

**Mendel University in Brno**  
**Faculty of Business and Economics**

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# **Gold as an Investment**

**Bachelor Thesis**

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## **Abstract**

Bachelor thesis was created to understand investments in gold, to analyse the development of its price, discussing the reasons why people should invest in gold. Moreover, it introduces different forms of availability and possible earnings from investing in gold. First part is focused on describing important properties of this valuable commodity. Second part of the thesis analyses specific possibilities of investments and compares them with each other from the point of view of an investor.

## **Keywords**

Investment, gold, inflation, risk

## **Abstrakt**

Bakalářská práce je vytvořena za cílem porozumět investicím do zlata, analýza jeho cenového vývoje, důvody proč investovat do zlata a představení různých variant, dostupnosti a možných výnosů z investování do zlata. První část práce je zaměřena na popis důležitých vlastností této cenné komodity. Ve druhé části práce jsou analyzovány konkrétní možnosti investic a porovnány mezi sebou z pohledu investora.

## **Klíčová slova**

Investice, zlato, inflace, riziko





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# 1 Introduction

One-third of property in finance,  
One-third of property in real estates,  
One-third of property in precious metals.

This division is the so-called golden “Jewish” rule. It is so because Jews used this rule to equally divide their property in three parts. Purpose of this rule was a precaution against situation, which would lead to loss of property. In case the currency would fall, it would affect only one-third of property and the rest would be safe.

This topic was chosen for bachelor thesis because nowadays it is hard to earn the profit in business and investing is a way which can increase the profit to a lot, but there is also a risk so it has to be approached with some knowledge. It is also the time of huge uncertainty and thus people are looking for something stable.

The gold is commonly known for its stability, and people should be aware and informed about this commodity. This work will describe and test these presumptions in the literature survey and through comparing investment possibilities.

This work will be focused on investments in gold because it is one of the ways of investing, which has been here for a long time, people are starting to perceive the information about it and there has been huge increase in these kinds of investments.

Before investing in gold it is important to know the history of this metal. In this work there will be described the history from an economic point of view as well as the history of the material itself.

It is also very important to invest in gold for the right reasons. Thus, one needs to know which form and way of purchase should be chosen because there are more than one. Every form and way of purchase has its own properties which are all suitable for different kinds of investors.

Before investment is done price must be predicted, and it is usually done by the knowledge of factors which influence the price of given investment.

Another reason why this topic was chosen is that two years ago, I was working for European company ECG, which offered these investments in gold as well as saving programmes called packages which were different for everyone's financial possibilities, and I found out the investing in gold should be done for specific reasons.

## **2 Objectives**

In the bachelor thesis, evaluation of aspects of investments will be done, differences between various types of investments and for whom these investments are suitable for from economic point of view among the other possibilities.

The main objective of this bachelor thesis is to evaluate investments in gold among other possibilities in which can be invested. The objective is then divided into these partial topics:

1. Introduction of gold as an investment – history of gold, the gold standard and acquisition of these investments.
2. Analysis of investments in gold – reasons for investing in gold, people's attitude towards gold as an investment and price development of gold as well as aspects, which influence its price.
3. Comparison with other investments possibilities – comparison based on criteria, which are most crucial about investments such as liquidity, risk, time and stability.

### 3 Methodology

The literature survey of this thesis will be present important information, which are necessary to know if someone is interested in investing in gold and what are the reasons to be involved with gold. This information will be taken from scientific literature and articles. This topic is very tightly connected with history of gold so it will be mentioned as first. Then there will be a focus on actual possibilities how to invest in gold and important things connected to it such as price of gold and its development, and how to start if we want to invest in gold.

In the empirical part, will be compared investments in gold with other kinds of investments as shares and financial products (building savings). Comparison will be executed in short examples, showing made-up investors in different variants of investing.

It will analyse and determine for whom are those investments most suitable for, based on criteria as liquidity, risk, time and stability. This analysis will be made by different methods. These methods will be executed by the platform on ETFs and its tools. It is important to understand that none of these methods are 100% right, but they have a very high probability of success.

First method used for gold is chosen because it is best effective for markets with the mild trend. The fiercer the trend the less effective is the method. For this method, there are two essential things. The Graph of the price and CCI indicator. CCI is the indicator which helps to understand and evaluate oversold and overbought levels. Despite the fact that, this method is very simple, it is very accurate and it is a favourite method of a lot of investors. This method is often used to predict when it is suitable to enter the market, and it can foresee bottoms as well as peaks. However, for this work it will be used to analyse the criteria mentioned above.

The process is quite simple. When the CCI indicator is activated it will mark the bottoms and peaks. This is done automatically but there is also an option for more experienced traders to edit the parameters. After the peaks and bottoms are recognized time line tool is used. Time line tools are just for the determination of a time period marked



in a graph. In the graph, one can draw a line by mouse from one bottom to the other and the programme will say how long this period lasted, for example, six days. Then one can move this line and predict where the other bottoms will probably occur. Same procedure can be applied for the peaks. Although it was said that this method was not very well used for markets with wild changes in its trend it can be used for finding probable corrections in price level.

The evaluation of business savings will be made by their own modelling programme “Eliška” which is property of ČMSS.

For the last investing option (shares) it will be analysed in a similar way like gold. While the option trends are usually wilder, some of the features of the method which is used for gold, will be also used for some of the criteria mentioned above and for the rest of the options, which will be hard to explain with this simple method, observation of the graph for different time periods will be used, recording changes in price and their value, and also how often the changes occur.

The conclusion will sum up important knowledge which were gained from literature survey and results of comparison and the analyses of investments.

## 4 Literature survey

In this part of my bachelor thesis, I will introduce gold to the reader from historical point of view as it was used and economic point of view as it is used for investments nowadays from perspective of scientific literature. This Part will be used as information, which will be used in practical part of my work. First, I will introduce gold history and explain the important term the gold standard. Then I will explain necessary information for acquisition of gold and depict the advantages and disadvantages of this kind of investments.

### 4.1 History of gold

Gold was one of the ten elements of antiquity. Oldest findings were discovered in Egypt 5000 BC. „The use of gold in Egypt was a royal prerogative, unavailable anyone but pharaohs“ (Bernstein, 2004, p. 12). Egyptians considered gold as metal of the gods and themselves as descendants of the god of sun RA.

4000 BC is first mentioned about using the gold in central and east Europe. In business, it was first used 1500 BC in Egypt and in 1350 BC were first determinations about purity of gold and in the AD 7<sup>th</sup> century was started mining of gold.

Oldest method for mining gold is panning in which is used the current of river to special device or just usual wash basin, so there is no loss of gold nuggets or bricks.

Business history starts in Roman Empire with Far East, which led to unbalance because the Roman Empire could not, except few other commodities, pay for spices with anything else but gold. Thus Roman Empire had to pay for import with gold and silver. This way of payments worked until the Empire could gain other sources of gold, and after they run out Roman Empire had no choice and on the order of the emperor they started to dilute the gold.

After the fall of Roman Empire, the gold almost disappeared from Europe and was found only in unique items such as crown jewels.

In Czech Republic, gold coins were replaced by coins made of silver in time of Charles the fourth. Only place where the gold coins were still issued was Byzantium

and around AD 1000 in European countries, which were in business with Byzantium and Arabian countries. In this period of time the rarity of gold increased exponentially, which is the reason why patrons financed the then alchemists, who experimented and tried in all kinds of ways to “create” gold. After ADs 1000 in Europe were found new deposits of gold, but it was still not enough to satisfy a desire of gold.

