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GOLD TRADE IN INTERNATIONAL TRADE: WORLD AND TÜRKİYE¹

1. Makhmud Alkarabliya²

ORCID NO: 0009-0001-6132-0572

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ABSTRACT

The international trade of gold holds significant importance in the global economy, shaping financial systems and influencing various industries. This research delves into the multifaceted dimensions of gold trade, exploring its historical developments, production processes, and diverse applications across sectors. The study investigates the demand for gold in different world markets, including key hubs like the London Market, the US Futures Market, the Chinese Market, and secondary market centres. The first part of the study examines the historical progression of gold, examining its significance and development across time. It illustrates how gold interacts with monetary systems and emphasizes how valuable and useful it is as a medium of trade. The research also delves into international trade dynamics surrounding gold, exploring the impact of significant events such as the Russia-Ukraine conflict and the BRICS agreement on gold mining and pricing. Focusing specifically on the gold trade in Türkiye, this thesis examines the Istanbul Precious Metals Market, the standard and non-standard gold traded within it, and the dynamics of supply and demand in the Turkish market. Additionally, the research evaluates the trade and production aspects in Türkiye, shedding light on the market's performance and its significance in the broader context of international gold trade.

Keywords: Precious Metals, Gold Trade, International Trade.

ULUSLARARASI ALTIN TİCARETİ: DÜNYA VE TÜRKİYE

ÖZET

Altın ticaretinin uluslararası ticarette büyük önemi vardır ve finansal sistemleri sekillendirerek çeşitli endüstrileri etkiler. Bu araştırma, altın ticaretinin çok yönlü boyutlarına derinlemesine bir bakış sunarak, tarihî gelişmelerini, üretim süreçlerini ve sektörler arasındaki çeşitli uygulamalarını keşfeder. Çalışma, Londra Piyasası, ABD Vadeli İşlemler Piyasası, Çin Piyasası ve ikincil piyasa merkezleri gibi önemli merkezler de dahil olmak üzere farklı dünya pazarlarındaki altın talebini araştırır. Araştırma ayrıca Rusya-Ukrayna çatışması ve BRICS anlasması gibi önemli olayların altın madenciliği ve fiyatlandırma üzerindeki etkilerini inceleyerek altın ticaretinin uluslararası dinamiklerine derinlemesine bir bakış sunar. Türkiye'deki altın ticaretine özel olarak odaklanan bu tez, İstanbul Kıymetli Madenler Borsası içinde standart ve standart olmayan altın ticaretini ve Türk pazarındaki arz-talep dinamiklerini araştırır. Ek olarak, araştırma Türkiye'deki ticaret ve üretim yönlerini değerlendirerek, pazarın performansını ve uluslararası altın ticareti genelindeki önemini açığa çıkarır. Bu çalışma, altının uluslararası ticaretin önemli bir bileşeni olarak karmaşık dinamiklerini ve küresel ekonomik peyzajla olan bağlantısını daha iyi anlamak için kapsamlı bir analiz sunmayı amaçlamaktadır. Bulgular, altın piyasasının karmaşıklıklarını ve küresel ekonomik manzarayla olan bağlantısını daha derinlemesine anlamaya katkı sağlayacaktır.

Anahtar Kelimeler: Kıymetli Madenler, Altın Ticareti, Uluslararası Ticaret.

¹ Bu makale çalışması yüksek lisans tezinden türetilmiştir.

² Makhmud Alkarablia, İstanbul Ticaret Üniversitesi, <u>mahmoud.alkarablia@istanbulticaret.edu.tr</u>.



1. INTRODUCTION

Gold has been highly valued by people for a very long time due to its glow and its ability to be shaped in many different ways. Traders today see gold (XAU) as the best safe-haven asset because it can withstand the volatility of the market and keep its value when things are uncertain. Trading experts usually put gold in their portfolios to diversify and protect against inflation. This is because gold reacts to market shocks differently than most other assets. Even though there may be a lot of competition for products and services in the U.S., still there is less competition in other countries (McDougall, 2007). Gold and crude oil are two of the most traded natural resources around the world. Given this fact, it is important to both the economy and culture, it is also the most-used valuable metal. In the United Kingdom, investing in gold is one of the most common ways to trade money. Any precious metal that is part of the commodities market can be traded if the owner has an account with CMC Markets. This means buying and selling gold, silver, and platinum. Gold can be bought in many different ways, such as in the form of bullion, coins, and shares of stock on the stock market (Gold, 1975).

Buying and selling gold is one of the oldest kinds of financial transactions that have been recorded. The precious metal's price can have a big effect on economies all over the world. Gold has been a sign of wealth and success in all cultures for a long time, and it has always been sold in some way or another. Due to how rare it is and how hard it is to find gold mines, gold is much more valuable than what it is used for in the industry. The process of getting metal out of ore takes a long time, requires a lot of work, and costs a lot of money. This means that the price of gold could go up if mining stopped or if the number of people wanting it went up a lot. There are many important reasons to invest in or trade precious metals outside of one's home country. These include its value as a hedge against inflation and a haven in times of political or economic uncertainty. Additionally, the study investigates the behavior of precious metals in the stock market and demonstrates how gold impacts the systematic skewness and kurtosis of a portfolio. It has been found that gold has a favorable coskewness with the portfolio when it is skewed to the left and a low level of cokurtosis with market returns when the market is unstable (Finlay, 2020).

The effectiveness of gold as a hedge against inflation and currency fluctuations in international trade is dependent on the strength of the relationship between gold prices and the USD parity. This study will investigate the relationship between gold prices, USD parity, and Federal Reserve interest rates. The findings of this study will provide insights into the effectiveness of gold as a hedge against inflation and currency fluctuations, and help investors make informed decisions regarding their portfolio diversification strategies. As a result, this research indicates that gold is an excellent option for investors looking to limit their risk exposure, as it can lower the likelihood of negative outcomes and reduce losses if they do occur. This investigation will look into the role that the gold trade plays in the larger context of the global economy to better understand its significance (Marton, 2016).

1.1. Historical Developments

Since the beginning of time, people have used the precious metal Au (which comes from the Latin word aurum, which means "shining dawn") to make jewelry, coins, sculptures, and containers, and to decorate statues, buildings, and other objects. Because it does not rust, gold became a sign of power and immortality in many ancient cultures. Because it was so rare and had so many nice qualities, the ruling elites could use it to show off their power and position. At first, gold was found on the surface near rivers in Asia Minor, like the Pactolus in Lydia. Around 2000 BCE, the Egyptians and then the Romans started digging for gold underground in Africa, Portugal, and Spain. Histories show that the Romans were able to get gold flakes out of many different ores, including iron pyrites. Gold was used for many things because it was easy to shape and could be mixed with other metals like silver and copper to make it stronger and change its color. Gold was used a lot in jewelry and art by most ancient societies because it was valuable, beautiful, flexible, and easy to work with. Since 5000 BCE, the Egyptians

made jewelry out of electrum, which is a mix of pure gold and silver. Men and women in Sumerian society wore gold jewelry around 3000 BCE. Ur was the first place where gold chains were made. Early in the second millennium BCE, when the Minoans lived on the island of Crete, they made the first cable chain jewelry. The Minoans made a wide range of jewelry using many different methods. Necklaces, bracelets, earrings, rings, diadems, pendants, pins, and brooches were all made of gold. One of the best-known gold coins from the past is the Roman bezant. During the time of Emperor Constantine, it was used as money. It could weigh up to 70 Troy grains. It was used from the 4th century to the 12th century CE (Fujiki, 2003).

Filigree, battered thin shapes, granulation, embossing, chasing, inlaying, molding, and engraving were some of the techniques and designs that were used. This method was known to the Egyptians as early as 2500 BCE. Around 1200 BCE, the Chavin people of Peru started to treat gold similarly. Around 500 BCE, the Nazca people were the first to make gold castings. During the Byzantine era, pearls, jewels, and enamels were added to the Roman practice of setting precious and semi-precious stones in gold (Li & Li, 2002). Asia Minor at the end of the ninth century BCE was the first place where gold coins were used. The coins were made of electrum and had strange shapes. Most of the time, they were only stamped on one side. During his reign from 561 to 546 BCE, King Croesus of Lydia made the first pure gold coins with designs pressed into them. Academics say that the country's capital, Sardis, was also once a place where gold was refined. Nonetheless, the Lydians were able to clean their gold with salt and temperatures between 600 and 800 °C in their furnaces. Even gold that came from the ground could have up to 5% silver in it. After the salt and silver mixed, there was still pure gold left over. This gold could be used to make standard coins with a known amount of gold. Even though silver coins were used more often overall, gold coins were often used by the Mycenaeans, the Greeks, and the Romans who came after them.

Because of its value and beauty, solid gold was the right material for important political and religious things like crowns, scepters, symbolic sculptures, libation vessels, and votive offerings. Since gold artifacts were sometimes buried with the dead as a sign of status, it is clear that the extravagant use of such an expensive and valuable material was done to impress. The best-known example is the "Agamemnon mask" that was found in Mycenae. People in Peru thought that gold was the sweat of the sun god Inti, so they used it to make a lot of religious items. During this time, gold was often used for religious purposes to make things like masks and sun discs. Gold was seen as very important and holy in pre-Columbian Colombia because it was shiny and linked to the sun. During the elaborate coronation ceremony that started the story of El Dorado, the gold powder was used to cover the body of the future king (Lavigne & Rowland, 1978). Gold leaf and plate have been used to decorate shrines, temples, tombs, sarcophagi, sculptures, ornamental weapons, armor, ceramics, and jewelry since the time of ancient Egypt. The death mask of King Tutankhamun is without a doubt the most well-known old piece of gold leaf. Gold has been used in dentistry since more than 3,000 BC because it can be shaped and does not break down. Around 700 BCE, the Etruscans used gold wire to hold fake animal teeth together. Gold thread was also used to make the outfit. Pliny says that in the first century BCE, people put gold on wounds to keep away "magic potions."

1.1.1. Gold and Monetary Systems

In a system called the "gold standard," the value of paper money or coins is tied to the value of gold. Under the gold standard, countries had to agree to trade their paper money for a certain amount of gold. If a country uses the gold standard, the price of gold stays the same, and the country buys and sells gold at that price. In a system called the "gold standard," the value of paper money or coins is tied to the value of gold. Under the gold standard, countries had to agree to trade their paper money for a certain amount of gold. If a country uses the gold standard to agree to trade their paper money for a certain amount of gold. If a country uses the gold standard, the price of gold stays the same, and the country buys and sells gold at that price. The value of the currency is set by this price, which has already been set. If the US set the price of gold at \$500 per ounce, for example, one dollar would buy one-fiftieth of an ounce of gold

(Lavigne & Rowland, 1978). Right now, no government is using the gold standard. Britain stopped using the gold standard in 1931, and the US did the same in 1933. In 1973, the United States gave up the last parts of the system. The gold standard was completely replaced by fiat money, which is used because the government says, or "fiats," that it must be accepted as a way to pay. Since the beginning of time, the gold standard had been in place. For example, the dollar is the fiat currency in the United States, while the naira is the fiat currency in Nigeria. The first country to switch to a gold standard was England (Burger, 1974).

