

An Analysis of Gold Price Trends Based on the Current Economic Environment

Tianyi Lai

*College of Business Administration, University of Pittsburgh, United States
laitianyi2023@163.com*

Abstract: As a barometer of the global economy, the price of gold reflects not only monetary policy and market risks but also the function of hedging and value preservation in the face of inflation and geopolitical turmoil. The driving mechanism and long-term value of the gold price are explored by qualitatively analyzing macroeconomic factors, supply and demand, and future trends based on existing literature and data. The main content of this essay is 1. Factors that affected the price change of gold. In detail, this research will explain how Federal Reserve policy, inflation and geopolitical factors can affect gold prices. 2. Supply and demand dynamics. This essay will examine the structure of gold supply (mining, recycling) and demand (jewelry, investment, central banks) and its impact on price. 3. Prediction of future—short-term rise and fall, long-term rise—trends of gold price according to the economic environment. The result shows that in the long term, gold is expected to maintain an upward trend in price due to its anti-inflationary and safe-haven attributes, especially against the backdrop of the current global economic and political instability.

Keywords: Gold Price, Economic Environment, Safe-haven Asset, Policy

1. Introduction

The recent near-record highs in the price of gold (~\$2,660/oz) have been driven by global economic uncertainty and geopolitical risks (e.g., the Russia-Ukraine conflict and the Middle East situation). The price of gold as a safe-haven asset is closely linked to Fed monetary policy, inflationary pressures, and the strength of the U.S. dollar. In the current environment, the study of gold can not only help to understand the dynamics of the global economy, but also reveal the logic behind inflation hedging and market risk aversion behavior. These factors make gold an important window for analyzing economic performance and investment behavior. There is a lot of former research that has a similar topic. For example, a research analyzes the volatility and trend of the gold price and combines time series data, historical trends and future forecasts. Shafiee and Topal examined the factors affecting the price of gold, such as inflation, interest rates, and global economic conditions, by analyzing the data, such as inflation, interest rate and global economic conditions [1]. The results of the study show that the price of gold is largely influenced by macroeconomic factors and shows certain cyclical changes. On this basis, this study further integrates other forecasting methods to improve the accuracy of long-term market forecasts. Also, compare with the research “The financial economics of gold—a survey.” This article also focuses on the changing dynamics of the price of gold, both having external factors affecting the price of gold [2]. But this research is an in-depth study of gold itself and a more nuanced explanation of price changes. Therefore, this research will analyze gold from three

points: 1. Macroeconomic and policy background. 2. Supply and demand analysis. 3. Long-term value and trend judgment of gold. The study analyzes these three factors is because: 1. These three factors encompass the core mechanisms of currencies, economies and global markets, and are more fundamental than emotional investment behavior or short-term technical indicators. 2. They not only influence short-term fluctuations in gold, but are also determining forces in long-term trends. 3. These factors have a consistent impact on global markets, whereas others may be limited to localized markets or short-term influences.

All in all, this research provides investors and policymakers with market insights through the drivers and trends in the price of gold. It also helps the general public to better understand the market discipline and value preservation function of gold.

2. Macroeconomic and Policy Background

Discussing policy necessitates mentioning the significant correlation between gold and the Federal Reserve, as gold is priced in dollars. The Fed's interest rate cuts and rate hikes have a great deal to do with the rise and fall of gold. If the Federal Reserve adopts an accommodative monetary policy, specifically through interest rate reductions, the returns on bank deposits or treasury bond purchases diminish. So the opportunity cost of buying gold is reduced, so the attraction of buying gold increases and gold goes up in price. So when the dollar weakens, dollar-denominated commodities like gold go up in price, and it's an opposite trend from the dollar. Vice versa, when interest rates rise, reserve dollars or treasuries become more attractive and gold will fall in price. A classic example of this is current Federal Reserve Chairman Jerome Powell, who adopted a very loose monetary policy and tolerated inflationary overshoots, allowing the price of gold to rise to \$2,000 an ounce in 2020. So as you can see here, the Fed's chairman's conception of monetary policy also has a very big impact on the price of gold. There are two perceptions of interest rate policy. One is hawkish, such as Paul Walker; he believes that inflation will bring a great threat to the U.S. economy, so he suppressed inflation by raising interest rates sharply, so the gold also fell with the appreciation of the dollar. The other is the doves, such as Ben Bernanke; he believes that quantitative easing (QE) should be implemented, the interest rate down to almost 0%, so the price of gold in 2011 from \$ 800 per ounce to \$ 1920 per ounce. Overall, the Federal Reserve's monetary policy stance is usually categorized as either 'hawkish' or 'dovish' and both affect the price of gold in different ways. Hawkish policies are usually accompanied by a strong dollar environment that depresses the price of gold, while dovish policies drive the price of gold up by lowering interest rates and raising inflation expectations.

