

## SECTION 5. FINANCIAL ACCOUNTING OF INNOVATIVE ACTIVITY OF ORGANIZATIONS

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### POLICY OF THE CZECH NATIONAL BANK AND REAL ESTATE MARKET

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**Abstract:** Nowadays the impact of Covid could be seen not only in the Czech Republic, but all over the world; the value of money also constantly decreases due to inflation and negative trends in the economy. People usually try to save their money and they want to be sure, that their savings will not lose value. Citizens of the Czech Republic now perceive housing market as a safe haven and protect their savings by buying real estate. That is why, according to Russian economists, there is no reason for the withdrawal of the Czechs' huge interest in investing in real estate in the coming years. At the same time, it should be understood that overheated markets sometimes collapse with terrible consequences for the country's economy. And this is the responsibility of regulators, who must anticipate and prevent such trends in the markets.

**Keywords:** cost of money, inflation, real estate market, mortgage, discount rate, volume of loans.

#### **Introduction.**

There is one special phenomenon in the Czech Republic: if in Western Europe people save money for retirement, then in the Czech Republic people save money to give it to their children. Thus, there is a tradition in the Czech Republic to transfer a large sum of money from generation to generation. The question today is of particular importance: will this behavior change? But it is also a strong phenomenon that supports housing construction in the country.

Everyone in the Czech Republic is well aware that apartments market in the country is extremely low. Following the first half of 2021's results, there were only 3,350 vacant apartments in the price lists of developers against 5,800 a year earlier, i.e. over the past year, the number of vacant apartments is down by more than 40%. The reason is the slow approval of new buildings, as well as the fact that some apartments were not put on the market at all since they were bought by institutional investors to lease [1].

The growing interest in real estate is also evidenced by the number of people visiting the largest real estate advertising portal Sreality.cz. If, for example, in June 2019, based on Netmonitor traffic official count, 1.5 million real users were registered, in 2020 this number was 1.9 million, and in mid-2021 already 2.1 million [2].

And, as a result – record sales rates of new apartments for several months of 2021. In the first half of 2021, twice as many apartments were sold in Prague against the previous year. But mostly smaller designs are sold (1 + kk and 2 + kk), whose share in sales has been growing for a long time. Previously, their share in the sales of new apartments in Prague was less than 50-60%, but recently it is approaching 70%. In addition, the majority of apartments today are sold with a so-called paper transaction, i.e. before construction is completed [3].

Moreover, wealthy Czech people are now investing their money in apartments to protect their savings from inflation, which largely resulted from COVID restrictions. Inflation is also a punishment for keeping cash, therefore people want to own any assets that have at least some hope of an increase. At times when the value of money is declining, people usually try to save their savings where they are sure they will not lose value [4]. And even better if it all may be evaluated.

#### **Main part.**

According to domestic economists, it is clear today that the Czechs' huge interest in real estate investments will continue. But buying an apartment protects a person from inflation only if the increase in apartment prices increases by this inflation. If not, then inflation "eats" the cost of this price growth. Although in 20 years the property may be sold more expensive due to rising prices.

Everyone is aware perfectly well now that unexpectedly higher inflation always benefits the debtor, who may pay back his debt with depreciated money. This also means that if a person is a debtor and is waiting for inflation to rise, then in some cases it may even be beneficial for him to borrow more. Inflation can make credit less expensive [5]. With today's mortgage index of 2.1% and inflation of 3.4%, the real interest rate on mortgages in the Czech Republic (for the period of fixation) is -1.3%.

Let's see what is happening now with inflation in the Czech Republic. Prices are continuing to rise. In July 2021, it reached 3.4%, the highest in recent years [6].

In general, by the end of 2021, according to forecasts of local economists, inflation will rise to 4% compared to the same period the previous year. For the Czech National Bank, this means only one thing – the National Bank is likely to double the growth of the key interest rate by the end of 2021 to try to reduce inflation.

According to many economists, inflation in the Czech Republic will affect everyone.

For example, for the third time in a row over the year, the prices growth in the transport sector had the greatest impact on the overall price growth in 2021 (*year-on-year*). Car prices are up 5.4%, fuel and oils - up 18.5%. For example, natural-95 gasoline was sold at gas stations in July 2021 at an average price of 33.5 kronor per liter, which was the highest since December 2014.

