Czech University of Life Sciences Prague

Faculty of Economics and Management

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Diploma Thesis

Real estate investment as an income option

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DIPLOMA THESIS ASSIGNMENT

Bc. Tomáš Fischer

Economics and Management

Thesis title

Real estate investment as an income option

Objectives of thesis

The aim of this thesis is to find out whether direct investment in real estate can generate stable income. The thesis compares the long-term and short-term rental of an apartment via the Airbnb platform in terms of profitability and location.
The research question is:
What is the better rental variant as the investment, for the higher income option to the real estate in Prague?

Methodology

For the best solution of this work we need use many types of data and methodology. The basic are primary data from public sources about prices of real estates in the concretely places. With this data we can work with the SWOT analyses and define market pluses and minuses by this data. We use private data from our personal experience with working in real estate area. In this case we can compare bigger sample of data with our smaller sample.

The proposed extent of the thesis
60 pages

Keywords
Real estate market, investment, rental, mortgage loan, return, Airbnb, short-term rent time, long-term rent time, renter, government

Recommended information sources

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Declaration

I declare that I have worked on my diploma thesis titled "Real estate investment as an income option " by myself and I have used only the sources mentioned at the end of the thesis. As the author of the diploma thesis, I declare that the thesis does not break copyrights of any their person.

In Prague on 29.3.2019 _____

Tomáš Fischer

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Real estate investment as an income option

Abstract

Investment to the real estate is one of the way, how to invest funds for appreciation. The option to choose a real estate market is a very popular and frequent variant of investors, because this investment is appreciating slowly but is a very low risk investment. The real estate market has been experiencing significant price increases in recent years, and this thesis has focused on this. The basis of the thesis is to find out if the investment property is a good investment and it pays off. The biggest part of the work is focused on investment in real estate in a certain part of Prague city centre and its return. The first option was to choose a long-term rental variant, where was it buys the apartment and to find out how quickly and if this investment could be returned. I did the same with short-term rentals, which in recent years have become a major power of the property market, which was previously intended for long-term rentals only. The thesis shows that, the investment variant on the real estate market is the right one. Because they are either short-term or long-term rental options, they are profitable for the property owner and bring a positive profit to the investor, after deducting all costs and taxes. It is still better to use the property for short-term rental method, but with the coming of new laws for this type of short time rental method, can be this difference reduced, even completely erased in the future. Real estate rental will still be profitable, but the rate of return will not affect by which method the property is rented.

Keywords: Real estate market, investment, rent, mortgage loan, return, Airbnb, short-term rent time, long-term rent time

Investice do nemovitostí jako možnost příjmu

Abstrakt

Investice do nemovitostí je jedna z možností jak investovat prostředky ke zhodnocení. Varianta vybrat si realitní trh je velmi oblíbenou a častou variantou investorů, protože tato investice se sice zhodnocuje pomalu, ale je velmi málo rizikovou investicí. Trh nemovitostí zažívá v posledních letech velký cenový nárůst i na toto se zaměřila tato diplomová práce. Základem diplomové práce je zjistit jestli je investice do nemovitosti dobrou investicí a vyplatí se. Největší část práce se soustředí na investici do nemovitosti v určité části centra Prahy a její návratnost. První variantou jsme zvolili dlouhodobý pronájem, kde jsme koupili byt, a zjišťovali jak rychle a jestli vůbec se tato investice může vrátit. To samé jsme provedli s krátkodobým pronájmem, který se stal v posledních letech velkou hybnou silou na trhu nemovitostí, které byly dříve určené pouze pro dlouhodobé pronájmy. Práce ukazuje, že investiční varianta na trhu nemovitostí je tou správnou. Protože ať už jako krátkodobé či dlouhodobé varianty pronájmu jsou pro majitele nemovitosti rentabilní a přináší investorovi kladný zisk po odečtení všech nákladů a daní. Stále vychází lépe využití nemovitosti pro krátkodobý pronájem, ale s příchodem nových zákonů pro tento typ pronájmu se může tento rozdíl snížit, do budoucna dokonce úplně smazat. Stále bude pronájem nemovitostí rentabilní, ale rychlost návratnosti nebude tolik ovlivňovat jakým způsobem je nemovitost pronajatá.

Klíčová slova: Klíčová slova: trh nemovistí, investice, nájem, hypotéční úvěr, návratnost, Airbnb, krátkodobý pronájem, dlouhodobý pronájem,

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1 Introduction

This topic is very frequent in this time. In the last few years the real estate market in the Czech Republic has been experiencing a very turbulent period. Long gone is the economic crisis and the economy is experiencing growing prosperity. We observe low unemployment and rising wages in the job market. This current situation results in a very positive conduct not only of domestic entities in the real estate market. Taking into account the acceptable rates of mortgage loans, the increased demand for own housing is quite understandable. Greater interest can also be seen from foreign investors, who invest their capital on the domestic market in bulk. Not only do these facts push property prices up.

The main goal of this work is to find out whether direct investment in real estate can bring stable income. A partial goal is to compare long-term and short-term rental in terms of profitability. The resource question is: What type of rental variant is more profitable and bring higher and faster yield for owner?

The analysis is primarily focused on the residential market with apartments. The subject of the investment will be an apartment in the centre of Prague and the wider area. We will examine several variants according to the selected city districts, evaluate the results and make subsequent recommendations. We will use some of our own resources for financing, but we will finance most of it using a mortgage loan using a so-called "lever". We will evaluate a stable income according to the cash flow that an individual investment variant will generate monthly. We determine the profitability indicator within our own invested funds. Buying an apartment is one of the alternatives for using your saved money. If we consider in the long term, this investment will bring us a positive improvement in old age. Another aspect may be a future housing alternative for offspring. The thesis is divided into nine main chapters. In the first chapter is introduction and goals and methodology. The second part focuses on the real estate market and its development. There are mentioned the basic terms and subjects that are involved in the real estate market. The development is analysed both globally and from the perspective of the residential market in the Czech Republic. Mentioned is housing construction, availability of housing and prediction of future development. The third chapter describes direct investment in real estate. It partly mentions the indirect method, determines the investment horizon, the overall benefits and risks. It characterizes the yield, payback period and other individual performance indicators we have used in the work. There are also described types of taxes and insurance. Following is the third part, which is dedicated to real estate financing and mortgage market development. It defines sources of financing, mortgage

credit and its forms. Mentioned are the central bank's revolutionary steps in the form of recommendations, the amendment to the Consumer Credit Act and the development of interest rates. The next section describes the particular property selection that is being invested. It describes value-creating factors, competitive advantages, and assumptions of exploration. Long-term lease is described in chapter six. It analyses individual investment options according to the set indicators and performs a subsequent summary. The seventh part is dedicated to short-term rental. It introduces Airbnb, its emergence and development in the Czech Republic. Again he performs analysis of variants in individual localities. The eight part compares short-term and long-term rental, shows the complete results of the survey and results and discussion is in part 9, where is necessary write recommendation and result from my analytics part of diploma thesis. The last two parts of whole diploma thesis are conclusion and resources.

1.1 Aims of the diploma thesis and stated research questions

The aim of this thesis is to find out whether direct investment in real estate in separate parts of Prague can generate stable income for investor and what is connect with the renting of this investment. The thesis compares the long-term and short-term rental method of an apartment via the Airbnb platform in the terms of profitability and in which location is the best does it investment. This thesis work with mortgage loan investment and own funds and one of important aim is return time of own funds in the years and percentage yield of this own funds. The following research question is the main goal of diploma thesis.

Research question: What is the better rental variant as the investment for the higher income to the real estate in Prague? Which problem is connected with both methods and what is necessary for start investment to the real estate? What risks are there and how eliminate these risks to higher profitable of investment?

1.2 Main methodological tools of the diploma thesis

1.2.1 Basic analyse of market

For the best solution of this work we need use many types of data and methodology. The basic method is analyse what is real estate market, who are the players on the real estate

market like land registry, banks, state and very important in the basic part of analyse is demand of real estate. The work analyse development of global and local market with real estate. The biggest problem what is possible see now in Prague is all time mentioned long time of construction proceedings. And on that is most connect the price of real estate in Prague. But it has more real things what influence real estate market like new platform renting of apartments, high level of migration people from whole Czech republic to Prague and administration problem with building agreement is on of them too.

1.2.2   Investment to real estate analyses

The next step is to invest in the real estate market itself. Setting the investment philosophy whether it is a short-term investment or a long-term investment. Depending on the type of investment you choose, the style of your investment will be developed and funded. The thesis also describes direct or indirect investment. After analysing our type of investment, many options can be chosen, such as real estate investment trusts (REITs), investment funds, mutual funds, companies in the real estate sector.

Investors can choose a more risky or less risky option, but in the world of real estate investment there is usually a high input investment and then a gradual return of funds over several years. In this thesis I have set two basic time horizons at work and that is 5-10 years and then 20 or more years. The benefits of real estate investment are high resistance to inflation and likely future property appreciation. Historically, it has been shown that every ten years the property can be valued up to tens of % up. The advantage is the situation when the apartment immediately starts to generate rent income and thus the banking institutions will not have any problem financing the investment from some part. Our work involves using 15% of your own funds and 85% using your mortgage. The calculation for this work was set when this model was still possible. In the current situation on the mortgage market, the Czech National Bank has banned real estate financing by mortgages over 80% of foreign capital. However, such an investment also brings risks, and this may be all related to the wrong choice of tenants, the economic downturn and the worse living standards of the population and the possibility of non-payment of rent. Most of these inconveniences can be avoided by a good investor prediction, but it can never be eliminated at 100%.

1.2.3 Performance indicators modeling

Important part of diploma thesis are performance indicators there are every prepare methods for calculation of the result with the data from public resources. Performance indicators are models that I use at work to calculate all the important results. My calculations are mainly devoted to monthly rental income for a long-term lease where the cost of the apartment is deducted, but the calculations are before income tax. Therefore, I do not use Net profit but gross profit. Net profit would already be the result after taxation, and since there are many ways to tax income calculate, which is covered in the chapter 3.5.6 to 3.5.8 about taxes. Another indicator is the annual return, which is expressed by the share of net annual profit and own funds, which we have invested in the investment. We adjust the result by multiplying it by 100 and interpreting it as a percentage. The return on the investment can be seen as a share of own invested funds and net profit. It is important to note that this is not a return on total investment, but a return on your own money invested (Koreis, 2017). In the Airbnb method is calculate with average price per night in the location where is apartment. The management of apartment is by the company, which manage these short rental method apartments the price is 25% per apartment include VAT. There is including cleaning of apartment and welcoming guests and paying of energy (gas, electricity). More about that is in the chapter of Short – term rental method. In the long term rental method is this energy cost rewrite it to tenants. And in the normally rental method is management calculate like management of real estate agency like if any tenants end their rent contract the agency find in few days new one and the lost profit wouldn't be so high. If there will be one tenant for many years after this item in the long term method will be billed retrospectively. The methodology doesn't calculate with appreciation of investment in time because the price of own fund and hole value of apartment goes up in the years. In calculations is not work with it. The index of evaluation can be very variable in the location and time.

1.2.4 SWOT analyses of real estate investment

Other methodology what is used in this thesis is SWOT analyses of investment to the real estate. It shows the strategy, which is possible use to into investment in real estate. In this thesis is used the strategy of WO (mini-maxi) the strategy focuses on overcoming weaknesses so that the opportunity can be exploited. In this real estate market it is about prepare the apartment like anything special on the market what grow up the rent and help find the reliable tenants, which will bring a stable income to the greatest possible extent and the same can be

done in the short term rental. Prague is location where is possible with this WO strategy can be very successful in this sector.

1.2.5 Calculation in separate locations and comparison

In the calculations is separate calculated every part of Prague to the long - term method and after is comparison in this variant. Next step is calculation of Airbnb method and comparison of that variant in selected parts of Prague. There is necessary compare the cash flow, the gross profit, yield and return in years in every chose apartment. From that is possible calculate the time of revenue my own part of input.

In the results and discussion analyse results from the analyse part and answer main research question of all diploma thesis. Compare with known public results and put any recommendation how is it profitable variant the investment in real estate market and how much money and in which horizon can bring it.

2 Real estate

The definition according to the new Civil Code, which came into force on January 1, 2014, is as follows: "Real estate is a land and underground construction with an independent purpose, as well as the material rights thereto, and the rights which the real estate claims. If another law stipulates that a thing is not part of the land, and if such a thing couldn't be transferred from place to place without infringing its essence, this property is also real (Czech Republic, 2012). According to Dušek (2015), the new Civil Code is based on the principle that we can call "superficies solo credit". This practice is known mainly in Western countries. Specifically, Section 506 (1) states that: "The land is a space above the surface and under the surface, on site and other facilities (hereafter referred to as the" building "), with the exception of temporary buildings, including what is embedded in the land or fixed in the walls. "

2.1 Real estate land register

The Land Registry is a collection of public real estate data in the Czech Republic. It includes their description including positional and geometric designation, includes an inventory of proprietary and other material rights. Information registered in the Land Register serves,

among others, for the following purposes:

- Protection of real estate rights.

- Protection of the environment and cultural heritage.

- Tax and Fee Targets.

- Real estate valuation.

- Statistical, scientific and economic purposes.

- Territory development and creation of new information systems.

The Land Registry is managed through computer resources and the cadastral area is its basic territorial unit. The cadastral facility is a set of geodetic and descriptive information.

The main types of listed real estate are:

- Residential and non-residential units.

- Plots (parcels).

- Temporary constructions.

- Construction right.

- Buildings covered by a special law.

- Buildings that are connected with a fixed base with the ground and are not part of the land.

The Land Registry must comply with several primary principles that we will not discuss in this paper in more detail. Through the employee of the cadastral office, every person has the right to look into the public register and extract extracts, copies or sketches (Dušek, 2015). There is also access to the CN through the Internet. A chaotic novelty is, for example, the viewing of the cadastre using the portal www.mapy.cz. If we enter the address of the property, we will automatically offer you a link to the cadastral data.

2.2 Market sharing

According to the Real Estate Market Development Association (ARTN), we can divide the real estate market into several basic categories:

- Residential market.

- Retail market.

- The office space market.

- Industrial and warehouse real estate market.

- Tourism.

In this paper we will deal more closely with the residential real estate market. The tourism category mainly includes real estate for the purpose of short stay, such as hotels, spa complexes, etc.

2.3 Main subjects in the real estate market

According to Dušek (2015, p. 36), the real estate market can be divided into the entities involved in the market, the objects and the mutual relations between them. We consider real estate as property, specifically property rights to them. The two major entities that are moving in the real estate market are the sellers owning the real estate and trying to sell them, and buyers who want to buy the property. These two entities at the same time represent supply and demand.

2.3.1 Offer and demand

The buyer wants to buy a property to generate a benefit. Reasons may be several, for example, trying to get space for your own business (office, warehouse), or needing to find a suitable place to live. An alternative to buying a property is to rent it. The purchase price or rentals illustrate the eventual buyer's expense that he or she needs to cover the necessary space. Rational purchasers will then be deciding whether to minimize costs or maximize their benefits at a given cost. The size of the rent is therefore a sub-factor in the developed real estate market, which affects the demand for real estate.

Another benefit that property can generate for the owner is income, or property rental income. In this case, the acquisition of the property is a "investment" and the property can be described as an investment instrument. This type of instrument is mostly long-term and also less risky compared to other heterogeneous assets. And the return together with the risk of alternative investment instruments has a real impact on real estate demand. In some cases, the cost to the buyer is constructive in the case of the planned construction of the property. In addition to the purchase price of the property, the construction costs will be the main item. It is clear that demand is also dependent on price developments in construction work.

If the benefit of ownership of the property does not match the owner's needs, the owner decides to offer his property on the market. There may be several reasons, for example, the current property no longer meets the expectations of the production company, or the costs that

are closely related to the operation exceed the owner's capabilities. In the case of housing, the reason for this is the extension of the family or the inadequate location of the property. McElroy (2008, p. 69) argues that three major factors that the real estate investor should monitor and which are real indicators of supply and demand are the economy of a particular market. The first important indicator of demand is employment. If there are many jobs on the market, there will be candidates who will try to fill these vacancies. The fact is that employment affects settlements. As soon as everything else is of similar quality, real estate close to employment also has a higher demand. It is also important to assess the stability of employment. Another major indicator is the population. If there is a possibility to decide where an investment property can be realized, the busy location will be ideal. People often move to a place where appropriate employment opportunities are. They migrate to these regions for other reasons, for example because of their special personality or atmosphere. A typical example for the Czech Republic is Prague. And this place is the third important indicator. The position of the property is probably the most important factor in the investment. A good area is characterized by high demand and low supply.