In 1821, this took place. All over the world, trade and production grew a lot during this century, which led to a lot of gold being found. This made sure that the gold standard would be used for a long time, even into the next century. All trade imbalances between countries were settled with gold, so governments had a strong reason to build up gold reserves to use in hard times. At the moment, the stockpiles in question are still there. The first country to switch to the gold standard was Germany in 1871. This led to the creation of a gold standard for the whole world. By 1900, the gold standard was the main way that most developed countries around the world managed their money. It's interesting to know that the US was one of the countries that joined the club very late in the game. In the United States in the 1800s, there was a strong group of people who only wanted silver to be used as money. This group tried to stop gold from being the only currency standard. The goal of this group was to keep silver from replacing gold as the main way to measure value. From 1871 to 1914, when the gold standard was at its strongest, this period was called the "golden age." During this time, the governments of most countries that used the gold standard, like Australia, Canada, New Zealand, and India, were very close to being perfect. On the other hand, when the Great War started in 1914, it changed a lot about how things were going (Rodoplu & Elitas, 2018).

When the value of money was tied to the price of gold, gold was an important part of the world's financial system. The value of gold was used to figure out how different currencies related to each other. When fixed exchange rates ended in 1973, gold's importance in the economy of the whole world started to go down (Şahinler et al., 2022). Gold is still seen as an important reserve asset, and the International Monetary Fund (IMF) is one of the largest official holders of gold in the world. The IMF takes care of about 90,5 million ounces of gold in places called "designated depositories." This amount is the same as having 2,814.1 tonnes of gold. Before the start of the 1970s, there were four main ways for the IMF to get gold. They could use these ways to talk. When the IMF was first set up in 1944, each country that wanted to join had to pay 25 percent of its initial quota in gold. Even after the quotas were raised, they kept doing this for the next thirty years. These are the countries where most of the gold reserves of the IMF come from. When making interest payments on loans from the IMF, gold was almost always used as the medium of exchange (Rodoplu & Elitaş, 2018).

There is a chance that gold could be used to pay back loans from the IMF. The money from selling gold to the International Monetary Fund could be used by members to buy each other's currencies' IMF. Between 1970 and 1971, this thing happened in South Africa. After countries stopped using the gold standard, the IMF made some changes to reflect the new state of affairs. The Second Amendment to the Articles of Agreement was passed in April 1978. This means that the IMF cannot buy gold or use it as collateral for a loan, lease, or swap. Also, the IMF is not allowed to use gold as a way to trade currencies. The IMF can sell gold outright at the current market price, and it can also buy gold from member nations that are paying back loans at a price that is set based on the current market price. Both of these abilities depend on the price of the market at the moment. Before these plans can be put into place, 85 percent of the voting power on the IMF Executive Board must agree with them for them to be considered acceptable.

The IMF has sold or given back some of the gold it kept in its reserves on a few occasions. Many things can be blamed for this result. For example, between 1957 and 1971, IMF sold gold several times so that it could buy more currencies. Between the years 1957 and 1971, this happened. Between 1956 and 1960, the IMF had to make up for operating losses by selling

gold to the United States and putting the money from that sale into US government bonds. This was done to keep the IMF from going out of business. In 1999, the IMF's Executive Board said that gold could be sold outside of the market to help pay for the IMF's share of the HIPC Initiative. This was said so that the IMF's part of the initiative could be paid for Heavily Indebted Poor Countries. In the end, the International Monetary Fund was able to sell 12.94 million ounces of gold to Brazil and Mexico through sales agreements. In 2009, the IMF Executive Board gave the green light to sell 12.97 million ounces of gold. This amount was equal to one-eighth of all the gold the IMF owned at the time, so it was a big deal for the organization. The sale was part of a new way for the IMF to make money so that its finances would be safe in the long run and so that the Poverty Reduction and Growth Trust could lend more money to poor countries. This was done so that the Poverty Reduction and Growth Trust could give more money to poor countries. This was done so that the Poverty Reduction and Growth Trust could give more money to poor countries. This was done so that the Poverty Reduction and Growth Trust could give more money to poor countries. This was done so that the Poverty Reduction and Growth Trust could give more money to poor countries. This was done so that the Poverty Reduction and Growth Trust could give more money to poor countries. This was done so that the Poverty Reduction and Growth Trust could give more money to poor countries. This was done so that the Poverty Reduction and Growth Trust could give more money to poor countries. This was done so that the Poverty Reduction and Growth Trust could give more money to poor countries. This was done so that the Poverty Reduction and Growth Trust would be able to help poor countries reduce their overall levels of poverty.

The sale started officially in October 2009, and that's when central banks and other official holders started buying and selling at market rates. In February 2010, the IMF said it would sell money on the market over the course of a few months to calm it down and keep it from getting upset. The IMF stopped selling things in December 2010. When it decided to sell the gold, the IMF thought it would make a certain amount of money. However, it made more money than it expected, which was more than 6.85 billion SDR than the book value of the gold. Because of these unexpected earnings, the IMF executive board decided in February 2012 to give each member a first payment of 700 million SDR. This payment was made only once. This payment was made for the first time in October 2012 (Rodoplu & Elitaş, 2018).

1.2. Gold Production Process

Even though the jewelry industry has a glossy reputation, it takes a significant financial commitment to run a successful jewelry firm. Researching a product, figuring out who the ideal customer is, and analyzing who else is in the industry are all essential steps to do before getting started. A strong understanding of the production process is required if an individual is just starting as a jewelry designer and wishes to break into the industry. The production process will go more quickly and easily if fruitful conversations are held with individuals working in different fields. Working with only one company during vacation will make logistics a lot less complicated. They can direct individuals in the process of building connections, aid them in making connections with specialists, streamline and simplify the entire process, and decide what is ideal for the organization at each level. If an individual desire to work independently, they need to be an expert in a few different subjects (Grossman, 2014).

1.2.1. Designing A 3D Jewelry Model

As soon as the preliminary concept and/or sketch has been established, it is time to begin working on the digital model. A piece of software known as CAD will be utilized by the 3D designer to create a digital representation of the jewelry that was ordered. This is a piece of design software that is referred to as CAD, which is an abbreviation that stands for computeraided design. This could take anywhere from one day to one week, depending on how difficult the task is and how busy the artist's studio or the artist themselves are. This could take anywhere from one day to one week. The amount of time required could be as little as one day or as much as one week. Keep in mind that the 3D model was created with usefulness rather than aesthetics, and keep in mind that it was developed with functionality. As a direct result of this, there is a danger that the model will not look to be as appealing as the product that is ultimately produced, and this risk increases the longer the production process takes. On the other hand, this process is quite beneficial because it enables individuals to view their jewelry before committing to full manufacturing. This gives individuals the opportunity to make any necessary adjustments before committing to full manufacturing. In the process of making a decision, this phase often proves to be very beneficial. Having said that, an individual can



request at any time a more detailed rendering of the scene (Grossman, 2014).

1.2.2. 3D Wax Printing Jewelry

The purpose of the 3D model that was developed in the stage before this one was not only to provide individuals with a preview of the final result but also to lay the groundwork for the creation of the wax model that will take place in the stage that comes after this one. This is because the creation of the wax model will take place in the stage that comes after this one. This will be done in the phase that follows this one, which is the one that comes after this one in the process. When making modern jewelry, it is almost always necessary to make use of a 3d printing machine to print a wax model that is constructed out of resin. This is done to facilitate the manufacturing process. This is done in order to prepare the model for the subsequent step of having resin cast over it. It is standard practice to carry out this procedure, the duration of which, in the overwhelming majority of cases, must not exceed forty-eight hours.

1.2.3. Casting the Wax Model into Metal

The casting procedure will now be applied to the jewelry as the following phase in the process. At this point, pieces start to take on the appearance of jewelry that could be purchased in a store. After the wax has been eliminated, the molten metal of choice—typically gold, silver, or platinum—is poured into the cavity left by the wax. When the metal has completely dried, the piece of jewelry assumes its finished form. The process of casting with this technique is known as "lost wax."

1.2.4. Basic Jewelry Assembly

After going through the steps of design and casting, the final production of jewelry can take anywhere from three days to three weeks to complete depending on the complexity of the piece. The refinement of the primary structure of the ring, necklace, or other pieces of jewelry that have been ordered from the jeweler is the task at hand at this stage. To get to the metal that lies beneath the casting's surface, the jeweler carefully scrapes away the surface of the casting. Even though the casting process transformed the jewelry into fine metal, the jeweler still needs to make any necessary aesthetic adjustments and guarantee that the item can adequately hold gemstones to finish the piece. After the mounting has been completed on the piece of jewelry, the item is then prepared for the following step, which is the stone placement. Any enameling work that needs to be done on the piece, in addition to any further design work that needs to be done, will be undertaken before the piece is set.

1.2.5. The Stone Setting Process

During this stage of the process, the diamond setter will finish the job by securing diamonds and other jewels for the jewelry that has been purchased. The diamond setter approaches the placement of the major stone atop the mount with extreme care. The stone setter is required to first do hand drilling for any side stones that will be used before beginning the procedure of setting the stone. After that, a microscope was used to precisely position each stone (Grossman, 2014).

1.2.6. Polishing, Finishing and Quality Assurance

During the final stage of the process, a polisher will make every effort to ensure that the metal has been polished to absolute perfection so that it is as shiny as is physically possible. This will be done so that the metal will be as reflective as is physically possible. Any other touches of finishing, such as engravings, are added at this point in the process as well. After the manufacturing process has been completed, the jewelry is subjected to a thorough inspection to ascertain whether or not the process was a success. This happens right before the product is packaged and shipped out to customers (Hannah, 2018).



1.3.Uses of Gold

Gold is of far too high value for it to ever be wasted. It is instead only used on purpose and only in circumstances where there are no alternatives that are accessible at a lower cost. As a consequence of this, once a use for gold has been discovered, there is a very low chance that it will be replaced by another metal. This illustrates that there has been a rise in the number of applications for gold over time. The vast majority of gold's current applications have just been around for the past two or three decades. It is anticipated that this pattern will continue. As a result of our society's pursuit of increasingly complicated and dependable resources, our reliance on gold will increase. Gold's value and significance will steadily increase over time as a result of increased demand, a scarcity of alternatives, and limited supply. These factors will all contribute to this rise. It is incontestably a metal that will be used in the future.

1.3.1. Electronics

The most important way that gold is used in industry is to make electrical parts. Solid-state electronic systems use very low voltages and currents, so corrosion or tarnish on contact points can easily mess with them. Voltages and currents can be changed easily. For these very small currents, gold is the best conductor because it does not rust. Electrical parts that are gold-plated are especially reliable. Gold is used to make connections, contacts for switches and relays, soldered joints, wire connectors, and connection strips. Gold traces are in almost every piece of high-tech electrical equipment. Cell phones, calculators, personal digital assistants (PDAs), GPS systems, and any other connected technology are all covered. Most big electrical appliances, like TVs, have gold in them. Gold is used in such small amounts and in such small ways that it raises a lot of questions, one of which is whether or not the metal will ever be used again. About a billion cell phones are made every year, and most of them only have about fifty cents worth of gold in them. Their average life span is less than two years, and very few of them are recycled. Even though each device only has a small amount of gold, there is a lot of gold that cannot be recycled because there are so many of these devices (Redmond, 1988). Mark love boys

Gold plating can be found on a variety of components within a conventional desktop or laptop computer. The swift and accurate transmission of digital information across the computer and from one component to another requires a conductor that is both efficient and reliable. Gold is the metal that most effectively satisfies these conditions, even more so than any other metal. The superb quality and steady performance are well worth the additional cost because their benefits outweigh it. Gold is utilized in the plug-and-socket connections, which are used to link cables, as well as in the edge connectors, which are utilized to connect memory and CPU chips to the motherboard. Gold is frequently electroplated onto other metals and alloyed with trace amounts of nickel or cobalt to lengthen the lifespan of these components. This process is done to make the gold more corrosion-resistant (Marton, 2016).

