

Current trends in the world market of precious metals

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Annotation. *The market of precious metals in the world is studied. The requirements for the standard of gold, silver and platinum ingots are named. Factors influencing the world market of precious metals are revealed. Forms of market organization are described. The dynamics of gold, silver, platinum and palladium production in 2010 - 2019 are given. The tendencies of development of the world market of precious metals and the market of precious metals in Ukraine are named.*

KEYWORDS: GOLD, SILVER, PLATINUM, PALADIUM, PRICING, PRODUCTION

1. Introduction

Precious metals (gold, silver, platinum and palladium) are a specific type of financial asset and are one of the most popular investment instruments. The development of this segment of the financial market directly affects the financial and investment opportunities of the country, which it is able to realize, using the mediation of both its own financial institutions and relevant structures with foreign capital. A sufficient reserve asset of precious metals makes it possible to increase both the political and foreign economic and social advantages of a country in the international arena.

Obviously, the individual reserves of precious metals of each country are formed, primarily, depending on its financial and economic condition, as well as changes in exchange rates. Therefore, we can talk about the mutual influence of the precious metals market and other subjects of the national economy.

The aim of the article is to identify current trends in the precious metals market based on the analysis of the world precious metals market and to consider the problems and prospects of the Ukrainian precious metals market.

2. The market of precious metals in the world

There is a distribution of gold markets, which depends on the degree of government regulation. In this case, there are four categories of markets [1]:

1. World - such markets are in London, Chicago, Zurich, Frankfurt and Hong Kong;
2. Internal free - their location in Milan, Paris and Rio de Janeiro;
3. Local controlled - located in Athens and Cairo;
4. "Black" markets - the main one is in Bombay.

According to experts, more than 180,000 tons of gold have been mined on Earth. The vast majority of all mined precious metal is presented in the form of jewelry and this share is about 40%, also a significant share of mining is in state reserves - 30%, no less significant share of gold is stored in bullion and coins - 20% and the last 10% are used in industry. Most of this precious metal is consumed by countries in Asia because of their culture and customs. The increased demand for gold products in these countries is mainly due to low cost and increased solvency.

There are two main participants in the precious metals market - market makers and brokerage offices. Each of them performs certain functions and represents:

1. From sellers:
 - various corporations engaged in the gold mining industry;
 - refining productions for processing scrap from gold;
 - state reserves of national banks, which reduce the reserves of precious metals that were accumulated earlier;
 - speculators and hedgers, whose job is to speculate on precious metals contracts (mainly forward, option and futures contracts);
 - private hoarders and investors, whose task is to sell previously accumulated reserves of precious metals.
2. From buyers:

- various industrial and technical productions using precious metals;
- jewelry industrial production;
- dentistry;
- investors or investors' agents (commercial banks);
- state reserves of central banks;
- private hoarders (for example, they can be collectors of gold coins or ingots).

To sell precious metals on the market, they must meet the International Quality Standards adopted by the London Precious Metals Market Association (LBMA), which are marked in the association's documents as the "London good delivery" standard and have the following requirements [2]:

- 1) For gold bars:
 - Weight of pure gold ingot - from 350 to 450 troy ounces (from 10886 to 13754 grams);
 - The weight of each ingot can be expressed in Aryan ounces and be a multiple of 0.025 ounces;
 - Purity of the metal - not less than 995 parts of chemically pure gold per 1000 parts of ligature weight.

The ingot must bear the following mandatory marks: serial number, sample, manufacturer's mark and year of manufacture of the ingot (the requirement has been in force since 1988).

The ingot should be without indentations, not be porous and have other defects. It should be comfortable to carry and store.

- 2) For silver ingots:
 - Ingot weight from 500 to 1250 troy ounces (from 15552 to 38879 grams);
 - The weight of each ingot must be expressed in Aryan ounces and be a multiple of 0.10 ounces;
 - The purity of the metal must be at least 999 parts of pure chemical silver per 1000 parts of ligature weight.

The ingot must bear the following mandatory marks: serial number, sample, manufacturer's mark and weight in Aryan ounces or kilograms (if the weight of the ingot is in kilograms, it must be converted to troy ounces and meet the above requirements).

