономічних індикаторів (ВВП і його складових, рівня інфляції, показників грошової маси) до і під час коронакризи доведено, що вплив поточної кризи на економіку є сильнішим, аніж вплив фінансової кризи 2008—2009 рр. Зокрема, виявлено різке падіння ВВП Швейцарії 2020 року, зниження обсягів експорту та імпорту. Складові ВВП, які були найбільш стабільними протягом останніх 12 років і не знижувалися під час фінансової кризи 2008—2009 рр., а саме «Споживчі витрати домогосподарств» і «Загальні споживчі витрати», показали спадну динаміку 2020 року, що підкреслює неекономічний характер кризи. Період пандемії охарактеризувався зростанням інфляції та зміною структури грошової маси, а саме зменшенням обсягів депозитів на поточних рахунках майже удвічі. Найбільш вразливим економічним суб'єктом виявилося населення, рівень платоспроможності якого значно знизився, що спричинило скорочення обсягів споживання і безготівкових розрахунків. Зростанню обсягів попиту і споживання, пожвавленню ділової активності, стимулюванню економічного зростання в умовах, що склалися, сприятиме активізація банківського кредитування. Проведений аналіз дозволив констатувати, що обсяги кредитування у Швейцарії протягом 2020 року були вищими порівняно з попереднім роком. Найбільш значущим у структурі кредитного портфеля банків залишається кредит для населення, частка якого становила 66 % на кінець 2020-го. Водночас корпоративний кредит характеризується швидшими темпами зростання з початку кризи, що свідчить про вищий попит на кредит з боку бізнесу та використання його у складі антикризового менеджменту. На противагу наявній думці щодо негативного впливу банківського кредитування на рівень інфляції доведено, що пожвавлення банківського кредитування у складі комплексу заходів фіскально-бюджетної та монетарної політики має позитивний вплив на відновлення економіки під час і після кризи. Проаналізований досвід Швейцарії може бути використаний в українських реаліях.

Ключові слова: банківський кредит, іпотечний кредит, корпоративний кредит, кредитування, Швейцарія, COVID-19.

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Introduction. Bank loan is crucial for the appropriate development and growth of the economy. Banks provide all their services in order to meet the target goal which is earning profit and increasing stakeholders' value. On the one hand lending is of great importance for bank as one of the major activities which generate cash flows and income. It's interesting to note that while lending banks gain interest income, increase their cross-sellings and get commission fees as well. On the other hand there is a huge impact of loan and its conditions such as interest rates, terms not only on banks, but also on borrowers (different categories of economic entities e.g. small and medium businesses, corporations, individuals) and as a consequence on a public sector and the whole economy.

The positive impact of loans can be demonstrated by its stimulating effect on the borrowers' output, businesses' capacity which in turns leads to an appropriate level of supply at the domestic and international markets. It is important to mention that the loan should be granted in case of the liquidity gap or for capital purposes. The least plays a major role in the development and improvement of a business, its modernization and implementation of innovations.

Research analysis and problem statement. The development of the economy is based on innovations such as launching new products, technologies, processes according to the Shumpeter's (1984) theory of economic growth. Thus loans have a vital role as one of the sources of additional resources for business which facilitates and enables the innovations implementation. Because of great influence of bank lending on borrowers which operate in different industries it has a multisectoral effect. While large corporations have an access to resources, small and medium businesses in contrast suffer from credit constraints which are one of the main obstacles to growth and development (Gozzi & Schmukler, 2015). It is more difficult to find resources for small businesses, especially innovative enterprises (Lee, Sameen & Cowling, 2015). SMEs are drivers of economic growth and innovation and need to be supported by financial institutions. Mkhaiber & Werner (2021) demonstrated the evidence that SMEs can be considered the largest employer in most countries, included the UK, Japan, Germany, and provide more than two thirds of job positions. Scholars have proved that small business is a core part of the economy, which stimulates economic growth and has a positive impact on labor market and employment rate (Kersten, Harms, Liket & Maas, 2017). Researchers show evidence that banks have a great influence on the small and medium business (De la Torre, Pería & Schmukler, 2010) and bank lending is a necessary option that can enhance their performance (Mkhaiber & Werner, 2021). Despite the development and growth of the range of non-banking financial institutions, fintech, peer-to-peer lending, banks remain the main providers of external funding for business, especially SMEs (Moscalu, Girardone & Calabrese, 2020). So, in order to stimulate business it is necessary to create an appropriate economic ecosystem which can provide financial services including bank lending to small and medium-sized businesses to eliminate barriers to their growth. The availability of credit is the major factor of the enterprise's growth (Włodarczyk, Szturo, Ionescu, Firoiu, Pirvu & Badircea, 2018).

