

## ECONOMIC ASPECTS RELATED TO NATURAL PERSONS' INVESTMENTS IN PRECIOUS METALS

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*Abstract: Precious metals were discovered and appreciated for their qualities in ancient times. Initially used as jewelry, with the evolution of humanity, precious metals have become useful in a wide range of fields, and are used nowadays both in the industry and as investment assets. For individual investors, investments in precious metals have certain peculiarities that will be discussed here in below.*

**Key words:** Precious metals; Investments; Price; Natural persons; Ratio; Costs.

**JEL Classification Codes:** G10, G11.

### 1. INTRODUCTION

The economic and technological developments in recent decades have led to an increase in the living standard and in the number of investors. By investing their available capital, natural persons aim at acquiring an asset able either to generate incomes, or to appreciate in value, or both. In order to decrease the risk associated to any investment, we recommend diversifying the investment portfolio. In recent years, the problem of diversifying investments has become significant due to economic conditions. The recovery of the economy after the 2007-2008 global crisis was slow and low interests and deflation that characterized the post-crisis period determined an important influx of investments in shares and real estate. The Covid-19 pandemic brought about high volatility into the stock markets and the recovery plans implemented by governments after the pandemic stimulated the increase in inflation. Geopolitical problems and military conflicts also increased risks. In the current context, characterized by high risks and volatility on the financial markets, the question arises of how individual investors - natural persons can protect their capital available for investment or part of it.

Precious metals have traditionally been reserve assets for crisis situations. Based on the historical data, it is known that during times of recession, the price of precious metals increases while the price of other assets decreases. Consequently, precious metals can be a defensive component of a diversified investment portfolio.

According to a paper published by National Mining Association, around 4000 BC, “a culture, centered in what is today Eastern Europe, begins to use gold to fashion decorative objects. The gold was probably mined in the Transylvanian Alps or the Mount Pangaion area in Thrace”. Subsequently, there is proof concerning the use of gold as jewelry in Sumer, Egypt, Israel, Babylon, China and in other areas on the globe. Vipin and Biju believe that “money spent on purchasing gold gets blocked since gold is not a productive asset” (Vipin&Biju, 2014). The quoted authors indicate that, due to this reason, “the Indian government on its part has tried very hard to make physical gold less attractive by raising duties on gold as well as forbidding banks from lending money to its customers for the purchase of gold” (Vipin&Biju, 2014). Precious



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metals are available in physical form as ingots and coins. As mentioned in a document published by the company Morgan Stanley, “bullion products can be produced by both government and private mints, but only a sovereign body has the authority to mint coins with a currency denomination” (Morgan Stanley, 2014).

## 2. FORMS OF INVESTMENT IN PRECIOUS METALS

A precious metal is “a metal that is valuable and usually rare” (Cambridge Dictionary, 2022) and, according to the U.S. Department of Energy (2022), “precious metals are defined as gallium, gold, iridium, osmium, palladium, platinum, rhodium, ruthenium, silver, or any combination of these metals”. The most well-known precious metals are gold, silver, platinum and palladium.

Gold is a precious metal, resistant to oxidation and corrosion in humid conditions. Gold has been a metal known, used and appreciated for its qualities ever since ancient times, being the most popular metal for investments nowadays. It was and is used in the form of jewels, coins, for investments, in industry. Silver is as known as gold, but has a lower value. It is mainly used in industry (electronics, photography) but also as investment asset and as jewels. Silver is found in nature in much larger quantities than gold, and is consequently cheaper. Platinum is another precious metal due to its rarity and qualities, but it is a less popular investment, compared to gold and silver. Palladium is part of the platinum family and is used mainly in the composition of catalytic converters, which are an important part of the car exhaust system.

