

# CPM SILVER YEARBOOK 2022

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# **The CPM Silver Yearbook 2022**





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**CPM Group**  
168 Seventh St  
Suite 310  
Brooklyn, NY  
USA

Telephone: 212-785-8320  
E-mail: [info@cpmgroup.com](mailto:info@cpmgroup.com)  
Website: [www.cpmgroup.com](http://www.cpmgroup.com)

CPM Group provides research and consulting services related to precious, industrial, and specialty metals, in addition to undertaking research and analysis across all commodities markets. These range from research studies on individual markets and market segments to materials management services. In addition to publishing metals and commodities research, CPM Group produces special reports on metals which have piqued investor interests, such as molybdenum, manganese, vanadium, chromium, cobalt, and other specialty metals.

The core of CPM Group's product is its consulting services tailored to the special needs of individual producers, refiners, fabricators, institutional investors, financial institutions, governments, central banks, and others. CPM Group provides advisory services related to hedging production and raw materials requirements, and manages positions for producers, consumers, and accredited investors. CPM Group's financial engineering includes impartial advice, structuring, placements, and management of hedging and investment positions.

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## Foreword

In 1993, silver was trading at \$3.50 an ounce, down 90% from the all-time high it scaled a decade or so earlier. As a facet of my macro work, I started to do some extracurricular research regarding silver fundamentals and whether the then conventional wisdom regarding the metal's future price was correct — namely that, if anything, silver was going to *fall further*, to \$2 an ounce or so, due to the advent of digital photography and the corresponding decline of silver halide technology.

I concluded that it wouldn't. In fact, I came to believe that silver had a better chance of returning to \$50 than drifting to \$2. As it turned out, silver never breached \$3.40...and years later it returned to \$50.

One of the most important factors informing my research and ultimately leading to my convictions happened to be an endorsement of CPM Group by Stanley Druckenmiller that I read in Barron's. It was as straightforward as it was true: you shouldn't be involved with the precious metals markets unless you have access to Jeff Christian's analysis.

Stanley was already a legend, having led the trade for George Soros that profited so handsomely from the British Pound debacle in 1992. His validation was more than good enough for me, and so I called up Jeff Christian!

My considered opinion on the metal was reinforced by Jeff's deep research and, of equal importance, his uniquely broad frame of reference. Well-armed analytically and empirically, I started my first business — a silver mining company. While I subsequently branched out into platinum group metals, hydrocarbons and gold, silver remained my first love in industry and I continue to explore for silver and build enterprises in that wonderful space to this day.

Jeff Christian and CPM Group have been insightful and highly reliable constants in my entrepreneurial journey. Jeff stands among the most understated marketers of his talents that I've come across, and he has a somewhat irritating tendency to speak truth to power — which can piss some people off. But he is also, without a doubt, the very best provider of primary research on the silver markets that I have ever met. In the nearly three decades that we have known each other, it is his long-term outlook on the precious metals that I listen to most carefully and most frequently.

[For the record: Jeff did not ask me to share any of this. I was, as I do every single week since he started broadcasting, enjoying one of his excellent podcasts. And I simply reached out to him to inquire if I could help him promote his work.]

Bottom line, the takeaway should be clear:

If you want to know anything about silver, you must speak to Jeff Christian.

Stan Druckenmiller was — and remains — absolutely right.

**Thomas Kaplan, natural resource entrepreneur, Chairman of The Electrum Group**



## Preface

While silver prices softened from their 2020 highs over the course of the year they remained at elevated levels during 2021, helped by an increase in silver investment demand and a recovery in silver fabrication demand during the year. Prices spiked briefly to \$30.35 in early 2021, but ended the year at \$23.35, down 11.6% from the end-2020 price. The annual average price rose 21.7% from 2020's \$20.68 to \$25.17 last year, the third highest ever annual average silver price topped only by 2011 and 2012 average prices.

Investor interest in silver has been rising since 2020, albeit at a more cautious pace than that seen between 2009 and 2012. The uptick in silver fabrication demand too has been fairly gradual since the sharp decline of 2020, as some sectors showed robust growth while others faltered due to the impact of external factors. CPM Group's **Silver Yearbook 2022** addresses these trends as well as developments in silver's total supply and inventories, painting a wholistic picture of the silver market on which to basis silver purchase and sales decisions.

The **Silver Yearbook 2022** would not have been possible were it not for its sponsors. CPM would like to thank **CNT, Endeavour Silver Corp., Europa Bullion, Fortuna Silver Mines, Inc., Gatos Silver, Gold and Silver Vault, Idaho Armored Vault, The Institute of Scrap Recycling Industries Inc., Kitco Metals Inc., Korelin Economics Report, Metallic Minerals Corp., Monex Precious Metals, Minera Adularia International Ltd., Pan American Silver Corp., Profit Plus Capital Management, Profit Plus Precious Metals Management, Sabin Metals, Silvercorp Metals Inc., Southern Silver Exploration Corp., Sunshine Silver Mining & Refining Corporation, and The Electrum Group.**

CPM's **Silver Yearbook 2022** will also be translated into Chinese and distributed within China. CPM Group's partner on the Chinese language version of this report is the Shanghai Huatong Silver Exchange.

Additionally, we would like to thank our media partners and distributors that will help provide enhanced coverage and greater access to the **CPM Group Silver Yearbook 2022**. CPM Group's media partners and distributors are **Bullion Bulletin, The Deep Dive, FidelityTrade, Glacier Publishing, Goldblocx, GoldSilver Central Pte Ltd, Intro-Act, Investing New Network, Kitco Metals Inc., Metals Daily, Mining Network, Palisades Radio, Proactive Investors, Prospector News, Korelin Economics Report, Intro-Act, SE Asia Consulting, and Stockpulse.**

*Instructions for printing and binding this report are at the end of the book.*



**The Following Organizations Assisted in the Preparation  
of the 2022 Silver Yearbook**



## Coins ‘N Things (CNT)



Coins ‘N Things (CNT) was founded in 1972 by Louis Oliari and his son, Mark, over their shared love of coins. Seeing the changing landscape of the 70s and 80s, Mark and his wife, Patricia, focused on precious metal bullion. Since then, Mark and Patricia have grown CNT into one of the largest, privately owned precious metals wholesalers.

Headquartered in Bridgewater, MA, CNT and its sister company, CNT Depository, offer an array of services including two-way market making, financing, metal leasing, metal fabrication and minting, and storage options. CNT has positioned itself to provide clients with maximum flexibility in all market conditions. Continually reinvesting in the company, CNT strengthens its roots and creates new possibilities for its clients. CNT’s mission is to create partnerships sustainable for today and years to come.

Now in its third generation of family ownership, CNT continues to keep an eye to the future by finding ways to adapt to an ever-changing landscape. The theory is simple – provide our clients a wide, diverse range of options for their precious metals needs with an unwavering commitment to personalized customer service.

[Visit cnt.us for more information.](http://cnt.us)

## **Endeavour Silver Corp.**

NYSE: EXK, TSE: EDR, FRA: EJD



Endeavour Silver is a mid-tier precious metals mining company that operates two high-grade underground silver-gold mines in Mexico: Guanaceví Mine in Durango and the Bolañitos Mine in Guanajuato. Endeavour is working on the development of its third mine, Terronera, moving the project towards a construction decision, pending receipt of financing and final permits. It is also advancing its attractive pipeline of growth projects in Mexico, Chile and the United States to facilitate its goal to become a premier senior silver producer. In January 2022, Endeavour announced it had signed a definitive agreement to purchase Pitarrilla, one of the world's largest undeveloped silver deposits. The acquisition is expected to close in Q2 2022.

Earlier this year, Endeavour introduced its new sustainability strategy, which sets out priorities, actions, and targets over the next three years focused on three pillars: people, planet and business. This refreshed strategy is part of the Company's multi-year transformation and growth plan and demonstrates the crucial role that leading mining companies like Endeavour Silver can provide in supporting economic, social and environmental sustainability.

### **Investor Highlights**

- Mid-tier silver producer – Two high grade, underground silver gold mines in Mexico
- Strong financial position – Strong balance sheet with minimal debt
- Significant organic growth – One of the best organic growth profiles in silver mining sector
- Discovering new orebodies – Track record of making discoveries and expanding reserves and resources
- Leading silver leverage – Pure precious metals producer with significant beta to silver
- Strategically acquiring key assets – Opportunistically acquire new mines that are accretive to NAV and cash flow with organic growth potential

Let's mine a better future.

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Visit <https://edrsilver.com/> for more information  
[gmeleger@edrsilver.com](mailto:gmeleger@edrsilver.com)

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## Europa Bullion



EuropaBullion.Com is an Estonian online bullion dealer with an office in Tallinn. Estonia is the only country in Europe and a member of the EU which does not apply VAT on retail sales of silver, platinum and palladium coins and bars with face value.

EuropaBullion.Com is the highest rated online bullion dealer in Europe at TrustPilot with a TrustScore of 4.9/5 based on over 1.100 verified reviews.

The company is also a production license holder for the 1 oz Goddess Europa Silver Coin, the 1 oz Bull & Bear Silver Coin and the 1 kg Goddess Europa Coin Bar which are being distributed to wholesalers and dealers all over the world.

### **Contact details:**

EuroBull OÜ  
Tallinn, Estonia  
[info@europabullion.com](mailto:info@europabullion.com)  
+44 7554 730 234

**Fortuna Silver Mines Inc.**

NYSE: FSM, TSX: FVI



Fortuna Silver Mines Inc. is a Canadian precious metals mining company with four operating mines in Argentina, Burkina Faso, Mexico and Peru, and a fifth mine under construction in Côte d'Ivoire. Sustainability is integral to all our operations and relationships. We produce gold and silver and generate shared value over the long-term for our stakeholders through efficient production, environmental protection and social responsibility.

Fortuna is financially stable and does not hedge its precious metals production. Shares of the company trade mainly on the New York Stock Exchange (NYSE: FSM) and on the Toronto Stock Exchange (TSX: FVI).

[Visit www.fortunasilver.com for more information.](http://www.fortunasilver.com)

## Gatos Silver



Gatos Silver is an NYSE and TSX dual-listed company, which recently completed a \$172 million initial public offering (IPO) in October 2020. Gatos Silver's IPO was the largest precious metals initial public offering of 2020, and the only dual-listed precious metals IPO completed in the last decade. Gatos Silver is a U.S. based silver dominant exploration, development and production company that discovered a new silver and zinc-rich mineral district in southern Chihuahua State, Mexico. To-date, 14 zones of mineralization have been defined within the district and all are characterized by silver-zinc-lead epithermal mineralization. More than 85% of the approximately 103,087-hectare mineral rights package has yet to be drilled, representing a highly prospective and underexplored district. The Company recently built and commissioned its first operating mine and mineral processing plant at the Cerro Los Gatos deposit. The Cerro Los Gatos mine achieved its designed 2,500tpd mining rate in late December 2020.

[For more information, visit www.gatossilver.com](http://www.gatossilver.com)  
[info@gatossilver.com](mailto:info@gatossilver.com)  
Tel:303-784-5350

## Gold Silver Vault



**GOLD SILVER VAULT  
&  
IDAHO ARMORED VAULTS**



### **Idaho Armored Vaults and Gold Silver Vault**

Our state of the art security controls and inventory management systems provide a safe and secure environment for precious metal storage. We carry an all-risk insurance policy that insures for any losses due to fire, theft, etc. All items are fully insured and segregated.

WE ARE ONE OF THE ONLY FACILITIES IN THE COUNTRY THAT NOT ONLY FULLY INSURES BUT OVER-INSURES CLIENT'S ITEMS UNDER OUR CUSTODY.

We are one of the few facilities in the world that is not owned by or part of a bullion dealer. This provides considerable benefits for individuals or institutions worried about going concern or conflict of interest risk. Idaho Armored Vaults has thoroughly researched, developed, and established complete streamlined solutions for investors wanting to take delivery of physical metal from many global programs and exchanges. We can accommodate any substantial size transaction. Our unique service focuses on the client and their best interest.

<https://www.goldsilvervault.com/about-us/background-and-overview>



### **Profits Plus Precious Metals**

Profits Plus Precious Metals provides the right vehicle to maximize one's metal holdings for the lowest premiums. Accumulating the most metal for one's money protects one's purchasing power and leaves the investor with a great transaction experience. This benefits the individual and promotes a healthy industry that will only attract more investors to the physical market. PPPM provide a deep 2 way market for buying and selling precious metals at the Idaho Armored Vaults depository, as well as, drop ship services domestically and internationally.

<https://www.goldsilvervault.com/Media>



### **Profits Plus Capital Management**

Profits Plus Capital Management is a Registered Investment Advisor and General Partner to the Dollars and Sense Growth Fund LP. Established in 2001, PPCM provides portfolio management and investment strategy services to individuals and Institutions. <https://www.goldsilvervault.com/blog>

### **Dollars and Sense Growth Fund**

Established in 2001, the Fund currently holds all physical bullion privately outside the US financial system. Consequently, the client is completely protected in the event of a collapse of financial counterparties or a systemic event within the US financial system. <https://www.goldsilvervault.com/services/gold-and-silver-fund>

### **Contact Details:**

Bob Coleman

208-468-3600 ext 1

[bcoleman@goldsilvervault.com](mailto:bcoleman@goldsilvervault.com)

## The Institute of Scrap Recycling Industries, Inc.



The Institute of Scrap Recycling Industries, Inc. (ISRI) is the “Voice of the Recycling Industry.” ISRI represents nearly 1,600 companies in 21 chapters nationwide that process, broker, and consume scrap commodities, including metals, paper, plastics, glass, rubber, electronics, and textiles. With headquarters in Washington, D.C., the Institute provides education, advocacy, and compliance training, and promotes public awareness of the vital role recycling plays in the U.S. economy, global trade and environment. For more information about ISRI, please visit [www.ISRI.org](http://www.ISRI.org).

### **Contact Details:**

Joseph C. Pickard  
Chief Economist and Director of Commodities  
[josephpickard@isri.org](mailto:josephpickard@isri.org)  
[www.isri.org](http://www.isri.org)

## About Kitco Metals



For more than four decades, Montreal-based Kitco Metals is one of the world's premier retailers of precious metals products, delivering a range of products and services to a global network of investors, wholesalers, corporate and institutional buyers, who rely on Kitco for impeccable service and exceptional customer experience. Visit [corp.kitco.com](https://corp.kitco.com) for more information.

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- Precious Metal IRA & RSP Services

### **Contact Details:**

Nizar Tabet  
CFO  
514 670-1304  
[ntabet@kitco.com](mailto:ntabet@kitco.com)

## About Kitco Media

Considered to be the leading precious metals reference, Kitco's website ([www.kitco.com](https://www.kitco.com)) is visited daily by millions of people around the world. Kitco's Media division has earned a solid reputation as an innovator in the industry, pioneering the offering of online real-time market information, news, and analysis to investors for free. With its globally recognized news team, Kitco News provides the world's largest and fastest analysis of the precious metals space. Kitco Media prides itself in having a deep understanding of the needs of the precious metals audience; every day, we help people make informed market decisions through in-depth reporting, daily market roundups, interviews with prominent industry figures, comprehensive coverage (often exclusive) of important industry events and analyses of market-affecting developments.

For more information: <https://www.kitco.com/news/about>

### **Contact Details:**

John Dourekas  
Media Director & CBDO  
514 670-1334  
[jdourekas@kitco.com](mailto:jdourekas@kitco.com)

## Korelin Economics Report



Cory Fleck is the host of the nationally syndicated KE Report (Korelin Economics Report). The 2 hour program airs on weekends in over 25 US markets on the Genesis Radio Network, and is also posted on the website - [www.kereport.com](http://www.kereport.com).

The KE Report website has become a critical hub of information for investors, averaging 150,000 page views per month, upwards of 20,000 active users per month, and thousands of podcast downloads.

Investors keep a pulse on the markets with daily economic commentary and interviews from industry experts, generalist macro pundits and fund managers, and company executives. In addition to the daily editorials and small-cap company interviews, the website provides an interactive blog forum where investors exchange insights.

Cory can be reached through email at [Fleck@kereport.com](mailto:Fleck@kereport.com).

Contact Details:

**Cory Fleck, C.A.**

778.834.9119

[fleck@kereport.com](mailto:fleck@kereport.com)

**Metallic Minerals Corp.**  
TSX-V: MMG US OTC: MMNGF



**Metallic Minerals Corp. (TSX.V: MMG | OTCQB: MMNGF)** is an exploration and development stage company, focused on silver, gold and copper in the high-grade Keno Hill and La Plata mining districts of North America. Our objective is to create shareholder value through a systematic, entrepreneurial approach to making exploration discoveries, growing resources and advancing projects toward development. Metallic Minerals has consolidated the second-largest land position in the historic Keno Hill silver district of Canada's Yukon Territory, directly adjacent to Alexco Resource Corp's operations, with more than 300 million ounces of high-grade silver in past production and current M&I resources. In addition, the Company recently announced the inaugural resource estimate for the La Plata silver-gold-copper project in southwestern Colorado. All of the districts in which the Company works have seen significant mineral production and have existing infrastructure, including power and road access. Metallic Minerals is led by a team with a track record of discovery and exploration success on several major precious and base metal deposits, as well as having large-scale development, permitting and project financing expertise.

### **Contact Details:**

Chris Ackerman  
Senior Manager-Corporate Communications & IR  
Email: [Chris.Ackerman@metallic-minerals.com](mailto:Chris.Ackerman@metallic-minerals.com)  
Tel: 604-629-7800  
TF: 888-570-4420  
[www.metallic-minerals.com](http://www.metallic-minerals.com)



## Monex Precious Metals



For over 50 years, Monex has been America's trusted name in gold and other precious metals. With customer transactions now totaling over \$60 billion, Monex Deposit Company, established in 1987, is today America's premier precious metals bullion dealer because of our dedication to customer service and satisfaction.

Our success and our reputation have been built from long and fruitful relationships with our customers. As a result of our customers' trust in Monex, 80% of our business is from customers doing repeat precious metals business, and about one-quarter of our new customers are referred to us by existing customers.

Located in Newport Beach, California, Monex Precious Metals is home to a large and dedicated staff of hard asset professionals committed to serving your precious metals investment needs and being America's best dealer with a convenient market and competitive precious metals prices.

### Contact Details:

Monex Precious Metals  
4910 Birch Street  
Newport Beach, CA 92660  
Tel: 800-949-4653  
[www.monex.com](http://www.monex.com)

## Minera Adularia International Ltd.

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***“While another company may seek a few veins to build a mine that might produce scores of millions of ounces, at Celaya we at Electrum are exploring for multiple mines containing potentially billions of ounces.”***

*Dr. Larry Buchanan*

*Chief Geologist, The Electrum Group of Companies*

- Privately-held Minera Adularia International Ltd. owns 100% of Celaya Silver, a new district-scale epithermal gold-silver vein system that has the potential to become one of the largest primary silver discoveries in a generation;
- Located in the prolific Guanajuato District within the Mexican silver belt, >210,000 meters of core drilling have yielded multiple high-grade exploration successes. These discoveries have been made across the expansive land package – some are located kilometers apart – underscoring the exceptional exploration potential at this emerging silver district;
- Celaya is situated in a prime location in the Guanajuato District, a more than 1 billion ounce producer within the Mexican silver belt – the world’s most productive silver region. In addition to favorable geological characteristics and a rich mining history, Celaya also benefits from ready access to infrastructure and qualified labor;
- Minera Adularia is majority-owned by The Electrum Group. Electrum, led by Dr. Thomas S. Kaplan, has successfully advanced up the value chain multiple natural resources companies built around “category-killer” assets;
- The company’s Chief Geologist, Dr. Larry Buchanan, is a renowned exploration geologist with a reputation as one of the industry’s leading experts on epithermal deposits – his analysis of such deposits has given rise to the industry paradigm known as “The Buchanan Model”. He has played a key role in identifying several world-class deposits throughout his career. In 2006, Dr. Buchanan received the Thayer Lindsley award for the discovery of the San Cristobal Mine.

[info@mineraadularia.com](mailto:info@mineraadularia.com)

**Pan American Silver Corp.**

TSX: PAA, NASDAQ: PAAS

PAN AMERICAN  
— SILVER —

Pan American Silver owns and operates silver and gold mines located in Mexico, Peru, Canada, Argentina and Bolivia. We also own the Escobal mine in Guatemala that is currently not operating. Pan American Silver provides enhanced exposure to silver through a large base of silver reserves and resources, as well as major catalysts to grow silver production. We have a 28-year history of operating in Latin America, earning an industry-leading reputation for sustainability performance, operational excellence and prudent financial management. We are headquartered in Vancouver, B.C.

**Contact Details**

Investor Relations

[ir@panamericansilver.com](mailto:ir@panamericansilver.com)

Tel 604-684-1175

[panamericansilver.com](http://panamericansilver.com)

## Sabin Metal Group of Companies



The Sabin Metal Group of companies recovers and refines PGMs (platinum, palladium, ruthenium, rhodium), rhenium, gold and silver from a wide variety of materials, specializing in spent hydrocarbon and petroleum processing catalysts with soluble and insoluble alumina, silica alumina, zeolite, and carbon supports.

The Sabin Metal Group is the largest domestically owned, independent precious metals refining organization in North America. The company's sales/service offices are strategically located throughout the world..

The group is composed of four independent organizations:

**Sabin Metal Corporation:** located in Scottsville, New York, is a sophisticated facility for safely processing precious metal bearing materials.

**Sabin Metal West:** a specially equipped facility for sampling large lots of precious metal bearing spent catalysts. This refinery employs electric arc furnace (EAF) technology, which helps maximize recovery of precious metals, and also incorporates a unique "low dust" sampling system for accurate sample derivation and total environmental safety and compliance.

**Sabin International Logistics Corp. (SILC):** a licensed hazardous waste, hazardous materials, and general commodities transporter providing global transportation and logistics for spent precious metal bearing catalysts and other materials. The company is also a Permitted and Licensed Freight Broker.

**SMC (Canada) Ltd.:** at the McAlpine Mill in Cobalt, Ontario, Canada, offers capabilities and processing technologies to extract highest possible metal values from residual materials generated in refining, smelting and milling operations.

Sabin's silver, platinum and palladium are accepted on NYMEX/COMEX (Chicago Mercantile Exchange); Sabin's platinum and palladium are also accepted for delivery on the London/Zurich market by the London Platinum and Palladium market (LPPM).

Contact Details:

Brad Cook  
Vice President  
Sales and Marketing  
[bcook@sabinmetal.com](mailto:bcook@sabinmetal.com)  
[www.sabinmetal.com](http://www.sabinmetal.com)

**Silvercorp**

TSX: SVM, NYSE: SVM

**SILVERCORP** METALS INC.

Silvercorp is a Canadian company producing silver, gold, lead, and zinc with a history of profitability and growth potential. Its strategy is to create shareholder value by 1) focusing on generating free cashflow from long life mines; 2) organic growth through extensive drilling for discovery; 3) equity investments in potential world class opportunities; 4) ongoing merger and acquisition efforts to unlock value; and 5) making a long term commitment to responsible mining and ESG.

Silvercorp has no debt and US\$212 million of cash and short term investments, plus equity investments in other mining companies with a market value of US\$156 million as of December 2021.

For more information, please visit our website at [www.silvercorp.ca](http://www.silvercorp.ca).

Contact Details:

Lon Shaver  
Vice President  
[investor@silvercorp.ca](mailto:investor@silvercorp.ca)  
Toll Free Tel: 1-888-224-1881  
[www.silvercorp.ca](http://www.silvercorp.ca)

## Southern Silver Exploration Corp.



Southern Silver Exploration Corp. is an exploration and development company with a focus on the discovery of world-class mineral deposits. Our specific emphasis is the 100% owned Cerro Las Minitas silver-lead-zinc project located in the heart of Mexico's Faja de Plata, which hosts multiple world-class mineral deposits such as Penasquito, Los Gatos, San Martin, Naica and Pitarrilla. The Company's property portfolio also includes the Oro porphyry copper-gold project and the Hermanas gold-silver vein project located in southern New Mexico, USA. We have assembled a team of highly experienced technical, operational and transactional professionals to support our exploration efforts in developing the Cerro Las Minitas project into a premier, high-grade, silver-lead-zinc mine. The Company engages in the acquisition, exploration and development either directly or through joint-venture relationships in mineral properties in major jurisdictions.

[For more information visit www.southernsilverexploration.com](http://www.southernsilverexploration.com)

## Sunshine Silver Mining & Refining Corporation



Sunshine Silver Mining & Refining Company (“SSMRC”) is a privately-held silver development company that owns 100% of the famed Sunshine Complex, located near Kellogg, Idaho. The Sunshine Complex is a world-class asset on dimensions including endowment size, grade, exploration potential, and location.

- The project’s mineral endowment is approaching 300 million ounces of silver resources, including 76 million ounces in the Measured and Indicated categories and additional inferred resources of 221 million ounces of silver, presenting notable growth potential
- With a Measured & Indicated silver grade of 780 g/t silver (28 oz. per ton), Sunshine is the highest-grade silver asset in North America, and one of the highest-grade primary silver development assets in the world.
- As a high-grade primary silver project, the Sunshine Complex benefits from extraordinary leverage to silver – analysis from a January 2020 Preliminary Economic Assessment indicates that every \$5.00 increase in the silver price adds approximately \$500 million to Sunshine’s NPV @5%
- SSMRC is the largest mineral rights holder within the prolific Coeur d’Alene Mining District, and its expansive 9,100 hectare land package remains underexplored. Exploration upside potential is considered excellent, underscored by four new discoveries identified by shallow targeted drilling. Numerous high-priority drill target opportunities never systematically explored remain, located near current infrastructure.
- Importantly, the Sunshine Complex is situated in an investor-friendly, premier mining jurisdiction, in Idaho’s Silver Valley – the most productive silver region in the United States. Idaho –ranked in the top ten most attractive global mining jurisdiction in the Fraser Institute’s 2021 Investment Attractiveness Index – boasts a well-established mining culture. Sunshine enjoys a prime location in terms of geology, infrastructure access, access to qualified labor and mining history.
- The Sunshine Complex is uniquely autonomous. It is the only completely vertically-integrated silver mining operation in North America – owning the entire process from mining to refining, with the ability to deliver silver bullion certified for COMEX.

***“With over 300 million ounces produced at over 25 ounces per ton, Sunshine is the largest silver producer in United States history – and enjoys a now drill-identified endowment of equal size and grade. Encompassing ownership of the entire value-chain from mining to refining silver bullion certified for direct delivery to the COMEX, Sunshine is uniquely positioned to be North America’s only vertically-integrated silver mining operation.”***

*Dr. Thomas S. Kaplan, Chairman, The Electrum Group LLC, Chairman, Sunshine Silver Mining & Refining Corp.*

## The Electrum Group



The Electrum Group LLC (“Electrum”) is a New York-based registered investment adviser founded and led by Thomas S. Kaplan, a natural resources entrepreneur and investor. Dr. Kaplan, an Oxford-educated historian, applies his deep understanding of historical precedents to the markets to forecast developing trends and has been successfully investing in the sector since the early 1990s.

Electrum has an experienced team of operating, technical, and transactional professionals that have been engaging in strategic hands-on investing and asset development in the mining sector for over two decades. This team of highly experienced mining and investment professionals have a proven track record of success in sourcing, identifying, and managing our selective portfolio of both private and public equities in the metals and mining sector.

Electrum’s core focus is on precious metals, as well as certain base metals. The firm is the largest shareholder in NOVAGOLD Resource Inc., which is partnering with Barrick Gold in the development of Donlin Gold, which is positioned to be one of the world’s largest gold mines. Electrum is also the largest shareholder in Electrum-founded vehicles including Sunshine Silver Mining & Refining Company, owner of the highest-grade silver asset in North America (the Sunshine Mine), and Minera Adularia International Ltd., which is advancing a new district-scale gold-silver vein system that has the potential to become one of the largest primary silver discoveries in a generation.

Electrum’s 25+-year track record of success has been the result of combining its global macro perspective with deep geological, technical and operational domain expertise. This has enabled Electrum to identify and acquire world-class “category-killer” assets that provide the greatest leverage to its macro view.

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### **Contact Details:**

Cheng Li  
Vice President  
[marketing@huatongsilver.com](mailto:marketing@huatongsilver.com)  
[www.huatongsilver.com](http://www.huatongsilver.com)



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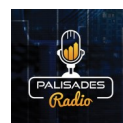
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**The CPM Silver Yearbook 2022**

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# Review and Outlook

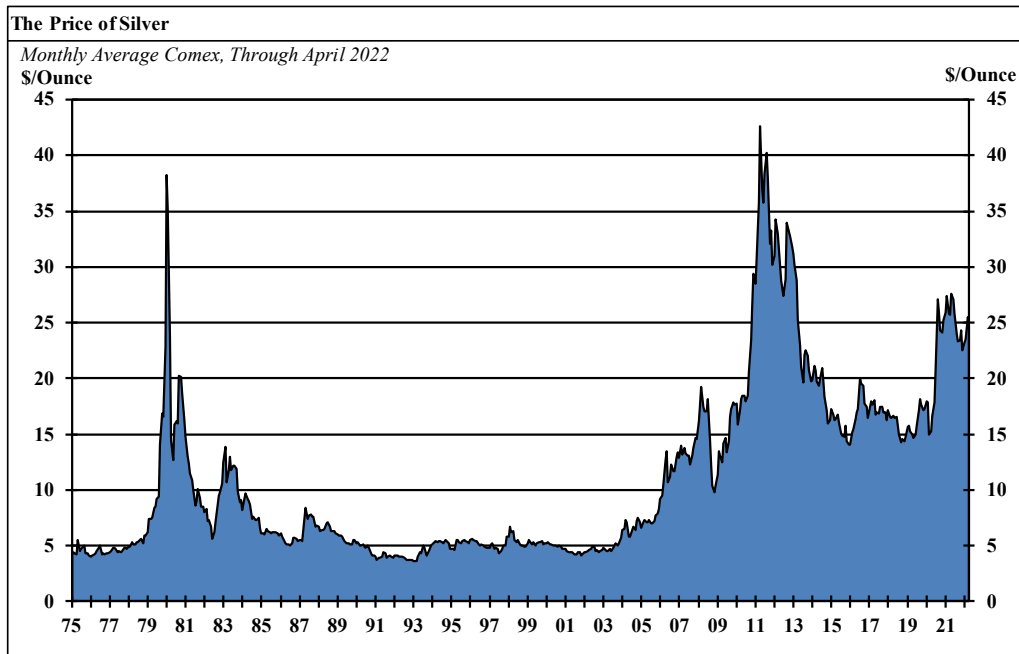


**Review and Outlook**

During 2021 silver prices struggled to settle above the highs reached in 2020. Silver prices shot up briefly at the end of January and into early February 2021, with prices touching an intraday high of \$30.35 on 1 February and settling at \$29.41 on that day. Silver prices shot up during this period driven by a misguided effort by some market participants to try to collectively squeeze the silver market shorts, a tactic that had been successfully executed in Game Stop and a few other *equities* at that time. As it became clear that short positions in silver, a commodity, are fundamentally different from equity shorts and cannot be squeezed in the same way as short positions on equities, the price of silver subsided. The effort basically led to a one-day blip in prices, although the conspiracy marketers behind the

effort continued to spread misrepresentations about silver for the rest of 2021 and into 2022. Silver slipped to \$23.74 by the end of the first quarter of 2021.

Concerns about inflation and a positive impact on silver fabrication demand due to the reopening of the global economy gave silver prices a second wind, driving silver prices back above \$28 during the second quarter of the year. Silver’s inability to break above \$29 and continue rising to fresh higher prices caused some of the shorter term investors who had piled into this market with expectations of much higher prices during the ‘squeeze’ attempt to exit this market. This caused silver prices to slide back toward \$21.40 by the end of September 2021. Silver prices recouped some of these losses over the balance of 2021, ending the year at \$23.35.



That said, silver prices remained at historically elevated levels during 2021, with various macroeconomic and silver market fundamentals acting as tailwinds to support prices. Some of the more supportive factors for silver prices during 2021 were negative real interest rates, strong silver demand from the solar panel industry, investor concerns about inflation, and variants of covid that continued to threaten the reopening of economies.

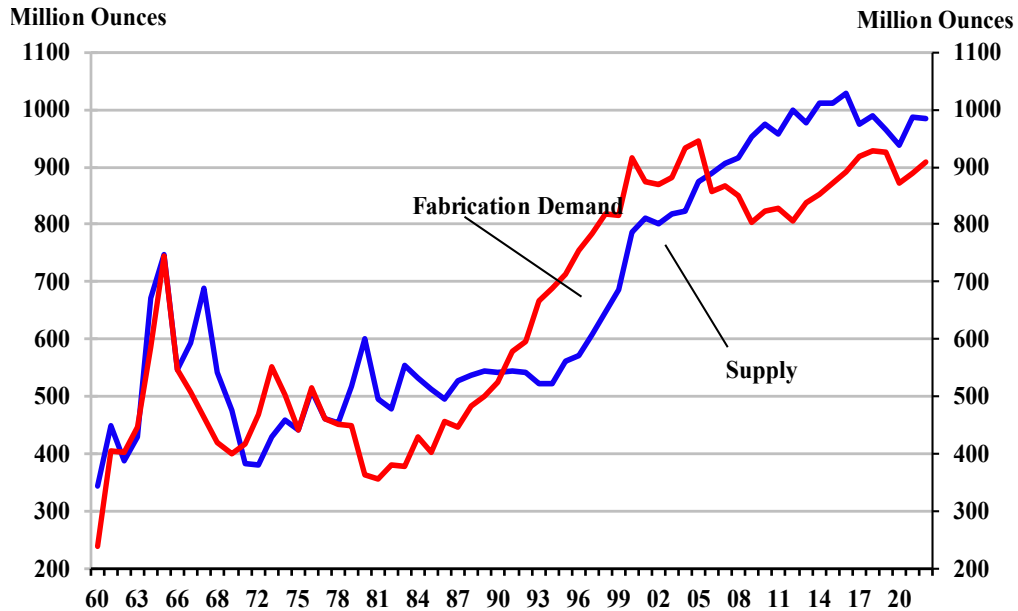
Even though silver prices ended 2021 lower than they were at the end of 2020, silver traded at comparably higher levels than in 2020, evidenced by the sharp increase in the annual average price in 2021. The recovery in prices in annual and quarterly average terms last year was due to a nearly 50% increase in investment demand for silver, on top of

the roughly 75% increase in investor purchases of physical silver in 2020 compared to demand levels in 2019.

Silver prices are generally expected to remain above levels observed from the second half of 2013 through the first half of 2020. While fabrication demand is forecast to rise during 2022 investment demand, which plays an important role in influencing prices, is expected to soften. It should be noted that while silver investment demand is forecast to soften from 2021 levels, it is still expected to remain high compared to investment demand in the period between 2017 and 2020 as well as the period between 1988 and 2008.

Ongoing global economic growth is expected to be supportive of silver fabrication demand. The increased push

**Silver Supply and Demand**



toward producing green energy will keep demand for solar panels strong, which will continue aiding silver demand from the solar panel industry. Additionally, an ongoing increase in electrification of various applications should further help support silver demand from the electronics sector.

One of the key trends anticipated in 2022, already evident, is the aforementioned projection that investment demand will soften from 2021 levels but remain high during 2022. Shorter term investors have been and are expected to continue to exit the silver market, disenchanted by dashed expectations of price increases to \$50 or higher and unrealistic expectations of fabrication demand rising sharply immediately from the solar panels and electric vehicle industry.

Meanwhile, longer term investors who see the value in having silver in their portfolio as a diversifier and see the numerous political and macroeconomic risks in the short, medium, and long term, are expected to use the relative softness in prices to add metal to their holdings. They are not expected to chase silver prices higher, however.

Furthermore, rising real interest rates are expected to somewhat reduce the desire among investors in adding silver to their portfolios aggressively. That said, real rates are expected to remain negative or become only marginally positive, both of which are conditions in which silver prices should remain supported by ongoing investment and fabrication demand. Barring any major un-

foreseen adverse economic catalysts that would derail monetary authorities' plans to reverse emergency monetary policies, interest rates are expected to continue rising this year.

Rising inflation is causing sharply increased consumer and financial market dissatisfaction in many countries around the world. Policy leaders are being pressured to take steps to curb inflation while not derailing economic recovery. This may not be so easy since tightness in supply chains due to Covid continues to reduce supplies, which is overtaken by firm demand.

### Supply

Total silver supply, which includes mine production and scrap supply, stood at 986.9 million ounces in 2021. This was the highest level of total supply since 2018 when this figure was 988.4 million ounces. Both mine supply and scrap supply rose during 2021, and while secondary supply reached its highest level since 2013, mine supply still had not recovered all of the losses incurred during 2020.

Total silver supply is forecast to slip to 984.4 million ounces in 2022. The decline in total supply during 2022 is driven by both a decline in mine production as well as scrap supply.

Silver mine supply has generally been in a declining trend over the past five years. This decline in silver mine supply can be attributed to the lack of fresh investments being made by mining companies to develop new projects dur-

ing the period from 2013 into 2020 when silver prices were lower and the mining industry overall was somewhat capital constrained. Additionally, the uptick in silver prices that has been observed since the second half of 2020 is unlikely to result in mining companies increasing their investment in developing new projects, at least not initially. Mining companies have become much more disciplined in their spending compared to previous times when precious metals prices were rising.

While scrap supply is forecast to remain at elevated levels during 2022, it is expected to decline from levels seen in 2021. Silver scrap supply tends to be sensitive to silver prices and the expectations that silver prices will average lower in 2022 than 2021 is forecast to

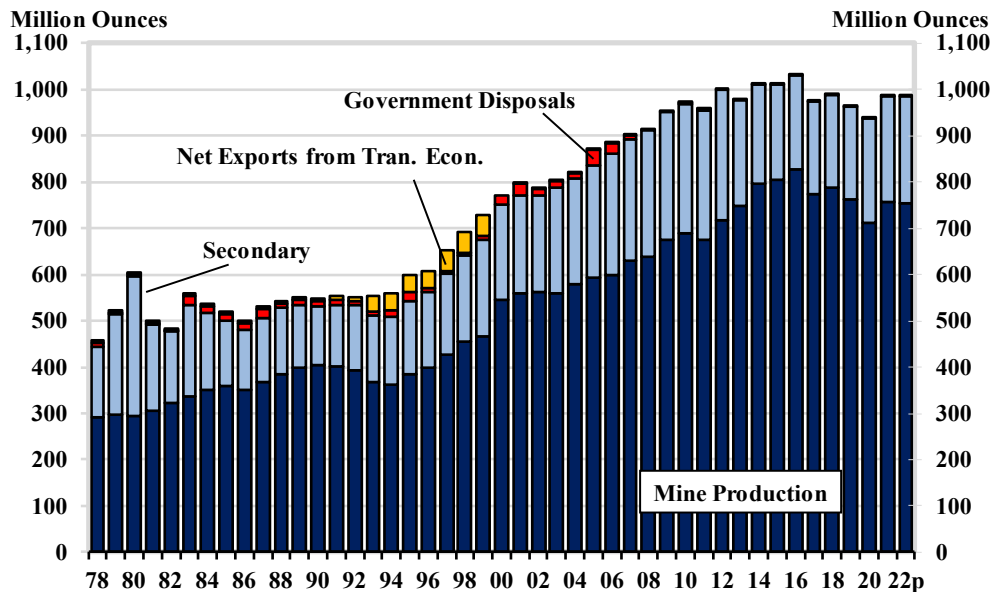
weigh on silver scrap supply during the year. Silver scrap supply is projected to stand at 229.0 million ounces during 2022, down from 230.0 million ounces in 2021.

**Fabrication Demand**

Global silver fabrication demand rose at a modest pace during 2021 to 890.1 million ounces, up from 872.3 million ounces in 2020. The lackluster growth in silver fabrication demand during 2021 can be attributed to the sharp decline in demand from the ethylene oxide catalyst sector following two years of extremely sharp gains, an ongoing decline in demand from photography, and weak demand growth from jewelry and electronics. Demand rose at a healthy rate from the solar panel industry, but

**Total Annual Silver Supply**

*Projected Through 2022*



this alone was not sufficient to offset softness in demand in other sectors.

Silver fabrication demand is forecast to rise to 908.1 million ounces during 2022. While silver demand from the photography sector is forecast to continue declining, a trend that has been in place for over two decades, silver demand is projected to rise from other sectors.

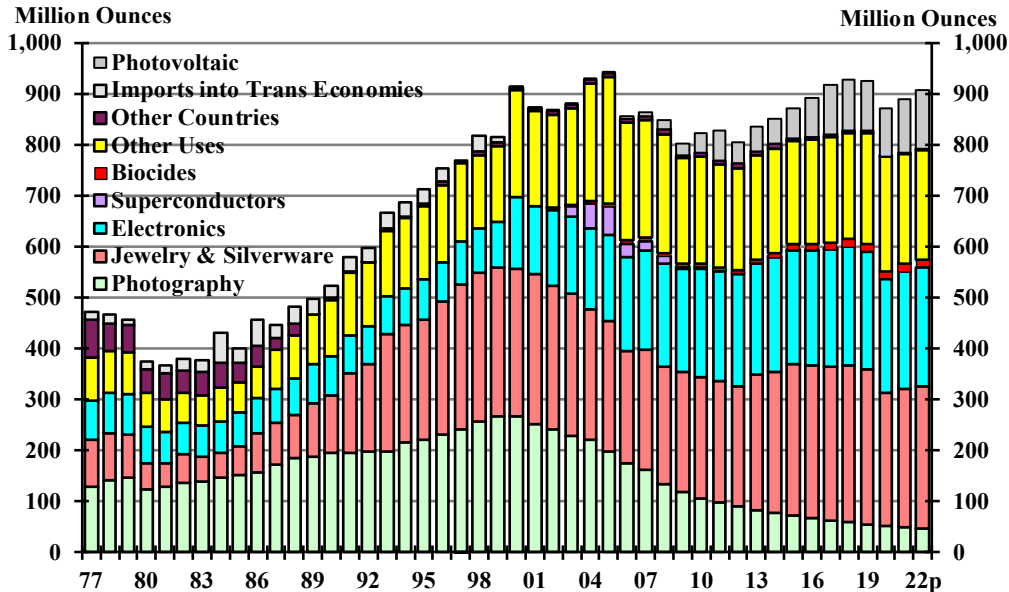
Demand for silver from the solar panel industry reached a record high of 104.7 million ounces in 2021 and is expected to reach a fresh record high 114.4 million ounces during 2022. There is a strong push globally to produce green energy and solar power is one of the frontrunners in this arena.

Silver demand from the electronics sector stood at 229.6 million ounces in 2021, up 2.25% from 2020 levels. Silver demand from the electronics sectors also is forecast to reach record levels during 2022. Demand from this sector is expected to rise, driven by an ongoing recovery in the supply of microchips. That said, forecast silver demand is below full potential as the semiconductor industry continues to struggle to meet demand for microchips from certain industries like autos.