Bank loans are used as one of the monetary instruments to regulate the economy, to change monetary base, increase the output and support consumer supply. Scholars have investigated the influence of banks' lending activity and concluded that it has an effect on economic growth (Korkmaz, 2015). Due to the transmission mechanism the monetary supply can be easily changed using loans, the effect of the lending is quickly spread and it can be used by the central bank to achieve macroeconomic targets, to boost the economy, to support business and individuals, labour market, consumer demand and supply.

During 2020 and at the beginning of 2021 a lot of industries suffered from corona crisis all over the world. It was declared a pandemic in March 2020. Recent studies (Zhang, Hu, & Ji, 2020) have demonstrated the significant influence of COVID-19 pandemic on financial system, such as, increase of market volatility, risks. Baldwin (2020) mentioned that the effect of the pandemic could be as strong and disruptive as the influence of the global financial crisis of 2008—2009 and even

more. The lockdown period in Switzerland began on the 16th of March, 2020 and lasted till the 8th of June, 2020. Most of enterprises which provided services were closed, employees had to work remotely or even lost their jobs. Coronavirus spread again in Switzerland in October, 2020 as in other European countries and the USA. Some restrictive measures were implemented but they were not as strong as during the first lockdown period and did not have a detrimental impact on the economic activity. Because of the SME's importance to the economy it was necessary to support them during crisis in order to help them survive in difficult economic conditions, to prevent bankruptcies and to protect employees. The Swiss government used different measures including income support for sole proprietors, owners of small enterprises, compensation of wages for employees and corona loans which are state-backed loans to cover liquidity needs.

The purpose of the article is to provide an analysis of bank lending in Switzerland before and during COVID-19 crisis and show its effect on the economy.

Research results. To hypothesize perspectives we compare tendencies in bank lending during the corona crisis with the period since 2008. First we provide the analysis of current economic environment which has an influence on all the sectors and then we show the dynamics of bank lending in Switzerland, its changes during COVID-19 pandemic and effect on the economy.

There is the volatility of most sectors of the economy in many countries. The financial sector is no exception. The global financial crisis began in 2007 in the United States and then spread around the world. The cause of this crisis was mortgage lending. At the present stage, the cause of the crisis is COVID-19 pandemic, which paralyzed all the sectors of the economy. For most countries, 2020 was characterized by a slowdown in GDP growth or no growth at all or even decrease of GDP, deflationary processes in the economy, declining demand for goods and services. *Fig. 1* illustrates changes of GDP, final consumption expenditures, exports and imports compared to the same quarter of the previous year in Switzerland. The 1st period is a quarter 4 of 2008 and period 49 is a quarter 4 of 2020. We used quarterly data in order to provide a year-to-year comparison.

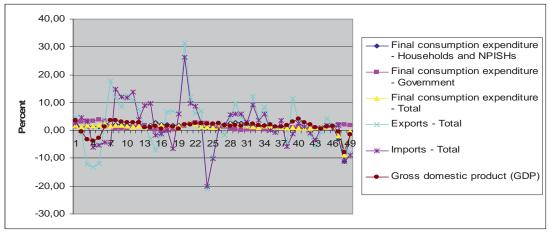


Fig. 1. Changes of GDP and its components by type of expenditure in Switzerland from Q4 2008 to Q4 2020

Source: completed by the authors according to the source [13].

Fig. 1 demonstrates that GDP dropped in 2009 during the global financial crisis. We can observe that this indicator recovered fast and its growth rates were positive till the beginning of 2020. GDP sharply declined in 2020 because of the harmful influence of the COVID crisis even on such a strong economy as a Swiss one. Exports and imports were more vulnerable during the analysed period. A sharp decline in exports and imports was in Switzerland in 2014 but at the same time change of final consumption expenditure were positive and as a result the GDP growth rate was positive. 2020 is also characterized by a decline of exports and imports. It is notable that the most stable indicators such as final consumption expenditures of households and NPISHs and total final consumption expenditures which did not fall in 2008 dropped in 2020 (by 11 and 9 per cent respectively in the second quarter of 2020 compared to the same period of 2019). It proves that the

impact of corona-crisis is stronger than that of the 2008—2009 financial crisis. In such economic conditions it is very important to assess the changes of other macroeconomic indicators in order to find effective economic instruments which can be used to improve the current situation. Decline of consumption expenditures is caused by the lockdown which led to decrease of consumer demand, closing of enterprises and reduction of supply. All these processes also influence the monetary base and money supply. Changes of consumption structure can lead to changes of monetary aggregates and slowdown of multiplication process.

