ЕКОНОМІЧНА ТЕОРІЯ

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PECULIARITIES OF THE WORLD GOLD MARKET FUNCTIONING

The role of gold in modern global economy is considered in the paper, conjuncture of the global gold market is researched. The features of the use of gold as an instrument of official reserves formation and investment object are defined and the benefits of investment in gold are characterized.
Keywords: *precious metals market, gold market, investments in gold, gold and foreign exchange reserves.*

Precious metals market includes a complex of different relations between market players on the stage of exploration, mining, processing products of precious metals. Precious metals include gold, silver and platinum group metals. By their function precious metals play a dual role: firstly, they are destined for industrial use; secondly, they are subject of investment, and are used as a means of accumulation and reserves formation. The world gold market is the largest in terms of trade volumes and the most important in historical terms part of precious metals market.

General trends of the global gold market development are highlighted, primarily, in analytic reports the World Gold Council, the International Monetary Fund and other international financial institutions. However, the difficulty of assessing the gold market conjuncture and providing forecasts of its development is related to the double use of this metal – as an industrial asset and financial instrument. Thus, there is the need for a comprehensive study of the modern state of the world gold market, identification of demand, supply and gold price trends peculiarities in terms of its industrial and financial applications. All facts mentioned above determine the relevance of the research topic.

This scientific paper is aimed at defining the role of gold in the world economy and determining the peculiarities of the world gold market development.

Gold and other precious metals can be used in different ways: as a monetary asset that performs several functions of money; as an ordinary commodity, which has its cost of production, addicted to the laws of supply and demand as well as speculation.

The largest volume of trade by precious metals is observed in the international interbank gold market. Actually the gold market has been an integral part of the foreign exchange market until 1968, when exchange rates turned to floating, and currencies started to be sold regardless of gold.

The essential feature of the gold market is a trade that is attached to the place of metal location. The centers of gold trade are Loco London, Loko Zurich, Loco New York, Loko Tokyo. World's largest gold trading center is London. London is the place of standard gold contracts payment, i.e. the place of gold delivery, regardless of where the agreement was signed. Such transactions are called “Loco London”, i.e. the delivery of gold is made in London.

Gold is commonly used in alloys with other metals, which, while retaining the main characteristics of pure gold, are more solid and dense and allow to spend gold more economically. Alloys of gold and platinum are used for the production of chemical resistant devices; alloys of gold, silver and platinum are used in production of electrical contacts in the equipment. Gold and gold containing alloys are also used for gilding, production of jewelry and dental prosthetics.

In recent years, the total annual world market of precious metals exceeds 130 billion dollars, of which the greater part (80%) accounts for the gold. The global demand for gold is formed by two main kinds of consumption – commercial sales and demand in the form of international reserves replenishment by central banks in most countries. Before 2009, the commercial use was about 80% of world gold land reserves, or about 120 thousand tons. In central banks reserves there had been accumulated 18% of gold, or about 30 tons. About 2% of world gold reserves is still considered to be unaccounted.

By the early 20th century, most countries having their own currencies, pegged their currencies to a fixed value of gold. In 1900 the “gold standard” was introduced in the USA, the fixed rate was 20,67 dollars per ounce. The new system became widespread with the introduction of paper money, which were certificate of guaranteed exchange for gold at a fixed price. Actually, gold was still a monetary unit, but it got more convenient and practical cash equivalent. By 1915 the global volume of state gold reserves amounted to 9,4 thousand tons, including 2,57 thousand tons in U.S. national stocks, 1,25 thousand tons – Russian Empire (the second largest in the world).

The new system found to be unsustainable. In economically difficult period during World War I and the crisis of 1929-1933 USA and Great Britain repeatedly forbade the export of gold, that neutralized the value of “gold standard”. In 1944, at a conference in Bretton Woods dollar has been recognized by most countries as the main reserve currency, and dollar was pegged to gold at a rate of $ 35 per ounce. At the same time International Monetary Fund was founded. This system operated until 1971, and at the same time from 1954 to 1968 in the UK was allowed free circulation of gold. In 1960 the U.S. trade balance became negative, and to cover deficit the USA transferred abroad (primarily in Western Europe) significant amounts of gold. Gold stocks in the USA fell from 20 thousand tons in 1950 to 8,5 thousand tons in 1972. The US share in world gold stocks over the same period decreased from 68% to 23%.