Silver jewelry demand is forecast to reach 278.8 million ounces in 2022, up 2% from 2021. Renewed strength in the U.S. dollar, high silver prices, slowing economic growth, reduced restocking demand, and rising inflation are all factors that are expected to act as head-

**Silver Fabrication Demand**

*Projected Through 2022*



Silver Statistical Position  
Million Troy Ounces

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
<b>Mine Production</b>																		
Mexico	47.0	50.8	49.4	47.3	53.2	49.8	55.0	63.9	69.2	69.4	69.8	70.0	70.0	69.0	70.0	65.0	61.0	65.0
United States	38.2	39.4	37.9	32.3	40.7	40.2	43.4	44.6	39.4	34.2	39.8	53.4	60.8	66.5	61.0	61.0	55.7	54.0
Peru	39.1	37.0	41.9	44.8	42.6	54.4	55.6	53.3	54.9	59.9	63.6	47.7	56.8	55.5	56.9	48.0	47.0	48.0
Canada	42.2	40.7	36.9	34.4	36.3	42.2	38.7	42.0	38.5	35.0	38.1	44.1	41.3	44.4	40.6	36.3	28.3	23.6
Australia	27.5	26.1	26.7	25.0	23.9	29.2	33.2	31.3	34.9	32.9	35.9	35.8	37.3	37.8	38.0	40.1	39.1	36.8
China	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other	93.2	98.0	104.7	110.1	109.7	105.9	112.1	116.0	122.4	119.7	121.4	132.6	132.0	131.8	135.9	143.1	136.3	133.8
<b>Total</b>	<b>287.2</b>	<b>292.0</b>	<b>297.6</b>	<b>293.9</b>	<b>306.4</b>	<b>321.7</b>	<b>338.0</b>	<b>351.0</b>	<b>359.3</b>	<b>351.1</b>	<b>368.6</b>	<b>383.6</b>	<b>398.2</b>	<b>405.0</b>	<b>402.3</b>	<b>393.4</b>	<b>367.3</b>	<b>361.2</b>
% Change Year Ago	—	1.7%	1.9%	-1.2%	4.3%	5.0%	5.1%	3.9%	2.4%	-2.3%	5.0%	4.1%	3.8%	1.7%	-0.7%	-2.2%	-6.6%	-1.7%
<b>Secondary Supply</b>																		
Old Scrap	93.0	82.0	130.0	164.0	125.0	111.0	133.4	123.5	101.5	103.4	113.3	121.9	125.0	120.0	117.6	130.5	137.1	138.4
Coin Melt	33.0	21.0	45.0	94.0	18.0	7.0	20.1	20.1	18.4	9.9	10.1	8.8	6.4	6.0	4.0	3.0	2.0	1.3
Indian Scrap & Other	43.0	49.0	41.0	44.0	41.0	37.0	44.0	22.0	21.0	16.0	14.5	13.2	4.8	—	9.6	7.2	3.8	6.5
<b>Total</b>	<b>169.0</b>	<b>152.0</b>	<b>216.0</b>	<b>302.0</b>	<b>184.0</b>	<b>155.0</b>	<b>197.5</b>	<b>165.6</b>	<b>140.9</b>	<b>129.3</b>	<b>137.9</b>	<b>143.9</b>	<b>136.2</b>	<b>126.0</b>	<b>131.2</b>	<b>140.7</b>	<b>142.9</b>	<b>146.2</b>
% Change Year Ago	—	-10.1%	42.1%	39.8%	-39.1%	-15.8%	27.4%	-16.2%	-14.9%	-8.2%	6.7%	4.4%	-5.4%	-7.5%	4.1%	7.3%	1.5%	2.3%
<b>Other Supply</b>																		
Government Disposals	5	9	3	5	4	1	19	16	13	14	20	8.3	10.7	11	11.5	8.1	11.2	15.8
Net Exports from Transitional Economies	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
% Change Year Ago	—	80.0%	-66.7%	66.7%	-20.0%	-75.0%	NM	-15.8%	-18.8%	7.7%	42.9%	-58.5%	28.9%	2.8%	4.5%	-29.6%	38.3%	41.1%
Net Exports From Transitio	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<b>Total Supply</b>	<b>461.2</b>	<b>453.0</b>	<b>516.6</b>	<b>600.9</b>	<b>494.4</b>	<b>477.7</b>	<b>554.5</b>	<b>532.6</b>	<b>513.2</b>	<b>494.4</b>	<b>526.5</b>	<b>535.8</b>	<b>545.1</b>	<b>542.0</b>	<b>545.0</b>	<b>542.3</b>	<b>521.4</b>	<b>523.2</b>
% Change Year Ago	—	-1.8%	14.0%	16.3%	-17.7%	-3.4%	16.1%	-3.9%	-3.6%	-3.7%	6.5%	1.8%	1.7%	-0.6%	0.6%	-0.5%	-3.9%	0.3%
<b>Fabrication Demand</b>																		
Photography	129.6	142.9	148.0	123.8	128.1	136.5	140.3	147.3	152.7	157.8	172.1	185.1	189.2	196.5	196.2	198.6	199.1	215.5
Jewelry & Silverware	91.0	91.8	82.7	52.2	47.7	56.2	47.5	47.3	55.5	75.3	81.7	86.2	105.0	111.3	155.3	172.0	229.7	230.5
Electronics and Batteries	78.7	79.3	80.4	71.1	62.2	62.5	61.0	63.2	67.8	69.5	66.6	71.3	77.1	77.8	75.4	72.6	73.7	73.5
Solar Panels	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Uses	84.8	81.6	82.9	66.6	62.6	58.9	58.9	66.4	58.4	63.3	77.8	82.7	95.4	110.8	122.0	125.8	130.0	136.2
Other Countries	73.1	54.3	52.8	46.1	51.3	43.4	45.8	49.6	37.2	41.3	23.5	24.7	0.2	3.1	3.4	1.0	5.0	3.9
Net Imports into the Transitional Economies	15.9	18.2	11.5	14.5	15.3	23.8	25.4	56.6	30.4	49.2	24.9	32.9	32.6	25.0	27.2	27.5	30.0	28.0
<b>Total</b>	<b>473.1</b>	<b>468.1</b>	<b>458.3</b>	<b>374.3</b>	<b>367.2</b>	<b>381.2</b>	<b>378.9</b>	<b>430.3</b>	<b>402.0</b>	<b>456.4</b>	<b>446.5</b>	<b>482.9</b>	<b>499.5</b>	<b>524.6</b>	<b>579.6</b>	<b>596.6</b>	<b>667.6</b>	<b>687.7</b>
% Change Year Ago	—	-1.0%	-2.1%	-18.3%	-1.9%	3.8%	-0.6%	13.6%	-6.6%	13.5%	-2.2%	8.2%	3.4%	5.0%	10.5%	2.9%	11.9%	3.0%
<b>Net Surplus or Deficit in the Bullion Market</b>																		
	-11.9	-15.2	58.2	226.6	127.2	96.5	175.6	102.3	111.2	38.0	80.0	52.9	45.6	17.4	-34.6	-54.4	-146.2	-164.5
<b>Addenda</b>																		
Coinage	34.5	39.5	34.7	17.4	12.0	13.3	11.4	15.1	14.3	34.2	33.1	27.1	28.1	37.7	27.7	29.0	37.4	33.0
Changes in Inventories																		
Unreported	-58.2	-37.2	30.3	206.1	132.2	69.8	110.7	90.2	376.7	535.7	476.6	495.3	468.8	525.1	601.1	553.5	699.6	751.6
Reported	11.8	-17.5	-6.8	3.1	-17.0	13.3	53.5	-3.0	39.6	-45.1	2.9	14.8	58.8	37.2	6.1	72.9	5.3	-30.7
<b>Total</b>	<b>-46.4</b>	<b>-54.7</b>	<b>23.5</b>	<b>209.2</b>	<b>115.2</b>	<b>83.1</b>	<b>164.2</b>	<b>87.2</b>	<b>416.3</b>	<b>490.6</b>	<b>479.6</b>	<b>510.0</b>	<b>527.6</b>	<b>562.3</b>	<b>607.2</b>	<b>626.5</b>	<b>704.9</b>	<b>720.9</b>
% Change Year Ago	—	17.9%	NM	788.8%	-44.9%	-27.9%	97.5%	-46.9%	377.4%	17.8%	-2.2%	6.3%	3.4%	6.6%	8.0%	3.2%	12.5%	2.3%
<b>Price Per Ounce</b>																		
High	\$4.98	\$6.32	\$34.45	\$48.70	\$16.29	\$11.21	\$14.72	\$10.06	\$6.84	\$6.29	\$9.66	\$7.83	\$6.19	\$5.33	\$4.55	\$4.32	\$5.44	\$5.78
Low	4.31	4.81	5.92	10.80	7.99	4.98	8.40	6.30	5.53	4.85	5.38	6.00	5.03	3.94	3.51	3.64	3.52	4.61
Average	4.63	5.34	11.20	20.65	10.53	7.93	11.46	8.15	6.15	5.47	6.99	6.53	5.50	4.82	4.03	3.93	4.30	5.28
% Change Year Ago	—	15.3%	109.7%	84.4%	-49.0%	-24.7%	44.5%	-28.9%	-24.5%	-11.1%	27.8%	-6.6%	-15.8%	-12.3%	-19.6%	0.1%	-5.8%	12.7%

Notes: Totals may not equal the sum of categories due to rounding. Mine production in Poland, Bulgaria, Romania, Hungary, the Czech Republic, and Slovakia is included in "other" mine production. Photography, jewelry and silverware, electronics, and "other" industrial use reflects demand in Europe, the United States, and Japan. These sectors include Canada from 1979, Mexico from 1982, Hong Kong from 1985, Thailand from 1986, India from 1987, Australia, Brazil, Peru, Colombia, Argentina, Chile, Korea, Pakistan, and Bangladesh from 1989, and Taiwan from 1990. Demand excludes the transitional economies, except for imports. The price is the COMEX nearby active settlement, percent change from year earlier period. 2012 through March. There may be discrepancies due to rounding, p - projections. NM - Not meaningful.  
Source: CPM Group.  
March 2022



1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p	
<b>Mine Production</b>																												
67.3	75.0	83.0	88.0	79.0	88.5	89.0	88.5	83.0	83.0	93.0	96.1	99.5	104.1	114.3	128.6	133.4	147.9	157.5	164.1	172.6	173.9	173.4	194.5	187.8	178.1	183.0	186.6	Mexico
49.5	50.0	59.0	62.4	65.3	65.6	55.9	43.4	39.9	40.2	39.5	36.7	39.0	40.2	39.9	40.8	37.3	33.8	33.8	37.3	35.0	37.0	33.0	29.7	31.2	35.3	35.6	36.3	United States
51.0	55.0	63.0	61.4	67.1	78.4	83.0	92.3	93.9	98.4	102.7	111.6	112.3	118.5	126.1	117.0	109.8	111.9	118.1	121.4	131.9	140.7	142.0	133.8	124.1	97.8	118.8	124.9	Peru
41.3	42.0	39.4	37.9	39.6	39.0	42.4	45.3	42.1	43.0	36.1	32.0	27.7	24.3	20.3	19.2	18.4	22.7	19.9	15.9	12.3	12.4	12.6	13.0	13.2	9.3	13.1	13.7	Canada
32.0	35.0	38.7	50.8	57.7	68.5	63.3	66.6	60.1	71.0	77.0	56.0	60.5	61.9	52.5	60.4	55.6	57.9	59.2	59.4	46.0	45.6	36.0	40.3	42.6	43.8	45.6	44.2	Australia
—	—	—	—	—	48	61	70.1	78	78.7	80.5	89.7	97.9	96.3	107.9	112.5	119.0	122.9	131.8	135.0	136.3	140.2	131.8	123.9	117.7	116.7	119.2	117.0	China
142.3	141.9	144.5	153.5	158.3	157.6	164.3	157.6	161.5	163.8	163.5	175.7	192.6	194.2	213.9	218.0	202.9	220.2	228.1	262.3	271.8	276.9	244.7	251.8	245.0	231.5	241.5	232.7	Other
383.4	399.0	427.5	454.1	467.0	545.5	559.0	563.6	558.5	578.1	592.3	597.7	629.5	639.5	674.9	688.7	676.4	716.5	748.3	795.4	806.0	826.6	773.6	786.9	761.5	712.6	756.9	755.4	Total
6.2%	4.1%	7.2%	6.2%	2.9%	16.8%	2.5%	0.8%	-0.9%	3.5%	2.5%	0.9%	5.3%	1.6%	5.5%	2.0%	-1.8%	5.9%	4.4%	6.3%	1.3%	2.6%	-6.4%	1.7%	-3.2%	-6.4%	6.2%	-0.5%	% Change Year Ago
<b>Secondary Supply</b>																												
148.1	155.5	163.3	171.5	176.5	194.2	201.2	200.1	207.5	215.5	222.0	234.0	242.2	251.5	249.9	262.8	270.8	273.8	221.0	205.5	195.4	191.9	190.1	189.5	189.6	210.7	213.8	212.5	Old Scrap
1.5	1.7	1.7	2.5	18.5	6.0	2.0	3.0	5.0	5.0	5.0	7.0	5.0	4.0	4.0	2.0	1.5	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	Coin Melt
9.6	6.4	10.0	13.5	12.9	6.4	9.6	4.8	16.1	9.7	16.1	22.5	16.1	17.5	21.7	14.5	4.8	8.0	8.0	8.0	8.1	9.6	10.4	10.5	11.4	12.8	14.7	15.0	Indian Scrap
159.2	163.6	175.0	187.5	207.9	206.6	212.8	207.9	228.6	230.2	243.1	263.5	263.3	273.0	275.6	279.3	277.1	282.8	230.0	215.0	205.0	203.0	202.0	201.5	202.5	225.0	230.0	229.0	Total
8.9%	2.7%	7.0%	7.1%	10.9%	-0.6%	3.0%	-2.3%	10.0%	0.7%	5.6%	8.4%	-0.1%	3.7%	1.0%	1.3%	-0.8%	2.1%	-18.7%	-6.5%	-4.7%	-1.0%	-6.5%	-0.2%	0.5%	11.1%	2.2%	-0.4%	% Change Year Ago
<b>Other Supply</b>																												
19	8.1	5.3	6	10	20	25	15	15	10	35	24	8	—	—	3.8	2.4	—	—	—	—	—	—	—	—	—	—	—	Government Disposals
—	—	—	—	—	15	15	15	15	5	5	5	5	3	1	2	2	1	—	—	—	—	—	—	—	—	—	—	Net Exports from
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Transitional Economies
19	8.1	5.3	6	10	35	40	30	30	15	40	29	13	3	1	5.8	4.4	1	—	—	—	—	—	—	—	—	—	—	% Change Year Ago
20.3%	-57.4%	-34.6%	13.2%	66.7%	250.0%	14.3%	-25.0%	0.0%	-50.0%	166.7%	-27.5%	-55.2%	NA	—	—	—	—	—	—	—	—	—	—	—	—	—	—	% Change Year Ago
561.7	570.7	607.8	647.6	684.9	787.1	811.8	801.5	817.1	823.2	875.4	890.2	905.8	915.5	951.5	973.7	957.9	1000.3	978.3	1010.4	1011.0	1029.6	975.6	988.4	964.0	937.6	986.9	984.4	Total Supply
7.4%	1.6%	6.5%	6.5%	5.8%	14.9%	3.1%	-1.3%	1.9%	0.8%	6.2%	1.7%	1.8%	1.1%	3.9%	2.3%	-1.6%	4.4%	-2.1%	3.3%	0.1%	1.8%	-5.2%	1.3%	-2.5%	-2.7%	5.3%	-0.3%	% Change Year Ago
<b>Fabrication Demand</b>																												
221.2	230.9	242.2	257.0	267.2	266.6	252.7	241.0	230.2	220.5	199.0	174.1	161.5	133.5	119.4	106.9	98.0	89.7	82.0	77.4	72.5	68.1	62.5	58.7	56.0	52.2	49.1	46.5	Photography
237.2	262.2	296.8	292.2	202.1	286.2	280.1	284.8	279.0	251.5	253.4	221.1	230.9	230.6	229.7	235.3	232.4	238.8	266.7	279.5	297.4	299.1	303.4	307.6	304.3	260.6	273.4	278.8	Jewelry & Silversware
78.0	77.5	87.8	86.5	54.9	138.5	140.8	150.6	154.3	156.4	169.9	186.4	194.9	201.7	205.9	214.6	213.1	216.6	218.4	223.7	223.8	226.1	229.6	234.0	230.4	224.5	229.6	234.6	Electronics and Batteries
—	—	—	—	—	1.0	1.4	2.0	2.7	3.4	4.3	5.3	2.7	1.5	19.2	22.9	37.9	57.2	41.2	47.6	50.4	59.2	77.3	97.7	99.9	97.8	93.8	104.7	Solar Panels
144.9	159.8	154.1	145.3	148.9	209.6	185.3	187.1	212.0	285.5	309.1	344.4	356.2	353.2	315.9	318.0	312.1	309.1	312.7	313.8	314.5	316.7	320.3	322.2	334.4	339.2	331.2	331.6	Other Uses
3.4	6.0	6.5	6.4	6.9	7.0	7.0	7.0	7.0	7.0	7.0	7.0	8.2	9.7	7.5	8.5	8.0	9.0	9.5	9.7	5.0	5.0	5.5	5.5	4.0	2.0	2.2	2.2	Other Countries
<b>Net Imports into the</b>																												
29.3	27.9	-3.3	31.2	11.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Transitional Economies
713.9	755.2	784.1	818.7	691.0	909.0	867.3	872.5	885.1	924.2	942.6	859.4	859.2	848.0	801.3	821.2	820.7	804.4	836.9	854.4	872.3	892.5	918.9	927.9	926.9	872.3	890.1	908.1	Total
3.8%	5.8%	3.8%	4.4%	-15.6%	31.5%	-4.6%	0.6%	1.4%	4.4%	2.0%	-8.8%	0.0%	-1.3%	-5.5%	2.5%	-0.1%	-2.0%	4.0%	2.1%	2.1%	2.3%	3.0%	1.0%	-0.1%	-5.9%	2.0%	2.0%	% Change Year Ago
<b>Net Surplus or Deficit in the Bullion Market</b>																												
-152.2	-184.5	-176.3	-171.1	-6.1	-121.9	-55.5	-71.0	-68.1	-101.0	-67.2	30.8	46.6	67.5	150.2	152.5	137.2	195.9	141.4	156.0	138.6	137.2	56.7	60.5	37.2	65.1	96.8	76.2	
<b>Addenda</b>																												
21.7	17.9	19.9	29.3	29.6	38.6	26.7	30.2	30.7	30.9	28.9	30.2	36.2	64.0	84.5	101.9	120.8	121.9	134.9	142.4	135.9	115.0	88.6	78.8	84.2	114.6	135.4	125.0	Coinage
856.5	799.9	19.9	27.3	13.6	38.6	26.7	30.2	30.7	30.9	28.9	30.2	35.2	64.0	84.5	101.9	120.8	121.9	134.9	142.4	135.9	115.0	88.6	78.8	84.2	114.6	135.4		Changes in Inventories
-121.2	-26.3	-106.0	-37.0	10.6	27.1	6.4	1.3	7.8	-4.6	23.1	116.0	95.5	78.6	132.5	113.1	-11.1	113.5	22.6	-9.0	-17.8	116.0	45.1	32.1	143.5	439.2	6.9		Unreported
735.3	773.6	-86.1	-9.7	24.2	65.6	33.1	31.6	38.5	24.3	52.1	146.2	130.7	142.6	217.0	215.0	109.6	235.4	157.6	133.3	118.2	231.0	133.7	110.9	227.7	553.8	142.3		Total
2.0%	5.2%	NM	NM	NM	171.5%	-49.5%	-4.8%	22.1%	-37.0%	114.6%	180.9%	-10.6%	9.1%	52.1%	-0.9%	-49.0%	114.7%	-33.1%	-15.4%	-11.4%	95.5%	-42.1%	-17.1%	105.3%	143.2%	-74.3%		% Change Year Ago
<b>YTD Price Per Ounce</b>																												
66.16	65.84	66.38	67.28	65.77	65.57	64.83	65.13	65.99	68.22	69.10	614.94	615.55	620.79	619.33	630.94	648.50	637.14	632.44	622.85	618.36	620.70	618.51	617.62	619.55	629.26	629.42	626.90	High
4.42	4.71	4.19	4.62	4.86	4.62	4.03	4.22	4.35	5.52	6.45	8.87	11.50	8.79	10.44	14.83	26.81	26.25	18.53	15.41	13.70	13.75	15.67	13.08	14.32	11.77	21.49	22.19	Low
5.20	5.21	4.91	5.53	5.23	5.00	4.38	4.60	4.90	6.70	7.35	11.61	13.45	14.97	14.67	20.31	35.29	31.17	23.74	19.09	15.67	17.17	17.16	15.71	16.23	20.67	25.28	24.18	Average
-5.3%	-4.5%	-5.8%	12.7%	-5.3%	-4.5%	-12.4%	5.2%	6.3%	36.8%	9.7%	58.0%	15.9%	11.3%	-2.0%	38.4%	73.8%	-11.7%	-23.8%	-19.6%	-17.9%	9.6%	-0.1%	-8.5%	3.3%	27.4%	24.2%	-7.5%	% Change Year Ago

Apparent private investment demand from new supply is total supply for a given year less fabrication demand and coinage. Apparent bullion demand from market stocks reflects the change in market inventories; a negative figure here indicates that investors were net sellers of metal that entered market stocks, while a positive figure indicates that market stocks fell to meet demand from investors, and fabricators of industrial products and coins. Changes in market inventories are year-end; Reported inventories between 1992 and 1996 are adjusted to reflect Wilmington Trust silver stocks that would have been eligible for Comex delivery. Wilmington Trust became a licensed Comex depository on January 1, 1997.

winds to jewelry demand during 2022.

While silver fabrication demand is growing at a healthy rate in some sectors and hitting record levels in other sectors, demand on the whole could have been even stronger than it is forecast to be in 2022. Many of the issues like Covid and shortages of semiconductors which are holding back silver fabrication demand during 2022 should have a relatively lesser negative impact in 2023, which should continue to boost silver fabrication demand going forward.

**Investment Demand**

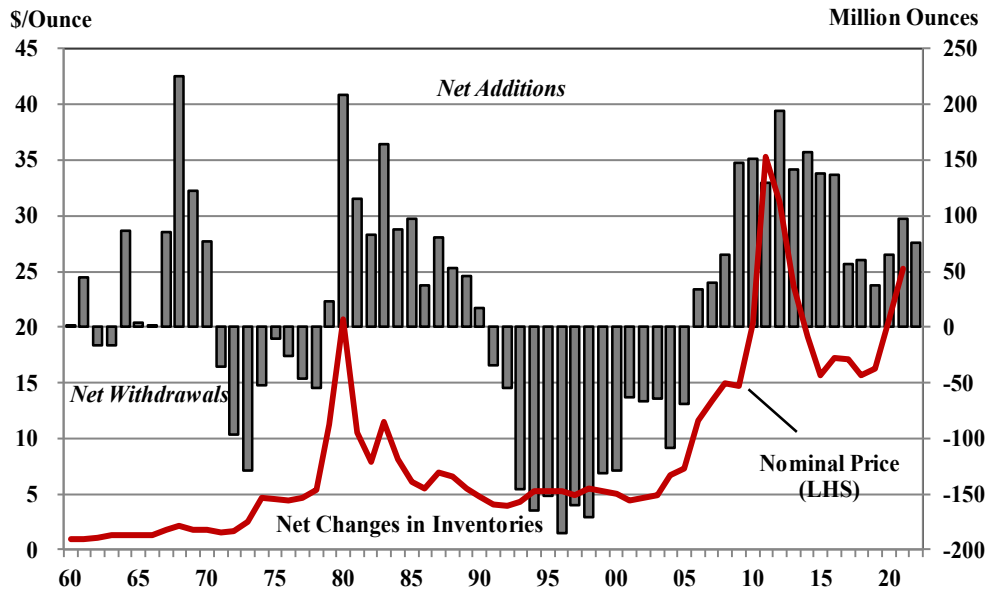
Silver investment demand is expected to soften during 2022. On a net basis investors are projected to add 76.2 million ounces of silver to their holdings during

the year, this would be roughly 20% lower than the amount added by investors during 2021. The reduced net additions of silver to investor holdings during 2022 is the primary reason for the lower annual average silver price forecast during the year.

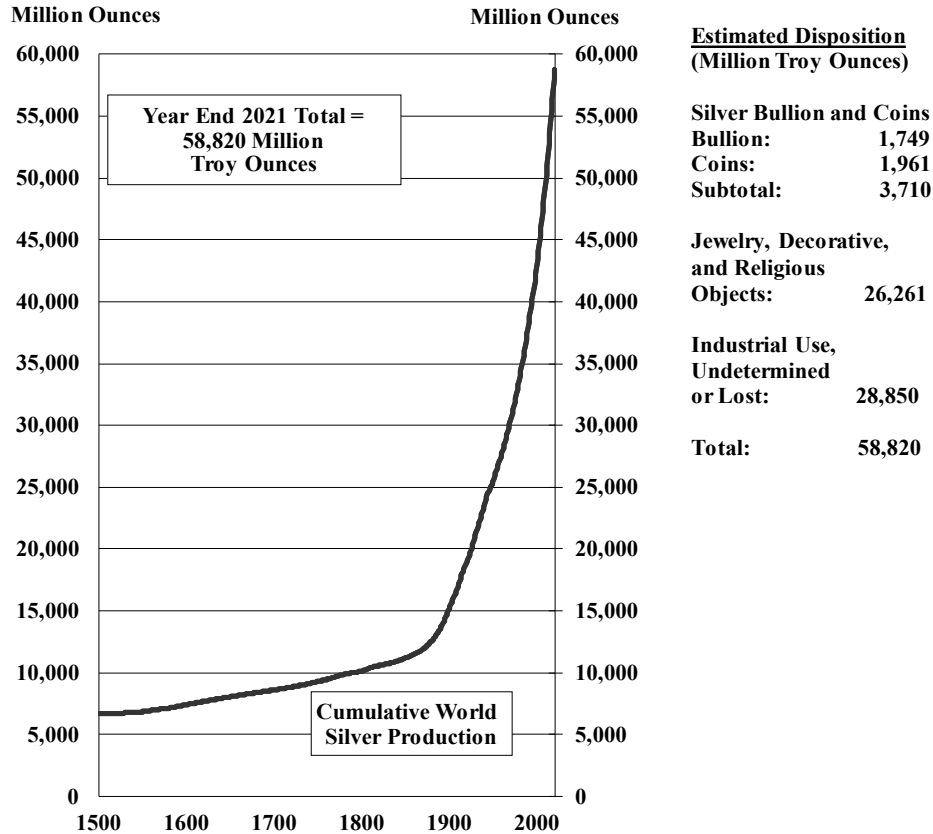
While silver investment demand is forecast to decline during 2022, it is still expected to remain higher than during most periods in history. Longer term investors are expected to continue adding silver to their holdings, primarily as a portfolio diversifier. These longer term investors are expected to help keep silver prices supported but are unlikely to drive silver prices up sharply in the absence of shorter term trend following investors.

**Silver Market Balance**

*Annual, Projected Through 2022. Prices through 2021.*



**Cumulative World Silver Production and Distribution**  
 Estimated data as of end 2021



Notes: Total disposition may not equal cumulative production due to rounding and other discrepancies in the historical data. The distribution of 6,681 million ounces of pre-1493 production is not able to be discerned. Silver in product form includes jewelry, art, sterlingware, religious objects, museum pieces, and other silver-bearing objects. Historical information on the production and consumption of silver over the past five millennia necessarily has a high degree of potential error. Some estimates of cumulative production vary by a couple of billion ounces from the sources used here. Sources: Australian Minerals Economics Pty. Ltd., Schmitz, Metallgesellschaft, United Nations, Handy and Harman, Ministry of Natural Resources Ontario, Dr. Adolph Soetbeer 1493-1850, USGS, and CPM Group since 1850.

## Silver Supply, Demand, and Prices

Million Troy Ounces

Year	Supply							
	Mine Output	% Change	Secondary	% Change	Other	% Change	Total	% Change
1950	169.5	--	NA	--	NA	--	169.5	--
1955	187.7	5.1%	NA	--	NA	--	187.7	5.1%
1960	201.8	3.2%	52.0	--	90.0	--	343.8	75.8%
1965	218.4	3.3%	103.0	19.8%	426.0	13.9%	747.4	11.3%
1970	260.6	4.8%	127.0	-27.0%	88.9	-25.3%	476.5	-12.0%
1975	249.9	1.7%	177.0	-7.8%	15.0	-28.6%	441.9	-3.7%
1980	293.9	-1.2%	302.0	39.8%	5.0	66.7%	600.9	16.3%
1981	306.4	4.3%	184.0	-39.1%	4.0	-20.0%	494.4	-17.7%
1982	321.7	5.0%	155.0	-15.8%	1.0	-75.0%	477.7	-3.4%
1983	338.0	5.1%	197.5	27.4%	19.0	1800.0%	554.5	16.1%
1984	351.0	3.9%	165.6	-16.2%	16.0	-15.8%	532.6	-3.9%
1985	359.3	2.4%	140.9	-14.9%	13.0	-18.8%	513.2	-3.6%
1986	351.1	-2.3%	129.3	-8.2%	14.0	7.7%	494.4	-3.7%
1987	368.6	5.0%	137.9	6.7%	20.0	42.9%	526.5	6.5%
1988	383.6	4.1%	143.9	4.4%	8.3	-58.5%	535.8	1.8%
1989	398.2	3.8%	136.2	-5.4%	10.7	28.9%	545.1	1.7%
1990	405.0	1.7%	126.0	-7.5%	11.0	2.8%	542.0	-2.8%
1991	402.3	-0.7%	131.2	4.1%	11.5	4.5%	545.0	0.6%
1992	393.4	-2.2%	140.7	7.3%	8.1	-29.6%	542.3	-0.5%
1993	367.3	-6.6%	142.9	1.5%	11.2	38.3%	521.4	-3.9%
1994	361.2	-1.7%	146.2	2.3%	15.8	41.1%	523.2	0.3%
1995	383.4	6.2%	159.2	8.9%	19.0	20.3%	561.7	7.4%
1996	399.0	4.1%	163.6	2.7%	8.1	-57.4%	570.7	1.6%
1997	427.5	7.2%	175.0	7.0%	5.3	-34.6%	607.8	6.5%
1998	454.1	6.2%	187.5	7.1%	6.0	13.2%	647.6	6.5%
1999	467.0	2.9%	207.9	10.9%	10.0	66.7%	684.9	5.8%
2000	545.5	16.8%	206.6	-0.6%	35.0	250.0%	787.1	14.9%
2001	559.0	2.5%	212.8	3.0%	40.0	14.3%	811.8	3.1%
2002	563.6	0.8%	207.9	-2.3%	30.0	-25.0%	801.5	-1.3%
2003	558.5	-0.9%	228.6	10.0%	30.0	0.0%	817.1	1.9%
2004	578.1	3.5%	230.2	0.7%	15.0	-50.0%	823.2	0.8%
2005	592.3	2.5%	243.1	5.6%	40.0	166.7%	875.4	6.3%
2006	597.7	0.9%	263.5	8.4%	29.0	-27.5%	890.2	1.7%
2007	629.5	5.3%	263.3	-0.1%	13.0	-55.2%	905.8	1.8%
2008	639.5	1.6%	273.0	3.7%	3.0	-76.9%	915.5	1.1%
2009	674.9	5.5%	275.6	1.0%	1.0	-66.7%	951.5	3.9%
2010	688.7	2.0%	279.3	1.3%	5.8	480.0%	973.7	2.3%
2011	676.4	-1.8%	277.1	-0.8%	4.4	-23.5%	957.9	-1.6%
2012	716.5	5.9%	282.8	2.1%	1.0	-77.5%	1,000.3	4.4%
2013	748.3	4.4%	230.0	-18.7%	0.0	-100.0%	978.3	-2.2%
2014	795.4	6.3%	215.0	-6.5%	0.0	--	1,010.4	3.3%
2015	806.0	1.3%	205.0	-4.7%	0.0	--	1,011.0	0.1%
2016	826.6	2.6%	203.0	-1.0%	0.0	--	1,029.6	1.8%
2017	773.6	-6.4%	202.0	-0.5%	0.0	--	975.6	-5.2%
2018	786.9	1.7%	201.5	-0.2%	0.0	--	988.4	1.3%
2019	761.5	-3.2%	202.5	0.5%	0.0	--	964.0	-2.5%
2020	712.6	-6.4%	225.0	11.1%	0.0	--	937.6	-2.7%
2021	756.9	6.2%	230.0	2.2%	0.0	--	986.9	5.3%
2022p	755.4	-0.2%	229.0	-0.4%	0.0	--	984.4	-0.3%

## Silver Supply, Demand, and Prices

Million Troy Ounces

Demand		Transitional						Surplus or	Surplus or	Surplus/Deficit	Year
Fabrication	% Change	Economy Imports	Coinage	% Change	Total	% Change	Deficit	Deficit	excl. Coin	after 1985	
157.4	--	0.0	44.1	--	201.5	--	-32.0	12.1	-32.0		1950
192.8	19.9%	0.0	52.6	-36.9%	245.4	0.5%	-57.7	-5.1	-57.7		1955
237.8	11.7%	0.0	103.9	20.3%	341.7	14.2%	2.1	106.0	2.1		1960
358.5	12.7%	0.0	385.1	44.2%	743.6	27.0%	3.8	388.9	3.8		1965
376.0	-2.7%	0.0	23.4	-28.4%	399.4	-4.7%	77.1	100.5	77.1		1970
407.7	-13.3%	10.9	33.4	5.7%	452.0	-11.5%	-10.1	23.3	-10.1		1975
359.8	-19.5%	14.5	17.4	-49.7%	391.7	-20.5%	209.2	226.7	209.2		1980
351.9	-2.2%	15.3	12.0	-31.1%	379.2	-3.2%	115.2	127.3	115.2		1981
357.5	1.6%	23.8	13.3	10.9%	394.6	4.1%	83.1	96.4	83.1		1982
353.5	-1.1%	25.4	11.4	-14.5%	390.3	-1.1%	164.2	175.6	164.2		1983
373.8	5.7%	56.6	15.1	32.2%	445.4	14.1%	87.2	102.3	87.2		1984
371.6	-0.6%	30.4	14.3	-5.3%	416.3	-6.5%	96.9	111.2	96.9		1985
407.2	9.6%	49.2	34.2	139.6%	490.6	17.8%	3.8	38.0	38.0		1986
421.6	3.5%	24.9	33.1	-3.2%	479.6	-2.2%	46.9	80.0	80.0		1987
450.1	6.8%	32.9	27.1	-18.2%	510.0	6.3%	25.8	52.8	52.8		1988
466.9	3.7%	32.6	28.1	3.9%	527.6	3.4%	17.5	45.7	45.7		1989
499.6	7.0%	25.0	37.7	34.0%	562.3	6.6%	-20.3	17.4	17.4		1990
552.3	10.5%	27.2	27.7	-26.6%	607.2	8.0%	-62.2	-34.5	-34.5		1991
570.0	3.2%	27.5	29.0	4.8%	626.5	3.2%	-84.2	-55.2	-55.2		1992
637.6	11.9%	30.0	37.4	29.0%	704.9	12.5%	-183.6	-146.2	-146.2		1993
660.0	3.5%	28.0	33.0	-11.8%	720.9	2.3%	-197.7	-164.7	-164.7		1994
684.4	3.7%	29.3	21.7	-34.2%	735.3	2.0%	-173.7	-152.0	-152.0		1995
727.8	6.3%	27.9	17.9	-17.5%	773.6	5.2%	-202.9	-185.0	-185.0		1996
771.0	5.9%	-3.3	19.9	11.4%	787.7	1.8%	-179.9	-159.9	-159.9		1997
787.6	2.1%	31.2	29.3	47.0%	848.1	7.7%	-200.5	-171.2	-171.2		1998
804.7	2.2%	11.0	29.6	1.0%	845.3	-0.3%	-160.4	-130.8	-130.8		1999
915.8	13.8%	0.0	38.6	30.4%	954.3	12.9%	-167.3	-128.7	-128.7		2000
874.8	-4.5%	0.0	26.7	-30.7%	901.5	-5.5%	-89.8	-63.1	-63.1		2001
868.7	-0.7%	0.0	30.2	13.1%	898.9	-0.3%	-97.4	-67.2	-67.2		2002
881.8	1.5%	0.0	30.7	1.7%	912.5	1.5%	-95.5	-64.8	-64.8		2003
932.3	5.7%	0.0	30.9	0.3%	963.2	5.5%	-139.9	-109.1	-109.1		2004
944.7	1.3%	0.0	28.9	-6.2%	973.7	1.1%	-98.3	-69.3	-69.3		2005
856.6	-9.3%	0.0	30.2	4.3%	886.8	-8.9%	3.4	33.6	33.6		2006
865.9	1.1%	0.0	36.2	20.0%	902.1	1.7%	3.7	40.0	40.0		2007
850.6	-1.8%	0.0	64.0	76.7%	914.7	1.4%	0.8	64.8	64.8		2008
804.2	-5.5%	0.0	84.5	32.0%	888.7	-2.8%	62.8	147.3	147.3		2009
822.8	2.3%	0.0	101.9	20.6%	924.7	4.0%	49.1	151.0	151.0		2010
828.4	0.7%	0.0	120.8	18.5%	949.1	2.6%	8.8	129.5	129.5		2011
805.6	-2.8%	0.0	121.9	0.9%	927.4	-2.3%	72.9	194.7	194.7		2012
836.6	3.9%	0.0	134.9	10.7%	971.6	4.8%	6.7	141.7	141.7		2013
852.9	1.9%	0.0	142.4	5.5%	995.3	2.4%	15.2	157.5	157.5		2014
872.3	2.3%	0.0	135.9	-4.5%	1,008.3	1.3%	2.7	138.6	138.6		2015
892.5	2.3%	0.0	115.0	-15.4%	1,007.5	-0.1%	22.1	137.2	137.2		2016
918.9	3.0%	0.0	65.0	-43.5%	983.9	-2.3%	-8.3	56.7	56.7		2017
927.9	1.0%	0.0	78.8	21.3%	1,006.7	2.3%	-18.3	60.5	60.5		2018
926.9	-0.1%	0.0	84.2	6.9%	1,011.1	0.4%	-47.1	37.2	37.2		2019
872.3	-5.9%	0.0	114.6	36.0%	986.9	-2.4%	-49.4	65.2	65.2		2020
890.1	2.0%	0.0	135.4	18.2%	1,025.6	3.9%	-38.7	96.8	96.8		2021
908.1	2.0%	0.0	125.0	-7.7%	1,033.1	0.7%	-48.8	76.2	76.2		2022p

## Real and Nominal Silver Prices

Prices, Base Year = 2021

Year	Real	% Change	Nominal	% Change	US CPI % Change
1950	\$8.86	--	\$0.74	--	--
1955	\$9.64	4.9%	\$0.89	4.5%	-0.4%
1960	\$8.92	-1.5%	\$0.91	0.2%	1.7%
1965	\$11.90	-1.6%	\$1.29	0.0%	1.6%
1970	\$13.05	-7.0%	\$1.76	-1.1%	5.8%
1975	\$25.36	-12.3%	\$4.54	-3.2%	9.1%
1980	\$83.36	70.8%	\$20.65	84.4%	13.5%
1981	\$33.89	-59.3%	\$10.53	-49.0%	10.3%
1982	\$23.45	-30.8%	\$7.93	-24.7%	6.1%
1983	\$33.13	41.3%	\$11.46	44.5%	3.2%
1984	\$22.14	-33.2%	\$8.15	-28.9%	4.3%
1985	\$15.92	-28.1%	\$6.15	-24.5%	3.5%
1986	\$13.86	-13.0%	\$5.47	-11.1%	1.9%
1987	\$17.20	24.1%	\$6.99	27.8%	3.7%
1988	\$15.37	-10.7%	\$6.53	-6.6%	4.1%
1989	\$12.20	-20.6%	\$5.50	-15.8%	4.8%
1990	\$10.03	-17.8%	\$4.82	-12.4%	5.4%
1991	\$7.96	-20.6%	\$4.03	-16.4%	4.2%
1992	\$7.53	-5.5%	\$3.93	-2.5%	3.0%
1993	\$8.09	7.5%	\$4.34	10.4%	3.0%
1994	\$9.63	19.1%	\$5.28	21.7%	2.6%
1995	\$9.21	-4.3%	\$5.20	-1.5%	2.8%
1996	\$8.96	-2.7%	\$5.21	0.2%	2.9%
1997	\$8.23	-8.1%	\$4.91	-5.8%	2.3%
1998	\$9.15	11.1%	\$5.53	12.7%	1.6%
1999	\$8.46	-7.5%	\$5.23	-5.3%	2.2%
2000	\$7.79	-7.9%	\$5.00	-4.5%	3.4%
2001	\$6.60	-15.2%	\$4.38	-12.4%	2.8%
2002	\$6.84	3.6%	\$4.60	5.2%	1.6%
2003	\$7.12	4.0%	\$4.90	6.3%	2.3%
2004	\$9.55	34.1%	\$6.70	36.8%	2.7%
2005	\$10.15	6.3%	\$7.35	9.7%	3.4%
2006	\$15.71	54.8%	\$11.61	58.0%	3.2%
2007	\$17.76	13.1%	\$13.45	15.9%	2.9%
2008	\$19.08	7.4%	\$14.97	11.3%	3.8%
2009	\$18.77	-1.6%	\$14.67	-2.0%	-0.4%
2010	\$25.66	36.7%	\$20.31	38.4%	1.6%
2011	\$43.80	70.7%	\$35.29	73.8%	3.2%
2012	\$37.78	-13.7%	\$31.17	-11.7%	2.1%
2013	\$28.22	-25.3%	\$23.74	-23.8%	1.4%
2014	\$22.23	-21.2%	\$19.09	-19.6%	1.6%
2015	\$18.22	-18.0%	\$15.67	-17.9%	0.1%
2016	\$19.74	8.3%	\$17.17	9.6%	1.3%
2017	\$19.31	-2.2%	\$17.16	-0.1%	2.1%
2018	\$17.20	-10.9%	\$15.71	-8.5%	2.4%
2019	\$17.45	1.5%	\$16.23	3.3%	1.8%
2020	\$22.02	26.1%	\$20.67	27.4%	1.2%
2021	\$25.28	14.8%	\$25.28	22.3%	7.5%



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**Contains:** 1 troy ounce of 999.9 fine silver  
**Production License Holder:** Europa Bullion®  
**Country:** Tokelau  
**Legal tender:** 5 Dollars  
**Year of production:** 2022  
**Diameter:** 38.6mm



**Contains:** 1 kilo of 999.9 fine silver  
**Production License Holder:** Europa Bullion®  
**Country:** Tokelau  
**Legal tender:** 50 NZD  
**Year of production:** 2022  
**Dimensions:** 66x124x12mm



**Contains:** 1 troy ounce of 999.9 fine silver  
**Production License Holder:** Europa Bullion®  
**Country:** Tokelau  
**Legal tender:** 5 Dollars  
**Year of production:** 2022  
**Diameter:** 38.6mm



**Tubes:** 20 x 1 troy ounce  
**Monster Box:** 400 x 1 troy ounce

<http://www.europabullion.com>



# Fundamentals



# Investment Demand



**Investment Demand**

Net silver investment demand for physical silver continued to rise during 2021, for the third consecutive year. Net investment demand stood at 96.8 million ounces in 2021, up 48.5% from 2020 levels. While investment demand in 2021 was the highest on record since 2016, it was significantly lower than that year when investors are estimated to have been net buyers as a group of 137.2 million ounces of physical metal.

There has been renewed interest in silver since 2020. However, investors still are somewhat hesitant to buy the metal in the same way that they did during the last run up in investment demand and prices. A big part of that is tied to investors at that time expecting silver prices to rise to \$100 or even \$50, but that has still not materialized, after more than a decade, and part of the reason has to do with silver prices falling precipitously following the last run up in prices and still not recovering to their 2011 highs,

resulting in investors either having locked in losses or still holding onto them. Another part of investor reluctance to buy silver has been renewed disappointment by some investors that 2021 promises of \$50, \$100, or higher silver prices once more have proven to be inaccurate.

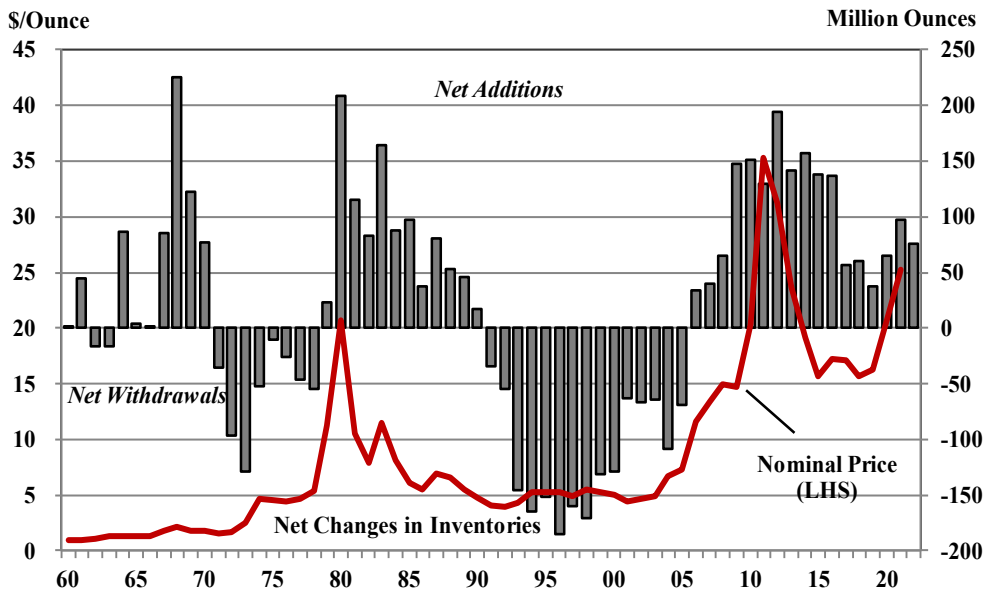
Ignoring the inaccurate marketing efforts, in reality there are several strong reasons for investors to own at least some silver in their portfolios as a diversifier. Investors are taking note of this and are seen cautiously adding silver to their holdings.

The increase in silver investment demand during 2021 was the result of negative real rates, increased concerns about inflation, ongoing concerns about political risks, and expectations of strong demand from the solar panel and electric vehicle industries.

Investor demand for silver is expected to soften during 2022 relative to 2021.

**Silver Market Balance**

*Annual, Projected Through 2022. Prices through 2021.*



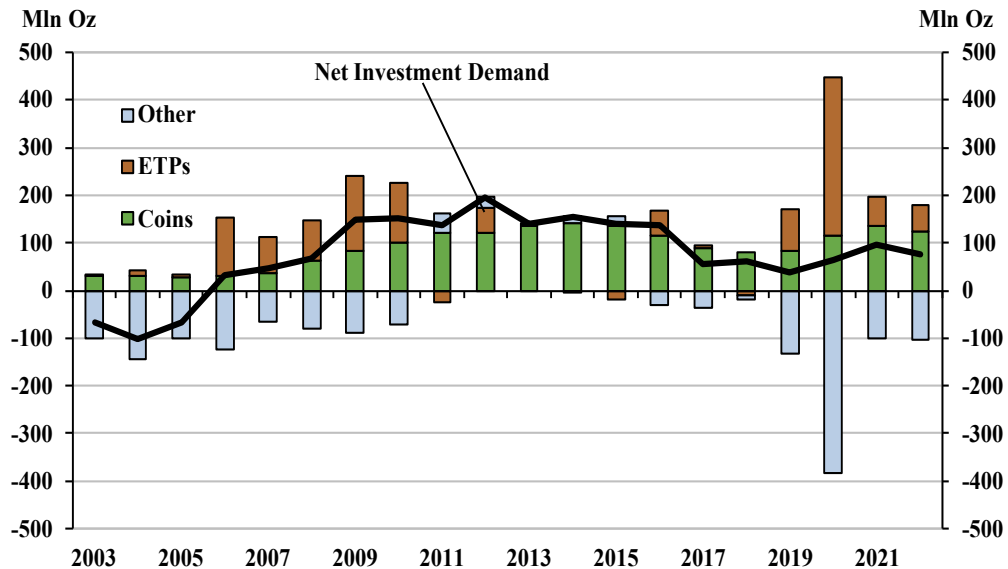
Investment demand is forecast to stand at 76.2 million ounces, down 21.3% from 2021 levels. While this is a strong decline these levels of investment demand still are high compared to the period between 2017 and 2020 as well as the period between 1988 and 2008.

Commodities as a group play an important role as a portfolio diversifier in investor portfolios. Russia’s invasion of Ukraine was a reminder to investors about the value of such portfolio diversifiers, a reminder which should be supportive of silver investment demand during 2022. Political risk is not limited to the conflict between Russia and Ukraine and in fact this risk is significantly elevated at this time, with tensions between China and the West on par with the tensions between Russia and the West.

Real rates meanwhile have risen, at least at the time of writing this report they still were negative but have touched the zero level. This increase in real rates will act as a headwind to silver prices. That said, there still is a lot of uncertainty regarding the path of inflation and economic growth, which should provide support to silver investment demand and prices.

Another factor that has raised investor interest in silver is the use of the metal in solar panels and electric vehicles. While silver demand from the auto industry has not been stellar in recent years due to the shuttering of auto production, demand from the solar panel industry has been rising strongly. Both these sectors have a lot of future potential. That said, silver demand will need to rise a lot more to make a meaningful difference to the silver market balance

Estimated Investment Demand by Major Investment Vehicle



Note: Bars represent gross investment demand.



and prices. This is a positive for silver in the longer term and will benefit long-term investors versus those looking to make a quick buck in the silver market.

It is also worth mentioning the gold:silver ratio that had fallen during the first half of 2021 is beginning to rise once again and stood near the upper end of its historical range, at 78, in March 2022. While a higher gold:silver ratio does not guarantee a higher silver price, silver's relative underperformance to gold improves its appeal to some investors.

#### Monthly Gold/Silver Price Ratio

*April 2022*

Ratio



### Exchange Traded Funds

During 2021 investors remained net buyers of silver exchange traded funds (ETFs) for the third consecutive year. These products took in 61.2 million ounces of silver during 2021. This was a sharp decline from the record high 333 million ounces that were absorbed by these products during 2020 and was slightly above the annual average net additions of 57 million ounces that has been observed over the past two decades.