2.3.2 Real estate agency

Real estate brokers play an important role in the real estate market. They are the intermediary between the seller and the buyer, concentrating at a certain time on a particular place the supply and demand of real estate. They earn their profits through the commissions paid to them by the contracting parties. Besides these intermediary roles, they mostly use their knowledge and experience for other real estate-related activities such as the transfer of ownership rights in the land registry, real estate management and valuation, or expert assistance in buying or selling.

2.3.3 Banks

The other entity that forms the real estate market is banks. Their main task is to provide loans to finance real estate. In the Czech Republic, the role of mortgage banks, which are banks that the Czech National Bank has granted to this function, are important. They mostly offer so-called mortgage loans. More specifically, we deal with mortgage loans in the chapter on real estate financing.

2.3.4 State

An important role in the real estate market has the state. It forms the legal environment, sets rules for the protection of the rights of owners, tenants, etc. Through the tax system it has a significant impact on the real estate market. Real estate is often a popular subject of taxation and a low tax risk leakage. The state often has an impact on real estate prices through direct regulation, for example in the Czech Republic, it regulates the maximum rent for a certain category of tenants (Dušek, 2015).

2.4 Global real estate market development

Loans with low interest rates and profit in the vicinity of low returns on alternative assets encourage both investors and households to buy real estate. The relaxed conditions in monetary policy that persist globally strongly motivate the price recovery of both commercial and residential real estate. It is true that residential real estate is notably regionally specific, but the renewal of the price increase relates to a large number of countries, as can be seen in the following charts. The first shows property prices in developed countries, the second represents real estate prices in the Central and Eastern European region. Both charts are in real terms.

In the third quarter of 2016, house prices in Central and Eastern Europe grew fastest. In Latvia and Hungary, prices grew by more than 10% y / y. In Slovakia, Bulgaria, Estonia, Romania and the Czech Republic, housing prices grew by approximately 7%. The smallest growth was recorded in Poland, about 2%. In addition, in some countries of this region, real estate price growth is accelerating.

From the developed countries of Europe, housing prices rose fastest in Sweden, Portugal, Ireland and the UK, by 7 to 9% year-on-year, however, with a declining pace. The decline in house prices was recorded only in Italy and Cyprus. Prices in France, Finland or Croatia were very slightly rising (ARTN, 2017).

During the financial crisis, real estate prices have not been adjusted in some countries. Values of residential properties are considered overvalued, as in Sweden or Belgium. In these countries, the growth rate of all housing loans is making the household debt so obvious. Loans that were provided for housing had looser credit standards in the past. An example may be the relatively high value of loan to value (LTV) or deferred principal repayment. Under these circumstances, reducing systemic risk requires long-term and gradual tightening of

credit standards.

There are also several countries where there has also been no reduction in prices during the crisis and in which property prices are still equilibrated or possibly slightly overestimated. Complications for assessing the development in these countries are markedly higher price increases in several large agglomerations or major cities than in neighboring regions of the country. A typical example can be Austria or Germany. The Austrian central bank assesses property prices in Vienna as being overvalued by almost twenty percent, while in other parts of the country it still records them as being slightly underestimated.

Analyses in these countries also point to the fact that the bulk of real estate purchases for rising prices in large agglomerations and capital cities are made by buyers, from their own resources. And these buyers are often foreigners. From the point of view of the risks to the stability of the financial system, the relatively high level of debt financing of other real estate that is purchased on credit is relatively significant. For Austria or Germany there is a typical low level of ownership housing. The increase in loans for housing is gradual, and the credit standards are moderate. That is why certain national authorities do not want to push for stricter regulatory measures so far (ARTN, 2016).

However, in 2016, the European Systemic Risk Board (ESRB) proceeded to assess the risks associated with exposures secured by residential real estate. This was done on the basis of rising property prices and growth in lending activity. The result was a warning to some countries where progressive risks were noted in the indicators, namely Belgium, Luxembourg, Austria, the Netherlands, Denmark, Sweden, Finland and the United Kingdom (ARTN, 2017). Real estate price growth rates are different in countries where prices have reached a cyclical floor fairly recently. For example, in the UK and Ireland, residential property prices are considerably rising. In the Czech Republic or Slovakia, their price increase has so far been negligible, but there has been a significant increase in housing loans over the past two years. This growth was one of the highest in the EU, as outlined in the following graph.

Figure 1: real estate price growth rates
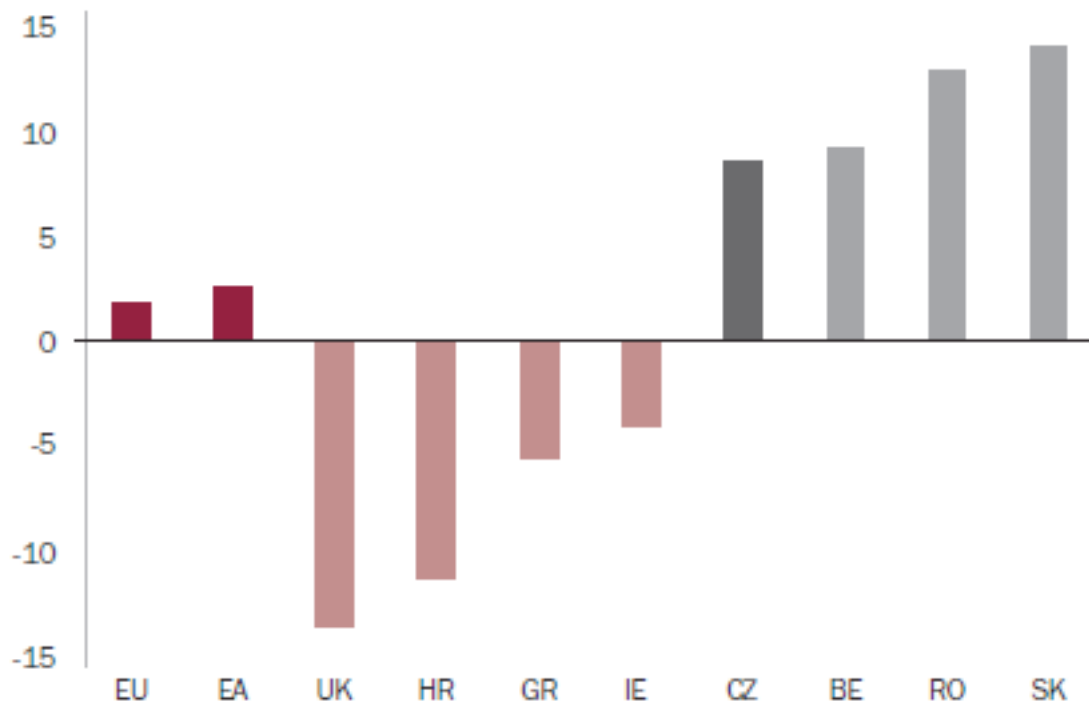
Growth in housing loans in countries with the lowest or the highest growth rate (annual growth in%)

Source: ARTN, 2017

National authorities in several countries have decided to take regulatory action, or national recommendations on granting housing loans. The reason was the fear of a possible loophole between real estate prices and an increase in housing loans. These measures are mainly of a preventive nature and aim to suppress the subsequent increase in the risks associated with these loans. Regulation has two main types of instruments. The first type is a measure that seeks to reduce the benevolent provision of mortgage loans by banking institutions. An example is the provision of high credit in relation to the assessed value of the pledged property, the low-income, the overdue loan repayment or the longer-term maturity. The second instrument is capital regulation, which makes it possible for national regulators to determine the obligation for banks to generate higher capital buffers for newly granted loans. The Czech National Bank (the Czech National Bank) (ARTN, 2016) is also publishing a similar stance.

2.5 Development of the residential real estate market in the Czech Republic

To monitor the evolution of housing prices, two indexes from the data of the Czech Statistical Office are used in the diploma thesis. This is an index of realized and bid prices of

apartments.

The input data for the index of realized apartment prices stem from the database of the Ministry of Finance of the Czech Republic, which is formed by the tax authorities through tax returns, namely real estate transfer tax, new taxes on the acquisition of immovable property. This implies that the prices are actually awarded or real. The main goal is to create a net price index, that is, one that will not contain qualitative transformations over time. The individual price indices are calculated on the surface of the x region of the municipality according to size x zone of wear. Wornness is meant in the sense of technical and moral and the unit price is cleaned by the coefficient of the normal equipment of the building. The basis of the prices was 2010 (100 = average 2010).

Further information is provided by the indices of bid prices for apartments. Their calculation is simpler and results from bid estimates, which are broken down quarterly and by region. The price index for Prague results from the development of the prices of 46 cadastral territories the index "CR without Prague" was derived from the price development of large municipalities with over fifty thousand inhabitants and from several municipalities of medium size (10-50 000 inhabitants). Since 2007, quality criteria have also been introduced. Weighing scheme results from the likely structure of the supply of apartments on the Czech market and it was also necessary to define the dimensions between the offer of old and reconstructed or new flats. The basis for the distribution of the scales was the number of flats by sub-categories, social, demographic, economic factors and various dispositions (construction of new buildings, housing stock, reconstruction, location, migration and population distribution, real estate market activity, etc.), (CSO, 2016). In 2015, housing prices gradually grew, linking to the growing trend of the year

2014. This was mainly due to higher economic activity, better situation on the labor market and the non-interest and credit component of the loan credit standards that were provided for housing. Any price index recorded growth and a large number of them registered the highest growth rate since beginning of 2009.

The flat rise in prices was recorded in 2015 as well, for a variety of pricing indices, and for different locations (Prague with respect to other regions of the Czech Republic).

The data show a relatively higher growth in supply prices relative to the prices realized and with a slowdown in the rise in the price of flats in the Czech Republic compared to the metropolis. In The pace of growth accelerated further. In addition to the continuing growth in economic activity, the labor market and credit activity, the main factors are the low supply versus high demand and the related problem with the construction of new real estate (ARTN,

2016; ARTN, 2017).

The average bid price of new free apartments in Prague at the end of last year grew by 10.6 percent to CZK 106,100 per square meter. The rate of growth is similar to a year ago, when apartments increased year-on-year by 12.4 percent. The number of available apartments in the developers' offer at the end of the year grew by more than a third to 6114. In recent years, the Prague property development market has been significantly influenced by projects for the reconstruction of apartment buildings. Currently, they account for 22 percent of all free housing on the market. The parameters of these apartments are quite different from typical new buildings.

Table 1: Average price of new flats / m2 in Prague by city districts

Part of Prague	Average price per m2 (in CZk)	Year-on-year change (In %)
Prague 1	189 800	-10,1
Prague 2	134 500	11,1
Prague 3	100 400	2,4
Prague 4	97 900	30,1
Prague 5	109 100	3,9
Prague 6	122 500	-1,3
Prague 7	103 200	4,3
Prague 8	113 500	9,1
Prague 9	91 900	22,4
Prague 10	91 700	13,8

Source: *Deloitte*

The average prices of apartments in Prague are very variable, according to city areas.

The highest prizes can be seen in Prague 1 and Prague 2. Very lucrative area is also Prague 6. Remarkable is the fact that since 2014, the prices of new flats have rise in Prague an average of 38%, which was highlighted, among other things, by Deloitte's partner

Miroslav Linhart, who participated in the Investment Forum in June 2017. In the developers' price list, by the end of the first quarter of 2018, the apartments are on average on average CZK 96,000 per square meter, which is a huge sum. The real estate market is currently under great pressure, developers are growing almost every month, as they overtake their sales plans and, by increasing the price, dampens this demand while maximizing profits. In addition to residents, there is growing interest in foreigner investors who are able to buy apartments in cash and are not dependent on mortgage loans. Stricter regulation by the central bank than this view is losing meaning and focusing only on a certain part of the market. The demand side is from 50 % are made by buyers, who do not want to use the real estate for his own housing, but he is interested in investment character. The main reason the rise in housing prices is not only increasing demand. This is a logical consequence the natural cycle and the growing population in Prague. The fact is that the offer the party is lagging behind and the construction

of the dwellings is slow (Investiční web, 2017).

2.5.1 Construction of flats

Another factor in the rise in property prices is a small construction. Specifically in Prague this situation results in record high prices for new apartments. It is also due to the long process of construction permitting and overall administration, which, according to some experts, is unnecessarily complicated and time-consuming.

Combined with other factors such as increased demand and record low mortgage interest rates, there is a threat of creating a real estate bubble and overheating market.

Figure 2: Started and Finished Apartments in Prague by Quarter 2013 – 2018 (red line started, blue line: finished apartment in units)
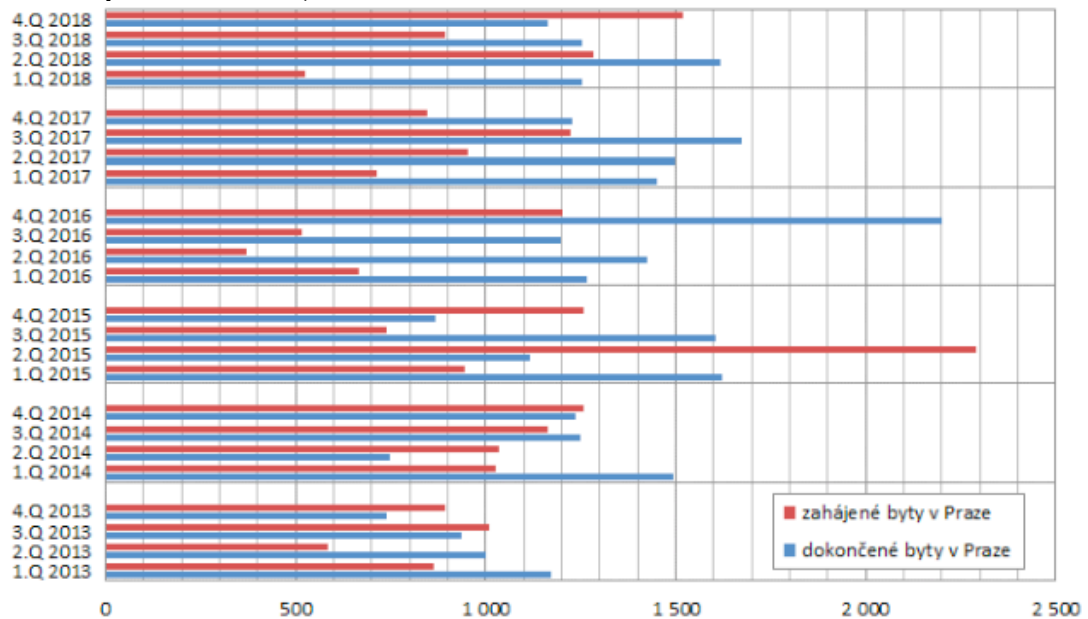
Source: Czech statistical office

Construction of 4 218 dwellings started in 2018, which is a year-on-year increase of 13%. At the same time, the number of completed dwellings decreased by 9.5% and the number of building permits granted by 21.5%.

2.6 Started habitation

In 2018, she was in Prague. The construction of 4 218 habitation started in Prague, which represented an increase of 13.0%, compared to 2017, respectively. 484 more habitation started. Prague was thus different from the national average, where compared to 2017, the

number of started habitation increased by only 5.1%. In comparison to the number of started habitation, Prague was in third place, behind Středočeský (6 284 dwellings) and Jihomoravský (4 406 habitation) the region. The last place was the Karlovy Vary Region, where 630 apartments were opened. The largest increase in the number of started habitation occurred in the Vysočina Region (28.5%) and the Ústecký Region (27.4%). Conversely, the Olomouc Region recorded the largest decline (-15.3%).

As far as the type of construction is concerned, the major part in Prague was new construction (3,553 started habitation) than the change in completed constructions (665 started habitation). According to the type of construction, more habitation in multi- habitation buildings (3 115 including superstructures, extensions and extensions), were traditionally started, and the year-on-year increase was 9.1%. 559 flats incl. of extensions, extensions and, unlike residential buildings, it was a year-on-year decrease of 17.2%.

