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SILVER
NEWS

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Is the Gold:Silver Ratio Still Relevant?

Despite changes in inflation and other economic conditions, the gold:silver ratio tends to revert to a mean equilibrium of just under 60:1, according to a report published by the Silver Institute. Although dislocations occur – with either gold or silver being over or undervalued – the ratio remains about the same in the long term.

The importance of this ratio to those involved in the silver industry is that any change from the mean offers a signal to future price movements. For example, sharp drops in the mean suggest overvaluation of silver while sharp increases in the ratio suggest an undervaluation of silver.

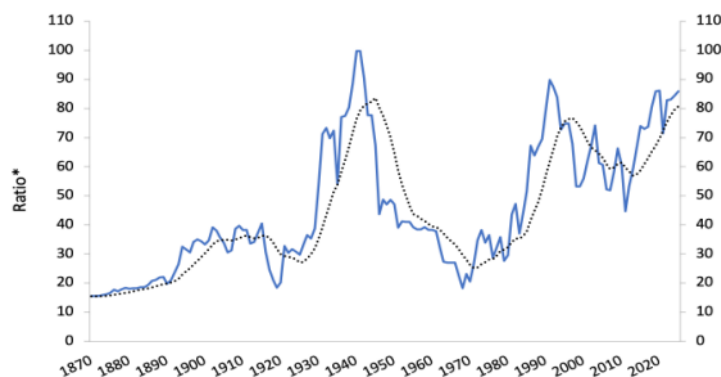
The report – entitled *Is the Gold:Silver Ratio Relevant Today?* – noted: "... notwithstanding the strong probability of a regime shift having taken place, the tendency for the gold:silver ratio cyclically to rise above and fall below its long-run equilibrium has not changed. Therefore, even if in future the outcomes will be skewed higher by the structural change supported by heavy official sector gold demand, dips well below equilibrium will also occur." The report was produced by consultancy Precious Metals Insights.

Data shows that whenever the ratio moves into extreme disequilibrium, meaning that a 20 percent higher value than the mean has occurred, it will eventually move back, even overshooting on occasion.

The primary driver of this equilibrium is the ratio of above-ground gold to silver bullion stocks, which acts in tandem with the ratio of gold:silver investment demand. The report noted that recently the higher gold price has been powered by official-sector net sales or purchases that have pushed the gold:silver ratio above the long-run 60:1 ratio. Nonetheless, the ratio is still expected to revert to the mean of about 60 to 1.

For a copy of the report [click here](#).

Gold:Silver Ratio 1870-2025



*Annual average and 10-year moving average from 1870 to 2025
Source: LBMA; Lawrence H. Officer & Samuel H. Williamson, *MeasuringWorth*, 2026; Precious Metals Insights

Besides the historical pedigree of these two precious metals as monetary assets, the relevance of the gold:silver ratio in the modern era can also be attested to by the strong correlation between their prices.

Source: *Is the Gold:Silver Ratio Relevant Today?*

Silver Replaces Silver?

Yes, and Fewer Explosions, too.

A common method for separating petrochemical gases – like ethylene from propane – is by using membranes. Despite being utilized all the time, this technique is dangerous because free silver ions that bind to and separate these gases from paraffins are volatile and unstable. When they encounter impurities like acetylene, which is often found in petrochemical feeds, the mixture can explode.

The solution, discovered by researchers at [Hanyang University](#), Seoul, South Korea, is to replace the silver ions with metallic silver nanoparticles. This different form of silver is more stable and less likely to react with chemicals like acetylene.

Other advantages also came to light during research. For example, one usual way that explosions were kept at bay

was to cool the membranes to subzero temperatures. This new method can be used at room temperature thus saving energy costs. Without the instability of silver ions, the membranes also lasted longer.

For consumers, this technique of replacing one kind of silver with another lowers the cost of ethylene and propylene – precursors for many common products such as plastics, polyester, formaldehyde and synthetic rubber – meaning lower costs for clothing, textiles, electronic devices, food packaging and many other common items. For industrial users, this method reduces greenhouse gases and costs associated with their mitigation. It also leads to a more reliable supply chain as production shutdowns becomes less likely due to replacing prematurely worn-out membranes.

All-Day 100-Ounce Silver Futures Coming from CME Group

CME Group will expand 24/7 trading to its 100-Ounce Silver futures contract on September 11, 2026, pending regulatory review.

"Silver bridges the precious and industrial metals worlds, acting as a diversifier for investors that responds to both macroeconomic news and real-world demand," said Jin Hennig, Managing Director and Global Head of Metals at CME Group, in a prepared statement. "Our retail clients have shown a strong appetite for right-sized gold futures available whenever they need them, so we are now extending that same 24/7 access to help participants manage risk and pursue opportunities in silver."

The price of 100-Ounce Silver futures will be based on the daily settlement price of the global benchmark COMEX 5,000-Ounce Silver futures contract and are listed by and subject to the rules of COMEX, officials said.

For more information, click [here](#).