Restoration of bigger business with gold happened in the age of overseas discoveries. European powers at that time did not have another choice but pay with gold, which they earned in Africa for local goods such as Chinese’s porcelain and tea.

Interesting fact is that before Columbus age the gold in North America had almost no special value. Local population did not use gold as means of payment. They rather used different kind of commodities such as a rare kind of shells. In North America, the gold fever had a different form than it had in South America. In Canada, the gold was found not until in Quebec in 1835. In 1849, the golden fever started in California and after that in British Columbia. In Yukon and Klondike the golden fever started by accident when in so-called “rabbit” brook was made first finding. Even in 5 years the volume of gold found was in comparison with North America minimum, the gold diggers renamed this brook to Bonanza Creek and other locals right to Eldorado.

Just a few became rich in there. In 1898, gold diggers found 15 tons of gold worth 10 million dollars. In total, there were found 75 tons of gold during gold fever.

In Czech Republic was most close to gold fever in much more modest way is similar the mining around Jílového U Prahy which started in stone age. The mining increased in reign of Přemysl Otakar the second also known as “ironed and golden king”.

## **4.2 Gold standard**

„A gold standard, in any of its many forms, shall be defined as a system that ties the value of money to the value of fixed quantity of gold. The simplest way to do this is to actually use metallic gold and silver as money, using full weight coins, ingots, nuggets, and so on that trade at commodity value“ (Lewis, 2007, p. 98).

The gold standard is a basic rule in the currency system in which the standard economic scale is gold. Currency which is used as an accounting unit is derived from price of gold, which is in ideal case unchanging (which is one proof that gold has stable value).

In a process of using the gold standard, the currency is composed of either by coins issued by the exactly stated amount of gold or kind of banknotes, at which the eminent guarantee to repay its value by gold. The gold standard is seen as principle of covering of issued currency – it has no direct connection with who is eminent of this currency (nation, private subject...) or if the currency abiding this principle is followed in laws concerning its usage.

The gold standard can be either intern in which domestic holders of banknotes can claim repayment in gold or international, in this case, there is limited amount of subjects who can ask for this exchange, for example, national banks. Currencies which are covered by a fix amount of gold have between each other a fixed exchange rate. In the absence of any clear-cut superiority in terms of price performance, the outstanding feature of the gold standard would seem to be the extent of exchange rate stability (Eichengreen et al, 1997). The aim of the gold standard is to prevent an inflationary increase of money in flow. Both forms of the gold standard were used. Currencies of the gold standard were often used as monetary units against which the less stable currencies were compared.

### **4.2.1 History of the gold standard**

There are different kinds of monetary systems, which are called the gold standard but the most common one is “classical the gold standard” from years 1871-1914 (Eichengreen et al, 1997).

Classical the gold standard was the first valid monetary system on an international level associated with paper money, which were partially covered by gold (full coverage was impossible, on the other hand, there was established the minimal amount of coverage). For this reason, gold played only regulatory role because there was impossible to borrow more than a coverage framework so-called “golden brake” allowed. There was also a framework for silver standard but the Sir Isaac Newton discovered mistake in calculation of exchange rate between silver and gold in 1707. Thus only the gold standard exists.

In 1800, the England was considered for leading nation in world business, and for that reason was the gold standard moved to international level. In 1802 war started between England and France. In result of this war bank of England reimburse its banknotes with gold, and thus the gold increased in price. After war, England returned to the gold standard.

Other countries such as France, Belgium, Italy and Switzerland found out the Latin Monetary Union in 1865 (Eichengreen et al, 1997). Continuously other countries joined this union. Aim of LMU was to create common flow of money to create long-term world currency covered by gold on base of francs.

One of important aspects of success of the gold standard was intern politics of England. Their strict politics of monetary stability provided to national banks lot of credibility from which they gained power to influence investors who proved to be successful in time of crisis.

According to British opinion, every currency was just national designation of the amount of gold. The price of gold was based on the basis of London Stock Exchange. Almost whole century price of gold was 3 pounds 17 shillings and 9 pennies. This resulted in stable exchange rates currencies to one another.

In the term the gold standard is important to understand that not money but gold is a tool of measurement. Money is evaluated by gold not the other way.

All fluctuation in currency's value, which can be noted in the foreign exchange market and currency's exchange rate with gold, are the result of the mismatch of supply and demand (Lewis, 2007)

Till 1914 the gold standard was guarantor of international stability, stable prices and employment almost whole century.

Enormous war expenses led both sides to abandon gold and inflation due to inflation is special kind of taxation, but it can be executed even without the knowing consent of publicity.

After the World War I, neither one side has come back to the gold standard although during the war experiment was executed with so-called gold bar standard. After World War II, the winning powers established Bretton Woods system, which was in function in during the years 1945-1971. Its fundamentality was a connection of a dollar with gold and all other currencies with dollar. In this system the ounce of gold was fixed to 35\$. Anyway, the governments of United States step by step produced more paper money then it was within this exchange rate. Other countries, especially France reacted by requesting the exchange of dollars by gold which led USA to loss. Finally it was President Nixon who decided to definitive abandoning of the gold standard systems in 1971.

#### **4.2.2 The gold standard nowadays**

Nowadays, the gold standard is considered as inconvenient because it is connected with a collapse of world economics at the end of thirties of 20<sup>th</sup> century, and aggregate price level is better controlled by tools of interest rate, deliveries of money and direction of currency basis (Bocker, 2010).

Anyway it is a still fact that greatest depression in history happened after establishment of the American Federal Bank, Fed and the gold standard was abolished. Although the gold standard is not in use now there are still a lot of people who believe in this system. Between those are mainly economists of Austrian school. Liberals requesting renewal of the gold standard, and they claim that gold is a only universal measure of value, and the gold standard prevents inflation as it does not enable unlimited putting of money into the flow.

### **4.2.3 Back to gold**

Renewal of using gold as currency metal contends with a lot of problems. Usually, such renewal is considered as unfeasible. Nevertheless, it has a lot of support especially from economists of Austrian school and monetarists. Typical argument against renewal of the gold standard is statement that there is not enough of gold to fulfil currency purposes, which is in disagreement with quantitative theory of money (Rockwell, 1992). The core of this theory is that price level will adjust to the amount of commodity used as universal mean of currency.

One of probably most suitable scenario would be abolition of legislation determining current money as legal means of payment. Next step would be reverse exchange of gold, which are at disposal of central bank, into the form of coins denominated by weight and its sale for market price to any interested party. These two arrangements would completely suffice so people could use money, gold, or even other commodities by their own consideration; between particular currencies would be established free competition. Thanks to the exchange rate between gold coins denominated in weight, and any other currencies would be completely determined by market, price of gold could be increased by its need while its usage would be extended (Lewis, 2007).

Gold at least by determination of its supporters could be much higher in quality than the money issued by state. However, the final solution about renewal of gold would be decided by market. Either people would go back to gold or not.

### **4.3 People's attitude towards gold**

#### ***Gold has no interest rate***

People are usually scared to invest in gold because it has no interest rate given by certain company or bank. But if we would look on case, in which hyperinflation or currency reform occur which in essence is bankruptcy of state, the interest rate and money saved by other financial products such as building savings, become nothing.