Figure 3: Availability of housing - the price of the apartment expressed as the number of annual salaries (2016)

Země	Cena bytu vyjádřená počtem ročních platů
Česká republika	10,9
Velká Británie	10,0
Izrael	9,6
Francie	8,0
Maďarsko	8,0
Slovinsko	7,9
Polsko	7,7
Irsko	6,5
Itálie	6,4
Rakousko	5,8
Portugalsko	5,5
Dánsko	5,4
Belgie	5,3
Španělsko	5,1
Německo	4,7
Nizozemsko	4,4
Průměr	**7,0**
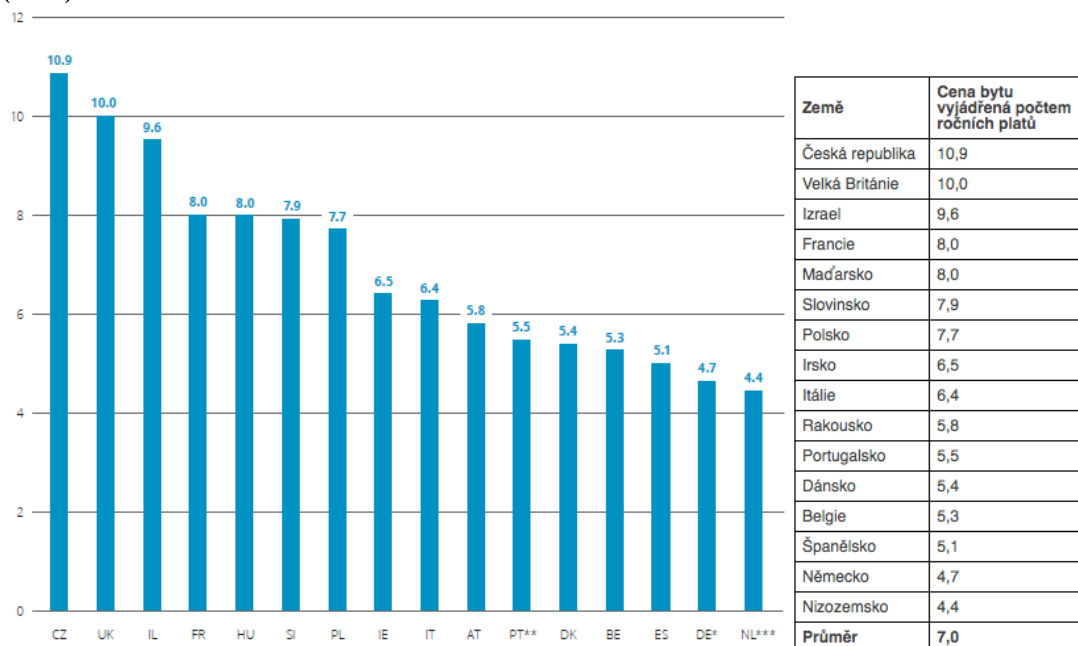
Source: Deloitte

Very interesting is the study by the Deloitte Property Index on the availability of housing in the Czech Republic compared to other countries. Czech inhabitants are forced to earn new housing longer than others fourteen European countries and Israel. The figures include the numbers of the three largest cities in the Czech Republic - Prague, Brno, Ostrava. Every year the study proves that the apartment is average size 70 m^2, Czechs have to spend 10.9 gross average wages. In compared to the second-place British, is almost the entire annual salary in

addition. At the same time, the lowest interest rate was recorded in the Czech Republic in 2016 mortgages compared to other European countries, on average about 1.77% (Marečková, 2017).

Table 2: Housing construction, dwellings completed in region: in 2018

Housing construction, dwellings completed: 2018

Period	Total	Index	In family houses	Index	In multi-dwelling buildings	Index	In all types of extensions of			
							Family houses	Index	Multi-dwelling buildings	Index
2018 - 1. čtvrtletí / Q1	6 907	118,9	4 154	127,6	1 903	118,2	154	101,3	209	52,5
2. čtvrtletí / Q2	8 006	114,7	4 401	126,2	2 514	98,2	166	111,4	456	162,9
3. čtvrtletí / Q3	8 391	120,2	4 550	125,2	2 730	119,3	163	105,8	313	77,7
4. čtvrtletí / Q4	10 564	120,1	6 051	126,2	3 178	113,3	213	91,0	312	97,8

In community care service homes	Index	In non-residential buildings	Index	In converted non-residential rooms	Index
40	35,1	173	332,7	274	119,7
3	6,7	104	83,9	362	107,1
224	800,0	113	156,9	298	74,1
51	85,0	270	252,3	489	102,9

source:ČSÚ

In this table 2, we can see housing construction during the year 2018 in quadrants. There is show the biggest boom was it at the end of the year where was it total 10 564 apartments finished. It has many reasons from finish the long invest or government need push out their finance at the end of year. There is divided into the groups like family houses, multi buildings, in community care service homes, residential and nonresidential. The highest number is in family houses where was it at the end of the year 2018 in last quart 6 051 units. Since January 2018, an amendment to the Building Act has come into force, which has brought a number of changes to the building law. From the amendment, the Ministry for Regional Development promises to simplify the changes to the land-use planning documentation, to reduce the deadline for attacking the land use plan, to extend the deadline for towns and cities to acquire new land-use plans by two years, simplified procedures and joint procedures for territorial planning, etc. Whether these changes will lead to the declared goal of speeding up and simplifying permitting processes, and of course it will prove to be in

practice.

Another major issue in 2018 is GDPR (General Data Protection Regulation), the General Data Protection Regulation, which entered into force on 25 May 2018. Its purpose is to increase the protection of personal data, to lay down rules in relation to processing and moving this data.

2.6.1 Predictions

The development of the residential market will depend primarily on macroeconomic developments the situation and circumstances surrounding mortgage loans. Prediction of price growth in the future offers many uncertainties. Primary hypothesis may be the primary guide the stress test scenarios, which the CNB regularly compiles on a regular basis Financial Stability Report (ZFS).

Figure 4: Real estate price scenarios (maximum 3Q 2008 = 100), pink full line basic scenery, blue full line real value
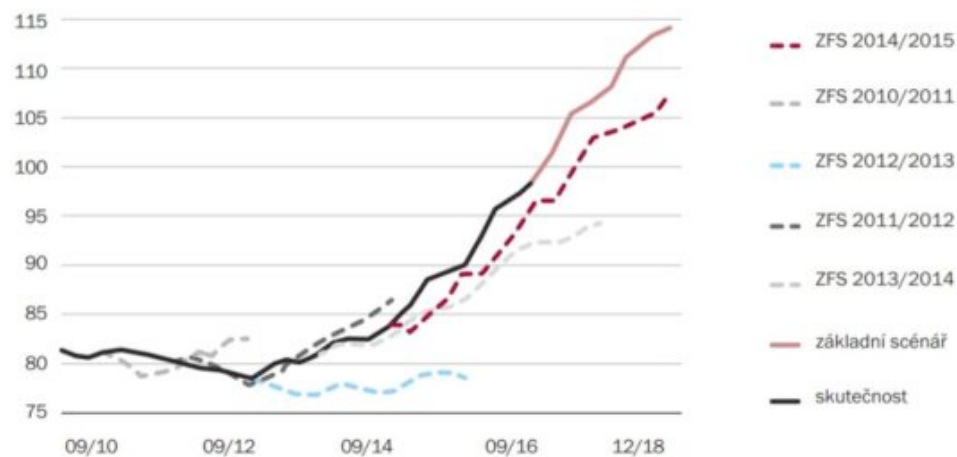
Source: calculations CNB, ARTN, 2017

These predictions have predicted a certain recovery in the market over the last three years real estate that actually took place. However, this recovery rate was higher than predicted. A major contributor to this was the improving situation in the labor market and a clear decline in interest rates on the use of housing loans. However, it is possible that this reflects also the unfunded factors of the rise in property prices, such as self-fulfilling expectations, crowd psychosis or other reasons psychological-behavioral nature. The CNB stress tests of December 2018, which are based on macroeconomic assumptions, explain certain conclusions. According to the scenario, we can assume dynamic by the end of 2018 increase by about 10% and then, in 2019, growth should slow down to a level 7.5%. This prediction

takes into account the fact that historic ties will be preserved between indicators. The rate of rise in property prices should again moderate legislative changes, such as the CNB's stricter recommendations for provision mortgage loans. But the question remains whether these regulations really make a market (ARTN, 2018).

3 Real estate investment

3.1 Direct and indirect investment

The real estate market can be primarily invested in two ways. The first option is to invest directly through the purchase of physically tangible property. This traditional we will use the method to explore the main purpose of this work and to more closely describe it we will analyze it. Investing through a direct purchase of an apartment is associated with a relatively high demand for money that the investor must have, or have to borrow it.

The second is indirect investment, which will not be the subject of this diploma thesis, but it should be mentioned. Indirect investment offers several benefits that a number of entities would favor this way before buying a flat. There is no need for high initial investment and time requirements at purchase and communication with the authorities is not there. Another factor is illiquidity and the need for governance. We can use our indirect investment in real estate the following tools:

- Real estate investment trusts (REIT).

- Investment funds.

- Mutual funds.

- Shares of companies in the real estate sector.

A real estate trust is an investment company with a legal form of business that is based on the objective of investing in real estate or related assets.

A great advantage of this tool is portfolio diversification, liquidity, profitability and the inflationary treatment. The company must pay 90% of its income as dividends that are volatile.

Real estate funds own and predominantly also manage real estate with the aim stable and long-term earnings. They are intended for investors who are trying to gain the advantages of investing in real estate, but they do not want it directly owned or managed. This is another option to diversify the portfolio and the likelihood of liquidity, since the unit certificate can be

sold relatively quickly and easily.

Investment funds provide a fairly stable return, which is compared with bonds higher. Own real and tangible assets, their income flows from regular rents and eventual real estate price rises.

Another possibility of an indirect investment is to buy shares of companies that do business in the real estate sector. These include, for example, construction or development companies, through the construction and sale of these properties, capitalize on their capital.

The advantage is low initial investment and liquidity. Relatively high returns are even higher risk and volatility. Great potential offers in the period economic, development and investment growth (Ondra, 2015).

3.2   Investment timetable

The basic criterion that an investor should set out at the outset is investment horizon. This is the period we own and manage the property.

The investment horizon may not be limited by the maturity date of the mortgage, which we take for the purchase of real estate. Jankovský and Korec (2014), two primary types of the investment horizon. This is a short- which lasts 5-10 years, and long-term with a duration of 20 years or more.

For risk-free and early valuation, the investment horizon of 5-10 is the most appropriate flight. The main reason is tax advantage. All the properties that are in personal ownership, the investor can sell after 5 years at the same time pay 15% income tax. Another reason is wear and tear real estate. The 10-year upper limit is indicated as indicative. The investor should to begin by guessing how good a real estate is buying and whether it makes sense to it to invest a certain amount of funds in order to subsequently evaluate it.

If we know that the property will be sold again in a few years and at the same time we want to earn, we must maximize returns at the beginning. Subsequent sales must be timed correctly and done before they begin to appear increasing costs. The advantage of real estate is immediate yield.

Higher cost comes after a certain time. The real estate market is very attractive.

If we buy an apartment at a very favorable price, we will not have it in the future the problem of finding a buyer.

The long-term investment horizon is suitable for those who plan to buy an apartment for their offspring or want to get old. It's possible for 20 years or more to rent the flat and then to own

a property that is not burdened with a mortgage. After this time, however, the property will definitely lose to general standard and partial reconstruction are obviously not avoided. Changes can also occur in the location where we purchase the apartment. When choosing, we devote these to these attributes a lot of attention. Lux and Sunega (2006) report that the real estate market also affect groups of short-term and smaller investors. Their goal is to acquire the property as cheaply as possible under the price determined by the market and consequently it in a short time, sell again with the highest possible profit.

3.2.1 Investment strategy and long-term financing strategy

In the previous chapter, we have explained the term magic triangle and the factors that we need to analyze for each investment opportunity. At the same time, we mentioned that the investment cannot achieve high returns, security and liquidity, but that there is only a compromise between the factors. Depending on which factor we prefer, we recognize the following investment strategies:

1. Annual Revenue Maximization Strategy - The investor focuses primarily on maximum annual returns and does not take into account the growth or maintenance of the investment price. It is applied at a lower level of inflation, as there is no major depreciation of annual revenues and the investment will maintain in principle fair value. We will use this strategy for the practical part of this work. The price increase will not enter the final analysis but will be part of the work.

2. Investment price growth strategy - it is essentially the opposite strategy where the primary goal is to increase the value of the investment deposit and the current annual returns do not play an important role. It is suitable for a higher inflation rate, which, in turn, depreciates annual revenues, but also the future value of assets. For both strategies, it is necessary to take into account the different taxation of annual revenues and revenues from sales (shares or real estate).

3. Investment price growth strategy coupled with maximum annual returns - This is a combination of the previous two strategies. It is not very common in practice.

4. Aggressive investment strategies - this strategy serves risk-prone investors. These are investments abroad or in areas not yet explored by the market.

5. Conservative Strategies - Typical for prudent investors who are risk averse and less profitable. Investors often diversify risk through a suitable mix of investment instruments. (Examples are investment funds, government securities, etc.)

6. Maximum liquidity strategy - this strategy is characterized by low profitability and prompt conversion to money. It is used for frequent inflation changes and when the investor has to change his investment strategy or, for example, if he expects to lose funds in the near future. Investing in real estate is characterized by a high capital requirement, which forces the investor to decide on the financing strategy for this investment project. The choice of the appropriate strategy is influenced, for example, by the cost of capital, risk approach or capital market situations

3.3 Benefits

According to Jankovsky and Korec (2014), real estate investment is a number positive. In order to invest safely and safely, we do not have to depth study of qualified and expert materials. As small investors, we will have basic traceable information and logical consideration. Help can also be found with professional brokers with good references.

There is a huge amount of money in the real estate segment, like commodities, stocks and banking. However, it is not necessary in detail and on a regular basis in short periods of time to track market conduct and respond to its development.

The real estate market is relatively inflexible and the transformation affecting the value of the return on investment occurs at intervals of several years or decades. Another advantage is the fact that we decide on the investment and control it. The yield, which can be realized each year, can be more than 5% in rational calculations.

Real estate is tangible asset against inflation and large parts of demand are individuals who satisfy primary human need, and that is housing. This form of investment offers regular and a stable rental yield where the investor receives a certain amount of money each month. Setting the right conditions will ensure the same level of income even if the economic recession and crisis occur. A well-chosen property will keep its price and its value is likely to grow.

A great advantage is the possibility of self-financing. If we have available at least a small part of the purchase price and regular monthly income, it will not be a problem to obtain from the bank a loan in the form of a mortgage for relatively advantageous conditions and to leverage the so-called leverage effect. The properties have excellent variability and repayments can be adjusted to cover rental income with sufficient margin. By setting all parameters correctly, the investor can to acquire additional regular passive income.

3.4 Risks

Any investment with sufficient and satisfactory return has, in addition to positives, certain disadvantages and risks. This is also the case for real estate, so it should be briefed to specify them. The disadvantage is low liquidity, since the sale of the property can take place over a longer period of time. We need a relatively high initial investment, but we can get it through a loan. We need to maintain and manage the property in some way, which is time consuming. Risks include a decline in property prices, non-payment of rent, destruction or damage to an apartment and its equipment or some legal complications.

The huge advantage is the fact, that we can own most of these risks to completely erase or at least eliminate them. The risk of a drop in rent or price can be minimized by properly selecting the property.

Non-payment of rents can be avoided by a good pre-selection of candidates the lease, the proper lease and the required security in the minimum the amount of one monthly rent. We reduce the risk of vacancy notice period, effective advertising, or the use of quality real estate services broker (Jankovský, Korec, 2014).

3.5 Performance indicators

When considering any investment opportunity, it is advisable to determine and subsequently analyze individual performance indicators.

3.5.1 Money flow

According to Koreis (2017), each investor should be cash flow or cash flow to deal with. It's a very simple pointer that shows us everything monetary income and expenditure over a certain period of time. It is not essential purpose, it is important how much money has come and how much has gone. Cash flow is calculated over a shorter period of time, usually monthly.

Cash flow (monthly) = received money - issued money

If, for a given period of time, we generate a higher money income than the issue, we had a positive cash flow. When we had to, during a certain period to issue more money than we did, it was negative cash flow. Negative cash flow does not always mean a bad investment. However, we need to defend this circumstance by other indicators. If this is the point of view,

we risk unpleasant financial complications.

For renting an apartment, we must pay the negative flow from our own means. It means that the investment does not generate any extra revenue. One of the goals of this work is to find out whether we are investing in real estate it can bring income through appropriate rentals. At the same time we use a foreign source of financing using a mortgage loan, so monthly the mortgage payment will be a relatively important figure. It's just the flow of money the primary indicator of whether we have chosen the investment correctly. In the following table individual cash flow items are reported for renting an apartment.

Table 3: calculations of investment monthly

Received money
Rent
Issued money
Repairs fund
Management
Payment of the mortgage
Insurance
Property tax
Minor repairs
Cash flow

Source: Koreis (2017)

The only income we will generate for renting a flat will be monthly rent. We will not consider the payment of certainty at this moment. Much bigger representation has money issued here. Some items, such as repairers, insurance or small repairs can be omitted in the calculation. These expenses may be Lessor to include in the service charges that the tenant pays together with rent. However, we will include this work. Administration expense means in the case of long-term lease payment of a commission to a real estate agency, which will arrange a suitable tenant and all services. For short-term rentals it is a commission for the management company and for Airbnb.