Prices for food and soft drinks have also increased. Vegetable prices increased in 2021 from 6.8% in June to 6.9% in July, of which potato prices increased by 2.8%. At the same time, in July 2021, fruit prices decreased by 4.8% year-on-year, and meat prices - by 1.4% [8].

In food and accommodation spheres, prices in restaurants and cafes increased by 4.4% year-on-year.

In the housing segment, apartment rental prices are up 2.5%, and prices for goods and services for apartment maintenance and repair are up 5.5%.

But it's better to study figures by months. They clearly show that the difference between industry and services is not only in volume, but also in prices. If in July 2021 the prices of goods grew by 5% year-on-year, then the prices of services grew by 25%. Since prices for services are determined by seasonality and holidays, we can expect that prices

will rise again in autumn and winter. In addition, there was maximum bankruptcy in the industry. And if bankruptcy was the case, then prices in the service sector are increasing among the remaining companies, which also have to make up for the missing income from the quarantine period or pay off debts that were financed due to quarantine.

Thus, with zero inflation it is of little importance that no interest will be accrued to the savings account. But as inflation increases, so does the "fee" for keeping money in the bank. And now the Czechs should prepare for inflation which they have not experienced for a long time: ordinary savings will be the fastest way to devalue money, inflation will quickly absorb savings. And the most effective way of protection for today is the purchase of inflation bonds, the nominal value or coupon of which is adjusted depending on the development of the consumer price index. However, the availability of these instruments in the Czech financial market is still limited.

The second major reason for the growth in demand for real estate in the Czech Republic is the reduction of the Czech National Bank (CNB) interest rate (See Fig. 1). These are also the consequences of the coronavirus and the decline in business activity in the country.

For the most part, this is a direct reflection of the COVID pandemic. The whole world is now trying to catch up that it missed in the past 2020. Suddenly it wants to do everything faster, build faster. And to produce all this is still not possible because, until recently, strict anti-pandemic measures were applied at the factories. This has slowed down both production and consumption. The transport crisis does not help the situation either. There are no shipping containers. In Asia, shipping is decreasing due to anti-pandemic measures in ports, now again due to the COVID Delta variant.

The third major reason for the growing demand for real estate in the Czech Republic is the volume of mortgage loans issued (See Fig. 2). Interest in own housing was not lost even during the COVID pandemic, so banks and savings banks in the Czech Republic report records of loans issued.

According to the ČSOB Group, in 2020, banks and building societies lent a lot for housing. The volume of mortgage loans granted last year reached 250 billion kronor being the highest figure in the Czech history. The volume of these loans increased by 38% compared to the same period in 2019. The record growth is mainly due to the Czechs' continuing interest in solving the problem of their own housing and very low interest rates, which have been practically falling since April 2020 (See Fig. 3.)

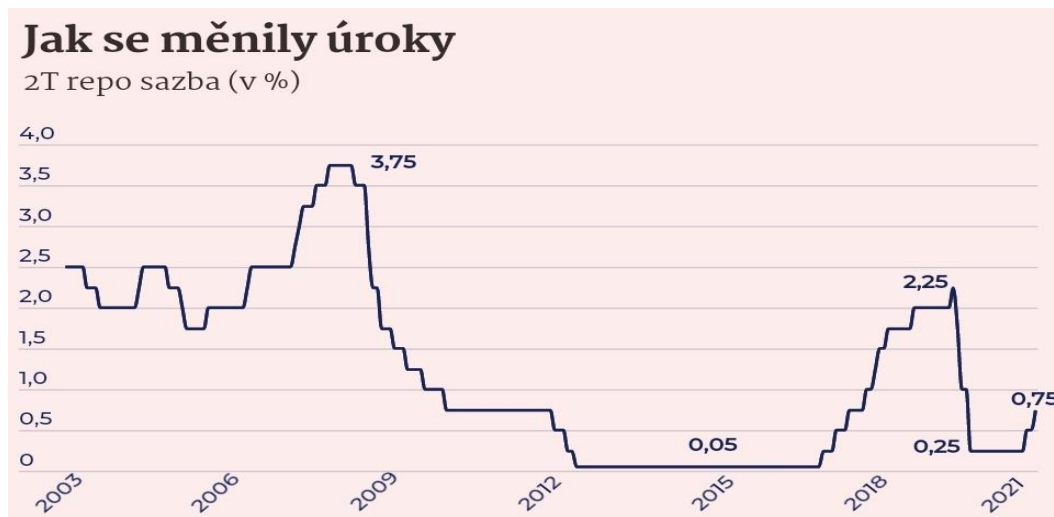


Figure 1 – Change in the interest rate of the Czech National Bank [9].