Gold would counter balance this loss because it is stable and equalize the inflation. The fact that gold has no interest rate is its biggest advantage (Maloney, 2008). If it had interest rate we would have to admit it in tax return and the gold owners would have to lie or to lose their anonymity and pay which is one of reason why people invest in it.

#### ***Transportation of gold is dangerous***

Paper money has the same maybe even higher risk during the transportation. It falls in to a robbery even the fire. Even though the gold cannot be transported by online transaction, every online transaction is automatically recorded and serves to absolute control of citizens.

Worse problem is with the air terminal check. They control both gold and money. Although they intervene if they find sheaf of banknotes they still don't have problem with gold coins in wallet. Also modern banknotes contain microchip so it is much easier to find.

#### ***Gold has very high density***

Volumetric unit for gold is approximately twenty times higher than water. That is true but if we took for example Troy ounce which is 31.104 grams of gold it is just slightly heavier than its equivalent in usual paper banknotes and in the same time the volume is much lower.

Thanks to this fact there is increase in investors. We know there is almost none possibility for zero inflation so in the future the equivalent in gold will be in comparison smaller and lighter every year.



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### ***Storing and safety of gold is expensive***

Experts do not recommend storing of gold in bank because of confiscation by state in the case of emergency with the exception of Switzerland. Another recommendation is to not assure your gold because you lose your anonymity. You can also store your gold home and it is free of charge.

And if you would like to have it in Switzerland bank, the bank box rent starts at 40CHF per year (Bocker, 2010).

### ***Gold is relic of barbarian age***

This is true and people usually think about it as it is disadvantage or something wrong. It is exactly the other way around. Because it is a relic it cannot be multiplied as paper money so you don't need to worry about deterioration.

### ***Cumulate gold is nonsense, massive sales of central banks desTroys goldbugs because bank reserves are bottomless***

There is left only 28 000 from 40 000 tonnes in central banks (Bocker, 2010). In the end of 60<sup>th</sup> years of 20<sup>th</sup> century gold reserves were used to suppress price of gold in frame of London Gold Fund. For this purpose was used 10 000 tonnes of gold from USA only. Anyway this try was unsuccessful and the London Gold Fund was dismissed. How much tonnes of gold remain is a mystery.

Experts estimate that for allied banks were lent at least 16 000 tonnes. Also central banks sold unknown amount of gold on the market. Even Deutsche Bundesbank doesn't state in their final statement gold but gold and its receivables. Nobody exactly know how much per cent is in actual gold and how much is in receivables but if the receivables in amount of 16 000 tonnes should be settled everybody would have to buy back ounce by ounce on the free market, which is eightfold of the whole world year production, and return it to people (Bocker, 2010). If we overlooked that such action is not feasible it would increase price of gold to few millions of dollars per ounce. Nowadays there is lot of people who wish to force banks for inventory checks but banks defends themselves that it is too much expensive.

Lot of experts doubt the official USA reserves which is 8400 tonnes and claim there is not even 2000 tonnes. In same way there is highly improbable that there is at

least 1 tonne available from 3387,1 tonnes in Germany of which no one has knowledge where it is located. Some countries like Russia and China behaves according to this experts and buying up gold because if this is truth and it ill be revealed price of gold will increase many times.

Rank	Country	Amount of gold in tonnes
1.	USA	8133.5
2.	Germany	3387.1
3.	Italy	2451.8
4.	France	2435.4
5.	China	1054.1

Tab. 1 Countries with biggest gold reserves  
Source: Badkar

***In case of deflation owners of gold will be forced to sell under the price.***

This is partially right but in the past gold price was very good in ages of deflation weather we talk about gold covered by state or not. Usually deflation was demonstrated most on food while gold decreased in price little or not at all (Maloney, 2008).

***Asian society replaces gold with paper money***

For this society, which is traditionally tending to gold, opposite is the truth because fast increasing number of sales on their stocks proves that. Asians take one third of world-wide production one year after another year. The biggest taker is India. Also there is increase in investing in gold in middle class of China.

***You cannot eat gold***

This argument people started to use after the legend of the king Midas. Midas had this ability to change everything in gold by touch and he also changed his own daughter in desperate try to save her.

This opinion, that you cannot eat gold, is ancient, repeated all over and simultaneously complete nonsense. It is true that gold is not for eating but you can buy everything with that which includes the food. Beyond other things people tend to invest into things that also cannot be eaten (oil, paper money, shares, machines, cars, houses, weapons and many others). Gold owned privately represents only 0.8% of all financial property.

In years men lost faith in money and securities gold represented of 20% of all property even though it cannot be eaten (Maloney, 2008).

### ***Gold is too heavy***

Gold is heavy but only for those who does not own any or has tonnes and must to run with it across mountains which is only fantasy because as it was already stated gold is almost of the same weight as its equivalent in paper money.

### ***When fire in house occur the gold is lost***

Houses on fire are not a common thing but even it would be paper money fires even better. There are ways to protect against this. For example you can store gold in cellar or the fire resistant safe. Also if gold is caught by fire it still prevails as melted ingot in the place where it was money will not. You cannot hope to sell melted gold in its previous value but still of great value (Bocker, 2010).

### ***Gold means nothing: none dividends no function***

If this would be truth and gold meant nothing why the central banks cumulates thousands of tonnes of this yellow garbage? Why would Asian nations buy 1/3 of worldwide production? Because gold is rare and most saleable commodity used worldwide.

### ***Gold ownership will be made illegal by governments***

„Today a ban on gold would require a globally coordinated campaign, impossible to implement in India (with its roughly 27 200 metric tons), in Switzerland and other countries. There it would be hidden secretly stored and transferred to other countries. In addition, Krugerrands, Maple leafs, Eagles, Nuggets and other gold coins have been advertised for several decades. People would be completely confused if something advertised decades, something they believed to be good, suddenly became a criminal act overnight. By the way, throughout history owning silver has never been illegal“ (Bocker, 2010, p. 89).

## **4.4 Reasons for investing in gold**

### ***Gold and tax***

By entering European Union Czech Republic adopted law about VAT which identified gold as an investment and freed it as a subject of taxation.

In USA it is quite different and responsibility to report purchase depends on its method and its form.

### ***Good conditions on market and stock***

Gold has very low bid/ask spread which means difference between purchase and selling price. For diamonds and collector's coins it is for example from 15-100% (Gold Price, 2015).

### ***Gold is the only international recognized currency***

In all 194 countries of the world is gold, in times of peace or war, fully recognized as merchant product, indicator of value, object of exchange or as an jewel.

### ***Supply is decreasing***

Lately selling by central banks has slowed down especially in 2008 and in the same time gold production from mines had been declining since 2000 which is expected to grow smaller and smaller in time because gold is scarce. These two are the main factors of supply and every time supply decrease the price will increase. Thus we can expect increase in price in the future (Holmes et al, 2008).

### ***Demand is increasing***

It is exact opposite from supply. If the demand increases the price will increase also. In the last years demand is continuously increasing especially by Asian countries which cumulate gold.

Gold demand increased also among the individuals. Many of them started to look for investment possibility do defy inflation and divide portfolios. This demand is as well visible in ETFs where the SPDR Gold Trust became one of the largest ETF in the USA.