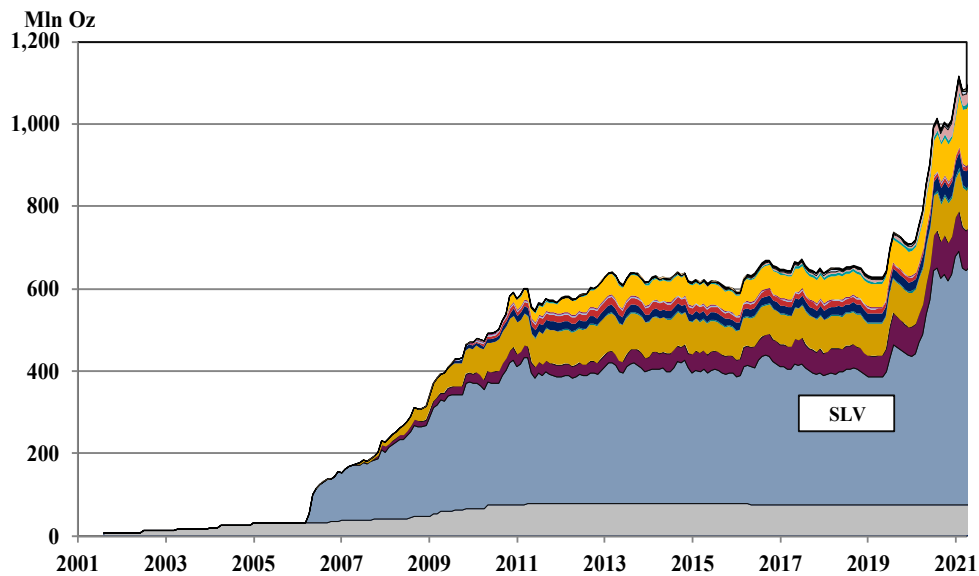
A large part of the massive additions in 2020 were not investors buying silver ETFs but banks swapping physical silver for ETF shares after investors had sold large volumes of silver to the banks. That said, it appears that those banks then offloaded, sold, their ETF positions to investors over time.

There was strong demand for these products at the start of 2021, with investors adding 108.5 million ounces of silver to their holdings during the first two months of the year. After that investors were net sellers in seven of the balance 10 months of the year, which weighed heavily on total net additions for 2021.

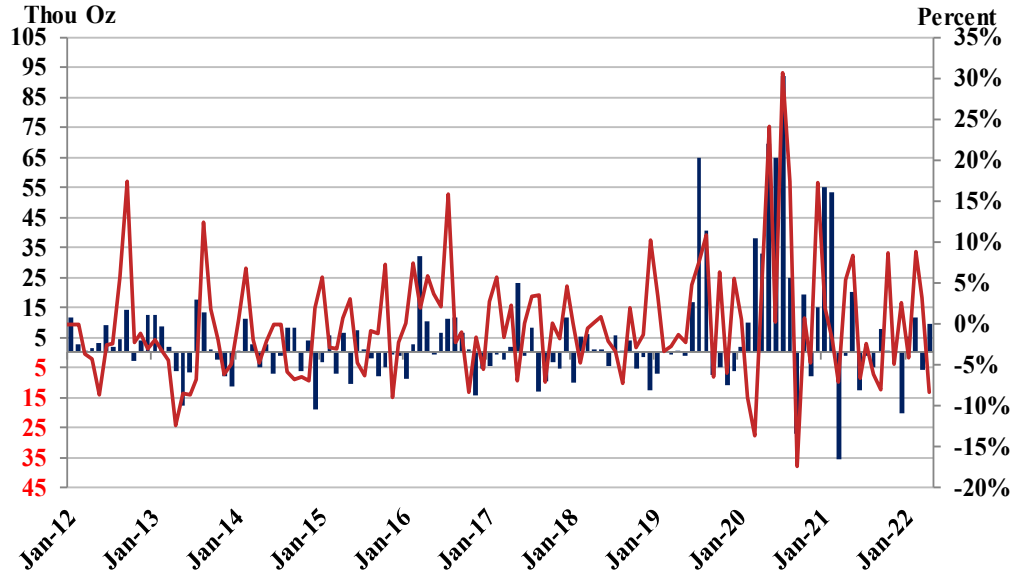
In 2020, in addition to investors purchasing silver as a safe haven there also were some short-term investors who were adding silver to their holdings in anticipation of strong demand from environmentally friendly technologies like solar panels and electric vehicles.

Improving economic conditions and a realization that while silver fabrication demand would benefit from the use of silver in solar panels and electric vehicles it would take several years before these sources of demand have a meaningful impact on the market balance and

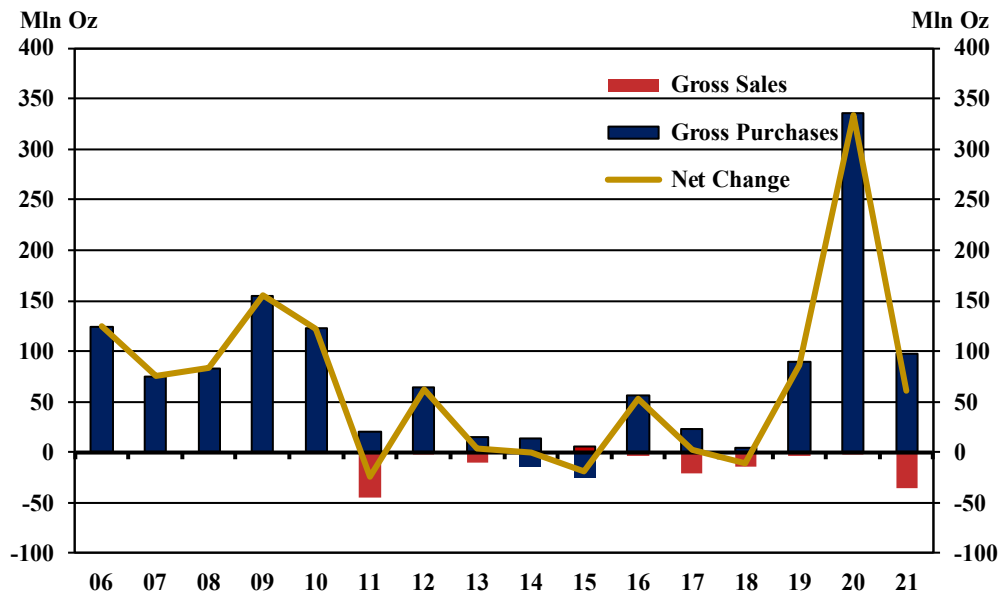
**Silver Exchange Traded Product Holdings**  
Through April 2022



Monthly Changes in Silver ETP Holdings and Prices  
Through April 2022



Gross and Net Changes in Year-End Silver ETP Holdings  
Through 2021



## Silver ETP Holdings

Year-End Data

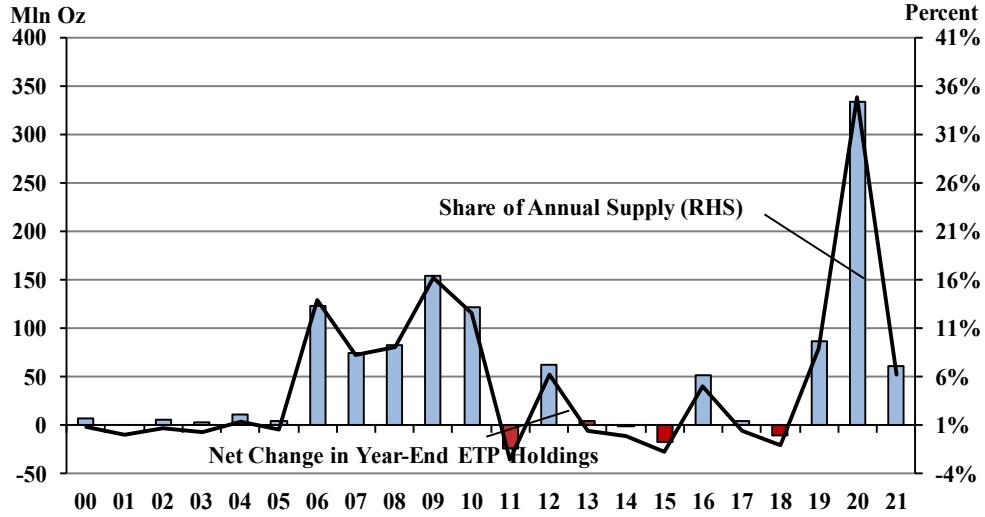
ETP	2000	2001	2002	2003	2004	2005	2006	2007	2008
1 CEF	6.6	6.6	11.9	14.8	26.2	31.0	34.0	40.3	48.5
2 SLV iShares	-	-	-	-	-	-	121.1	168.7	218.4
3 Phag - ETFS	-	-	-	-	-	-	-	12.4	14.2
4 ZKB Silver	-	-	-	-	-	-	-	9.1	32.7
5 Silver MSL	-	-	-	-	-	-	-	-	-
6 SIVR - ETFS	-	-	-	-	-	-	-	-	-
7 SVR	-	-	-	-	-	-	-	-	-
8 SBT	-	-	-	-	-	-	-	-	-
9 Julius Bafr Silver	-	-	-	-	-	-	-	-	-
10 GLTR - ETFS	-	-	-	-	-	-	-	-	-
11 WITE - ETFS	-	-	-	-	-	-	-	-	-
12 PSLV	-	-	-	-	-	-	-	-	-
13 SSLN -iShares	-	-	-	-	-	-	-	-	-
14 SSLV	-	-	-	-	-	-	-	-	-
15 Silver Mitsubishi	-	-	-	-	-	-	-	-	-
16 DB	-	-	-	-	-	-	-	-	-
17 DB-Euro	-	-	-	-	-	-	-	-	-
18 DB-Hedge	-	-	-	-	-	-	-	-	-
19 Turkey	-	-	-	-	-	-	-	-	-
20 HK - ETFS	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>6.6</b>	<b>6.6</b>	<b>11.9</b>	<b>14.8</b>	<b>26.2</b>	<b>31.0</b>	<b>155.1</b>	<b>230.4</b>	<b>313.9</b>
<i>Annual Δ</i>		<i>0.0</i>	<i>5.3</i>	<i>2.9</i>	<i>11.3</i>	<i>4.8</i>	<i>124.2</i>	<i>75.3</i>	<i>83.5</i>
<i>% Δ</i>		<i>N/A</i>	<i>80.6%</i>	<i>24.3%</i>	<i>76.3%</i>	<i>18.3%</i>	<i>400.9%</i>	<i>48.5%</i>	<i>36.2%</i>

Source: ETP issuer websites, Bloomberg, CPM Group

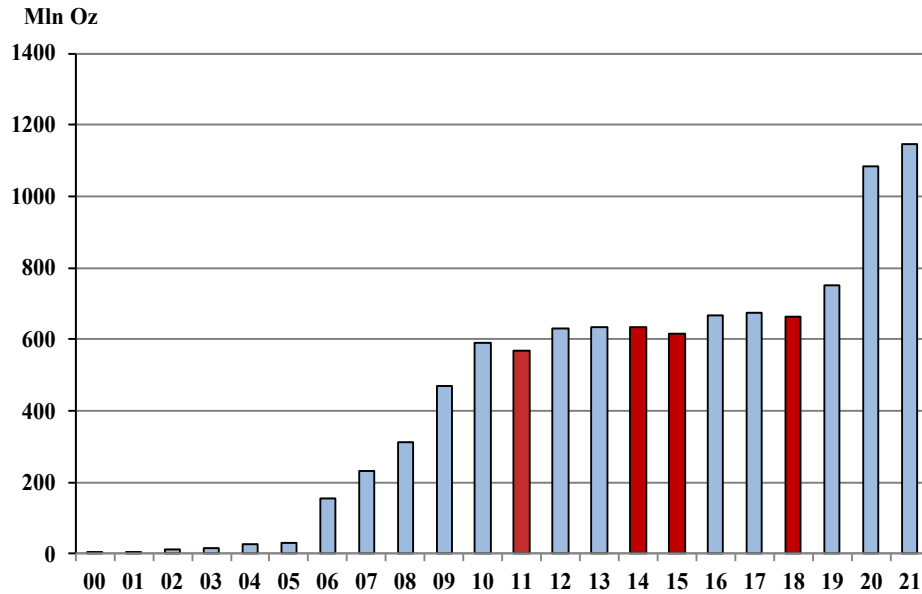
Note: Lighter figures indicate years in which holdings declined from the previous year.

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
67.3	75.2	77.0	77.0	77.0	77.0	77.0	75.6	75.2	75.2	75.2	75.2	75.2
305.2	351.1	308.8	324.2	320.2	329.6	317.9	341.3	320.6	317.2	362.6	558.7	530.8
23.4	31.3	28.7	28.7	34.6	36.7	41.2	56.0	59.6	52.2	68.1	92.2	94.1
59.4	76.5	81.0	89.8	85.1	77.1	69.1	71.9	79.7	79.3	82.9	93.4	100.4
0.4	0.9	2.1	2.3	2.3	2.2	2.2	2.4	2.7	2.9	3.8	6.5	7.3
9.2	16.4	19.3	18.4	17.8	18.7	18.0	19.2	20.8	22.0	23.2	32.7	43.3
2.5	2.9	3.6	3.4	2.7	2.2	1.7	2.1	2.3	2.2	2.1	3.1	3.2
1.8	3.1	3.1	3.1	3.1	3.1	3.0	2.5	2.4	2.2	1.8	1.7	1.7
-	9.2	15.5	17.2	16.5	14.7	12.6	12.3	13.7	12.2	10.0	9.5	8.5
-	2.0	2.4	2.4	4.3	4.1	3.3	4.7	5.9	6.0	6.7	8.7	11.2
-	0.7	0.8	0.7	0.7	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
-	22.3	22.3	49.3	49.3	49.3	49.0	55.7	56.4	56.3	60.2	91.1	154.3
-	-	0.5	0.5	0.6	0.9	1.0	4.0	4.5	5.2	5.2	27.2	27.4
-	-	0.2	0.3	0.3	0.9	1.0	1.9	3.6	2.3	3.5	6.1	10.1
-	-	2.1	1.6	2.1	2.7	2.6	2.6	2.6	2.7	2.5	3.0	2.9
-	-	-	4.3	5.2	4.7	4.9	5.9	8.3	7.8	9.6	7.9	8.3
-	-	-	2.6	7.4	4.8	4.3	5.2	6.8	8.4	22.7	54.1	47.7
-	-	-	3.1	3.6	2.7	3.3	2.6	2.8	2.6	2.0	2.3	8.6
-	-	-	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.4	2.6	2.3
-	-	-	0.2	0.3	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0
469.2	591.8	567.4	629.5	633.2	632.8	613.5	666.0	667.9	656.7	742.6	1076.1	1137.2
155.3	122.7	-24.4	62.1	3.7	-0.4	-19.3	52.5	1.9	-11.2	85.9	333.5	61.1
49.5%	26.1%	-4.1%	10.9%	0.6%	-0.1%	-3.0%	8.6%	0.3%	-1.7%	13.1%	44.9%	5.7%

**Annual Change in Year-End Silver ETP Holdings**  
*Through December 2021*



**Silver ETP Holdings**  
*Year-end, Through December 2021*



Note: Red bars reflect years of decline on a net basis in silver ETP holdings.

price of silver led to some net reduction in holdings among shorter term investors, which weighed on net silver investment demand during 2021.

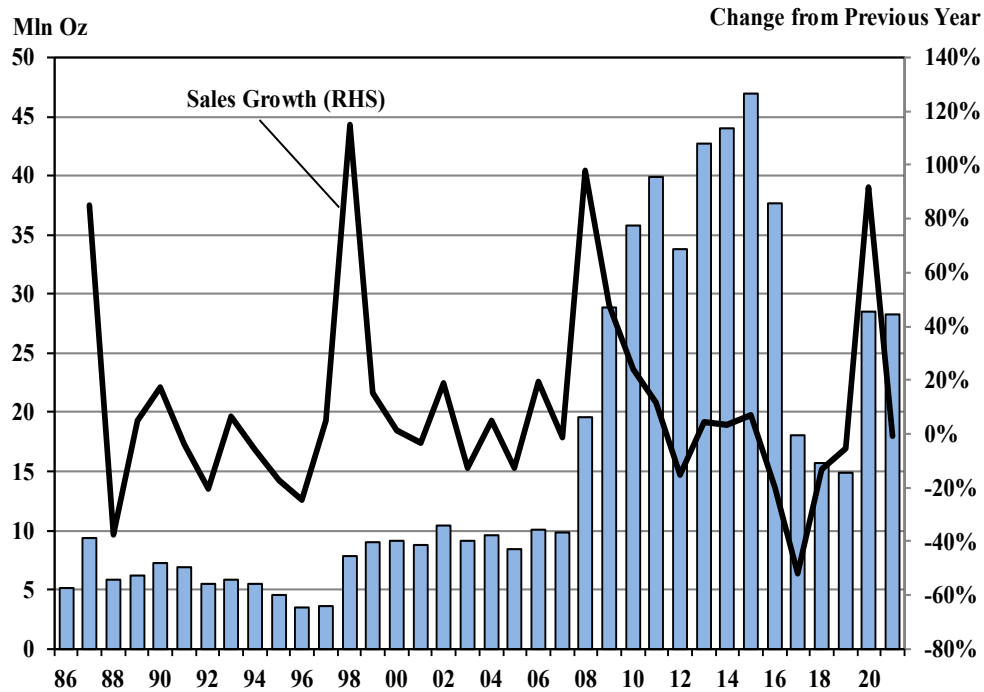
Investors in these products have remained net buyers during the first four months of 2022, adding around 21 million ounces of silver to their holdings. These investors have become more price sensitive, adding to their holdings when prices decline and offloading some of their holdings when prices rise. As an example, when prices rose sharply during March these investors were net sellers of metal for that month. During the other three months of this year so far, investors have used the relative softness in prices as a buying opportunity, adding 26.8 million ounces of silver to their holdings. Such a trend should be expected to continue over the remainder of this year.

**Coins**

Investor demand for silver coins remained strong during 2021. Coin demand stood at 128.5 million ounces during the year, up from 116.1 million ounces in 2020. Demand during 2021 was the strongest since 2015. Coin investors typically tend to be longer term investors. The relative softness in silver prices during 2021, compared to the second half of 2020, and numerous medium to long term price supportive fundamentals ranging from fears of inflation to political risk and rising global government debt, drew these investors toward silver coins in 2021.

As an example, investor interest in these products can be seen from the increased volume of U.S. Mint coin sales despite historically high premia, mostly due to supply shortages, on these coins.

**Annual U.S. Mint Sales Of American Eagle Silver Bullion Coins**



**Silver Coinage**

Million Troy Ounces

Year	United States						Transitional Economies		Total
	United States	Canada	Austria	France	Germany	Mexico	Other	Economies	
1960	46.0	7.5	-i	12.2	-i	-i	38.2	--	103.9
1961	56.0	5.1	-i	23.8	-i	-i	51.1	--	136.0
1962	78.0	10.9	-i	13.7	-i	-i	25.0	--	127.6
1963	112.0	13.0	-i	12.2	-i	-i	29.2	--	166.4
1964	203.0	13.7	-i	10.7	-i	-i	39.7	--	267.1
1965	320.3	24.4	2.7	7.2	2.7	-i	27.8	--	385.1
1966	53.6	15.5	3.3	8.7	2.9	-i	45.5	--	129.5
1967	43.8	8.8	3.2	9.6	3.1	-i	36.8	--	105.3
1968	36.8	7.4	2.2	2.9	4.2	-i	35.8	--	89.3
1969	19.6	0.0	1.9	0.7	2.9	-i	7.6	--	32.7
1970	0.7	0.0	4.0	3.5	7.4	-i	7.8	--	23.4
1971	2.5	0.2	3.2	0.4	19.2	-i	2.3	--	27.8
1972	2.3	0.1	5.8	0.3	22.6	-i	7.0	--	38.1
1973	0.9	6.6	6.3	0.1	7.0	-i	7.6	--	28.5
1974	1.0	9.0	5.7	3.6	7.6	-i	4.7	--	31.6
1975	2.7	10.4	9.1	1.8	5.4	-i	4.0	--	33.4
1976	1.3	8.4	6.9	6.2	1.8	-i	5.4	--	30.0
1977	0.1	0.5	8.9	7.1	4.6	4.2	9.1	--	34.5
1978	0.0	1.0	9.6	9.0	3.6	6.6	9.7	--	39.5
1979	0.2	0.8	4.0	10.6	3.7	5.0	10.4	--	34.7
1980	0.1	0.2	2.3	0.1	0.0	6.1	8.6	--	17.4
1981	0.2	0.3	3.1	0.1	0.5	0.0	7.8	--	12.0
1982	1.8	0.3	4.5	1.4	0.3	0.0	5.0	--	13.3
1983	2.1	0.4	1.8	2.2	0.0	0.0	4.9	--	11.4
1984	2.0	0.3	2.4	3.9	0.0	2.5	4.0	--	15.1
1985	0.4	0.3	4.6	2.2	0.0	3.5	3.3	--	14.3
1986	10.3	1.3	1.1	2.2	0.0	2.0	17.3	--	34.2
1987	12.2	1.2	3.1	2.2	3.2	2.3	8.9	--	33.1
1988	7.9	1.1	2.0	2.2	3.2	2.0	8.7	--	27.1
1989	6.8	3.3	2.1	2.2	3.2	1.7	8.8	--	28.1

Notes: Excludes transitional economies prior to 1990. i -- included in Other. na -- not available. Chinese statistics included as of 2000.

Sources: Energy, Mines, and Resources Canada; Silver Institute; Handy & Harman; Bank of Mexico; trade sources; Mint and central bank websites. CPM Group.

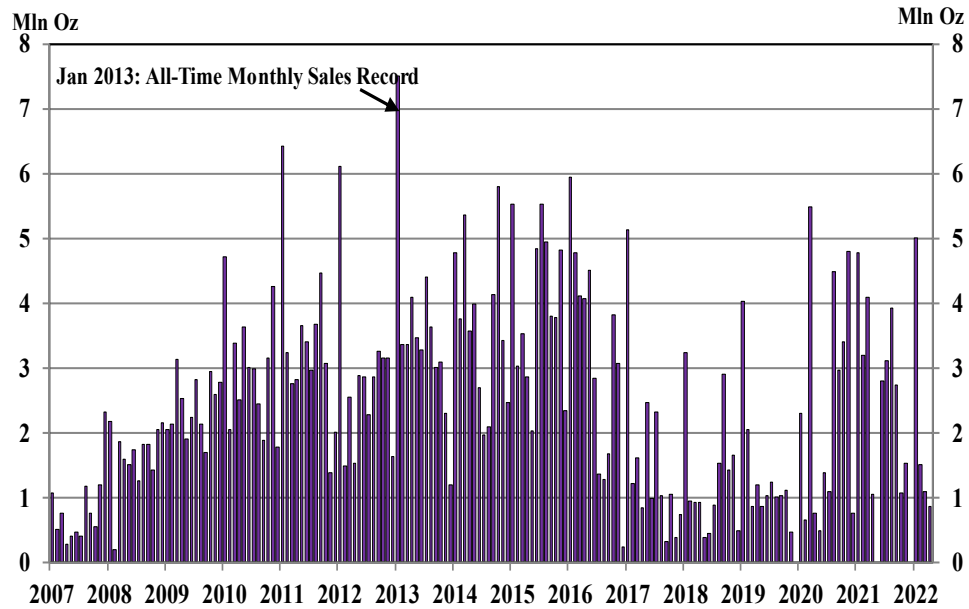


## Silver Coinage

Million Troy Ounces

Year	United States	Canada	Austria	France	Germany	Mexico	China	Other	Total
1990	9.1	1.7	0.6	2.2	2.4	1.5	na	21.6	39.1
1991	9.1	0.8	0.6	1.8	5.5	1.5	na	9.3	28.6
1992	8.1	0.3	0.5	1.8	5.3	6.8	na	6.8	29.6
1993	8.9	1.0	0.6	1.8	4.5	15.0	na	6.2	38.0
1994	8.1	1.2	0.6	1.8	4.2	11.9	na	5.7	33.5
1995	7.5	0.7	0.6	1.8	5.8	0.3	na	5.3	22.0
1996	5.0	0.7	0.4	1.8	5.1	0.5	na	4.6	18.1
1997	5.3	0.8	0.3	1.8	6.8	0.3	na	4.9	20.1
1998	5.6	1.0	0.3	1.8	10.8	1.0	na	9.0	29.5
1999	9.9	1.2	0.2	1.8	6.4	0.4	na	9.9	29.8
2000	10.3	0.4	0.3	0.0	9.2	0.7	2.9	14.8	38.6
2001	10.2	0.4	0.0	0.0	5.3	1.4	3.1	6.4	26.7
2002	11.5	0.6	0.0	0.0	6.0	1.1	3.2	7.9	30.2
2003	10.5	0.7	0.0	0.0	8.4	1.0	3.4	6.8	30.7
2004	11.1	0.7	0.0	0.0	7.8	0.9	3.5	6.8	30.9
2005	9.9	1.0	0.0	0.0	7.8	0.6	3.7	6.0	28.9
2006	10.9	2.5	0.0	0.0	6.2	0.8	3.9	5.9	30.2
2007	11.3	3.5	0.0	0.0	4.8	1.0	7.1	8.5	36.2
2008	20.6	8.8	7.8	0.0	4.5	1.2	9.6	11.4	64.0
2009	35.5	10.3	9.0	0.0	5.9	0.0	11.6	12.2	84.5
2010	41.1	17.9	11.4	0.0	6.6	0.0	12.9	12.0	101.9
2011	35.0	23.1	17.9	0.0	6.8	0.0	16.4	21.6	120.8
2012	51.0	18.1	9.0	0.0	5.8	0.0	22.0	16.0	121.9
2013	46.0	29.0	14.5	0.0	6.8	0.0	22.0	16.6	134.9
2014	48.4	25.0	16.0	0.0	8.0	0.0	22.4	22.6	142.4
2015	38.5	33.6	7.3	0.0	8.5	0.0	22.3	25.6	135.9
2016	18.1	36.0	3.4	0.0	8.2	0.0	24.1	25.2	115.0
2017	22.6	18.5	2.1	0.0	4.2	0.0	24.6	16.6	88.6
2018	15.9	18.4	2.1	0.0	4.8	0.0	23.4	14.2	78.8
2019	16.4	22.8	3.0	0.0	4.8	0.0	22.2	16.6	85.7
2020	28.5	29.6	7.0	0.0	5.0	0.0	23.5	22.5	116.1
2021e	28.3	36.0	11.0	0.0	5.0	0.0	24.2	24.0	128.5
2022p	26.0	34.0	10.0	0.0	5.0	0.0	25.0	24.6	124.6

Monthly U.S. Mint Coin Sales



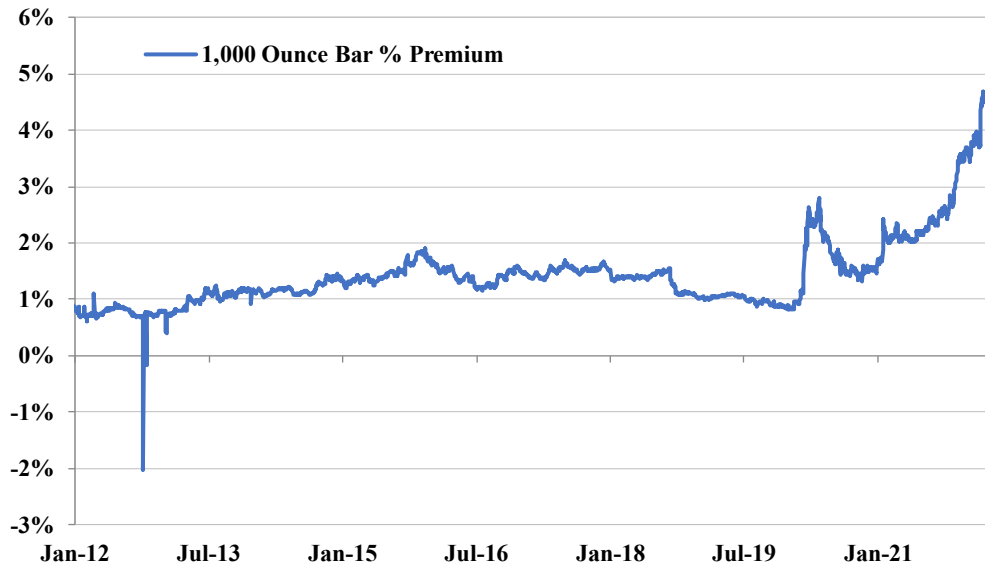
**Premia on U.S. Mint Silver American Eagle Coins**

*Daily Data, through 29 April 2022*



**Dealer Premia on 1,000 Ounce Silver Bars**

*Daily Data through 29 April 2022*



## U.S. Mint Silver Coin Sales

## Troy Ounces

	1986	1987	1988	1989	1990	1991	1992
<b>Bullion Eagles</b>							
January	-	715,000	790,000	416,000	1,616,000	1,800,000	756,000
February	-	775,000	700,000	700,000	450,000	1,235,000	415,000
March	-	1,355,000	130,000	1,755,000	700,000	880,000	385,000
April	-	1,060,000	780,000	325,000	250,000	508,000	310,000
May	-	1,280,000	650,000	500,000	340,000	210,000	260,000
June	-	1,125,000	50,000	460,000	360,000	170,000	300,000
July	-	0	100,000	150,000	160,000	210,000	310,000
August	-	100,000	226,000	365,000	420,000	160,000	480,000
September	-	300,000	353,000	450,000	250,000	150,000	400,000
October	-	800,000	305,000	350,000	955,000	260,000	195,000
November	1,400,000	1,250,000	400,000	150,000	330,000	250,000	625,000
December	3,696,000	660,000	215,000	150,000	1,416,000	1,119,000	1,108,000
Subtotal	5,096,000	9,420,000	4,699,000	5,771,000	7,247,000	6,952,000	5,544,000
% Change	-	84.9%	-50.1%	22.8%	25.6%	-4.1%	-20.3%
<b>Proof Eagles</b>	1,446,778	904,732	557,370	617,694	695,510	511,924	498,543
<b>Commemoratives</b>	-	-	-	-	1,172,463	1,645,499	1,305,112
% Change	-	-	-	-	-	40.3%	-20.7%
<b>Proof Coin Sets</b>	-	-	-	-	-	-	792,040
<b>Total</b>	6,542,778	10,324,732	5,256,370	6,388,694	9,114,973	9,109,423	8,139,695
% Change	-	57.8%	-49.1%	21.5%	42.7%	-0.1%	-10.6%
	1993	1994	1995	1996	1997	1998	1999
<b>Bullion Eagles</b>							
January	825,000	480,000	625,000	30,000	435,000	460,000	1,145,000
February	850,000	345,000	285,000	75,000	385,000	100,000	149,000
March	510,000	450,000	525,000	413,000	150,000	145,000	718,000
April	425,000	175,000	250,000	175,000	286,000	75,000	716,000
May	500,000	525,000	185,000	25,000	265,000	410,000	792,000
June	455,000	100,000	135,000	260,000	220,000	150,000	863,000
July	250,000	230,000	125,000	75,000	305,000	140,000	678,500
August	550,000	375,000	75,000	230,000	65,000	535,000	644,500
September	480,000	0	150,000	105,000	180,000	450,000	694,000
October	50,000	225,000	50,000	250,000	240,000	920,000	349,000
November	125,000	125,000	310,000	450,000	225,000	635,000	366,000
December	870,000	1,250,500	1,875,000	1,343,000	890,000	250,000	1,718,000
Subtotal	5,890,000	4,280,500	4,590,000	3,431,000	3,646,000	4,270,000	8,833,000
% Change	6.2%	-27.3%	7.2%	-25.3%	6.3%	17.1%	106.9%
<b>Proof Eagles</b>	405,913	372,168	437,924	498,293	440,315	450,728	549,330
<b>Commemoratives</b>	2,081,825	2,606,920	2,000,000	553,872	727,933	400,000	300,000
% Change	59.5%	25.2%	-23.3%	-72.3%	31.4%	-45.0%	-25.0%
<b>Proof Coin Sets</b>	449,677	700,000	458,989	522,713	498,260	492,828	200,000
<b>Total</b>	8,827,415	7,959,588	7,486,913	5,005,878	5,312,508	5,613,556	9,882,330
% Change	8.4%	-9.8%	-5.9%	-33.1%	6.1%	5.7%	76.0%

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Bullion Eagles</b>											
January	1,011,500	779,500	913,500	1,725,000	1,392,500	1,095,000	1,115,000	1,070,000	2,170,000	1,900,000	3,592,500
February	808,500	846,500	905,000	1,055,000	1,281,000	500,000	993,000	500,000	200,000	2,125,000	2,050,000
March	851,500	786,000	797,000	876,000	348,000	650,000	1,072,000	762,000	1,855,000	3,132,000	3,381,000
April	804,500	562,000	815,000	434,000	680,000	480,000	1,395,000	280,000	1,584,000	2,518,000	2,507,500
May	925,000	426,000	495,000	245,000	914,500	315,000	1,186,000	395,000	1,443,500	1,904,500	3,636,500
June	738,500	467,000	695,000	468,000	505,000	400,000	760,000	470,000	1,735,500	2,245,000	3,001,000
July	499,500	624,500	740,000	280,000	170,000	355,000	417,000	405,000	1,251,500	2,810,000	2,981,000
August	255,500	474,500	1,745,000	535,000	311,000	615,000	413,000	1,165,000	1,813,000	2,130,000	2,451,000
September	296,500	550,000	550,000	475,000	580,000	725,000	550,000	765,000	1,825,000	1,703,000	1,880,000
October	386,500	843,500	155,000	705,500	320,000	400,000	285,000	550,000	1,425,000	2,939,000	3,150,000
November	580,500	1,031,500	175,000	370,000	492,500	725,000	195,000	1,200,500	2,050,000	2,586,500	4,260,000
December	1,975,000	1,436,500	2,490,000	1,985,000	2,622,500	2,145,000	1,600,000	2,324,500	2,158,500	2,773,500	1,772,000
Subtotal	9,133,000	8,827,500	10,475,500	9,153,500	9,617,000	8,405,000	9,981,000	9,887,000	19,511,000	28,766,500	34,662,500
% Change	3.4%	-3.3%	18.7%	-12.6%	5.1%	-12.6%	18.8%	-0.9%	97.3%	47.4%	20.5%
<b>Proof Eagles</b>	600,743	746,398	647,342	747,831	801,602	711,606	497,750	821,759	700,979	N/A	850,000
<b>Commemoratives</b>	474,073	611,256	347,665	571,740	717,488	776,097	447,428	621,333	436,702	N/A	N/A
% Change	58.0%	28.9%	-43.1%	64.5%	25.5%	8.2%	-42.3%				
<b>Eagle Uncirculated</b>									N/A		N/A
<b>Proof Coin Sets</b>	100,000								N/A		N/A
<b>Total</b>	10,307,816	10,185,154	11,470,507	10,473,071	11,136,090	9,892,703	10,926,178	11,330,092	20,648,681	28,766,500	35,512,500
% Change	4.3%	-1.2%	12.6%	-8.7%	6.3%	-11.2%	10.4%	3.7%	82.2%	39.3%	23.5%
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Bullion Eagles</b>											
January	6,422,000	6,107,000	7,498,000	4,775,000	5,530,000	5,954,500	5,127,500	3,235,000	4,017,500	2,298,000	4,775,000
February	3,240,000	1,490,000	3,368,500	3,750,000	3,022,000	4,782,000	1,215,000	942,500	2,057,500	650,000	3,191,500
March	2,767,000	2,542,000	3,356,500	5,354,000	3,519,000	4,106,000	1,615,000	915,000	850,000	5,482,500	4,087,000
April	2,819,000	1,520,000	4,087,000	3,569,000	2,851,500	4,072,000	835,000	915,000	1,196,000	750,000	1,053,000
May	3,653,500	2,875,000	3,458,500	3,988,500	2,023,500	4,498,500	2,455,000	380,000	866,000	490,000	0
June	3,402,000	2,858,000	3,275,000	2,692,000	4,840,000	2,837,500	986,000	435,000	1,035,000	1,378,000	2,800,000
July	2,968,000	2,278,000	4,406,500	1,975,000	5,529,000	1,370,000	2,320,000	885,000	1,240,000	1,084,500	3,104,000
August	3,679,500	2,870,000	3,625,000	2,087,500	4,935,000	1,280,000	1,025,000	1,530,000	1,007,000	4,477,000	3,930,000
September	4,460,500	3,255,000	3,013,000	4,140,000	3,804,500	1,675,000	320,000	2,897,500	1,021,000	2,958,500	2,735,000
October	3,064,000	3,153,000	3,087,000	5,790,000	3,788,000	3,825,000	1,040,000	1,430,000	1,110,500	3,397,000	1,076,000
November	1,384,000	3,159,500	2,300,000	3,426,000	4,824,000	3,061,000	385,000	1,645,000	463,000	4,805,000	1,523,500
December	2,009,000	1,635,000	1,200,000	2,459,000	2,333,500	240,000	742,000	490,000		751,000	0
Subtotal	39,868,500	33,742,500	42,675,000	44,006,000	47,000,000	37,701,500	18,065,500	15,700,000	14,863,500	28,521,500	28,275,000
% Change	15.0%	-15.4%	26.5%	3.1%	6.8%	-19.8%	-52.1%	-13.1%	-5.3%	91.9%	-0.9%
<b>Proof Eagles</b>	847,000	832,779	126,581	741,379	696,001	521,432					
<b>Commemoratives</b>	100,000	224,935	132,024	608,522	206,180	151,826					
% Change											
<b>Eagle/ATB Uncirculated</b>	300,000	198,820	8,033,132	613,180	460,745	172,802					
<b>Proof Coin Sets</b>	N/A	N/A	N/A	N/A	N/A	N/A					
<b>Total</b>	41,115,500	34,999,034	50,966,737	45,969,081	48,362,926	38,547,560	18,065,500	15,700,000	14,863,500	28,521,500	28,275,000
% Change	15.8%	-14.9%	45.6%	-9.8%	5.2%	-20.3%	-53.1%	-13.1%	-5.3%	91.9%	-0.9%

Notes: The U.S. Eagle program was introduced in November 1986.

Proof coin sets and commemoratives end-year. NA - not available.

Proof Eagles as of 30 September 2005, year-end through 2004.

ATB - America the Beautiful 5 ounce silver coin

Source: U.S. Mint, CPM Group.

4 May, 2022

Over the past four years, including 2021, investors have bought more silver in coin form than they have in total silver investment products. This reflects a strong preference toward coins and ETFs rather than 1,000-ounce bullion bars or smaller unofficial silver medallions and investment bars. Investors have been selling these, in many cases swapping them for coins. In this way, investor demand for silver coins has been greater than investor demand for silver in total.

Coin demand is expected to remain robust during 2022 as well, with cumulative global demand standing at 124.6 million ounces. While this level of demand is lower than that seen during 2021 it is still very high by historic standards, with only nine years since 1960 posting higher demand.

### **Comex Futures and Options**

After dipping into negative territory during 2018 and 2019, net long positions held by institutional investors on the Comex moved back into positive territory during 2020 and remained there during 2021. The greatest strength in these positions occurred at the start of the year, before the release of Covid vaccines, with these positions gradually softening over the remainder of the year, at time falling to levels last seen in 2019.

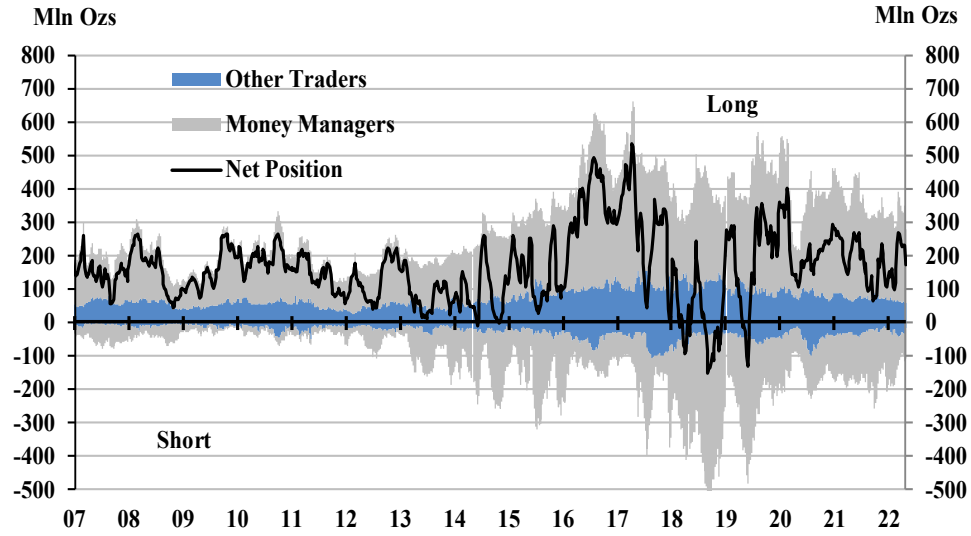
The weakness in net long positions during the second half of the year was driven primarily by an increase in gross short positions. The increase in short positions and the softening in net long positions was short lived however, with gross short positions contracting toward the end of the year. Gross long positions during the second half of the year held

steady around the 325 million ounces level after sliding lower from an average of around 400 million ounces during the first half of the year.

During the first quarter of 2022, Russia's invasion of Ukraine drove net long positions to their highest level since January 2021. The increase was driven by both an increase in gross long positions as well as a decline in gross short positions. The decline in gross shorts was particularly noteworthy, having shrunk down to 90 million ounces, the lowest level since April 2020 when the covid pandemic had just started. Gross long positions also rose during the first quarter of 2022, peaking at 393 million ounces, the highest level since June 2021. That the increase in net long positions during the first quarter of 2022 was primarily driven by short covering is not a very promising sign regarding these investor's short-term outlook of silver.