1.3.2. Medical Usages

Dentists would require blacksmithing equipment, a filling would cause the smile to become tarnished for a few days, and the patient would need to become accustomed to the taste of iron. Gold is used in dentistry because it is far more useful and has an appealing appearance, even though it is significantly more expensive. Gold alloys are used in the construction of a variety of dental restorations, including fillings, crowns, and bridges. Gold is utilized in dentistry because it is simple to work with for dentists, it is chemically inert, and it does not produce allergic reactions (Marton, 2016).

There is evidence that dental procedures with gold were performed as early as 700 B.C. The so-called "dentists" of Etruscan times would use wire made of gold to secure their patients' fake teeth. There is evidence that the metal was once employed in this capacity, even though gold wasn't used for filling cavities until a little more than a thousand years ago. Up until the late 1970s, gold was utilized in dentistry on an exceptionally regular basis. The significant



increase in the price of gold at the time prompted the exploration and development of other materials. However, there has been a recent trend toward increased utilization of gold in dental procedures. One factor that plays a role in this is the worry that metals with a lower degree of inertia might hurt health over the long term. Gold has been processed into a drug that has shown some promise in treating a limited range of medical conditions. Injections of aurothioglucose or sodium aurothiomalate, both of which are dilute solutions of the chemicals that they contain, are sometimes given to patients diagnosed with rheumatoid arthritis. To treat certain kinds of tumors with radiation therapy, particles of a radioactive gold isotope are implanted into the patient's tissues. This allows for the procedure to be performed. Lagophthalmos is a medical disorder in which a person is unable to completely close their eyes, as the condition prevents them from doing so. The condition known as lagophthalmos can be treated with very minute doses of gold. The application of a very small quantity of gold to the upper eyelid has been suggested as a therapy for this condition. Because the eyelid is "weighted" with the gold, it will close more completely when it is subjected to the gravitational force that comes from the earth's mass (Li & Li, 2002).

During the process of determining what the issue is, radioactive gold is utilized. It is administered in the form of an injection in a colloidal solution, and its progress through the body may be monitored to see how effectively it functions as a beta emitter. A broad variety of medical and technical instruments, including some that are responsible for keeping people alive, require minute amounts of gold as an ingredient. Because gold does not degrade when it is worked into instruments, it is an extremely dependable material for use in electronics and other technologies that are essential to maintaining life (Lavigne & Rowland, 1978).

1.3.3. Aerospace

Spending billions of dollars on a vehicle once it is launched, will travel on a voyage with no possibility for lubrication, maintenance, or repair. Therefore, very reliable materials are needed. This is the rationale behind the myriad of methods in which gold can be discovered on board every mission operated by NASA. Because of its consistent and reliable performance, gold is frequently used in the electronic industry both as a conductor and a connection. In addition, each spaceship carries a considerable quantity of film made of polyester with a gold coating. Because it reflects infrared radiation, this material helps keep the spaceship at a more comfortable temperature. Without this covering, the black components of the spacecraft would quickly become hot to the touch. Gold is also used in the capacity of a lubricant between the various mechanical components. In the absence of the atmosphere surrounding the Earth, organic lubricants would vaporize and be destroyed by high levels of radiation. Gold molecules can slide past one another when there is friction between them; this allows a very thin film of gold to function as a lubricant when it is placed between large moving parts. Gold has an extremely low shear strength (Lavigne & Rowland 1978).

1.3.4. Awards and Status Symbols

What kind of precious metal was utilized in the production of the king's crown? Gold! The decision was made to choose gold specifically since it is frequently thought of as THE most valuable metal. Even though steel has the highest tensile strength of all metals, a king's crown shouldn't be fashioned of the stuff. Gold is the metal that is most frequently chosen to be used in the design of a king's crown since it is the metal that is most typically linked with the greatest levels of regard and rank. Numerous admirable attributes have been associated with gold. The great degree of purity of gold is another attribute related to it. Because of this, gold is the metal that is most usually used to create objects that are seen as having religious significance. Gold is therefore widely used in the production of religious artifacts like crosses, communion cups, and other symbols (Fujiki, 2003). The victor of practically every type of competition is awarded a gold trophy or medal. Regardless of the type of competition, this is true. First-place finishers in the Olympics have the chance to compete for a gold medal in their respective events. During the Academy Awards, sometimes referred to as the Academy Honors, gold



awards are presented. Nothing in the music industry comes close to the caliber of the Grammy Awards. Awards made of gold-plated metal have been given in recognition of each of these notable accomplishments (Lavigne & Rowland, 1978).

1.3.5. Glassmaking

Gold is utilized in the production of glass in a variety of different ways. Utilizing a pigment as part of the production process for glass is the way that is considered to be the most fundamental. When the glass is annealed, a rich crimson hue can be achieved by adding a very small amount of gold to the mixture and suspending it in it (Fujiki, 2003). Additionally, gold is utilized in the production of specialized glass for use in museums and other climate-controlled structures. When a little amount of gold is spread within the glass or coated onto the glass surface, the buildings will remain cooler in the summer and warmer in the winter because the gold will reflect heat from the interior back inward into the building. A very thin layer of gold plating is applied to the surface of the visor of the astronaut's helmet, which is a component of the space suit. The astronauts' eyes and skin are shielded by this extremely thin coating, which can deflect the vast majority of the highly powerful solar radiation that is present in space.

1.3.6. Gold Gilding and Gold Leaf

Gold, even more than silver and copper, is the most malleable metal. As a result, gold can be pounded into sheets only a few millionths of an inch thick. These extremely thin sheets of gold leaf can be placed on the uneven surfaces of picture frames, moldings, or furniture. Gold leaf is another aesthetic option that may be used on both the interior and exterior of constructions. This results in a long-lasting, corrosion-resistant coating. The domes of religious buildings and other significant structures are one of the most eye-catching applications of gold leaf. The cost of this "roofing material" per square foot is relatively high; yet, the cost of gold accounts for only a small portion of the overall project cost. The labor of extraordinarily talented artisans in charge of applying the gold leaf accounts for the majority of the expense. (Dippel et al., 2022).

2. GOLD DEMAND AND TRADE

Jewelry manufactured out of gold is the sector that contributes the most significant to the overall annual demand for gold across all industries. In recent decades, there has been a discernible decline in this, even though it still accounts for approximately half of the total demand for gold. conventional jewelry is still the primary use for gold. The marketplaces for jewelry in India and China together account for more than fifty percent of the entire market value, making them by far the largest in the world (Hannah, 2018).

The demand for gold that is of a greater purity and larger carat dominates the markets in Asia and the Middle East. The demand for gold jewelry during the second quarter was somewhat greater than it was during the same period of the previous year, but it is still modest in comparison to the norms that prevailed before the epidemic. Although the global consumption of jewelry has recovered from the worst of the COVID-induced decrease experienced in 2020, it has not yet achieved the regular quarterly averages — of roughly 550t — that were characteristic of the few years before the pandemic (Keys, 2012). Figure 1 shows the gold demand in the Jewelry sector.



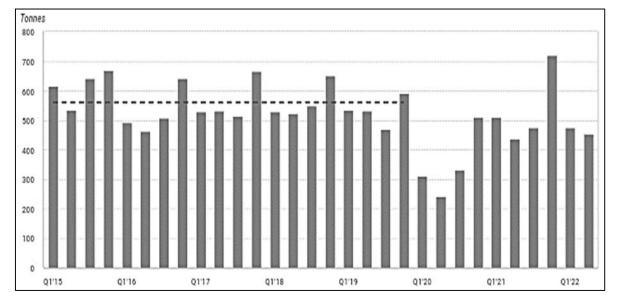


Figure 1. Gold Demand in the Jewelry Sector.

Source: World Gold Council 1978. Accessed at 10/05/2023

During the second quarter, demand was hampered by several factors, including China's economic constraints and rising prices around the world, both of which contributed to an increase in overall inflation. However, support came from robust spending at weddings and festivals in India, and rising oil prices boosted sentiment in the Middle East. Both of these factors contributed to an improvement in the overall economy. The strong economic growth can be attributed in part to both of these factors. The increase in the volume of output continued to surpass the increase in consumption, as was the case throughout the first three months of the year. As a direct consequence of this, there was a 31-ton increase in the inventory of jewelry during the second quarter. This was because the supply chain in some regions continued to rebuild stockpiles after the impact of the epidemic, and it also responded to healthy demand from customers (Keys, 2012).

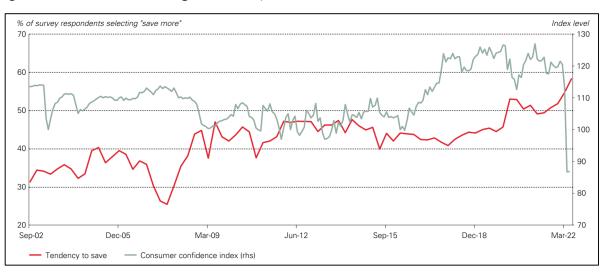
2.1. Gold Demand Across World Markets

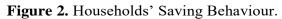
In China, the demand for gold jewelry had a 29% year-over-year decline during the second quarter, reaching a total of 103 tonnes. As a result of this increase, the total for the first half of the year amounted to 281t, which was 17% lower than the total for the previous year and 19% lower than its average for the previous 10 years. Because millions of people were subjected to controls as part of an effort to reduce the risk of contagion during the months of April and May, the closure of major urban areas harmed the consumption of gold. This was because the closures were part of an effort to reduce the risk of contagion.

The inability of consumers to spend money, in conjunction with a slowdown in the development of their incomes (the year-over-year rise of 1.5% in Q2 was the lowest on record excluding 2020), were the primary factors that contributed to the decline in the demand for gold jewelry in China during the second quarter. This decline occurred during the period of March, April, May, and June. There was a five percent increase in the price of gold on the local market as a direct result of the decline in the value of the RMB. This may have resulted in a decrease in the demand for gold jewelry during the first half of the year. Alterations in the conduct of customers are another factor that, in our opinion, contributed to the issue. The fact that the second quarter is frequently considered to be the off-season for the consumption of gold jewelry contributed even more to the decline. This perception also contributed to the fact that the demand for gold jewelry decreased. This conception was an additional factor that contributed to the fall. As a result of the uncertainty and the decline in confidence that COVID has produced, households have started taking preventative measures, such as increasing the



amount of money that they set aside in their savings accounts. The analysis is illustrated in Figure 2 (Households' Saving Behaviour).





Sources: National Bureau of Statistics, PBoC, World Gold Council.