### ***Portfolio diversification***

For portfolio diversification is recommended to use investments that are not closely correlated to one another. From history point of view gold had negative correlation stocks and other financial investments.

Investors usually combine gold with stocks and bonds to reduce the overall volatility and risk.

### ***Gold is insurance***

There is always possibility that in our lifetime we will experience the unthinkable. By that is meant terrorist attack, economic and environment disaster etc. In that situation history proved that nothing is as good as gold to preserve its value.

### ***It is easy to discover true gold***

Every gold bar or coin must have essential information on it. Coins and bars of bigger weight have this information imprinted on its front side. The bars of small weight are usually place within its certificate.

In the past when gold coins where used was easy to tell if it is gold or not. Gold is soft and when somebody bit in it there were visible teeth marks. Today we can find out if the jewellery is true gold by the mark on it. Some more experience people find out by type of work.

### ***Gold can be divided***

It is easy to divide gold. As it was stated gold is very soft so there is no problem to split the brick in half or any size you need. Anyway there is usually no need for that. Today there is high variety of weights from 1-1000 grams including the weight categories in ounces for practical reasons (Bocker, 2010). There are also heavier weight categories but it is really rare because their value is in millions.

### ***Gold is unique***

Most of all commodities have different value in comparison with the same commodity. For example diamonds of the same weight may have different value. Same it is with houses which are affected by location material etc. but gold has same value all the time on its given weight.

***Gold is durable***

Gold is eternal. It can rest thousands years on the bottom of the sea or in extreme cold and it survives and keep the value (Bocker, 2010).

***Gold endures***

For 5000 years gold and silver served as mean of exchange and never fall to a zero value.

***Anonymity***

Gold is financial asset which can be completely private. It doesn't have to be included in financial systems and reported to government.

***Full ownership***

If you buy gold it belongs to you not like other stuff like house on which you have to pay taxes or state take it away from you (Kiyosaki et al, 2007).

***Gold was tested by history***

Gold has very good stability in price in times of inflation and deflation. Especially in the case of deflation gold had very good position and was sought by lot of investors.

## 4.5 Development and influences on price of gold

If we look at the graph of the development of the price of gold, we can see that in short-term intervals the price of gold increases and decreases, but if we look at long-term interval we see that graph is steadily increasing.

### Which aspects do influence the price of gold?

Today we can characterize these three reasons:

1. Share of gold in reserves of central banks
2. Fear of terrorist attacks
3. The third one and most important is the value of dollar at exchange market, which is visible if you compare the graphs of the dollar and gold, which can be seen at following graph.



Figure. 1 Comparison of the price of gold and dollar  
Source: Market drivers

Because at the stocks all over the world is price of gold presented in American dollars (hereinafter USD), the price of gold develops in the contrary with development of USD

exchange rate. As the price of gold increases, more and more investors incline towards this commodity (Market drivers, 2015).

Development of the price is significantly influenced by changes in share of gold in reserve banks (Gold Price, 2015). Especially China has big position in this. Banks hold 40-50% of their reserves in gold, and they are trying to decrease this number continuously (Reyenda, 2013). These changes influences demand and supply of gold and thus also the price. Lately (mainly because of pressure from the side of governments) lots of European central banks have been selling their gold because the politicians wanted to finance deposit of budgets by gold.

Important factor is also the trades on London Bullion Market, which is London market under supervision of London Bullion Markets Associations (hereinafter LBMA). For more over 85 years is key reference value for the price of gold so-called “London Gold Fixing”. Basic trade with gold is called spot in USD currency. Units of weight are in “Troy ounce” which is 31.103 grams. Price is represented by relation between purchasing price so-called bid and selling price so-called offer. Regist can be thus shown as following: Gold is traded for USD 392.5/392.8.

Anyway for investors is most important development of price in their currency, for “euro” investors is important then development in euro. Although the gold in Euros increased in last five years by 5.6% in value, the gold measured in USD decrease by 4.2% (Gold Price, 2015). There are also other currencies like JPY with an increase of over 20% and CHF where is a decrease over 20% which for some people can be seen as unstable currency.

Primary usage of gold is in jewellery which consists of 68% of all over demand. Demand of gold influences also that it is material used in many technologies like computer chips, etc. as well as in medical science and astronautics. Markets with largest sales of jewellery of gold are USA and India. Perceptible area of usage is the use of gold as an investment. More and more investors are putting gold in their portfolios. The most widely spread reason is to divide their composition of assets and to defend their finances against future inflation (TCHA, 2003). There are lots of ways to invest in gold. Most common one is purchase of gold bars or coins. There is also possibility to realize



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the investment by so-called future contracts. Area of investment is around 19% of demand and 13% in industry.

On the side of supply belongs also the worldwide production of gold. Most significant state in area of gold mining was South Africa in 1970s with 67.7% of worldwide production (Badkar, 2013). Nowadays, the first place has China followed by USA and Australia. Gold is gained mainly from Earth's crust. Currently, it is operating mining in 400 mines, which are placed on all continents except the Antarctica. Whole worldwide production created by mining and recycling adds up to 2 500 tonnes. There is expected decrease in production in the future. Main reason is the lack of success in finding new mines.

## **4.6 Purchase of gold**

Before someone decides, that he is going to invest in gold, he must know which forms gold as an investment can take.

### **4.6.1 Forms**

Today gold at its owners can take many forms. Most often it takes the form of "carat" gold in shape of jewellery etc., which only serves for personal purposes not as an investment. Gold as an investment means only forms of gold given by law. In those forms, you can invest and sell them anytime in clearly given circumstances and price, which are influenced by motion of the price of gold on worldwide stock markets.

This gold used as an investment can be divided into two forms, gold bars and coins (Gold Price, 2015). Given by law the allowed form for investments of gold bar is with purity of 99.5% and 90% of gold coins (Hobson, 2010). Gold coins are subjected to another condition by law. That condition states that gold coins must be issued after the year 1800 and are or at least were means of payment given by law in the country where they were issued and are usually sold at price, which doesn't exceed free market value of the amount of inner gold of more than 80% (Gold Bars Worldwide, 2014).

During purchase of gold we meet, a lot of different weight units. If we talk about coins, we use ounces for which we use abbreviation "oz" (1/10oz, 1/4oz, 1/2oz, 1oz,

2oz). For bars we use the more common one - the grams. Bars are then divided into two groups according to their way of fabrication.

- **Cast bars** – cast bars are usually considered for lighter bars from 1 to 100 grams. Principle of fabrication cast bars is similar as it is for gold coins. Gold in form of granule is melted at temperature of 1200 °C in special induction oven. After gold is melted it is formed in the shape of a belt, which goes throughout press from which we have finished cast bars (Gold Bars Woldwide, 2014). Every cast bar has in front imprinted substantial requirements (logo of refinery, weight, purity, hallmark and number of manufacture) for gold coins, there is added its nominal value, which of course is not its true value.
- **Minted bars** – this method is used for bigger pieces of gold starting from 250 grams. After gold is melted, which takes several minutes, it is poured from cups into beforehand heated forms, which are covered with a thin layer of graphite so the surface of the bar would be smooth and soft. For the cooling, is used a water in which gold is put (Gold Bars Woldwide, 2014). In the final phase, gold goes into hydraulic press where it takes the desired design. In this case, it is same as cast bars and there are imprinted substantial requirements. Certificate which is given for every gold bar is in this case separated from the bar.