Most people have jewels they mainly bought for aesthetic reasons, but some also view these objects as a form of investment. The question arises: are jewels made of precious metals a good investment? Gold jewels are classified according to the weight of fine gold in the alloy. 18-karat gold is used for fine luxurious jewels, while 14-karat gold is used for fine and durable jewels. The most popular are jewels made of 14-karat gold, due to the balance between affordability and durability. In most countries, there is an obligation to mark gold jewels to indicate the purity of the metal from which they are made. Due to the qualities of the metal, gold jewels require less maintenance than silver. Silver has a much lower price than gold. Consequently, jewels made of silver are much more affordable than gold or platinum.

In the case of investments in precious metals, the only possibility of profit arises exclusively from the sale of these metals. In the case of jewels, the costs of melting and processing are high. Another aspect due to which the investment in jewels made of precious metals is not profitable is related to the inclusion of excise duty and value added tax into their price. Under the provisions of the Fiscal Code of Romania, investment gold means:

”a) gold, in the form of ingots, or slabs accepted/quoted precious metal markets, having a minimum purity of 995 per thousand, whether or not represented by securities, with the exception of ingots or slabs, with a weight of maximum 1 g;  
b) gold coins that cumulatively meet the following conditions:  
1. Have a titre equal to or higher than 900 per thousand;  
2. Are reconstructed after 1800;  
3. Are or have been legal exchange coin in their country of origin; and  
4. Are normally sold for a price that does not exceed the free market value of the gold contained in the coins by more than 80%.”

### **Box no. 1. Definition of investment gold according to the Fiscal Code of Romania (2015)**

Investments in precious metals can take many forms:

1. Purchasing metals in physical form, as coins or ingots;

2. Purchasing fund units of exchange traded funds (ETF) (exchange traded commodities-type);
3. Buying shares in gold mining companies.

Each of these options has advantages and disadvantages, which will be presented in the table 1:

**Table no. 1. Advantages and disadvantages of the forms of investment in precious metals**

Type of investment in precious metals	Advantages	Disadvantages
1. Purchasing metals in physical form, as coins or ingots	<ul style="list-style-type: none"> <li>• It is a tangible asset, always available to the owner;</li> <li>• Provides coverage for inflation;</li> <li>• In the long term, the price has low volatility and tends to grow;</li> <li>• The investment can be made relatively simply and does not need in-depth knowledge;</li> <li>• Provides the possibility to diversify the investment portfolio.</li> </ul>	<ul style="list-style-type: none"> <li>• Storage and insurance expenses;</li> <li>• High purchase cost;</li> <li>• Lower liquidity than that of shares;</li> <li>• In the short term, the price can have high volatility;</li> <li>• The investment in physical gold does not generate dividends, the profit results exclusively from the price variation.</li> </ul>
2. Purchasing fund units of exchange traded funds (ETF) (exchange traded commodities-type)	<ul style="list-style-type: none"> <li>• Eliminates the inconveniences and costs related to holding and storing and ensuring the security of physical gold;</li> <li>• Provides liquidity and flexibility similar to stock ownership;</li> <li>• Ensures profits for much lower costs than in the case of owning physical gold;</li> <li>• Trade margins are much lower than for the physical gold;</li> <li>• One can buy low-value units, equivalent to the value of a gram of gold;</li> </ul>	<ul style="list-style-type: none"> <li>• ETFs have operating expenses;</li> <li>• The fund units owned cannot be exchanged for physical gold;</li> <li>• The purchase of fund units issued by ETFs is made through a broker who can charge fees.</li> </ul>
3. Buying shares in mining companies that extract, refine and/or trade precious metals	<ul style="list-style-type: none"> <li>• Mining is one of the oldest business activities and is consequently a predictable sector;</li> <li>• The demand for precious metals worldwide is increasing;</li> <li>• High liquidity;</li> </ul>	<ul style="list-style-type: none"> <li>• The increase in the price of gold is not a guarantee for the increase in the price of shares of mining companies;</li> <li>• The price of shares of mining companies is correlated with the price of other shares rather than with the price of gold;</li> <li>• Deposits of precious metals become depleted eventually;</li> <li>• Buying shares issued by mining companies is done through a broker who can charge fees.</li> </ul>