Even though the market as a whole was experiencing difficulties, heritage gold jewelry was able to keep its position as the industry leader. This was accomplished even though the market had reached a certain level of saturation, which caused momentum to come to a standstill. Nevertheless, this objective was completed. Because 24K pure hard gold was present, further market share was taken away from the competition. Due to the increasing need for price transparency, the jewelry business is undergoing a move away from pricing "per piece" toward pricing "per gram," which has made this sector more difficult to navigate. This transition has been going on for a considerable amount of time at this point. The revival of COVID in 2022 did not slow down the rapid expansion that was being pursued by leading brands at that time. It accelerated it. For example, Chow Tai Fook will have 5,931 points of sale across mainland China by the end of the second quarter of 2022, which is an increase from 5,646 points of sale by the end of 2021. This increase was more prominent in cities that are ranked on a lower tier than those being discussed. Based on what is still to come, it is believed that the weakness that was displayed in the first half of the year will carry over into the second half of the year. This is because of what is still to come. It is quite likely that the policy of having a COVID rate that is set at zero, having weak domestic demand, and having upheavals in the real estate business would continue to weigh down on local economic growth, which would hurt the market for gold jewelry. If the steps taken to manage the pandemic are effective, there may be some respite from the efforts that have been done to stimulate the economy for consumers (Tokic, 2020). Additionally, the pent-up demand for weddings, in addition to the expanding product ranges of 24k Hard Gold and Heritage Gold jewelry, may provide additional assistance. This demand has been building up for some time (Hannah, 2018). According to the results of a survey that is carried out by the People's Bank of China every quarter, the percentage of local households that have the intention to save money hit its highest point on record in the second quarter of this year. This was ascribed to the challenging weather conditions, which prompted families to put money away for emergency preparedness (Keys, 2012).

In India, Strong sales during weddings and festivals were a contributing factor in the large increase in demand for jewelry that occurred during the second quarter of the year. The relatively dismal performance of the second quarter of 2021 contributed significantly to the year-over-year increase in demand for the second quarter of 2018. This is even though demand in the most recent quarter was robust from a more long-term viewpoint and was 6% higher than the average quarterly volume over the previous five years, which was 132t. In addition, the fact that the second quarter of 2018 was the most recent quarter contributed to the year-



over-year increase in demand for that period. Even though demand was lower in the first quarter of the year compared to the second quarter, total demand for the first half of the year reached 234t, which was 6% higher than the same period last year. Even though the second quarter was the most successful of the four, this was the outcome. Demand was driven higher as a result of multiple factors, including increased sales during Akshaya Tritiya in May and wedding purchases made during the traditional wedding season, which occurs throughout the second quarter. As a consequence of the interaction of these factors, there was an increase in demand. The timely decline in the price of gold from its peak in April, when it was at its lowest point, also provided a positive contribution to the bigger picture as a whole.

This decline occurred when the price of gold was at its lowest point. Even though demand remained robust throughout the entirety of the second quarter, there were roadblocks presented by the macroeconomic environment. These roadblocks consisted of a weakened currency, rising inflation, and higher interest rates. The rise in demand has occurred at the same time that there has been a general recovery of economic activity in these regions to the levels that were witnessed before the pandemic (Tokic, 2020). Urban dwellers of India have been the primary factor behind the growth in demand that has been observed. There has not yet been a complete reversal of the effects that COVID had on demand during this quarter, and demand has not yet fully recovered from those effects. On the other hand, rural consumers have seen a major decrease in their purchasing power as a direct result of growing inflation as well as higher interest rates attached to agricultural loans. (Grossman, 2014). Even though jewelry made of cheaper 18-karat and 14-karat gold gained market share, particularly among younger buyers, jewelry made of plain 22-karat gold continued to dominate the market. This was especially true in the case of the plain gold category. This was especially true regarding jewelry made of plain gold. The prediction for the remaining months of this year is surrounded by a certain amount of ambiguity at the moment. Even though demand for weddings and festivals ought to be a positive factor in the fourth quarter, demand will face obstacles due to the depreciation of the rupee, greater inflation, and an increase in the import duty on gold. These three factors are likely to have an adverse effect. When taken together, these factors will increase the cost of purchasing gold.

In contrast to Turkey, where it continued to be subdued, the demand for jewelry in the Middle East strengthened its comeback to the levels that were typical before COVID. The amount of gold jewelry purchased by Turks fell by 9% compared to the previous year, reaching 7 metric tonnes. Even though it has been relatively stable over the course of the last three quarters, demand is still at an all-time low. The decline in the value of the local currency has led to volatility in the price of gold while growing inflation has led to a reduction in consumers' discretionary income. In contrast to assets that are considered safe havens, the demand for 22k gold, which has relatively low production costs, has remained relatively stable. During the second quarter, the Middle Eastern markets generally increased year over year. Growing oil prices in the region contributed to a rise in demand by contributing to an increase in consumer confidence as well as rising income levels. The United Arab Emirates (UAE) continued to profit from an increase in tourists that was practically on par with the average (Chen, 2022). Despite having a low base from the second quarter of 21, Iran was able to increase its demand from the previous year to the current year during the second quarter. Egypt stood out as an anomaly because local gold prices increased at a quick pace while at the same time, the value of the country's currency declined, and demand decreased by 3% year over year. (Grossman, 2014).

The demand for gold jewelry among customers in the United States shows no sign of slowing down, although there is a chance that consumer interest may be beginning to wane. In the second quarter, demand climbed by 2% to a total of 38 metric tonnes, which is much more than the 33 metric tonnes that have been the quarterly average over the previous five years. There are early indications that the end of federal income support may have taken the wind out of the sails of the more affordable, lower-carat end of the market. Although demand has continued to be supported by the return to a more normal year for weddings, there are early

indications that this may have occurred. It is possible that this transpired as a result of the increasing level of rivalry in this particular sector of the industry. The demand for jewelry in Europe hit 15 tonnes during the second quarter, which was the highest level observed since 2016 and the highest level recorded since 2016. The demand rose by a corresponding 15%, which brought the total to 26t and indicated a recovery to levels seen before the pandemic. The year-over-year increase of 14% was a contributor to the corresponding increase in demand, which rose by 15%. When compared to the second quarter of the previous year, the majority of the growth may be attributed to an increase in the number of weddings, as well as a healthier economic condition, particularly about lockdowns. Nonetheless, there was a reported softening in demand towards the end of the quarter, which suggests that momentum could begin to slow down. This suggests that the momentum could begin to slow down. This transpired at the same time that the cost-of-living crisis started to take hold (Hannah, 2018).

Indonesia's use of jewelry went down in the first quarter, but in the second quarter, it went up by 18% year over year to reach 5t. As consumer confidence grew, the economy got better, and the rupiah's value went up, demand went up (some bought gold due to concerns about a further and heavier drop in the currency). For the sixth straight quarter, the amount of jewelry bought in Thailand went up by 10%, to 2t. Even though demand has been slowly rising since the start of 2021, it is still much lower than it was before the epidemic. The end of COVID, the economy getting better, and more tourists have all helped jewelry sales. Fears about inflation and the baht's currency have also made people more interested in gold as a way to save money. As gold stores started to restock in response to the continuing rise in demand, more jewelry was made than was bought.

The amount of jewelry Vietnam bought in the second quarter was 4t, which was 28% more than the same time last year. The local economy was growing, the price of gold was going down, and wages were going up because many businesses ended short-term wage cuts. The \$15 billion government stimulus program has boosted the economy and made people feel better about spending. It is important to remember that the slow sales of jewelry in the second quarter are often caused by the effects of the Vietnamese New Year (Hannah, 2018). Over the last year, the demand for jewelry in Singapore went up by 43%, to 2t. Because the economy is getting better and many COVID restrictions were lifted at the last minute, demand has gone up. The amount of jewelry that Malaysians buy each year went up by 35%, to 3t. Jewelry sales went up a lot because all of the pandemic control measures were taken off, international travel began in April, and last year's sales were lower because of Malaysia's Moving Control Orders. Festival shopping was also good for the second quarter (Hannah, 2018).

For the second quarter in a row, Japan's demand for gold jewelry went up by 5% compared to the same time last year. Demand is still low at 4t, but Q2 growth was clear because the price of gold in the country is going up. But the rest of the year could be hard because of rising inflation. South Korea bought 8% less jewelry in the second quarter of this year compared to the same time last year. This is the same as 4t. When the economy was bad and gold prices were high, people were more careful about what they bought (Keys, 2012).

The amount of jewelry that was purchased in Australia increased by 8% year on year to reach 3t. The increased cost of living is having a depressing effect on consumer demand. Even though more people are making purchases, the increase of demand for jewelry is rising at a slower rate (Grossman, 2014).

The environment of the wholesale gold trade is exceedingly complicated and constantly changing. The Shanghai Gold Exchange, the US futures market, and the London OTC market are the three most significant gold trading hubs. More than 90% of all trading volume occurs on these markets, which are further backed by several smaller secondary market hubs (both OTC and exchange-traded) (Rodoplu & Elitaş, 2018). The results in Figure 3 show the daily nominal gold price in dollars and millions.

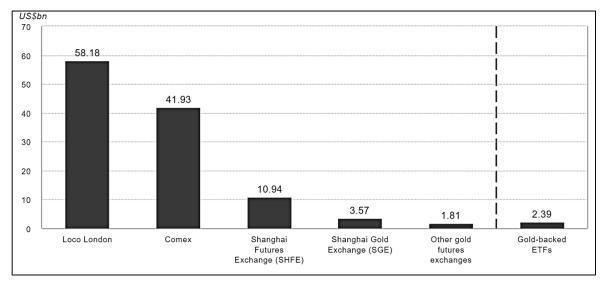


Figure 3. Daily notional gold volumes in US-dollar billions

Source: Bloomberg 2022.

2.1.1. The London Market

According to the data the researcher has, the London Over-the-Counter (OTC) market, which has been the center of the global gold trade for a long time, is now responsible for about 70% of the total notional trading volume. The London market, which is known for bringing in traders from all over the world, is where the LBMA Gold Price is set. This price is used as the global standard for gold twice a day. Only the London market trades 400-ounce "Good Delivery" bars, which are kept in the vaults of the Bank of England and other London Precious Metals Clearing Limited members. These bars can only be sold on the London market. London is often called the "terminal market" because of its vaulting system, which is one of a kind and includes a chain of custody that is carefully kept and holds a lot of gold. This is because there is so much gold in London. The London stock exchange benefits from being in a time zone that lets it trade during both Asian and American trading hours. It is also a major center for financial services around the world. Even though the London market is the most important, it has been losing business to other markets around the world. In 2015, banks that actively traded on the market stopped reporting forward offering rates, which were used to build the market's forward curve. This is one sign that the market is getting more and more divided. In response to these worries, a group of powerful businesspeople, the London Metal Exchange, and the World Gold Council got together to make LME precious. The main goal of this group of exchange-traded contracts is to make the gold trading market more modern and help it work better (Rodoplu & Elitaş, 2018).