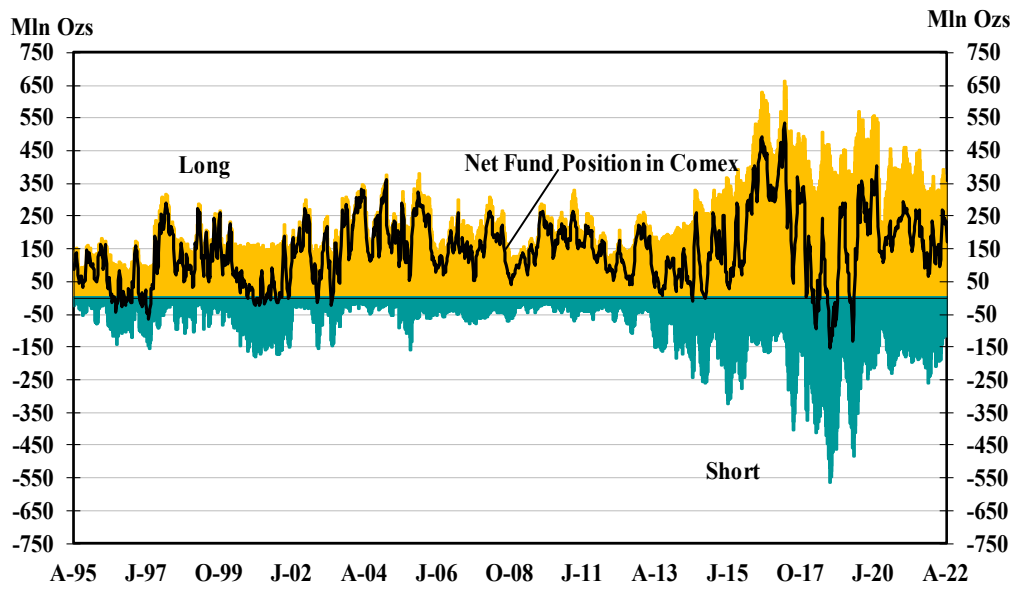
**Disaggregated Non-Commercial Silver Positions**

*Comex Futures and Options. Weekly Data, Through 29 April 2022*

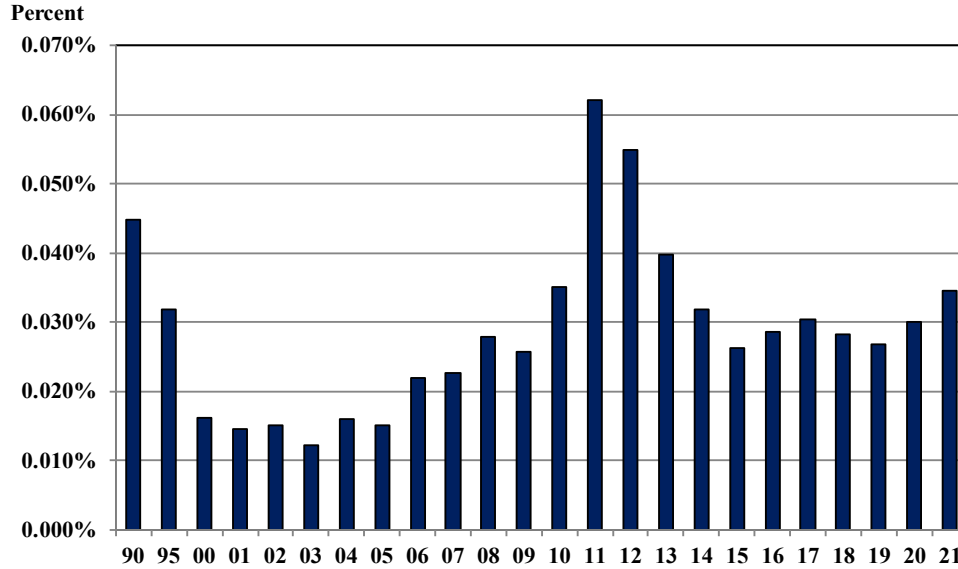


**Non-Commercial Gross Long and Short Silver Positions**

*Comex Futures & Options. Weekly Data, Through 29 April 2022*



## Silver's Share of Global Financial Wealth



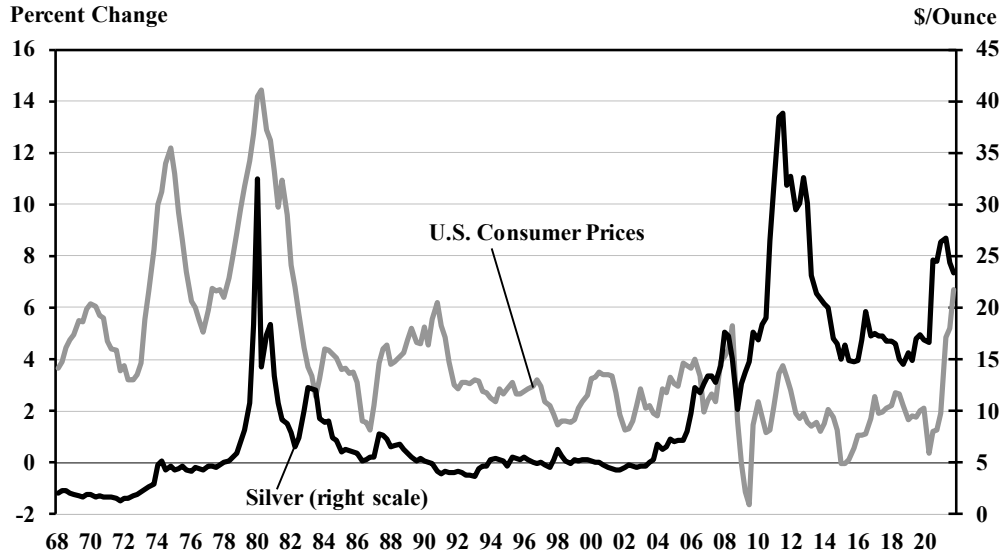
Sources: McKinsey & Co., The Economist, IMF, World Federation of Exchanges, CPM Group

Global Financial Assets  
US\$ Trillion

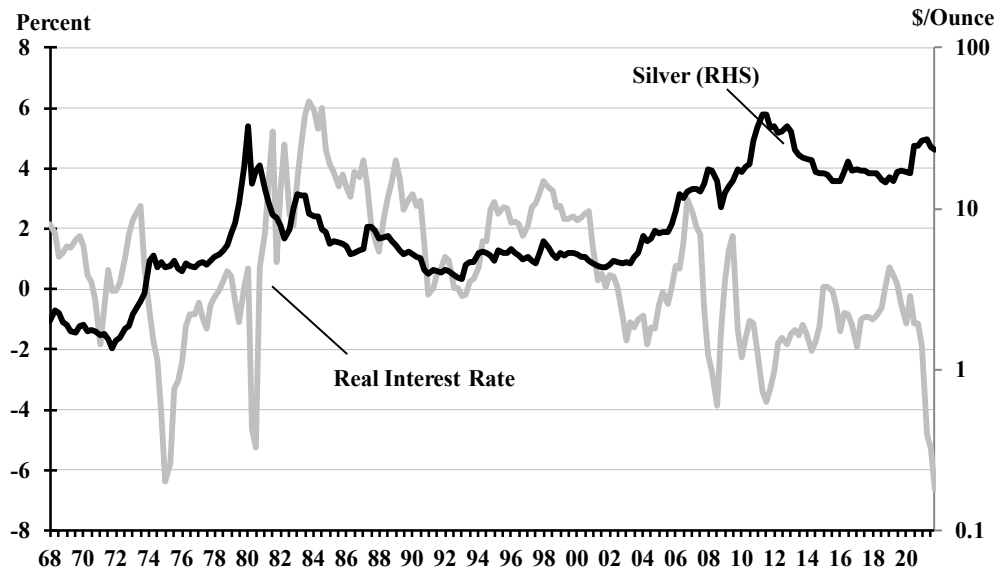
Year	Loans	Government Debt	Private Debt	Equity Securities	Gold Holdings	Silver Holdings	Total	Gold's Share of Total	Silver's Share of Total
80	5.0	2.0	2.0	3.0	0.34	0.082	12.4	2.73%	0.659%
90	25.0	9.0	10.0	8.9	0.26	0.024	53.2	0.50%	0.045%
95	29.0	14.0	14.0	17.1	0.28	0.024	74.4	0.38%	0.032%
00	40.0	18.0	24.0	34.3	0.22	0.019	116.6	0.19%	0.016%
01	36.0	18.3	27.0	28.0	0.22	0.016	109.5	0.20%	0.014%
02	38.0	18.4	28.0	24.0	0.26	0.016	108.6	0.24%	0.015%
03	40.0	21.1	31.0	47.8	0.32	0.017	140.2	0.23%	0.012%
04	43.0	24.6	34.0	40.3	0.38	0.023	142.3	0.26%	0.016%
05	51.0	26.9	37.0	46.9	0.43	0.024	162.3	0.26%	0.015%
06	57.0	26.4	40.0	54.0	0.59	0.039	178.1	0.33%	0.022%
07	63.0	28.2	42.0	67.6	0.71	0.046	201.6	0.35%	0.023%
08	68.0	30.8	50.0	36.0	0.90	0.052	185.7	0.48%	0.028%
09	68.0	33.8	51.0	51.9	1.03	0.053	205.8	0.50%	0.026%
10	70.0	39.1	51.0	55.7	1.35	0.076	217.2	0.62%	0.035%
11	73.0	44.1	53.0	48.3	1.79	0.137	220.3	0.81%	0.062%
12	75.0	47.2	53.0	54.1	1.96	0.127	231.4	0.85%	0.055%
13	79.0	49.9	56.4	65.1	1.70	0.100	252.2	0.67%	0.040%
14	80.4	52.7	60.0	68.1	1.53	0.084	262.8	0.58%	0.032%
15	81.8	55.4	63.8	67.1	1.42	0.071	269.6	0.53%	0.026%
16	83.3	60.0	65.0	70.1	1.56	0.080	280.1	0.56%	0.029%
17	52.7	63.0	68.3	80.0	1.61	0.081	265.7	0.60%	0.030%
18	50.5	66.0	71.5	76.0	1.64	0.075	265.7	0.62%	0.028%
19	51.7	70.0	75.3	93.0	1.83	0.078	291.9	0.63%	0.027%
20	57.0	85.0	84.2	107.0	2.41	0.101	335.7	0.72%	0.030%
21	58.0	89.0	88.0	125.1	2.51	0.125	362.8	0.69%	0.035%



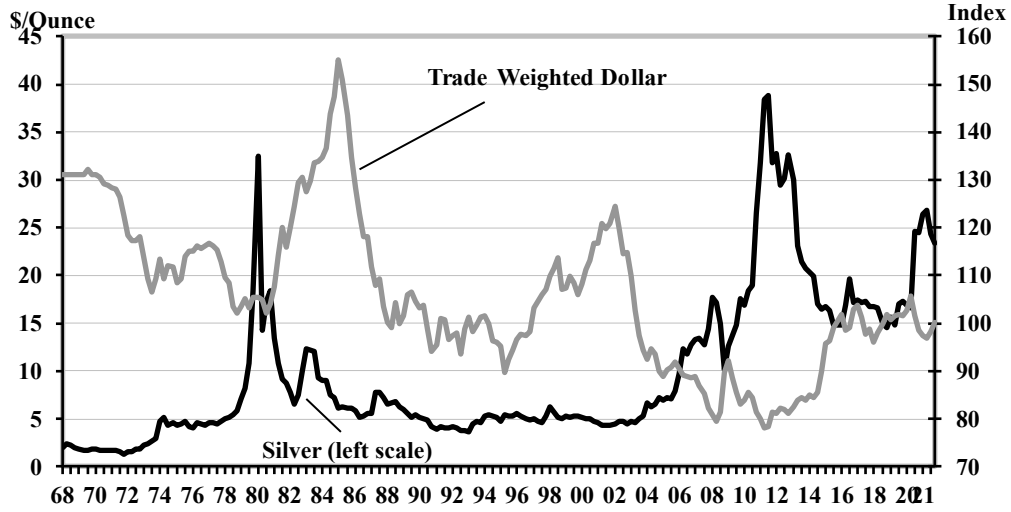
**Quarterly Silver Prices and U.S. Inflation**  
*Through Fourth Quarter 2021*



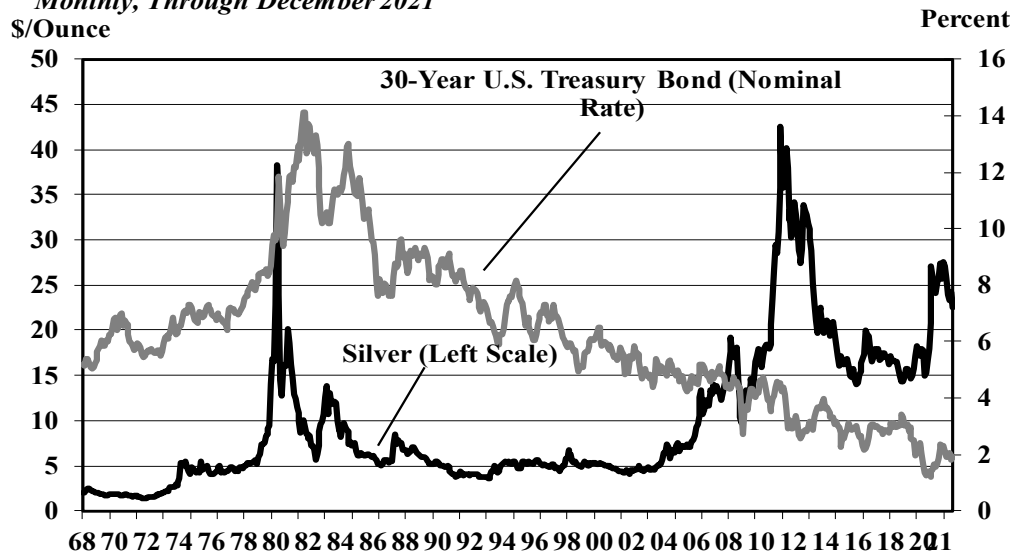
**Interest Rates and Silver Prices**  
*Quarterly, Through Fourth Quarter Of 2021*



**Silver and the U.S. Dollar**  
*Quarterly, Through Fourth Quarter 2021*



**Silver and the 30-year U.S. Treasury Bond**  
*Monthly, Through December 2021*





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# Supply





**Total Supply**

Total silver supply, which includes mine production and scrap supply, stood at 986.9 million ounces in 2021. This was the highest level of total supply since 2018 when supply totaled 988.4 million ounces. Both mine supply and scrap supply rose during 2021. While secondary supply reached its highest level since 2013, mine supply still had not recovered all of the losses incurred during 2020.

During 2021 mine supply stood at 756.9 million ounces, up 44.3 million ounces from 2020’s level. Mine supply had declined by 49 million ounces during 2020, resulting in a roughly five-million-ounce shortfall in 2021’s recovery of mine supply relative to 2019 output. Excluding 2020, mine production during 2021 was the lowest since 2013 when it stood at 748.3 million ounces. The inability of silver mine production to completely recoup its 2020 losses, which were primarily driven by Covid-

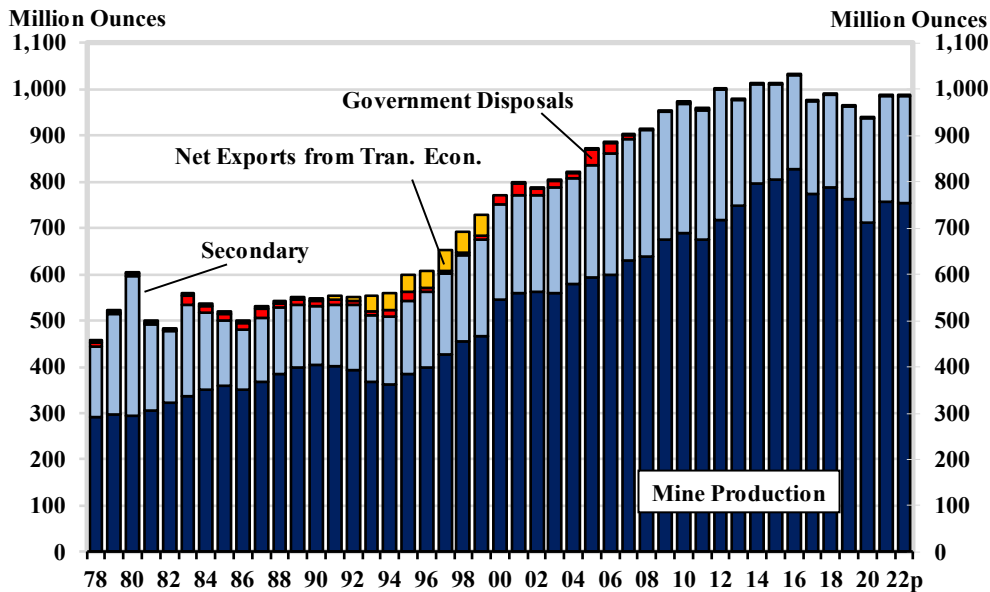
19 related mine closures, is not entirely surprising. Global silver mine supply had been in a declining trend even prior to 2020, driven by the shuttering of some large silver mines and a sharp decline in new mine capacity as a result of weak silver prices since 2011 when prices had reached record high levels. Reduced new capacity has made total silver mine output levels extremely vulnerable to disruptions at even a small number of mines.

Strength in scrap supply helped to fill the shortfall resulting from mine supply. Scrap supply rose to 230 million ounces in 2021, up five million ounces from 2020 and its highest level since 2013. A combination of relatively high silver prices and a lifting of Covid related restrictions in many parts of the world allowed for a smoother flow of materials for scrap recovery.

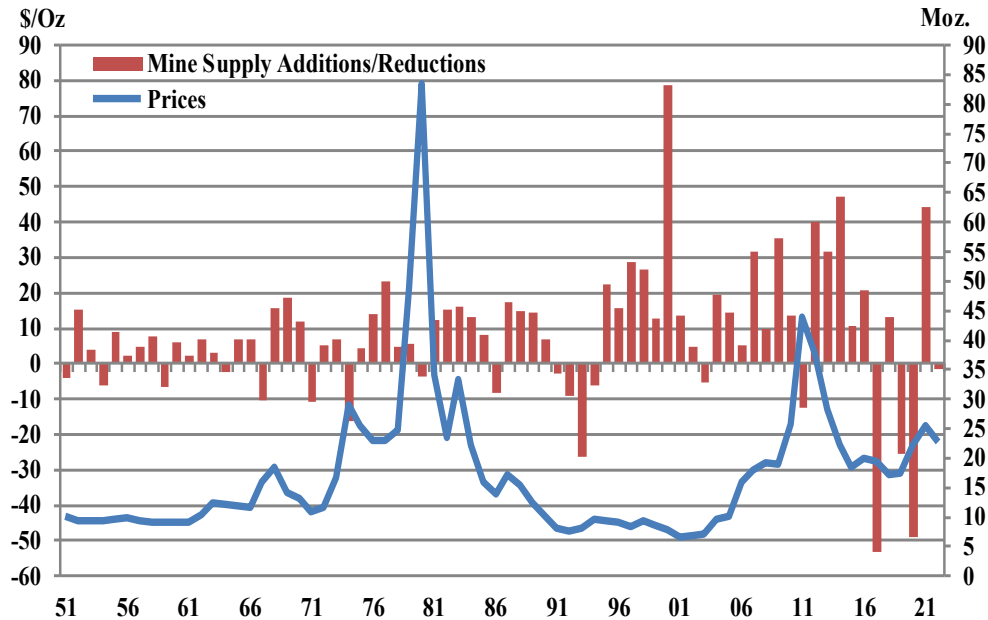
Total silver supply during 2022 is forecast to be flat to slightly lower than levels in 2021. Total supply is expected to

**Total Annual Silver Supply**

*Projected Through 2022*



### Annual Silver Mine Supply Changes and Prices Projected Through 2022



stand at 984.4 million ounces during 2022, with both mine production as well as scrap supply losing around a million ounces each.

#### Mine supply

During 2021 mining companies were able to recoup much of the losses they endured during 2020 due to the Covid related shutdowns, as governments eased Covid-19 restrictions starting in late 2020 and through 2021. That said, longer term issues that have been weighing on silver mine supply continued, which kept silver mine supply in the downward trajectory that it has been in since 2017.

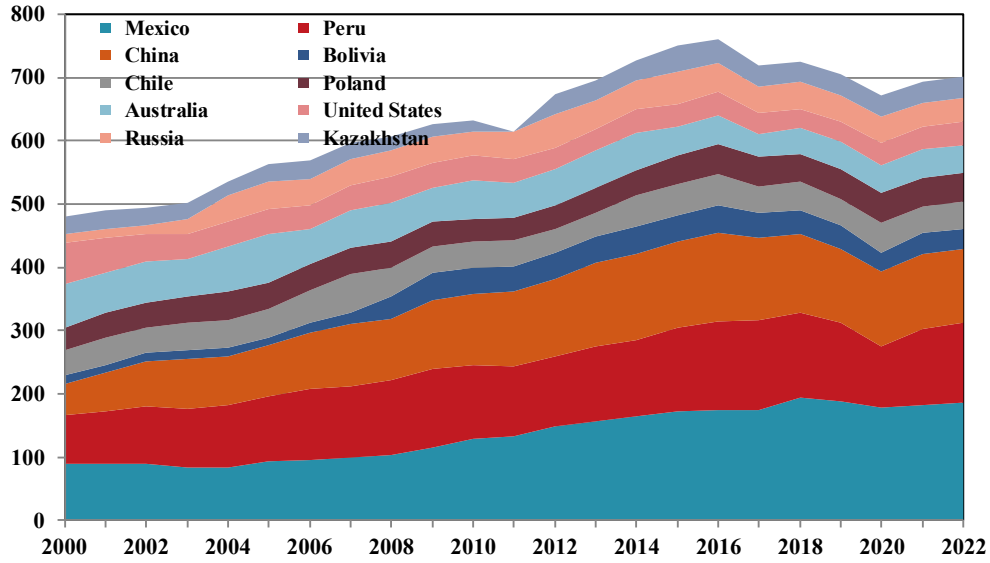
Global silver mine supply stood at 756.9 million ounces during 2021, up 44.3 million ounces from 2020. The gains during 2021 can primarily be attributed to the resumption of regular operations during 2021 at mines that

were either completely or partially shut down during 2020 due to Covid.

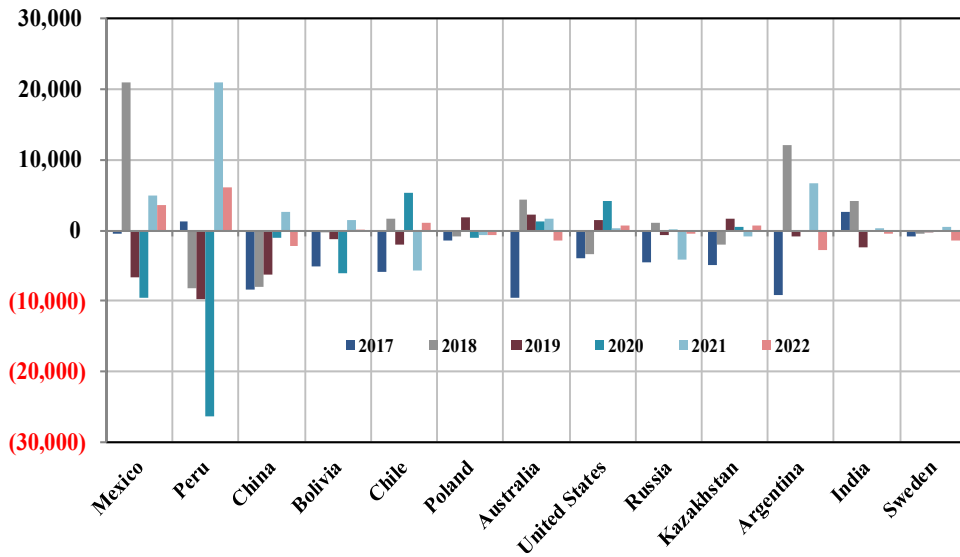
On a regional basis North and South America acted as the primary drag on total silver mine supply during 2021. *Production rose in both regions during 2021, but less than what was lost during 2020.* Meanwhile 2021 silver mine production in Africa, Asia, and Oceania rose more than what had been lost in 2020, but their overall contribution to global silver mine supply was small relative to the Americas. These three regions collectively account for only 14% of total global silver mine supply. As a result the increase in these regions was not sufficient to offset the slower pace of recovery in the Americas.

When viewing growth on an individual mine basis, the strongest growth was observed in mines in the Americas. However, it is clear from the country level data that the growth in these mines

Mine Production From Top 10-Largest Silver Producing Market Economy Countries



Annual Silver Production Changes By Top Producing Countries



**Silver Reserves and Reserve Base***Million ounces*

	<b><u>Reserves</u></b>	<b><u>Reserve Base</u></b>
1981	N/A	8,435
1988	9,000	14,000
1993	9,002	13,503
1995	9,002	13,503
1996	9,002	13,503
1997	9,002	13,503
1998	9,002	13,503
1999	9,002	13,503
2000	9,002	13,503
2001	9,002	13,825
2002	8,681	16,718
2003	8,681	18,326
2004	8,681	18,326
2005	8,681	18,326
2006	8,681	18,326
2007	8,681	18,326
2008	8,681	18,326
2009	12,860	
2010	16,397	
2011	17,040	
2012	17,361	
2013	16,718	
2014	17,040	
2015	18,326	
2016	18,326	
2017	17,040	
2018	18,004	
2019	18,004	
2020	16,075	
2021	17,040	

*Notes: Reserve Base statistics publication ceased after 2009 Mineral Commodity Summary report.*

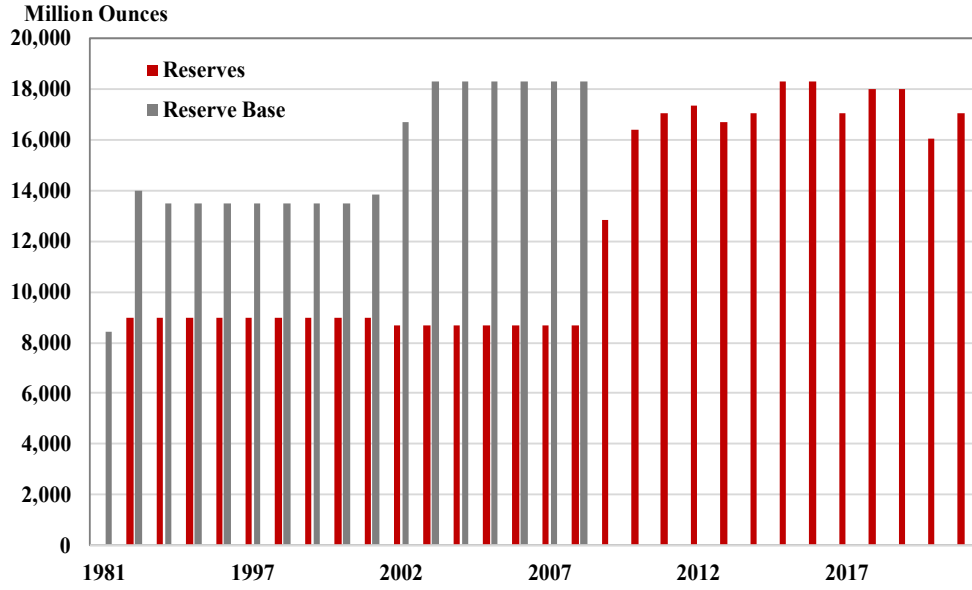
*U.S. Bureau of Mines did not report world totals, 1962 - 1968.*

*Data is with one year lead on reporting by USGS, i.e. data in 2021 report put in for 2020.*

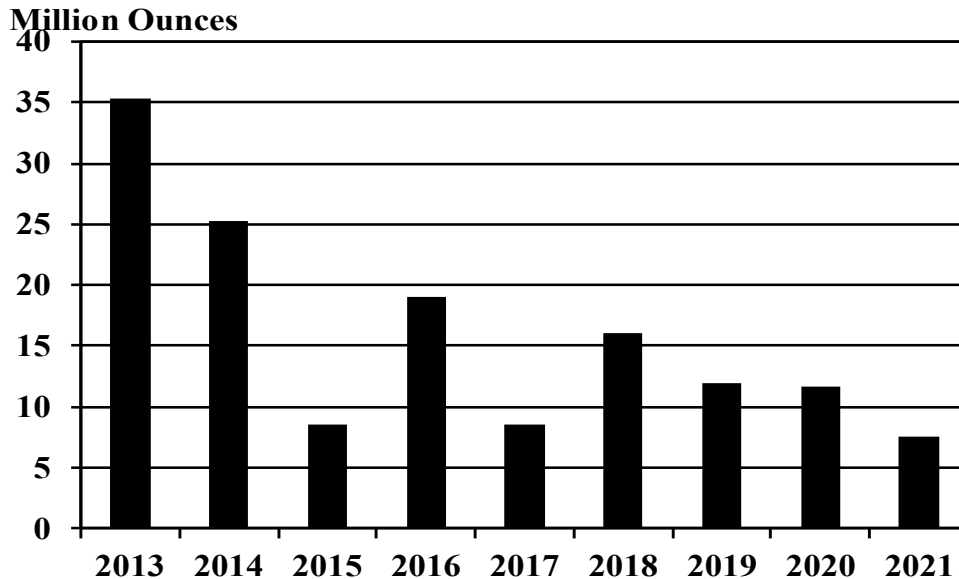
*Sources: USGS, CPM Group*

*9 June 2021*

Silver Reserve and Reserve Base



### Silver Capacity from Near-Term Mine Development Projects



was insufficient to offset the losses that occurred in 2020.

Among the mines that showed the strongest growth during 2021 were Peñasquito, San Dimas, Lucky Friday, Antamina, Mina Ministro, and San Julian, all of which reside in the Americas. The mines noted here are those with either large gains or losses. Among those mines that showed the greatest losses during 2021 were, Uchucchacua, Saucito, La Colorada, and Pallancata.

#### *Near-Term Mine Development Projects*

In keeping with the declining trend, new silver mine capacity coming onstream fell to 7.5 million ounces in 2021, down from 12 million ounces in 2020. New silver mine capacity additions during 2021 were the lowest since 2013, when

CPM started reporting this data in this manner.

Five new silver producing mines came onstream in 2021, with two of them primary silver producers and the others primary gold producers. The two primary silver producers are Alexco Resources' Keno Hill mine in Canada and Aurcana Silver Corp's Revenue Virginus mine in the United States. These two mines have a combined silver mine capacity of 6.9 million ounces (Keno Hill 3.8 million ounces and Revenue Virginus 3.1 million ounces), which accounts for 91% of the total silver mine capacity that came onstream in 2021.

The increase in silver prices since 2020 is attracting greater investment in developing silver mine supply. However, mining companies have become more

## New Mine Development Projects, as of December 2020

Larger than 500,000 ounces of annual silver production capacity

Project	Company	Country	Primary Metal	CPM Est. Start-up	Annual Production Capacity (Koz)	Reserves (MlnOz)	M&I Resources (MlnOz)	Initial Capex (Mln USD)	Mine Life
Anganguao	Southern Copper Corp	Mexico	Copper	2017	2,400	--	0	175	9
Soledad Mountain	Golden Queen Mining Co Ltd	United State	Gold	2017	860	22	21	108	12
Proyecto de Rio Tinto	EMED Mining Public Ltd	Spain	Copper	2017	500	--	--	290	14
Cerro del Gallo	Cerro Resources NL (Primero Mining)	Mexico	Gold	2017	1,072	15	20	136	14
Tulsequah Chief	Chiefain Metals Corp	Canada	Zinc	2017	1,330	17	1	440	9
Bystrinskoye	Norilsk Nickel (MMC)	Russia	Copper	2017	1,150	--	0	3,500	30
Bilbao	Xtierra Inc	Mexico	Zinc	2017	745	--	18	43	8
Yubileinoye	Ooo Bashkirskeya Med	Russia	Copper	2017	520	--	0	350	20
<i>Subtotal</i>					<i>8,577</i>				
Cerro Moro	Yamana Gold Inc	Argentina	Gold	2018	4,000	--	54	230	12
Chinchillas	SSR Mining	Argentina	Silver	2018	6,100	58	72	81	11
Mangazeisky	Silver Bear Resources	Russia	Silver	2018	2,180	22	14	66	7
Silvertip	Couer Mining	Canada	Silver	2018	2,900	15	12	49	21
Dugald River	MMG Ltd	Australia	Zinc	2018	900	52	--	1,540	23
<i>Subtotal</i>					<i>16,080</i>				
Xietongmen	Jinchuan Group, Zijin Mining	China	Gold	2019	1,730	24	11	600	20
Los Gatos	Gatos Silver/Dowa Holdings	Mexico	Silver	2019	6,000	95		316	11
Silver Mine	Sotkamo Silver	Finland	Silver	2019	1,580	11	7	32	9
Woodlawn	Heron Resources	Australia	Zinc	2019	894	13	4	124	9
Cobre Panama	First Quantum Minerals Ltd	Panama	Copper	2019	1,800	128	48	6,181	31
<i>Subtotal</i>					<i>12,004</i>				
Juanicipio	Fresnillo; MAG Silver	Mexico	Silver	2020	11,700	154	17	440	12
					11,700				
Keno Hill	Alexco Resources	Canada	Silver	2021	3,800	30	77	18	8
Camino Rojo	Orla Mining	Mexico	Gold	2021	600	32	115	134	10
Nezhda	Polymetals International	Russia	Gold	2021	740*	29	4	580	25
Revenue Virginius Mine	Aurcana	USA	Silver	2021	3,100	14	5	37	6
Relief Canyon	Americas Gold and Silver	USA	Gold	2021	72	1.1	0.9	22	9
					<i>7,572</i>				
<b>2022 and Beyond</b>									
Las Chispas	Silvercrest Mining	Mexico	Silver		5,181	50	56	138	9
Terronera	Endeavour Silver	Mexico	Silver		3,300	47	4	175	12
Pascua Lama	Barrick Gold Corp	Chile	Gold		35,000	677	184	8,250	25
La Preciosa	Avino Silver & Gold	Mexico	Silver		9,600		105	328	17
Kempfield	Argent Minerals Ltd	Australia	Silver		1,900	--	29	38	5
Yellowhead	Taseko	Canada	Copper		526	33	17	839	28
Corani	Bear Creek Mining Corp	Peru	Silver		9,600	229	94	574	15
Certej	Eldorado Gold Corp	Romania	Gold		830	16	11	356	16
Cordero	Discovery Silver Corp.	Mexico	Silver		8,000	533	848	647	15
Metates	Chesapeake Gold Corp	Mexico	Gold		16,157	502	2	3,496	37
Prairie Creek	NorZinc	Canada	Zinc		2,100	32	6	224	13
					<i>83,713</i>				

\* Estimated

Notes: Project commencement dates and project figures are estimated where data is unavailable or incomplete.

Sources: Company reports and websites, media reports, CPM Group December 2021

disciplined and investors more cautious following the massive spending that occurred during the last bull market in metals prices. It should also be noted that while silver prices have risen in recent years they still are lower than levels between 2011 and 2013. Furthermore, the impact of any increased spending now will not be felt until sev-

eral years later. In the meantime, new silver mine capacity additions are likely to decline before they rise.

## Primary Silver Producing Mines

Thousand Troy Ounces

Country	Name	Company	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
			Production	Production	Production	Production	Production	Production	Production	Production	Production	Production
Argentina	Puna	Silver Standard	8,624	8,216	8,733	10,339	10,422	6,177	3,747	7,674	5,581	8,010
Argentina	Manantial Espejo Gold/Silver Mine	Pan Am Silver	385	3,100	3,725	3,580	3,140	3,123	3,092	2,600	2,547	3,240
Argentina	San Jose	Hochschild	5,953	6,357	6,469	6,706	6,691	6,448	6,165	6,846	4,108	5,250
Argentina	Chinchillas/Pirquitas	SSR Mining							3,747	7,674	5,581	8,010
Australia	Camington Silver/Lead/Zinc Mine	South32 Limited, formerly BHP Billiton	34,208	31,062	25,161	22,601	21,393	15,603	12,491	12,201	11,792	13,655
Bolivia	San Cristobal Polymetallic Mine	Sumitomo Corp	9,388	11,253	11,253	11,250	14,776	14,776	13,600	15,367	12,912	14,600
Bolivia	San Vicente Silver/Zinc Mine	Pan Am Silver (Trafigura owns 5%)	3,922	4,176	4,157	4,335	4,666	3,800	3,730	3,713	2,442	2,550
Canada	Silverip	Coeur Mining							182	1,162	139	-
Canada	Keno Hill	Alexco Resources										622
Chile	La Coipa Silver/Gold Mine	Kinross Gold	3,890	2,906	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
China	Ying Silver Mine	Silvercorp	5,305	4,501	4,371	4,360	5,532	5,500	5,962	6,119	5,147	5,530
Finland	Silver Mine	Sotkamo Silver								1,000	1,580	1,380
Guatemala	Escobal Silver Mine	Pan Am Silver		2,061	20,300	20,400	21,189	9,900	-	-	-	-
Mexico	Alamo Dorado Silver Mine	Pan Am Silver	5,399	5,100	3,473	2,970	1,860	641	-	-	-	-
Mexico	Avino (San Gonzalo) Silver Mine	Avino	129	698	970	1,625	1,602	1,394	1,286	959	317	245
Mexico	Cusi Silver Mines	Sierra Metals	285	423	630	873	740	337	700	936	890	1,260
Mexico	Del Toro Silver Mine	First Majestic	368	1,485	2,691	2,262	1,501	1,125	785	303	-	-
Mexico	Dolores	Pan Am Silver	3,537	3,503	3,980	4,250	3,840	4,232	4,081	5,122	3,779	2,240
Mexico	La Encantada Silver/Lead Mines	First Majestic	4,037	4,081	3,712	2,530	2,707	2,178	1,604	3,083	3,505	3,242
Mexico	Fresnillo Silver Mine	Fresnillo	26,380	22,764	20,098	15,600	15,900	16,512	15,117	13,007	13,055	11,986
Mexico	Guanacavi Silver Mine	Endeavour Silver	2,514	2,772	3,588	3,441	2,364	2,066	2,000	2,203	3,071	4,334
Mexico	Guanajuato (Bolantitos) Unit Silver Mines	Endeavour Silver	1,667	2,882	2,396	1,450	1,053	934	1,000	625	353	491
Mexico	El Cubo	Endeavour Silver					2,019	1,919	2,600	1,087	-	-
Mexico	El Compas	Endeavour Silver								104	89	-
Mexico	Guanajuato District	Great Panther Silver			1,239	1,708	1,473	1,387	1,097	591	521	485
Mexico	La Colorada Silver Mine	Pan Am Silver	4,400	4,600	4,979	5,330	5,800	7,056	7,617	8,210	5,025	5,170
Mexico	San Dimas	First Majestic	5,134	6,362	6,150	8,300	5,320	3,963	3,622	6,306	6,400	7,647
Mexico	La Guitarra	First Majestic	946	709	636	946	924	612	359	-	-	-
Mexico	La Negra Silver Mine	Orion	1,389	1,299	1,477	1,803	1,200	1,200	1,000	1,000	800	1,000
Mexico	La Parrilla Silver Mine	First Majestic	2,877	3,116	2,876	2,434	2,221	1,730	1,340	558	-	-
Mexico	Juanicipio	MAG Silver									624	3,197
Mexico	Cosalá (Nuestra Señora)	Americas Gold and Silver Corp.	1,185	969	969	1,162	1,006	921	448	572	39	61
Mexico	Palmarajo Silver/Gold Mine	Coeur Mining	8,235	7,603	6,558	5,149	4,442	7,242	7,500	6,762	6,269	6,821
Mexico	San Francisco del Oro	Minera Frisco, S.A.B. de C.V. (Minera Frisco)	1,892	1,254	1,754	1,586	1,316	1,200	1,082	944	1,171	1,100
Mexico	San Jose (Mex.) Silver/Gold Mine	Fortuna Silver	1,949	2,527	4,397	4,929	6,124	7,527	7,980	7,868	6,166	6,425
Mexico	San Martin de Bolanos Silver Mine	First Majestic	957	1,251	1,834	2,297	1,903	1,822	1,746	556	-	-
Mexico	Santa Elena Silver/Gold Mine	First Majestic	580	779	1,157	4,900	2,599	2,282	2,223	2,436	1,693	1,954
Mexico	Saucito Silver/Gold Mine	Fresnillo	7,054	11,581	15,397	21,984	21,900	21,215	19,781	17,160	15,532	12,439
Mexico	Topia Silver/Lead/Zinc Mine	Great Panther	556	631	668	678	574	596	761	939	597	717
Mexico	La Platosa (Saliera) Mine	Excellon	1,081	1,410	1,163	794	635	718	918	1,054	998	1,223
Mexico	San Julian	Fresnillo					2,066	10,534	13,009	13,306	16,772	
Mexico	Cerro Los Gatos	Gatos Silver									4,200	7,610
Morocco	Imiter Silver Mine	Managem	5,466	5,466	5,466	6,591	7,100	7,141	4,618	5,675	4,600	5,500
Peru	Arcata Silver Mine	Hochschild	5,867	4,984	5,827	5,613	6,343	4,391	3,416	311	-	-
Peru	Casapalca (Yauliyacu) Polymetallic Mine	Glencore	2,581	2,777	2,938	2,544	2,500	2,283	2,275	1,950	2,100	
Peru	Castrovirreyña	Castrovirreyña Compañía Minera SA	1,513	815	-	-	-	-	-	-	-	-
Peru	Caylloma Silver Mine	Fortuna Silver	2,039	2,104	2,203	1,696	1,256	943	911	941	968	1,074
Peru	Coricancha Polymetallic Mine	Great Panther Silver (was owned by Nyxstar)	491	164	5	-	-	-	-	-	-	-
Peru	Huaron Silver/Zinc/Lead Mine	Pan Am Silver	2,900	3,300	3,635	3,710	3,810	3,684	3,561	3,796	2,148	3,510
Peru	Julcani Silver Mine	Buenaventura	2,428	2,707	3,084	3,266	3,264	2,250	2,483	2,609	1,677	2,572
Peru	Mallay Silver/Zinc/Lead Mine	Buenaventura	647	1,265	1,216	1,285	1,627	1,109	514	511	-	-
Peru	Morococha (Pan Am) Silver Mine	Pan Am Silver	2,100	2,600	2,568	2,346	2,752	2,634	2,881	2,456	1,173	2,180
Peru	Pallancata Silver/Gold Mine	Hochschild	12,402	12,713	6,527	3,664	2,620	5,956	7,449	7,259	3,679	3,261
Peru	San Genaro Silver Mines	Castrovirreyña	972	987	-	-	-	-	-	-	-	-
Peru	Uchucchacua Silver Mine	Buenaventura	10,430	11,127	12,056	13,920	16,213	16,584	15,420	10,641	5,000	3,732
Peru	Immaculada	Hochschild				2,055	4,908	5,506	5,690	5,747	4,034	6,236
Russia	Dukat (Omsukchan) Silver/Gold Mine	Polymetal IntPlc	15,497	18,300	23,900	22,300	19,800	17,700	16,400	15,800	14,400	14,700
Russia	Mangazetsky	Silver Bear Resources							595	1,569	1,917	1,900
Turkey	Gümüşköy Silver Mine	Eti Gümüş	8,038	8,038	8,038	6,000	6,000	6,000	6,000	6,000	4,500	5,000
USA	Rochester Silver Mine	Coeur Mining	2,802	2,799	4,189	4,631	4,564	4,714	5,000	3,761	3,175	3,158
USA	Greens Creek	Hecla Mining	6,394	7,448	7,826	8,452	9,254	8,352	7,953	9,890	10,495	9,244
USA	Galeña Complex	Americas Gold and Silver Corp.	2,250	2,121	1,622	1,490	1,384	1,135	969	751	929	1,013
USA	Lucky Friday Lead/Silver Mine	Hecla Mining	-	1,459	3,239	3,028	3,596	839	169	633	2,032	3,564
<b>Total Primary Production</b>			<b>239,039</b>	<b>252,605</b>	<b>271,297</b>	<b>275,161</b>	<b>277,887</b>	<b>258,108</b>	<b>240,306</b>	<b>240,374</b>	<b>202,905</b>	<b>228,007</b>
<b>Total Silver Production</b>			<b>716,515</b>	<b>748,321</b>	<b>795,447</b>	<b>805,980</b>	<b>826,632</b>	<b>773,606</b>	<b>786,929</b>	<b>761,511</b>	<b>712,551</b>	<b>756,894</b>
Primary Silver Output as Percentage of World Production			33.4%	33.8%	34.1%	34.1%	33.6%	33.4%	30.5%	31.6%	28.5%	30.1%



*Silver Supply from Primary Silver Mines*

Primary silver mine supply stood at 228 million ounces in 2021, up from 202.9 million ounces in 2020, but still lower than the 240.4 million ounces in primary silver output during 2019. Primary silver mine supply has been in a declining trend since 2017. Primary silver output in 2021 was down 18% from the peak primary silver output of 277.9 million ounces reached in 2016.

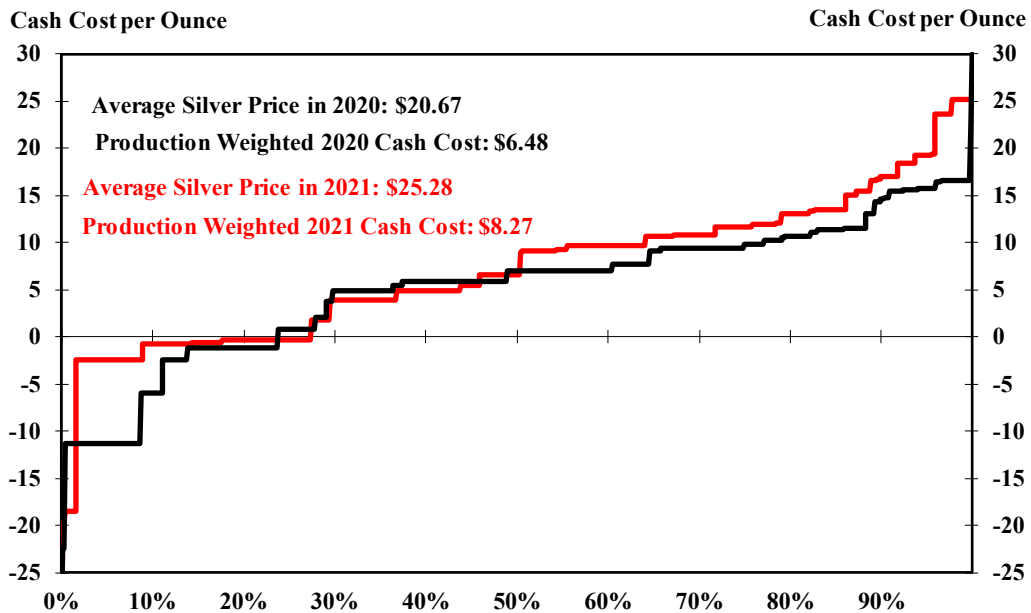
A combination of lost output at various major silver mines coupled with insufficient new primary silver mine capacity coming onstream to offset losses at these larger primary silver mines is the main reason for the declining trend in primary silver output. It should be noted that these conditions are cyclical, reflecting the effects of the period of lower silver prices from 2013 through 2019, and not secular long-term trends. They are a reflection of lower capital investments in exploration and development, lower investor interest in mining shares,

more stringent financial conditions facing silver mining development companies, increased regulatory costs and pressures, rising resource nationalism, and other human-made constraints.

The shuttering of the Escobal mine in 2017 took around 20 million ounces of primary silver mine supply out of the market. The Cannington silver mine in Australia also has seen output decline sharply over the years, with production in 2021 standing at 13.7 million ounces, less than half the 34.2 million ounces it produced in 2012. While there have been several new primary silver mines that have come onstream in recent years, their production capacities collectively are insufficient to fill the gap left behind by the lost output at just these two mines. There are several smaller mines too that have seen output decline, making it further difficult to increase total primary silver output.

The share of primary silver mines peaked at 36.5% in 2011 and has been declining since, dropping to 30.1% in 2021.

**Primary Silver Producers' Cash Costs in 2021**



### Costs

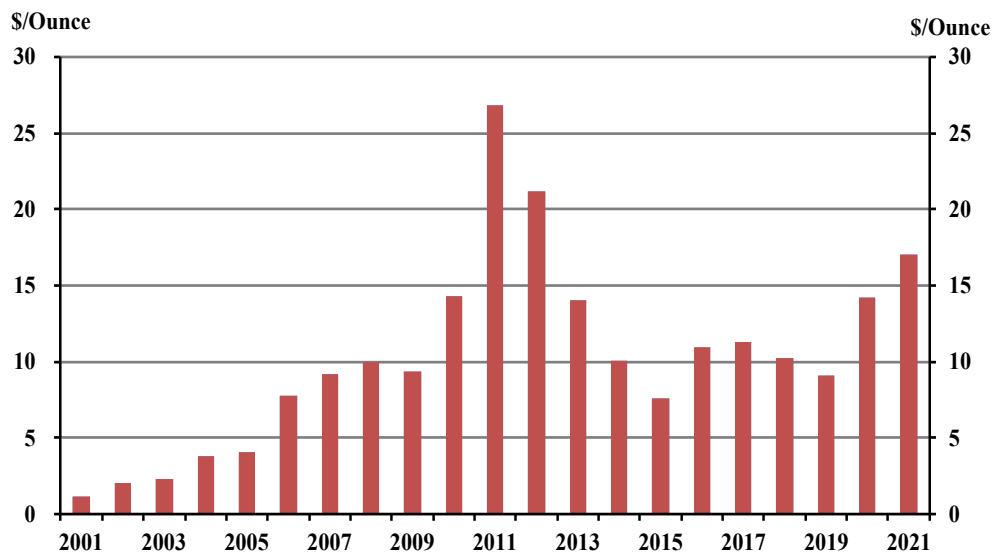
Production-weighted silver cash costs at primary silver mines rose during 2021 to \$8.27, up from \$6.48 in 2020. There were a variety of factors that came together to push costs higher during 2021, which include stronger silver prices, a relatively weaker U.S. dollar compared to 2020, an uptick in energy prices, and an overall increase in inflation. An increase in silver production and higher byproduct credits meanwhile helped to offset some of the strength in silver production costs.

It is common to see cash operating costs rise when prices of the metal being mined rise. An increase in prices incentivizes the mining of lower grade ore and increases the cost of inputs like labor.

The mining of lower grade ore when prices are high or rising also is a common practice followed by miners that maximize the life of the mine, ore recovery, and return over the life of the mine. Nonetheless, this practice typically raises the cost of operation on a per ounce basis as more resources are required to extract an ounce of metal. The higher price of the metal typically offsets this higher cost, as was the case in 2021 as well. The margin between the average cost of production and the average price was \$17 in 2021, up from \$14.19 in 2020 and the highest margin since 2012 when it stood at \$21.17.