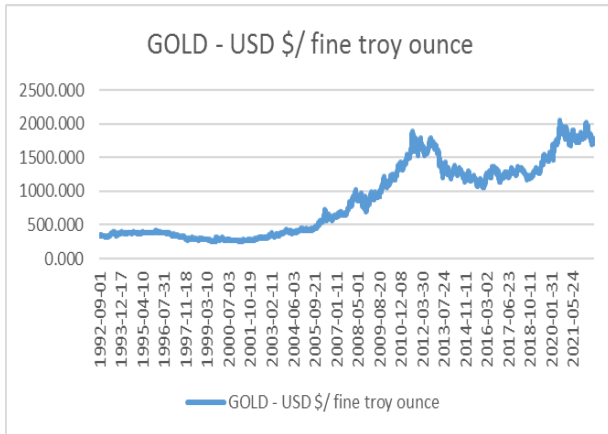
Source: prepared by the authors

Historical data show that, in the long term, investors in the stock market had on average a higher return than those who invested in gold. Anyway, investments in shares listed on stock markets seems to imply a higher risk due to the fact that, statistically, the exchanges on such markets are more sudden, and the average performance of the stock market is not necessarily relevant for a stock market investor, due to the fact that he will only invest in part of the listed

companies, not in an average company. ETFs that replicate a stock market index can be a solution to follow the trend of the stock market, as it is known that few players manage to “beat” the market.

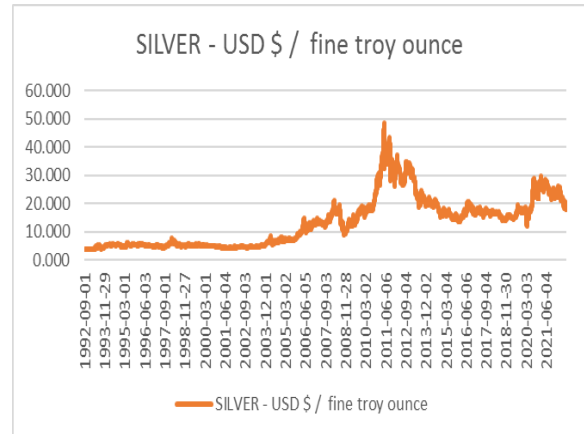
### 3. THE EVOLUTION OF THE PRICE OF PRECIOUS METALS IN THE PERIOD 1992-2022

Figures 1-4 show the evolutions of the prices of the four precious metals: gold, silver, platinum and palladium.



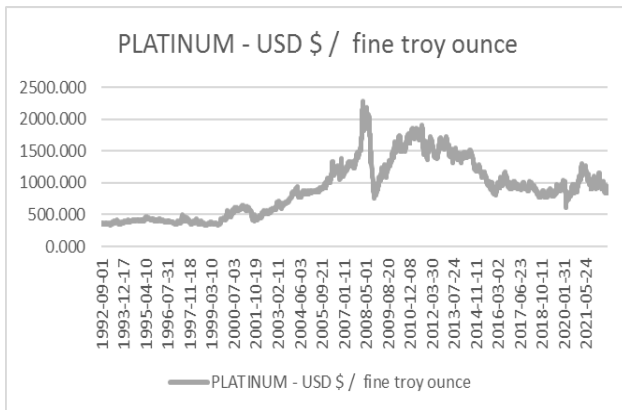
**Fig. 1. Gold price – US dollars/fine troy ounce (1992-2022)**

Source: authors’ processing based on data published by LBMA, <https://www.lbma.org.uk/prices-and-data/precious-metal-prices#/>