3.5.2 Increase in value

This indicator has a long-term character and we can only use it after sales. In diploma work we will not study the increase in value, but it is worthwhile to mention it. From the investor's point of view, this indicator is very popular.

The goal is to sell a real estate with a profit, which means a higher selling price than the original price for which we purchased the property.

$$\textit{Value increase = sales price - original purchase price}$$

Big role has a number of factors that are mentioned in the next part of this work, at concrete choice of flat. There are questions like "how much" and "how fast" but it is far more important to understand why prices are growing, to estimate attractive locations and value-creating factors.

3.5.3 Debt reduction

At a positive cash flow, they are actually tenants who pay our installment mortgage loan. One of the cash flow items is also mortgage payment and this expense is paid from the money received for rent. In the end every year we receive from the bank proof of interest paid, and after deducting this amount from annual mortgage payments, we receive the amount of debt that the tenants paid to us during the calendar year from the amount due. This amount shows the increase in net worth.

$$\textit{Repaid debt (annual) = mortgage repayments (annual) - interest paid (annual)}$$

3.5.4 Net profit and sub-indices

The advantage of an investment is often judged by the net profit we have over the past year. In order to calculate it, it is necessary to analyse the following indicators that reflect it total traffic:

Total traffic:
- Gross income.
- Absence.
- Operating income.
- Operating costs.

Gross income indicates the total potential amount for the rent we will receive it during the specified period, most frequently during the year. It does not matter operating costs and vacancy.

The time we do not have a leased property, and we do not add any income, we refer to vacancy. It is expressed as a percentage and for it is appropriate to calculate the vacancy rate of 5%. Quality apartment management using a professional real estate agency, however, will allow us not to cross the border 2%. Operating revenue shows gross income, which is vacancy adjusted.

Operating income = gross income - vacancy

Operating costs show all the expenses we spend during operation real estate. These include, among other things, administrative fees, mortgage repayments, repairs, insurance, contributions to the repairs fund and property tax. In any case, where the mortgage payment is not include in the operating cost. If we deduct operating costs from operating income, we calculate net profit.

Net income = operating income - operating costs

Gross income

- Vacancy (5%)

Operating income

- Operating costs

The gross profit

Source: Koreis (2017),

3.5.5   Yield and return

The main and basic indicators of quality investment are the return (profitability) and return. In a simple way, we determine how long it takes we will return the invested resources and at what point will we start earning.

These indicators are closely related to each other and express an essential position investment.

$$\text{annual yield (\%)} = \frac{\text{profit}}{\text{own funds}} * 100$$

$$\text{return investments time (years)} = \frac{\text{own funds}}{\text{profit}}$$

We express the annual yield by the ratio of net annual profit and own funds, which we have put into the investment. We modify the result by multiplying it 100 and interpreted as a percentage. We will find the return time for the investment as a share of own funds and net profit.

It is important to mention that this is not a return on the total investment, but rather returns on own money (Koreis, 2017).

3.5.6   Taxes and insurance

Another obligation that an investor has in renting a property is an obligation to file a tax return every year. Interestingly, it offers real estate relatively large amounts of tax benefits. These features will not be analyze in detail in this work, however, anyone who is considering investing in real estate should consult them with a qualified expert. The property owner comes into contact most often with three different tax obligations.

3.5.7   Real estate tax

This tax is control by the Act No. 338/1992 Coll., On Real Property Tax land tax and building and unit tax. These are land registered in the land register, taxable buildings as completed or used buildings and civil engineering works and taxable units completed or used (Businesscenter, 2017). According to Jankovsky and Korec (2014), there is no real estate tax return complicated as other tax obligations. We only serve it if we landed the property in the past year, and it differs from other taxes, by that is paid in advance. For example, if we bought an investment fund in April 2017 we have to file a tax return by the end of January 2018 at the latest from real estate to the relevant tax office. By the end of May of the same year (2018) we then have to pay the assessed tax. If in 2018 already we do not have other

properties there is not need to re-submit the tax return.

In most cases, the tax return is only once. Tax already calculated of immovable property is then "only" once again paid back to the end of the may of a certain year.

The administration providing this tax is fairly simple and the detailed information for the calculation and completion of the form is available on the financial administration website. The basic formula of the calculation is as follows:

Basis of tax x tax rate x coefficient by municipality

For example, at a flat in downtown Prague, the tax base will be the size floor areas in square meters multiplied by a factor of 1.2.

In the case that the flat is also part of the plot, which extends over the built-up area, multiplied by a factor of 1.22. The tax rate for apartments is CZK 2 per square meter and the basic coefficient for Prague is 5 (Businesscenter, 2017).

Tax on the acquisition of immovable property since November 1, 2016, there has been a change in the rules for paying tax on acquisitions of immovable property, where taxation must be pay by the buyer. The law has so far paid taxes defined as an agreement between the seller and the buyer and in real practice it was mostly the burden on the seller's side. The amount of tax remains unchanged, and the buyer has to add four to the purchase price of the property percent. An important fact is that the decisive term for paying the tax is not the contract, but the application for registration of the change of possession of real estate on the cadastral office. For example, if property purchase contracts were closed in October 2017, but at the same time the transfer of ownership rights has not yet taken place, it will be an assessment of tax payments to decide on a new adjustment.

Another novelty that is relevant to this amendment and is not often presented is termination of the Institute of Guaranty. So far, he has guaranteed the seller to pay the taxation according to the buyer's legislation and if the seller did not realize the obligation the tax obligation to be fulfilled by the buyer. The main reason for these adjustments is according to Ministry of Finance certain simplification, a decrease in taxation arrears and improving their enforceability. So if the buyers are taxed arrears can be enforced in the extreme case in the form of executions newly acquired real estate. This change should rationally reduce prices offered properties because the seller no longer has to pay 4% tax. The persisting extreme demand, but price reductions will not yet allow (Hebnar, 2016a).

3.5.8 Taxation of rental income

Taxation of rental income is dealt with by, Act No. 586/1992 Coll., On Income Taxes. The basic criterion is whether a property is registered in commercial property or is the property of a natural person. In the first case, it is the taxation of income from business and other self - employment under paragraph 7 of the Income Tax Act. We are subject to the property of a natural person pursuant to Section 9 of the Income Tax Act.

We can quantify the tax base according to the law in two ways

Application of expenditure:

- Flat rate of 30%.

- Actual expenses.

If we rent more properties, we can only choose one option for spending. We then define the tax base as the difference between revenue and expenditure. Flat-rate costs can be claimed up to CZK 600,000, and the owner must also record all receipts and receivables that are related to the rent.

Somewhat more complicated, but also in some cases more advantageous, is the application of actual expenditure. In this way, the taxpayer can use the following

Expenditure items:

- Reconstruction, repair and maintenance costs.

- Cost of equipment (furniture, appliances, etc.).

- Depreciation.

- Repairs fund.

- Insurance.

- Mortgage interest.

- Commission real estate agency.

- Flat rate for transportation.

- Issuing a tax return.

- Real estate tax paid.

It is necessary to keep all records of income and expenditure in accordance with time order, which is quite laborious and time consuming. We must be able to prove to the tax office our expenditure related to the lease, even for a period of three years, in the case of a tax loss for eight years (Antoš, 2016).

We will abstain from this tax to analyse the return on the selected property.

Every investor should consider the benefits of these two spending options and choose the

right option.

3.5.9   Insurance

Another expense that we should pay attention to is insurance real estate. There are two basic types of insurance that we protect investment. These are real estate insurance - housing units and household insurance - total equipment. If we finance the property with mortgage loan, we can arrange the insurance as an addendum. When using an apartment as an investment with a subsequent lease, it is ideal to combine insurance so that we get the maximum insurance benefit in case of damage.

Ducháčková (2009) presents the following risks related to insurance:

- Vandalism and theft risks.

- Natural hazards.

- Water hazards.

- Machine risks.

Natural hazards couldn't be affected, including flooding, fires, storms, floods, earthquakes and explosions. Water-related risks include water damage from heating, sewerage or other water supply systems. Machine failures or accidents due to mistreatment or due to a technological error are classified as machinery hazards.

3.6   SWOT analyse of real estate market

3.6.1   Strengths real estate (internal)

The ability to adapt to change is one of the greatest strengths a property could rely on. It is also true that in general we can reveal a high level of conscience in the need for transhipment within this sector, even though some people are slower than others and do not understand it as a critical aspect and aspect of survival in the industry.

Real estate that does not take into account the need to adapt to change as a very important aspect can get to a very low level of productivity, leading to real estate leading to huge business failure. Changes in the real estate sector currently have a dizzying rhythm.

There are constant changes in the real estate sector at different levels: new fiscal and legal laws, changes in the conduct of potential clients, the markets that work today and tomorrow could collapse, devalued currencies and closed markets are all consequences of the region's political instability.

We should add infinite variables that could cause radical changes in the real estate sector.

- It is an investment asset that increases in value over time.
- It is less volatile (risky) than other investment assets particularly equities.
- The owner of a real estate asset has full rights over the asset and can add value to it through refurbishment and good management.
- It is used to hedge inflation risk and is a good store of wealth.
- Preferred collateral/security by financial institutions.
- There is no single market for real estate i.e. it can be traded at auctions or open markets by estate agents and surveyors.

3.6.2 Weaknesses of the real estate (internal)

The lack of training in the real estate sector is probably one of its mostly-known weaknesses and we are not referring here to the lack of education, but to the well-known scarcities in the development of individual abilities. We here remind of the individual lacks inside the real estate, which will be another element that affects the real estate in a negative way.

- Ownership rights cannot be easily transferred.
- It is a highly illiquid asset.
- It requires a large capital to invest in.
- Low supply.

3.6.3 Opportunities of the real estate (external)

The new ways of communication through Internet open a long list of possibilities for the real estate: starting with the social networks up to the new systems of communication. These are all development opportunities for the real estate.

Regarding the marketing level, there was never before so simple to achieve a brand development for a real estate. For example, for the adding of social media marketing for the real estate Branding, the actual real estate uses a huge number (millions) of potential clients.

- Global demand for real estate is strong and high.
- Real estate is poised for rapid growth.
- Potential to diversify into other sectors.
- New sectors offer great potential i.e. student accommodation or care homes.

3.6.4 Threats of the real estate (external)

This external fact can bring for the real estate market very big unexpected problem because it is connect with all public sector, where can come crises or big deflation and it can devalue the value of the real estate.

One of the threats can be change of investments methods to the other commodities than to the real estate like precious metal, stocks stop investments totally.

- Economic slowdown may affect demand i.e. periods of recession.
- Competition from other investment asset classes such as equities and bonds.
- Seasonal demand may affect prices

From this SWOT analyses I did strategy of the investment into the real estate commodity. The strategy is WO (mini-maxi), the strategy focuses on overcoming weaknesses so that opportunities can be exploited. It is about the eliminated the problems inside of the apartment like very precise reconstruction and good prepare contract what brings rest in next years with the tenants. And these small steps can bring max profitable from the investment to the real estate commodity. Now is possible use very high price of rents and demand of apartments. In my view this strategy is very practice in this type of investment. The real estate market is very stable investment place but it can be long way and it can be influence by many influences from other sectors of the business.

4 Real estate financing and mortgage market development

4.1 Sources of funding

An important role in buying a property is the way of financing. To invest we can use two main types of resources or a combination of them. It is the strategy focuses on overcoming weaknesses so that opportunities can be exploited. It is about

- Own resources.

- Foreign sources.

The use of own funds for total investment is not as common as buying real estate is a fairly costly process. In this manner financing can be the selling price of the selected property in some cases reduce. Own money are use by more prolific clients and investors, they have enough available means.

A vast majority of buyers use foreign resources, mainly by using them mortgage loans,

building savings loans or a combination thereof. These bidders do not have so much money available and need to invest lend. Current interest rates are at a very acceptable level and where appropriate setting the parameters is a convenient choice of loan.

4.1.1 Mortgage loan

Bonds Act No. 190/2004 Coll., Section 28, paragraph 3, defines the mortgage credit like: "A mortgage loan is a loan whose repayment, including accessories, is secured by a lien on the property, even if it is a dwelling when it is receivable of the loan does not exceed twice the pledge value of the pledged property.

The loan is considered a mortgage loan on the day of the legal effects of the lien right. A claim can be made to cover mortgage bonds of the mortgage loan or a part of it to be used only on the day of the issuer mortgage bonds on the legal effects of the lien

"Real estate must be located in the territory The Czech Republic or a state that is part of the European Economic Area space (Kurzy.cz, 2018).

The mortgage loan is permitted to the legal and physical persons. As a fence, the most commonly used real estate is used as a pledge.

However, it is possible to guarantee another property. Mortgages can be classified by several criteria. Primarily, they can be divided into two types:

- Purpose mortgage.

- Non-purpose mortgage (American).

A dedicated mortgage serves strictly for pre-defined purposes that provide needs housing. These are in particular the following:

- Acquisition of real estate or building land.

- Reconstruction, construction, repair or modernization of real estate.

- Repayment of a loan or loan for an investment property.

- Settlement of common property or inheritance.

A non-purpose mortgage loan, the so-called US mortgage, has no limitations about use and can be used almost anything. We can make this loan such as buying a car, traveling or studying. The loan is also secured real estate and interest rates tend to be higher.

Depending on the method of repayment, we divide the mortgage into:

- Annuity.

- Progressive.

- Degrading.

The most common way of repayment is an annuity, where the amount of monthly repayments for a period of time the duration of the loan is the same. For progressive options, the client pays lower monthly installments to begin and gradually increase over the years. This is not a very advantageous type of repayment and there is a slower debt repayment. The degressive way is the opposite progressive and the amount of repayments decreases over the period. The disadvantage is high here initial costs. On the other hand, the positive thing is that we will pay a smaller amount of interest.

The mortgage market is fairly varied. Institutions offer other varied forms mortgages, so it would be worth mentioning at least:

- Mortgage without proof of income.
- Australian mortgage.
- American mortgage.
- Offset mortgage.
- Mortgage for rent.
- Combined mortgage.

An important factor in choosing a mortgage is the type of interest. Interest expresses an increase in the loan over a given period of time, and the rate is stated as annual. The client will may choose either a variable (variable) interest rate that is dependent on the fixed rate of the CNB, or a fixed (fixed) interest rate that is after negotiated period unchanged. The fixed rate can usually be fixed for 1 to 15 years and some institutions even allow fixed rates throughout the installment period.

The mortgage can be claimed to an adult citizen of the Czech Republic and also a foreigner with a permanent or long-term stay in the Czech Republic. For the applicant, the bank mainly assesses the ability of the loan repayment, so called creditworthiness. Therefore, it requires documents that show the amount of income from employment, business, various social benefits or rental income.

Interested parties should have a good payment history.

Mortgage credit can be combined with other products such as construction or

Life Insurance. If the client does not have enough own savings, which institution nowadays, they can choose a combination of a mortgage together with building savings (Kreizlova, 2014).

4.1.2   Development of the mortgage market in the Czech Republic

In 2015, it was possible to record at relatively low interest rates the largest amount of mortgage lending over the past eleven years. Biggest the increase was apparent in newly offered mortgage loans. Year-on-year increase

The mortgages offered were very variable in partial months, over the past year

In 2015, the year-on-year increase was 32% on average and this growth will increase over time accelerated. There was a delay in dynamics only in January 2016.

Development however, interest rates can be which is due to the prevalence of longer fixations for newly granted housing loans.

In the Financial Stability Report at the turn of 2014 and 2015 Czech National

The Bank stressed that the consolidation of the economic recovery in Europe and the massive loose monetary policies with excess liquidity on credit balances institutions to create conditions for accepting greater risks or underestimating them.

Loans for real estate through banks are very high frequent source of systemic risk. They are able to contribute to widen the spiral between growth in property prices and loans, which are determined as resources to finance them.

If people have better access to housing loans, this is also reflected in prices real estate, which is gradually growing and indirectly affecting credit growth. Increases

With the average amount of a new loan and the demand for loans it serves as a source of financing for investment property. For this reason

In June 2015, the CNB decided to introduce some preventive measures for institutions, which loans they provide. Sub-recommendations contain prudent standards and procedures granting these loans.

One measure is, for example, setting limits for LTVs (loan to value), which means the ratio of the credit granted to the value of the loan property. The CNB also extends the recommendation in 2016 and 2017, which is detailed below. The main goal is to achieve better internal ones systems for risk management and institutional prudence. The CNB also holds opinions on the risks to the stability of the financial system through macro-prudential instruments. Already in 2014 our central bank deposited to all banks to create a 2.5% capital buffer equity capital and four largest banks have defined an additional capital reserve to cover systemic risk. At the end of 2015, the CNB resolved to set a countercyclical buffer rate level above zero, namely mainly due to the clear recovery of loans. Credit institutions thus have the obligation to create above-standard capital of 0.5% from the beginning of 2017 from

expositions located in the Czech Republic (ARTN, 2016).