Nanosilver Helps Doctors Administer the Correct Drug Dosage

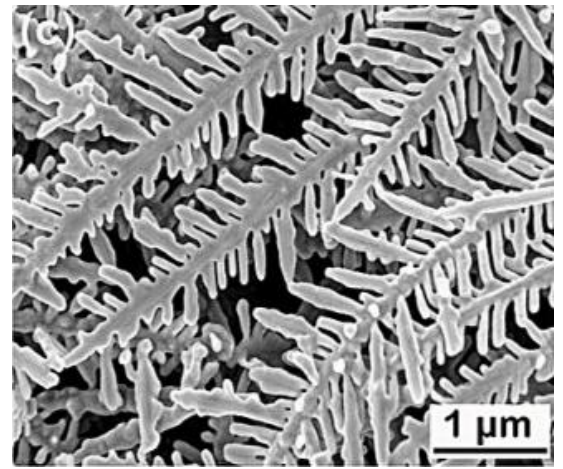
Medications can save lives, but for many drugs, knowing how much to use is just as important as choosing the correct drug. Underdosing means the patient will not improve; overdosing can be fatal.

Nanosilver is helping to measure the right dosage for an individual patient. Nanosilver is often used in biological sensors because it can naturally boost the weak reflected lightwave signals coming from drug molecules. These signals have unique signatures that tell laser-powered readers how much and what kind of drug is present.

However, the structure of nanosilver is playing a more important role than scientists previously thought. Researchers at [Leibniz Institute of Photonic Technology](#) in Jena, Germany, have designed miniature "tree-like" structures using nanosilver to not only take advantage of nanosilver's light amplification properties but also to leverage the intricate tree-branch structure that increases a sensor's sensitivity due to more surface area being detected.

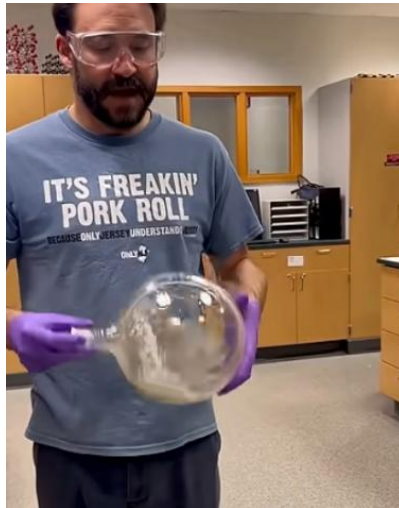
Along with determining a drug's best dosages, and possible side effects, this approach has additional benefits. It replaces slow lab work because this light-based method is not only fast but can be done at a patient's bedside. The researchers also report that while silver sensors can degrade when exposed to air – oxidation is an issue for any metal – this method keeps the sensor usable and stable for at least seven months without special storage. This is accomplished by coating the nanosilver branches with ions derived from silver sulfate.

Rapid dosage reading is particularly crucial for intensive care patients, where time-to-treat may be short. This type of sensor will also benefit hospitals and clinics by saving time, which allows more patients to be treated, while holding promise for automated testing.



Using nanosilver 'branches' adds surface area and allows more accurate drug readings.
Source: Advanced Science

Silvering Video Shows Old Mirror-Making Technique



Before modern coating techniques were used to make mirrors and decorative ornaments, a chemical silvering process was used. This method converted dissolved silver ions into solid metallic silver, as shown in this recently published video. Click the image to see how this was done.

Tweaking Silver to Prevent Cavities in Children's Baby Teeth Permanent Teeth Benefit, too.

While applying Silver Diamine Fluoride (SDF) to children's teeth has been shown to prevent cavities there has always been a drawback. The application of this method often leaves dark stains on youngsters' teeth.

Dentists and patients have accepted this outcome because it prevents cavities – 'dental caries' in medical language – but new research is suggesting that a different form of silver, 'nanosilver fluoride' (NSF), might be just as effective without staining.

A report in the journal [*BMC Oral Health*](#) noted: "Incorporating silver nanoparticles, NSF, retains the advantageous preventive, antimicrobial and remineralizing characteristics of SDF without causing staining." In addition, researchers from the [Department of Pediatric Dentistry and Dental Public Health, Faculty of Dentistry, Ain Shams University, Cairo](#), said that while the bond strength and protection of the nanosilver fluoride closely matches those of Silver Diamine Fluoride the discoloration was significantly reduced.

Although children will shed their baby teeth, caries affect their adult teeth. The roots of baby teeth sit on top of developing permanent teeth and untreated decay can damage adult teeth after they come in. Cavities in children can also lead to crowding and alignment issues in permanent teeth as well as a higher risk of adult cavities. Caries in baby teeth may also cause a delay in the eruption of permanent teeth by three to seven months according to [studies](#).

Dental caries is the most common health condition in the world, affecting an estimated 2.5 billion people with untreated decay in their permanent teeth, according to the [World Health Organization](#). About 514 million children globally suffer from untreated dental caries in their primary (baby) teeth. Cavities are the world's most widespread noncommunicable disease across the globe. The consumption of sugars in food and beverages is the main cause.