At the same time the need for a more flexible monetary policy in the new post-war conditions led to more active monetary emission in the United States, which was complicated by the need to ensure emissions by gold. As a result, in 1971 the peg of dollar to gold was abolished, and since 1975 the U.S. government removed restrictions on the free circulation of gold and introduced gold auctions.

The peak value of total world state gold reserves was observed in 1965, amounting to 38,3 thousand tons. While the dependence of national monetary systems of gold decreased, its global state stocks also declined.

In 2011 gold reserves concentrated in countries central banks and international financial organizations increased to 30,922 thousand tons (Table 1).

Possessing international reserve currencies (euro and dollar), the euro zone countries and the United States hold the most of their international reserves in gold. In the USA gold accounts for 78,3% of reserves, in Germany – 69,5%. In general, however, the amounts of international reserves in these countries are comparatively small and do not make significant effect on the stability of the national monetary and financial systems. For instance, the U.S. total international reserves equal to only 306 billion dollars or about 2,3% of GDP. In Russia the same indicator is 31%. In countries having great international reserves, such as Japan, China, Russia, the share of gold in reserves is low. For example, the share of gold in Russian international reserves amounts to only about 4%. Several countries, such as Canada, Norway, New Zealand, holding great deposits of gold in the past, have withdrawn them from their international reserves almost completely by present time.

Sales of gold from national reserves on the world market have a certain influence on market situation, although in general it can't be described as determinant. Only in some years, these sales can make a significant impact on gold market. Net balance of gold sales from national reserves during last 20 years ranged from 20 tons to 600 tons. From 2000 to 2007 the trend of increasing supply of gold from national reserves was observed on the world market. On average in 2002-2006 about 14% of gold total supply on the world market accounted for gold sales by central banks.

Table 1

Countries having the largest official reserves of gold in 2000-2011

Country	Gold stock, tons			Share of gold in reserves, %		
	2000	2009	2011	2000	2009	2011
USA	8 139	8 133	8 134	54,7	78,9	75,5
Germany	3 469	3 413	3 401	33,3	70,2	72,6
France	3 025	2 453	2 435	41,1	74,2	71,0
Italy	2 452	2 452	2 452	46,1	66,9	72,2
Netherlands	912	612	613	45,0	62,0	61,0
Portugal	607	383	383	38,6	90,3	90,5
ECB	747	537	502	14,0	23,2	31,5
Great Britain	588	310	310	15,1	18,6	16,2
Switzerland	2 590	1 040	1 040	43,3	38,0	14,3
Russia	423	532	852	24,6	4,1	8,6
China	395	1 054	1 054	2,1	1,8	1,7
Japan	754	765	765	2,1	2,2	3,3
Taiwan	422	424	424	3,2	4,0	5,0
India	358	358	558	8,2	4,2	9,0
IMF	3 217	3 217	2 814	-	-	-
World	33 418	29 692	30 922	-	-	-

Source: Мировой рынок драгоценных металлов: [Аналитический обзор]. – 2009. – 22 с. [Electronic source]. – Access mode: http://www.rmb.ru/files/ofbu/precious_metals.pdf; Gold Demand Trends: World Gold Council Report. [Electronic source]. – Access mode: http://www.gold.org/investment/research/regular_ reports/gold_demand_ trends.

The total consumption of gold in the world by commercial sector in 2008 was 3,66 thousand tons, which meant an increase by 3,8% compared to 2007. In 2010, this trend continued, the gold demand increased to 4,1 thousand tons. However, consumption of gold in 2008 was 4,2% less than in 2000. After a sharp decline in the early 2000s the gold demand has been recovering lately. Such fluctuations are caused by significant changes in the structure of gold consumption in the world (Table 2).

The major consumer of gold is jewelry industry, which accounts for more than half of the total supply of gold. However, over the last 10 years the demand for gold from the jewelry industry has been steadily declining. If in 2000 the consumption of gold by this industry amounted to 3200 tons, by 2008 this figure dropped to 2138 tons, and in 2010 – to 2017 tons. It is likely that the decline in gold consumption by jewelry industry is the result of a significant appreciation of its price, which sharply reduced the availability of gold jewelry for the final consumers. The average price of gold from 2000 to 2008 grew up to 3,1 times – from 279 dollars per ounce to 870 dollars, and in 2010 rose to 1206 dollars per ounce.