Figure 2 – Volume of mortgages issued  
(on the graph, the digital column on the left must be multiplied by 10) [10]



Figure 3 – Mortgage interest rate index [13]

Similar situation is with loans from building societies. In 2020, they provided loans in the amount of 65 billion kronor, which is 36% more than in 2019. The current pandemic situation has not affected the market, which is perhaps surprising. People now perceive housing as a safe haven and protect their savings, so interest in housing loans has increased dramatically [11].

It should be added here that today's record year 2021 will be associated not only with brand new mortgages, because the third part was associated with refinancing existing loans. 2021 showed large interest in refinancing, because interest rates reached their bottom in 2020, and mortgage loans could be concluded at a rate slightly higher than 1.5%.

There is also a great interest in longer fixing of the interest rate for a period of 7 to 10 years. For example, Česká spořitelna fixed the interest rate for 8, 10 and more years.

The current popularity of long-term interest rate fixations is a response of customers to recent development of the mortgage market, especially to a number of strict measures of the National Bank, which significantly affected the nature of demand for new mortgages in the pre-pandemic period. However, Czech banks today have to somehow resist the sharply increased risks of high interest rate, and have already started to reduce the periods of fixing interest rates.

At the same time, last year the Czech National Bank relaxed the parameters that banks must control when applying for loan. Starting from April 1, 2020, the National Bank canceled the DTI limit (the *ratio of the loan applicant's total debt to the net annual income*) and weakened LTV (indicating the maximum loan cost relative to the estimated real estate price) and DSTI (the *total monthly payments ratio*) to the net monthly income of the loan applicant.

At present, the Czech National Bank sets an upper limit for only one of the three creditworthiness indicators, in particular, the so-called LTV. According to the recommendations, banks should not issue mortgage loans for more than 90% of the housing cost.

Another recommendation of the Czech National Bank at present is that the mortgage applicant should spend no more than 40% of his net monthly income on debt repayment [14].

But the question now is not only to what extent these indicators or some of them will be established for Czech banks, but also whether these indicators will be nationwide. Will they be established differently, for example, for individual regions or even for individual types of real estate, because the general definition of the financial indicator does not reflect the relatively fundamental differences in real estate prices in individual regions and in the rate of price or in the ratio of the cost of comparable real estate to the average income of the applicant.

At the same time, from 2021, credit indicators will be more favorable for young mortgage applicants aged under 36. These applicants will have a higher limit of credit indicators, namely by 10% points for LTV (the *ratio of the mortgage volume to the price of the real estate object*), by 5% points for DSTI (the *amount of installments to monthly income*), and by one year of net profit for DTI (*debt to income*). For example, if the total LTV limit on the market is 80%, young people will be able to take mortgages up to 90%. And in case an application is submitted by spouses or registered partners, it will be enough that only one of them meets the age requirement of less than 36 years old for applying of lighter credit limits [15].

So, what do we have in the end on the real estate market in Prague? Today it is important to realize that all types of real estate are becoming more expensive. The Czech capital does not have districts that might be called depressed, with unclaimed housing. Even old panel houses - analogues of Khrushchev project, are growing in price after new build-ings. But it is the latter that determine the price trends.

The cost of 1 sq. m. in Prague in 2021:

- Prague - 1 €7 400
  - Prague - 2 €5,250
  - Prague - 3 €3,900
  - Prague - 4 €3,800
  - Prague - 5 €4,250
  - Prague - 6 €4,750
  - Prague - 7 €4,000
  - Prague - 8 €4,400
  - Prague - 9 €3,550
  - Prague - 10 €3,550
- Source: Deloitte [16].