The ingot must be of the correct shape, as well as easy to carry and transport, and must not contain defects. Another requirement is that the edges of the ingot must be straight and not sharp.

- 3) For ingots (plates) of platinum:
 - Weight of the ingot (plate) - from 32,150 to 192,904 troy ounces (from 1000 to 6000 grams);
 - The purity of the metal must be at least 999.5 parts of chemically pure metal per 1000 ligature weight.

Such ingots also have a number of features related to special labels: serial number, sample, letters PT or PLATINUM, brand of the manufacturer, as well as weight in grams or Aryan ounces.

3. Factors influencing the world market of precious metals

Today in practice various forms of the organization of the market of precious metals [3] become widespread:

- first of all, it is a market that is strictly regulated by the state
- the main and only buyer and seller of precious metals in such a market are central banks, and all other market participants already buy metal from them (China, South Africa);

- the next form of roar is trading in precious metals through specialized exchanges or sections of commodity or currency exchanges. Regulation of operations, access to non-residents is carried out by central banks (France, Turkey);

- there is also a system of free exchange trade in precious metals (Hong Kong, Luxembourg, USA);

- another form is the trade in precious metals, which is carried out by several large monopoly banks or their associations (UK, Germany, Switzerland);

- a system of competitive interbank trading, dominated by several banks- "market makers" (Japan, Holland and the United States).

In some countries, there may be several forms of trade in precious metals at the same time, but only those countries can afford this, which have fairly liberal legislation that allows all forms of trade to develop competitively.

As for the direct factors, they include industrial demand as a catalyst for changes in the value of various precious metals. The largest consumers of precious metals are usually the electrical industry, mechanical engineering, jewelry and many others. We can also include the economic and political situation of the world's leading countries, in particular, the United States.

Gold mining is growing every year, and a graph can be seen in Figure 1, which shows the dynamics of this precious metal over the past five years.

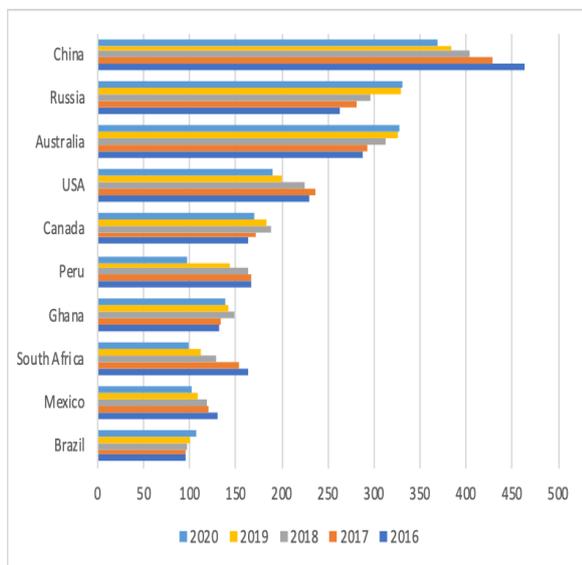


Fig. 1. Dynamics of gold production by leading countries in 2016-2020. Source: compiled on the basis of [4].

As of 2019, the volume of silver production increased by 27 thousand tons. Due to the growing consumption of jewelry, silver coins still have a surplus of this precious metal. For example, we can consider a dozen leading countries in silver mining (Fig. 2).

Platinum is one of the rarest metals in the world. The five countries, namely the United States, Canada, Zimbabwe, Russia and South Africa, account for 97% of the world's world platinum. The dynamics of platinum production in 2010-2019 is shown in Fig. 3.

Palladium belongs to the platinum group and is chemically similar to it. It is most often used in catalytic converters, which is a key component of internal combustion engines, which are equipped with most motor vehicles in the world. Every year the dynamics of palladium production changes slightly (Fig. 4).

Indirect factors influencing the price of precious metals are, first of all, the price of oil. According to research, with the rise in oil prices by 1 US dollar, the price of gold increases by an average of 1.6 US dollars, and silver rises by 0.06 US dollars [8]. Also affected by changes in the US dollar, stock indices of global financial markets, the impact of prices on other precious metals. Schematically, the mechanism of the pricing process in the world market of precious metals is shown in Fig. 5.