The relative weakness in the U.S. dollar during 2021, compared with 2020, also played an important role in bringing down dollar denominated cash costs for mining operations outside the United States. Furthermore, an overall increase

**Margin Between The Price of Silver and Average Cash Operating Costs of Production**

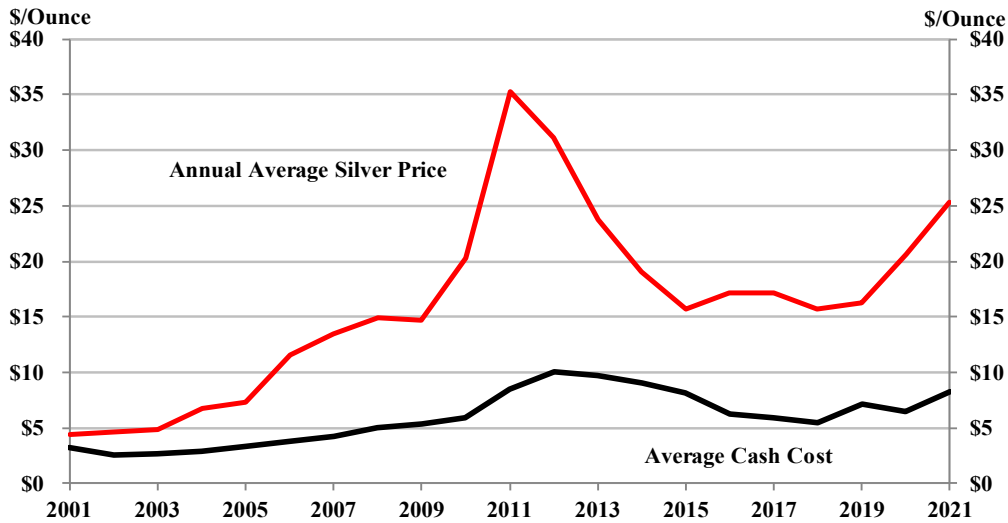


in inflation due to supply chain disruptions and high energy prices also played a role in driving costs higher during 2021 and these factors are likely to play a bigger role in driving costs higher in 2022.

The increase in cash costs was assuaged by an increase in silver mine production, increasing the number of ounces over which these costs are spread and by an increase in byproduct credits. Primary silver mines often have meaningful amounts of gold, lead and zinc, or copper byproduct output. The increase in prices of these metals also played a role in driving down costs when byproduct credits were taken into account. On a net basis the strength in silver prices, softness in the dollar, strength in energy prices, and an overall increase in inflation had stronger effects on costs, offsetting the impact of higher byproduct credits and higher silver production. The data used to calculate the production-weighted annual average silver cash cost included 36 primary silver

mines. Combined, these mines produced close to 75% of the total primary silver output for the year. These primary mines contributed around 23% of total market economy mine output in 2021. The balance was produced as a byproduct, in which silver is treated as a credit to the cost of mining other metals.

Annual Average Primary Producers' Silver Cash Costs and Prices



**Mine Production By Country**  
 Thousand Troy Ounces

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
<b>Africa</b>																						
Algeria	100	100	110	110	120	120	120	120	120	120	120	100	100	100	100	100	100	100	100	100	100	100
Botswana	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Burkina Faso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eritrea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ghana	20	18	17	17	14	14	14	20	25	25	25	25	50	50	60	60	60	60	60	60	65	67
Ivory Coast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Morocco	3,283	3,154	2,120	2,640	2,850	2,409	2,733	1,566	4,300	7,273	8,300	12,100	12,000	7,500	6,500	6,500	6,500	6,000	7,100	7,800	8,295	
Namibia	3,617	3,365	3,456	3,150	3,532	3,255	3,400	3,981	3,331	3,472	4,437	2,958	2,926	2,900	2,300	2,100	2,000	1,875	1,400	800	342	
South Africa	3,238	7,458	7,569	6,943	6,485	6,980	6,700	7,144	6,691	6,424	5,781	5,176	5,517	5,874	6,186	6,295	6,400	6,400	6,025	5,171	4,886	
Tanzania	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tunisia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dem. Rep. of Congo	3,420	2,535	2,575	1,905	1,288	1,499	1,520	1,499	1,400	1,400	1,499	2,700	1,890	950	570	520	490	440	100	100	100	100
Zambia	914	764	715	887	933	794	625	842	962	942	890	633	547	465	400	380	380	390	360	360	360	
Zimbabwe	978	948	858	919	938	892	800	843	817	895	774	682	623	561	550	540	354	354	212	200	200	
<b>Total</b>	<b>15,570</b>	<b>18,342</b>	<b>17,420</b>	<b>16,571</b>	<b>16,160</b>	<b>15,963</b>	<b>15,912</b>	<b>16,015</b>	<b>17,646</b>	<b>20,551</b>	<b>21,826</b>	<b>24,374</b>	<b>23,653</b>	<b>18,400</b>	<b>16,666</b>	<b>16,515</b>	<b>16,284</b>	<b>15,609</b>	<b>15,388</b>	<b>14,595</b>	<b>14,349</b>	
<b>Asia</b>																						
Azerbaijan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
India	370	366	556	466	508	933	822	1,135	1,221	1,318	1,286	868	900	1,109	1,250	1,150	1,617	1,145	1,616	1,640	2,198	
Indonesia	793	700	828	1,032	1,047	1,122	1,175	1,371	1,531	1,986	2,012	1,700	2,000	2,300	2,200	2,200	5,800	7,684	9,370	10,560	9,768	
Iran	-	-	-	-	-	-	-	-	-	-	-	-	1,900	1,900	1,900	1,900	1,900	1,900	1,900	740	740	
Japan	8,932	8,195	9,279	9,042	9,877	10,403	10,914	11,307	9,032	8,102	5,008	4,819	5,488	5,733	4,401	4,299	3,525	2,600	2,742	2,660	2,633	
Laos	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malaysia	433	437	473	522	481	470	522	452	497	641	641	410	500	550	600	600	640	365	389	389	212	
Mongolia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	621	627	633	640
Myanmar	340	430	450	526	558	575	569	443	400	378	321	230	230	250	100	100	120	130	64	96	130	
Philippines	1,838	1,951	2,021	1,983	1,823	1,574	1,743	1,689	1,638	1,759	1,852	1,528	1,235	926	900	940	1,000	804	745	659	622	
Saudi Arabia	-	-	-	-	-	-	-	-	-	-	-	-	-	0	579	547	539	514	543	445	442	
South Korea	2,823	2,293	3,147	3,523	3,366	3,759	3,990	2,584	2,823	1,571	2,762	1,700	2,250	2,250	2,200	2,200	2,200	2,100	1,800	1,800	1,962	
Taiwan	84	96	216	505	344	364	366	405	373	268	268	210	250	260	260	260	240	225	220	220	220	
Thailand	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turkey	250	200	200	220	219	219	224	286	283	513	513	640	600	2,100	2,000	2,000	2,100	2,000	3,076	3,170	3,233	
<b>Total</b>	<b>15,863</b>	<b>14,668</b>	<b>17,170</b>	<b>17,819</b>	<b>18,223</b>	<b>19,419</b>	<b>20,325</b>	<b>19,672</b>	<b>17,798</b>	<b>16,536</b>	<b>14,663</b>	<b>14,005</b>	<b>15,353</b>	<b>17,892</b>	<b>16,390</b>	<b>16,196</b>	<b>19,681</b>	<b>20,088</b>	<b>23,092</b>	<b>23,012</b>	<b>22,799</b>	
<b>Europe</b>																						
Bulgaria	805	773	741	805	805	837	837	2,315	2,476	2,733	3,054	3,215	3,054	3,054	1,500	1,200	1,000	1,125	1,020	989	1,100	
Czech Republic/Slovakia	1,126	1,126	1,126	1,062	964	1,029	1,030	1,062	1,100	1,126	1,100	600	580	550	600	630	660	300	250	263	268	
Finland	1,028	1,430	1,215	1,190	980	1,123	1,566	1,193	1,415	997	932	964	874	830	803	868	900	900	900	900	900	
France	2,409	2,374	1,706	986	688	769	866	825	831	678	627	710	739	750	430	430	400	64	-	-	-	
Germany	1,042	1,213	1,263	1,286	1,167	1,225	1,102	884	994	642	700	260	129	65	50	50	50	-	-	-	-	
Greece	1,752	1,671	1,945	1,581	1,797	1,799	1,630	1,726	1,668	1,977	1,668	1,700	1,700	1,700	1,700	1,700	1,700	965	900	972	991	
Greenland	763	771	720	758	607	335	425	385	402	458	470	300	300	-	-	-	-	-	-	-	-	
Hungary	34	34	31	30	30	25	25	25	25	25	25	24	24	24	24	24	24	-	-	-	-	
Ireland	1,058	773	595	352	318	280	277	262	232	177	231	282	338	289	420	390	450	514	466	461	492	
Italy	1,065	1,365	1,779	1,791	2,362	1,560	513	577	449	513	510	360	200	150	300	300	400	386	393	440	486	
Macedonia	-	-	-	-	-	-	-	-	-	-	-	-	-	320	320	320	320	320	320	320	320	320
Poland	22,569	24,628	20,577	21,058	21,800	23,900	26,717	26,652	26,717	34,176	34,000	26,750	28,903	28,936	29,800	29,418	31,500	30,543	33,070	35,293	35,129	
Portugal	35	29	23	23	32	29	108	175	120	120	120	620	650	700	700	700	1,000	1,286	1,330	1,520	1,389	
Romania	965	901	805	805	805	773	805	741	642	691	671	386	450	500	650	700	700	700	700	700	700	
Serbia & Montenegro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spain	3,168	5,711	6,186	3,789	5,938	5,000	6,405	5,562	6,880	7,298	7,088	7,400	7,500	7,500	5,000	5,300	3,125	3,070	1,812	1,376	1,175	
Sweden	5,650	5,337	5,171	5,396	5,491	7,677	8,038	7,554	8,520	7,201	6,099	7,000	6,500	7,694	8,600	7,877	8,616	9,000	8,836	9,000	11,000	
Yugoslavia	5,214	4,789	4,422	3,342	3,987	4,051	5,017	5,702	4,859	4,468	4,276	3,376	2,894	2,600	2,100	2,100	1,300	1,930	1,255	1,192	1,216	
<b>Total</b>	<b>48,683</b>	<b>52,925</b>	<b>48,305</b>	<b>44,254</b>	<b>47,771</b>	<b>50,412</b>	<b>55,361</b>	<b>55,640</b>	<b>57,330</b>	<b>63,280</b>	<b>61,636</b>	<b>53,916</b>	<b>54,925</b>	<b>55,706</b>	<b>53,024</b>	<b>51,942</b>	<b>52,113</b>	<b>51,104</b>	<b>51,251</b>	<b>53,425</b>	<b>55,166</b>	

Sources: U.S. Bureau of Mines; American Bureau of Metals Statistics; Statistics

Canada; Chamber of Mines of South Africa; Silver Institute; Central Intelligence

Agency; other government and industry sources; CPM Group.

Note: Chinese mine production statistics prior to 2000 are counted as transitional economy mine production.

February 2022

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021p				
																						Africa			
100	48	48	55	32	32	32	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Algeria			
-	-	-	-	-	-	-	-	-	-	-	-	500	726	715	90	-	-	-	-	-	-	Botswana			
0	0	0	0	0	0	0	0	0	0	0	0	0	467	241	241	186	225	257	257	264	264	Burkina Faso			
121	110	90	100	100	100	100	100	100	84	129	96	96	96	96	96	96	96	96	96	96	96	Eritrea			
0	0	0	0	0	0	0	0	0	0	0	0	0	17	20	29	19	15	4	5	4	4	Ivory Coast			
8,295	9,000	8,900	6,500	6,500	6,500	6,500	5,411	6,248	6,756	7,817	160	5,476	6,239	5,972	6,943	7,626	7,630	4,877	6,066	6,168	7,066	Morocco			
518	1,400	1,400	1,400	900	800	800	800	248	24	965	315	31	45	36	22	0	0	165	167	216	216	Namibia			
5,421	3,530	3,600	2,550	2,300	2,800	2,850	2,500	2,400	2,501	2,550	0	2,164	2,207	1,198	1,543	1,676	2,011	1,832	1,797	1,215	1,347	1,088	South Africa		
0	0	0	0	0	0	0	0	0	0	0	0	0	391	466	180	578	351	387	403	542	542	542	Tanzania		
0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	Tunisia			
100	32	50	1,150	2,250	1,500	2,200	2,500	1,093	2,500	322	0	0	0	209	11	27	109	109	109	111	111	111	Dem Rep of Congo		
360	193	225	300	300	300	300	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	Zambia		
100	57	64	24	50	25	20	20	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Zimbabwe		
15,014	14,370	14,377	12,079	12,432	12,057	12,802	11,638	10,380	12,140	12,056	847	8,542	10,464	9,227	9,431	13,635	13,253	9,739	10,617	10,326	11,643	11,268	Total		
																						Asia			
																						Azerbaijan			
48,000	61,000	70,100	78,000	78,700	80,500	89,700	97,900	96,300	107,900	112,528	118,958	122,173	131,818	135,033	136,332	140,177	131,767	123,861	117,668	116,701	119,243	117,000	China		
1,640	2,926	2,926	2,950	2,926	2,251	3,472	4,310	3,086	4,437	5,305	643	643	11,796	10,865	15,760	14,319	16,931	21,157	18,722	20,351	20,590	20,076	India		
10,000	11,000	9,300	9,000	8,500	9,000	9,000	9,000	7,268	11,557	7,716	-	7,968	3,958	3,832	4,885	5,955	10,547	10,786	8,805	7,807	9,669	10,393	Indonesia		
740	740	740	740	740	740	740	2,894	3,215	3,215	643	643	643	643	643	643	643	643	643	643	643	643	643	643	Iran	
2,912	2,588	2,604	2,600	3,000	2,000	500	-	119	116	100	145	113	117	114	148	163	110	116	112	129	129	129	129	Japan	
-	-	-	124	87	109	204	145	216	474	554	5,787	5,208	1,072	1,139	1,604	1,676	1,467	1,204	1,106	1,058	1,098	1,098	1,098	Laos	
-	-	-	-	-	-	-	-	11	12	14	15	66	12	10	6	35	45	48	23	22	22	22	22	Malaysia	
640	643	800	800	800	800	800	800	643	656	643	611	804	1,420	1,654	1,224	2,556	2,161	2,083	2,231	1,700	1,801	1,116	1,116	Mongolia	
96	200	100	100	32	64	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Myanmar	
746	1,000	290	300	300	300	300	800	850	457	1,087	1,318	-	1,582	1,287	740	957	1,131	1,021	958	1,035	772	762	752	Philippines	
422	322	450	450	300	300	300	290	265	221	248	901	961	1,306	1,388	1,388	145	167	170	180	186	186	186	186	Saudi Arabia	
1,962	32	224	384	160	130	64	32	48	55	64	64	96	386	276	276	212	283	228	167	161	161	161	161	South Korea	
220	220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Taiwan	
-	37	580	409	349	459	367	241	168	296	568	627	804	1,865	1,750	1,608	1,154	0	0	0	0	0	0	0	Thailand	
3,500	3,750	2,540	3,054	2,347	4,436	5,370	6,365	9,452	11,317	12,217	12,860	9,324	6,096	5,913	6,494	5,626	5,343	6,344	4,000	3,476	3,976	3,476	3,476	Turkey	
70,877	84,458	90,654	98,911	98,241	101,089	111,349	122,826	121,247	141,607	141,917	142,394	151,510	161,776	163,357	171,326	173,793	170,483	167,598	154,692	153,008	158,281	155,053	Total		
																						Europe			
1,300	1,600	2,000	2,000	2,100	2,100	2,100	2,100	1,929	1,768	1,608	1,768	1,775	1,775	1,781	1,689	1,706	1,758	1,762	1,749	1,749	1,749	1,749	1,749	Bulgaria	
268	268	268	268	268	268	268	268	268	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Czech Republic/Slovakia
900	739	900	950	1,100	1,500	1,500	1,500	2,248	2,253	2,251	65	4,122	3,244	4,759	4,515	526	439	413	1,301	2,005	2,005	1,905	1,905	Finland	
-	-	32	32	32	32	32	32	22	22	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	France
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Germany
1,400	2,005	2,411	2,411	2,500	2,500	3,000	3,300	1,000	884	932	0	1,004	1,170	1,107	772	944	1,100	1,122	1,408	1,413	1,441	1,441	1,441	Greece	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Greenland
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Hungary
537	643	161	450	643	643	650	625	128	299	132	8,779	6,334	251	206	251	35	43	39	51	30	30	30	30	Ireland	
490	129	129	129	130	130	130	130	3	3	3	3	4	0	0	0	0	0	0	0	0	0	0	0	0	Italy
320	320	322	322	321	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Macedonia
36,100	38,000	39,000	41,000	44,000	41,000	42,000	41,700	41,000	39,610	36,330	36,330	36,941	38,581	38,581	45,236	47,647	46,233	45,294	47,229	46,194	45,615	45,037	45,037	Poland	
1,245	643	611	700	800	800	700	875	900	720	725	1,384	878	1,306	1,388	1,329	1,242	1,292	2,920	3,063	2,536	2,536	2,536	2,536	Portugal	
700	579	579	625	1,000	1,000	1,000	800	800	643	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	Romania
-	-	-	-	-	-	-	-	74	80	154	901	961	1,306	1,385	1,385	363	383	547	965	965	965	965	965	965	Serbia & Montenegro
2,265	2,411	1,500	500	100	150	200	200	72	72	669	990	1,093	900	878	877	566	3,170	2,823	2,196	2,196	2,039	1,889	1,889	Spain	
10,200	9,650	10,300	11,000	10,200	10,000	9,400	9,400	9,422	9,278	9,195	9,099	10,610	10,975	12,301	15,422	16,559	15,694	15,153	14,948	14,100	14,676	13,192	13,192	Sweden	
1,216	1,216	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yugoslavia
56,940	58,235	58,212	60,386	63,194	60,123	60,980	60,930	58,037	55,794	52,739	59,738	64,293	60,086	62,958	72,147	70,149	70,637	70,647	73,501	71,766	71,634	69,321	69,321	Total	

Mine Production By Country -- Continued  
Thousand Troy Ounces

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
<b>North &amp; Central America</b>																						
Canada	36,874	34,390	36,311	42,234	38,692	42,001	38,485	34,980	38,118	44,100	41,310	44,374	40,554	36,277	28,255	23,613	41,306	42,041	39,351	37,892	39,587	
Costa Rica	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	25	17
Dominican Republic	2,268	1,642	2,062	2,112	1,270	1,222	1,609	1,318	1,149	1,400	700	700	700	750	200	600	677	650	520	364	100	
El Salvador	152	146	137	86	23	22	20	17	17	17	17	17	17	17	20	20	25	25	25	25	25	
Guatemala	10	10	8	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Honduras	2,186	1,721	1,665	2,050	2,587	2,698	2,765	1,747	741	796	796	1,000	1,000	1,200	777	888	971	1,170	1,379	1,381	1,496	
Mexico	49,408	47,344	53,204	49,841	55,000	63,900	69,200	69,400	69,800	70,000	70,000	69,000	70,000	65,000	61,000	65,000	67,300	75,000	83,000	87,980	79,000	
Nicaragua	388	163	82	76	63	50	52	26	29	23	23	40	59	55	55	50	50	77	180	161	177	
United States	37,896	32,329	40,683	40,248	43,431	44,592	39,357	34,221	39,790	53,402	60,797	66,488	60,984	60,957	55,655	54,001	49,500	50,000	59,000	62,422	65,293	
Total	129,184	117,747	134,154	136,657	141,071	154,487	151,490	141,711	149,646	169,740	173,645	181,621	173,307	164,258	145,964	144,179	159,831	168,965	183,457	190,250	185,695	
<b>Oceania</b>																						
Australia	26,749	24,981	23,920	29,161	33,212	31,250	34,916	32,890	35,912	35,815	37,295	37,800	38,000	40,123	39,100	36,750	32,000	35,000	38,700	50,810	57,700	
Fiji	9	9	9	19	12	13	15	15	0	34	25	16	20	20	20	20	67	63	83	73	88	
New Zealand	2	1	1	1	0	0	41	41	0	59	156	275	355	400	460	887	900	960	1,021	736	775	
Papua New Guinea	1,434	1,187	1,365	1,394	1,531	1,426	1,487	1,802	2,004	2,100	1,966	2,600	3,215	3,530	3,700	2,112	2,095	1,898	1,553	1,854	2,109	
Total	28,194	26,178	25,295	30,575	34,755	32,689	36,459	34,748	37,916	37,974	39,451	40,700	41,586	44,073	43,280	39,769	35,062	37,921	41,357	53,474	60,672	
<b>South America</b>																						
Argentina	2,209	2,357	2,518	2,684	2,502	1,983	2,170	2,135	1,899	1,608	1,547	2,300	2,300	1,400	1,400	1,300	1,500	1,600	1,700	1,100	2,400	
Bolivia	5,742	6,099	6,394	5,472	6,024	4,559	3,614	3,057	4,565	7,451	8,586	9,984	10,835	9,077	10,700	11,300	13,600	11,000	12,500	13,000	13,600	
Brazil	1,065	737	765	748	750	2,275	2,301	1,913	1,966	2,252	2,056	1,800	1,500	1,200	1,200	500	400	400	400	400	400	
Chile	8,740	9,596	11,608	12,288	14,955	15,776	16,642	16,080	16,068	16,301	17,701	20,500	21,750	33,000	31,200	31,000	33,500	36,800	35,000	43,000	44,400	
Colombia	99	146	134	137	134	128	155	187	167	211	220	210	200	267	240	255	230	230	127	129	132	
Ecuador	70	70	32	9	3	3	2	2	2	2	2	0	0	130	170	200	220	240	228	233	235	
Peru	41,900	44,815	42,553	54,379	55,565	53,257	54,854	59,924	63,576	47,657	56,830	55,548	56,882	48,000	47,000	48,000	51,000	55,000	63,000	61,425	67,138	
Total	59,825	63,820	64,004	75,717	79,933	77,981	79,738	83,298	88,243	75,482	86,942	90,342	93,467	93,074	91,910	92,555	100,450	105,270	112,955	119,287	128,304	
Subtotal	297,319	293,680	306,348	321,593	337,913	350,951	359,285	351,084	368,578	383,563	398,163	404,958	402,291	393,403	367,234	361,156	383,421	398,957	427,500	454,043	466,986	
<b>Transitional Economies</b>																						
China	1,928	1,928	2,091	2,252	2,300	2,600	2,800	3,214	3,214	3,500	4,000	5,000	6,000	6,400	30,000	34,000	35,000	36,000	42,000	43,000	44,000	
East Germany	1,543	1,511	1,447	1,447	1,382	1,286	1,318	1,318	1,318	1,286	1,298	-	-	-	-	-	-	-	-	-	-	
North Korea	1,543	1,447	1,286	965	1,100	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	-	
Russia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Kazakhstan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tajikistan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Uzbekistan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Armenia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Kyrgyzstan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other C.I.S.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Soviet Union	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total	5,014	4,886	4,824	4,664	4,782	5,486	5,718	6,132	6,132	6,386	6,898	6,600	7,600	71,055	86,700	84,800	82,500	79,636	80,900	83,000	83,700	
<b>WORLD TOTAL</b>	<b>302,333</b>	<b>298,566</b>	<b>311,172</b>	<b>326,257</b>	<b>342,695</b>	<b>356,437</b>	<b>365,003</b>	<b>357,216</b>	<b>374,711</b>	<b>389,949</b>	<b>405,061</b>	<b>411,558</b>	<b>409,891</b>	<b>464,458</b>	<b>453,934</b>	<b>445,956</b>	<b>465,921</b>	<b>478,592</b>	<b>508,400</b>	<b>537,043</b>	<b>550,686</b>	

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p		
																						North & Central America		
38,979	42,440	45,254	42,122	43,001	36,132	31,998	27,664	24,277	20,283	19,164	18,390	22,679	19,863	15,854	12,340	12,381	12,628	12,985	13,182	9,327	13,087	13,747	Canada	
9	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	Costa Rica	
100	2	2	2	2	2	2	2	120	610	653	0	748	2,586	4,344	3,209	3,909	4,771	5,459	3,495	2,969	2,969	2,869	Dominican Republic	
26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	El Salvador	
0	0	0	0	0	155	1,600	2,840	3,200	4,156	6,259	8,779	6,334	9,126	27,569	25,833	26,936	9,964	0	0	0	0	0	Guatemala	
1,690	1,506	1,700	1,650	1,570	1,730	1,780	1,730	1,900	1,855	1,870	597	422	447	1,827	1,117	567	695	1,002	1,401	582	1,082	682	Honduras	
88,590	89,000	88,500	83,000	83,000	93,000	96,858	99,500	104,050	114,259	128,603	133,426	147,893	157,500	164,112	172,650	173,888	173,436	194,480	187,760	178,143	183,846	186,588	Mexico	
177	133	96	100	100	100	100	100	111	144	225	257	307	442	536	894	682	496	362	558	787	787	787	Nicaragua	
65,620	55,942	43,404	39,867	40,189	39,545	36,652	39,000	40,189	39,867	40,831	37,295	33,758	33,771	37,295	35,044	36,973	32,999	29,730	31,218	35,334	35,598	36,287	United States	
195,100	189,065	178,998	166,783	167,903	170,707	168,232	170,878	173,889	181,217	197,647	198,785	212,184	223,777	251,579	250,828	255,378	235,031	244,060	237,656	227,183	236,610	241,001	Total	
																						Oceania		
68,450	63,300	66,550	60,100	71,000	77,000	56,000	60,500	61,922	52,502	60,443	55,621	57,871	59,165	59,386	45,976	45,596	36,015	40,333	42,600	43,810	45,560	44,165	Australia	
80	68	68	50	50	40	40	40	9	10	11	13	13	15	17	17	11	11	12	21	23	23	23	Fiji	
804	804	950	1,000	1,000	1,300	1,200	1,000	587	459	514	-	-	361	508	119	256	258	204	131	103	103	103	New Zealand	
2,500	2,300	2,000	2,000	1,800	1,800	1,700	1,566	1,546	1,772	2,701	64	43	2,900	2,710	2,710	3,215	2,122	2,990	4,726	4,726	7,653	4,726	Papua New Guinea	
71,834	66,472	69,568	63,150	73,850	80,140	58,940	63,106	64,064	54,742	63,669	55,698	57,927	62,440	62,622	48,822	49,078	38,406	43,538	47,477	48,663	53,348	49,017	Total	
																						South America		
2,600	4,920	4,350	4,400	5,400	5,600	6,200	7,000	11,446	17,683	20,898	23,792	23,149	24,699	29,100	29,852	30,001	20,823	32,916	32,151	23,265	30,139	27,324	Argentina	
14,000	13,100	14,700	15,000	13,200	13,500	15,000	18,000	35,687	42,632	40,510	38,902	41,796	41,384	43,249	41,989	43,500	38,466	38,292	37,058	31,072	32,614	32,751	Bolivia	
350	1,450	1,050	1,000	1,150	1,221	965	1,157	560	469	469	469	482	721	816	816	1,569	1,492	1,595	1,608	1,614	1,654	1,600	Brazil	
40,000	43,300	38,900	42,200	43,700	44,600	51,000	61,000	45,011	41,828	41,831	40,790	37,012	37,740	50,534	48,363	48,272	42,393	44,054	42,096	47,286	41,733	42,744	Chile	
132	257	225	300	300	300	300	300	295	348	482	5,026	7,514	6,912	370	328	382	388	513	354	204	204	204	Colombia	
235	235	235	235	235	250	250	250	250	200	190	190	190	190	190	190	190	190	190	190	190	190	190	Ecuador	
78,370	83,000	92,260	93,910	98,375	102,662	111,587	112,332	118,506	126,118	117,045	109,763	111,917	118,131	121,446	131,886	140,685	142,043	133,785	124,111	97,774	118,844	124,909	Peru	
135,686	146,262	151,720	157,045	162,360	168,133	185,301	200,039	211,754	229,278	220,625	218,931	222,059	229,778	245,705	253,424	264,599	245,795	251,346	237,567	201,606	225,378	229,722	Total	
545,452	588,862	563,529	588,354	577,980	592,249	597,604	629,417	639,371	674,779	688,653	676,393	716,515	748,321	795,447	805,980	826,632	773,606	786,929	761,511	712,551	756,894	755,383	Subtotal	
																						Transitional Economies		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	China	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	East Germany	
-	1,400	1,400	1,400	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	650	North Korea
13,000	13,000	13,000	22,500	41,000	43,400	42,000	40,500	41,700	42,214	36,813	43,404	52,406	45,400	46,104	50,801	46,599	41,998	43,101	42,400	42,439	38,268	37,727	Russia	
28,000	30,000	27,500	26,000	23,000	27,000	28,000	26,500	22,505	19,869	17,705	252	30,966	30,980	31,568	41,967	37,953	33,067	31,152	32,862	33,283	32,516	33,283	Kazakhstan	
140	140	140	140	100	100	100	100	100	100	100	56	57	57	56	56	103	212	305	357	357	357	357	Tajikistan	
2,000	2,000	2,000	2,000	2,000	2,000	2,251	2,251	2,411	1,704	1,929	12,860	9,324	6,000	6,000	1,900	7,395	7,469	7,199	8,359	8,359	8,359	8,359	Uzbekistan	
500	500	500	500	500	500	500	500	500	290	527	0	0	453	428	428	420	449	400	386	386	386	386	Armenia	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Kyrgyzstan	
-	-	-	-	-	-	-	-	-	-	-	39	20	62	31	30	155	150	286	264	126	126	126	Other C.I.S.	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Soviet Union	
43,640	47,040	44,540	52,540	67,290	73,650	73,501	70,501	67,866	64,827	57,724	57,261	93,422	83,601	84,837	95,832	93,708	84,452	83,531	85,744	86,066	81,129	81,355	Total	
589,092	605,902	608,069	610,894	645,270	665,899	671,105	699,918	707,237	739,605	746,377	733,654	809,938	831,922	880,285	901,812	920,340	858,058	870,460	847,255	798,617	838,023	836,738	WORLD TOTAL	

**Secondary Supply**

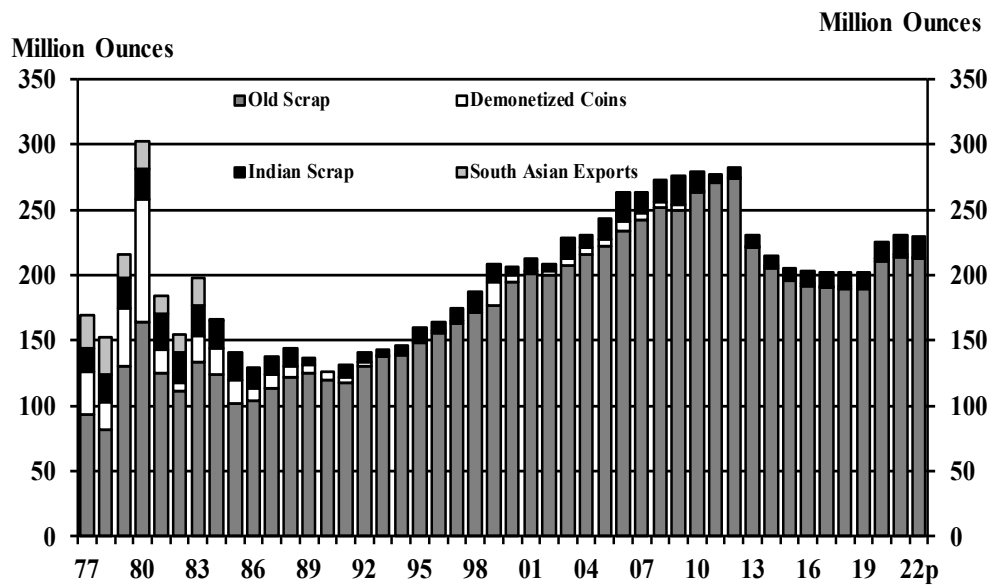
Scrap supply continued to rise during 2021, reaching 230 million ounces during the year. This was the highest level of scrap supply since 2013.

The increase in scrap supply was driven in part by the strength in silver prices and in part by the ongoing opening up of economies and supply chains following the disruptions of 2020. A lot of the industrial scrap metal that was not able to be processed during 2020 due to Covid related shutdowns was seen coming into the market during 2021, providing support to scrap supply.

The high price to which jewelry scrap is sensitive also saw an increase during 2021. The recovery of metal from jewelry scrap has been relatively lower than what was seen during the Great Recession, when metals prices shot up and holders of silver jewelry sold it to raise cash. Such sales were relatively limited

during the most recent recession due to the generous stimulus provided by governments in several countries. That said, not all governments were able to provide the sort of financial relief that was seen in many western economies. Silver jewelry scrap supply was seen rising in countries where such support was absent.

**Annual Secondary Supply**  
*Projected Through 2022*





## Mine Production of Silver

Million Troy Ounces

Year	Australia	Canada	Mexico	Peru	United States	China	Other Market Economies	Total Market Economies	FSU	Other Transitional Economies	Total	Year
1960	15.2	34.0	44.5	30.8	30.8	--	46.5	201.8	0.0	8.5	210.3	1960
1961	13.1	31.4	40.3	34.2	34.8	--	50.1	203.9	0.0	8.0	211.9	1961
1962	17.6	30.7	41.2	33.1	36.8	--	51.4	210.8	0.0	8.0	218.8	1962
1963	19.6	29.8	42.8	35.2	35.2	--	51.4	214.0	0.0	8.0	222.0	1963
1964	18.4	29.9	41.7	34.4	36.3	--	50.8	211.5	0.0	8.0	219.5	1964
1965	17.3	32.3	40.3	36.5	39.8	--	52.2	218.4	0.0	8.0	226.4	1965
1966	18.9	32.8	42.0	32.8	43.7	--	55.0	225.2	0.0	8.5	233.7	1966
1967	19.8	37.2	38.3	32.1	32.3	--	55.0	214.7	0.0	8.5	223.2	1967
1968	21.3	45.0	40.0	36.4	32.7	--	54.8	230.2	0.0	9.5	239.7	1968
1969	24.5	43.5	42.9	35.9	41.9	--	60.0	248.7	0.0	10.0	258.7	1969
1970	26.0	44.3	42.8	39.8	45.0	--	62.7	260.6	0.0	10.0	270.6	1970
1971	21.8	46.0	36.7	38.4	41.6	--	65.2	249.7	0.0	10.7	260.4	1971
1972	21.9	44.8	37.5	40.2	37.2	--	73.5	255.1	0.0	10.1	265.2	1972
1973	22.7	47.5	38.8	42.0	37.8	--	73.0	261.8	0.0	9.4	271.2	1973
1974	21.5	42.8	37.5	34.9	33.8	--	75.2	245.7	0.0	10.0	255.7	1974
1975	23.3	39.7	38.0	37.5	34.9	--	76.5	249.9	0.0	10.2	260.1	1975
1976	25.0	41.2	42.6	35.6	34.3	--	85.4	264.1	0.0	4.1	268.2	1976
1977	27.5	42.2	47.0	39.1	38.2	--	93.2	287.2	0.0	4.1	291.3	1977
1978	26.1	40.7	50.8	37.0	39.4	--	98.0	292.0	0.0	6.2	298.2	1978
1979	26.7	36.9	49.4	41.9	37.9	1.9	102.8	297.6	0.0	5.0	302.6	1979
1980	25.0	34.4	47.3	44.8	32.3	1.9	108.1	293.9	0.0	4.9	298.8	1980
1981	23.9	36.3	53.2	42.6	40.7	2.1	107.7	306.4	0.0	4.8	311.3	1981
1982	29.2	42.2	49.8	54.4	40.2	2.3	103.6	321.7	0.0	4.7	326.4	1982
1983	33.2	38.7	55.0	55.6	43.4	2.3	109.8	338.0	0.0	4.8	342.9	1983
1984	31.3	42.0	63.9	53.3	44.6	2.6	113.4	351.0	0.0	5.5	356.5	1984
1985	34.9	38.5	69.2	54.9	39.4	2.8	119.7	359.3	0.0	5.7	365.0	1985
1986	32.9	35.0	69.4	59.9	34.2	3.2	116.5	351.1	0.0	6.1	357.2	1986
1987	35.9	38.1	69.8	63.6	39.8	3.2	118.2	368.6	0.0	6.1	374.7	1987
1988	35.8	44.1	70.0	47.7	53.4	3.5	129.1	383.6	0.0	6.4	390.0	1988
1989	37.3	41.3	70.0	56.8	60.8	4.0	128.0	398.2	0.0	6.9	405.2	1989
1990	37.8	44.4	69.0	55.5	66.5	5.0	126.8	405.0	0.0	6.6	411.5	1990
1991	38.0	40.6	70.0	56.9	61.0	6.0	129.9	402.3	0.0	7.6	409.9	1991
1992	40.1	36.3	65.0	48.0	61.0	6.4	136.7	393.4	63.4	8.0	464.8	1992
1993	39.1	28.3	61.0	47.0	55.7	30.0	106.3	367.3	55.4	31.6	454.3	1993
1994	36.8	23.6	65.0	48.0	54.0	34.0	99.8	361.2	49.5	35.6	446.3	1994
1995	32.0	41.3	67.3	51.0	49.5	35.0	107.3	383.4	42.3	36.6	462.4	1995
1996	35.0	42.0	75.0	55.0	50.0	36.0	105.9	399.0	37.6	37.6	474.2	1996
1997	38.7	39.4	83.0	63.0	59.0	42.0	102.5	427.5	38.7	43.6	509.8	1997
1998	50.8	37.9	88.0	61.4	62.4	43.0	110.5	454.1	40.0	44.6	538.7	1998
1999	57.7	39.6	79.0	67.1	65.3	44.0	114.3	467.0	43.6	44.0	554.7	1999
2000	68.5	39.0	88.5	78.4	65.6	48.0	157.6	545.5	45.6	0.0	591.1	2000
2001	63.3	42.4	89.0	83.0	55.9	61.0	164.3	559.0	43.1	1.4	603.5	2001
2002	66.6	45.3	88.5	92.3	43.4	70.1	157.6	563.6	43.1	1.4	608.2	2002
2003	60.1	42.1	83.0	93.9	39.9	78.0	161.5	558.5	51.1	1.4	611.0	2003
2004	71.0	43.0	83.0	98.4	40.2	78.7	163.8	578.1	66.6	0.7	645.4	2004
2005	77.0	36.1	93.0	102.7	39.5	80.5	163.5	592.3	73.0	0.7	666.0	2005
2006	56.0	32.0	96.1	111.6	36.7	89.7	175.7	597.7	72.9	0.7	671.2	2006
2007	60.5	27.7	99.5	112.3	39.0	97.9	192.6	629.5	69.9	0.7	700.0	2007
2008	61.9	24.3	104.1	118.5	40.2	96.3	194.2	639.5	67.2	0.7	707.3	2008
2009	52.5	20.3	114.3	126.1	39.9	107.9	213.9	674.9	64.2	0.7	739.7	2009
2010	60.4	19.2	128.6	117.0	40.8	112.5	210.0	688.7	57.1	0.7	746.4	2010
2011	55.6	18.4	133.4	109.8	37.3	119.0	202.9	676.4	56.6	0.7	733.7	2011
2012	57.9	22.7	147.9	111.9	33.8	122.2	220.2	716.5	92.8	0.7	809.9	2012
2013	59.2	19.9	157.5	118.1	33.8	131.8	228.1	748.3	83.0	0.7	831.9	2013
2014	59.4	15.9	164.1	121.4	37.3	135.0	262.3	795.4	84.2	0.7	880.3	2014
2015	46.0	12.3	172.6	131.9	35.0	136.3	271.8	806.0	95.2	0.7	901.8	2015
2016	45.6	12.4	173.9	140.7	37.0	140.2	276.9	826.6	93.1	0.7	920.3	2016
2017	36.0	12.6	173.4	142.0	33.0	131.8	244.7	773.6	83.8	0.7	858.1	2017
2018	40.3	13.0	194.5	133.8	29.7	123.9	251.8	786.9	82.9	0.7	870.5	2018
2019	42.6	13.2	187.8	124.1	31.2	117.7	245.0	761.5	85.1	0.7	847.3	2019
2020	43.8	9.3	178.1	97.8	35.3	116.7	231.5	712.6	85.4	0.7	798.6	2020
2021	45.6	13.1	183.0	118.8	35.6	119.2	241.5	756.9	80.5	0.7	838.0	2021
2022p	44.2	13.7	186.6	124.9	36.3	117.0	232.7	755.4	80.7	0.7	836.7	2022p

Notes: Totals may not equal the sums of countries due to rounding. 'Other Market Economies' figure includes Poland, Hungary, Romania, Czech Republic, and Slovakia from 1970, and Bulgaria from 1973. NA -- not available.

Sources: U.S. Bureau of Mines, American Bureau of Metals Statistics, Statistics Canada, Silver Institute, Andean Report, Consejo de Recursos Minerales Mexico, Australian Bureau of Mineral Resources, government agencies, trade sources, CPM Group. March, 2022

## Secondary and Other Supplies

Million Troy Ounces

Year	Old Scrap	Secondary			Government Disposals	Net Exports		Other Supply	U.S. Treasury Sales	U.S. Treasury Coinage	Total Secondary And Other Supply	Year
		Demon-etized Coin	Indian Scrap used Domestically	South Asian Exports		from T.E.						
1960	40.0	10.0	2.0	—	12.0	10.0	22.0	22.0	46.0	142.0	1960	
1961	43.0	20.0	2.0	—	7.0	55.0	62.0	63.0	56.0	246.0	1961	
1962	47.0	20.0	2.0	—	4.0	25.0	29.0	1.0	77.0	176.0	1962	
1963	50.0	15.0	3.0	—	10.0	—	10.0	25.0	112.0	215.0	1963	
1964	54.0	20.0	12.0	—	20.0	—	20.0	151.0	203.0	460.0	1964	
1965	57.0	30.0	16.0	—	17.0	9.0	26.0	80.0	320.0	529.0	1965	
1966	61.0	28.0	16.0	—	10.0	10.0	20.0	143.0	54.0	322.0	1966	
1967	59.0	35.0	15.0	17.0	5.0	8.0	13.0	195.0	44.0	361.0	1967	
1968	75.0	50.0	16.0	86.0	15.0	—	15.0	180.0	37.0	373.0	1968	
1969	80.0	50.0	16.0	28.0	—	11.0	11.0	89.0	19.0	265.0	1969	
1970	55.0	25.0	16.0	31.0	10.0	10.9	20.9	67.0	1.0	184.9	1970	
1971	68.0	20.0	16.0	23.0	7.0	—	7.0	—	—	111.0	1971	
1972	73.0	15.0	13.0	11.0	12.0	—	12.0	—	—	113.0	1972	
1973	72.0	15.0	13.0	22.0	46.0	—	46.0	—	—	146.0	1973	
1974	82.0	35.0	15.0	60.0	21.0	—	21.0	—	—	153.0	1974	
1975	90.0	20.0	13.0	54.0	15.0	—	15.0	—	—	138.0	1975	
1976	92.0	72.0	18.0	53.0	11.0	—	11.0	—	—	193.0	1976	
1977	93.0	33.0	18.0	25.0	5.0	—	5.0	—	—	149.0	1977	
1978	82.0	21.0	21.0	28.0	9.0	—	9.0	—	—	133.0	1978	
1979	130.0	45.0	23.0	18.0	3.0	—	3.0	—	—	201.0	1979	
1980	164.0	94.0	23.0	21.0	5.0	—	5.0	—	—	286.0	1980	
1981	125.0	18.0	27.0	14.0	4.0	—	4.0	—	—	174.0	1981	
1982	111.0	7.0	23.0	14.0	1.0	—	1.0	—	—	142.0	1982	
1983	133.4	20.1	23.0	21.0	19.0	—	19.0	—	—	195.5	1983	
1984	123.5	20.1	21.0	1.0	16.0	—	16.0	—	—	180.6	1984	
1985	101.5	18.4	21.0	—	13.0	—	13.0	—	—	153.9	1985	
1986	103.4	9.9	16.0	—	14.0	—	14.0	—	—	143.3	1986	
1987	113.3	10.1	14.5	—	20.0	—	20.0	—	—	157.9	1987	
1988	121.9	8.8	13.2	—	8.3	—	8.3	—	—	152.2	1988	
1989	125.0	6.4	4.8	—	10.7	—	10.7	—	—	146.9	1989	
1990	120.0	6.0	0.0	—	11.0	—	11.0	—	—	137.0	1990	
1991	117.6	4.0	9.6	—	11.5	—	11.5	—	—	142.7	1991	
1992	130.5	3.0	7.2	—	8.1	—	8.1	—	—	148.8	1992	
1993	137.1	2.0	3.8	—	11.2	—	11.2	—	—	154.1	1993	
1994	138.4	1.3	6.5	—	15.8	—	15.8	—	—	162.0	1994	
1995	148.1	1.5	9.6	—	19.0	—	19.0	—	—	178.2	1995	
1996	155.5	1.7	6.4	—	8.1	—	8.1	—	—	171.7	1996	
1997	163.3	1.7	10.0	—	5.3	—	5.3	—	—	180.3	1997	
1998	171.5	2.5	13.5	—	6.0	—	6.0	—	—	193.5	1998	
1999	176.5	18.5	12.9	—	10.0	—	10.0	—	—	217.9	1999	
2000	194.2	6.0	6.4	—	20.0	15	35.0	—	—	241.6	2000	
2001	201.2	2.0	9.6	—	25.0	15	40.0	—	—	252.8	2001	
2002	200.1	3.0	4.8	—	15.0	15	30.0	—	—	237.9	2002	
2003	207.5	5.0	16.1	—	15.0	15	30.0	—	—	258.6	2003	
2004	215.5	5.0	9.7	—	10.0	5	15.0	—	—	245.2	2004	
2005	222.0	5.0	16.1	—	35.0	5	40.0	—	—	283.1	2005	
2006	234.0	7.0	22.5	—	24.0	5	29.0	—	—	292.5	2006	
2007	242.2	5.0	16.1	—	8.0	5	13.0	—	—	276.3	2007	
2008	251.5	4.0	17.5	—	0.0	3	3.0	—	—	276.0	2008	
2009	249.9	4.0	21.7	—	0.0	1	1.0	—	—	276.6	2009	
2010	262.8	2.0	14.5	—	3.8	2	5.8	—	—	285.1	2010	
2011	270.8	1.5	4.8	—	2.4	2	4.4	—	—	281.5	2011	
2012	273.8	1.0	8.0	—	0.0	1	1.0	—	—	283.8	2012	
2013	221.0	1.0	8.0	—	0.0	0	0.0	—	—	230.0	2013	
2014	205.5	1.5	8.0	—	0.0	0	0.0	—	—	215.0	2014	
2015	195.4	1.5	8.1	—	0.0	0	0.0	—	—	205.0	2015	
2016	191.9	1.5	9.6	—	0.0	0	0.0	—	—	203.0	2016	
2017	190.1	1.5	10.4	—	0.0	0	0.0	—	—	202.0	2017	
2018	189.5	1.5	10.5	—	0.0	0	0.0	—	—	201.5	2018	
2019	189.6	1.5	11.4	—	0.0	0	0.0	—	—	202.5	2019	
2020	210.7	1.5	12.8	—	0.0	0	0.0	—	—	225.0	2020	
2021	213.8	1.5	14.7	—	0.0	0	0.0	—	—	230.0	2021	
2022p	212.5	1.5	15.0	—	0.0	0	0.0	—	—	229.0	2022p	

Note: "Government Disposals" includes silver used in coins from stocks and bullion sales from governments other than the United States for the years through 1970. The U.S. Treasury bullion sales and the use of silver from the U.S. Treasury Stocks in coins during the 1960s are separated. After 1970, U.S. government bullion sales and use of government stocks in coinage are included in the "Government Disposals" category.