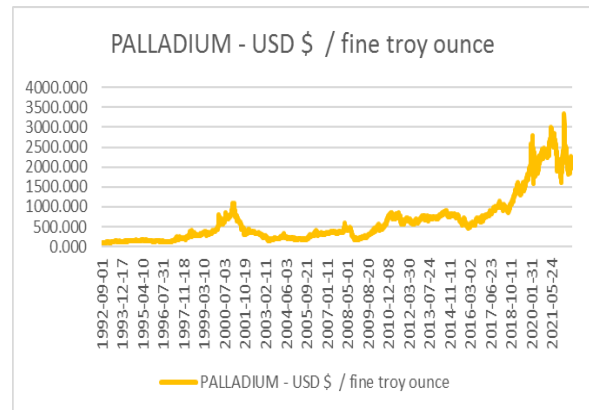
**Fig. 2. Silver price – US dollars/fine troy ounce (1992-2022)**

Source: authors’ processing based on data published by LBMA, <https://www.lbma.org.uk/prices-and-data/precious-metal-prices#/>



**Fig. 3. Platinum price – US dollars/fine troy ounce (1992-2022)**

Source: authors’ processing based on data published by LBMA, <https://www.lbma.org.uk/prices-and-data/precious-metal-prices#/>



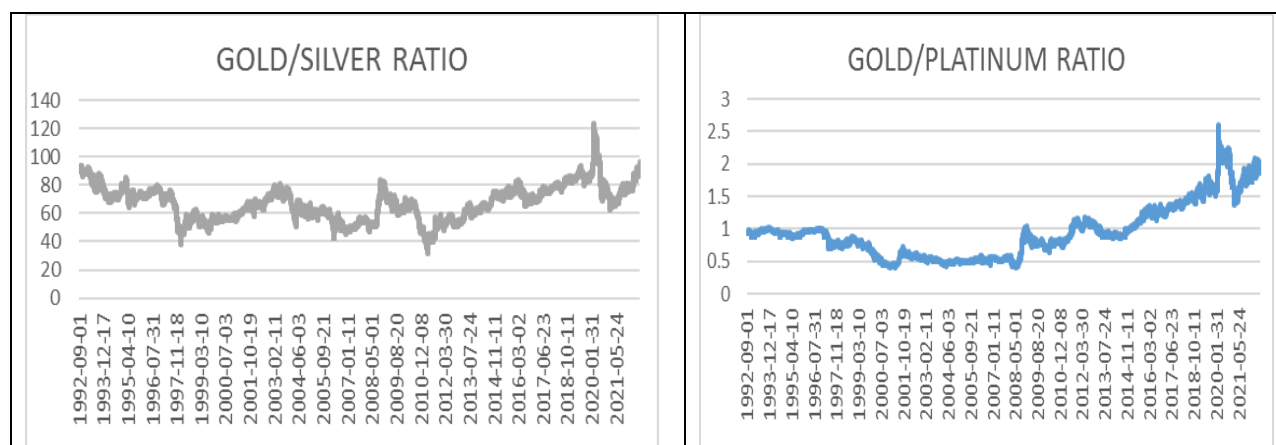
**Fig. 4. Palladium price – US dollars/fine troy ounce (1992-2022)**

Source: authors’ processing based on data published by LBMA, <https://www.lbma.org.uk/prices-and-data/precious-metal-prices#/>

We can notice, in the charts above that, in the long term, the prices of all four precious metals have grown. Developments such as the dot.com crisis, subprime crisis, low interest rates, the Brexit referendum, the Covid-19 pandemic crisis, and the war in Ukraine have influenced the price of precious metals differently.

In order to compare the evolution of the prices of various precious metals, we can calculate ratios between the prices of these metals. Figures 5-7 show the evolution of the gold/silver,

gold/platinum and gold/palladium ratios. Basically, the values of these ratios show how many ounces of silver, platinum and palladium respectively can be bought for the price of one ounce of gold.