One of the most important macroeconomic indicators which influences GDP and macroeconomic stability in general is the level of inflation. During a long period of time after the global financial crisis many countries tried to reduce high rates of inflation. But in Switzerland the inflation was low and even negative, about -0.7% in 2020. The experts of Swiss National Bank consist that the inflation rate is likely to be higher again about 0.0% in 2021 and slightly positive in 2022 about 0.2% [14]. *Fig. 2* shows changes of the inflation rate and main components of monetary aggregates in Switzerland from the corresponding month of the previous year during corona-crisis.

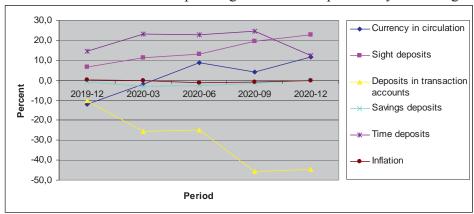


Fig. 2. Changes of main components of monetary aggregates and inflation rate in Switzerland *Source*: completed by the authors according to the source [15].

Monthly data allows us to provide clearer year-to-year analysis. As depicted in Fig. 2 only sight deposits had a tendency to growth (more than 20 % in December 2020 compared to the same month in 2019). The other indicators do not have such a strong growth. Changes of currency in circulation and time deposits were volatile. The amount of savings deposits had negative changes, in the last period it increased just a little, but in general it changed the least compared to the other components of monetary aggregates. It is notable that only deposits in transaction accounts fell dramatically in 2020. Our explanation for such a dynamics is the slowdown of consumption expenditures, deterioration of consumer confidence and uncertainty. We assume that it has a negative influence on the country's GDP. *Table 1* demonstrates the correlation between GDP and the main economic indicators during 2020.

Correlation between GDP and the main economic indicators

Correlation Services GDT and the main economic matematics		
Indicators	Correlation coefficient	
Gross domestic product and currency in circulation	-0.40514	
Gross domestic product and sight deposits	-0.66342	
Gross domestic product and deposits in transaction accounts	0.763689	
Gross domestic product and savings deposits	-0.1599	
Gross domestic product and time deposits	-0.34434	
Gross domestic product and inflation	0.548964	

Source: completed by the authors.

It is important to mention that according to the data from table 1GDP during 2020 was highly correlated with deposits in transaction accounts. It can explain the cause of GDP slowdown because of significant reduction of the amount of deposits in transaction accounts. There is not such a strong correlation between GDP and the other indicators. GDP and its components can also be influenced by other factors.

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Table 1

We can document the importance of the increase of transactions which is possible in case of stimulating business during crisis. It is very important to maintain economic activity, to support consumption that will stimulate the increase of the level of production and business capacity. Thus, in such a situation, increasing credit volumes can, on the contrary, become a tool for economic recovery, boosting consumption, consumer demand and resumption of GDP growth. *Fig. 3* demonstrates the dynamics of the credit lines and their utilisation volumes. It allows us to compare credit amounts before and during COVID-19 pandemic.

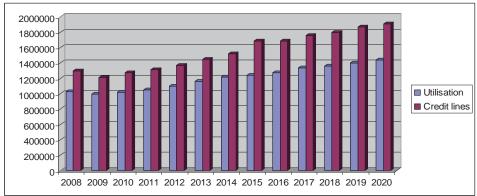


Fig. 3. Credit lines and utilisation in Switzerland during 2008—2020 (in mln CHF) *Source:* completed by the authors according to the source [16].

It is notable that the amount of credit lines increased throughout the entire period from 2008 to 2020, except 2009. The share of utilization in credit lines fluctuated. It was 79 % in 2008, 82 % — in 2009, then during 5 years — 80 % and it decreased to 74 % after 2014. Despite this tendency the amount of utilisation has a positive trend. It reduced only in 2009. We can explain it by negative influence of global financial crisis and its consequences. It is important to mention that the amounts of credit lines and utilisation were higher in 2020 during ongoing pandemic compared to the previous year. It shows that in such a difficult economic situation Swiss banking system is stronger than in 2008 / 2009 and can maintain and even increase lending. It is interesting to analyse lending tendency in the period of COVID-19 crisis. The volume of credit lines remained almost at the same level during 2020. It fell a little in February and then grew after the beginning of the lockdown in March 2020. The share of utilisation in credit lines was about 75 %. The amount of the utilisation constantly increased. Such a dynamics illustrates that there is demand on loans during the pandemic and lending is used as the instrument of the economic recovery. It has a positive influence on the economy, because enterprises can maintain their activity during crisis due to bank lending while individuals can satisfy their needs in the conditions of wages reduction or job losses.