At the end of 2016, the real estate market was affected by several factors simultaneously in a short period. It can be assumed that if these interventions have taken place separately or over a longer period of time; real estate market. This is an intervention by the Ministry of Finance on the acquisition tax real estate property, which is in the new wording paid by the buyer, the new law on Consumer Credit and Recommendations of the Czech National Bank under Restriction mortgage lending.

"What I think is creating long-term pressure on property prices is long a number of uncoordinated administrative interventions by the state in the wider meaning. They are tax, legislative and regulatory interventions that are fast in the sequence and mutual non-coordination they create from the real estate market unpredictable environment (Roček, 2017). "

4.1.3   Consumer Credit Act Amendment

The main objective of this amendment, which came into force on 1 December 2016, is unify the arrangements for providing loans, whether mortgage or non-bank.

And this mortgage loan has a significant impact on mortgage loans. After writing application for a mortgage loan, the tenderer should receive a short summary from the bank including all fees, costs and final cost of the loan. This calculation, which has been binding, the banks have provided earlier, including a monthly proposal repayment and interest rates. Newly, however, emphasis is placed on the administration of all information that is transmitted between the bank and the applicant. Thus, in practice, they differ proposals and promises of a "sub-base" character must now be in writing and are named as hints. A situation where clients bypass all banking institutions and with each separately write a multi-page loan application the necessary justification for the income and then all of that will be chosen here the right offer is quite unrealistic. An important fact is that banking

Institutions also record failed mortgage loan requests pending. This poses a certain risk to the applicant and some clients do this knowledge they do not. The bank's subsequent assessment of the creditworthiness of the applicant may be adverse.

Another change is that the client before signing a mortgage loan contract may use a 14-day cooling-off period and with draw from the agreement. During this period, the bank may not change the terms and conditions provided.

Perhaps the most significant change concerns the possibility of repaying the loan earlier.

Novel of the Act gives consumers the possibility to repay a certain amount of credit every year free of charge and for events of a serious nature, such as death, divorce or long-term illness, repay all credit at once (free). For other circumstances the maximum size of penalties that are set for early is reduced repayment (at most one percent of the repaid amount, a maximum of 50,000 CZK). This is attractive, for example, for the sale of real estate because of moving.

Most banking institutions have previously offered to pay for free up to 25% of the principal owed each year, but if the client wants to repay early the entire loan, so the subsequent sanctions would be in the order of hundreds of thousands.

Also new are the requirements for the applicant's creditworthiness. Companies that loans they offer, they are by law under greater scrutiny and their duty is entirely to verify in detail the income and expenses of the person interested in the loan and last but not least ability to repay the loan over a longer period of time. Simple templates and general the tables will no longer be enough and getting a loan will be for some bidders more complicated (Hebnar, 2016b).

4.1.4   CNB recommendations

In October 2016, 100% of mortgages that clients could use were permanently terminated to finance all property prices. Maximum LTV limit of 100 % was down to 95% after the recommendation of the Czech National Bank, and the banks started require at least 5% of other resources, if possible own savings.

The recommendation also applies to the volume of mortgages in the band LTV 85-95% may only bank negotiate 10% of full volume.

In early April 2017, the LTV limit was subsequently reduced to 90% and mortgage lending increased from 10% to 15% for the quarter and applies to mortgages with an LTV of 80 90%. What impact does the LTV limitation has? Loans that include higher LTVs are for clients more expensive. Banks are moving prices and trying to attract loan applicants.

Currently, about 90% to 100% of all LTVs are provided in the LTV band mortgages. So the first wave of restrictions has no extreme impact and is still here possibility to finance the rest of the mortgage by building savings loan. Harder however, the second part of the restriction (April 2017) will probably have an impact. It feels like it

Banks, and especially clients, as it is now being implemented in the LTV 80-90% band around 50% of the total amount of mortgages provided. Such amount of loans

it is difficult to fit into a quota of 15% of the total and rationally occur greater self-financing

co-financing requirements. The combination of these limitations along with greater client creditworthiness will have a big reflection on availability of loans for housing financing. As a result, it will probably be larger demand for rental housing and at the same time greater business opportunities for building societies that can help with co-financing (Svačina, 2016). Large amounts of new loans are provided to banks with quite high values DSTI and LTI indicators. The first is the ratio of monthly loan repayment and net monthly income and the second expresses the ratio of total credit to net income per year. These loans are often provided in less creditworthy applicants with lower incomes. If there are any shocks in the form of a decrease in income or increase interest rates, many borrowers would be in trouble with repayment.

Thus, the CNB is also preparing a restriction for these values by law. He wants to ability to determine the upper bounds of LTI, DSTI and LTV.

The average offer rate for mortgage loans with LTVs up to 70% in January decreased by 5 hundredths of a percentage point month-on-month. The GOFI 70 index, which we use to monitor this category of mortgages, fell from 3.11% in December to 3.06%. The same is true for the GOFI 80 index, which also fell by five hundredths of a percentage point month on month and its current value is 3.09%.

By contrast, mortgage loans over 80% LTV slightly increased compared to December 2018. The mortgage average of up to 85% LTV increased by 2 hundredths of a percentage point to 3.60%. GOFI 90 also grew by two hundredths, currently reaching 3.73%.

Figure 5: Development of mortgage interest rates
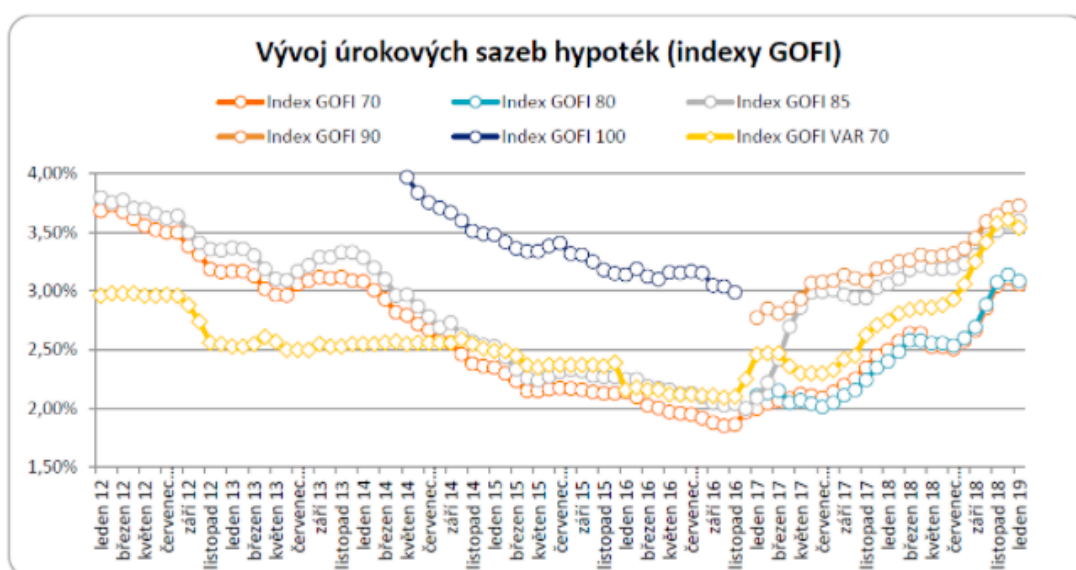
Source: GOLEM FINANCE, Patria.cz, banks (1/2012-1/2019)

The rates on the interbank market are now roughly at the level of April – June 2018 last year, when the average bid rate on mortgage loans was around 2.50%. Banks have now opened up a downward shift in rates, some of which have already been used in January and, given the highly competitive environment on the Czech loan market, we expect that the competition will not be left without a response. In February, if there is no significant change in the price of money, we expect a continuing trend of gradual reduction in mortgage rates.

Last year, the Czech National Bank raised its key interest rates five times. Last time she went up on November 1st. Of course, the rate hike was also reflected in the growth in interest rates on mortgage loans. Some banks made mortgages more expensive almost immediately after the announcement of CNB rate hikes last year.

Table 4: Mortgages in individual months of 2018

Months	Volumes	Numbers	Interest rates
January	16,503	7783	2,28%
February	15,96	7446	2,36%
March	19,247	9087	2,46%
April	16,871	7896	2,51%
May	16,757	7819	2,51%
June	19,38	9030	2,49%
July	15,386	7016	2,50%
August	18,788	8475	2,53%
September	20,805	9153	2,57%
October	24,284	10590	2,66%
November	19,495	8617	2,78%
December	14,935	6565	2,91%
SUM	218,411	99477	

Source: own table with data from: Fincentrum Hypoindex (volumes are in billion CZk, numbers are in units)

The highest volumes and numbers in 2018 were in October, when 10,590 clients concluded a mortgage loan for a total of CZK 24.284 billion. The highest rate was then in December. The interest in mortgages grew in October mainly due to another recommendation to limit the provision of mortgage loans by the Czech National Bank. While the new recommendations apply from October 1, 2018, the market is mostly lagging behind, and in October trades closed in September were still running.

Thus, since October last year, the mortgage applicant's debt should not exceed nine times its annual net income (the DTI indicator) and, at the same time, the debtor should pay a maximum of 45 percent of his monthly net income (DSTI). Banks can exempt five percent of

applicants.

5 Criteria and property selection

5.1 Location

One of the main factors in choosing a real estate and probably the most important thing is location. This criterion clearly defines its value. Jankovský and Korec (2014) argue that it is important to choose the right area, called macro locality, in which the investment will be best exploited. For macro locality, we would should to follow criteria that increase interest and attractiveness for market rentals.

The main one will be a clear job offer and its boom future. It should be an area with all amenities, where there is plenty of shops, services, schools, culture and sports. It is also important good transport accessibility. For Investigation and Investigation of Real Estate Investment the diploma thesis was chosen as the main macro locality in Prague criteria meet. From an investor's point of view, the property should be in a good location guaranteeing that its price in the future will not fall and that it will go at any time rent for adequate rent. What is important is also the so-called "micro locality", which is a specific part of the city. For this analysis, several city sections will be selected, which are attractive for long-term and short-term rent.

In some ways, the type of rental per site will vary, which will be reflected also in profitability. The following locations were selected to investigate the main target:

- Prague 1.
- Prague 2.
- Prague 3.
- Prague 4.
- Prague 6.

5.1.1 Size and competitive advantage

The most advantageous type of real estate is considered small-scale apartments with a size of 30-50 m2 and dispositions of 1 + 1 / KK or 2 + 1 / KK.

The reason is liquidity and relative yields. If the investor needed in the future suddenly to sell it, it will not be such a problem for him. At the same time it is after these the types of apartments currently have the greatest demand, both for purchase and for rent.

50

A smaller apartment can be sold even better with a possible mortgage, as a larger number of clients with a lower mortgage bank network. Another advantage of small apartments is diversification of territorial risk and cash flow risk. If it has the investor has a certain amount of money and is going to buy through a mortgage the property at the purchase price of CZK 5 million in the wider city center will be more rational to invest in two smaller apartments instead of one larger one. Above the mortgage will be the same, but the two small-size apartments will be income of rents slightly higher. If the tenant stops paying for some reason or terminate the contract, the investor will be unexpectedly free from the larger apartment rental income and repayment of the mortgage loan will have to be temporary financed from own resources. Two smaller apartments can be a large part of the investment to finance one of the apartments. If the investor takes two smaller real estate in two of partially different localities, it will reduce the risk of a fall in value caused by it negative transformation of the locality that it does not affect. The disadvantage of a smaller flat can be fluctuations of tenants may be more frequent. We chose an apartment to analyze the investment about 50 m2 and disposition 2 + KK.

Housing interests are looking for a complete quality of housing at an affordable price.

Apart from civic amenities and good transport links, there are several other attributes that can be competitive. They are for example:

- Location of the flat on the upper floor and its orientation.
- Peaceful the street.
- Balcony or terrace.
- Cellar.
- Lift in the house.
- Parking space or garage.
- View.

It is better to avoid the apartments located on the ground floor, near the entrance to house or only north. There is a security risk for ground floor flats and the rental price is lower than a comparable flat on the upper floor.

An exception may be an estate with a front garden or an elevated ground floor with a terrace. Restrictions on privacy and noise are the negatives of apartments located nearby entrance and busy roads, northern orientation means less daylight.

The balcony is an important minimum that attracts people. People are behind him willing to offer higher rents. Seamless parking is another a competitive advantage. Ideal if the apartment

belongs directly to the parking or parking slot. A major drawback is the absence of an elevator. It does not matter, of course for less lucrative flats on the ground floor.

5.1.2   Personal and cooperative ownership

For an investment property, the investor will only consider a flat in a private one property. Cooperative ownership means the risk that we only buy a cooperative share, not a flat. So it invests in a foreign one and the apartment house is in the Land Register registered as a whole, which is the property of the cooperative. This the type of ownership was popular in socialism as an alternative to ownership housing that was not so available. Disadvantages of cooperative ownership
They could be:
- Restrictions on property rights.
- The problem of market rent.
- Greater risks.
- Equality of voices.
- Worse liquidity and price.
- Worse terms of mortgages.

Property in cooperative ownership does not really belong to the buyer, but cooperative. The buyer is entitled to use the flat according to the foundations of the cooperative, on which he is however, its majority must agree. The risk may be a credit that you cooperative taken and for which it is the responsibility of housing units. If a complete failure occurs cooperatives, caused, for example, by long-term non-payment of rents by the majority flats, the owner of the apartment will come, even if he fulfilled all his obligations. The problem may also occur if the investor wants to rent a flat because he will need it team approval. If he intends to rent the apartment for a short period of time Airbnb platforms will most likely have a problem with the team by agreement. At the same time, the absolute equality of votes applies by law. Be in cooperative ownership is harder to sell and get on the real estate market mortgage from the bank is more complex. Nobody has the right to personal ownership to interfere with the owner's decision. Positive in cooperative ownership can be a different way of financing that is attractive to people with a problem proving income (Jankovský, Korec, 2014).

5.1.3 Specific selection and assumptions for the examination

For our investment plan we decided to buy an older brick apartment, in which we will complete a complete reconstruction. The main reason is high prices of new apartments. When searching a particular flat, we will use real estate services a broker who can help us find the ideal apartment for reconstruction.

We are considering the purchase of the flat during the 3rd quarter of 2018.

The housing unit has the following features:

- Older apartment before reconstruction.

- Layout 2 +kk.

- Useful size 50 m2.

- Higher floor.

- Balcony.

- Good transport accessibility.

Table 5: Average housing prices in Q3 2018

Locality	Brick in CZK / m2	New building (market) in CZK / m2	New building (offer) in CZK / m2
Praha 1	111 434	148 036	135 255
Praha 2	85 148	118 394	124 414
Praha 3	72 250	90 196	83 608
Praha 4	68 597	74 516	78 382
Praha 6	75 557	94 983	97 057

Source: Remax, own table

The table 5 shows the average apartment prices in the third quarter of 2018 by site and type of construction. The data is drawn from the cenovamapa.org site, which creates data according to contracts in the real estate cadastre and development offers.

These are the real prices of apartments in certain houses.

Prices for brick flats and new buildings are in market terms derived from purchase contracts received by individual land registers. So they are real prices for which apartments were sold. The offer price of new buildings expresses average development offers in Q3 2018. Price differences between brick and newly built apartments probably no surprise. It's interesting comparing new buildings at market and bid prices within the area.

Higher market prices are observed in Prague 1 and 3, while higher bid prices are in Prague 2, 4 and 6.

Based on these data, we have adjusted the older prices after the adjustment brick flats to which we will invest.

Table 6: Prices of investment apartments

District	Apartment price per m2	Price of apartment 2 + kk (50 m2)	Reconstruction and equipment
Prague 1 - Old town	115 000 CZk	5 750 000 CZk	500 000 CZk
Prague 2 - Vinohrady	86 000 CZk	4 300 000 CZk	500 000 CZk
Prague 3 - Žižkov	71 000 CZk	3 550 000 CZk	500 000 CZk
Prague 4 - Nusle	63 000 CZk	3 150 000 CZk	500 000 CZk
Prague 6 - Dejvice	72 000 CZk	3 600 000 CZk	500 000 CZk

Source: cenovamapa.org

In the locality we specified the city district where the investment apartment is located. We then adjusted the prices according to lucrativeness and include all of them acquisition costs (tax, fees, possible commission, etc.). Reconstruction and equipment will cost a total of half a million crowns. The apartment will be partially furnished different according to the type of use and type of lease.