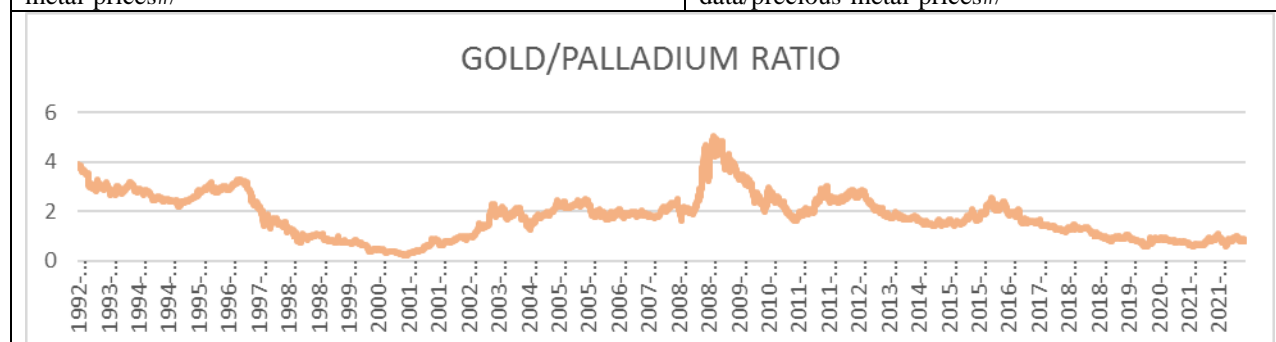


**Fig. 5. Gold/Silver Ratio (1992-2022)**

Source: authors' processing based on data published by LBMA, <https://www.lbma.org.uk/prices-and-data/precious-metal-prices/>

**Fig. 6. Gold/Platinum Ratio (1992-2022)**

Source: authors' processing based on data published by LBMA, <https://www.lbma.org.uk/prices-and-data/precious-metal-prices/>



**Fig. 7. Gold/Palladium Ratio (1992-2022)**

Source: authors' processing based on data published by LBMA, <https://www.lbma.org.uk/prices-and-data/precious-metal-prices/>

From the beginning of the 21st century to the present, an increase in the ratio of gold/silver and gold/platinum ratio can be seen, which indicates an increased demand for gold. On the other hand, the gold/palladium ratio has had an opposite trend and we can notice a significant decrease in the last decade, which can be explained by the increase in the demand for palladium, especially in the industry.

For the analyzed period (1992-2022) we also calculated the price evolution correlations for the four precious metals, in table 2:

**Table no 2. Precious metals evolution correlations 1992-2022**

Precious metal	Gold	Silver	Platinum	Palladium
Gold	-	0,918	0,683	0,760
Silver	-	-	0,823	0,564
Platinum	-	-	-	0,255
Palladium	-	-	-	-

Source: authors' processing based on data published by LBMA, <https://www.lbma.org.uk/prices-and-data/precious-metal-prices/>

We see the existence of very strong correlations between the price of gold and silver (0,918). Significant strong correlations are also between the price of silver and platinum. Average correlations are found between the price developments of gold and platinum, gold and palladium. It should be noted that for the analyzed period we do not find correlations between the price of platinum and palladium. So, the decision to invest in precious metals must of course be followed by the question “in which?”.

#### 4. CONCLUSIONS

Capital markets experience a continuous evolution and the previous evolutions of a certain assets are not a basis for the assessment of its future performance. By buying shares or units issued by mutual funds, the investor directly/indirectly owns part of that company and can regularly earn profits in the form of rent, but investments in precious metals do not generate such regular profits, the only chance of making a profit being to sell them for a higher price. The investments of natural persons in precious metals can be a solution for the diversification of the portfolio and a means of protection of part of the wealth against inflation, in the long term. Investments in precious metals in physical form must be taken into account only in the long term, due to big differences between the purchase price and the selling price. The costs related to owning precious metals in physical form can make their purchase less profitable. In the short and medium term, the investment in ETFs that monitor the price of precious metals can be taken into account due to low fees.

This paper was prepared strictly for informational purposes and no part of the presented information must be taken into account as advice for investments. Past performance is not a guide to future performance.

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