Below is a metro map of Prague and the growth of the price index for real estate near metro stations in 2021.

It must be especially noted that the modern world of finance, and not only in the Czech Republic, is changing rapidly and bringing a number of new challenges. Therefore, it is necessary to constantly expand the arsenal of tools that the Czech National Bank will be able to use if necessary. The key to success is that the CNB can fulfill its mission, which is to ensure price stability.

For example, we know cases from abroad when central banks applied negative interest rates and were forced to implement quantitative easing. However, unlike many other central banks, the CNB has its hands tied in this regard due to rising inflation.



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Source: Deloitte [17].

What we can see in the real estate sector in the Czech Republic as a result? According to local economists, the demand for housing loans will continue. We can expect even a small correction of up to 10%, but interest in housing loans in the Czech Republic will still be very high.

In 2021, interest rates rose slightly. The main reason for the growth was the increase in rates on the interbank market, including the CNB repo rate (*at which banks borrow from the central bank - author's note*), in response to the beginning of the "rapid recovery" of the Czech economy.

In the meantime, the Czech National Bank does not change interest rates much and has not changed restrictions on mortgage loans, and the countercyclical capital buffer rate has remained the same. Given the current inflation growth and crisis phenomena in the economy, key interest rates will change very slowly.

Nevertheless, Czech banks are no longer cheaping mortgages. The main reason is the price at which banks receive money for further lending on the interbank market.

And it is the price of money on the interbank market that has started to grow rapidly since November 2020. However, this does not necessarily mean that the mortgage will immediately begin to rise in price [18]. Competition in the mortgage market in the Czech Republic is very strong, and the uncertainty associated with the crisis due to the coronavirus is still the case. Thus, in the near future, mortgage rates may stabilize at the current level, since mortgage interest rates are based on long-term market interest rates, such as 10-year government bonds or long-term IRS rates. And this connection with long-term rates has intensified in recent years, as the average time required to set mortgage rates has increased. We don't expect these long-term rates to fall to the historic lows of 2016, so it won't happen with mortgage rates either.

At the same time, the emerging increase in the interest rates of the National Bank will not be able to cope with this special type of inflation caused by rising costs, not rising demand. But according to CNB experts, interest rates will have to significantly reduce demand in order to compensate for the increase in production costs in producer prices, but

this may eventually have serious consequences for the health of the economy. At present, the COVID impact on inflation, not only in the Czech Republic but around the world, is more reminiscent of the oil shock of the 1970s. In a ruined economy, it was even more expensive to produce something for yourself.

#### **Conclusion.**

1. Now we are still witnessing the impact of COVID not only in the Czech Republic, but all over the world.

2. The Czech National Bank was held hostage by the situation:

- a) on one side, it was supposed to weaken the parameters of monetary regulation and help the domestic economy,
- b) on the other side, it is still unable to curb the emerging growth of inflation in the country.

3. The current situation with the pandemic has not affected the real estate market, which is perhaps surprising. The population of the Czech Republic now perceives housing as a safe haven and protects their savings by buying real estate.

According to local economists, the demand for housing loans in the Czech Republic in the near future will continue. We can expect even a small correction of up to 10%, but interest in housing loans in the Czech Republic will still be very high.

5. Today, the main goal of all financial market regulators, not only in the Czech Republic, but around the world as well, is and will be the goal of preventing a sharp collapse of the formed bubbles, including the real estate market. In a ruined economy, it is more expensive to produce something for yourself.

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#### **STRATEGIES AND INNOVATIONS OF SOCIALLY RESPONSIBLE BUSINESS**

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**Abstract:** The purpose of social innovation in business is to solve social problems of modern society and ensure efficiency. The innovation should at least reduce the severity of the social problem. However, social innovations are effective when society needs them and they can improve the quality of life of the population. In this case, it is not just a corporate responsibility of the business. Business can count on government support. An innovative strategy and a social responsibility strategy together become the drivers of business development.

**Keywords:** business development strategy, social innovation, social responsibility, accounting and analytical information support.

#### **Introduction**

The issue of interaction between society, nature and business is especially relevant today. The development of industry, production, technology often affects the environment, requires resources that are limited and often even irreplaceable for a certain period of time. This results in emerging social challenges of security and justice.