T.E. -- Transitional Economies.

Sources: U.S. Bureau of Mines; Handy & Harman; Samuel Montagu; Silver Institute; trade sources; CPM Group March 2022



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&  
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# Fabrication Demand





**Fabrication Demand**

Global silver fabrication demand stood at 890.1 million ounces in 2021, up 2.04% from 2020 levels but still lower than the 926.9 million ounces in fabrication demand during 2019.

Global manufacturing was the first to start recovering from the pandemic, with momentum picking up pace during the second half of 2020. While there were sporadic Covid related disruptions during 2020 and 2021, for the most part the industrial sector dealt with Covid better than services.

Fabrication demand rebounded in most sectors with the exceptions of photography, which has been in a long-term decline, and the ethylene oxide catalyst industry, where demand had shot up strongly during 2020 resulting in a reduction in new and replacement demand for these catalysts during 2021.

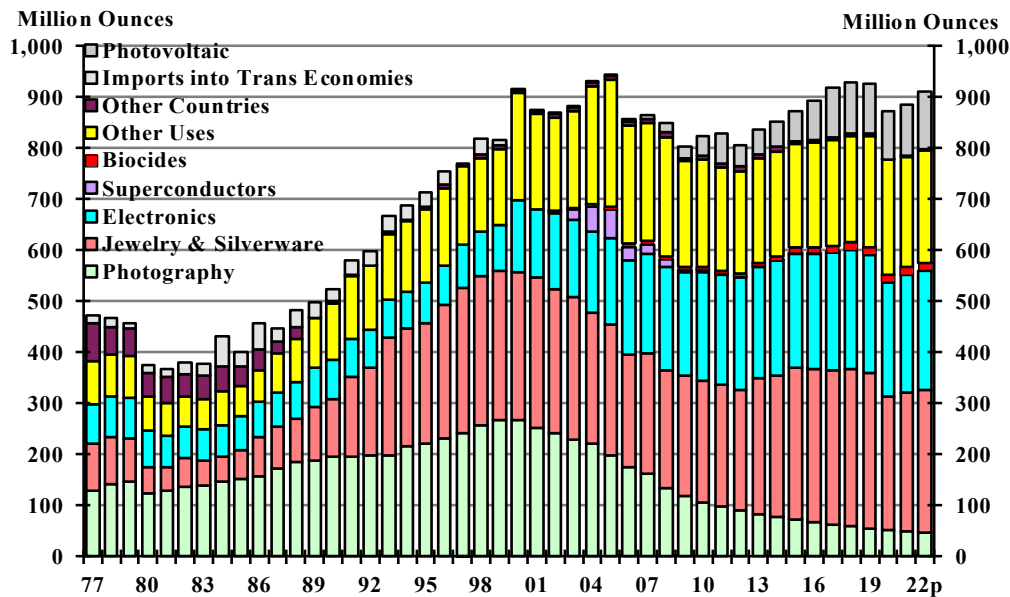
Silver jewelry and silverware demand rose during 2021 as economic growth rebounded and jewelers restocked inventory. Pent up savings from 2020 and limited services on which to spend resulted in some of this money being expended on jewelry. The sector did face headwinds from relatively high silver prices and lost demand from India during the first half of 2021 due to the delta variant of Covid.

Silver demand from the electronics sector also rose during 2021, but was unable to grow at its full potential due to the semiconductor shortages that hampered the production of final goods like cars and consumer electronics.

Silver demand from the solar panel industry was stronger than had been expected during 2021 and played an important role in offsetting softness in demand that was experienced in other sectors of silver demand.

**Silver Fabrication Demand**

*Projected Through 2022*



Silver fabrication demand is forecast to continue rising in 2022, reaching 908.1 million ounces. Growth once again is expected to primarily be driven by the solar panel industry, with other major sectors showing mixed results.

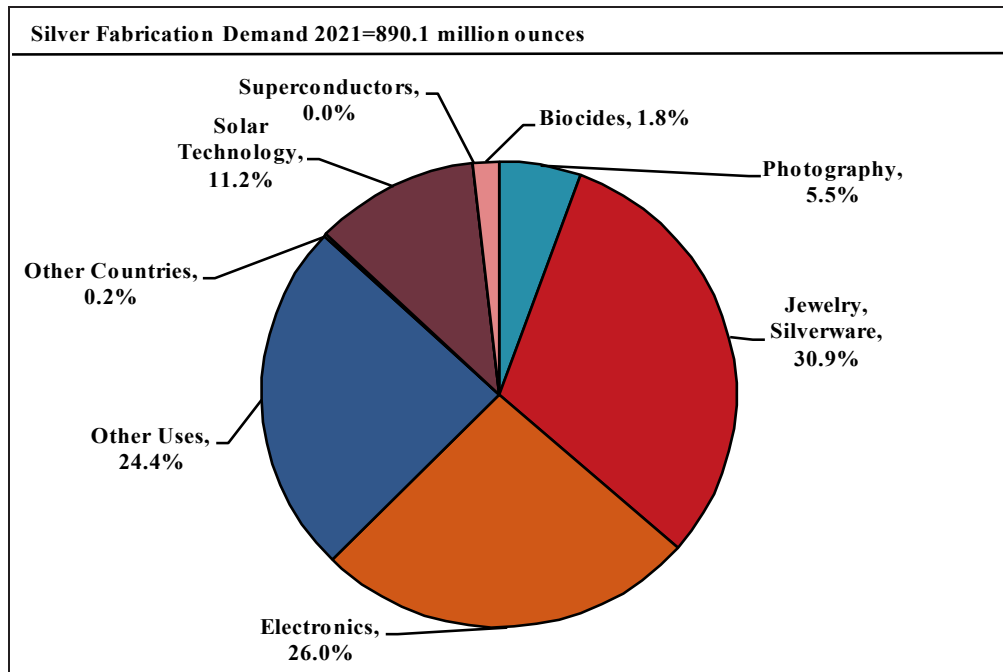
While the semiconductor shortage has improved from its worst, the shortages persist, and the war between Russia and Ukraine and China’s zero Covid policy have been supportive of these semiconductor shortages. This will continue to act as a headwind to silver demand from the electronics sector.

Global jewelry demand is forecast to grow in 2022, but at a slower pace than seen in 2021. Reduced need for restocking, rising inflation which will eat into discretionary spending, and still relatively higher silver prices accompanied

with elevated price volatility are all factors that are expected to act as headwinds to silver demand from jewelry during 2022.

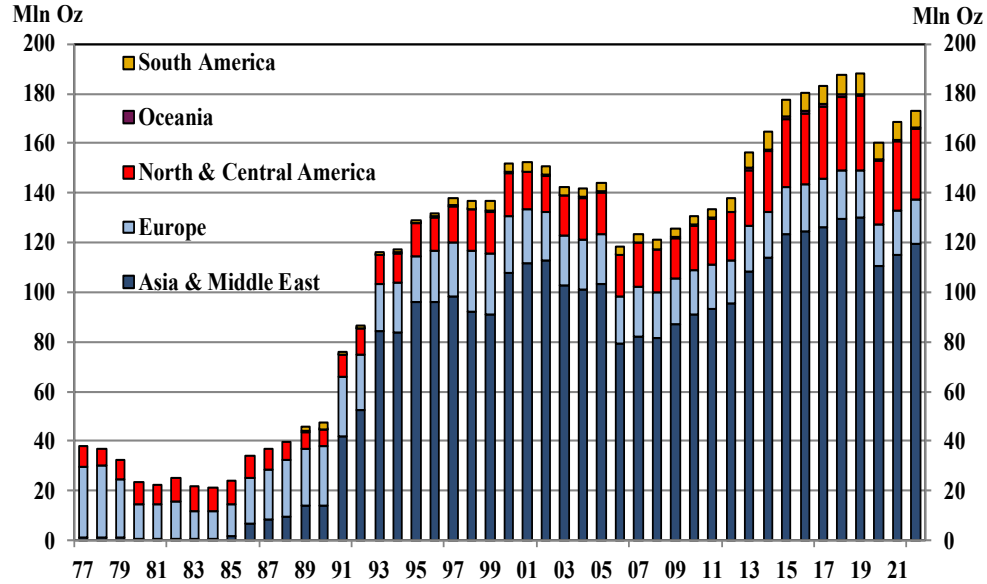
**Jewelry & Silverware**

Silver jewelry and silverware demand stood at 273.4 million ounces in 2021, up 4.9% from 2020. Healthy economic growth, ongoing reopening of markets, restocking of inventories, softness in the U.S. dollar, increased savings from 2020 and limited services on which to spend resulted in at least some of this money being diverted toward jewelry, and lastly pent-up demand from India during the second half of 2021 were all factors that helped support jewelry demand during the year. High silver prices and weak demand from India during the first half of 2021 weighed on total de-



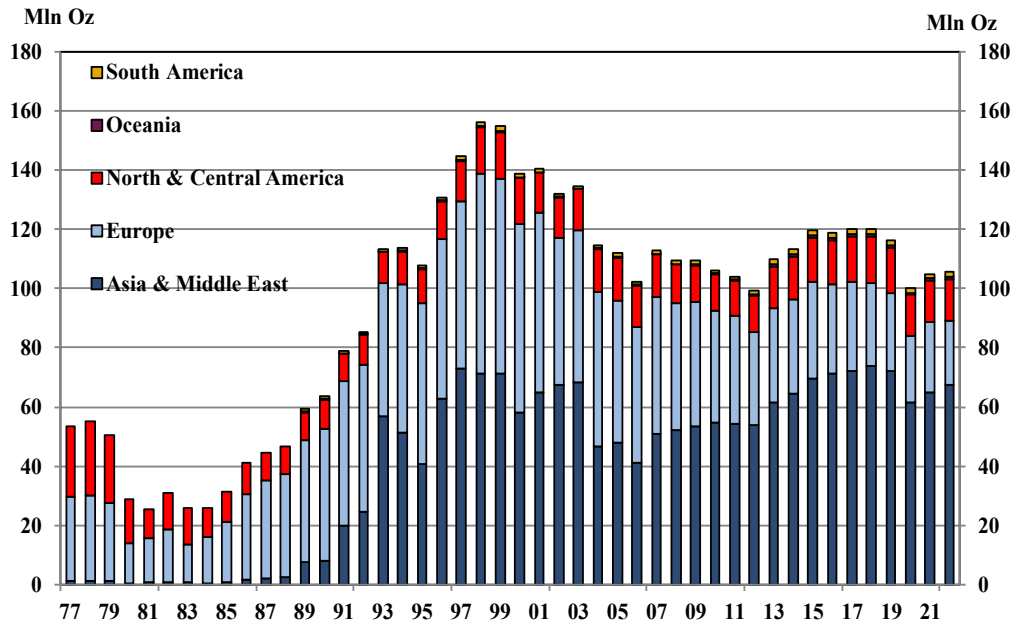
**Global Silver Demand For Jewelry Fabrication**

*Annual Projected Through 2022*



**Global Silver Demand For Silverware, Decorative Items, and Silverplate Fabrication**

*Annual, Projected Through 2022*



mand during the year.

Silver demand from the jewelry sector is forecast to continue rising in 2022, albeit at a slower pace than that observed during 2021. Silver demand from the jewelry and silverware sector is forecast to reach 278.8 million ounces during the year, up 2% from 2021 levels.

Renewed strength in the U.S. dollar, high silver prices, slowing economic growth, reduced restocking demand, and rising inflation are all factors that are expected to act as headwinds to jewelry demand during 2022.

A rising U.S. dollar alongside already high silver prices will compound the negative impact in silver fabrication demand from the jewelry sector in countries outside the United States. High inflation too will reduce consumer expenditure on discretionary items such as jewelry.

### ***Electronics and Batteries***

Silver demand from the electronics sector stood at 229.6 million ounces in 2021, up 2.25% from 2020 levels. Demand for silver from this sector could have been even stronger had it not been for the disruptions to various semiconductor manufacturing facilities in Japan, Taiwan, and Texas. The impact on semiconductor supply due to the disruptions at these facilities was further compounded by the lack of investment in facilities that produce low margin semiconductors needed in the auto sector. This resulted in the idling of various auto manufacturing facilities, which hurt silver demand from the electronics sector. The auto industry has in recent

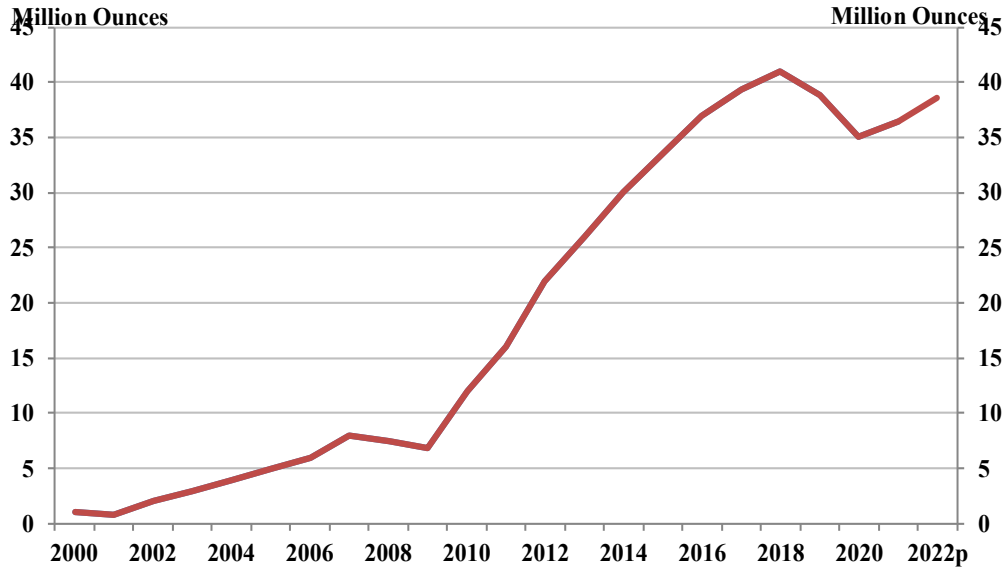
years become an important source of silver demand because of the increased amount of electronic and electrical components that are fitted to vehicles.

Global auto production stood at 80.1 million in 2021, up 3% from 2020 but down -12.75% from 2019 levels. Silver demand from the auto sector stood at 36.4 million ounces in 2021, up 4% from 2020 levels but still over -11% lower than the peak demand from this source of 41 million ounces in 2018. An ongoing increase in the number of electric and hybrid vehicles coupled with an increase in various digital features becoming increasingly standard in vehicles has been boosting silver demand from the auto sector, however, it has not been sufficient to fully offset the weakness in overall auto production.

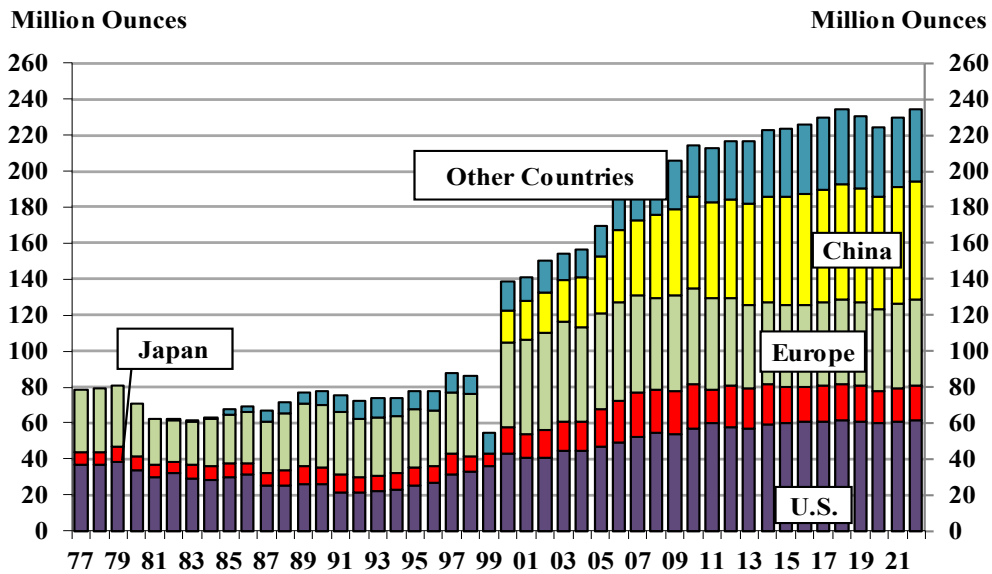
Another factor that weighed on silver demand from the electronics sector was the reduced rush to purchase consumer electronics to aid work and school from home, with much of that demand occurring in 2020. Additionally, while the auto sector was the worst victim of the semiconductor shortage that has been in place over the past year, consumer electronics have also faced supply disruptions. While demand for electronics remained healthy during 2021, the pace of growth slowed over the course of 2021.

Silver demand from the electronics sector is forecast to continue rising during 2022, at a similar pace as seen in 2021. Slowing economic growth, relative to 2021, rising inflation, and ongoing shortages of semiconductors all are expected to act as headwinds to silver demand from this sector. That said, the growth in electronic and electrical ap-

**Silver Use In The Auto Sector**  
*Projected Through 2022*

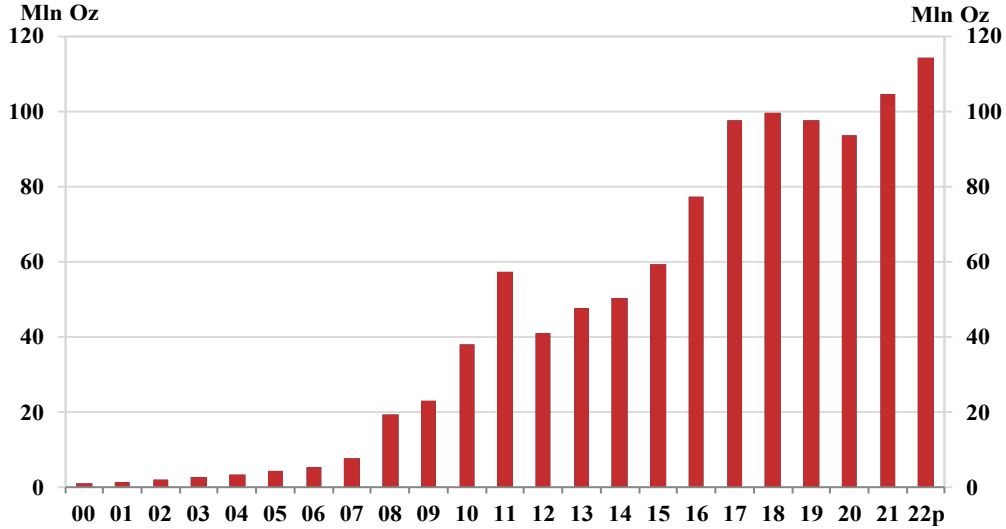


**Silver Fabrication Demand for Electronics and Batteries**  
*Annual, Projected Through 2022*



**Annual Silver Demand for Photovoltaic Solar Panels**

*Projected Through 2022*



**Multi-Crystalline Silicon Module Overall Average Spot Price**

*Weekly, Through 1 April 2020*



Note: Average price is for solar panel modules of 156 mm side and 180 - 200 micron thickness.  
Source: Bloomberg

plications in every consumer purchase will keep demand for silver from this sector growing. Demand is projected to rise 2.2% during 2022 to reach 234.6 million ounces. If this level of demand is achieved, it would be a new record, surpassing the 234 million ounces in demand seen during 2018.

**Solar Panels**

Global silver demand from the solar panel industry rose strongly during 2021, setting a new record at 104.7 million ounces. This sharp gain in silver demand was driven by a jump in solar panel production during the year. There has been an increased focus in recent years on developing alternate sources of energy away from fossil fuels. This trend gathered further momentum during 2020 when the pandemic pushed several governments to focus on developing green energy projects as a way to both boost economic growth as well as

try to accelerate the move toward green energy to meet long term climate goals.

Costs for solar panels rose during 2021, driven higher by supply chain disruptions and restrictions on power usage in China which has caused the costs of some components used in the solar panels to rise. Despite these increases, demand continued to rise, in part because the increases in costs were from a very low base and in part because of the increased focus around the world in producing more green energy of which solar is a very important component. It should also be noted that this industry is somewhat less sensitive to broader economic trends due to the increased focus around the world in meeting green energy goals.

Global demand for solar panels is forecast to remain robust during 2022 as well. In addition to various major economies using solar power as one of their

**Mono-Crystalline Silicon Module Overall Average Spot Price**

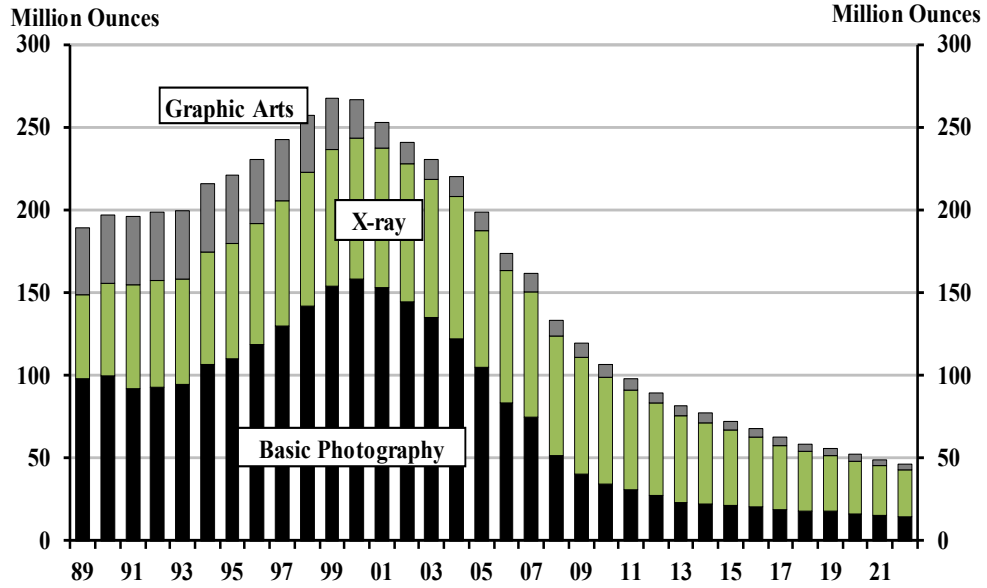
*Weekly, Through 1 April 2020*



Source: Bloomberg

**Silver Fabrication Demand for Photography**

*Projected Through 2022*





methods of increasing green energy production, rising fossil fuel prices are expected to further accelerate the move toward green energy sources like solar power. Silver demand from this source is expected to continue rising during 2022 and is forecast to reach a new record high of 114.4 million ounces.

Silver demand from this sector is broadly driven by two factors: the number of solar panels being produced and the amount of silver being loaded in these panels. While the amount of silver being loaded in these panels is on a declining trajectory the volume of panels being produced more than compensates for any loss in per unit loadings.

### *Photography*

Silver demand from the photography sector stood at 49.1 million ounces in 2021, down -6% from 2020. Silver demand from this sector has been in a declining trend since 2000. Digital imaging has been responsible for this decline in demand. Digital images are cheaper and more convenient to save and share than photographs taken on film cameras. As a result of this, demand has been lost most in the basic photography segment, with demand from this sector standing at 15.3 million ounces in 2021, down from 158.5 million ounces at its peak in 2000. Demand from this source is forecast to continue declining in the future, but possibly at a slower pace.

There also has been an increased adoption of digital x-rays over the past decade, which has resulted in a decline in silver demand from this source as well. Silver demand from this sector stood at 30 million ounces in 2021, down -6% from 2020 levels. Demand is expected to continue declining in 2022, slipping to around 28 million ounces.

The smallest source of silver use in this sector comes from silver used in movie reels. The ongoing increase in cinemas' ability to screen digitally has been weighing on silver demand from this source as well, with demand from this source slipping to 3.8 million ounces in 2021, down -6% from 2020. Demand is forecast to continue declining in 2022 to 3.7 million ounces.

**Other Uses**

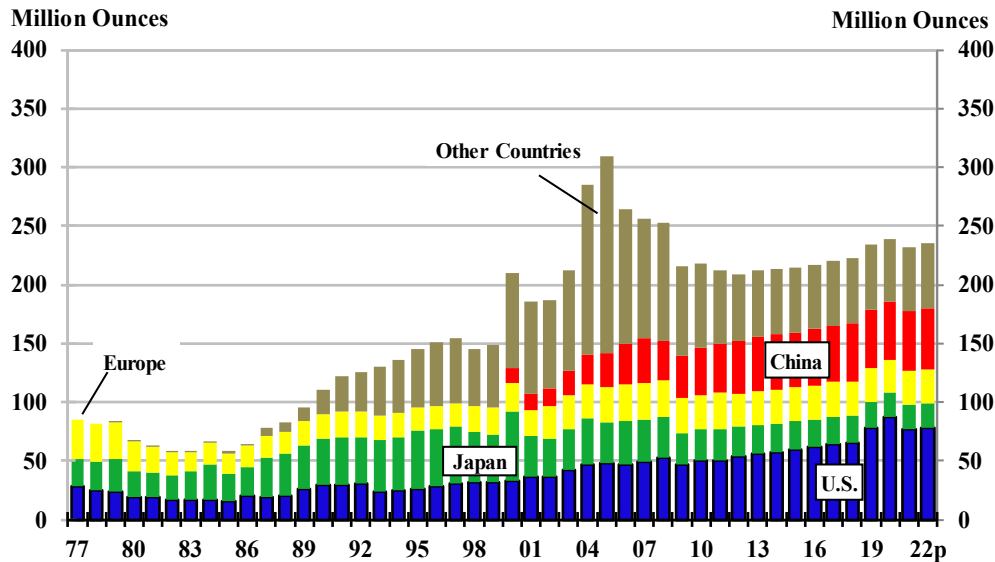
In addition to the major uses mentioned above, silver has numerous smaller uses, which when grouped together account for the second largest use of silver after jewelry.

Among these uses, the single largest use is brazing alloys. Brazing alloys are used in pipe fitting, tubing, refrigerators, air conditioners, and other heat exchangers that contain silver. Silver brazing alloys also are used in other applications in addition to those mentioned here. Strength in real estate markets around the world boosted demand for air conditioners and other purchases around the home either from people upgrading their existing residences or from ongoing construction of new homes to meet strong demand. Silver demand from the brazing alloys sector stood at 85.5 million ounces, up 2.1% from 2020 levels.

Silver demand from the ethylene oxide catalyst sector slowed during 2021 to 21.1 million ounces, down -36% from 2020 following a sharp increase in demand during 2020. Demand from this sector is expected to continue to slow in 2022, slipping to 19 million ounces. While these levels of demand are lower than those seen during 2020, they are a little more than double the nine million ounces in annual demand observed between 2012 and 2018.

**Demand for Other Uses for Silver**

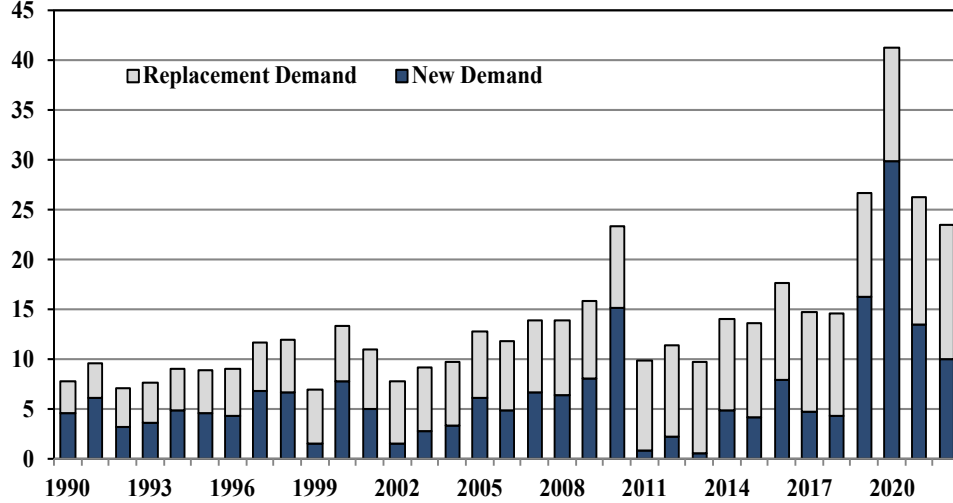
*Annual, Projected Through 2022*



**Silver Demand for Ethylene Oxide Production Catalysts**

*Annual, through 2022*

Mln Oz



Note: 'New Demand' represents silver demand for new production capacity added to global ethylene oxide production capacity. 'Replacement Demand' represents additional silver added to existing capacity after

Annual Silver Use																								
Million Troy Ounces																								
		1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Photography</b>																								
United States		53.7	64.3	66.0	49.8	51.0	51.8	51.8	55.3	57.9	55.4	60.2	62.5	65.2	68.0	66.0	64.4	65.0	71.0	72.9	78.3	84.6	91.0	96.0
Japan		31.2	31.4	32.2	32.6	33.9	36.6	40.9	41.3	42.2	47.0	51.3	56.8	54.8	56.5	57.8	58.0	56.7	61.1	63.6	65.7	67.3	70.9	71.5
Western Europe		44.7	47.2	49.8	41.4	43.2	44.9	45.6	47.6	48.1	51.0	52.7	57.0	57.1	59.1	60.0	62.2	63.8	70.6	72.6	74.4	77.5	81.8	85.6
China		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Countries		-	-	-	-	3.2	2.0	3.1	4.5	4.3	8.0	8.8	12.1	13.0	12.4	14.0	13.6	12.8	12.1	12.5	12.8	13.3	14.1	-
Subtotal		129.6	142.9	148.0	123.8	128.1	136.5	140.3	147.3	152.7	157.8	172.1	185.1	189.2	196.5	196.2	198.6	199.1	215.5	221.2	230.9	242.2	257.0	267.2
% of Total		27.4%	30.5%	32.3%	33.1%	34.9%	35.8%	37.0%	34.2%	38.0%	34.6%	38.6%	38.3%	37.9%	37.5%	33.9%	33.2%	29.8%	31.3%	31.0%	30.6%	30.9%	31.4%	38.7%
% Change Year Ago		-	10.3%	3.6%	-16.3%	3.5%	6.5%	2.8%	5.0%	3.7%	3.4%	9.1%	7.5%	2.2%	3.9%	-0.1%	1.2%	0.3%	8.2%	2.6%	4.4%	4.9%	6.1%	4.0%
<b>Jewelry and Silverware</b>																								
United States		31.6	31.9	26.5	19.3	13.7	16.1	17.1	13.0	13.0	12.3	10.5	9.0	8.5	8.3	8.3	9.8	10.3	11.0	12.0	13.1	14.1	15.7	15.9
Japan		2.2	2.5	2.2	1.0	1.1	1.3	1.1	1.0	1.4	1.7	2.2	3.0	3.5	3.8	3.5	2.8	2.9	2.4	2.7	2.3	2.0	3.0	2.8
Western Europe		57.2	57.4	50.3	27.5	28.7	32.7	23.9	27.3	33.1	47.3	53.3	57.3	63.8	68.3	73.1	71.8	63.9	70.6	72.6	74.4	92.4	90.4	0.0
China		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Countries		-	-	3.7	4.4	4.3	6.2	5.5	6.1	8.0	14.0	15.7	16.9	29.3	31.0	70.4	87.6	152.6	146.5	149.9	172.4	188.3	183.1	183.4
Subtotal		91.0	91.8	82.7	52.2	47.7	56.2	47.5	47.3	55.5	75.3	81.7	86.2	105.0	111.3	155.3	172.0	229.7	230.5	237.2	262.2	296.8	292.2	202.1
% of Total		19.2%	19.6%	18.0%	13.9%	13.0%	14.7%	12.5%	11.0%	13.8%	16.5%	18.3%	17.9%	21.0%	21.2%	26.8%	28.8%	34.4%	33.5%	33.2%	34.7%	37.8%	35.7%	29.2%
% Change Year Ago		-	0.9%	-10.0%	-36.9%	-8.6%	17.8%	-15.5%	-0.3%	17.2%	35.7%	8.4%	5.6%	21.8%	6.0%	39.5%	10.7%	33.6%	0.4%	2.9%	10.5%	13.2%	-1.5%	-30.8%
<b>Electronics and Batteries</b>																								
United States		37.1	36.8	38.1	33.8	30.2	31.9	28.9	28.3	30.0	31.1	25.2	25.5	26.3	25.8	21.4	21.4	22.1	23.1	25.0	26.8	31.3	33.3	36.0
Japan		6.9	7.0	8.9	7.6	6.4	6.6	7.7	7.8	7.5	6.8	7.0	8.4	9.5	9.7	9.7	8.4	8.7	8.9	10.1	9.3	11.3	7.9	7.0
Western Europe		34.7	35.5	33.4	29.8	25.6	23.2	23.8	26.2	27.2	28.5	28.9	31.5	34.8	34.7	34.8	32.4	32.1	31.5	32.2	30.6	34.0	35.1	0.0
China		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Countries		-	-	-	-	0.9	0.5	0.8	3.1	3.0	5.6	6.0	6.5	7.6	7.6	9.5	10.4	10.8	10.0	10.7	10.8	11.3	10.2	11.9
Subtotal		78.7	79.3	80.4	71.1	62.2	62.5	61.0	63.2	67.8	69.5	66.6	71.3	77.1	77.8	75.4	72.6	73.7	73.5	78.0	77.5	87.8	86.5	54.9
% of Total		16.6%	16.9%	17.5%	19.0%	16.9%	16.4%	16.1%	14.7%	16.9%	15.2%	14.9%	14.8%	15.4%	14.8%	13.0%	12.2%	11.0%	10.7%	10.9%	10.3%	11.2%	10.6%	7.9%
% Change Year Ago		-	0.7%	1.4%	-11.5%	-12.6%	0.5%	-2.4%	3.5%	7.4%	2.5%	-4.1%	7.0%	8.1%	1.0%	-3.2%	-3.6%	1.6%	-0.3%	6.0%	-0.7%	13.4%	-1.5%	-36.6%
<b>Photovoltaics</b>																								
China		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Countries		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
% of Total		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
% Change Year Ago		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Other Uses</b>																								
United States		28.5	24.7	24.1	18.9	19.7	17.2	17.2	16.4	16.0	20.1	19.4	20.5	26.0	29.4	29.4	30.4	23.7	25.0	26.3	28.5	30.5	32.3	32.4
Japan		22.9	24.0	27.8	22.8	20.8	20.9	24.3	30.7	23.3	24.8	33.6	35.7	36.7	39.3	40.3	39.7	43.9	45.3	49.2	48.7	48.5	41.9	40.2
Western Europe		33.4	32.9	31.0	24.6	21.7	19.7	16.4	17.8	17.3	17.9	18.0	18.9	20.9	21.1	21.8	21.6	20.6	20.8	20.0	19.7	20.2	22.1	23.1
China		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Countries		-	-	0.1	0.2	0.3	1.1	1.1	1.5	1.8	0.6	6.7	7.6	11.8	21.0	30.5	34.0	41.8	45.2	49.4	53.9	54.9	49.0	53.2
Subtotal		84.8	81.6	82.9	66.6	62.6	58.9	58.9	66.4	58.4	63.3	77.8	82.7	95.4	110.8	122.0	125.8	130.0	136.2	144.9	150.8	154.1	145.3	148.9
% of Total		17.9%	17.4%	18.1%	17.8%	17.0%	15.4%	15.6%	15.4%	14.5%	13.9%	17.4%	17.1%	19.1%	21.1%	21.1%	21.1%	19.5%	19.8%	20.3%	20.0%	19.7%	17.8%	21.6%
% Change Year Ago		-	-3.7%	1.6%	-19.7%	-6.0%	-5.9%	0.1%	12.7%	-12.0%	8.4%	22.8%	6.4%	15.3%	16.1%	10.1%	3.1%	3.3%	4.8%	6.4%	4.1%	2.2%	6.7%	2.5%
Other Countries		73.1	54.3	52.8	46.1	51.3	43.4	45.8	49.6	37.2	41.3	23.5	24.7	0.2	3.1	3.4	1.0	5.0	3.9	3.4	6.0	6.5	6.4	6.9
% of Total		15.5%	11.6%	11.5%	12.3%	14.0%	11.4%	12.1%	11.5%	9.2%	9.0%	5.3%	5.1%	0.0%	0.6%	0.6%	0.2%	0.8%	0.6%	0.5%	0.8%	0.8%	0.8%	1.0%
<b>Net Imports into the Transitional Economies</b>																								
United States		15.9	18.2	11.5	14.5	15.3	23.8	25.4	56.6	30.4	49.2	24.9	32.9	32.6	25.0	27.2	27.5	30.0	28.0	29.3	27.9	-3.3	31.2	11.0
% Change Year Ago		-	14.2%	-36.7%	25.8%	5.7%	55.5%	6.9%	122.7%	-46.2%	61.8%	-49.5%	32.1%	-0.9%	-23.3%	8.9%	0.9%	9.1%	-6.7%	4.7%	-4.8%	NM	NM	-64.7%
Total		473.1	468.1	458.3	374.3	367.2	381.2	378.9	430.3	402.0	456.4	446.5	482.9	499.5	524.6	579.6	597.4	667.6	687.7	713.9	755.2	784.1	818.7	691.0
% Change Year Ago		-	-1.0%	-2.1%	-18.3%	-1.9%	3.8%	-0.6%	13.6%	-6.6%	13.5%	-2.2%	8.2%	3.4%	5.0%	10.5%	3.1%	11.7%	3.0%	3.8%	5.8%	3.8%	4.4%	-15.6%

Notes: Totals may not equal the sums of the categories due to rounding. The "Other Countries" categories for individual sectors include Mexico from 1982; India from 1987; Hong Kong from 1985; Thailand from 1986; Korea, Australia, Brazil, Colombia, Argentina, Chile, Pakistan, and Bangladesh from 1989; and Taiwan from 1990. Chinese statistics were incorporated into market economy silver demand data starting in 2000. In 2000, the transitional economies shifted from being net importers of silver to net exporters. See "silver statistical position" table for related statistics. PV use included in "Other Uses."

Source: CPM Group  
15 April 2022

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p
<b>Photography</b>																						
104.0	102.0	99.0	91.5	89.0	83.0	75.0	69.0	58.0	52.7	47.0	45.0	39.0	35.2	32.4	29.9	27.5	24.5	22.7	21.5	20.0	18.0	17.5
55.5	53.5	49.2	43.9	40.0	31.2	28.0	26.0	14.9	14.0	11.0	11.0	9.6	8.0	7.8	7.5	7.2	6.7	6.4	6.0	5.7	5.3	5.0
88.6	79.3	74.3	75.2	73.8	70.6	60.5	57.0	50.9	43.4	39.6	32.8	32.1	29.8	28.5	26.5	25.3	23.3	21.8	20.7	19.3	18.6	17.5
4.9	5.0	5.5	6.1	6.6	6.8	6.4	5.8	6.4	6.5	6.6	6.7	6.7	6.8	6.8	6.4	6.0	5.9	5.8	5.6	5.2	5.2	4.5
13.6	12.9	13.0	13.5	11.1	7.4	4.2	3.7	3.3	2.9	2.7	2.5	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0
266.6	252.7	241.0	230.2	230.5	199.0	174.1	161.5	133.5	119.4	106.9	98.0	89.7	82.0	77.7	72.5	68.1	62.5	58.7	55.9	52.2	49.1	46.5
29.3%	29.1%	27.6%	26.0%	23.9%	21.1%	20.3%	18.8%	15.7%	14.9%	13.0%	7.5%	7.0%	6.2%	5.7%	5.3%	4.8%	4.2%	3.9%	3.7%	3.6%	3.4%	3.1%
-0.2%	-5.2%	-4.6%	-4.5%	-4.2%	-9.7%	-12.5%	-7.3%	-17.3%	-10.6%	-10.5%	-8.4%	-8.4%	-8.6%	-5.3%	-6.6%	-6.0%	-8.4%	-6.0%	-4.8%	-6.0%	-5.9%	-5.2%
<b>% Change Year Ago</b>																						
<b>Jewelry and Silverware</b>																						
16.2	13.5	12.4	13.5	14.1	14.4	13.6	14.3	12.0	11.5	12.6	13.1	11.8	13.5	14.5	16.5	17.0	17.1	17.3	17.5	15.4	16.5	16.7
2.6	2.9	3.0	3.1	3.0	3.2	3.0	3.2	3.2	2.5	3.0	2.9	2.9	2.9	3.0	2.9	3.0	3.0	3.0	3.0	2.7	2.8	2.8
82.4	69.3	71.2	72.7	67.7	64.9	66.3	60.7	60.4	55.8	54.3	48.7	50.3	50.5	51.5	49.4	49.9	48.2	45.7	39.3	41.6	39.4	39.4
5.2	5.5	11.3	12.3	13.7	15.4	17.4	23.1	25.7	31.5	36.3	38.6	41.1	48.7	53.5	57.7	58.9	60.1	62.0	62.5	53.0	56.0	60.0
179.8	188.9	186.9	177.4	153.0	155.4	121.9	129.6	129.3	128.4	129.1	129.2	132.7	151.0	157.1	168.8	170.9	173.3	177.1	175.5	150.2	156.5	159.9
286.2	280.1	284.8	279.0	251.5	253.4	222.1	230.9	230.6	229.7	235.3	232.4	238.8	266.7	279.5	297.4	299.1	303.4	307.6	304.3	260.6	273.4	278.8
31.5%	32.3%	32.6%	31.5%	27.2%	26.9%	25.9%	26.9%	17.3%	18.4%	18.1%	17.7%	18.6%	20.2%	20.8%	21.6%	21.1%	20.6%	20.7%	20.4%	18.2%	18.8%	18.7%
41.6%	-2.1%	1.7%	-2.0%	-9.9%	0.8%	-12.3%	3.9%	-0.1%	-0.4%	2.4%	-1.2%	2.7%	11.7%	4.8%	6.4%	0.6%	1.4%	1.4%	-1.1%	-14.4%	4.9%	2.0%
<b>% Change Year Ago</b>																						
<b>Electronics and Batteries</b>																						
43.0	40.4	40.5	44.6	44.6	46.8	49.4	52.2	54.7	53.7	56.5	59.6	58.0	56.5	59.4	60.1	60.6	60.8	61.3	60.7	59.8	61.0	61.8
15.0	13.3	15.4	16.1	16.2	21.0	23.0	25.0	24.0	24.0	25.0	19.0	23.0	22.5	22.0	20.0	19.5	20.2	20.5	20.5	18.0	18.5	19.0
47.0	52.5	54.0	55.6	52.5	53.0	54.4	53.5	50.9	53.2	53.4	51.0	48.3	46.5	45.8	45.8	45.8	45.9	47.0	46.2	45.6	46.8	47.8
17.8	21.9	22.5	23.3	27.6	31.5	40.2	41.8	46.1	48.3	50.8	52.8	54.7	56.4	58.6	59.8	61.3	62.8	64.2	63.2	62.3	64.5	65.4
15.8	12.8	18.2	14.7	15.5	17.5	19.4	22.5	26.0	26.7	28.8	30.6	32.6	34.7	37.2	38.0	38.9	39.9	41.0	39.8	38.5	38.7	40.6
138.5	140.8	150.6	154.3	156.4	169.9	186.4	194.9	201.7	205.9	214.6	213.1	216.6	216.6	223.0	223.8	226.1	229.6	234.0	230.3	224.2	229.6	234.6
15.2%	16.2%	17.3%	17.4%	16.9%	18.0%	21.7%	22.7%	15.1%	16.5%	16.5%	16.2%	16.9%	16.4%	16.6%	16.3%	15.9%	15.6%	15.7%	15.4%	15.7%	15.7%	15.7%
152.3%	1.6%	6.9%	2.4%	1.4%	8.6%	9.7%	4.6%	3.5%	2.1%	4.2%	-0.7%	1.7%	0.0%	2.9%	0.3%	1.0%	1.5%	2.0%	-1.6%	-2.7%	2.4%	2.2%
<b>% Change Year Ago</b>																						
<b>Photovoltaics</b>																						
-	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.4	1.2	5.3	6.9	15.1	12.7	17.2	37.4	54.3	50.2	48.7	47.3	42.5	36.3
-	1.4	1.9	2.6	3.3	4.3	5.2	7.5	19.1	22.4	36.7	51.9	34.3	32.4	37.7	42.0	40.0	43.4	49.6	49.1	46.5	62.2	78.0
1.0	1.4	2.0	2.7	3.4	4.3	5.3	7.5	19.2	22.9	37.9	57.2	41.2	47.6	50.4	59.2	77.2	97.7	99.9	97.8	93.8	104.7	114.4
N/A	0.2%	0.2%	0.3%	0.4%	0.5%	0.6%	0.9%	1.4%	1.8%	2.9%	4.4%	3.2%	3.6%	3.8%	4.3%	5.5%	6.6%	6.7%	6.6%	6.6%	7.2%	7.7%
N/A	37.4%	39.6%	34.8%	26.4%	28.2%	22.4%	43.1%	155.3%	18.7%	65.8%	51.0%	-28.0%	15.6%	5.8%	17.6%	30.6%	26.3%	2.2%	-2.0%	-4.1%	11.6%	9.2%
<b>% Change Year Ago</b>																						
<b>Other Uses</b>																						
33.0	37.1	37.1	41.8	47.2	47.9	46.7	49.5	52.3	47.5	50.1	50.8	53.9	55.8	57.7	59.6	61.8	64.5	65.6	77.9	87.3	76.6	75.2
59.5	34.0	31.6	35.2	38.5	35.4	37.4	35.8	35.1	26.5	27.3	26.2	25.4	24.6	24.3	24.0	23.6	23.3	23.0	22.6	21.3	21.5	21.2
23.8	22.2	28.0	28.9	29.2	29.0	30.5	31.5	31.3	29.1	28.9	30.7	28.1	28.6	28.6	28.8	29.0	29.3	29.3	29.0	27.9	28.2	28.5
12.9	13.7	15.0	20.8	26.0	29.4	35.0	37.9	33.8	36.7	39.7	42.4	45.0	46.9	47.2	47.1	47.6	48.3	48.9	49.4	49.0	50.3	51.2
80.4	78.3	75.4	85.3	144.5	167.3	114.8	101.4	100.7	76.1	72.1	62.1	56.8	56.9	55.9	55.0	54.7	55.0	55.4	55.4	53.7	54.6	55.5
209.6	185.3	187.1	212.0	285.5	309.1	264.4	256.2	253.2	215.9	218.0	212.1	209.1	212.7	213.8	214.5	216.7	220.3	222.2	234.4	239.2	231.2	231.6
23.1%	21.4%	21.4%	24.0%	30.9%	32.8%	30.8%	29.8%	19.0%	17.3%	16.8%	16.1%	16.3%	16.1%	15.9%	15.6%	15.3%	15.0%	14.9%	15.7%	16.7%	15.9%	15.8%
40.7%	-11.6%	1.0%	13.3%	34.7%	8.3%	-14.4%	-3.1%	-1.2%	-14.7%	1.0%	-2.7%	-1.4%	1.7%	0.5%	0.3%	1.1%	1.6%	0.8%	5.5%	2.0%	-3.4%	0.2%
<b>% Change Year Ago</b>																						
7.0	7.0	7.0	7.0	7.0	7.0	7.0	8.2	9.7	7.5	8.5	8.0	9.5	9.7	5.0	5.0	5.5	5.5	5.5	4.0	2.0	2.2	2.2
0.8%	0.8%	0.8%	0.8%	0.8%	0.7%	0.8%	1.0%	0.7%	0.6%	0.7%	0.6%	0.7%	0.7%	0.7%	0.4%	0.4%	0.4%	0.4%	0.3%	0.1%	0.2%	0.1%
<b>% Change Year Ago</b>																						
<b>Net Imports into the Transitional Economies</b>																						
-	-	-	-	-	-	-	-	486.5	449.8	478.8	492.8	478.6	488.2	488.2	502.5	525.2	553.1	561.6	566.6	559.5	567.7	582.8
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>% Change Year Ago</b>																						
909.0	867.3	872.5	885.1	924.2	942.6	859.4	859.2	1334.5	1251.1	1300.0	1313.5	1283.0	1323.4	1342.2	1374.8	1417.6	1471.9	1489.4	1493.3	1431.6	1457.8	1490.9
31.5%	-4.6%	0.6%	1.4%	4.4%	2.0%	-8.8%	0.0%	55.3%	-6.2%	3.9%	1.0%	-2.3%	3.1%	1.4%	2.4%	3.1%	3.8%	1.2%	0.3%	-4.1%	1.8%	2.3%
<b>% Change Year Ago</b>																						