2.1.2. The US Futures Market (COMEX)

Despite London's preeminent position in the physical market, the COMEX derivatives exchange has emerged as an increasingly significant venue in the process of driving price discovery. This is because the CME Group controls a large majority of the global derivatives market. This is a result of the fact that CME Group is in charge of managing COMEX. The so-called "active month," which refers to the contract with the earliest feasible expiration date, is the focal point of the vast bulk of the trading activity that takes place on the COMEX exchange. This "active month" serves as a substitute for the current spot price. The market is inextricably linked to physical markets using a very active Exchange for Physical (EFP) market. Even though only a small percentage of contracts ever settle into the delivery of bars into COMEX vaults, the market is linked inextricably to physical markets. This market is also referred to as an over-the-counter market, or OTC for short. It is essential to take into account the fact that the share of COMEX volume that takes place during Asian market hours has been consistently



increasing over the past few years. This is a direct consequence of the exchange's previous success in capitalizing on the growing market in Asia (Rodoplu & Elitaş, 2018).

2.1.3. The Chinese Market (SGE & SHFE)

The Shanghai Gold Market is the largest spot exchange in the world that focuses solely on the trading of physical commodities. The Shanghai Gold Exchange (SGE), a company that was founded in 2002 and is closely regulated by the People's Bank of China, has quickly become well-known in line with China's rapidly growing significance in the gold market (Liu et al., 2023). The People's Bank of China is the organization that oversees The Shanghai Gold Exchange. The People's Bank of China is the principal regulatory body that oversees the corporation. The Shanghai Gold Exchange initiated the Shanghai Gold Price benchmark in 2016, with the objectives of strengthening China's position as a price-setter, advancing the internationalization of the RMB, and increasing foreign investment in the Chinese market (Lu, 2022). All of these objectives were accomplished. It should be emphasized that even though the two exchanges are not physically connected, the extremely active futures trading on Shanghai Futures Market complements the spot and delayed contracts on SGE. This is something that needs to be emphasized. Because of its significance, this point needs to be driven home repeatedly.

2.1.4. Secondary Market Centers

Many people consider Dubai, India, Japan, Singapore, and Hong Kong to be some of the most important financial centers and markets in the world. This is because these countries are home to large economies with developed financial sectors. Although there are exchanges in each of these markets that offer a diverse selection of spot trading facilities or listed contracts, these exchanges have not been able to attract the same amount of liquidity that can be found on the market's primary venues. This is because these exchanges do not offer the same level of accessibility. Despite this, these markets serve a vital purpose since they either serve as centers for regional trade or they satisfy the requirements of local demand to varied degrees. For a good number of years, Hong Kong has served as a port of entry into the Chinese market. On the other hand, Singapore is rapidly emerging as one of the most significant focal points for commercial activity within the ASEAN region.

3. INTERNATIONAL TRADE IN GOLD

The London Bullion Market Association (LBMA) and its member bullion banks have chosen not to release trading data for the London Gold Market. The London Gold Market operates exclusively through private, off-the-record deals. Only a survey of the London market conducted in 2011 by the London Bullion Market Association (LBMA) may be considered current statistics on trade. That poll was conducted to show the Basel Committee on Banking Supervision that gold is a liquid asset.

Trading data for spot, forwards, and other transactions were collected during the first quarter of 2011 for this survey (which was only open to LBMA members and only replied to by a subset of members) (such as options and commodity-related swaps). However, no information about gold holdings or lending was gathered in the poll. Three-sixths of the LBMA's active gold traders (all spot and forward market makers) responded to the survey, and the information they supplied included not just transactions with fellow LBMA members but also those with non-members. Although taking part in the poll was entirely voluntary, 36 of 56 members who were actively involved in gold trading did so. The survey revealed that during the first three months of 2011, there were 385,000 trades involving 10.9 billion ounces of gold. In dollar terms, that is equal to \$15.1 trillion. Nearly 90% of all market activity involved spot gold trades, with the remaining 10% split between forwards and other transactions. This amounts to an average daily trading volume of 6,100 trades, with a value of 241 billion dollars and 173 million ounces.



Even while the London Bullion Market Association (LBMA) publishes the monthly clearing volumes, the LBMA does not publicize the amounts of London traded. Transaction quantities that have been cleared are referred to as clearing volumes. In the first three months of 2011, 1.18 billion ounces of gold were cleared, which means that trade turnover was ten times as high as clearing turnover. As a result, the London Gold Market's trading volumes can be roughly estimated using the LBMA liquidity survey's 2011 data and the reverse engineering method for the LBMA clearing volumes (Hannah, 2018).

3.1. New Price Record Due To The Russia-Ukraine Conflict

Since February, the crisis that is currently taking place between Russia and Ukraine has been going on, but the financial markets have paid very little attention to it. Even though the markets have become more volatile since the Russian military entered Ukraine, the rise in US stocks in the early days of the war was more due to US monetary policy than Russian military policy. This is true even though the Russian military has entered Ukraine. It has been demonstrated throughout history that geopolitical crises do not often have any long-term ramifications for investors, and the first reaction of the markets to the war is consistent with this historical finding. Recent evidence, on the other hand, suggests that the war and the sanctions that it prompted are having increasingly disastrous effects on the economy (Grossman, 2014).

The United States is less sensitive to the repercussions of the conflict in Ukraine than Europe because it has a robust domestic economy and the ability to meet its energy demands independently of imports. Even if the United States can avoid recession while Europe is not, investors in the United States may experience additional volatility in the months ahead due to the global nature of financial markets. This may be the case even if Europe remains in recession. Because the economy of the European Union is larger than that of the United States, a significant number of publicly traded American companies derive a significant portion of their revenue from customers in the European Union. If customers restrict their spending owing to fears of job loss during a recession, investors in the United States may observe a decline in the profits of businesses as well as a decline in the prices of stocks. According to David Bridges, a geopolitical risk analyst at Fidelity, investors should not dismiss the possibility that the conflict will lead to further volatility in the months ahead. Bridges suggest that investors not dismiss the possibility.

This is the beginning of a new ice age. This debate has several different possible outcomes and will not be resolved anytime soon. He cautions that as time goes on, information on the situation in Ukraine will become scarcer, adding to the growing sense that things are becoming increasingly unpredictable. It is not just the military situation that is unclear; the effects of Western sanctions on Russia are also unclear, and there is always the possibility that U.S. politicians will drag the country into a fight that it would be better off avoiding. The military situation is not the only unclear thing; the effects of Western sanctions on Russia are also unclear (Estrella, 2020).

3.2. Brics Agreement On Gold Mining And Pricing

During the BRICS meeting that took place in Johannesburg, China National Gold and Sun Gold of India announced that they would be starting a joint gold mining venture in the Siberian region of Russia. China National Gold, a major player in the global gold market, and Sun Gold came to an agreement in 2016 that stipulated the former would sell the latter a 70% stake in the Kluchevskoye gold deposit project. In exchange, the Chinese gold business would contribute its experience in the field of development. The transaction, however, was held up by several circumstances, including the difficulties Russia experiences with its bureaucracy (Keys, 2012).

The partners indicated in their statement that China National Gold is anticipated to be the project's primary stakeholder following the Duma, the lower house of parliament in Russia, providing its final permission, and that an investment in pre-production of up to \$500 million

is envisioned. China National Gold is a state-owned gold mining company in China. Thursday was the day that, according to the public records kept by the Duma, the decision to adopt the initiative was made. Open-pit mining of the Kluchevskoye deposit is anticipated to yield 6.5 tonnes of gold per year, as stated by the partners. It was not specified when the first gold was expected to be produced but it was anticipated shortly (Hannah, 2018).

As a direct result of the sanctions imposed on it after the invasion of Crimea in 2014, Russia has increased the amount of work it puts into expanding its gold reserves over time. At the moment, the Russian central bank has almost 150,000 gold bars, which have a combined value of approximately USD 140 billion. The quantity of gold that Russia possesses presently places it sixth among all countries in the globe. A significant portion of Russia's rising stockpile can be attributed to the country's high domestic production. It produces 330 tonnes of gold per year, which has a worth of over USD 20 billion, making it the third-largest gold producer in the world. After going through the refining process, the gold is subsequently presented to commercial banks before being routinely exchanged on the international market. In 2021, Russia exported gold to a value of USD 15,2 billion, while Switzerland and Turkey were supplemental importers of this commodity. In addition, there are allegations that Russia engages in the unethical importation of gold from countries such as Sudan. The argument that Russia is complicit in the gold trade in Africa, which contributes to unrest on the continent, is getting more and more plausible as time goes on (Hannah, 2018).

3.3. Moving the Stock Base From London to Russia

Trading in 27 companies with ties to Russia has been halted by the London Stock Exchange. These companies include Sberbank, which is Russia's largest financial institution, and Gazprom, which is a massive energy company. Lukoil, Polyus, and EN+ are just a few of the businesses that are prohibited from operating legally within the city limits of London. Trading was halted at the VTB subsidiary, which is the nation's second-largest bank, on Friday of last week. According to David Schwimmer, the Chief Executive Officer of the London Stock Exchange, the FTSE Russell index company has removed Russian listings from its indexes, and the London Stock Exchange has restricted trading in twenty-seven different equities that are listed in Russia (Rush, 1985).

Individuals are currently engaged in productive collaboration with various regulatory bodies across the board to bring about the aforementioned effects. Rush (1985) states that the company, World-Check, is constantly and diligently updating the database with new information as newly sanctioned individuals are added to it. Since the invasion of Ukraine and the subsequent catastrophic economic sanctions imposed on the country's businesses, institutions, and inhabitants by the United States and its Western allies, the share prices of Russian companies that are listed on the London Stock Exchange have dropped significantly. When the suspension was finally announced on Thursday, the previous day, the value of Russia's stocks that were traded on the London Stock Exchange had nearly all disappeared. As of the trading on Wednesday, Sberbank had a year-to-date loss of 99.72%, while Gazprom, Lukoil, Polyus, Rosneft, and EN+ each had losses of 93.71%, 99.2%, 95.58%, and 99.2%, respectively. Over the course of the past week, Russia has increased the intensity of its attacks on Ukraine, laying siege to several key cities while meeting fierce opposition from the Ukrainian side (Hwang, 2019).

On Thursday, there were explosions reported in the city of Kyiv, which serves as the capital of Ukraine, as the current conflict entered its second week. In addition, Russian forces went into the key city of Kherson, which is located on a port. On Wednesday, the cities of Kharkiv and Maripol were also subjected to heavy shelling. The growing collection of measures that virtually forbid Western investors from conducting business with the Central Bank of Russia has had the effect of effectively freezing several assets, including the sizeable foreign exchange reserves held by the Central Bank of Russia. These reserves have been utilized by the CBR to compensate for decreases in the value of local assets. Despite the London Stock Exchange's (LSE) claim in its results report on Thursday that its operations in Russia and Ukraine only



account for less than 1% of its total revenues, London has long been the preferred offshore trading hub for Russian oligarchs and businesses. This is the case even though the LSE stated that its operations in Russia and Ukraine only account for less than 1% of its total revenues. As a result of the decision made by the national central bank to prohibit trading in both futures and stocks, the majority of the nation's stock market remained closed on Thursday. Domestic markets in Russia have been negatively affected as well.