Table 7: Summary of total investment and financing

District	Total investment	Own resources	Mortgage (LTV85)	Monthly Payment (3%, 30 Years)
Prague 1 - Old town	6 250 000 CZk	937 500 CZk	5 312 500 CZk	22 398 CZk
Prague 2 - Vinohrady	4 800 000 CZk	720 000 CZk	4 080 000 CZk	17 201 CZk
Prague 3 - Žižkov	4 050 000 CZk	607 500 CZk	3 442 500 CZk	14 514 CZk
Prague 4 - Nusle	3 650 000 CZk	547 500 CZK	3 102 500 CZk	13 080 CZk
Prague 6 - Dejvice	4 100 000 CZk	615 000 CZk	3 485 000 CZk	14 693 CZk

Source: Own calculations

We will finance the apartment with a mortgage loan. We have from our own resources 15% of the total investment. We choose Horizon long-term and repayment will be for 30 years. Average mortgage rates with LTV85 in the period investments were slightly above 2%, as is written in the previous chapter on interest rate developments. To simplify the calculation we will consider a fixed rate throughout the period we set at the level 3%. We chose a higher rate than the average, because we expect moderate growth in the future.

6 Long-term rent

In this section we will analyse the advantage of the long-term lease purchased real estate. In individual locations, we calculate the quality of the investment by established indicators. Long-term rentals can be used virtually anywhere, whether large regional cities or smaller residential areas. Those interested can be young people, students, families, seniors or individuals moving to work.

If we find a decent and long-term tenant, we will get a guarantee stable monthly income. Managing your home unit is not too time-consuming and minor repairs and service should be work by the tenant. Risk of damage or problems with non-payment of rent can be partially minimized due to certainty, which is usually paid by the tenant when signing the lease. In common practice, the amount of security ranges between one to three monthly rents.

The reconstruction of the apartment is set in order to offer a higher level of interest and a high standard of living. The target group for us will be a person or a couple who looking for comfort and is sufficiently competent. Therefore, a specific choice of tenant we will entrust to a professional real estate broker who has a portfolio of clients or good marketing tools. If we have a nice apartment in an attractive location, it is not a problem to get a candidate who is willing to pay a slightly higher rent than average statistics. Often it is about foreigners who are moving to Prague for employment. Specific prices for we decided to rent after consulting with REMAX Real Estate Consultants.

When calculating the flow of money in individual locations, there are some amounts of spending items are the same because we will consider the same type of property.

This is a fund of repairs that we set at CZK 1,000, insurance 300 CZK, property tax 50 CZK and small repairs 300 CZK. They are partly different management costs provided by a real estate broker. His commission is one monthly rent. We assume that the tenant will live in the calculation in rent for at least 2 years. If we divide the commission between the designated 24 months, we will receive individual financial amounts for property management.

6.1 Analysis by location

6.1.1 Prague 1

The rise in property prices also affects the amount of rent over the past two years is growing dynamically.

Figure 6: Average monthly rental price in CZk per m² for apartment 2 + kk, Prague 1
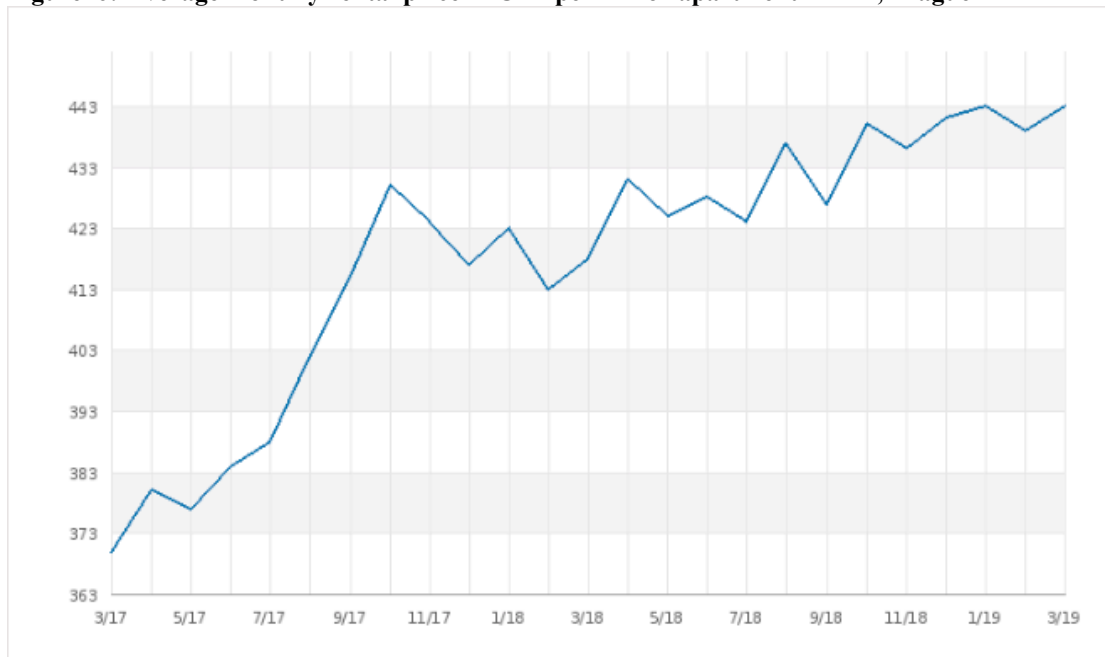
Source: Realitymix.centrum.cz

Table 8: Investment Apartment, Prague 1

Price of apartment 2 + kk (50 m2)	5 750 000 CZk
Reconstruction and equipment	500 000 CZk
Total investment	6 250 000 CZk
Own resources	937 500 CZk
Mortgage Amount (LTV85)	5 312 500 CZk
Interest rate	3%
Monthly installment	22 398 CZk
Due date	30 years

Source: own calculation

Table 9: Money flow, Prague 1

Money received	
Rent	31 000 CZk
Money released	
Mortgage	22 398 CZk
Management	1 200 CZk
Repairs fund	1 000 CZk
insurance	300 CZk
Property tax	50 CZk
Minor repairs	300 CZk
Cash flow	5 752 CZk

Source: own calculation

The table shows the sub-items of the cash flow, which during each month or we are taking it away. The only income comes from the rent they make CZK 31,000. This amount will cover all expenses, plus generates a positive cash flow of CZK 5,752. The largest item of spending is the mortgage payment. Prague 1 is the most expensive location in terms of purchase price. That's why it is there is a need to have more own funds available.

Table 10: Annual Performance Indicators, Prague 1

Gross income	372 000CZk
- Vacancy (5%)	18 600 CZk
Operating income	353 400 CZk
Operating costs	302 976 CZk
The gross profit	50 424 CZk
Yield	5,38%
Payback time	18,6

Source: own calculation

Table describes the annual performance indicators in Prague 1. Operating income at the 5% vacancy rate was CZK 353,400. Operating costs amounted to CZK 302,976 and total gross profit (before income tax) was CZK 50,424. When calculating the own funds we have invested in, we get a 5,38% yield and a payback period of less than 19 years.

6.1.2 Prague 2

Figure 7: Average monthly rental price in CZk per m² for apartment 2 + kk, Prague 2
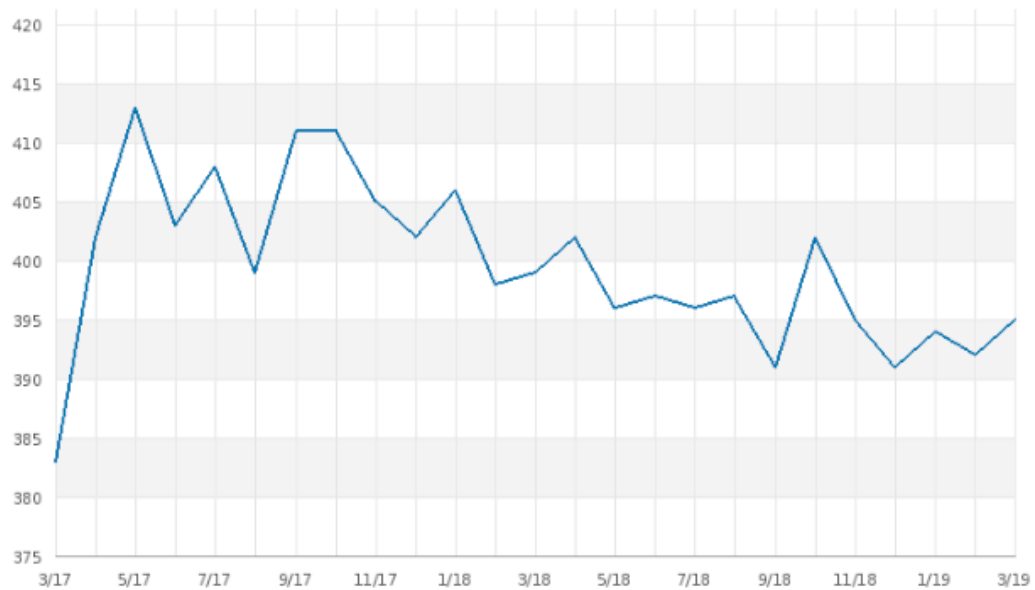
Source: Realitymix.centrum.cz

The graph shows the average price of renting an apartment with 2 + kk layout in Prague 2 according to statistics of Realitymix.cz. Throughout 2018, we see a downward trend with small deviations, which reached its low in September 2018. After that, it grew rapidly and fell again in January 2019. Prices have been rising again since February.

Table 11: Investment Apartment, Prague 2

Price of apartment 2 + kk (50 m2)	4 300 000 CZk
Reconstruction and equipment	500 000 CZk
Total investment	4 800 000 CZk
Own resources	720 000 CZk
Mortgage Amount (LTV85)	4 080 000 CZk
Interest rate	3%
Monthly installment	17 201 CZk
Due date	30 years

Source: own calculation

Table 12: Money flow, Prague 2

Money received	
Rent	29 000 CZk
Money released	
Mortgage	17 201 CZk
Management	1 200 CZk
Repairs fund	1 000 CZk
insurance	300 CZk
Property tax	50 CZk
Minor repairs	300 CZk
Cash flow	8 949 CZk

Source: own calculation

Table 13: Annual Performance Indicators, Prague 2

Gross income	348 000 CZk
- Vacancy (5%)	17 400 CZk
Operating income	330 600 CZk
Operating costs	240 612 CZk
The gross profit	89 988 CZk
Yield	12,50%
Payback time	8

Source: own calculation

The annual operating income here is CZK 330,600. Compared to Prague 1 they are operational costs more than 60 000 CZK lower, which is mainly due to the mortgage payment. We generate gross profit of CZK 89,988(before income tax) and the return on invested funds is high at 12,50%. Our invested money will be returned to us in 8 years.

6.1.3   Prague 3

Figure 8: Average monthly rental price in CZk per m² for apartment 2 + kk, Prague 3
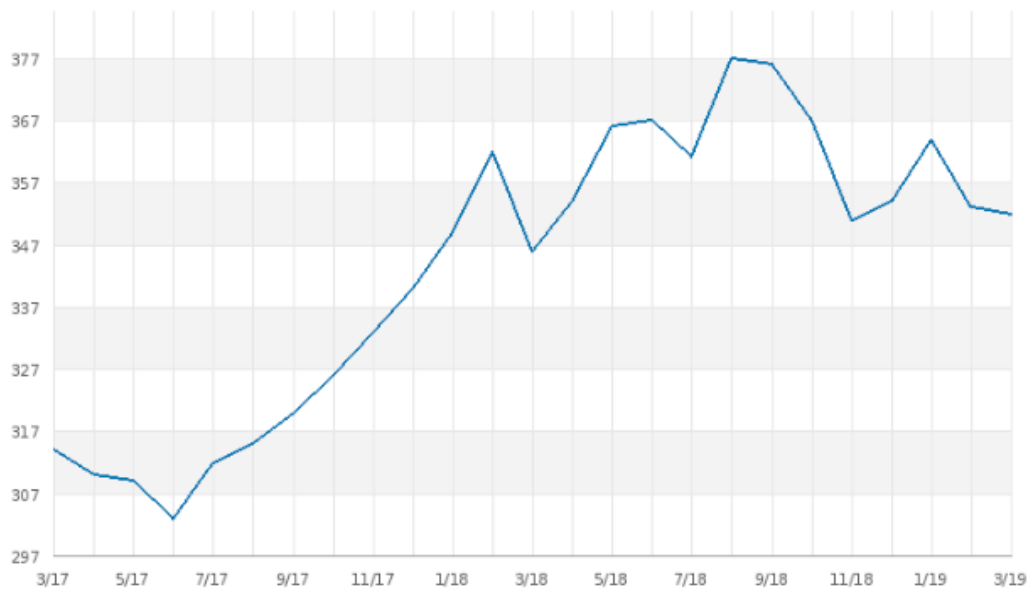
Source: Realitymix.centrum.cz

The average price of renting an apartment 2 + kk in Prague 3 again has a growing trend, which is described above. In recent months, the last months of 2018 and the beginning of 2019 are average rents around CZK 20,000 per month. In recent months, it is little bit a decline but it is a unit of hundreds of crowns.

Table 14: Investment Apartment, Prague 3

Price of apartment 2 + kk (50 m2)	3 550 000 CZk
Reconstruction and equipment	500 000 CZk
Total investment	4 050 000 CZk
Own resources	607 500 CZk
Mortgage Amount (LTV85)	3 442 500 CZk
Interest rate	3%
Monthly installment	14 514 CZk
Due date	30 years

Source: own calculation

Table 15: Money flow, Prague 3

Money received	
Rent	22 500 CZK
Money released	
Mortgage	14 514 CZk
Management	1 200 CZk
Repairs fund	1 000 CZk
insurance	300 CZk
Property tax	50 CZk
Minor repairs	300 CZk
Cash flow	5 136 CZk

Source: own calculation

Much lower investment than in previous locations is in the Prague 3 district. It also has the necessary own resources and a monthly mortgage payment of CZK 14,514. Rental income is CZK 22,500 and positive cash flow generates CZK 5,136.

Table 16: Annual Performance Indicators, Prague 3

Gross income	270 000 CZk
- Vacancy (5%)	13 500 CZk
Operating income	256 500 CZk
Operating costs	208 368 CZk
The net profit	48 132 CZk
Yield	7,92%
Payback time	12,6

Source: own calculation

The table describes the performance indicators of the investment apartment. The gross profit (before income tax) here is CZK 48,132, the return on invested funds is 7,92% and the payback period is 12.6 years.

6.1.4 Prague 4

**Figure 9: Average monthly rental price in CZk per m² for apartment 2 + kk, Prague 4**
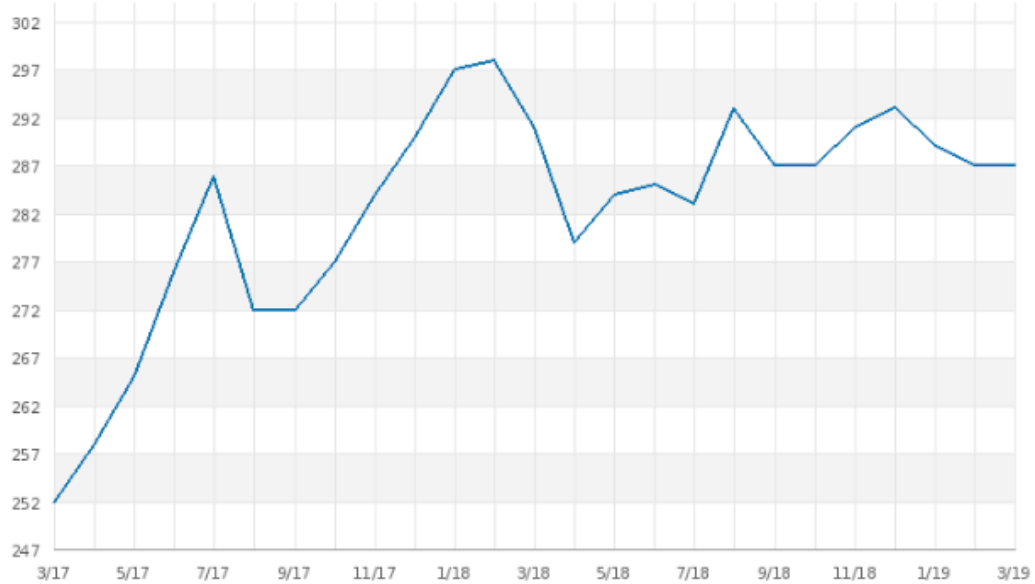
Source: Realitymix.centrum.cz

The graph illustrates the development of average prices in CZk for renting an apartment 2 + kk in Prague 4. Interestingly, from February 2017 to July of the same year, the rental price dynamically increased and something similar followed in the last months of 2017, now the development has calmed down and is in the middle of 2018.