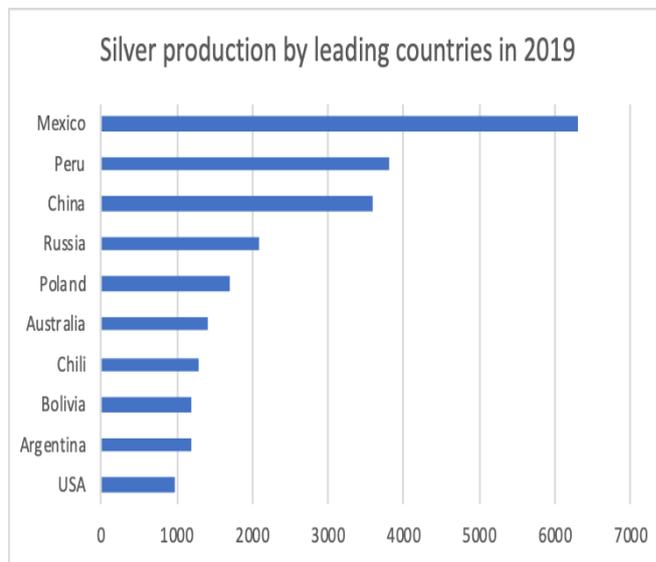


Fig. 2. Volumes of silver production by leading countries in 2019, vol. Source: compiled on the basis of [5].

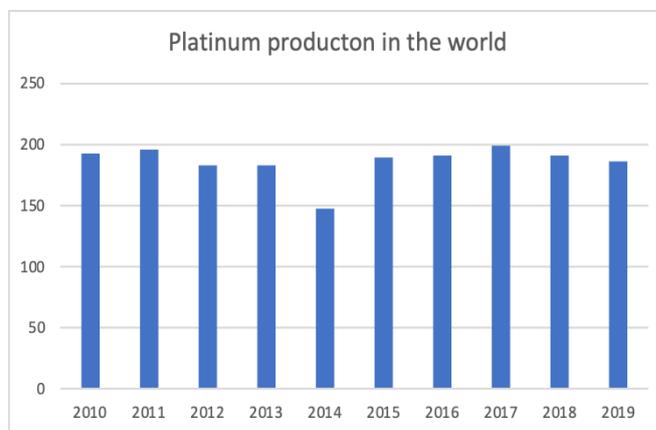


Fig. 3. Dynamics of platinum production in the world 2010-2019, vol. Source: compiled on the basis of [6].

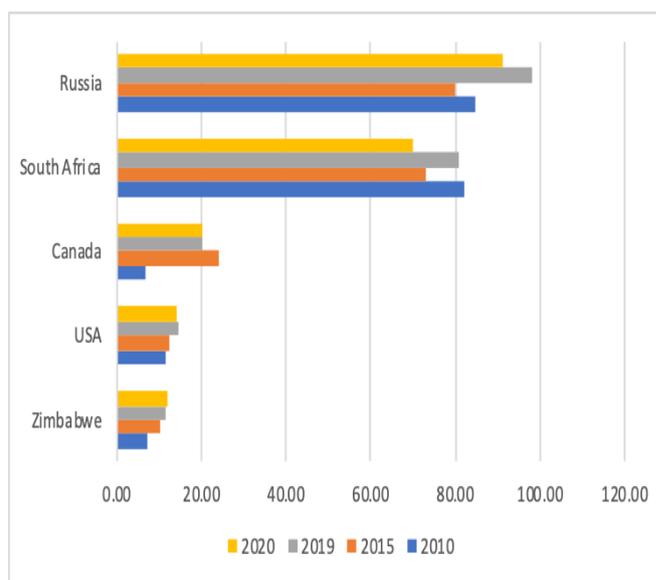


Fig. 4. Dynamics of palladium production in different countries 2010-2020. Source: compiled on the basis of [7].

Gold can be called the most liquid asset, due to its increased sensitivity to financial and economic changes (mainly due to rising

or falling interest rates in the US). In addition, it depends significantly on the world's leading currencies.