Cavities in baby teeth can affect permanent teeth.

Sometimes It's What You Don't Smell That Verifies Silver

On the BBC television show *Antiques Road Trip*, silver and jewelry expert Hettie Jago made the controversial claim that she can smell if an item is sterling or pure silver.



Silver expert Hettie Jago smelling pure silver on BBC's *Antiques Road Trip*
Source: BBC

This pronouncement was made during an episode in which she was presented with a Mexican perfume bottle labeled only with the words "white metal." She held the bottle to her nose, sniffed and pronounced that it was genuine silver and a bargain at the asking price of only 15 pounds.

When asked by a co-presenter how she could tell, she said: "If you smell it, it doesn't smell like metal." (The show was broadcast last year but recently re-aired.)

Fans contacted the show and asked for further explanation. The answer they received is that sterling and pure silver have no smell. If you smell metal, like copper, which has a distinct odor, then the item in question is not pure silver. Zinc, brass and steel have their own particular smells. Even if an item has a thin layer of silver coating, the underlying metal will usually still give off a metallic scent, suggesting that it is not pure silver.

Self-Healing Wearable Sensors Are Coming

In the continuing quest by scientists for more flexible and durable wearable sensors, engineers from the [College of Design and Engineering at the National University of Singapore](#) have developed a "soft, stretchable substrate that repairs itself, firmly grips metal conductors and can be remolded or broken down after use," according to university officials.

While their focus was on the substrate, silver will play a large role in potential applications. In their tests, silver films for electrodes that picked up heart and muscle signals adhered three times more strongly to their substrate than other substances used to conduct electricity. This property was comparable to a commercial sensor used by medical facilities. The silver also resisted deterioration in more than 800 rubbings, a simulation designed to mimic a wearable's daily wear and tear.

“One of the team's formulations stretched to more than eight times its original length before breaking,” officials said, and the substrate, dubbed IDBS for ‘Intrinsically Dynamic Biosubstrate,’ also healed after being pulled apart. “At room temperature, a severely damaged sample recovered more than 80% of its strength within six hours and more than 90% within 24 hours.” At the end of the substrate’s life, the silver particles can be recycled for silver inks.

“Next, we plan to expand the use of such substrate systems from the sensing elements to the electronic components that process their signals,” said assistant professor Zhai Wei, who led the research team. “This will require the substrate to bond reliably not only with metal circuits, but also with chips and other components. We also need to improve its heat resistance so it can withstand the manufacturing conditions used for flexible circuit boards.”

The research was published in the journal [nature sustainability](#).



This substrate can withstand a great deal of stretching without breaking apart.

Source: College of Design and Engineering, NUS

The Sun Contains 55 Percent More Silver than Previously Thought

For decades, astronomers had a dilemma when it came to studying meteorites. They assumed that the earth, sun, and everything else in our solar system were formed from the same space dust and debris floating around the universe, but when they checked meteorites, they seemed to contain more silver than the remote readings they got from the sun – which was also made from space dust.

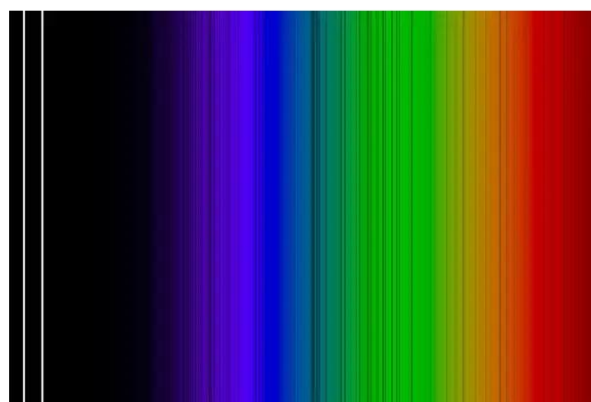
How could that be?

Obviously, we cannot collect samples from the sun to measure the amount of silver it contains, but scientists can read the sun’s composition by studying the kinds of light waves that it gives off. Every element has a unique wavelength, but they kept coming up short on silver when it came to reconciling the higher amount they saw in stuff that fell from space.

The answer is that the sun’s rays – unbeknownst to astronomers – distorted the specific light waves that told them how much silver was present. In fact, it found that the sun actually contains 55% more silver than astronomers previously calculated. It took a supercomputer at [Uppsala University](#) in Sweden to finally reconcile the differences.

“The new knowledge about the Sun’s composition is important for the understanding of other stars, planets and cosmic material, because the Sun is one of astronomy’s key reference points,” said Sema Caliskan, in a prepared statement. She conducted the [work](#) during her PhD studies at the Department of Physics and Astronomy.

She concluded: “By studying the light of stars of different types and ages, we hope to understand where silver is formed in the universe, and how it has been distributed throughout the Milky Way over time.”



In this representation of the solar spectrum the two strongest silver lines, highlighted in white, lie in the ultraviolet region that is invisible to the human eye.

Source: Anish Amarsi

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