The next important factor that affects the pricing of gold is the rate of inflation. If inflation is very serious, such as in the previous Argentina, the inflation rate reached 140%. This time the currency will lose its “store of value” qualities, and people will be through the gold hedge because gold, this “international currency, “is the preservation of value. Here is a very important example that must be said: the collapse of the Bretton Woods system. In the 1970s, before the collapse of the Bretton Woods system, the dollar and gold were directly linked. But because of the overissuance of the dollar, global confidence in the dollar declined, the Bretton Woods system collapsed, inflation soared, and the dollar depreciated. At that time, in order to hedge, people were very optimistic about gold, so the price of gold rose greatly from \$35 to \$800 per ounce.

The next influencing factor to talk about is geopolitics. Just like wars, gold goes up when there is an economic crisis. Because of the economic instability in this situation, people will not choose to use their money on investment, so they will choose to preserve the value of gold as a hedge. For example, in the Russian-Ukrainian war, gold rose to 2000 per ounce. The Russian-Ukrainian war broke out in early 2022, creating economic uncertainty and geopolitical tensions on a global scale. As the war brought disruptions in the supply chain of raw materials, rising energy prices, and volatility in capital markets, global investors sought safe-haven assets, with a significant increase in demand

for gold as a traditional safe-haven [3]. After the outbreak of the war, global market risk aversion was high, and the price of gold soared to approximately \$2,070/oz in March 2022, close to its historical high [4][5].

3. Supply and Demand Dynamics of Gold Market

The supply of gold is growing slowly and rigidly, mainly from mining and recycling; demand is diversifying, especially in times of economic uncertainty, with a surge in investment demand being the main driver of price increases. This supply-demand dynamic gives the price of gold a relatively stable long-term upward trend, while being sensitive to short-term fluctuations [6].

The subsequent aspect this research intends to examine is the supply and demand dynamics of gold. The gold supply comprises mined gold, recycled gold, and gold held by central banks. The demand for gold include jewelry, investment, and central banks' reserves.

The general gold supply trend has been relatively stable and slow growing over the last decade. Because the gold mining cycle is relatively long, it is difficult to make large supply changes to the price changes in the short term, so its price supply elasticity is relatively small. For the supply side, the main source of gold globally is conceivably mining, which accounts for 75%-80% of total global production, with China being the top producer of gold. China's total gold production in 2022 is 329 metric tons, or 11% of total global production, and it has been the top producer of gold since 2007 [7]. The second is recycled gold, which is extracted from old jewelry and industrial waste, accounting for about 20% of total production. Finally, there is the gold sold by central banks. The supply of gold is also subject to geopolitical factors. The availability of gold is influenced by geopolitical considerations. In 2012, discontent among South African workers regarding the salaries of collective miners resulted in a temporary gold supply crisis, as South Africa was a significant gold producer, contributing approximately 6% to global gold production at that time. The cost of mining is also a factor in the supply of gold because when the cost of mining is close to the price of gold itself, mining companies may reduce production. Then, environmental protection laws and regulations also influence the supply of gold because mining has a negative impact on the environment, so in recent years many countries in South America have strengthened the environmental protection review of mineral development.

Then there is the analysis of the demand for gold. First of all, the biggest demand for gold is the jewelry market. It accounts for 50-60% of the total demand for gold, with China and India being the two countries with the largest demand for gold because of traditional customs [8]. Often when the economy is more prosperous people have more purchasing power, so the demand for gold jewelry goes up. During the 2020 epidemic, demand for gold jewelry was not as high because the economy was weaker. The second type of demand for gold is investment demand. As mentioned before, gold is a commodity that investors use to hedge risk during times of economic instability or currency instability. When interest rates are relatively high or inflation is high, the demand for gold ETFs is high [9]. Thirdly, central banks also have a lot of gold reserves to hedge against the risks associated with the depreciation of the U.S. dollar and to increase the diversity of their reserves. During periods of dollar depreciation or U.S. economic instability, nations typically augment their gold reserves, as the dollar remains intrinsically connected to gold despite the dissolution of the Bretton Woods system. Consequently, a significant quantity of gold continues to reside in the vaults of the U.S. central bank [10]. In addition to its primary applications, gold has several requirements, including industrial demands (circuit boards for electronics, medical imaging devices), technological need (emerging energy technologies), and private reserves.