The London Stock Exchange announced in response to the MSCI's decision to exclude Russian companies from its carefully watched global indices. This decision was made by MSCI as part of an effort by Western financial institutions to further restrict capital flows to Moscow (Rush, 1985). The company that does benchmark moved the MSCI Russia indexes out of the "Emerging Markets" category and into the "Standalone Markets" category. According to the organization that does the benchmarking, this decision will have the effect of removing Russian assets from MSCI's indices beginning the following Wednesday at a cost "that is effectively nothing". The vast majority of institutional investors] admitted that the Russian equity market is currently uninvestable," said a statement that was released by MSCI late on Wednesday. According to the MSCI Market Classification Framework, the accessibility of the Russian equity market to foreign institutional investors has recently deteriorated to the point where it is no longer in compliance with the market accessibility requirements for emerging markets classification. This is the case because the Russian equity market no longer meets these requirements. Before the market opens on Monday, the FTSE Russell, which is owned by the LSE, will remove companies that are based in Russia from its indices (Estrella, 2020).

3.4. World Gold Trade

An internet resource called TradeMap offers insightful data about international trade. TradeMap gives customers access to trade statistics, export and import patterns, and market analysis for a variety of items by exploiting the large amount of trade data available. TradeMap offers thorough data on the percentage of nations in both world exports and imports for this specific commodity. Users of TradeMap are able to investigate the complex nuances of international trade thanks to its extensive data and research. TradeMap aids informed decision-making and offers a better knowledge of global trade patterns by offering insights into the percentage of countries in both world exports and imports for goods. Accessing the TradeMap platform and making use of its capabilities can be quite advantageous for people and organizations trying to understand the complexities of the global trade environment.

The TradeMap database search on the state of global gold commerce for both imports and exports produced some insightful results. A very valuable commodity with a big role in international trade is gold. The TradeMap database offers comprehensive statistics on the contribution of various nations to global gold imports and exports. The statistics highlighted the top players in the international market for gold exports. Leading gold-producing nations including China, Australia, Russia, and the US started to become important exporters. These nations have built mining operations to harvest and export this precious metal, and they also have sizable gold deposits. Due to their proficiency in gold artistry, nations with robust jewelry industries, such as India and Switzerland, also played a significant role in gold exports, see figure 4 and figure 5. The statistics revealed nations with a high demand for gold when looking at gold imports. Major importers include countries like India, China, the United States, and Switzerland. These nations have thriving jewelry markets, and both traditional and modern designs frequently feature gold. Additionally, as a part of their plan to diversify their reserve holdings, central banks from different nations actively import gold, which adds to the demand for this precious metal on a global scale. The data illustrated the interaction between nations that produce gold and those who have a strong demand for this precious metal. For companies operating in the gold sector, for decision-makers creating trade regulations, and for analysts researching global economic trends, understanding the dynamics of gold trading might be essential. The TradeMap database is a useful tool for examining and evaluating these trading patterns and provides insightful data on the world gold market. Table 1 shows the share



percentages of both the imports and exports for the highest 15 ranked countries regarding the gold trade map in 2022.

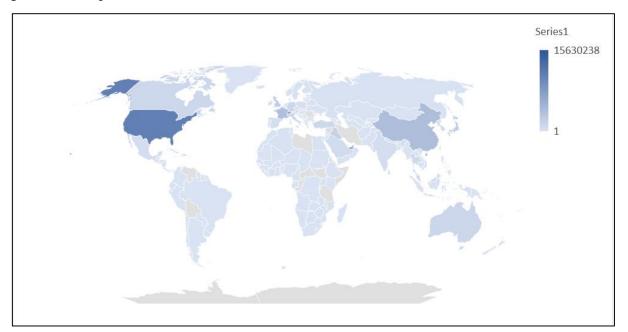


Figure 4. List of importers

Source: Trademap

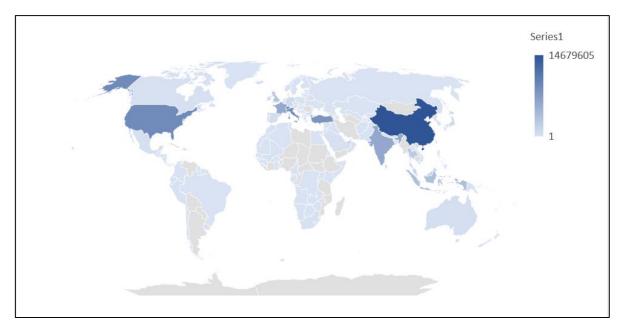


Figure 5. List of exporters for the selected product in 2022.

Source: Trademap. Product : 711319 Articles of jewellery and parts thereof, of precious metal other than silver.



Importers	Value imported in 2022 Exporters Value exported in 2022					
Importers	-	Exponers	A			
	(%)		(%)			
Hong Kong, China	18.85694101	China	14.71015446			
USA	13.18133069	Switzerland	12.51976655			
Switzerland	10.65784833	USA	9.049542728			
UAE	8.587112668	Italy	8.661368584			
Singapore	5.448134894	Hong Kong, China	8.503108916			
China	4.882074552	Türkiye	8.043716869			
France	4.52582736	India	5.964763382			
Japan	2.744065393	France	5.897877476			
United Kingdom	2.726166652	Indonesia	3.706759049			
Qatar	2.107482613	Singapore	3.431032431			
Iraq	2.06072342	United	3.257359754			
		Kingdom				
Italy	1.659235943	UAĔ	3.179136303			
Macao, China	1.612633587	Thailand	2.342843524			
Australia	1.593003605	Malaysia	1.3502281			
Germany	1.497852905	Japan	1.046960285			

Table 1.	Value in	ported and	exported in	2022 by	y country.
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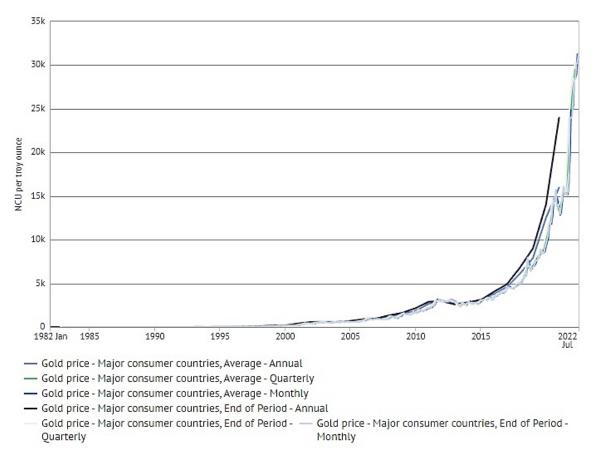
Source: Trademap

4. GOLD TRADE IN TÜRKİYE

The significance of gold in Turkish culture is vast. In ancient Lydia, gold coins were first used by traders. They are still significant and developing for Turkey's economy today. The country's rich cultural legacy, which places a strong emphasis on the use of gold in weddings and other religious ceremonies, contributes to Turkey's yearning for the metal. In the jewelry industry, gold is utilized as a unit of account and a medium of trade. Rents are typically offered in gold in the Grand Bazaar, which is the center of the Turkish gold market. Owning gold is also strongly advantageous economically. For many years, Turkish savers have used gold as a reliable hedge against the effects of inflation and weakening currencies (Hwang, 2019). The organized gold trading platforms that are part of Turkey's multi-market financial exchange venue, Borsa Istanbul (2023), are the center of the country's gold market. While gold futures are traded on the Precious Metal Futures Market, physical spot gold is traded on the Precious Metals Market (PMM) of Borsa Istanbul (PMFM).

Following a series of legislative changes that started in 1989, the Turkish gold market had its first liberalization in 1993 (Rush, 1985). Only the Central Bank of the Republic of Turkey (Türkiye Cumhuriyet Merkez Bankasi) was permitted to import gold before liberalization. One of the main goals of the liberalization of the gold market was to open up the global gold trade by enabling institutions other than the central bank to start importing gold. The Istanbul Gold Exchange, which opened its doors in July 1995 and offered spot and futures trading in gold, served as the PMM's forerunner. Beginning in 1995, the Turkish government permitted members of the Istanbul Gold Exchange to import gold. In 2011, palladium and silver trading started, and in 1999, trading in platinum and silver was added (Pesigan & Soriano, 2020).

Turkish Futures and Options Exchange (VOB), Istanbul Stock Exchange, and Istanbul Gold Exchange combined to become Borsa Istanbul AS (BIST). Following the merger, PMM members could import gold from Borsa Istanbul. Transferring the gold to the Borsa Istanbul vault within three days of arrival in Turkey is one of the conditions for PMM members who import gold into Turkey. This includes gold refineries recognized by the Dubai Multi Commodity Center, the Indian Bullion Market Association, and the London Bullion Market Association. After that, any domestic refineries that meet the PMM's requirements for accreditation are added to the list of approved refineries that is kept by the PMM (Estrella,



2020). Figure 6 (World Gold Council 1978) illustrates gold prices and consumption.



4.1. Supply And Demand In Türkiye

The economic theory of supply and demand is valid if there is an excess of both supplies and needs in competitive markets, and if individual suppliers cannot manipulate pricing. In light of this, the curve that is presented below serves both to illustrate the notion and to provide evidence in support of it. When there is a high degree of demand for a product or service but there is a limited supply of that product or service, the price that is established for that product or service will be at its greatest level. On the other hand, when there is a low degree of demand but a large supply available, the price that is set for the product or service will be at its lowest point. If the price of a good or service falls exactly within the average optimal range when the equation of supply and demand is balanced at the midpoint, then the price of the good or service is optimal (Hwang, 2019). This assertion is backed up by the abundance of investors and developers operating in the Istanbul real estate market (although it is essential to keep in mind that the proportion of international investors to local investors operating in the Turkish real estate market as a whole is less than 2%). As a consequence of this, it has been demonstrated that the theory of supply and demand is accurate and that an increase in the number of properties listed for sale is a sign of a high supply as well as the opposite being true (that is, an increase in the number of properties listed for sale is a sign of high demand) (Rush, 1985).

The investors also stand for the demand side of the equation, which is the second pole of the binary. According to official statistics released by the Turkish government, the demand has been on the rise since the second half of 2021. This is in comparison to the same period in 2020. This shows that there has been an increase in demand of at least 55% between the preceding year and the one before it, which will lead to an increase in real estate prices in 2022 as a direct result of the application of the theory of supply and demand to the market.



Moreover, the following question must be taken into account, is there a problem with getting supplies? Researchers can assert unequivocally that, in light of recent occurrences such as the end of the Corona pandemic, issues with supply chains, inflation, and outrageous prices for building materials globally, a significant increase in demand invariably leads to a shortage of supply. This assertion can be supported by citing recent events such as the conclusion of the pandemic caused by the Coronavirus. All of these factors, in addition to others, contribute to a decreased propensity on the part of real estate developers to extend the scope of their ongoing projects. As a result, the supply of available properties is unable to keep up with demand, which pushes up the price of real estate (Rush, 1985).

Turkey is probably the best example there is of how extensively gold may be employed in modern culture. Turkey is the fourth largest consumer of gold in the world, providing on average during the past 10 years somewhere around 6% of the total demand for gold among consumers all over the world. According to our best estimates, Turkish households have secreted away at least 3,500 metric tonnes of gold "under the pillow." The purpose of our study, entitled Turkey: Gold in Action, is to investigate how gold functions down the value chain and examine the consequences that it has on Turkey's economy (Kaufman, 1965).