The most significant factor affecting the gold price dynamics is its use for investment purposes. The growth of this segment for the past 10 years has allowed not only to compensate for the reduction in demand from the jewelry industry, but also led to a jump in prices for this type of precious metals. From 2000 to 2010 the consumption of gold for investment purposes increased from 166 tons to 1568 tons.

Table 2

The structure of gold demand in 2006-2010

	Gold consumption, tons			Gold consumption, mln. dollars		
	2006	2008	2010	2006	2008	2010
Jewelry industry	2285	2138	2017	44510	61073	79399
Electronic industry	308	290	466	5985	8270	12867
Other branches of industry	91	87	91	1765	2437	3579
Dentistry	61	54	49	1179	1568	1916
Investment demand	665	1 091	1568	12820	32488	61710
Investment in gold	405	769	1200	7878	23602	47234
Bars	235	378	899	4591	10832	35390
Official coins	129	198	213	2505	5280	8367
Medals	59	61	88	1158	1933	3477
Investment in ETF	260	321	368	4943	8885	14476
Total gold demand	3 409	3659	4051	66259	105837	159472
Average price (London), dollars per ounce	603,77	871,96	1224,5	-	-	-

Source: Мировой рынок драгоценных металлов: [Аналитический обзор]. – 2009. – 22 с. [Electronic source]. – Access mode: http://www.rmb.ru/files/ofbu/precious_metals.pdf; Gold Demand Trends: World Gold Council Report. [Electronic source]. – Access mode: http://www.gold.org/investment/research/regular_ reports/gold_demand_ trends.

In turn, investment in gold is divided into two groups. The first group is associated with direct investments in gold products – in the form of bullion, gold coins, medals, etc. The second group is related to the investments in derivatives based on gold values, in particular, financial securities which value is pegged to that type of precious metal (ETF). One of the largest gold funds traded in the USA, is SPDR Gold Trust, the value of its assets is about 600 tons of gold. Cost of its stock share is pegged to the value of 1/10 of gold ounce.

Generally, investments in gold have the following advantages:

- New tool to diversify assets. If in the past the main components of investment portfolios were stocks, bonds and currency, over the last years raw materials (especially oil and its derivatives) and precious metals (primarily gold) were added. In this respect, the most important advantage of gold is its low correlation with fluctuations of the value of other types of assets. The price of gold practically does not correlate with the cost of treasury bonds and stock indexes of the American market. The correlation coefficient for them from 2003 to 2007 was, according to the World Gold Council, respectively 0,04 and 0,025 [4]. Higher correlation is observed for global indices (with MSCI World excluding USA the rate was 0,3 at the same period). Some interdependence is observed only with commodity prices. In addition, gold prices are not directly correlated with economic cycles.

- Insurance against inflation. Despite the large fluctuations in the value, gold has always retained its purchasing power during long periods of time. From 1970 to 2000 (i.e. before the jump in gold prices in recent years), increase in gold prices exceeded the rate of inflation in the USA: while consumer prices rose 4,4 times, the gold price over the same period increased by 7,7 times. In recent years, gold also acted as a tool for insurance of risk of dollar depreciation against other world currencies such as euro. Appreciation of the gold value occurred related to all major world currencies.

- Lower investment risks. Compared with investment in securities (stocks and bonds) gold is a safer asset in terms of return on investment. Unlike securities for which there are the risks of default, their sharp depreciation, unpaid coupon rates, etc., which are also prone to the influence of companies and public bodies separate decisions, gold as a material transnational asset can avoid these risks. At the same time gold has lower volatility compared to commodities. This is due to the fact that the volume of world gold trade is smaller than the overall accumulated reserves of gold in the world that unlike raw materials are not used but accumulated. Therefore, even in the case of local ejections of gold on the world market in the form of its sales by central banks sharp changes in world prices for gold usually do not happen. These injections of gold are easily absorbed by the market. Meanwhile, it is believed that the higher the volatility of a particular asset, the more risky is investment in this asset.

During the crisis of 2008-2009 investments in gold and its ETF dramatically increased. The sharp increase in investment demand for gold started to occur from the third quarter of 2008, when the noticeable decline in global equity markets and a sharp drop in oil prices started. These markets have failed to be a reliable tool for investors to diversify assets. Index S&P 500 from July to December 2008 fell by 29% and oil prices decreased by 3,6 times to 39 dollars per barrel. The expected extent of monetary intervention in the economy by U.S. and some EU countries governments has created additional risks of uncertainty for the dollar and euro. In this situation, gold emerged as a key tool of diversifying portfolios and hedging.