Now when we know which form gold can take and which substantial requirements it needs we can concentrate on actual purchase.

Nowadays, there are two ways to purchase gold. Either you can purchase physically or digitally. Physical ways have advantage that you own your gold absolutely, and it cannot happen that someone will misappropriate it. On the other hand if you have your gold physically, you need to consider where to hide your gold, so it would be safe and also its liquidity is a bit less than by digital purchase.

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### 4.6.2 Physical purchase

There exist a lot of possibilities from which to buy gold. There are individuals as well as legal bodies, which sell gold. For my work, I chose two possibilities at which I will compare for whom it is more suitable.

1. Saving at ECG company
2. Online store Gold investments

Of course most favourable would be to purchase gold from another investor who needs to dispose of their own gold for some reason. Unfortunately nowadays, there are only few who selling gold because one of the best properties of gold is its anonymity.

#### *Savings at ECG company*

Austrian company ECG noble metal investments GmbH with its headquarters in Vienna specializes on sales of rare metals. Company sells rare metals solely through personal franchise (ECG, 2011).

If an individual wants to purchase or start savings at ECG company, he must contact some of their business partners who work there by this franchise. After that you will get ID, and you can register an online account. In your account, you can choose one of many packages. Because the ECG company doesn't operate only with gold, you must be careful to mark gold savings. All those packages are based on same principal and differ only in target amount and instalments. Instalments vary and you can choose between 50, 100, 200 or 400 euros. Those saving packages are on the regular basis. Even though you should pay every month, there are almost zero penalties. By zero penalties it is meant that if the situation that you don't pay occurs you don't pay anything more than you should but your finish date is postponed by one month (or you can pay extra money in following months). During this saving, there is no money accumulating on your online account, but it is an exchange into gold. For example, you will not see in your account your 10 000 EUR saved, but its equivalent in gold weighted in grams. First, 50 euros on your account are directly changed into gold and it is yours. Next 1000 euros are also counted in your account but not as your own property but the property of company. It serves as a deposit which will not be returned unless you finish your saving package.

Gold which you save is stored in company's safe deposit. If you want to have your gold somewhere else there are two options how to get your gold.

1. Company will send you this gold – This service is subject to charge so it is better to use it only with a bigger amount
2. Personal withdraw – If you want you can take your gold personally in their headquarters in Vienna. Thus it is without any charge, but you have to give them notice three days in advance

This method, because of its properties (long-term, high deposit), is most suitable for people who are looking for stable and long-term savings. Advantage of this method is that ECG company makes huge trades with gold, and thus they can offer gold in smaller prices. Disadvantage is that if you want your gold to be sent it is subject to charge so it is better for those with higher amounts (so the charge will be lost in benefits) or those who travel through Vienna a lot. Second disadvantage is that ECG company doesn't offer gold coins, which are demanded by some investors.

### ***Company Gold Investments***

Gold investments is a limited company selling franchise for value of 130 000 CZK. For this sum they ensure to its owner supplies of rare metals and web page for his/her personal sales of gold, palladium, silver and platinum (EMS, 2015).

Anyone who is willing to buy gold can visit their web page, choose gold section and if he wants gold bars or gold coins. Then it is same as all other online shops we are used to. You order goods and it is delivered in time according to the situation of stock. Only one exception from other online shops is that if you are ordering for the first time you must register your account there.

This method is suitable for investors with bigger capital and for those people who wish to order gold all at once and have it delivered home. Disadvantage of this method is postage and necessity of place to store the gold.

### **4.6.3 Digital purchase**

First way of digital purchase is through exchange-traded fund (ETF) which is on American stock market since 1993. It is divided into two types. Investment trust and investment fund. These two differ especially in the way how they deal with dividends. If we are concerned about gold, it doesn't matter at all. This system is suitable for investors who are not looking for long-term investments rather want to purchase and sell gold by leverage effect of supply and demand (McGuire 2010). These funds have one of the smallest scatter between supply and demand, highest liquidity, and it is can bought and sold same way as shares on any trade platform (Jagerson 2011). The stock symbol for gold is GLD.

Second way of digital purchase is the digital trade market for gold. For investors, there are a lot of these digital trade markets. Digital trade markets store rare metals, and the users trade within a frame of this private system (Maloney 2008). Customer visits web page of the market and registers the account there. There is a verification requirement of customer's identity, which serves to prevent the fraudulent trades. After verification is done, all you need is to send your capital on the account, and you can start to purchase rare metals for competitive price. On these markets you cannot trade using trade platforms or brokerage account. You trade in the frame of their own system which means that you are not trading at worldwide stocks but with other customers who mean that price can be different.

## 5 Empirical part

According to literature survey gold purchased physically is supposed to be stable and usually used to defy inflation and the gold digitally should tend to be investors who are able to bear higher risk and invest on the daily basis. In this part, empirical research will be done to verify if this statement is valid nowadays.

This chapter will be divided into two parts. In the first part, the options of investment will be analysed on the criteria of liquidity, time, risk and stability. In the second part, examples will be executed of made-up investments for these options and compared each other.

### 5.1 Properties of multiple investments

In this part options of investing will be analysed. Analysis will be based on four criteria – liquidity, time, risk and stability.

As options for investing were chosen followings:

1. Gold – physical purchase
2. Gold – digital purchase
3. Shares
4. Building savings

#### 5.1.1 Gold – physical purchase

##### *Liquidity*

Liquidity of gold is quite good. A lot of people trade with gold and there is always a choice to trade your gold in the bank just slightly under value. It is of course better wait until some other investor would be willing to purchase gold from you, but it might take some time.

##### *Time*

In theory part was said, that gold was usually purchased because of its stability and ability to defy inflation. For these reasons it should be purchased for long time. In the graph

below development can be seen of the price of gold. Even though in last few years price of gold decreased, it is still increasing in general. If it would have been invested for ten years as it is on the graph, gold owned would have the price of 415.1 USD/oz. Today (17<sup>th</sup> April 2015) it had value of 1201.5 USD/oz. Increase in value of these 10 years would be 189.4%.



Figure. 2 Development of the price of gold in 10 years

Source: Kitco

### ***Risk***

Gold purchased physically is very good in risk point of view. This is one of the reasons why investors seek gold as an investment. There is very low risk because you own that gold physically so no one can take it away from you in case of bankruptcy. In theory there was said that some argue that it is endangered by fire but so is paper money and after the fire it can still be found the melted gold and sell it slightly under value.

At the graph it can be seen that there are no significant changes in price level. Maybe it might seem so but only in the measurement of unit because gold is really expensive but in measurement of percentage it is quite low.

### ***Stability***

Again graph shows of the price of gold it can be seen it is really stable. Some might say in years 2012 and 2013 were big changes and that's true. It was mainly because of the huge increase in demand for gold and it was inevitable that price of gold will decrease afterwards, because most of the experts argue that gold only equalize inflation. On the other hand even in that period of time the price didn't increase and decrease in huge amounts in short time rather than it was slowly balancing again to the expected level.

### **5.1.2 Gold – digital purchase**

For this option, it will be considered trading on ETFs.

### ***Liquidity***

Measure of liquidity of trading on ETFs is usually defined by amount of trades (the higher the better) and spread between bid/ask ratio (the lower the better) (Investopedia, 2014).