To provide a deeper analysis of credit portfolio in Switzerland it is important to demonstrate the dynamics of mortgage loans as the main type of loans in Switzerland (*Fig. 4*).

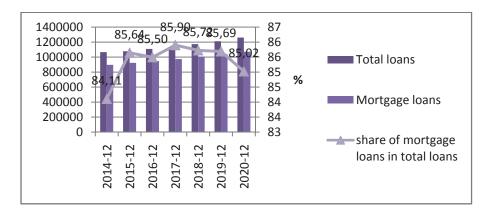


Fig. 4. Total domestic loans, mortgage loans and share of mortgage loans in total domestic loans (utilisation)

Source: completed by the authors according to the source [16].

According to Fig. 4 data we observe that mortgage loans had a positive dynamics and the major share in the total amount of bank loans during the last 5 years. The volume of mortgage loans increased during crisis but its share in the total amount of loans did not have the stable trend. At the beginning of 2020 the share of mortgage loans was 85.61 %, it declined to 84.50 % in May 2020 and then started to grow. In spite of the crisis credit portfolio remains secured and low-risky that is one of the main positive characteristics of bank lending in Switzerland. Bank loans can also be classified by type of borrowers (Fig. 5).

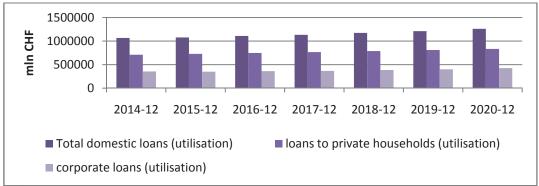


Fig. 5. Total domestic loans broken down by type of borrowers

Source: completed by the authors according to the source [16].

Fig. 5 illustrates that bank lending to individuals is the most important in Switzerland. It has not only economic but also a great social role especially in the period of crisis. Loans to private households help them to satisfy their needs in long-term goods such as shelter, automobiles and other. Bank loans to private households had a tendency to grow before crisis. It is important to underline that the volume of both private and corporate loans increased in 2020. Bank loans to private households as well as corporate loans started to grow faster in March 2020 after the beginning of lockdown [16]. During the lockdown period banks continued to grant loans to individuals to help them survive during the pandemic and paid attention to corporate lending as well. We should mention that loans to private households increased by 2.82 % in 2020 while corporate loans increased by 6.5 % compared to the previous year. It shows higher demand on corporate loans. Enterprises need additional financial resources to cope with challenges of pandemic period such as a lockdown, declined consumer demand. At the same time the structure of credit portfolio has not changed significantly in 2020.

While analysing bank lending to companies it is notable that the main borrowers during crisis as well as before it are small companies with up to 9 employees. The volume of credit lines to small enterprises (companies with 10 to 49 employees) and large enterprises (with 250 employees and more) increased from the beginning of 2015 to the beginning of 2020. The other types of loans were almost constant, public sector entities had the least share [16]. The former tendencies have not changed in 2020 (*Fig.* 6).

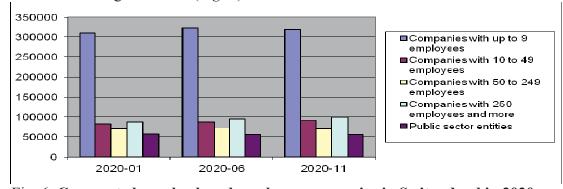


Fig. 6. Corporate loans broken down by company size in Switzerland in 2020, mln CHF (credit lines)

Source: completed by the authors according to the source [16].

Fig. 6 shows that the share of companies with up to 9 employees in total amount of corporate loans was about 50% in 2020 and continues to grow. Increase of corporate loans portfolio is caused not only by banks initiatives but also by governmental support. The Swiss government has taken action to help national companies which cope with the effects of the pandemic and economic crisis. Companies which were affected by the COVID-19 crisis had opportunities to take loans guaranteed by the federal government between March 26 and July 31 2020. These loans were used to ensure liquidity of enterprises and help Swiss economy as a result. 123 banks took part in this program [17]. There were two types of credit: COVID-19 credit agreements and COVID-19 credit plus (Table 2).