Since gold is a commercial commodity, gold prices are subject to considerable fluctuations. Thus, investments in gold are the most effective only in the long term. Traditionally, in times of crisis the rise in gold prices is observed, followed by adjustment of its value. In 1973-1974, i.e. after the dollar peg to gold has been removed, and the developed economies met the first energy crisis, gold prices jumped nearly thrice - from $ 65 per ounce to $ 180, followed by the price adjustment up to 110 dollars per ounce in the middle of 1976. Energy crisis of the early 80s led to a jump in gold prices to a record 660 dollars per ounce in the late 1980. Then there was a return of gold prices to a level of 300-400 dollars, where they were during almost 15 years, decreasing in the second half of the 90's.

Nowadays there are more than 50 gold markets in the world, including: 11 - in Western Europe, 14 - in America, 19 - in Asia, 8 - in Africa. Besides, free or constrained internal markets of gold also function.

Supply of gold on the world market is made from three main sources: gold producers, gold recyclers and central banks. In 2008, they accounted for respectively 58,5%, 34,5% and 7% of the total supply. In 2010, the supply of gold on the world market consisted of production (61%) and secondary melting of gold (29%). Structure of gold supply is unstable and greatly depends on the price situation in the gold market (Fig. 1).

In recent years the trend of decline in sales of gold by central banks is observed. In 2005, the state reserves sold 662 tons (16,5% of the total supply on the world market), in 2008, sales declined to 246 tons, and in 2009 they fell to 30 tons. In 2010 purchase of gold to the official state reserves in the amount of 77 tons was observed. These dynamics associated with the desire of a number of central banks to diversify foreign reserves, increasing the part of gold.

On the other hand, the supply of gold for melting in the 2000s significantly increased, the main reason for this trend was the rise in prices for this type of precious metals. If in 2005 the volume of gold melting was 886 tons, in 2008 it rose to 1215 tons, and in 2010 jumped to 1641 tons. As a result, for the first time the volume of molten gold approached the volume of its production on the fields.

In some developing countries (India, Turkey, Saudi Arabia), the main reason for activation of jewelry selling for their melting was the desire of its owners to fix profits against high prices. At the same time, consumers in developed countries donated gold, primarily in order to obtain the funds needed to cover the debt in a period of acute economic crisis.