## Fabrication Demand by Country, 1960-2022p

Million Troy Ounces

Year	Europe					Other Europe	Subtotal	U.S.	Japan
	Germany	Italy	U.K.	France	Belgium				
1960	40.2	0.0	16.5	13.0	-i	-i	69.7	102.0	21.6
1961	43.5	20.0	20.0	14.0	-i	-i	97.5	105.5	19.1
1962	41.8	22.0	20.0	13.5	-i	-i	97.3	122.4	19.6
1963	40.5	25.0	20.0	13.9	-i	-i	99.4	122.0	20.0
1964	46.3	25.0	23.0	14.8	-i	-i	109.1	123.0	20.0
1965	54.6	25.0	25.0	14.0	-i	-i	118.6	137.0	25.8
1966	48.2	30.0	25.0	14.7	-i	-i	117.9	183.7	31.5
1967	48.2	28.2	24.0	14.7	-i	-i	115.1	171.0	33.2
1968	50.0	22.5	23.0	18.0	-i	-i	113.5	145.3	35.0
1969	50.0	29.0	24.5	19.3	-i	-i	122.8	141.5	41.5
1970	48.2	32.0	25.0	15.5	-i	-i	120.7	128.4	46.0
1971	59.9	30.5	25.0	15.6	-i	-i	131.0	129.1	46.5
1972	60.0	32.0	27.0	16.5	-i	-i	135.5	151.7	54.3
1973	60.0	33.5	31.5	22.5	-i	-i	147.5	196.4	69.0
1974	55.0	30.0	33.0	21.0	-i	-i	139.0	173.2	57.7
1975	38.9	28.9	28.0	21.0	-i	-i	116.8	155.7	46.4
1976	52.9	38.5	27.6	31.8	-i	-i	150.8	168.3	60.8
1977	48.1	36.3	29.4	32.6	-i	-i	146.4	150.9	63.2
1978	42.0	31.0	29.0	24.6	-i	-i	126.6	157.8	64.9
1979	39.8	25.9	27.6	24.0	14.8	32.5	164.6	154.6	71.1
1980	31.9	16.3	19.5	19.8	14.6	17.1	123.3	121.8	64.0
1981	29.4	25.0	18.4	18.8	15.9	12.9	119.2	114.7	62.2
1982	32.4	23.9	18.2	17.1	17.0	11.9	120.4	116.9	65.4
1983	30.6	18.4	17.5	16.5	16.3	10.5	109.7	114.6	74.0
1984	31.7	21.2	19.2	17.1	16.8	12.9	118.9	113.0	80.8
1985	34.1	24.3	19.1	16.9	16.4	14.8	125.7	116.9	74.4
1986	36.3	34.2	19.0	17.0	17.6	20.5	144.8	118.9	80.3
1987	39.1	39.0	21.1	17.6	17.9	18.1	152.8	115.3	94.1
1988	44.1	38.2	22.7	21.3	19.2	19.2	164.7	117.5	103.9
1989	46.9	43.6	24.5	22.1	19.2	20.4	176.7	126.0	104.5
1990	48.4	48.3	24.4	22.5	19.4	20.1	183.1	131.5	109.3
1991	52.3	53.1	21.7	21.9	17.5	23.2	189.7	125.1	111.3
1992	49.1	54.4	21.7	21.7	19.6	21.5	188.0	126.0	108.9
1993	45.8	52.1	23.2	22.0	21.3	16.1	180.4	121.1	112.2
1994	45.8	57.6	24.4	23.3	24.5	17.9	193.5	130.1	118.0
1995	43.6	64.8	25.6	23.8	26.9	12.6	197.4	136.2	125.3
1996	41.1	61.7	27.5	22.4	28.5	17.8	199.1	146.7	126.4
1997	42.7	65.5	28.7	23.1	29.9	17.1	207.0	160.5	129.8
1998	47.5	78.3	31.2	23.7	31.9	17.6	230.3	172.3	123.0
1999	48.8	75.8	32.5	24.7	34.5	17.9	234.2	180.3	120.7
2000	52.0	74.2	36.4	29.1	37.0	19.5	248.1	196.2	133.0
2001	48.7	70.9	33.2	26.9	34.0	17.2	230.9	193.0	103.6
2002	58.4	61.2	32.1	24.8	32.9	14.7	224.1	189.0	98.8
2003	62.1	62.7	33.7	26.6	32.0	12.2	229.3	191.4	98.1
2004	68.1	64.5	33.1	26.7	32.1	6.7	231.2	194.9	97.7
2005	69.2	57.1	30.7	24.2	31.1	7.5	219.8	192.1	90.7
2006	67.5	56.0	28.8	20.9	29.3	6.4	208.9	184.7	91.4
2007	69.1	57.2	28.6	19.7	28.7	5.9	209.3	185.0	90.0
2008	72.0	53.1	25.2	19.7	24.3	2.1	196.4	177.0	77.0
2009	70.7	53.3	22.7	18.0	20.3	-1.2	183.8	165.4	67.7
2010	71.4	49.1	22.1	17.4	18.3	-0.8	177.5	166.2	66.5
2011	71.0	47.1	20.7	16.6	16.6	-0.8	171.2	168.5	58.7
2012	67.8	41.5	19.8	15.0	15.7	0.1	159.8	162.7	61.0
2013	66.8	43.0	21.1	14.2	14.3	-2.4	157.0	161.0	58.0
2014	64.8	42.3	21.1	13.5	13.8	-1.2	154.2	164.0	57.0
2015	64.0	42.4	20.8	12.9	12.6	0.0	152.6	166.1	54.4
2016	64.6	39.6	20.6	12.6	12.0	0.1	149.5	166.8	53.3
2017	65.1	39.7	20.0	12.3	11.3	-0.1	148.3	166.9	53.1
2018	66.1	37.5	19.7	12.2	10.6	0.2	146.4	166.9	52.8
2019	63.9	35.6	19.4	12.0	10.2	0.6	141.7	177.6	52.1
2020	60.5	31.8	18.5	11.4	9.6	0.3	132.1	182.5	47.7
2021	62.4	33.2	18.5	11.5	9.3	0.4	135.2	172.1	48.2
2022p	63.1	31.0	18.3	11.4	8.9	0.5	133.1	171.2	48.1

Notes: Excludes silver use in coinage. Totals may not equal the sums of countries due to rounding. "Other Europe" prior to 1979 is included in "Other." -i- included in Other.

In 2000, the transitional economies shifted from being net importers of silver to net exporters.

Chinese statistics were added to market economy demand data starting in 2000. Prior to 2000,

## Fabrication Demand by Country, 1960-2022p

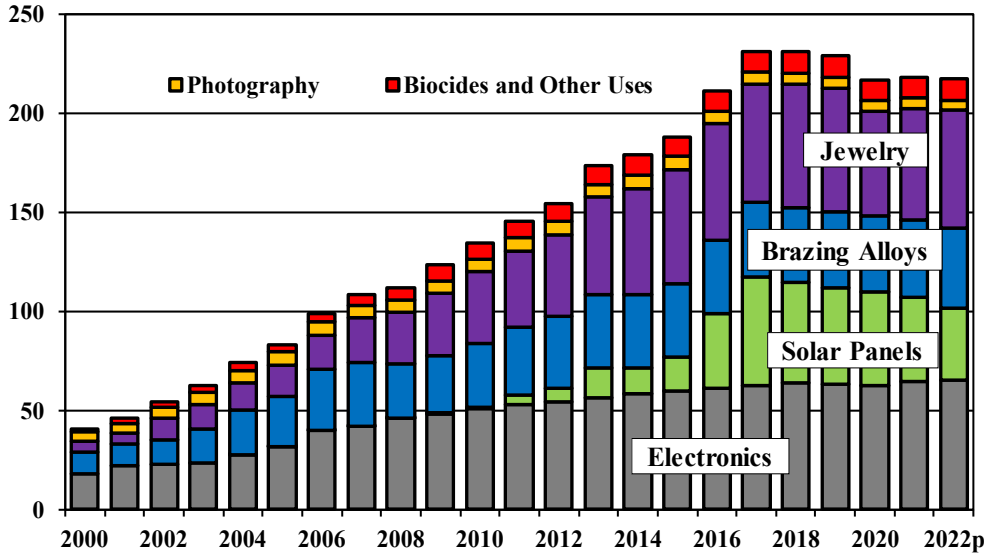
							Tran. Econ.	Total	Year
India	Thailand	Canada	Mexico	China	Other				
1.5	-i	4.3	6.8	--	31.9	--	237.8	1960	
1.5	-i	3.4	5.3	--	37.3	--	269.6	1961	
1.5	-i	3.3	5.2	--	26.2	--	275.5	1962	
2.5	-i	3.2	5.0	--	26.8	--	278.9	1963	
12.0	-i	4.1	6.4	--	43.6	--	318.2	1964	
16.0	-i	5.7	7.4	--	48.0	--	358.5	1965	
16.0	-i	5.8	6.1	--	56.1	--	417.1	1966	
15.0	-i	5.8	7.9	--	53.9	--	401.9	1967	
16.0	-i	6.2	7.9	--	50.1	--	373.9	1968	
16.0	-i	5.7	6.9	--	51.9	--	386.3	1969	
16.0	-i	6.0	8.5	--	50.4	--	376.0	1970	
16.0	-i	6.8	8.0	--	52.1	2.4	391.9	1971	
13.0	-i	8.3	11.0	--	57.6	6.2	437.6	1972	
13.0	-i	10.4	16.5	--	69.7	7.8	530.3	1973	
14.0	-i	10.3	10.2	--	65.6	9.1	479.1	1974	
13.0	-i	10.3	8.8	--	56.7	10.9	418.6	1975	
18.0	-i	9.3	10.2	--	67.3	21.1	505.8	1976	
17.0	-i	9.1	8.6	--	62.0	15.9	473.1	1977	
21.0	-i	9.6	9.1	--	61.0	18.2	468.1	1978	
22.5	-i	7.3	8.6	--	18.1	11.5	458.3	1979	
22.5	-i	8.7	4.9	--	14.6	14.5	374.3	1980	
26.5	-i	8.5	5.0	--	15.8	15.3	367.2	1981	
23.0	-i	9.0	5.7	--	17.1	23.8	381.3	1982	
22.5	-i	8.9	3.5	--	20.4	25.4	378.9	1983	
20.9	-i	9.0	5.5	--	25.7	56.6	430.4	1984	
21.0	-i	9.1	8.0	--	16.6	30.4	402.0	1985	
19.3	5.9	9.6	7.7	--	20.7	49.2	456.4	1986	
13.8	7.4	10.4	6.9	--	20.9	24.9	446.5	1987	
16.0	8.2	11.0	7.1	--	21.7	32.9	483.0	1988	
16.1	11.2	12.0	7.1	--	13.3	32.6	499.4	1989	
22.5	11.0	12.5	7.2	--	22.5	25.0	524.6	1990	
44.5	30.4	13.1	11.8	--	26.5	27.2	579.5	1991	
57.8	34.5	13.6	14.7	--	26.5	27.5	597.5	1992	
119.0	41.4	15.2	14.7	--	33.6	30.0	667.5	1993	
102.9	49.7	15.1	14.7	--	36.1	28.0	687.9	1994	
96.5	52.0	16.9	15.0	--	45.2	29.3	713.6	1995	
119.0	55.1	17.7	15.3	--	48.5	27.9	755.7	1996	
128.6	56.3	18.4	16.2	--	54.2	-3.3	767.7	1997	
116.8	59.0	19.1	18.8	--	48.3	31.2	818.8	1998	
115.7	62.0	19.6	19.6	--	52.6	11.0	815.7	1999	
135.8	64.0	18.5	20.8	40.8	58.5	--	915.8	2000	
139.7	69.5	17.3	19.5	46.0	55.4	--	874.8	2001	
142.9	66.5	16.9	20.0	54.4	56.1	--	868.7	2002	
124.1	66.5	16.7	21.1	62.5	72.1	--	881.8	2003	
126.4	66.5	16.8	19.6	74.0	105.2	--	932.3	2004	
146.4	68.0	16.4	17.2	83.1	111.0	--	944.7	2005	
111.3	47.5	15.4	15.5	99.1	82.7	--	856.6	2006	
113.0	50.5	15.2	16.1	108.7	78.0	--	865.9	2007	
113.2	48.5	15.1	16.6	112.2	94.7	--	850.6	2008	
105.2	45.5	14.0	15.6	123.3	83.7	--	804.2	2009	
102.8	45.7	14.1	15.6	134.6	99.8	--	822.8	2010	
95.9	45.0	13.7	15.1	145.7	114.6	--	828.4	2011	
85.4	42.3	14.3	16.4	154.4	109.2	--	805.6	2012	
88.3	49.0	15.7	18.4	173.9	115.3	--	836.6	2013	
83.3	53.9	16.3	19.6	178.8	125.8	--	852.9	2014	
89.3	56.9	16.8	20.7	188.3	127.2	--	872.3	2015	
90.0	58.0	17.1	21.0	211.2	125.5	--	892.5	2016	
91.4	58.8	17.4	21.5	231.4	130.0	--	918.9	2017	
94.9	58.5	17.5	22.1	231.1	137.7	--	927.9	2018	
93.5	58.5	17.6	21.8	229.4	134.7	--	926.9	2019	
84.3	50.0	15.6	20.2	216.7	123.3	--	872.3	2020	
85.8	51.2	16.1	20.6	218.4	142.5	--	890.1	2021	
95.1	52.1	16.7	20.8	217.4	153.6	--	908.1	2022p	

See "silver statistical position" table for related statistics.

Sources: U.S. Bureau of Mines, Handy & Harman, trade sources, CPM Group.  
30 March 2022

**Silver Fabrication Demand in China**  
*Annual, Projected Through 2022*

Million Ounces





## China Silver Fabrication Demand

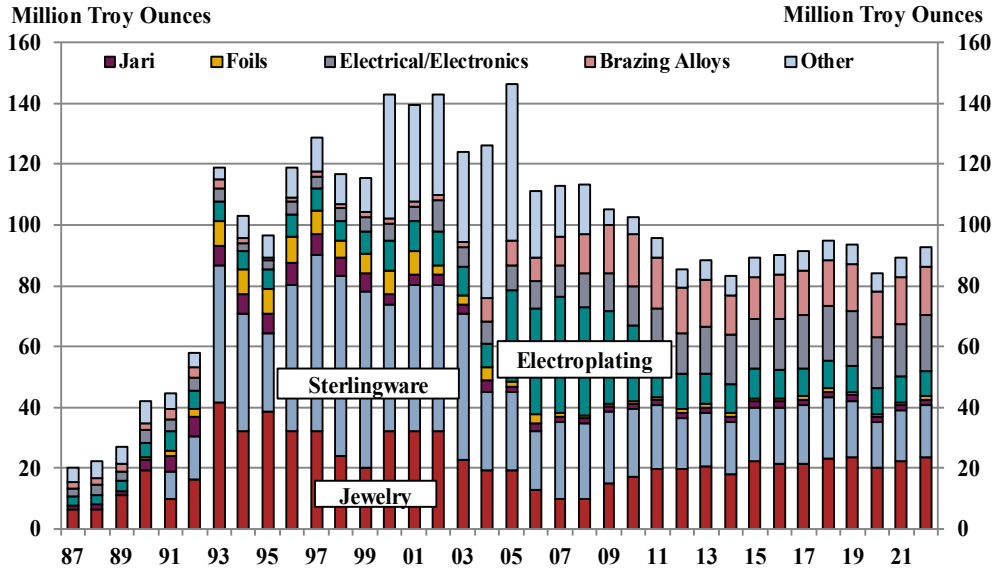
Million Troy Ounces

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Electronics	17.8	21.9	22.5	23.3	27.6	31.5	40.2	41.8	46.1	48.3
Solar Panels	-	-	-	-	0.0	0.0	0.0	0.1	0.1	0.4
Brazing Alloys	11.4	11.2	12.3	17.7	22.5	25.7	30.5	32.2	27.3	28.9
Jewelry	5.2	5.5	11.3	12.3	13.7	15.4	17.4	23.1	25.7	31.5
Photography	4.9	5.0	5.5	6.1	6.6	6.8	6.4	5.8	6.4	6.5
Biocides and Other Uses	1.5	2.5	2.7	3.2	3.5	3.7	4.5	5.8	6.4	7.7
<b>Total Demand</b>	<b>40.8</b>	<b>46.0</b>	<b>54.4</b>	<b>62.5</b>	<b>74.0</b>	<b>83.1</b>	<b>99.1</b>	<b>108.7</b>	<b>112.2</b>	<b>123.3</b>
% Change Y-o-Y	2.1%	12.6%	18.3%	15.0%	18.3%	12.4%	19.2%	9.8%	3.2%	10.0%
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Electronics	50.8	52.8	54.7	56.4	58.6	59.8	61.3	62.8	64.2	63.2
Solar Panels	1.2	5.3	6.9	15.1	12.7	17.2	37.4	54.3	50.2	48.7
Brazing Alloys	31.6	33.8	35.9	37.3	37.3	37.1	37.5	37.8	38.2	38.4
Jewelry	36.3	38.6	41.1	48.7	53.5	57.7	58.9	60.1	62.0	62.5
Photography	6.6	6.7	6.7	6.8	6.8	6.4	6.0	5.9	5.8	5.6
Biocides and Other Uses	8.1	8.6	9.1	9.5	9.9	10.0	10.2	10.4	10.7	11.0
<b>Total Demand</b>	<b>134.6</b>	<b>145.7</b>	<b>154.4</b>	<b>173.9</b>	<b>178.8</b>	<b>188.3</b>	<b>211.2</b>	<b>231.4</b>	<b>231.1</b>	<b>229.4</b>
% Change Y-o-Y	9.1%	8.3%	5.9%	12.7%	2.8%	5.3%	12.2%	9.5%	-0.1%	-0.7%
	2020	2021	2022p							
Electronics	62.3	64.5	65.4							
Solar Panels	47.3	42.5	36.3							
Brazing Alloys	38.5	39.6	40.4							
Jewelry	53.0	56.0	60.0							
Photography	5.2	5.2	4.5							
Biocides and Other Uses	10.5	10.7	10.8							
<b>Total Demand</b>	<b>216.7</b>	<b>218.4</b>	<b>217.4</b>							
% Change Y-o-Y	-5.5%	0.8%	-0.5%							

Sources: Chinese Industry Sources, CPM Group

**Silver Fabrication Demand in India**

*Annual Projected Through 2022*



## Indian Silver Fabrication Demand

Million Troy Ounces

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Industrial Uses</b>																		
Photography	4.1	4.8	4.8	5.6	2.6	2.6	2.3	1.6	0.6	0.6	0.6	0.6	1.0	--	--	--	--	--
Electroplating	2.7	3.2	3.2	4.8	6.4	6.4	6.4	6.4	6.4	7.2	7.2	6.6	7.4	9.6	9.6	11.3	9.6	8.0
Electrical/Electronics	2.7	3.2	3.2	4.0	4.2	4.2	4.2	2.6	3.2	4.0	4.2	4.0	4.5	5.8	4.8	10.2	6.5	7.0
Brazing Alloys	2.2	2.4	2.4	2.4	3.2	3.2	3.2	1.6	1.0	1.6	1.6	1.3	1.7	1.6	1.6	1.6	1.6	8.0
Jari	1.4	1.6	1.6	3.2	5.1	6.4	6.4	6.4	6.4	7.1	7.1	6.0	6.0	3.2	3.2	3.2	3.0	4.0
Foils	--	--	--	1.0	1.6	2.3	8.0	8.0	8.0	8.8	7.6	5.7	6.5	8.0	8.0	3.2	3.0	4.0
Chemicals	--	--	--	--	--	--	--	2.3	3.2	3.2	4.0	3.8	4.5	20.9	19.3	20.1	20.0	40.0
Mirrors & Bangles	--	--	--	--	--	--	--	--	--	1.6	1.9	1.6	2.3	3.2	3.2	3.2	2.4	2.3
Miscellaneous	0.7	0.8	0.8	1.4	2.6	2.3	1.6	3.2	3.2	4.3	4.3	4.0	3.7	9.6	9.6	9.7	7.2	8.0
<b>Subtotal</b>	<b>13.8</b>	<b>16.0</b>	<b>16.1</b>	<b>22.5</b>	<b>25.7</b>	<b>27.3</b>	<b>32.2</b>	<b>32.1</b>	<b>32.2</b>	<b>38.6</b>	<b>38.6</b>	<b>33.6</b>	<b>37.6</b>	<b>61.9</b>	<b>59.3</b>	<b>62.5</b>	<b>53.4</b>	<b>81.4</b>
% Change Year Ago	--	15.9%	0.5%	40.0%	14.3%	6.3%	17.7%	-0.1%	0.1%	20.0%	0.0%	-12.8%	11.8%	64.6%	-4.2%	5.4%	-14.5%	52.4%
<b>Jewelry and Silverware</b>																		
Jewelry	--	--	--	--	9.6	16.1	41.3	32.2	38.6	32.2	32.2	24.0	20.2	32.1	32.1	32.2	22.5	19.3
Silverware	--	--	--	--	9.2	14.4	45.5	38.6	25.7	48.2	57.9	59.2	57.9	41.8	48.3	48.2	48.2	25.7
<b>Subtotal</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>18.8</b>	<b>30.5</b>	<b>86.8</b>	<b>70.7</b>	<b>64.3</b>	<b>80.4</b>	<b>90.0</b>	<b>83.1</b>	<b>78.1</b>	<b>73.9</b>	<b>80.4</b>	<b>80.4</b>	<b>48.2</b>	<b>45.0</b>
% Change Year Ago	--	--	--	--	62.2%	184.6%	-18.5%	-9.1%	25.0%	12.0%	-7.7%	-6.0%	-5.4%	8.8%	0.0%	-40.0%	-6.7%	
<b>Total</b>	<b>13.8</b>	<b>16.0</b>	<b>16.1</b>	<b>22.5</b>	<b>44.5</b>	<b>57.8</b>	<b>119.0</b>	<b>102.9</b>	<b>96.5</b>	<b>119.0</b>	<b>128.6</b>	<b>116.8</b>	<b>115.7</b>	<b>135.8</b>	<b>139.7</b>	<b>142.9</b>	<b>101.6</b>	<b>126.4</b>
% Change Year Ago	--	--	--	--	29.9%	105.7%	-13.5%	-6.2%	23.3%	8.1%	-9.2%	-0.9%	17.4%	2.9%	2.3%	-28.9%	24.3%	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p
<b>Industrial Uses</b>																		
Photography	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Electroplating	30.5	34.6	38.6	35.9	30.5	25.0	15.0	12.0	10.0	9.8	9.6	9.4	9.2	9.0	8.8	8.2	8.4	8.4
Electrical/Electronics	8.0	9.0	10.0	11.0	12.4	13.0	14.0	13.1	15.5	16.0	16.4	17.0	17.5	18.0	18.0	17.0	17.5	18.5
Brazing Alloys	8.0	8.0	9.6	13.0	16.0	17.0	17.0	15.0	15.5	13.2	13.9	14.2	14.6	15.0	15.3	15.0	15.3	15.6
Jari	1.6	2.4	1.6	1.6	1.5	1.6	1.8	1.8	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.8	1.8
Foils	1.6	3.2	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.0	1.0	1.0
Chemicals	49.0	20.0	13.0	12.0	2.0	2.6	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.0	2.9	3.0	3.1
Mirrors & Bangles	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Miscellaneous	2.6	1.9	3.9	4.1	3.2	3.3	3.4	3.0	3.2	3.2	3.3	3.3	3.3	3.4	3.4	3.2	3.3	3.3
<b>Subtotal</b>	<b>101.4</b>	<b>79.1</b>	<b>77.7</b>	<b>78.6</b>	<b>66.6</b>	<b>63.5</b>	<b>55.4</b>	<b>49.0</b>	<b>50.4</b>	<b>48.4</b>	<b>49.4</b>	<b>50.2</b>	<b>50.9</b>	<b>51.7</b>	<b>51.5</b>	<b>49.3</b>	<b>50.3</b>	<b>51.8</b>
% Change Year Ago	24.6%	-21.9%	-1.8%	1.2%	-15.3%	-4.7%	-12.8%	-11.6%	2.9%	-3.9%	2.1%	1.5%	1.4%	1.5%	-0.4%	-4.3%	2.1%	3.0%
<b>Jewelry and Silverware</b>																		
Jewelry	19.3	12.9	9.6	9.6	15.0	17.0	19.5	19.4	20.4	18.0	22.0	21.2	21.5	23.0	23.5	20.0	22.0	23.5
Silverware	25.7	19.3	25.7	25.0	23.6	22.3	21.0	17.0	17.5	16.9	17.9	18.6	19.0	20.2	18.5	15.0	16.8	17.3
<b>Subtotal</b>	<b>45.0</b>	<b>32.2</b>	<b>35.3</b>	<b>34.6</b>	<b>38.6</b>	<b>39.3</b>	<b>40.5</b>	<b>36.4</b>	<b>37.9</b>	<b>34.9</b>	<b>39.9</b>	<b>39.8</b>	<b>40.5</b>	<b>43.2</b>	<b>42.0</b>	<b>35.0</b>	<b>38.8</b>	<b>40.8</b>
% Change Year Ago	0.0%	-28.5%	9.6%	-2.0%	11.6%	1.8%	3.1%	-10.1%	4.1%	-7.9%	14.3%	-0.3%	1.8%	6.7%	-2.8%	-16.7%	10.7%	5.2%
<b>Total</b>	<b>146.4</b>	<b>111.3</b>	<b>113.0</b>	<b>113.2</b>	<b>105.2</b>	<b>102.8</b>	<b>95.9</b>	<b>85.4</b>	<b>88.3</b>	<b>83.3</b>	<b>89.3</b>	<b>90.0</b>	<b>91.4</b>	<b>94.9</b>	<b>93.5</b>	<b>84.3</b>	<b>89.1</b>	<b>92.5</b>
% Change Year Ago	15.9%	-24.0%	1.5%	0.2%	-7.1%	-2.3%	-6.7%	-10.9%	3.4%	-5.6%	7.2%	0.7%	1.6%	3.8%	-1.5%	-9.9%	5.7%	3.9%

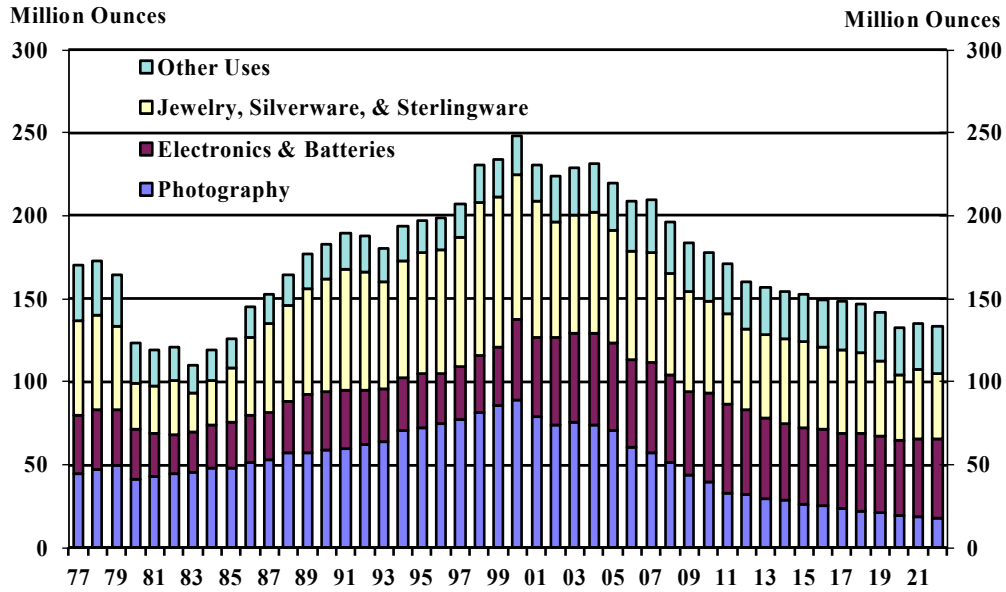
Note: Totals may not equal the sums of categories due to rounding. Photography included in chemical from 2000.

Silver Nitrate in miscellaneous, mirrors and bangles in plating, 2005-2010.

Silverware includes some kilo bars, tola bars, coins, and medallions for investment purposes

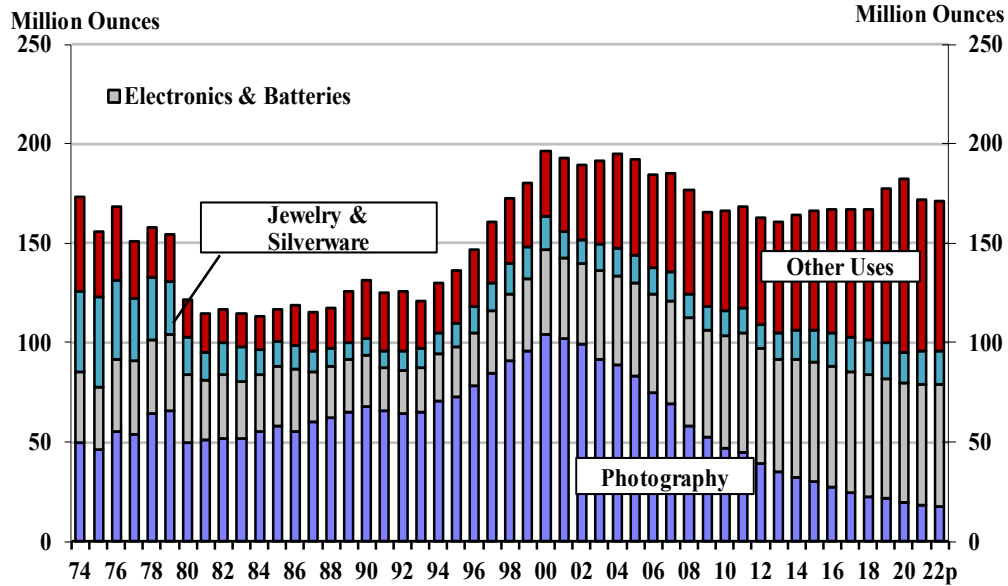
Sources: Indian trade sources, CPM Group.

European Fabrication Demand



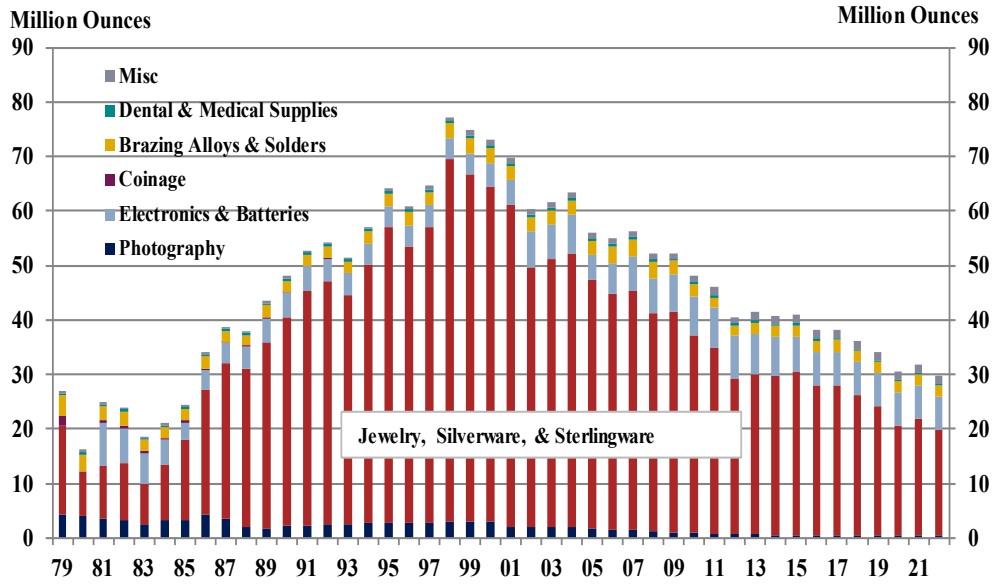
U.S. Fabrication Demand

Annual, Projected Through 2022



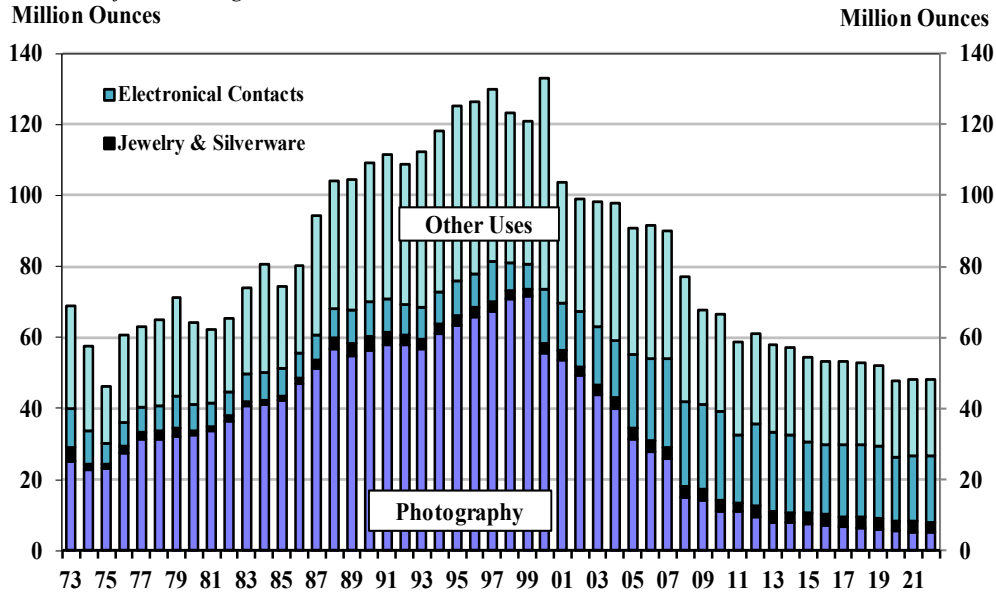
**Italian Fabrication Demand**

*Annual, Projected Through 2022*



**Japanese Fabrication Demand**

*Annual, Projected Through 2022*



## Annual U.S. Silver Fabrication Demand

Million Troy Ounces

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Photography	49.6	46.1	55.5	53.7	64.3	66.0	49.8	51.0	51.8	51.8	55.3	57.9
Electrical Contacts & Conductors	31.3	27.2	32.3	31.3	30.8	33.5	27.8	26.4	27.7	26.3	25.6	27.5
Batteries	4.2	4.3	3.5	5.8	6.0	4.6	6.0	3.8	4.2	2.6	2.7	2.5
Sterling Ware	22.1	23.7	19.8	16.7	17.9	13.1	9.1	4.4	6.6	7.0	3.6	3.5
Jewelry	5.1	12.7	11.0	8.1	6.8	5.4	5.9	5.4	6.3	6.9	5.8	5.8
Silverplate	13.2	8.7	9.5	6.8	7.3	8.1	4.4	3.9	3.3	3.2	3.5	3.7
Brazing Alloys & Solders	14.5	13.6	11.2	12.4	11.0	10.9	8.5	7.7	7.4	5.8	5.9	5.6
Catalysts	7.3	8.8	12.3	8.9	8.2	5.6	3.0	3.8	2.4	2.4	2.4	2.4
Medallions & Commemoratives	21.4	7.2	8.2	4.3	2.7	4.7	4.7	2.6	1.8	3.0	2.6	2.5
Dental & Medical Supplies	--	--	--	--	--	--	--	--	--	--	--	--
Mirrors	3.9	3.2	4.6	2.1	1.9	1.9	0.7	0.6	1.0	1.0	1.0	1.0
Bearings	--	--	--	--	--	--	--	--	--	--	--	--
Biocides	--	--	--	--	--	--	--	--	--	--	--	--
Miscellaneous	<u>0.5</u>	<u>0.3</u>	<u>0.3</u>	<u>0.9</u>	<u>1.0</u>	<u>1.0</u>	<u>2.0</u>	<u>5.0</u>	<u>4.6</u>	<u>4.6</u>	<u>4.6</u>	<u>4.6</u>
Total Industrial	173.2	155.7	168.3	150.9	157.8	154.6	121.8	114.7	116.9	114.6	113.0	116.9
% Change Year Ago		-10.1%	8.1%	-10.4%	4.6%	-2.0%	-21.2%	-5.9%	2.0%	-2.0%	-1.4%	3.4%
Coinage	<u>1.0</u>	<u>2.7</u>	<u>1.3</u>	<u>0.1</u>		<u>0.2</u>	<u>0.1</u>	<u>0.2</u>	<u>1.8</u>	<u>2.1</u>	<u>2.0</u>	<u>7.9</u>
Total Fabrication	174.2	158.4	169.6	151.0	157.8	154.8	121.9	114.9	118.7	116.7	115.0	124.8
% Change Year Ago		-9.1%	7.1%	-11.0%	4.5%	-1.9%	-21.2%	-5.8%	3.4%	-1.7%	-1.4%	8.5%
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Photography	96.0	104.0	102.0	99.0	91.5	89.0	83.0	75.0	69.0	58.0	52.7	47.0
Electrical Contacts & Conductors	31.0	37.0	35.0	35.0	39.0	39.0	41.0	43.4	46.0	48.0	47.2	49.2
Batteries	5.0	6.0	5.4	5.5	5.6	5.6	5.8	6.0	6.2	6.7	6.5	7.3
Sterling Ware	5.8	5.6	4.6	4.4	4.5	4.7	4.7	4.4	4.5	3.2	3.0	3.0
Jewelry	5.7	6.1	4.9	4.2	5.0	5.3	5.5	5.2	5.9	5.0	4.8	6.1
Silverplate	4.4	4.5	4.0	3.8	4.0	4.1	4.2	4.0	3.9	3.8	3.7	3.5
Brazing Alloys & Solders	9.1	8.6	8.5	8.2	8.0	8.2	8.5	8.8	9.2	9.3	8.8	10.0
Catalysts	5.9	6.3	6.1	6.0	6.3	6.5	6.7	6.9	7.0	7.0	7.1	7.6
Medallions & Commemoratives	--	--	--	--	--	--	--	--	--	--	--	--
Dental & Medical Supplies	--	--	--	--	--	--	--	--	--	--	--	--
Mirrors	2.6	2.6	2.5	2.4	2.5	2.5	2.5	2.4	2.5	2.5	2.4	2.4
Bearings	--	--	--	--	--	--	--	--	--	--	--	--
Biocides	--	--	--	1.0	3.0	5.0	5.2	5.6	5.8	6.0	5.2	5.6
Miscellaneous	<u>14.8</u>	<u>15.5</u>	<u>20.0</u>	<u>19.5</u>	<u>22.0</u>	<u>25.0</u>	<u>25.0</u>	<u>23.0</u>	<u>25.0</u>	<u>27.5</u>	<u>24.0</u>	<u>24.5</u>
Total Industrial	84.3	92.2	91.0	90.0	99.9	105.9	109.1	109.7	116.0	119.0	112.7	119.2
% Change Year Ago	3.7%	9.4%	-1.3%	-1.1%	11.0%	6.0%	3.0%	0.5%	5.7%	2.6%	-5.3%	5.8%
Coinage	<u>9.9</u>	<u>10.3</u>	<u>10.2</u>	<u>11.5</u>	<u>10.5</u>	<u>11.1</u>	<u>9.9</u>	<u>10.9</u>	<u>11.3</u>	<u>20.6</u>	<u>35.5</u>	<u>41.1</u>
Total Fabrication	94.2	102.5	101.2	101.5	110.4	117.0	119.0	120.6	127.3	139.6	148.2	160.3
% Change Year Ago	8.4%	8.8%	-1.3%	0.3%	8.8%	6.0%	1.7%	1.4%	5.6%	9.7%	6.1%	8.2%

Notes: Totals may not equal the sums of components due to rounding.

Sources: U.S. Bureau of Mines, trade sources, CPM Group.