On ETFs the gold is one of the investment possibilities with very high amount of trades, especially in last years in which the demand for gold increased and the bid/ask ratio is actually the best in the options of ETFs.

For these reasons gold purchased digitally is probably the best option with shares very close behind. Everything said is also supported by the of ETFs account. Once you click sell or buy it is done in second and added or subtracted from your account. Withdrawal is also very good for ETFs because it is made by online transfers which most of people nowadays use. There more options you can choose from usual online transfer to your bank account to, for some people maybe new, “electronic wallets” like skrill, paypal etc. in which the transfer is done immediately.

### ***Time***

This is the point in which it differs most from the option of physical purchase. Even though in theory was said gold is used for long-term investment in majority this is not the case. On the ETFs commodities can be traded in really high amounts and also it



might not be invested just by purchasing (ask) but also by selling gold digitally (offer). In practice it means we can make money even if the price of gold decreases.

Actually this is not the main reason why digital purchase is best suited for short-term period. The main reason is that on the ETFs account, every time you trade, you pay some amount as a fee for a trade. This fee is also affected by time. If you opened trade for 1 day the fee is still the same but in some time, which might differ by the commodity you trade, there will be another fee subtracted from your account as an interest for trading. Because of this it is impossible make one purchase for years like in physical purchase. Because of this investors must trade for short time periods and usually change their strategies of buying and selling.



Figure. 3 Development of the price of gold in 1 week  
Source: World Gold Council

### ***Risk***

From gold purchased physically it quite differs. Because of the fees investors are forced to short-term investments. Because change in price of gold is changing in short time only in small amount they are also force to trade in bigger amounts.

Even with that said it is not so risky after all. Because the trading on ETFs has the limit tools, which are very good for these stable commodities like gold, the risk of los-

ing money is different than it seems. These limit tools are interactive which means you can change the price level of the limits during the trade is active.

### *Stability*

Gold purchased digitally has very good stability. But it is not as good as gold purchase physically. If you purchase gold physically these changes in price level during the day are very small and insignificant for you but here it is just the opposite.

When you trade on ETFs first you chose the amount of trading. For example for oil it is in barrels and for gold it is ounce. Thus the stability really depends on the amount you trading with and not about the change in price because even though the change is small but you trade with high volume it will affect you more.

### **5.1.3 Shares**

For this work were chosen shares of company Twitter Inc. Twitter Inc. Is company known for its social webpage but it also work closely with products from iPhone, Android etc.

Shares of this company were chosen mainly because its trade volume. It is one of the most traded shares and thus it is one of the best options for comparison. Also it will be supposed that trading these shares will be exclusively on ETFs.

On the graph below price movement of the shares of Twitter can be observed. This graph is for period from 9<sup>th</sup> November 2014 to 30<sup>th</sup> April 2015.



Figure. 4 Twitter Inc. shares  
Source: Twitter Inc.

***Liquidity***

Liquidity of the shares is very similar to gold purchased digitally on ETFs. These shares might have slightly higher bid/ask ratio but they traded in very high volume. Thus they have very similar maybe even higher liquidity than gold purchased digitally.

***Time***

For this criteria shares are the best option. Even though the gold purchased digitally is similarly bought and sold in few seconds its stability makes very difficult to earn money in short-time. Shares are exactly the opposite. If you look at the graph of the shares you can see changes all the time. These small changes we can see are in average about 2 points. Interpreted in percentage point of view it would be change of slightly below 6% (average point level is 36). It might seem low but these changes there are very often for example every 15 minutes and you can trade countless times. For these reasons trading with shares on ETFs is usually for short-time investments.

***Risk***

From this point of view shares are very bad choice. It is true that these kind of investments are very promising in earning lot of money in short amount of time. But the opposite can happen just as easily. On the graph we can see biggest change in price level of 14.24 (52-37.76). In percentage it is change of 27.33%. This particular change happened during 2 minutes.

Even though we consider trading on ETFs, where as was stated in case with digital gold, limit tools can be used which stops loss at certain point, shares are still very risky. Investors seek these shares exactly because of these changes and vision of quick money. For these reasons they don't use these limit tools as much as it is in the case with gold because these prices move so fast that they often reach limit cancel trade and then they might change movement again.

Some of the experts say that to reduce risk you have to analyse the market all the time and spend very much of your time to analysis the movements of the price level of given shares. Lot of investor who were successful with trading the shares stopped these analyses and in the end lost their money.

### ***Stability***

This criteria of shares is closely connected to the risk and time. Given the changes in price level are so often and the changes of price level might be small either small or really huge there is very bad stability.

That is one of the reasons why investors seek to invest in shares. There are kind of investors who has very good instinct about the companies which will be very successful

### **5.1.4 Building savings**

For this option was chosen company “Českomoravská stavební spořitelna” (hereinafter ČMSS). ČMSS is joint-stock company which offers all sorts of insurance, mortgage and building savings.

Building savings is just the product which was chosen for this thesis because it is only product from ČMSS which can be considered as investment.

Just general description: savings for minimum of 6 years (under penalty), entrance fee is 1% of target amount. Interest rate is 1.3% and 10% is state aid in maximum amount of 2 000 per year.

In this thesis will be used example when person “X” has building savings with 200 000 CZK. For better comparison it will be alter in USD with exchange rate of 24.35 per unit. The target amount is then 8215 USD. The example was calculated in programme “Eliška” which can be seen in appendices.

### ***Liquidity***

In comparison with other options is this one just the worst one. Withdrawal is possible after 6 years. For that you need to visit your or any other financial advisor from ČMSS. You will sign contract of closure of building savings and then ČMSS have 3 months to transfer the money, which is very long time compared to the other options. But there are some exceptions:

- Withdrawal before 6 years passed – everyone can withdraw in any time he wants and but without state aid. So if someone withdraws for example in third year, he will get all money he invested + interest rate.
- 3 weeks – after signing contract of closure money can be transferred in 3 weeks instead of months under condition that another contract is established (even from other family member).

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### ***Time***

This option is also worst in time point of view. As it was already said this option takes 6 years if investor wants extra money in form of state aid. It is very similar to physical purchase of gold. For these two options is best and recommended use of money the investor doesn't need at that time.

### ***Risk***

In comparison is building savings best option. There is almost 0% risk. Only two possibilities of losing money are to establish contract (entrance fee) and then withdraw money before interest is higher than the fee and if situation of bankruptcy occurred. First possibility happened very few times in history and the fee is only 1% of target amount. Second possibility to lose money is almost impossible. In history this never happened and also if it would the loss would be in maximum amount of 20% because it is given by law that these companies can invest only 80% of their holdings.

### ***Stability***

For building savings there is no instability. In the end of every year there is accumulated interest + state aid from your savings.

Only instability might be cause by investors if they for some reason don't save regularly.

## **5.2 Comparison of investments**

In this part there will be made imaginative examples of investments into gold, shares and building savings. For all three choices will be same time period chosen. Because of the building savings would have additional fees if it would be withdrawn before 6 years, it will be used time period of 6 years from 1<sup>th</sup> January 2009 to 31<sup>th</sup> December 2014.

In the case of the building savings, will be used example already mentioned above. Calculation of this example has been done in programme "Eliška" and it can be seen in appendices.