Researchers anticipate that Turkey will maintain its long-standing demand for gold in the foreseeable future. Gold links from Turkey have a long and illustrious cultural history to back them up. The rent at the Grand Bazaar, which is the center of the gold market in Turkey, is denominated in gold, which means that gold is used in the jewelry sector as both a medium of exchange and a unit of account. Gold ownership also has significant financial benefits to offer. For many decades, Turkish savers have looked to gold as a reliable hedge against the negative effects that inflation and falling currencies might have on their investments. Despite the country's size, the gold mining industry is experiencing rapid expansion. The mining business in Turkey is booming, and there is a great deal of unrealized potential in the sector. Since 2001, the amount of gold produced has climbed practically annually, going from 2 tonnes to 33.5 tonnes in 2013. And this may be the beginning of only the beginning: The Turkish Ministry of Energy and Natural Resources is where the 840 metric tonne estimate for gold reserves originated from.

The gold industry's contribution to Turkey's economy is significant and beneficial in many respects. At least \$3.8 billion US dollars was provided to the economy of Turkey through gold-related activities in 2012, including production, consumption, and recycling. The value chain is responsible for supporting around 250,000 workers in addition to 35,000 retail locations and 5,000 gold fabricators. Gold constitutes a very minor yet significant component of Turkey's monetary system. At the end of 2013, commercial banks had held around 250 lira, which is equivalent to \$10.4 billion in US dollars, which was used to support the economy of Turkey. Investors moving Turkish Lira and other currencies into gold accounts was the primary driver of this trend. In addition to that, it consists of 40 tonnes of Turkey's "under-the-pillow" stock, which has been in operation since the middle of 2012 and is estimated to be worth approximately \$1.7 billion (Scientific, 2005).

Gold prices are determined by various factors, including supply and demand dynamics, economic conditions, geopolitical events, inflation rates, currency fluctuations, and investor sentiment. As a globally traded commodity, gold serves as a store of value and a safe haven asset during times of economic uncertainty. Monitoring average gold prices and end-of-period prices in major consumer countries can provide insights into trends, volatility, and market behavior. Changes in gold prices can impact various stakeholders, including consumers, investors, jewelry manufacturers, and central banks. For consumer countries like Turkey, fluctuations in gold prices can have implications for domestic consumption, inflation rates, and the overall economic environment. Diversification of products (711319) imported and exported by Turkey are clarified in Figure 7 (Trade Map, 2023).

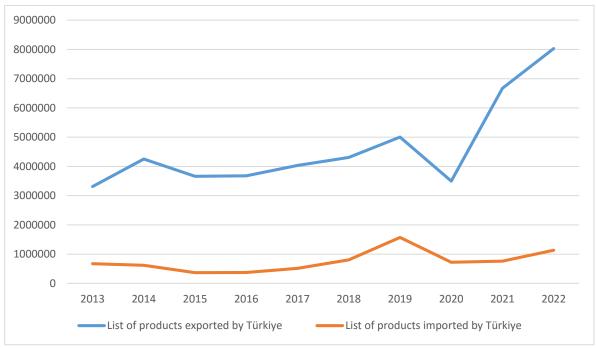


Figure 7. List of products exported and imported by Turkiye.

Source: Trademap. Product : 711319 Articles of jewellery and parts thereof, of precious metal other than silver.

In 2022, Turkey imported gold products with HS code 711319 from a range of supplying markets. The list of exporters and their respective value imported highlights the significant contributors to Turkey's gold imports, see Figure 8. Italy emerged as the largest supplier, accounting for 44.34% of the total value imported. The United Arab Emirates (UAE) followed closely behind, with a share of 22.95%. India also played a substantial role, supplying 19.73% of the imported gold products. Switzerland, known for its expertise in the gold industry, contributed 2.95% to the total imports. China, France, and Thailand constituted smaller yet notable sources, with shares of 1.84%, 1.57%, and 1.30%, respectively. The remaining exporting countries, including Germany, the USA, Iran, Montenegro, Cyprus, Bulgaria, the United Kingdom, and Libya, State of, each contributed below 1% to Turkey's gold imports in 2022. These diverse supplying markets indicate Turkey's reliance on a global network of sources to fulfill its gold import demand. The distribution of imports among these countries reflects not only their own gold production capacities but also factors such as trade agreements, market competitiveness, and historical trade relationships. Understanding the origins of imported gold products can provide valuable insights into Turkey's trade patterns and its position within the global gold market, see Table 2.



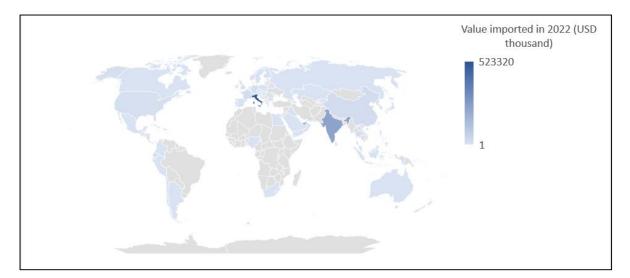


Figure 8. Trade Statistics For International Business Development - Imports.

Source: Trade Map, 2023

In 2022, Turkey exported gold products with HS code 711319 to various supplying markets. The list of importers and their respective value exported demonstrates the significant destinations for Turkey's gold exports, see Figure 9. The United Arab Emirates (UAE) stood out as the largest importer, receiving 22.96% of the total value exported. Iraq followed closely behind, with a share of 21.04%, highlighting its substantial demand for Turkish gold products. The United States accounted for 9.83% of the exports, while Hong Kong, China, and Libya, State of, constituted significant importers with shares of 6.44% and 4.69%, respectively. Other notable importers of Turkish gold products included Israel, Kyrgyzstan, and the Czech Republic, with shares of 3.40%, 3.35%, and 2.76% respectively. Egypt, Mexico, Lebanon, Germany, the Netherlands, and Romania also contributed to Turkey's gold exports, each representing a share below 2% but still adding to the overall distribution. The diversification of supplying markets reflects Turkey's ability to meet the gold demand of various countries worldwide. It showcases the country's position as a reliable exporter in the global gold market. The distribution of exports among these importers is influenced by factors such as economic relationships, market demand, and Turkey's competitiveness in the gold industry. Understanding the destinations for Turkish gold products provides insights into the country's export patterns and its role as a significant player in the international gold trade, see Table 2.



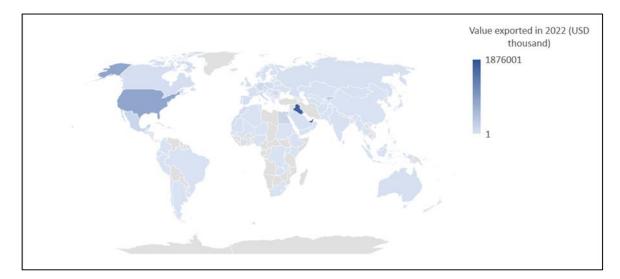


Figure 9. Trade Statistics For International Business Development - Exports Source: Trade Map, 2023

Table 2. Value imported to Turkiye and exported from Turkiye in 2022 by country.					
Exporters	Value imported 2022 (%)	in	Importers	Value exported in 2022 (%)	
Italy	44.3438914		UAE	22.96223999	
UAE	22.95015846		Iraq	21.03505302	
India	19.72986256		USA	9.834039153	
Switzerland	2.953802091		Hong Kong, China	6.438726164	
China	1.844526921		Libya, State of	4.690255337	
France	1.566339587		Israel	3.403109864	
Thailand	1.301794702		Kyrgyzstan	3.347466854	
Germany	1.113003542		Czech Republic	2.759225008	
USA	1.060552138		Egypt	2.15447141	
Iran	0.564594031		Mexico	1.98677126	
Montenegro	0.318775738		Lebanon	1.707736129	
Cyprus	0.283017269		Germany	1.417183164	
Bulgaria	0.264544885		Netherlands	1.234782781	
United Kingdom	0.187859068		Romania	1.112737806	
Libya, State of	0.185655939		Austria	0.891573364	
Source: Trade Map, 2023					

Table 2 Value imported to Turkiya and exported from Turkiya in 2022 by a

Source: Trade Map, 2023

The map provided, Turkiye exports 2021, offers insights into the share of partner countries in Turkey's gold exports for the year 2021. The selected product, identified by the Harmonized System (HS) code 711319, represents gold. This information provides a valuable perspective on the global distribution of Turkey's gold exports and the countries that play a significant role in this trade. Examining the map, it becomes evident that Turkey's gold exports have a diverse range of destination countries. The data visualized on the map highlights the varying levels of export shares among different partner countries. Some countries may have a higher share, indicating a stronger trade relationship, while others may have a lower share, suggesting a relatively smaller presence in Turkey's gold export market. By analyzing the map, researchers and policymakers can gain insights into Turkey's export patterns in the gold sector and identify



key partner countries that contribute significantly to its export market. This information can be valuable for understanding trade dynamics, identifying potential growth opportunities, and formulating targeted trade policies to enhance bilateral trade relationships in the gold sector. It is important to note that for a more detailed and comprehensive analysis, it is recommended to refer directly to the map provided, as it contains specific data visualizations and interactive features that allow for a more in-depth exploration of Turkey's gold export shares among partner countries in 2021.

Total reserves typically refer to a country's holdings of foreign currencies, such as the US dollar, euro, or yen, and other liquid assets that can be used to support the national currency and meet international payment obligations. These reserves play a crucial role in maintaining economic stability, supporting foreign trade, and managing financial crises. The exclusion of gold from total reserves provides insights into a country's holdings of foreign currencies and other liquid assets, excluding the value of gold reserves. This allows for a more focused analysis of a country's reserve position and its ability to address external payment requirements. Changes in total reserves minus gold can indicate fluctuations in a country's overall reserve position, reflecting factors such as international trade, capital flows, central bank interventions, and economic conditions. Figure 10 shows Turkiye total reserves minus gold in USD according to the world bank.

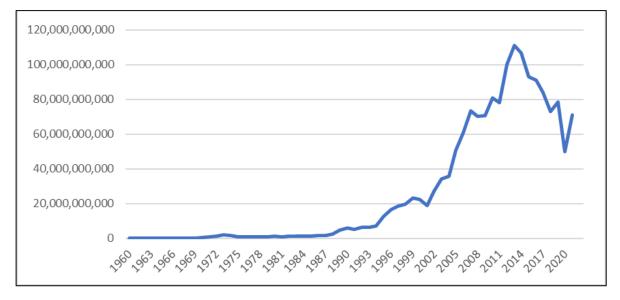


Figure 10. Total Reserves Minus Gold (Current US\$)

The data provided by trademap for the list of supplying markets for gold imported by Turkey from the top-ranked 15 countries in 2022 include the percentage changes in imported values from 2019 to 2022, offering insights into the evolving trends and dynamics in Turkey's gold imports from these key trading partners, see Figure 11. Italy, a prominent supplying market, experienced a 5.56% increase in imported value from 2019 to 2020. However, it witnessed a significant decline of 32.95% in 2020. The trend swiftly reversed, resulting in a remarkable 96.16% increase in 2021 and a further 46.28% rise in 2022. These fluctuations indicate Italy's dynamic role as a significant supplier of gold to Turkey. The United Arab Emirates (UAE) displayed substantial fluctuations in imported value. From 2019 to 2020, there was a notable decline of 40.21%. However, the trend reversed in subsequent years, with an impressive 89.93% increase in 2021 and a further 22.62% rise in 2022. These percentages signify the evolving nature of the UAE's contribution to Turkey's gold imports.