The price of gold is growing every year. In light of recent events in the world, the rise in gold prices is due to the cessation of mining and measures by the US Federal Reserve, which are aimed

at supporting the international economy as a result of the crown virus pandemic. Due to the fact that China is successfully fighting this disease, the quotations of this precious metal may eventually decrease.

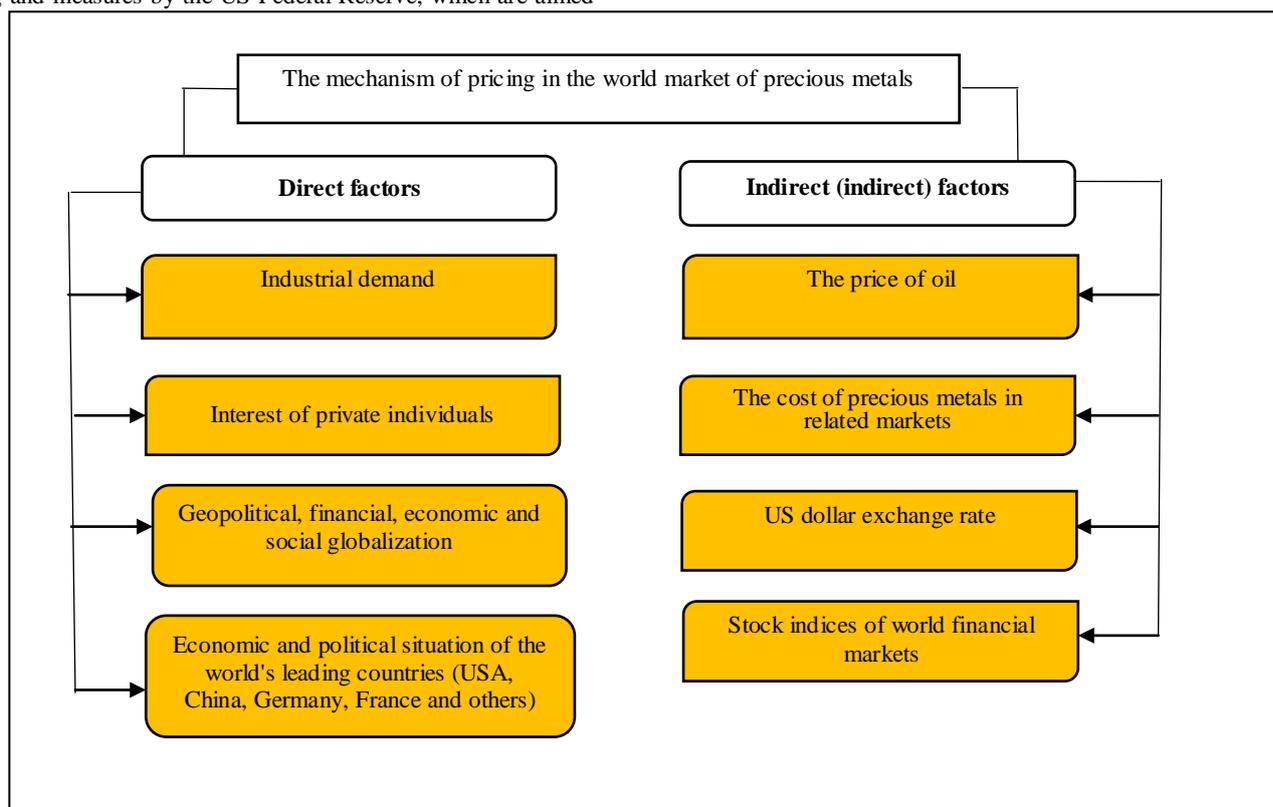


Fig. 5. The mechanism of formation of prices for precious metals.

On March 25, 2020, the price of gold reached a record high due to panic in the market as a result of the crown virus. In monetary terms, the price increase was the highest in the history of observations. The price of gold on March 25, 2020 on the New York Stock Exchange SOMEH as of 12:00 was 1654.32 US dollars per ounce.