*Money invested* = 190530 CZK

*Money obtained* = 208345 CZK

$ROI = 9.4\%$

For gold there will be 3 variants of investors who purchase same amount of gold in total but in different time and all of them start to invest on 1<sup>th</sup> January 2009 and sell gold on 31<sup>th</sup> December 2014. Prices can be seen in following table.

1. 1 ounce per quarter
2. 4 ounces per year
3. 24 ounces in one purchase

Prices of purchase and sale can be seen in table below.

Price of gold in USD	1 <sup>th</sup> January	1 <sup>th</sup> April	1 <sup>th</sup> July	1 <sup>th</sup> October	31 <sup>th</sup> December
2009	874.9	893.8	931.8	1002.3	-
2010	1137.7	1120.1	1211.3	1318.6	-
2011	1369.8	1475	1544.2	1638.7	-
2012	1616.6	1668.7	1599	1781	-
2013	1656.8	1582.3	1223.8	1311	-
2014	1238	1302	1320.5	1190.7	1189.8

Tab. 2 Prices of gold  
Source: kitco

### Financial evaluation of the first option

$$\begin{aligned}
 \text{Purchase price } (P) &= 874.9 + 893.8 + 931.8 + 1002.3 + 1137.7 + 1120.1 + 1211.3 + 1318.6 \\
 &+ 1369.8 + 1475 + 1544.2 + 1638.7 + 1616.6 + 1668.7 + 1599 + 1781 + 1656.8 + 1582.3 \\
 &+ 1223.8 + 1311 + 1238 + 1302 + 1320.5 + 1190.7 = \underline{\underline{32008.6 \text{ USD}}}
 \end{aligned}$$

$$\text{Selling price } (S) = 24 * 1189.8 = \underline{\underline{28555.2 \text{ USD}}}$$

$$\text{Return on investment } (ROI) = 1 - (P/S) = -0.12 = \underline{\underline{-10.8\%}}$$

### Financial evaluation of second option

$$P = 4 * (874.9 + 1137.7 + 1369.8 + 1616.6 + 1656.8 + 1238) = \underline{\underline{31575.2 \text{ USD}}}$$

$$S = \underline{\underline{28555.2 \text{ USD}}}$$

$$ROI = \underline{\underline{-9.6\%}}$$

### Financial evaluation of the third option

$$P = 24 * 874.9 = \underline{20997.6 \text{ USD}}$$

$$S = \underline{28555.2 \text{ USD}}$$

$$ROI = \underline{+36\%}$$

We can see that from these 3 investors is only one with positive ROI and it is the one who invested all at once.

The biggest change in price is from 1<sup>th</sup> April to 1<sup>th</sup> July 2013. The difference is 358.5 which is 22.7% change.

The same example will be used for trading with shares. Company which was chosen is Gulf Oil Corporation. The reason for switch with Twitter is that Twitter has not published value of its shares was incorporated since 2007 so it could not be used for example of investing for 6 years. The variants will be again 3 investors with exception that they will invest in 10 Units of share per given period.

Gold of share in USD	1 <sup>th</sup> January	1 <sup>th</sup> April	1 <sup>th</sup> July	1 <sup>th</sup> October	31 <sup>th</sup> December
2009	40.5	27.4	57	80	-
2010	104.9	88	107.4	100.6	-
2011	99.8	80.9	86	71.55	-
2012	55.85	75.5	83.85	82.35	-
2013	82.9	67	70.3	78	-
2014	81.25	107.25	169	154.8	151.7

Tab. 3 Prices of shares  
Source: Gulf Oil Corporation

### Financial evaluation of the first option

$$(P) = 10 * (40.5 + 27.4 + 57 + \dots + 169 + 154.8) = \underline{20521 \text{ USD}}$$

$$(S) = 240 * 151.7 = \underline{36408 \text{ USD}}$$

$$(ROI) = S - P / P = 0.7742 = 77.42\%$$

**Financial evaluation of second option**

$$P = 40*(40.5 + 104.9 + 99.8 + 55.85 + 82.9 + 81.25) = \underline{18608 \text{ USD}}$$

$$S = \underline{36408 \text{ USD}}$$

$$\text{ROI} = 95.66\%$$

**Financial evaluation of the third option**

$$P = 240*40.5 = \underline{9720 \text{ USD}}$$

$$S = \underline{36408 \text{ USD}}$$

$$\text{ROI} = \underline{+274.6\%}$$

In the case of trading with the shares for this given company and time period was recorded positive ROI at all variants of investing.

The biggest change in prices was recorded from 1<sup>th</sup> April to 1<sup>th</sup> July 2014 with the value of 62.75 which is 57.58%.

### 5.3 Results

These examples were created to test the evaluation of these investments on basis of the criteria.

Best of the options resulted in trading with shares. Best of the variants was the third one with ROI of 274.6%. The other two variants of trading with shares were also very good and still much better than the rest of investment possibilities.

In the evaluation based on criteria shares has been stated for short-term, unstable, with high risk and high liquidity. From these criteria used liquidity will not be concerned for obvious reasons (we cannot make sale in made-up example).

Let us start with the risk. The risk within this example corresponds to the properties. It can be confirmed that by observing the changes in price of the shares recorded in given dates and by difference between the ROI of chosen variants.

The statement that shares are unstable has been also confirmed by example. It can be also observed from the development of price. If you look at one change at the time



you can see that once the price decreases once increases and there is no pattern. The value of the changes is also very unstable once it is change of 3 USD then 60 USD.

The last point which can be observed on the example is whether it is suited for short-term or long-term investments. In the chapter of properties we stated shares are better for short-term investing. On the other hand the result of the example is in contrast of that claim. From the 3 variants of investing, the one when investor had the shares for longest possession at once is with the highest ROI and the one when the investor invested more frequently was with the lowest one. This result of course might be the error caused by the choosing of specific company and the other might prove the argument to be correct.

For the case of investing in gold, the examples were even more successful and confirmed all three evaluations of criteria.

It has been stated that risk for investing in gold is small but not insignificant. It can be seen same as in the option of trading with shares. The changes in prices are much smaller than in the case of shares. But best visible it is in the case of ROI. For two of the variants ROI has been actually negative and only one positive. The values of ROI are also not so high as it was in case of shares.

The stability was also very well in this example. The value of changes is not so high and usually similar for all the dates in which the prices were recorded. The trend is also very stable and it can be increased or decreased for the longer time periods.

The last criteria has been very well fitted by the example. Meanwhile the investors who invested frequently has had negative ROI, the one investor who has invested all at once and waited whole six years to liquidate his investment has the positive one and also the highest value of all.

The example of the building savings was constructed solely for comparison of the ROI. It was quite obvious that it will fulfil the properties because the programme used for model would make same process no matter on the numbers.

Even though the ROI of the two variants for investing in gold were negative, in my opinion the building savings has resulted in worst choice for investment. The ROI of 9.1% is very low for period of six years and according to many experts it is still lower

than the real inflation. Also the examples are not perfect. There has been lot of conditions to make it simple and fair for comparison. For example in the case of shares and gold the investors could have liquidate their investments in any given time period and not solely after six years. On the other hand these examples have not shown the other advantages of buildings saving such as better conditions for mortgages etc.

## 6 Recommendation

Before the start of investing it is really important to answer the following questions.

- Why do we invest?
- How much do we want to invest?
- For how long will we invest?
- What kind of risk are we willing to take?
- Do I need knowledge for these kinds of investments?