Table 17: Investment Apartment, Prague 4

Price of apartment 2 + kk (50 m2)	3 150 000 CZk
Reconstruction and equipment	500 000 CZk
Total investment	3 650 000 CZk
Own resources	547 500 CZK
Mortgage Amount (LTV85)	3 102 500 CZk
Interest rate	3%
Monthly installment	13 080 CZk
Due date	30 years

Source: own calculation

Table 18: Money flow, Prague 4

Rent	21 000 CZK
Money released	
Mortgage	13 080 CZk
Management	1 200 CZk
Repairs fund	1 000 CZk
insurance	300 CZk
Property tax	50 CZk
Minor repairs	300 CZk
Cash flow	5 070 CZk

Source: own calculation

Within this location, our rental price differs quite significantly from the overall average. The reason is the location of the apartment, which in Prague 4 is considered in the cadastral area Nusle, namely in the excellent accessibility of the center of Prague around Albertov. The experience of real estate agents is such that in this area the apartment can be rented for a higher amount that is acceptable to workers in the center.

Recently, we may encounter the term "managerial apartment", which is designed for these purposes. However, the standard of living must also correspond to higher prices.

The purchase price of an apartment in this locality is the lowest compared to others. This implies a lower demand for own savings and a more acceptable mortgage payment. We generate in this apartment a monthly cash flow of CZK 5,070.

Table 19: Annual Performance Indicators, Prague 4

Gross income	252 000 CZk
- Vacancy (5%)	12 600 CZk
Operating income	239 400 CZk
Operating costs	191 160 CZk
The gross profit	48 240 CZk
Yield	8,81%
Payback time	11,3

Source: own calculation

The yield of 11,11% and the payback period of 11.3 years is an acceptable statistic for this part of Prague.

6.1.5   Prague 6

Figure 10: Average monthly rental price in CZk per m^2 for apartment 2 + kk, Prague 6
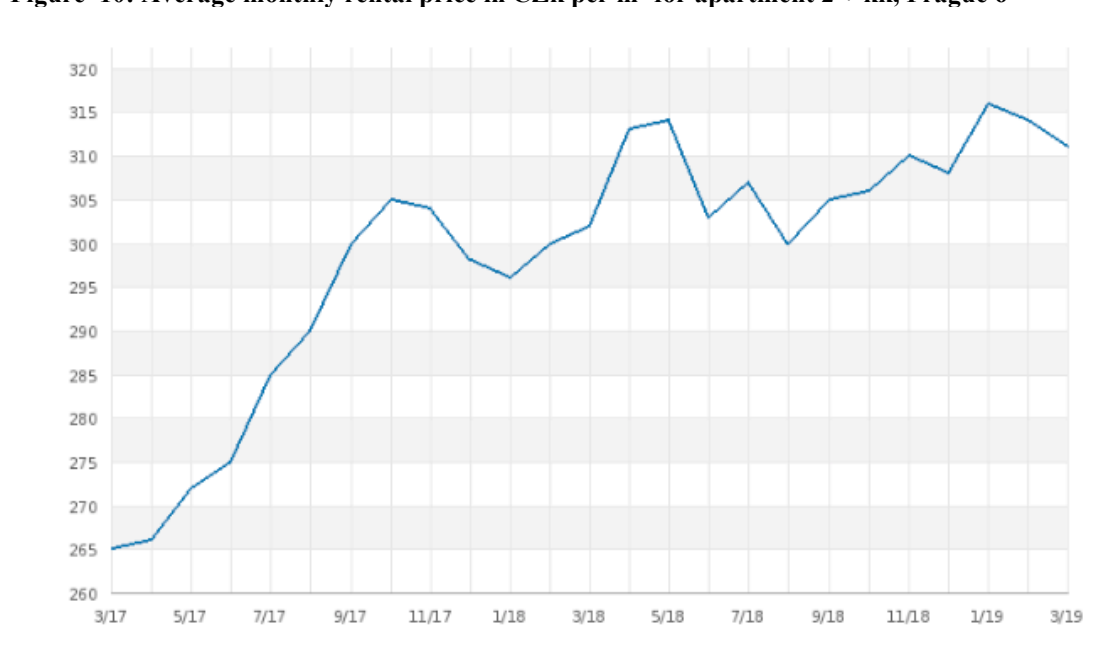
Source: Realitymix.centrum.cz

The average rental price of a two-room apartment in Prague 6 is currently it is about 19 000 CZK. This part of the city is now in its heyday. Investments in the around of the university in the town districts, completion of the Blanka tunnel and thus better serviceability of this part of Prague bring interesting investment potential.

Table 20: Investment Apartment, Prague 6

Price of apartment 2 + kk (50 m2)	3 600 000 CZk
Reconstruction and equipment	500 000 CZk
Total investment	4 100 000 CZk
Own resources	615 000 CZk
Mortgage Amount (LTV85)	3 485 000 CZk
Interest rate	3%
Monthly installment	14 693 CZk
Due date	30 years

Source: own calculation

Table 21: Money flow, Prague 6

Rent	21 700 CZk
Money released	
Mortgage	14 693 CZk
Management	1 200 CZk
Repairs fund	1 000 CZk
insurance	300 CZk
Property tax	50 CZk
Minor repairs	300 CZk
Cash flow	**4 157 CZK**

Source: own calculation

The table shows the achieved monthly cash flow investment in Prague 6, which is CZK 4,157. The rent is again slightly higher than the average, as we assume the location of the apartment at the attractive address of the cadastral area Dejvice with good transport accessibility. The investment in this area is high, but the rent is not as high as in a complete centre and therefore cash flow is not as high as in other parts of Prague.

Table 22: Annual Performance Indicators, Prague 6

Gross income	260 400 CZk
- Vacancy (5%)	13 020 CZk
Operating income	247 380 CZk
Operating costs	210 516 CZk
The gross profit	36 864 CZk
Yield	**6%**
Payback time	**16,7**

Source: own calculation

Operating income at a calculated vacancy rate of five % amounts to CZK 247,380. Including operating costs of CZK 210,516, the investment generates a gross profit of CZK 36 864 per year. A subsequent yield of 6% and a payback period of 16.7 years and therefore the investment in this location is not the most profitable.

6.2 Summary of results

Table 23: Summary of long-term rental results

District	Cash flow (per month)	The net profit (annual)	Yield	Payback time
Prague 1 - Old town	5 752 CZk	50 424 CZk	5,38%	18,6
Prague 2 - Vinohrady	8 949 CZk	89 988 CZk	12,50%	8
Prague 3 - Žižkov	5 136 CZk	48 132 CZk	7,92%	12,6
Prague 4 - Nusle	5 070 CZk	48 240 CZk	8,81%	11,3
Prague 6 - Dejvice	4 157 CZK	36 864 CZk	6%	16,7

Source: own calculation

The table shows a summary of the results for comparison. All long-term lease options generate a positive cash flow. In terms of regular income, the highest amount of money is providing by an investment apartment at Prague 2 - Vinohrady. This one also creates the best gross profit. Conversely, the lowest monthly cash flow of money generates property in Prague 6 - Dejvice. This is due to the high purchase price of the property with the associated mortgage and the relatively high cost of operating the apartment. The most favorable yield and payback statistics are in Prague 2 - Vinohrady. The lowest yield is achieving by the flat in Prague 1 and the lowest gross profit is providing by the flat in Prague 6 - Dejvice.

7 Short-term rental method

7.1 Short term rental method

The option of short-term renting is attractive if the apartment in question we offer interesting tourist sites and locations with great concentration people.

In this work we will focus on short-term lease of investment property through the Airbnb platform, which acts as a global boom. For this activities can be used by other applications on the same principle, eg Booking.com, HomeAway, Vrbo, HouseTrip, Flipkey and other one. Major benefits include premium rental earnings. Ten is derived from the number of nights we stayed. There are no risk debtors almost. The person interested in the stay pays the entire amount in advance at the moment reservation. This service offers accommodation only to those interested verified identity. It means that he sent a photo of his when he logged in personal document, which is subsequently verified. Any guilty person is so easy traceable. If we are not occupied, we can use it for private purposes.

Short-term rental also has its disadvantages. The overall report is very good in time

demanding. Occupancy is variable and there is a risk that in some months the property will be printed only partially. Another threat is disagreement with others owners or tenants who live in the house. Fluctuation of foreign people, who are mostly from abroad, may bother some of the neighbors. Because it is about the accommodation service in the framework of a business activity, it is necessary to own it business license, adherence to established rules and tax regulations.

Recently, the issue of regulation is being addressed in the next section.

7.2   Airbnb

This company was founded in 2008 in San Francisco, CA the purpose of shared accommodation. Through reliable and social the internet portal can search, offer and demand classic, and especially unusual accommodation locations around the world. Everything is done online and very simply through a computer, tablet, or mobile phone. Airbnb offers 66 unique travel impressions and experiences in several price sessions and enable people to benefit from untapped housing. Users can use this service in 191 countries and in more than 65,000 cities (Airbnb Inc., 2017a).

Friedman (2013) describes a short story about the platform they founded John Gebbia, Brian Chesky and Nathan Blecharczyk. Brian Chesky and John Gebbia shared their living in San Francisco. In October 2007, it was held here international designer conferences and accommodation capacities in local hotels were completely sold out. At that time they did not have enough money to pay rent and thought to offer potential prospects several places to sleeping in bed and breakfast. Unfortunately, beds were not available in addition, so to offer accommodation three common inflatable mattresses, English "Airbeds". For a more personal offer, they created a primitive website called "Airbed and Breakfast" and for a fee of eighty dollars per night they were really accommodated by three people who prepared breakfast in the morning and then they did the town. This has brought a unique idea for building global network of shared accommodation. From all over the world they began to ask questions when their service and website will be available, for example, in London, Japan or Argentina. They started to work on an extended version of this service and the whole project called Airbnb. Primary funding came from the founder own resources and through various loans from family members. Growth was not left behind long wait and start-ups with the help of the first investors.

The Airbnb Summer Travel Report (2015) said it was in the summer of 2010

47 000 nights booked and in 2015 the number of nights spent increased to 17 million across the globe. Throughout 2016, over this application more than 80 million visitors were accommodated globally. Airbnb Summer Travel Trends (2017) lists the following destinations as the most desirable:

- London.

- Paris.

- Barcelona.

- Rome.

- Tokyo.

- Madrid.

- Osaka.

- Lisbon.

- Prague.

- Amsterdam

(Friedman, 2013; Airbnb Inc., 2017b; Airbnb Inc., 2017c), Knecht (2017) mentions that Airbnb was able to get new valuation from investors who valued the company at $ 31 billion means that it is big plans and other options to extend this shared accommodation platform. New an investment round that began in the summer of 2016 and ended in early 2017, has sparked debates about whether the company is considering entering in the near future stock exchange. Investors in September 2016 estimated the value to 30 billion US dollars, which would be the company

Airbnb became the second most important start-up in the US right after the platform Uber (Knechtová, 2017). A new feature of 2017 is the launch of Trips, which provides local experiences. Visitors are increasingly demanding, in addition to renowned monuments unique impressions of local customs.

7.2.1 Airbnb in the Czech Republic

The first offer of shared accommodation in the Czech Republic is on the Airbnb website she discovered in 2008, specifically in Prague. Mid 2012 the company launched a standard Czech version of this platform and at the beginning of the year 2016 built a first branch here. Czech Airbnb is becoming very big an interesting market. Prague is an important destination and one of the most visited destinations cities of Europe. Outside Prague there is also a great interest in Brno, Karlovy Vary or Liberec (Black, 2016b).

Over the past year, the number has increased through this app of guests at 710 000, which is

59% more than in the previous year.

In April 2017, a total of 15,900 accommodation options were recorded the whole of the Czech Republic, the share of Prague is 11,500 offers. The fact that they play in the Czech Republic plays a big role more and more foreigners arrive each year. Last year we were able to record 31.1 million visitors from abroad, which is a record number. Number of Czechs, who used Airbnb for foreign accommodation in 2016, is year-on-year increased by 100% to 265 thousand (CTK, 2017).

7.2.2 Regulation

Novák (2016) notes that the growth of this platform has recently been encountered with the first regulatory issues. In New York, the law does not allow the law short-term rent for less than 30 days if the owner of the apartment is not present. This city is the largest market for Airbnb, so it has filed a lawsuit at the federal court and tried to defend. According to one of the members the council has up to 50% of the illegal accommodation offers.

Further regulation took place in Berlin, where it is forbidden to rent the whole real estate, more than 50% of the housing unit for a period shorter than

2 months. In the event of a violation of these rules, a fine will be imposed to the maximum EUR 100 000.

Barcelona introduced the need for ownership for short-term landlords city leave. Violation of this regulation means the possibility of a financial penalty up to CZK 1.5 million. Barcelona is the third largest European an attraction for users of this platform. In Paris, landlords have an obligation to pay tourist fees. Another interest in partial regulation is ongoing such as Amsterdam, Vienna, Salzburg, the home of San Francisco, Munich, Hamburg or Anaheim (Novak, 2016).

Lucian (2017) states that negotiations on regulation are now taking place in the Czech Republic, especially in Prague. Representatives of cities and hotels want to set clear rules. Hotels and guests houses must adhere to hygiene regulations, pay taxes and fees, register guest. Some of the owners are trying to avoid these rules.

Deputy Chairman of the Chamber of Commerce for Prague 1 mentions the fact that Prague 1 has more than 3,500 dwellings and has a duty to pay only 427 subjects are registered, which means a huge amount of grey zone.

The public administration has the task of setting obligations for all owners, which are currently not clearly defined.

The President of the Association Hotels and Restaurants Václav Stárek (2017), stated for the Czech radio example: "I have a flat, I have one room in it, someone rent, I live with him. It's sharing, there's probably no need for it to deal extremely. What is happening today is that one person rents it one unit without its presence or more units rents one quartermaster. And it's not a shared economy. It is very common business with accommodation service. "At the same time, it adds that there is a need to determine a specific instrument to control and enforce the law. These are mainly the registration of foreign visitors to the Alien Police, the administration of the house book and the obligation to pay a spa or recreation fee to the city. Representatives the ministries dealing with this issue have created an extraordinary work unit for a shared economy and are preparing a new legal analysis (Lužinec, 2017).

7.2.3   Site-Based Analysis

One of the short-term companies will provide a complete report operates leases. The reason is the aforementioned time. For this service to them we will pay 25% VAT include of the total income per month that's include cleaning, check in of guests and energy (energy is +-2000 CZk, they have it better contracts with companies who service gas and electricity, because they manage so many apartments). If we wanted to maximize profit and have enough free time, we can manage them selves. However, we will not consider this option.

Table 24: Average nightly rate by location

Location	Average price per night
Prague 1	2 505 Kč
Prague 2	1 983 Kč
Prague 3	1 349 Kč
Prague 4	1 285 Kč
Prague 6	1 366 Kč

Source: Source: Pronajmuse.cz, 2019

Figure 11: Number of active dwellings for individual months
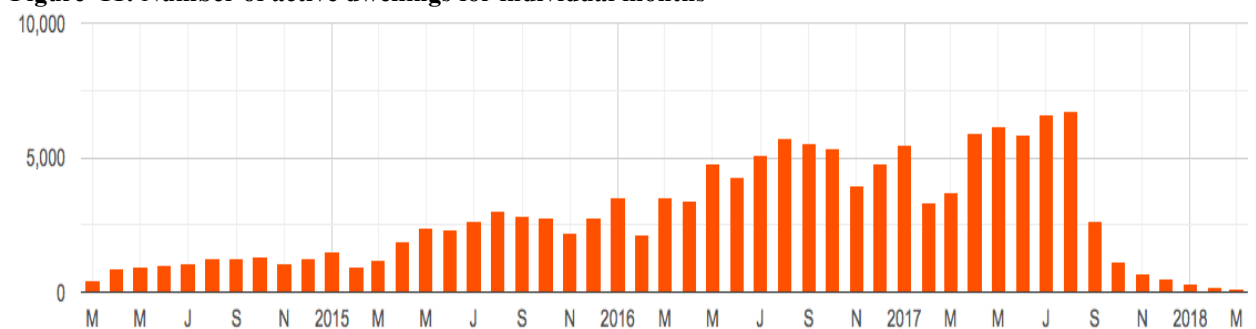
Source: Pronajmuse.cz, 2019

To simplify the calculations, we use average prices per night for each locality, obtained from the analytics of pronajmuse.cz, which is researching dynamic pricing in the Czech Republic. The occupancy is very variable, reflecting current seasonality and attractiveness of offered apartments. High-quality properties can be expected 90% occupancy over eight months and 50% occupancy over four months in the season. This means that the occupancy rate of an apartment will be an average of 280 nights per year.