Source: The World Bank



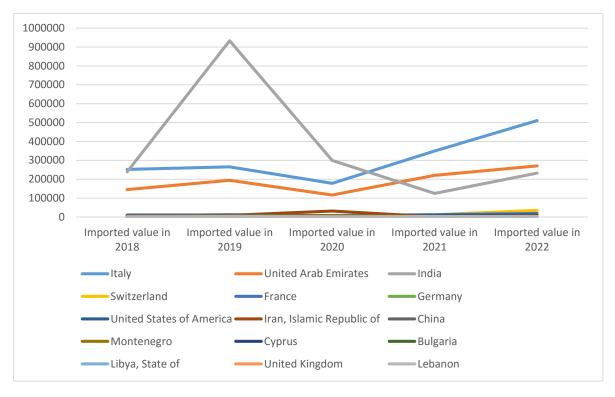


Figure 11. Imports by Country

Source: Turkish Statistical Institute. Released: 28-02-2022

India exhibited significant fluctuations in imported value. After an astonishing surge of 289.63% from 2019 to 2020, there was a substantial decline of 67.96% in 2020. The trend continued in 2021, with a significant decrease of 58.33%. However, the trend reversed again in 2022, with a remarkable increase of 86.33%. These fluctuations demonstrate the dynamic nature of India's gold exports to Turkey. Switzerland demonstrated consistent growth in imported value. From 2019 to 2020, there was a slight decline of 1.24%. However, the trend swiftly reversed, resulting in an impressive 87.71% increase in 2021 and a further remarkable rise of 183.91% in 2022. This showcases Switzerland's enduring role as a significant supplier of gold to Turkey, characterized by notable surges in recent years. The analysis of the top 15 supplying markets for gold imported by Turkey reveals diverse patterns of growth, decline, and recovery in imported values over the years. The change percentages exemplify the dynamic nature of Turkey's gold imports and the evolving relationships with its trading partners, see Table 3.



	Change (%)				
	Imported value in 2019	Imported value in 2020	Imported value in 2021	Imported value in 2022	
Italy	5.56	-32.95	96.16	46.28	
United Arab Emirates	33.94	-40.21	89.93	22.62	
India	289.63	-67.96	-58.33	86.33	
Switzerland	65.65	-1.24	87.71	183.91	
France	25.19	-15.73	59.14	57.67	
Germany	105.07	-26.65	48.61	118.88	
United States of America	5.51	-58.23	73.24	47.57	
Iran, Islamic Republic of	4167.16	271.32	-96.40	480.40	
China	74.77	-74.16	-23.85	61.15	
Montenegro		54.22	-90.02	471.73	
Cyprus		5.15	1749.65	26.28	
Bulgaria	119.75	11.52	111.78	47.37	
Libya, State of	669.23	-40.93	-24.79	252.25	
United Kingdom	-56.49	-51.86	110.00	180.27	
Lebanon	494.55	-55.88	150.58	-44.05	

Table 3. Imports by country and year, change on the previous year (%)

Source: Trade Map. Released: 28-02-2022

4.2. The Evaluation Of Trade And Production

In December 2019, Turkey produced 38,000,000 kilograms of gold, according to a report. This represents an increase when compared to the previous figure for December 2018, which was 27,100,000 kg. Turkey's Gold Production figures are updated annually, and between December 1990 and 2019, a total of 30 observations with a mean weight of 5,750.000 kg were made. A record high of 38,000,000 kg was recorded in 2019 and a record low of 500,000 kg was recorded in 2000 for this data. The U.S. Geological Survey states that CEIC is still actively collecting data on Turkey's Gold Production. Details can be found in the parts of World Trend Plus' Association following WB Table. USGS: The Metal and Mining Sector of the Economy Gold is a precious metal. Gold Production on a National or Regional Scale According to claims made to Demiroren News Agency on October 23, the freshly discovered mine in the northwest Turkish province of Bilecik would provide Turkey with about 7 tonnes of gold when production capacity reaches its peak in 2024. Despite the epidemic, Turkey's 18 operational mines produced 42 tonnes of gold in 2017. An estimated \$2.4 billion was added to Turkey's

GDP in the preceding year as a result of its gold production. According to government data, Turkey imported goods worth a total of around \$219.4 billion in 2020. Out of this total, the country recovered \$26.6 billion in gold, more than double its performance from the previous year.

According to the Ministry of Energy and Natural Resources, approximately \$6 billion has been invested in Turkey's gold mining sector overall. Within the next five years, Turkey wants to expand its domestic gold production from the current level to 100 tonnes yearly. The government claims that Turkey has enough gold in its reserves to cut its annual gold purchases in half (Scientific, 2005). The country's gold mining industry began in 2001 with the production of a meager 1.4 tonnes of gold. Since then, mining operations in Turkey have generated 382 tonnes of gold. The eastern region of Agri in Turkey possesses a sizeable 20-ton gold resource that is worth an estimated \$1.2 billion, the nation's minister of industry and technology declared on June 10. Mustafa Varank said that a 3.5-ton silver reserve expected to be worth \$2.8 million was also discovered in the same location during a ceremony for the new facility that the Turkish gold mining business

Koza Altin will be constructing in Ar. The facility, in Varank's opinion, is crucial to the economies of Turkey and the entire region. It will cost 160 million dollars, create 2,000 jobs, and work 500 people both directly and indirectly. He added that the company planned to begin gold casting operations by the fourth quarter of 2022. He asserted that a significant quantity more gold is being discovered because the mine is continuously being studied and investigated. He mentioned that the mining industry in Turkey presently employs 13,000 people and has received \$6 billion in investments in response to a question about it (Li & Li, 2002). Varank emphasized the accomplishments made by Turkey's mining sector since the AKP took office in 2001. Turkey, which couldn't generate a single gram of gold until the early 2000s, produced 42 tonnes of gold in 18 operating mines last year despite the pandemic, according to Varank. According to Varank, Turkey was unable to produce even a single gram of gold in the early 2000s.

The nation's 18 operating mines were nevertheless able to produce 42 tonnes of gold in 2017, despite the pandemic. According to Varank, there is still active exploration taking place at the mine, which is anticipated to have another six years of life left in it (Estrella, 2020). On June 10, 2021, the laying of the cornerstone ceremony took place for the Mollakara gold mining complex in Ar, which is located in eastern Turkey. (Image courtesy of AA) He stated that given the fact that further reserves might be identified, they anticipate the usable life of the operation to last anywhere between 15 and 20 years. Sustainability and the protection of the surrounding environment were important factors in the operation of the mines in the area, in addition to being major considerations for this project. Regular measurements of the levels of dust, noise, blasting, and gas in the air will be collected by using sensors that are expected to be installed as part of the project and that are equipped with cutting-edge technology (Hwang, 2019).

The minister emphasized that the environmental impact of the mine will be kept to a minimal since state-of-the-art procedures that are going to be utilized there to produce gold will keep the mine's influence on the environment to a minimum." After the productive life of the facility has ended, he noted, the site would undergo the necessary restoration work for it to be returned to its original state. Donmez, who is the Minister of Energy, was also there and gave a speech. He discussed a variety of subjects, one of which was the fact that gold mining is one of the subsectors of the mining industry that has the highest added value. "There are approximately 1,175 tonnes of gold stored up in Turkey's reserves at the moment. The previous year, 42 tonnes of gold were produced, which allowed us to surpass the previous record for production in this sector that had been held by the Republic of Turkey (Kaufman, 1965).

Donmez, who echoed the allegations made by Varank in this regard, stated that the country's annual production was barely 1.4 tonnes when they first began extracting gold in 2001. Varank's comments were based on the fact that the country's annual production was barely 1.4 tonnes. "During the past two decades, our business has been responsible for the mining of a



total of 382 metric tonnes of gold. The amount of tax money obtained by the state as a result of this output was comparable to 76 tonnes of gold. Donmez asserts that the company's objectives are to produce more than 45 tonnes of gold this year and to increase that amount to an annual output of 100 tonnes during the next five years. According to the findings of the minister's investigation, a total of 197 drillings have been carried out at the Mollakara gold and silver property up until this point. In a statement that was made public in the past by the Ministry of Industry and Technology, it was said that "It is anticipated that the mine will produce its first gold casting sometime around the fourth quarter of the year 2022. Additionally, there will be a processing facility at the mine (Kaufman, 1965).

5. CONCLUSION

The buying and selling of gold ought to be an everyday element of conducting business on a global scale. Gold is more likely to give amazing prospects for trading more regularly than currency pairs from other countries. Forex and CFD brokerages that enable gold trading are among the most cost-effective options for investors who have a limited trading budget of a few hundred or a thousand dollars. Gold has a long history of use as a form of investment, as a medium of commerce, in the production of exquisite jewelry, and in the creation of various artifacts. It has been agreed that gold has been and will continue to be valuable; nevertheless, the value of gold is ultimately something that is constructed by society.

Gold has a long and reliable history as a reliable hedge against inflation. The greatest risk that investors face is that of inflation. In turbulent times, when the stock market is struggling and cash is losing value due to low-interest rates, investors may desire to purchase gold as a hedge against potential losses. Despite the recent return of protectionism, international commerce continues to be the backbone of the contemporary global economy because it contributes to the wealth of individual countries. But what exactly is the relationship between gold and international business? To begin, this is an international market where investors from all over the world come to trade gold with one another. Because of this, trading in gold is an essential component of international commerce. The concept of using gold as a standard of value was made possible by the fact that, for over five thousand years, gold was the only commodity that was universally recognized and valued by all people, societies, and civilizations (Estrella, 2020).

Second, investors may be protected from even the most severe restrictions on global trade if they hold gold because it is considered a safe-haven asset. Gold, in particular, can be an asset that protects from commercial problems. The following chart shows the month of August 2019 as arguably the greatest example, when gold prices soared in reaction to concerns that the Sino-American trade war had escalated (and declined later when the U.S. eased its stance toward China). Third, despite all of the positive effects that international trade can have, there is a possibility that it will have some adverse effects on the current monetary system. The unrestricted movement of both goods and money is inextricably linked. In a system characterized by fiat currencies and credit booms, the mobility of capital can result in the circulation of speculative or "hot" money, which is a source of financial instability and may even precipitate a financial crisis. In circumstances like these, gold usually shines brightly. To disguise the results of the research, the researcher has held conversations about the international trade in gold in Turkey, China, and London.

The analysis of Turkiye imported and exported gold products with HS code 711319 for the top importing markets for a product exported by Turkey in 2022 provides valuable insights into the evolving trends and dynamics of Turkey's exports. The data reveals that Turkey's export performance varied across different countries, with notable fluctuations in exported values and change percentages. These findings underscore the importance of adaptability and responsiveness to changing market dynamics for Turkish exporters. The results highlight the significance of diversifying export destinations and strengthening trade relationships with key markets. The fluctuations in exported values demonstrate the need for exporters to closely monitor market trends, economic conditions, and regulatory environments in target countries.



By staying informed and agile, Turkish exporters can better navigate market challenges and seize emerging opportunities. Furthermore, the analysis underscores the importance of continuous efforts to enhance competitiveness and promote product quality and innovation. Turkey's exporters can leverage the insights gained from the data to identify areas for improvement and align their offerings with the evolving demands of different markets. This adaptability will contribute to sustainable growth and resilience in Turkey's export sector.

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