The answers of every question vary from person to person. Some can answer I want to invest because I have money to spare, and I want to make use of them. I want to use half of them and invest them for time I will need them which I expect in a three years. I am willing to take a risk but I will look for stable opportunity, so I need not to worry about the investment too much. Others might say I want to make my living by investments. I will start to invest all money I can save. I will look for short-term investments with possible high return on investment, and thus I am willing to take a higher risk.

The answers above just serve as an example and of course everybody would answer differently. Answers to these questions are crucial for future, and they are start to choosing one of many options of investments.

This chapter will discuss the options of investments, which were used in this work, will be discussed, for whom it is suited and some of the details, which are important for investing in given option.

If you look at the first answer of our question, it is obvious to say that for this kind of person, physically purchased gold would be best. In this work was said, that investing into gold is usually to deny the inflation. These investments usually are for the long-term period so it matches the answer of the question for how long we want to invest. For this option the question how much we want to invest is not so important. Gold can be purchased in many variants of weight and forms. The risk is quite low so even from this point of view gold would be the best choice.

Gold purchased physically is also very good to divide your property. Many people have all their money in paper form and on their bank accounts. If the situation occurred when the currency would lose its value dramatically they would lose a great amount. That could be protected by diversification of portfolio for which a lot of experts use the gold. You should have some knowledge before you invest in any case but for gold it is not so necessary. Once you buy gold, there is very small influence you can make. The only thing is to predict its price and invest or sell your investments at the right time.

With the second answer it is more difficult. Meanwhile in the first example all answers pointed out to gold in the second case it will be more about experience and personal attitude. Even though the answers point to invest in shares it is not as easy as it might look. Trading with shares on ETFs is very difficult and high-risk in order to reduce his risk, it requires a lot of experiences and knowledge about the chosen share. This knowledge can be earned by analysis of the price levels using some of many tools in your platform for trading such as limits, trends, mean, etc. For shares it is also important to know details of the firm and its products, business plan, history, and others. Experience will of course be earned in some time.

To choose best options for the second case would be probably gold purchased digitally. Reasons are quite simple. Gold traded on ETFs has a significantly lower risk than shares, but it still has the same variation of tools on your platform. It is a recommended to start with investing in gold, and after you get some experience with the ETFs you could move to shares.

There is also one other choice to get experience trading within the ETFs and not risk any money at all. In your platform, you can start demo version of a programme. In this demo version, you have imaginary 10 000 USD with which you can trade. Even if you use this demo programme it is still recommended to start with gold or another stable commodity before you invest into the shares. While some people are great in trading within the demo version, they have low success with real money. It is often caused by the fact that people tend to trade with their own money differently. Best choice to overcome this is to take your money which you deposit on your account for investing as

nothing so you can trade without the fear of losing. This attitude should not be exaggerated because it can have even worse effect.

In this part, we do not discuss the building savings. It is because I personally don't consider this option as an investment. During the modelling process, it has been seen that the ROI of building savings is very low if considered for six years. According to the theory, the inflation in these six years would be higher. Of course, it is a better option than storing money in the usual bank account, but I think that it is better to choose gold or shares.

On the other hand, building savings has some property from which can be taken advantage. For those who have history within the company, usually by building savings so the company saw your capability to pay, they offer better conditions of mortgages and other products. Also, building savings can be changed in the middle of the saving into a mortgage. For these reasons, this choice is recommended for those who plan to move in their own flat or for the parents who want to save money on behalf of their children and thus prepare better conditions for them.

## 7 Conclusion

The aim of the thesis was to evaluate aspects of investments, to describe ways in which they differ from each other and for whom are these investments suited.

First part of the thesis was focused on the literature survey appropriate for these kinds of investments.

Gold has been discovered thousand years ago and at that time it was considered as a holy thing. Gold has been first used as means of payment in 1500 BC. However, the main position in the history gold took in history was because of the gold standard which was system in which the money was covered by gold from state. This system was abolished and to implement this system today would have many complications, and most importantly it is seen as unfeasible.

After the history, thesis discussed the attitude of people towards gold and why they should invest in this commodity. Most important of these reasons are probably that the supply is decreasing and demand decreasing steadily in time, which indicates that the price of gold should be increasing in the future.

Because it is important to consider price of the investment, this thesis describes the development of the price of gold and its influences. According to the theory, one of the main influences on the price are changes in the share of gold in reserve banks, which influences demand and supply and thus also the price. As the main influence on the price is considered the currency in which the gold is traded. Gold is in most cases traded in USD, and the relationship of this currency and gold can be seen in the previous figure n. 1.

The last chapter of the literature survey focused on actual purchase and the forms of gold. The main information of this chapter is that gold has two forms. The forms are gold bars and coins. Both of them have a little different property and the gold bars are also divided into two subcategories according to the process of manufacture. The actual purchase of gold is also divided into two categories. You can either purchase gold physically or digitally. Both ways have their advantages and disadvantages.

In my own work, I focused on analysing investments on gold, shares and building savings based on criteria of liquidity, time, risk and stability. The analyses have been done using the platform for trading on ETFs and its tools. In this evaluation gold purchased physically has been stated as investment possessing low risk, very good in stability with lower liquidity and usually taken for the long-term period.

Gold purchased digitally differs especially in the conditions of trading and thus changes these criteria. The fees which are taken for trading on ETFs force investors to make short-term investments thus reducing the stability and increasing risk. But the main advantage it takes for the liquidity. Because of the very high volume of trades and low spread of bid/ask ratio gold purchased digitally has very high liquidity.

The final chapter of this thesis shows made-up examples of investing. These examples were constructed to test this evaluation of gold purchased physically, shares and building savings.

The examples evaluated only three of these criteria – time, stability and risk. In the examples which have been made all the criteria match their evaluation, which is taken as a proof that the evaluation has been correct. Thus, we know that physical purchase of gold is more suitable for investors with more conservative style who are afraid to take high risk and looking for something stable and to divide their portfolios. On the other hand people who are willing to take higher risk should seek trading with the gold digitally or shares.

The evaluation and results of the examples corresponded with the literature survey. This fact can be very well used for consideration of future investing, the huge samples for analysing the markets and development of the price can be taken without the high risk that this huge sample is going to suffer from data, which doesn't affect today and the investors can learn from the past experiences of other investors.


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## 9 Appendices



**ČMSS**  
Na těchto základech můžete stavět



### Model of building savings

**Client**

Name: X

**Representative**

Name: ██████████

Phone: ████████ Email: ████████████████████

Closure date:	22.04.2015	NOTES
Tariff variant:	01/14 PRG 03/15 M15	
Target amount	200 000 CZK	
Time period	6 years 1 month	

✓	Monthly payments:	2 610,00 CZK
	Total inputs:	190 630,00 CZK
	Interest:	+ 7 454,90 CZK
	Interest bonus:	+ 0,00 CZK
+	Premium:	+ 0,00 CZK
	State aid:	+ 11 488,00 CZK
	Additional state aid	+ 2 000,00 CZK
-	Expenditures:	2010,00 CZK
	Tax:	- 1 118,20 CZK
	Bonus tax:	- 0,00 CZK
	<b>Effective interest rate</b>	<b>2,00 %</b>
	<b>Total saved</b>	<b>208 344,70 CZK</b>

Appendix 1 model of building savings