7.3 Analysis by location

7.3.1 Prague 1

Table 25: Cash flow for short-term rent, Prague 1

Money received	
Rent	58 450 CZK
Money released	
Mortgage	22 398 CZk
Management	14 613 CZk
Repairs fund	1 000 CZk
Insurance	300 CZK
Property tax	50 CZk
Minor repairs	300 CZk
Cash flow	19 789 CZk

Source: own calculation

Table 26: Indicators of short-term rental performance, Prague 1

Operating income	701 400 CZk
(-) Operating costs	463 932 CZk
The gross profit	237 468 CZk
Yield	25,33%
Payback time	3,9

Source: own calculation

Prague 1 has the best prerequisites for short-term rental compared to other locations. Foreign tourists, who make up the vast majority of those interested in this type of housing, are looking for the most ideal place in terms of the accessibility of the historic center and the main sights. The average price per night is therefore the highest, and this also implies a monthly rent of CZK 58,450 generated by the investment apartment in Prague 1. Administration costs 14 613 CZK and after extra monthly costs including high mortgage payment this investment brings

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us positive monthly cash flow of CZK 19,789. The yield of own invested funds is 25.33% and the payback period is 3,9 years.

7.3.2 Prague 2

Table 27: Cash flow for short-term rent, Prague 2

Money received	
Rent	46 270 CZk
Money released	
Mortgage	17 201 CZk
Management	11 568 CZk
Repairs fund	1 000 CZk
Insurance	300 CZk
Property tax	50 CZk
Minor repairs	300 CZk
Cash flow	15 851 CZk

Source: own calculation

Table 28: Indicators of short-term rental performance, Prague 2

Operating income	555 240 CZk
(-) Operating costs	365 028 CZk
The gross profit	190 212 CZk
Yield	26,42%
Payback time	3,8

Source: own calculation

The table shows the monthly cash flow of short-term rent in Prague 2, which is positive at CZK 15,851. The average rent is CZK 46,270, and CZK 11,568 per month for the total administration. We assume the location of the flat in Prague's Vinohrady, which is now one of the most lucrative locations for foreign tourists with good access to the center and with a good network of restaurants and modern bistros. This part of the city has its own parks and quiet places, which, compared to the very center of Prague, want a more peaceful living. The apartment in this area brings us a net annual profit of CZK 190,212, which is shown in the table.

The return on own invested money is 26.42% with a payback period slightly under four years.

7.3.3 Prague 3

Table 29: Cash flow for short-term rent, Prague 3

Money received	
Rent	31 477 CZk
Money released	
Mortgage	14 514 CZk
Management	7 870 CZk
Repairs fund	1 000 CZk
Insurance	300 CZk
Property tax	50 CZk
Minor repairs	300 CZk
Cash flow	7 443 CZk

Source: own calculation

Table 30: Indicators of short-term rental performance, Prague 3

Operating income	377 720 CZk
(-) Operating costs	288 408 CZk
The gross profit	89 312
Yield	14,70%
Payback time	6,8

Source: own calculation

Prague 3 is not as ideal as the previous variants in terms of attractiveness of short-term rental. However, it is still a well-accessible area, and if we adapt the rental price to these aspects, we will reach very acceptable figures. For our work, this town part was even an inspiration for the entire thesis, because there are real estates in which we are active operators of short and long term rental of apartments. We set the average price per night at CZK 1,349 according to our own numbers from recent years. The monthly occupancy fee is CZK 24,034, which is shown in the table below. The largest spending items include mortgage repayment and apartment management. The total cash flow is CZK 7,443. The table illustrates performance indicators. The annual operating income is CZK 377,720 and with operating expenses of CZK 288,408, this investment generates the gross profit of CZK 89,312. The yield is 14.7% and the payback period is 6.8 years.

7.3.4 Prague 4

Table 31: Cash flow for short-term rent, Prague 4

Money received	29 984 CZk
Rent	
Money released	
Mortgage	13 080 CZk
Management	7 496 CZk
Repairs fund	1 000 CZk
Insurance	300 CZk
Property tax	50 CZk
Minor repairs	300 CZk
Cash flow	7 758 CZk

Source: own calculation

Table 32: Indicators of short-term rental performance, Prague 4

Operating income	359 800 CZk
(-) Operating costs	266 712 CZk
The gross profit	93 088 CZk
Yield	17,00%
Payback time	5,9

Source: own calculation

The table describes the monthly flow of money in Prague 4, whose value is on positive level of CZK 7,758. The rental income is CZK 29,984 and the highest operating expenses are the mortgage payment of CZK 13,080. The location of Prague 4 is less attractive for foreign visitors. This negative can be offset by a reduced price, which is an average of CZK 1,366 per night. The cadastral area of Nusle, where we are considering the location of the property, is a well accessible area for clients commuting to the centre of Prague or to office buildings in Pankrác. Performance indicators are shown in the table. This investment variant achieves a net annual gross profit of CZK 93,088. The return on invested funds is 17% and the payback period is 5.9 years.

7.3.5 Prague 6

Table 33: Cash flow for short-term rent, Prague 6

Money received	
Rent	31 874
Money released	
Mortgage	14 693 CZk
Management	7 969 CZk
Repairs fund	1 000 CZk
Insurance	300 CZk
Property tax	50 CZk
Minor repairs	300 CZk
Cash flow	7 562 CZk

Source: own calculation

Table 34: Indicators of short-term rental performance, Prague 6

Operating income	382 480 CZk
(-) Operating costs	291 744 CZk
The gross profit	90 736 CZk
Yield	14,75%
Payback time	6,8

Source: own calculation

Monthly cash flow of short-term rental in Prague 6 is shown in the table.

The average rent is CZK 31,874, the costs of administration and mortgage payments are CZK 24,312. This apartment brings us a total cash flow of CZK 7,562. Prague Dejvice is not so desirable for foreign clients again like example, Prague 1 or Prague 2. Nevertheless, the still acceptable accessibility of the historical centre and the very nice surroundings in this part of the city generates positive performance indicators for us, which can be seen in the table. The gross profit is CZK 90,736, the return on equity is 14.75% and the payback period is less than 6.8 years.

7.3.6 Summary of results

Table 35: Summary of short-term rental results

District	Cash flow (per month)	The net profit (annual)	Yield	Payback time
Prague 1 - Old town	19 789 CZk	237 468 CZk	25,33%	3,9
Prague 2 - Vinohrady	15 851 CZk	190 212 CZk	26,42%	3,8
Prague 3 - Žižkov	7 443 CZk	89 312	14,70%	6,8
Prague 4 - Nusle	7 758 CZk	93 088 CZk	17,00%	5,9
Prague 6 - Dejvice	7 562 CZk	90 736 CZk	14,75%	6,8

Source: own calculation

From the point of view of short-term rent, according to all indicators, the most advantageous apartment is in Prague 1 and Prague 2 - Vinohrady. Prague 1 has the highest cash flow and net income. The higher purchase price of the flat and thus the mortgage payment show that it is more advantageous to have a flat in Prague 2. Where the price for short-term rentals is very good and therefore an investment in a flat in the Vinohrady is a very well chosen investment. Even the remaining investments generate a positive cash flow and in the rest of the calculated urban parts the result is similar and differs only in minor deviations, which are again connected with the price of the apartment, the amount of mortgage payment and average prices per night in short-term rental. The gross profit in these apartments is about 90,000 CZK per year.

8 Short-term and long-term lease comparison

The following tables show a short-term comparison and long-term rental by city districts we analysed.

Table 36: Comparison, Prague 1

Prague 1	Long term rental	Short-term rental
Cash flow (monthly)	5 752 CZk	19 789 CZk
The gross profit (annual)	50 424 CZk	237 468 CZk
Yield	5,38%	25,33%
Payback time	18,6	3,9

Source: own calculation

Table 37: Comparison, Prague 2

Prague 2	Long term rental	Short-term rental
Cash flow (monthly)	8 949 CZk	15 851 CZk
The gross profit (annual)	89 988 CZk	190 212 CZk
Yield	12,50%	26,42%
Payback time	8	3,8

Source: own calculation

Table 38: Comparison, Prague 3

Prague 3	Long term rental	Short-term rental
Cash flow (monthly)	5 136 CZk	7 443 CZk
The gross profit (annual)	48 132 CZk	89 312
Yield	7,92%	14,70%
Payback time	12,6	6,8

Source: own calculation

Table 39: Comparison, Prague 4

Prague 4	Long term rental	Short-term rental
Cash flow (monthly)	5 070 CZk	7 758 CZk
The gross profit (annual)	48 240 CZk	93 088 CZk
Yield	8,81%	17,00%
Payback time	11,3	5,9

Source: own calculation

Table 40: Comparison, Prague 6

Prague 6	Long term rental	Short-term rental
Cash flow (monthly)	4 157 CZK	7 562 CZk
The gross profit (annual)	36 864 CZk	90 736 CZk
Yield	6%	14,75%
Payback time	16,7	6,8

Source: own calculation

For all investment options, we can observe that short-term rentals are more advantageous in terms of profitability and other performance indicators in the centre of Prague. The biggest difference is shown in the Table, which compares the performance in Prague 1. The difference in the monthly flow of money is striking and amounts to CZK 14,037. The gross profit and revenue are more than four and a half times higher. On the contrary, the smallest difference is in the locality of Prague 3, which is described in the table. Cash flow is at a similar level and the difference is only CZK 2,307. If we compare the gross annual profit, the difference will be CZK 41 180. Short-term rental income is 5.8% higher in this area.

Each investor should consider the individual attributes of the investment apartment he or she purchases. In decision making of the locality and consequently value-creating factors play the biggest role. Slightly risky is the alternative to short-term rental due to the threat of regulation, stricter operating conditions and the possibility of neighbors' unwillingness. If we compare these risks with the possible yield, the short-term rental option can be clearly recommended in the centre of Prague. If we consider locations in the wider centre or on the outskirts of the city, we recommend choose the long - term rent method, as the differences are insignificant. In addition, short-term rentals in these areas are at higher risk of vacancy and more time-consuming management.

9 Results and discussion

From the results in analyse part is possible view many important results and say the investment to the real estate is rentable and can produce income. The thesis works with public data from many sources with actual average prices often, because it is look the bigger sample than it was is with one real apartment. This thesis needs predict some way how is it possible investment to the real estate. Important part of investment is from what capital do you invest to real estate. I calculated with helps from banks and own funds. Few years ago it was more available, because the rate of mortgage is higher now than 3 years ago. I is big different when I compare the results from the years 2015 or 2016 there were rates on historical minimum and many people went by the way of investment to the real estate. In this time is it rate higher and the big role play the Czech National Bank nowadays, which, through its interventions, affects the real estate market due to the impact on credit rates. When I compare my results where is the investment to the reality with the report of Mr. Jan Traxler from FINEZ Investment Management (2009), he wrote there in the article about the investment in Prague to the real estate is not profitable. And there are arguments, like the real estate market couldn't grow up all time and it had the limit in the next years like 2012 in maximum. It was after the big economy crises in 2008 and people were more negative to the investment. But after ten years I can say when the people invested to the apartment in 2009 now the price of the apartment was it much higher. Now is the real estate market on the top of the price and I can say again now it is very difficult investment to the apartment but from my results it is profitable by both methods whose I used in my analytics part of the thesis. The profitable value is going down how is the apartment longer distance from the totally centre of Prague, but still it does monthly cash flow in positive value. From my results is necessary write, it is model where is possible compare every variants whose I mentioned in analytics chapters. In the goal I had question which variant is more profitable like investment to the real estate. From my result with using this methodology like in my work is more rentable using bought apartment like short - term rental method. The difference between these two variants on the Prague 1 and Prague 2 is several times higher than long - term method. In the Prague 3, 4 and 6 is the difference two times higher toward short – term renting. Here in the discussion is possible discuss about better variant from many others views like, when you manage the short term by yourself. It brings higher gross profit to you, but we had agreement with professor on our consultations about the problem, when you do it yourself after few years you lost the

enthusiasm and change the Airbnb method to long – term method. Because there is the line between higher income and much more spend time and more trouble with your investment. From my own experience after few years you rather change your apartments to the comfortable long – term rental methods. There is necessary control the real estate agent with the choosing of your tenants, because that can bring you rest in next many years. Important part of renting is flat wear. After any period of year is necessary again pump the investment to the reconstruction. When you will be lucky with your tenants in both variants it can be 20 years. But if you will have any bad experience you can do this investment to the equipment every five years. This is what I don't have in my methodology and now at the end of the work I think in future calculations will be better calculate with this problem and work with any reserve in the budget like preventing this problem. When I discuss with professor Mr. Ing. Luboš Smutka Ph.D., my results are very positive and calculated in trouble-free environment. I worked with real data whose are available at public sources and with that I calculated. In some case can be ideal so much but I hope my results and it is possible prepare any investment way to the real estate from these results.

In this part is necessary compare the main results of the main goal of diploma thesis. The methodology brings four main measured values were cash flow (per month), the gross profit (annual), yield (%) and payback time of own funds.

Table 41: Summary of long-term rental results

District	Cash flow (per month)	The gross profit (annual)	Yield	Payback time
Prague 1 - Old town	5 752 CZk	50 424 CZk	5,38%	18,6
Prague 2 - Vinohrady	8 949 CZk	89 988 CZk	12,50%	8
Prague 3 - Žižkov	5 136 CZk	48 132 CZk	7,92%	12,6
Prague 4 - Nusle	5 070 CZk	48 240 CZk	8,81%	11,3
Prague 6 - Dejvice	4 157 CZK	36 864 CZk	6%	16,7

Source: own calculation

Table 42: Summary of short-term rental results

District	Cash flow (per month)	The gross profit (annual)	Yield	Payback time
Prague 1 - Old town	19 789 CZk	237 468 CZk	25,33%	3,9
Prague 2 - Vinohrady	15 851 CZk	190 212 CZk	26,42%	3,8
Prague 3 - Žižkov	7 443 CZk	89 312	14,70%	6,8
Prague 4 - Nusle	7 758 CZk	93 088 CZk	17,00%	5,9
Prague 6 - Dejvice	7 562 CZk	90 736 CZk	14,75%	6,8

Source: own calculation

From these tables is easy choose the data and comparison between the different rental methods. The biggest different is between data in Prague 1 and Prague 2. With this data I can recommend investment to the real estate in these two parts of Prague. In tables looks like perfect investment variant but it is not so easy the number of apartments in this city centre is limited and it can brings higher starting capital to the investment and after couldn't be rentable like from my tables. It is the biggest problem now in Prague very long construction management and lack of space in the wider centre of Prague for new buildings. Here I have recommendation use the free apartment in the centre, and use brownfields (places remnants of industrial, agricultural, residential, military or other activities) to new residential places. The investment potential will be lands over the new metro station D, where will be very active the developers companies and it can bring new investment variant outside of the typical city centre of Prague. By this I like mention the trends of investment in real estate in 2019. My work is about residential variant of real estate, but in 2019 will be the most use method of investors to investment in real estate to the commercial places (Investiční web, 2019). The capacity of free commercial places is on the minimum and because it will be interest to big invest and developers companies. Still will be interest to residential real estate like income option. The year 2019 can bring more investors from abroad, but big % of people who invest to the real estate in Prague would like stay here live, not just invest from abroad. The investment in this sector still be rentable and will be one of more conservative method of the possible variant how use money and be active on the invest market. It can be for income or just depositing funds to the future.

10 Conclusion

The main aim of this thesis was to find out whether direct investment in real estate could generate stable income. Another objective was to compare short-term and long-term rental according to profitability and to make some recommendations at the end. We also focused on property market developments and examined the causes of price increases. The first aim was declare like right. Every from the investment variant is rentable and generate positive income. In totally centre of Prague is higher and in the wider area is it positive income too but it is longer time investment type. Objective about comparison of long – term and short – term rental method the thesis shows higher income brings short –term rental variant. And again in the totally centre is higher income about four time more and in the other districts is about two times more than long – term rental method. From that's is the result about recommendation to investment in real estate sector and the basic is find the right type of the apartment on the profitable place. How is it the place closer to the centre the entrance capital must be higher but the profitable is faster and higher too. The real estate market has it growing tendency and because is the investment to the real estate property very consistent and permanent investment.

In the work justified future predictions, factors of property price increases and the current availability of housing. The changes in this sector can brings higher intervention from the Czech National Bank, which is gaining more and more influence on changes in the real estate sector. As mortgage interest increases, investment in real estate may become inaccessible to normal investors, leaving only larger investment groups, and the rest of the people will increasingly move to rental housing. A similar trend is the same across Europe and whole world in the capital or bigger cities. The price boom on the market can reduce new legislation in preparation, which should accelerate construction proceedings and thus bring more opportunities for the purchase of real estate. But investment to the apartments will be still one of the favourite method how is it possible invest your capital.

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