4. Prediction of Gold Price in both Short-run and Long-run Future.

Recently, the Russian-Ukrainian war has contributed to gold's upward trend. For instance, in November 2024, spot gold prices rose to \$2,647.43 per ounce, driven by escalating tensions. This reflects the tendency for investors to seek stable assets like gold during periods of economic instability. Additionally, countries such as China and Russia are increasing their gold reserves to reduce dependence on the U.S. dollar, further supporting the rise in gold prices. In the short term, the strengthening U.S. dollar, influenced by recent tariff measures, has led to a nearly 1% decline in gold prices, as seen on February 3, 2025, when spot gold dropped to \$2,784.30 per ounce [11][12].

This inverse relationship between gold and the dollar suggests that a robust U.S. economy could exert downward pressure on gold prices. Conversely, recent U.S. interest rate cuts have made non-yielding assets like gold more attractive, as the opportunity cost of holding gold decreases. This policy environment is favorable for gold's appreciation. Given these mixed factors, short-term gold price movements remain uncertain. However, in the long run, gold's role as an inflation hedge and safe-haven asset supports a bullish outlook. Analysts project that gold prices could reach \$3,000 per ounce by the end of 2025 [13].

5. Conclusion

Overall, through my study of gold, this essay has found that its price is primarily influenced by Fed monetary policy, inflation and geopolitical events. Driven by these factors, gold has demonstrated its unique value as a safe-haven asset and anti-inflationary tool. From a supply and demand perspective, gold supply is growing slowly and rigidly, while demand is diversifying, especially in times of economic uncertainty when investment demand increases rapidly. Based on my analysis, this paper concludes that the long-term value of gold has significant advantages, and its price trend not only reflects changes in global economic and financial policies, but also reflects investors' expectations of future risks. In the current complex and volatile international environment, gold will continue to be an important global asset, playing the dual role of hedging and value preservation. This makes gold research not only useful for understanding the commodity market, but also an important reference for global economic forecasting. The current research is mainly based on the analysis of existing theories and data. In future research, authors will combine specific models and historical data to analyze the phased development trends and influencing factors of gold.

Acknowledgement

I would like to thank my professor for his attentive guidance and support during the writing process and for providing me with many suggestions that helped me to clarify my thoughts in a way that benefited me greatly. Also, I would like to thank my father for guiding me through my thesis and providing me with many useful examples. I would like to express my special thanks to my family and friends for their support and encouragement during this time, and it is thanks to their understanding and companionship that I have been able to persevere and complete this academic task.

References

- [1] Shafiee, S., & Topal, E. (2010). An overview of global gold market and gold price forecasting. *Resources Policy*, 35(3), 178–189. <https://doi.org/10.1016/j.resourpol.2010.05.004>
- [2] O'Connor, F. A., Lucey, B. M., Batten, J. A., & Baur, D. G. (2015). The financial economics of gold — A survey. *International Review of Financial Analysis*, 41, 186–205.
- [3] Bampinas, G., & Panagiotidis, T. (2015). On the relationship between gold and oil prices: A smooth transition approach. *Studies in Nonlinear Dynamics & Econometrics*, 19(5), 657–668.
- [4] World Gold Council. (2022). Gold demand trends Q1 2022. Retrieved from <https://www.gold.org>

- [5] Baur, D. G., & Smales, L. A. (2020). Hedging geopolitical risk with precious metals. *Journal of Banking & Finance*, 117, 105823.
- [6] GFMS. (2020). *Gold Survey 2020. Refinitiv*.
- [7] Statista. (2023). *Gold production ranking by country 2022*. Retrieved from <https://www.statista.com>
- [8] World Gold Council. (2023). *Gold demand trends: Full year 2022*. World Gold Council. <https://www.gold.org/goldhub/research/gold-demand-trends>
- [9] Neumark, D., & Polemarchakis, H. M. (2022). The role of gold in investment portfolios: A review. *Journal of Economic Perspectives*, 36(2), 131-148. <https://doi.org/10.1257/jep.36.2.131>
- [10] International Monetary Fund. (2022). *Gold reserves and monetary policy: A global overview*. *IMF Working Papers*, 2022(7), 12-34. <https://www.imf.org/en/Publications/WP/Issues/2022/12/15/Gold-Reserves-and-Monetary-Policy-A-Global-Overview>
- [11] Baur, D. G., & McDermott, T. K. (2010). Gold as a safe haven: A review of the literature. *International Review of Financial Analysis*, 19(4), 211-223.
- [12] Kumar, R., & Dhingra, R. (2019). China and Russia's gold reserve accumulation: Implications for global financial stability. *Economic Modelling*, 77, 122-135.
- [13] Sami, I., & Junejo, K. N. (2017). Predicting Future Gold Rates using Machine Learning Approach. *International Journal of Advanced Computer Science and Applications*, 8(12), 128–132.