Silver is also reacting painfully to the current situation on the stock market and the fight against the pandemic. But not everything is so simple here. The fact is that on March 16, 2020, the value of silver per 1 ounce was 11.8 US dollars - the lowest figure in 10 years. The significant decline in value was due to risk assessments by investors and the fact that they began to prefer a more reliable metal, such as gold, as well as US and UK government bonds. Over time, the price rose slightly, but not significantly. As of March 25, 2020, at 12:00, an ounce of silver could be purchased on the SOMEH exchange for \$ 14.62.

If we talk about trade in platinum, the main factor influencing the exchange rate is the balance of supply and demand. Platinum has certain features that affect the popularity of this metal in various industries. About 40% of this metal is used by the machine-building industry. In contrast to gold, which can be mined in pure form, platinum can exist only in the form of an alloy with other metals, and the process of its separation is quite complex and energy consuming. Platinum is also significantly added in value, as are other precious metals. On February 25, 2020 on the NYMEX exchange as of 12:00 the value of one ounce was 968.95 US dollars, and on March 25, 2020 this figure decreased significantly and amounted to 724, 22 US dollars per ounce.

The cost of palladium on March 25, 2020 at 12:00 was 1936.58 US dollars per ounce. Compared to the previous month, the price decreased by as much as 722.22 US dollars (-27.16%). At the end of February of the same year, an ounce of palladium was worth \$ 2,658.80.

The general dynamics of world prices for precious metals for 2011-2021 (Fig. 6) shows that the most stable is gold, which is not going to give up its position, and its temporary decline in value is quite short-term, which once again confirms the importance of this metal in social and economic relations at the international level.

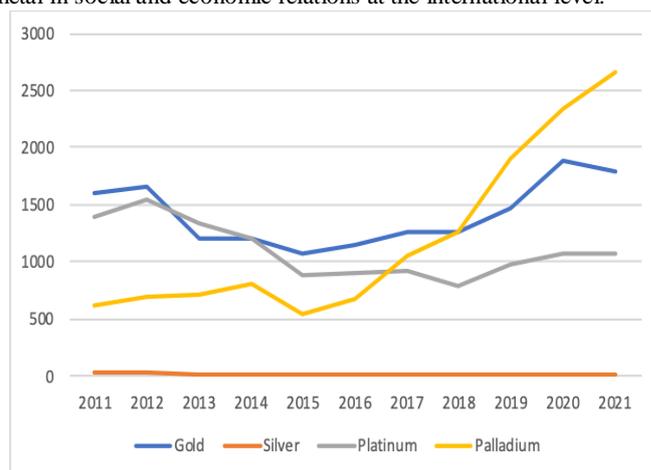


Fig. 6. Dynamics of prices for precious metals in the period from 2011-2021, \$/ounce
Source: compiled on the basis of [10, 11, 12, 13].

4. Trends in the world market of precious metals

An important means of combating inflation is the interdependence of currencies and precious metals, but the instability of prices for precious metals can lead to economic crises,

and therefore they (precious metals) should not always be used as an indisputable measure for other goods.

Trading in precious metals, especially gold, on exchanges is a very complex and costly process, because trading in such goods has a number of features: significant volatility, which characterizes the frequent changes in market prices and revenues that can be obtained over time, and a wide range of prices during the day make the product unstable and sometimes unpredictable. It follows that trading in this commodity is a technically complex procedure that requires the necessary training and orientation because if you follow the trading schedule, it is possible to determine turning points and predict market reversal and this is what traders do when monitoring the accumulation of gold in sufficient quantities.

On the example of gold we can trace the efficiency of investing in this precious metal in comparison with stocks, bonds and commodities (Fig. 7).