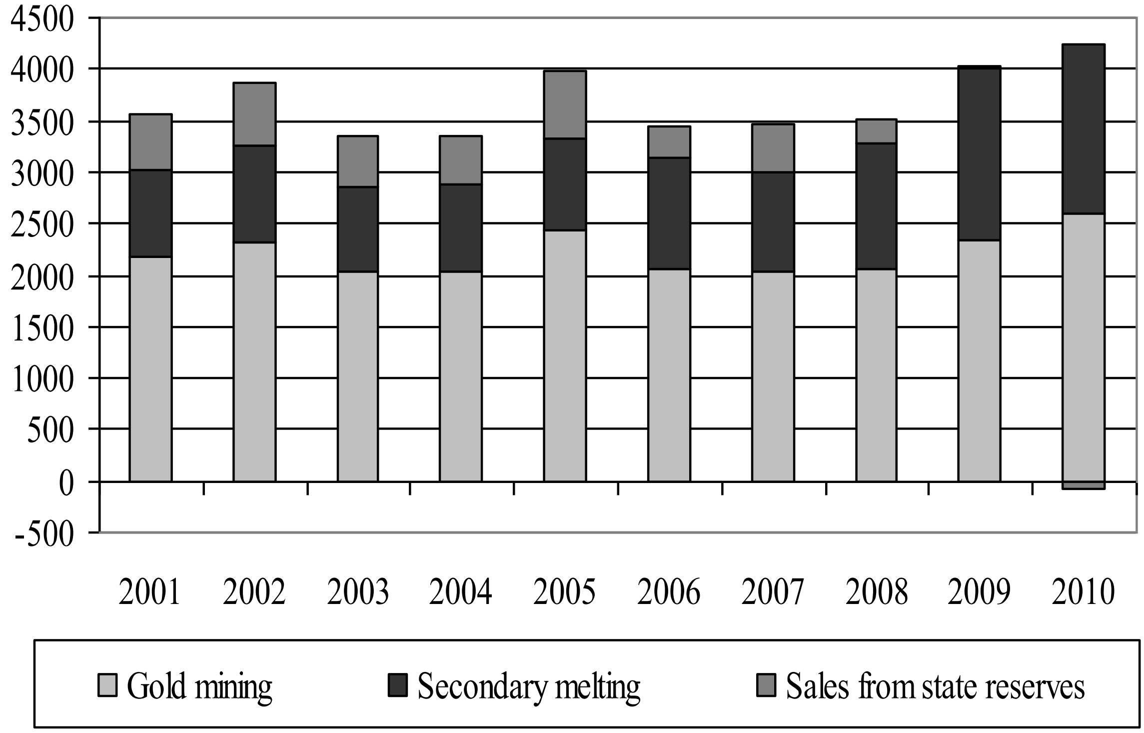

Fig. 1. Supplies of gold on the world market in 2001-2010, tons

Source: Gold Demand Trends: World Gold Council Report. [Electronic source]. – Access mode: http://www.gold.org/investment/research/regular_ reports/gold_demand_ trends.

Activation of advertising by organizations that accept gold and try to buy gold in terms of increased spread played a great role. It should be noted that the increased supply of gold to the secondary market met adequate demand and a collapse in prices did not occur.

The volume of world production of gold over the last 10 years had a tendency to a slight decline, caused, primarily, by a reduction of its production in a number of developed countries (average 1,5 times). At the same time, China, Russia and Peru enlarged production. As a result, the geography of gold producers over the past years has changed significantly. If in 1999 the greatest producers of gold were (in descending order) South Africa, the USA and Australia, in 2008 - China, South Africa and the USA. The share of Russia in 2008 accounted for about 7% of world gold production (6th in the world). One of the advantages of the Russian gold mining industry is the high level of gold stock (about 30 years at current production levels). For comparison, in China this figure is only 4 years, in the USA - 13 years.

At the beginning of 2011, global gold reserves estimated at 50,7 thousand tons. The greatest producers of gold were South Africa, USA, China and Australia. Australia has the largest reserves of gold, which share is 14% of world reserves. Significant gold reserves are reported to be in Southern Africa (12%), Chile (7%), USA (6%), Indonesia (6%), Brazil (5%).

The main exporters of gold are Thailand having a share of 28% in the total exports, Saudi Arabia - 19%, Guinea - 11% of world exports. In 2010, these countries together exported more than 50% of gold. The main importers of gold are India (18% of world imports) and the UAE (13%). Rather great importers of gold are the USA and Canada.

Unlike some other mining industries, gold mining industry has a low level of monopolization and is characterized by highly competitive producers. Many companies carry out transnational activities. In the list of world gold producers companies from Canada (controlling about a quarter of the world's gold production), as well as South Africa, USA, China and Australia are presented the most widely.

Thus, in terms of rising risks on global financial markets demand for precious metals as a tool to diversify investments and reserves increases. A special role is given to gold, which even after the gold standard abolishment has traditionally been associated with the asset to secure savings. This reflects in the growth of investment demand for gold, observed in recent years. However, with the changes in market conditions of alternative investments (currency, securities) changes in the dynamics of demand for gold take place and corresponding price fluctuations are observed. Significant fluctuations of prices for gold as a commercial product make long-term investments in this metal more effective.

Attitude to gold as a tool of official reserves formation is mixed. Periods of gold massive purchases by central banks are followed by periods of active sales of gold reserves. At the same time sales of gold reserves by central banks occupy insignificant share in the structure of gold supply on the world market and don’t have a noticeable impact on the price dynamics.

Determination of the advisability of using gold as an asset for the reserves formation and development of gold investing strategies can be the subject of further research in this respect.

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ЗАКОНОМІРНОСТІ ФУНКЦІОНУВАННЯ СВІТОВОГО РИНКУ ЗОЛОТА

У статті розглянуто роль золота у сучасному світовому господарстві, досліджено кон’юнктуру світового ринку золота. Визначено особливості використання золота як інструменту формування офіційних резервів і об’єкта інвестування та охарактеризовано переваги інвестицій в золото.

Ключові слова: ринок дорогоцінних металів, ринок золота, інвестиції в золото, золотовалютні резерви.