Number and amount of loans under the program against COVID-19

Table 2

	COVID-19 credit agreements	COVID-19 credit plus
Number of loans	136554	1130
The average size in CHF	102000	2.7mln
Total in CHF	13900 mln	3008 mln
Total for all	16908 mln	

Source: completed by the authors according to the source [17].

Table 2 demonstrates that total sum of all loans granted to enterprises within the program against COVID-19 is nearly CHF 17 bln. Bridging credits up to CHF 500,000 had 100 % federal government guarantee and credits from CHF 500,000 to CHF 2 mln were secured to 85 % of their value [17]. Most of agreements were concluded in March and April 2020 (117,000 credit agreements for more than CHF 16 bln by the end of April 2020). Enterprises have 5-year period to repay credits. According to Federal department of finance data 7584 numbers of credits on total sum of CHF 1572 mln were repaid on the date of 03/03/2021 [17]. Distribution of COVID-19 bridging credits for a sector allows us to find out sectors of economy which suffered the most. Top-5 sectors include wholesale trade without motor vehicles (9.9 %), specialised construction activities (8.8 %), retail trade without motor vehicles (8 %), food and beverage service activities (6.5 %) and trade and repair of motor vehicles (6.1 %). The other sectors have less than 5 % in total amount of credits.

Due to the strategic actions of the Swiss government and its guarantees program business has access to bank loans. In the same time banks do not take high risks and can grant loans and increase low-risky, balanced credit portfolio that is very important for the appropriate development of banking system. It is important to underline that microcredit takes a significant share in the total amount of corona loans (*Fig. 7*).

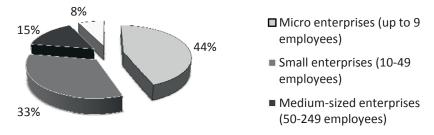


Fig. 7. **Structure of corona credit volume by company size as of 06.08.2020** *Source:* completed by the authors according to the source [17].

According to Fig. 7 the share of micro enterprises with up to 9 employees took more than 40 % of the total corona-credit volume as of 06.08.2020. Small enterprises had the second largest stake — 33.2 %. These two types of enterprises are the most vulnerable and affected by lockdown and economic crisis in general. Using bank lending as an instrument to support business has a positive influence on the economy on both micro- and macro level. Corporate lending has a favourable effect on business and employees, stimulates production, GDP increase and does not have a detrimental effect on the level of inflation compared to strict governmental subsidies.

Bank lending is crucial to support start-ups. The guarantee system was used in Switzerland to ensure bank loans for start-ups during lockdown. They could apply for guarantees from 7 May until 31 August 2020. According to Federal Department of Finance data [17] there were granted 359 guarantees with the total amount of almost CHF 99 mln. «Computer programming, consultancy and related activities» is the leading sector by guarantee volume (34.3 % of total guarantee volume), the following two sectors are «Scientific research and development» (19.5 %) and «Architectural, engineering activities» (9.6 %). The other sectors' shares are less than 5 %. It is notable that 289 guarantees that is 80.5 % of the total number of guarantees are granted to micro enterprises.

So we can summarise that development of business especially SMEs in order to stimulate economic growth is one of the governmental priorities and bank lending is used as an effective monetary instrument. It is important to underline that even in terms of crisis and despite the availability of government guarantees banks have to examine borrowers' creditworthiness and their credit history and business reputation in order to avoid increase of non-performing loans and extra governmental expenditures in future.

Conclusions. The most important challenge during the COVID-19 crisis is not to stop the economy, to do all the best to maintain business alive. So governments in collaborations with scholars try to find out the best practices to stimulate economic growth and support labour. Our analysis suggests that bank lending should be used to support individuals as well as businesses during crisis. Bank lending has its multi-vector influence on the economy in general and on borrowers and lenders in specific which can be both direct and indirect. Despite all the risks bank lending should be developed and maintained during crisis in order to provide the economy with money supply and to make an impulse for multiplicative effect which is more useful than government subsidies because it doesn't cause the inflation. The Swiss government has taken effective measures by providing credit guarantee programmes for enterprises which support companies and in the same time help banks to continue their lending activity without taking high risks. Corporate lending has increased faster than lending to individuals since the beginning of the lockdown in March 2020. Such a dynamics is positive for enterprises, especially micro, small and medium-sized, which can maintain their activity and increase or at least remain the same their capacity. It is necessary to continue research to found out the efficiency of corporate and individual bank lending in long-term period during ongoing COVID-19 crisis and after it.

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