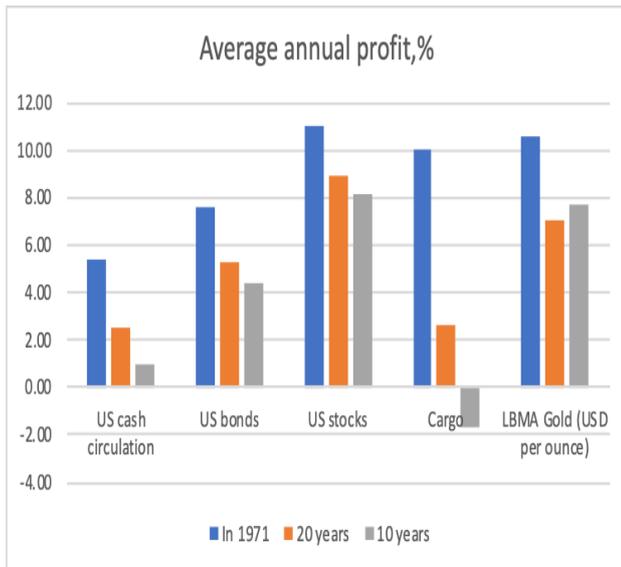


Fig. 7. Long-term efficiency of gold in comparison with other financial assets.

Source: based on [14]

5. Directions of development of the precious metals market in Ukraine

Many scientists say that the market for precious metals in Ukraine is still being formed, although many decades have passed since its inception. However, if we take the time of Ukraine's independence, the beginning of the count is considered to be December 2, 1991, when the Verkhovna Rada of Ukraine adopted the Resolution "On the creation of a stock of precious metals and stones in Ukraine" [15].

The precious metals market is one of the main factors in the efficient functioning of the national economy. In our country, its main function is the accumulation of precious metals in the state register, which makes it possible to carry out operations on the world market of precious metals, which is really necessary in the period of globalization and European integration.

The market of bank metals in Ukraine is more of a cash nature. Using direct and indirect methods in Ukraine influences the regulation of the precious metals market.

In recent years, many Ukrainian banks have already gained some experience in conducting operations in the banking metals market. But the level of its development in comparison with the world metal market is still insufficient. The development of the domestic market of banking metals is constrained not only by objective (insignificant socio-economic level of well-being of potential market participants), but also by subjective factors. These include insufficient practice of using bank metals, in particular:

collateral, obtaining loans, placing deposits, insignificant level of infrastructure development of the Ukrainian market of bank metals.

As for the extraction of precious metals, Ukraine also has its own deposits of silver and gold, palladium has not yet been explored. According to various estimates, the gold content in Ukrainian deposits varies greatly. The most promising today is the Muzhiyivske deposit. According to preliminary data, gold reserves there are more than 50 tons.

Let's name the main features of the road map of development of the national industry of precious metals:

1. The development potential of the precious metals industry is assessed taking into account existing deposits and those that are just being developed.

2. Restoration and improvement of professional training of specialists involved in the precious metals industry, which provide extraction, enrichment, quality assessment of precious metals.

3. Improving the regulatory framework that ensures the circulation of precious metals.

4. Strict state control over the quality and branding of precious products and the formation of a single body that will control these processes.

5. Development of a strategy for the reorientation of the raw materials industry to trade in semi-finished and finished products.

6. Formation of a positive image of our country in the world market, expansion of publicity and publicity of the information illustrating development of the national industry of precious metals.

6. Conclusions

Precious metals are important components of investment portfolios for both individual and institutional investors due to their physical and chemical properties, which allow them to play the role of a reliable hedging tool for long-term prospects. Regarding the effectiveness of precious metals as investment instruments, they should be invested not only for hedging, but also in periods when there are high risks to profit. At the same time, the impact of economic and political situations, financial instability on the profitability of precious metals should be taken into account.

Analysis of price trends in the precious metals market has shown that price fluctuations are different for each metal, they are formed under the influence of supply and demand and market conditions in general. It is important that supply and demand react differently to price fluctuations. Central banks and stock exchanges are active participants in the precious metals market. The process of trading metals on the stock exchange is a complex and multifactorial process, each participant has its own functions, and traders must have certain knowledge in order to make forecasts of market conditions.

As for the precious metals industry in Ukraine, it is only in its infancy. Taking into account the growth of global challenges, instability within the country, to stabilize the national market of precious metals methods can be as follows: development of new technical and technological capacity, creation of state regulatory strategies and institutions that will control the circulation of precious metals in the country; increasing state test control over the misuse and storage of precious metals; creating a transparent market and preventing the use of shadow schemes.

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