30 March 2022

1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
55.4	60.2	62.5	65.2	68.0	66.0	64.4	65.0	71.0	72.9	78.3	84.6	91.0	Photography
27.4	22.7	23.0	23.5	22.8	18.3	18.3	18.8	19.5	20.9	22.3	26.5	28.4	Electrical Contacts & Conductors
3.7	2.4	2.5	2.8	3.0	3.1	3.1	3.3	3.6	4.1	4.5	4.8	4.9	Batteries
3.9	3.8	3.5	3.4	3.5	3.5	3.9	4.0	4.2	4.4	4.8	5.1	5.7	Sterling Ware
4.6	4.2	2.9	2.4	2.0	2.0	3.0	3.3	3.7	4.1	4.4	4.9	5.5	Jewelry
3.7	2.5	2.6	2.7	2.8	2.8	2.9	3.0	3.1	3.5	3.9	4.1	4.5	Silverplate
6.4	5.6	5.5	6.0	6.2	6.4	7.1	7.2	7.5	7.7	8.2	8.9	9.3	Brazing Alloys & Solders
2.3	2.4	2.6	2.8	3.0	3.3	3.8	4.0	4.2	4.9	5.5	5.7	5.9	Catalysts
4.0	4.2	--	--	--	--	--	--	--	--	--	--	--	Medallions & Commemoratives
1.5	1.3	1.4	1.7	1.8	--	--	--	--	--	--	--	--	Dental & Medical Supplies
1.0	1.0	1.1	1.1	1.2	1.1	1.2	1.3	1.5	1.7	2.1	2.4	2.6	Mirrors
0.4	0.3	--	--	--	--	--	--	--	--	--	--	--	Bearings
--	--	--	--	--	--	--	--	--	--	--	--	--	Biocides
<u>4.6</u>	<u>4.5</u>	<u>9.9</u>	<u>14.4</u>	<u>17.2</u>	<u>18.6</u>	<u>18.3</u>	<u>11.2</u>	<u>11.8</u>	<u>12.0</u>	<u>12.7</u>	<u>13.5</u>	<u>14.5</u>	Miscellaneous
118.9	115.3	117.5	126.0	131.5	125.1	126.0	121.1	59.1	63.3	68.4	75.9	81.3	Total Industrial
1.8%	-3.1%	1.9%	7.2%	4.4%	-4.9%	0.7%	-3.9%	-51.2%	7.1%	8.1%	11.0%	7.1%	% Change Year Ago
<u>6.8</u>				<u>9.1</u>	<u>9.1</u>	<u>8.1</u>	<u>8.9</u>	<u>8.1</u>	<u>7.5</u>	<u>5.0</u>	<u>5.3</u>	<u>5.6</u>	Coinage
125.7	115.3	117.5	126.0	140.6	134.2	134.1	130.0	67.2	70.8	73.4	81.2	86.9	Total Fabrication
0.8%	-8.3%	1.9%	7.2%	11.6%	-4.6%	-0.1%	-3.1%	-48.3%	5.4%	3.7%	10.6%	7.0%	% Change Year Ago
2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p		
45.0	39.0	35.2	32.4	29.9	27.5	24.5	22.7	21.5	20.0	18.0	17.5	Photography	
51.3	50.0	48.0	50.5	51.0	51.5	51.5	51.8	51.3	50.5	51.5	52.0	Electrical Contacts & Conductors	
8.3	8.0	8.5	8.9	9.1	9.1	9.3	9.5	9.4	9.3	9.5	9.8	Batteries	
3.0	2.5	3.0	3.0	2.9	3.0	3.0	3.0	3.0	2.7	2.7	2.7	Sterling Ware	
6.5	6.0	7.0	8.0	10.0	10.4	10.6	10.8	11.0	9.5	10.5	10.8	Jewelry	
3.6	3.3	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.2	3.3	3.3	Silverplate	
11.0	11.5	11.7	12.0	12.3	12.5	12.9	13.0	13.1	12.8	13.0	13.2	Brazing Alloys & Solders	
8.3	8.9	9.5	9.5	9.6	9.6	9.7	9.7	21.4	32.9	21.1	19.0	Catalysts	
--	--	--	--	--	--	--	--	--	--	--	--	--	Medallions & Commemoratives
--	--	--	--	--	--	--	--	--	--	--	--	--	Dental & Medical Supplies
2.5	2.5	2.6	2.6	2.5	2.5	2.5	2.4	2.4	2.3	2.3	2.3	Mirrors	
--	--	--	--	--	--	--	--	--	--	--	--	--	Bearings
6.0	7.0	8.1	9.3	10.5	12.0	14.0	15.5	16.3	15.0	15.5	16.0	Biocides	
<u>23.0</u>	<u>24.0</u>	<u>24.0</u>	<u>24.4</u>	<u>24.7</u>	<u>25.1</u>	<u>25.5</u>	<u>25.0</u>	<u>24.7</u>	<u>24.2</u>	<u>24.7</u>	<u>24.8</u>	Miscellaneous	
123.5	123.7	125.8	131.6	136.2	139.3	142.4	144.3	156.1	162.5	154.1	153.7	Total Industrial	
3.6%	0.2%	1.7%	4.6%	3.5%	2.3%	2.3%	1.3%	8.2%	4.1%	-5.1%	-0.3%	% Change Year Ago	
<u>35.0</u>	<u>51.0</u>	<u>46.0</u>	<u>48.4</u>	<u>38.5</u>	<u>18.1</u>	<u>22.6</u>	<u>15.9</u>	<u>16.4</u>	<u>28.5</u>	<u>28.3</u>	<u>26.0</u>	Coinage	
158.5	174.7	171.7	179.9	174.7	157.4	165.0	160.2	172.5	191.0	182.4	179.7	Total Fabrication	
-1.1%	10.2%	-1.7%	4.8%	-2.9%	-9.9%	4.9%	-2.9%	7.7%	10.7%	-4.5%	-1.5%	% Change Year Ago	

**Japanese Silver Fabrication Demand***Million Troy Ounces*

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Photography	25.0	22.6	23.0	27.3	31.2	31.4	32.2	32.6	33.9	36.6	40.9
Electrical Contacts	11.1	9.2	5.6	6.8	6.9	7.0	8.9	7.6	6.4	6.6	7.7
Caustic Silver	4.4	2.9	2.6	4.7	5.8	6.5	6.6	5.6	5.6	5.5	6.7
Brazing Alloys and Solders	7.3	5.9	2.9	4.7	4.3	4.7	5.3	3.5	3.1	3.3	3.2
Tube, Sheet, and Bar	6.5	4.8	3.5	5.9	5.6	5.1	4.9	3.2	3.0	3.6	3.2
Electroplating	4.3	2.8	2.3	3.4	2.8	2.9	2.8	2.5	2.4	2.3	2.8
Jewelry and Silverware	3.9	1.8	1.4	2.0	2.2	2.5	2.2	1.0	1.1	1.3	1.1
Dental	--	--	--	--	--	--	--	--	--	--	--
Miscellaneous	<u>6.5</u>	<u>7.7</u>	<u>5.1</u>	<u>6.0</u>	<u>4.4</u>	<u>4.8</u>	<u>5.9</u>	<u>5.5</u>	<u>4.1</u>	<u>4.0</u>	<u>6.5</u>
<b>Total</b>	<b>69.0</b>	<b>57.7</b>	<b>46.4</b>	<b>60.8</b>	<b>63.2</b>	<b>64.9</b>	<b>68.8</b>	<b>61.5</b>	<b>59.6</b>	<b>63.2</b>	<b>72.1</b>
% Change Year Ago		-16.4%	-19.6%	31.0%	3.9%	2.7%	6.0%	-10.6%	-3.1%	6.0%	14.1%
<b>Coinage</b>	--	--	--	--	--	--	--	--	--	--	--
<b>Total Including Coinage</b>	<b>69.0</b>	<b>57.7</b>	<b>46.4</b>	<b>60.8</b>	<b>63.2</b>	<b>64.9</b>	<b>68.8</b>	<b>61.5</b>	<b>59.6</b>	<b>63.2</b>	<b>72.1</b>
% Change Year Ago		-16.4%	-19.6%	31.0%	3.9%	2.7%	6.0%	-10.6%	-3.1%	6.0%	14.1%
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Photography	70.9	71.5	55.5	53.5	49.2	43.9	40.0	31.2	28.0	26.0	14.9
Electrical Contacts	7.9	7.0	15.0	13.3	15.4	16.1	16.2	21.0	23.0	25.0	24.0
Caustic Silver	8.0	7.4	10.0	6.5	7.1	9.5	9.9	9.6	9.9	7.7	7.2
Brazing Alloys and Solders	5.0	5.5	4.9	3.6	3.2	3.1	3.4	3.3	3.4	3.4	3.1
Tube, Sheet, and Bar	4.5	4.3	5.5	2.8	6.9	7.3	8.0	6.9	7.1	6.8	6.3
Electroplating	2.5	2.0	3.0	1.6	--	--	--	--	--	--	--
Jewelry and Silverware	2.3	2.0	3.0	2.8	2.6	2.9	3.0	3.1	3.0	3.2	3.0
Dental	1.6	1.5	2.0	1.0	--	--	--	--	--	--	--
Super Conductors	--	--	--	--	2.9	3.0	3.2	3.2	3.7	3.6	3.6
Miscellaneous	<u>16.8</u>	<u>16.0</u>	<u>30.7</u>	<u>15.4</u>	<u>11.5</u>	<u>12.3</u>	<u>14.0</u>	<u>12.4</u>	<u>13.3</u>	<u>14.3</u>	<u>14.9</u>
<b>Total</b>	<b>119.5</b>	<b>117.2</b>	<b>129.6</b>	<b>100.5</b>	<b>98.8</b>	<b>98.1</b>	<b>97.7</b>	<b>90.7</b>	<b>91.4</b>	<b>90.0</b>	<b>77.0</b>
% Change Year Ago	-5.7%	-1.9%	10.6%	-22.5%	-1.7%	-0.7%	-0.4%	-7.2%	0.8%	-1.5%	-14.4%
<b>Coinage</b>	--	--	--	--	--	--	--	--	--	--	--
<b>Total Including Coinage</b>	<b>119.5</b>	<b>117.2</b>	<b>129.6</b>	<b>100.5</b>	<b>98.8</b>	<b>98.1</b>	<b>97.7</b>	<b>90.7</b>	<b>91.4</b>	<b>90.0</b>	<b>77.0</b>
% Change Year Ago	-5.7%	-1.9%	10.6%	-22.5%	-1.7%	-0.7%	-0.4%	-7.2%	0.8%	-1.5%	-14.4%

Notes: Totals may not equal the sums of components due to rounding. There was no silver use in coinage in Japan prior to 1986. \* - unidentified uses included.

Sources: Japanese trade sources, CPM Group.

30 March 2022



1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	
41.3	42.2	47.0	51.3	56.8	54.8	56.5	57.8	58.0	56.7	61.1	63.6	65.7	67.3	Photography
7.8	7.5	6.8	7.0	8.4	9.5	9.7	9.7	8.4	8.7	8.9	10.1	9.3	11.3	Electrical Contacts
7.6	6.8	7.6	8.3	9.6	9.0	9.0	8.4	7.9	7.5	8.9	10.9	10.0	9.1	Caustic Silver
3.9	3.7	3.7	3.8	4.4	4.6	4.5	4.8	4.2	3.8	4.5	4.9	4.7	5.2	Brazing Alloys and Solders
3.9	3.6	4.1	5.3	5.6	6.9	7.6	7.5	7.2	7.2	7.1	6.8	6.0	4.8	Tube, Sheet, and Bar
3.7	3.2	3.2	4.9	3.6	3.8	4.1	4.1	3.4	3.5	3.6	3.3	3.2	3.0	Electroplating
1.0	1.4	1.7	2.2	3.0	3.5	3.8	3.5	2.8	2.9	2.7	2.4	2.7	2.7	Jewelry and Silverware
--	--	--	1.4	1.6	1.7	1.4	1.7	1.6	1.4	1.6	1.7	1.8	1.8	Dental
<u>9.6</u>	<u>4.2</u>	<u>4.4</u>	<u>8.1</u>	<u>9.0</u>	<u>8.7</u>	<u>10.3</u>	<u>11.4</u>	<u>13.0</u>	<u>18.2</u>	<u>17.1</u>	<u>18.8</u>	<u>20.1</u>	<u>21.5</u>	Miscellaneous
78.8	72.6	78.5	92.3	102.0	102.5	106.9	108.9	106.5	109.9	115.5	122.5	123.5	126.7	Total
9.3%	-7.9%	8.1%	17.6%	10.5%	0.5%	4.3%	1.9%	-2.2%	3.2%	5.1%	6.1%	0.8%	2.6%	% Change Year Ago
--	--	--	--	--	--	--	--	--	--	--	--	--	--	Coinage
78.8	72.6	78.5	92.3	102.0	102.5	106.9	108.9	106.5	109.9	115.5	122.5	123.5	126.7	Total Including Coinage
9.3%	-7.9%	8.1%	17.6%	10.5%	0.5%	4.3%	1.9%	-2.2%	3.2%	5.1%	6.1%	0.8%	2.6%	% Change Year Ago
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p	
14.0	11.0	11.0	9.6	8.0	7.8	7.5	7.2	6.7	6.4	6.0	5.7	5.3	5.0	Photography
24.0	25.0	19.0	23.0	22.5	22.0	20.0	19.5	20.2	20.5	20.5	18.0	18.5	19.0	Electrical Contacts
4.0	4.2	4.1	4.3	4.0	4.0	3.9	3.9	3.8	3.8	3.8	3.6	3.6	3.6	Caustic Silver
2.4	2.5	2.2	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	Brazing Alloys and Solders
4.2	4.6	4.5	4.6	4.0	4.0	3.9	3.9	3.8	3.8	3.8	3.6	3.6	3.6	Tube, Sheet, and Bar
--	--	--	--	--	--	--	--	--	--	--	--	--	--	Electroplating
3.2	3.2	2.5	3.0	2.9	2.9	2.9	3.0	3.0	3.0	3.0	2.7	2.8	2.8	Jewelry and Silverware
--	--	--	--	--	--	--	--	--	--	--	--	--	--	Dental
3.4	3.4	3.4	3.0	3.6	3.6	3.6	3.5	3.5	3.5	3.4	3.3	3.2	3.2	Super Conductors
<u>12.5</u>	<u>12.6</u>	<u>12.0</u>	<u>12.0</u>	<u>12.0</u>	<u>11.8</u>	<u>11.5</u>	<u>11.3</u>	<u>11.1</u>	<u>10.8</u>	<u>10.6</u>	<u>9.9</u>	<u>10.1</u>	<u>9.9</u>	Miscellaneous
67.7	66.5	58.7	61.0	58.0	57.0	54.4	53.3	53.1	52.8	52.1	47.7	48.2	48.1	Total
-12.1%	-1.8%	-11.7%	3.9%	-4.9%	-1.8%	-4.5%	-2.1%	-0.3%	-0.6%	-1.2%	-8.6%	1.0%	-0.2%	% Change Year Ago
--	--	--	--	--	--	--	--	--	--	--	--	--	--	Coinage
67.7	66.5	58.7	61.0	58.0	57.0	54.4	53.3	53.1	52.8	52.1	47.7	48.2	48.1	Total Including Coinage
-12.1%	-1.8%	-11.7%	3.9%	-4.9%	-1.8%	-4.5%	-2.1%	-0.3%	-0.6%	-1.2%	-8.6%	1.0%	-0.2%	% Change Year Ago

**Western European Silver Fabrication Demand***Million Troy Ounces*

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
<b>Jewelry/Silverware</b>	50.3	27.5	28.7	32.7	23.9	27.3	33.1	47.3	53.3	57.3
<b>Photography</b>	49.8	41.4	43.2	44.9	45.6	47.6	48.1	51.0	52.7	57.0
<b>Electronics</b>	33.4	29.8	25.6	23.2	23.8	26.2	27.2	28.5	28.9	31.5
<b>Brazing Alloys/Solders</b>	20.8	15.2	13.0	12.0	9.9	10.5	10.4	10.9	11.0	11.3
<b>Dental</b>	1.3	1.6	1.3	1.2	1.1	1.0	1.1	1.1	1.1	1.2
<b>Mirrors</b>	2.3	2.5	2.6	2.2	1.9	2.0	1.8	1.8	1.8	1.9
<b>Miscellaneous</b>	<u>6.6</u>	<u>5.3</u>	<u>4.8</u>	<u>4.4</u>	<u>3.6</u>	<u>4.3</u>	<u>4.0</u>	<u>4.1</u>	<u>4.1</u>	<u>4.6</u>
<b>Total</b>	164.6	123.3	119.2	120.4	109.7	118.9	125.7	144.8	152.8	164.7
% Change Year Ago		-25.1%	-3.4%	1.1%	-8.9%	8.3%	5.7%	15.2%	5.6%	7.8%
<b>Coinage</b>	<u>22.0</u>	<u>4.8</u>	<u>6.2</u>	<u>7.5</u>	<u>5.2</u>	<u>7.7</u>	<u>7.7</u>	<u>4.3</u>	<u>11.2</u>	<u>9.2</u>
<b>Total Including Coinage</b>	186.6	128.1	125.4	128.0	114.9	126.6	133.3	149.1	164.0	173.9
% Change Year Ago		-31.3%	-2.2%	2.1%	-10.2%	10.1%	5.4%	11.8%	10.0%	6.0%
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Jewelry/Silverware</b>	82.4	69.3	71.2	72.7	67.7	64.9	66.3	60.7	60.4	55.8
<b>Photography</b>	79.3	74.3	75.2	73.8	70.6	60.5	57.0	50.9	43.4	39.6
<b>Electronics</b>	47.0	52.5	54.0	55.6	52.5	53.0	54.4	53.5	50.9	53.2
<b>Brazing Alloys/Solders</b>	11.9	11.5	11.7	11.6	11.3	11.7	12.0	11.7	10.7	9.5
<b>Dental</b>	1.3	1.3	1.3	1.4	1.4	1.5	1.6	1.6	1.4	1.5
<b>Mirrors</b>	3.1	2.9	3.0	3.2	3.2	3.7	3.6	3.6	3.4	3.4
<b>Superconductors</b>	--	6.8	7.0	7.1	7.2	7.4	8.0	8.3	7.7	8.1
<b>Miscellaneous</b>	<u>5.9</u>	<u>5.6</u>	<u>5.9</u>	<u>5.9</u>	<u>5.9</u>	<u>6.2</u>	<u>6.4</u>	<u>6.1</u>	<u>5.9</u>	<u>6.3</u>
<b>Total</b>	230.9	224.1	229.3	231.2	219.8	208.9	209.3	196.4	183.8	177.5
% Change Year Ago	-7.0%	-2.9%	2.3%	0.9%	-4.9%	-5.0%	0.2%	-6.2%	-6.4%	-3.4%
<b>Coinage</b>	5.3	6.0	8.4	7.8	7.8	6.2	4.8	12.3	14.9	18.0
<b>Total Including Coinage</b>	236.1	230.1	237.7	239.0	227.6	215.2	214.1	208.7	198.7	195.5
% Change Year Ago	-8.3%	-2.5%	3.3%	0.6%	-4.8%	-5.5%	-0.5%	-2.5%	-4.8%	-1.6%

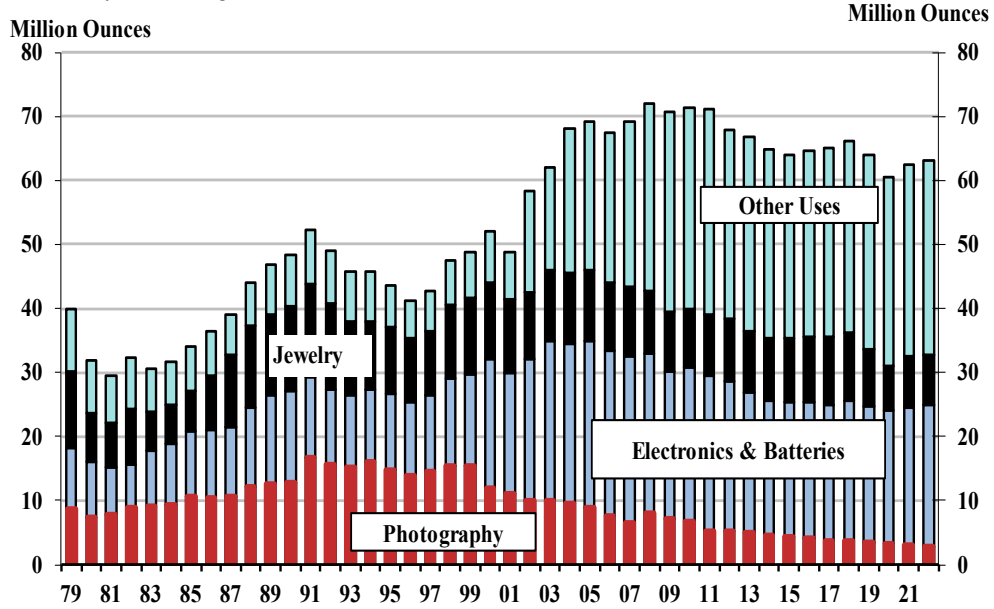
Notes: Totals may not equal the sums of categories due to rounding. Consumption of silver in semi-fabricated form is excluded.

Sources: European trade sources, CPM Group.  
30 March 2022

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
63.8	68.3	73.1	71.8	63.9	70.6	72.6	74.4	78.0	92.4	90.4	86.5	Jewelry/Silverware
57.1	59.1	60.0	62.2	63.8	70.6	72.6	74.4	77.5	81.8	85.6	88.6	Photography
34.8	34.7	34.8	32.4	32.1	31.5	32.2	30.6	31.3	34.0	35.1	49.2	Electronics
13.1	13.3	13.5	13.4	12.9	12.6	11.9	11.5	11.7	12.6	13.1	12.9	Brazing Alloys/Solders
1.1	1.0	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.2	1.3	1.3	Dental
2.0	2.4	2.4	2.4	2.3	2.5	2.8	2.9	3.1	3.5	3.5	3.4	Mirrors
<u>4.8</u>	<u>4.4</u>	<u>4.6</u>	<u>4.6</u>	<u>4.2</u>	<u>4.6</u>	<u>4.2</u>	<u>4.2</u>	<u>4.3</u>	<u>4.8</u>	<u>5.1</u>	<u>6.2</u>	Miscellaneous
176.7	183.1	189.7	188.0	180.4	193.5	197.4	199.1	207.0	230.3	234.2	248.1	Total
7.2%	3.7%	3.6%	-0.9%	-4.0%	7.2%	2.0%	0.9%	4.0%	11.2%	1.7%	5.9%	% Change Year Ago
<u>9.3</u>	<u>5.6</u>	<u>8.8</u>	<u>7.8</u>	<u>6.9</u>	<u>6.6</u>	<u>8.2</u>	<u>7.3</u>	<u>8.9</u>	<u>12.9</u>	<u>8.4</u>	<u>9.5</u>	Coinage
186.0	188.7	198.4	195.8	187.3	200.1	205.6	206.3	215.9	243.2	242.6	257.6	Total Including Coinage
7.0%	1.5%	5.2%	-1.3%	-4.3%	6.8%	2.7%	0.4%	4.6%	12.6%	1.7%	6.2%	% Change Year Ago
2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p	
54.3	48.7	50.3	50.5	51.5	49.4	49.9	48.2	45.7	39.3	41.6	39.4	Jewelry/Silverware
32.8	32.1	29.8	28.5	26.5	25.3	23.3	21.8	20.7	19.3	18.6	17.5	Photography
53.4	51.0	48.3	46.5	45.8	45.8	45.9	47.0	46.2	45.6	46.8	47.8	Electronics
10.2	8.9	8.1	8.1	8.1	8.1	8.2	8.2	8.3	7.9	8.0	8.1	Brazing Alloys/Solders
1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.1	1.0	1.0	1.0	1.0	Dental
3.4	3.0	3.6	3.6	3.6	3.5	3.5	3.5	3.4	3.3	3.2	3.2	Mirrors
8.2	8.3	9.0	9.2	9.5	9.7	9.9	10.2	10.1	9.6	9.8	10.1	Superconductors
<u>7.4</u>	<u>6.4</u>	<u>6.3</u>	<u>6.3</u>	<u>6.3</u>	<u>6.3</u>	<u>6.3</u>	<u>6.3</u>	<u>6.3</u>	<u>6.2</u>	<u>6.2</u>	<u>6.2</u>	Miscellaneous
171.2	159.8	157.0	154.2	152.6	149.5	148.3	146.4	141.7	132.1	135.2	133.1	Total
-3.5%	-6.6%	-1.8%	-1.8%	-1.0%	-2.0%	-0.8%	-1.3%	-3.2%	-6.7%	2.3%	-1.5%	% Change Year Ago
24.7	14.7	21.3	24.0	15.8	11.6	6.3	6.9	6.9	6.9	6.9	6.9	Coinage
195.9	174.5	178.3	178.2	168.4	161.1	154.6	153.3	148.6	139.0	142.1	140.0	Total Including Coinage
0.2%	-10.9%	2.2%	-0.1%	-5.5%	-4.3%	-4.1%	-0.9%	-3.1%	-6.4%	2.2%	-1.4%	% Change Year Ago

**German Fabrication Demand**

*Annual, Projected Through 2022*



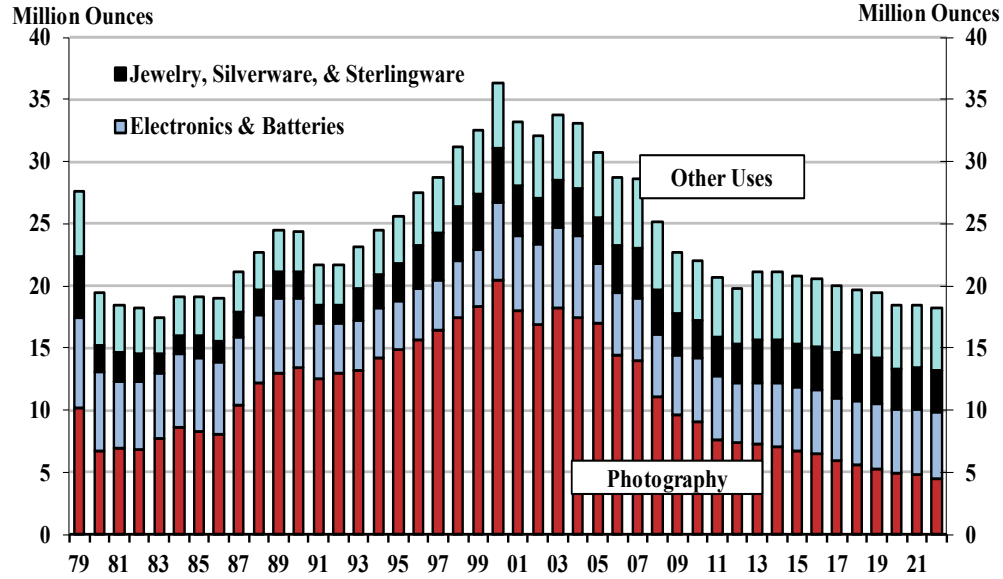
Germany—Silver Fabrication Demand		1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
Million Troy Ounces																								
Jewelry/Silverware		11.8	7.6	6.9	8.7	6.1	5.9	6.4	8.5	11.2	12.7	12.7	13.2	14.5	13.5	11.6	10.7	10.3	10.0	10.1	11.5	12.0	12.0	
Photography		8.7	7.3	7.8	8.9	9.2	9.2	10.6	10.4	10.5	12.1	12.5	12.9	16.7	15.7	15.1	16.1	14.8	13.8	14.5	15.4	15.5	15.5	
Electronics		9.6	8.7	7.4	6.7	8.6	9.7	10.1	10.6	10.9	12.3	13.8	14.3	12.7	11.6	11.3	11.2	11.9	11.6	11.9	13.7	14.2	20.0	
Brazing Alloys/Solders		6.7	5.3	4.5	4.7	3.9	4.0	4.2	4.0	4.1	4.2	4.8	5.0	5.1	5.0	4.5	4.2	3.5	2.9	3.1	3.5	3.6	4.0	
Dental		0.5	0.7	0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	
Mirrors		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.7	
Miscellaneous		2.0	1.8	1.8	2.4	1.9	2.1	2.0	1.9	1.6	1.9	2.1	2.1	2.3	2.4	2.4	2.7	2.2	2.0	2.1	2.3	2.3	2.8	
Total		39.8	31.9	29.4	32.4	30.6	31.7	34.1	36.3	39.1	44.1	46.9	48.4	52.3	49.1	45.8	45.8	43.6	41.1	42.7	47.5	48.8	52.0	
% Change Year Ago		—	-19.8%	-7.8%	10.2%	-5.6%	3.6%	7.6%	6.4%	7.6%	12.8%	6.2%	3.3%	8.1%	-6.1%	-6.7%	0.1%	-4.8%	-5.6%	3.8%	11.2%	2.7%	6.6%	
Coinage		3.7	0.0	0.5	0.3	0.0	0.0	0.0	0.0	0.0	3.2	3.2	2.4	5.5	5.3	4.5	4.2	5.8	5.1	6.8	10.8	6.4	9.2	
Total Including Coinage		43.5	31.9	29.9	32.7	30.6	31.7	34.1	36.3	42.3	47.3	50.1	50.8	57.8	54.4	50.3	50.0	49.4	46.2	49.5	58.3	55.2	61.2	
% Change Year Ago		—	-26.7%	-6.3%	9.4%	-6.4%	3.6%	7.6%	6.4%	16.4%	11.8%	5.8%	1.5%	13.8%	-5.9%	-7.6%	-0.5%	-1.2%	-6.4%	7.0%	17.8%	-5.3%	10.8%	
		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p	
Jewelry/Silverware		11.4	10.6	10.9	11.1	11.0	10.5	10.9	9.8	9.3	9.1	9.5	9.7	9.6	9.7	9.9	10.3	10.6	10.5	9.0	7.0	8.0	7.9	
Photography		11.0	10.0	10.0	9.5	9.0	7.5	6.5	8.0	7.2	6.8	5.3	5.2	4.9	4.7	4.4	4.2	3.8	3.6	3.4	3.2	3.1	2.9	
Electronics		19.0	22.0	25.0	25.0	26.0	26.0	26.0	25.0	23.0	24.0	24.3	23.5	22.0	21.0	21.0	21.2	22.0	21.3	20.9	21.5	21.5	22.0	
Brazing Alloys/Solders		3.6	3.4	3.6	3.6	3.7	3.8	4.0	3.9	3.7	3.2	3.5	3.0	2.8	2.8	2.8	2.7	2.8	2.8	2.8	2.6	2.7	2.7	
Dental		0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	
Mirrors		0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Super Conductors		—	8.9	9.0	15.3	15.9	16.0	17.6	21.2	23.8	24.4	24.3	22.5	23.9	23.0	22.4	22.7	23.2	23.7	24.1	23.5	23.9	24.4	
Miscellaneous		2.6	2.5	2.6	2.6	2.6	2.6	2.8	2.8	2.6	2.8	3.0	2.9	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.5	
Total		48.7	58.4	62.1	68.1	69.2	67.5	69.1	72	70.7	71.4	71.0	67.8	66.8	64.8	64.0	64.6	65.1	66.1	63.9	60.5	62.4	63.1	
% Change Year Ago		-6.3%	19.9%	6.3%	9.7%	1.6%	-2.5%	2.4%	4.1%	-1.8%	1.0%	-0.5%	-4.5%	-1.4%	-3.0%	-1.2%	1.0%	0.7%	1.6%	-3.3%	-5.3%	3.1%		
Coinage		5.3	6.0	8.4	7.8	7.8	6.2	4.8	4.5	5.9	6.6	6.8	5.8	6.8	8.0	8.5	8.2	4.2	4.8	4.8	5.0	5.0	5.0	
Total Including Coinage		54.0	64.4	70.5	75.9	77.0	73.8	73.9	76.5	76.6	78.0	77.8	73.6	73.6	72.8	72.5	72.8	69.3	70.9	68.7	65.5	67.4	68.1	
% Change Year Ago		-11.8%	19.3%	9.5%	7.7%	1.4%	-4.2%	0.2%	3.5%	0.1%	1.9%	-0.3%	-5.4%	0.1%	-1.1%	-0.4%	0.4%	-4.9%	2.4%	-3.1%	-4.6%	2.9%		

Notes: Totals may not equal the sums of categories due to rounding.

Sources: European trade sources, CPM Group.

30 March 2022

U.K. Fabrication Demand



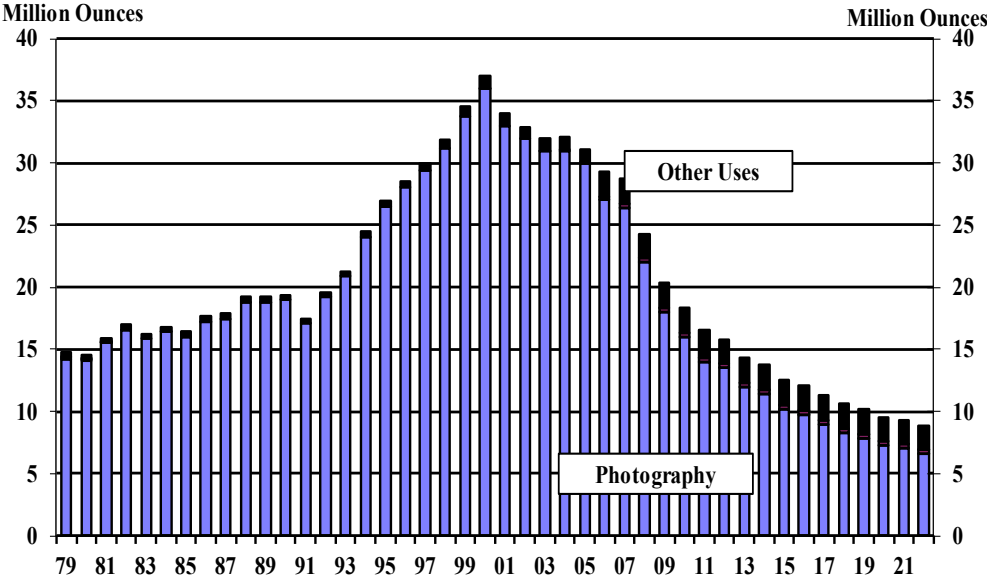
United Kingdom - Silver Fabrication Demand		1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
Million Troy Ounces																								
Jewelry/Silverware		4.9	2.1	2.3	2.2	1.5	1.4	1.8	1.7	2.0	2.0	2.2	2.1	1.5	1.5	2.6	2.7	3.0	3.4	3.8	4.4	4.5	4.3 Jewelry/Silverware	
Photography		10.2	6.7	6.9	6.8	7.7	8.6	8.3	8.1	10.4	12.3	13.0	13.4	12.5	13.0	13.2	14.3	14.8	15.7	16.4	17.5	18.3	20.5 Photography	
Electronics		7.3	6.4	5.4	5.5	5.3	5.9	5.9	5.8	5.5	5.4	5.9	5.6	4.5	4.0	4.0	4.0	4.0	4.1	4.1	4.5	4.6	6.3 Electronics	
Brazing Alloys/Solders		3.9	3.0	2.6	2.6	2.0	2.2	2.1	2.3	2.0	1.9	2.3	2.1	2.0	2.0	2.1	2.1	2.2	2.4	2.4	2.6	2.7	2.8 Brazing Alloys/Solders	
Dental		0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5 Dental	
Mirrors		0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.8	0.9	1.0	1.0	1.0 Mirrors	
Miscellaneous		0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.6	0.7	0.9	1.0 Miscellaneous	
Total		27.6	19.5	18.4	18.2	17.5	19.2	19.1	19.0	21.1	22.7	24.5	24.4	21.7	21.7	23.2	24.4	25.6	27.5	28.7	31.2	32.5	36.4 Total	
% Change Year Ago		-	-29.3%	-5.6%	-1.1%	-3.8%	9.6%	-0.5%	-0.2%	10.9%	7.7%	7.9%	-0.5%	-11.1%	0.0%	6.7%	5.5%	4.9%	7.3%	4.4%	8.7%	4.2%	11.8% % Change Year Ago	
Coinage		2.0	2.1	2.2	0.9	0.6	0.3	0.4	0.8	1.3	1.6	1.6	0.3	0.2	-	-	-	-	-	-	-	-	- Coinage	
Total Including Coinage		29.6	21.6	20.6	19.1	18.1	19.5	19.5	19.8	22.4	24.3	26.1	24.7	21.9	21.7	23.2	24.4	25.6	27.5	28.7	31.2	32.5	36.4 Total Including Coinage	
% Change Year Ago		-	-27.0%	-4.6%	-7.3%	-5.2%	7.6%	-0.1%	2.0%	12.9%	8.7%	7.4%	-5.5%	-11.3%	-0.9%	6.7%	5.3%	4.9%	7.3%	4.4%	8.7%	4.2%	11.8% % Change Year Ago	
Jewelry/Silverware		4.0	3.7	3.8	3.9	3.7	3.8	4.0	3.6	3.3	3.0	3.1	3.1	3.4	3.5	3.5	3.6	3.6	3.7	3.7	3.3	3.4	3.4 Jewelry/Silverware	
Photography		18.0	16.9	18.2	17.5	17.0	14.5	14.0	11.1	9.7	9.1	7.6	7.5	7.2	7.0	6.7	6.5	5.9	5.6	5.3	5.0	4.8	4.5 Photography	
Electronics		6.0	6.5	6.5	6.5	4.8	5.0	5.0	5.0	4.8	5.2	5.2	4.8	5.0	5.2	5.1	5.1	5.1	5.2	5.2	5.1	5.2	5.3 Electronics	
Brazing Alloys/Solders		2.7	2.6	2.7	2.7	2.7	3.0	3.1	3.0	2.5	2.2	1.8	1.8	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0 Brazing Alloys/Solders	
Dental		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3 Dental	
Mirrors		1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.3 Mirrors	
Miscellaneous		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5 Miscellaneous	
Total		33.2	32.1	33.7	33.1	30.7	28.8	28.6	25.2	22.7	22.1	20.7	19.8	21.1	21.1	20.8	20.6	20.0	19.7	19.4	18.5	18.5	18.3 Total	
% Change Year Ago		-8.7%	-3.3%	5.0%	-1.8%	-7.1%	-6.4%	-0.5%	-12.0%	-9.9%	-2.8%	-6.2%	-4.4%	6.8%	-0.1%	-1.5%	-0.9%	-2.7%	-1.6%	-1.5%	-5.0%	0.2%	-1.2% % Change Year Ago	
Coinage		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- Coinage	
Total Including Coinage		33.2	32.1	33.7	33.1	30.7	28.8	28.6	25.2	22.7	22.1	20.7	19.8	21.1	21.1	20.8	20.6	20.0	19.7	19.4	18.5	18.5	18.3 Total Including Coinage	
% Change Year Ago		-8.7%	-3.3%	5.0%	-1.8%	-7.1%	-6.4%	-0.5%	-12.0%	-9.9%	-2.8%	-6.2%	-4.4%	6.8%	-0.1%	-1.5%	-0.9%	-2.7%	-1.6%	-1.5%	-5.0%	0.2%	-1.2% % Change Year Ago	

Notes: Totals may not equal the sums of categories due to rounding.

Sources: European trade sources, CPM Group.

3 April 2022

Belgian Fabrication Demand





## Belgium - Silver Fabrication Demand

Million Troy Ounces

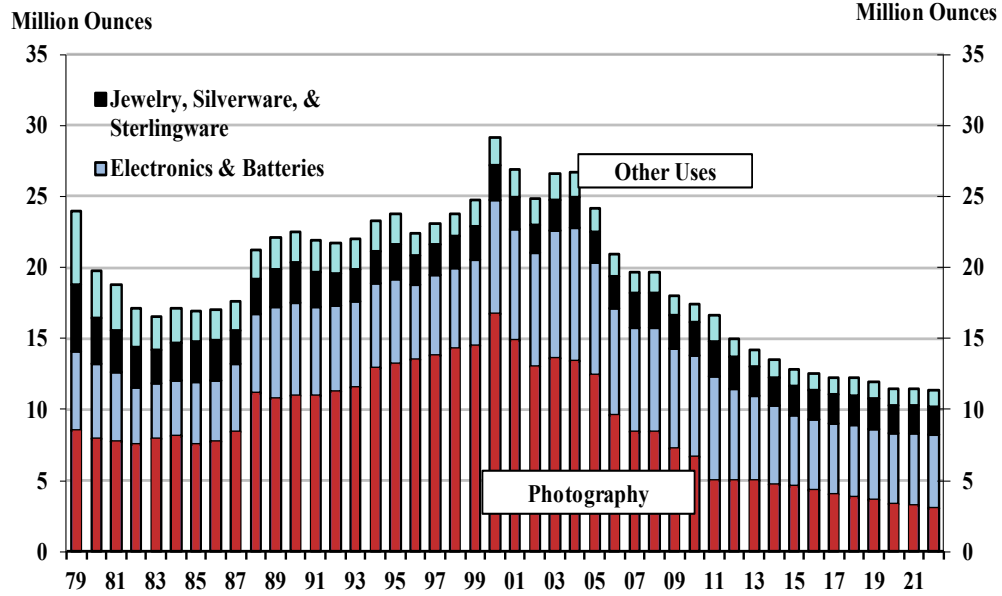
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Jewelry/Silverware	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Photography	14.2	14.1	15.5	16.6	15.9	16.4	16.0	17.2	17.4	18.8	18.8	19.0	17.1	19.2	20.9
Electronics	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mirrors	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Miscellaneous	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
<b>Total</b>	<b>14.8</b>	<b>14.6</b>	<b>15.9</b>	<b>17.0</b>	<b>16.3</b>	<b>16.8</b>	<b>16.4</b>	<b>17.6</b>	<b>17.9</b>	<b>19.2</b>	<b>19.2</b>	<b>19.4</b>	<b>17.5</b>	<b>19.6</b>	<b>21.3</b>
% Change Year Ago		-1.3%	9.4%	6.5%	-4.1%	3.4%	-2.4%	7.3%	1.7%	7.3%	-0.2%	1.0%	-9.8%	12.0%	8.7%
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Jewelry/Silverware	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Photography	24.1	26.5	28.0	29.4	31.2	33.8	36.0	33.0	32.0	31.0	31.0	30.0	27.0	26.4	22.0
Electronics	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.3	0.3
Mirrors	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	1.0	1.0
Miscellaneous	0.1	0.1	0.1	0.1	0.2	0.2	0.5	0.5	0.4	0.5	0.5	0.5	1.0	1.0	1.0
<b>Total</b>	<b>24.5</b>	<b>26.9</b>	<b>28.5</b>	<b>29.9</b>	<b>31.9</b>	<b>34.5</b>	<b>37.0</b>	<b>34.0</b>	<b>32.9</b>	<b>32.0</b>	<b>32.1</b>	<b>31.1</b>	<b>29.3</b>	<b>28.7</b>	<b>24.3</b>
% Change Year Ago	14.9%	10.0%	6.1%	4.7%	6.7%	8.2%	7.2%	-8.1%	-3.2%	-2.7%	0.3%	-3.1%	-5.8%	-2.0%	-15.3%
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p	
Jewelry/Silverware	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Photography	18.0	16.0	14.0	13.5	12.0	11.4	10.2	9.7	9.0	8.3	7.8	7.3	7.0	6.6	
Electronics	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
Mirrors	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	
Miscellaneous	1.0	1.0	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
<b>Total</b>	<b>20.3</b>	<b>18.3</b>	<b>16.6</b>	<b>15.7</b>	<b>14.3</b>	<b>13.8</b>	<b>12.6</b>	<b>12.0</b>	<b>11.3</b>	<b>10.6</b>	<b>10.2</b>	<b>9.6</b>	<b>9.3</b>	<b>8.9</b>	
% Change Year Ago	-16.4%	-9.7%	-9.7%	-4.9%	-8.9%	-3.9%	-8.8%	-4.2%	-6.0%	-6.4%	-4.0%	-5.9%	-3.1%	-4.6%	

Notes: Totals may not equal the sums of categories due to rounding.

Sources: European trade sources, CPM Group.

30 March 2022

France Fabrication Demand



France - Silver Fabrication Demand

Million Troy Ounces

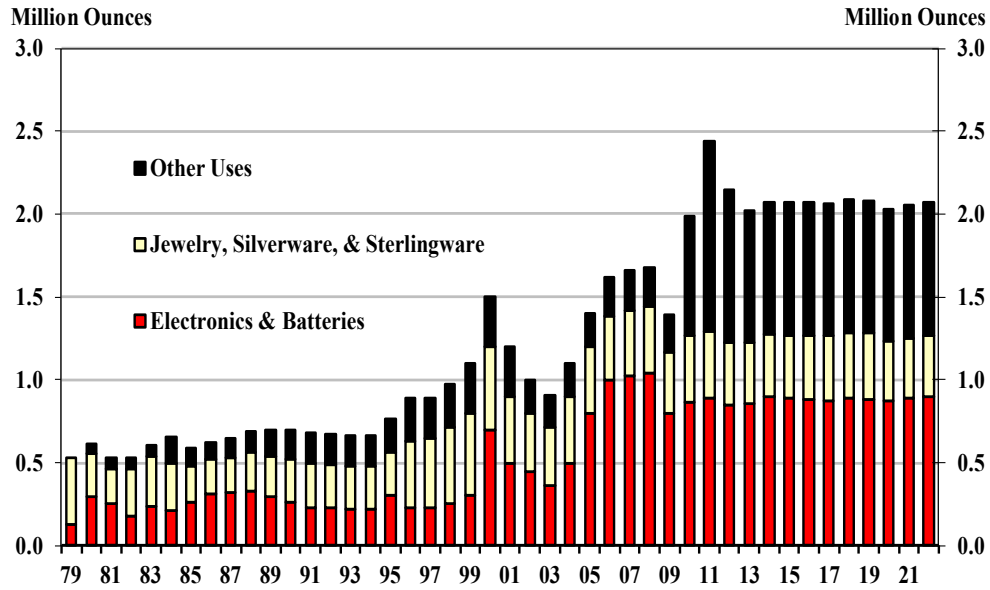
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Jewelry/Silverware	4.7	3.2	3.0	2.8	2.4	2.6	2.8	2.8	2.3	2.5	2.7	2.8	2.5	2.3	2.3	2.3	2.4	2.1	2.1	2.2	2.4	2.5 Jewelry/Silverware
Photography	8.5	7.9	7.7	7.5	7.9	8.1	7.6	7.7	8.4	11.2	10.8	11.0	10.9	11.3	11.6	12.9	13.2	13.5	13.8	14.3	14.5	16.7 Photography
Electronics	5.6	5.3	4.9	4.1	3.9	3.9	4.4	4.4	4.8	5.5	6.4	6.5	6.3	6.0	6.0	6.0	6.0	5.3	5.7	5.7	6.0	8.0 Electronics
Brazing Alloys/Solders	3.4	2.0	2.0	1.8	1.5	1.8	1.6	1.6	1.5	1.5	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.3	1.3 Brazing Alloys/Solders
Dental	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1 Dental
Mirrors	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2 Mirrors
Miscellaneous	1.4	1.0	0.8	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3 Miscellaneous
Total	24.0	19.8	18.8	17.1	16.5	17.1	16.9	17.0	17.6	21.3	22.1	22.5	21.9	21.7	22.0	23.3	23.8	22.4	23.1	23.7	24.7	29.1 Total
% Change Year Ago	—	-17.5%	-5.1%	-9.0%	-3.5%	3.7%	-0.9%	0.4%	3.4%	20.9%	3.9%	1.9%	-2.8%	-0.8%	1.4%	5.8%	2.2%	-6.0%	3.3%	2.8%	4.2%	17.6% % Change Year Ago
Coinage	10.6	0.1	0.1	1.4	2.2	3.9	2.2	2.2	2.2	2.2	2.2	2.2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	-- Coinage
Total Including Coinage	34.6	19.9	18.9	18.5	18.7	21.0	19.1	19.2	19.8	23.5	24.3	24.7	23.7	23.5	23.8	25.1	25.6	24.2	24.9	25.5	26.5	29.1 Total Including Coinage
% Change Year Ago	—	-42.5%	-5.0%	-2.1%	1.1%	12.3%	-8.9%	0.3%	3.0%	18.3%	3.6%	1.7%	-4.2%	-0.7%	1.3%	5.4%	2.1%	-5.6%	3.1%	2.6%	3.9%	9.6% % Change Year Ago
2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p	
Jewelry/Silverware	2.3	2.0	2.1	2.1	2.2	2.3	2.4	2.4	2.3	2.3	2.5	2.2	2.0	2.0	2.1	2.1	2.1	2.1	1.9	1.9	1.9	1.9 Jewelry/Silverware
Photography	14.9	13.0	13.6	13.4	12.4	9.6	8.4	8.4	7.3	6.7	5.0	5.0	5.0	4.8	4.6	4.4	4.0	3.8	3.6	3.4	3.2	3.0 Photography
Electronics	7.8	8.0	9.0	9.4	7.9	7.5	7.4	7.4	7.0	7.1	7.3	6.5	6.0	5.5	5.0	5.0	5.0	5.1	5.0	5.0	5.1	5.2 Electronics
Brazing Alloys/Solders	1.3	1.2	1.2	1.1	1.0	1.0	1.0	1.0	0.9	0.7	1.0	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5 Brazing Alloys/Solders
Dental	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2 Dental
Mirrors	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2 Mirrors
Miscellaneous	0.3	0.3	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.3	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3 Miscellaneous
Total	26.9	24.8	26.6	26.7	24.2	20.9	19.7	19.7	18	17.4	16.61	14.95	14.2	13.5	12.9	12.6	12.3	12.2	12.0	11.4	11.5	11.4 Total
% Change Year Ago	-7.7%	-7.6%	7.3%	0.4%	-9.4%	-13.6%	-5.7%	0.0%	-8.6%	-3.3%	-4.5%	-10.0%	-5.0%	-5.0%	-4.6%	-2.3%	-2.3%	-0.8%	-1.7%	-4.6%	0.2%	-0.9% % Change Year Ago
Coinage	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-- Coinage
Total Including Coinage	26.9	24.8	26.6	26.7	24.2	20.9	19.7	19.7	18.0	17.4	16.6	15.0	14.2	13.5	12.9	12.6	12.3	12.2	12.0	11.4	11.5	11.4 Total Including Coinage
% Change Year Ago	-7.7%	-7.6%	7.3%	0.4%	-9.4%	-13.6%	-5.7%	0.0%	-8.6%	-3.3%	-4.5%	-10.0%	-5.0%	-5.0%	-4.6%	-2.3%	-2.3%	-0.8%	-1.7%	-4.6%	0.2%	-0.9% % Change Year Ago

Notes: Totals may not equal the sums of categories due to rounding.

Sources: European trade sources, CPM Group.

30 March 2022

**Austrian Fabrication Demand**  
*Annual, Projected through 2022*



## Austria - Silver Fabrication Demand

Million Troy Ounces

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Jewelry/Silverware	0.4	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Electronics	0.1	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
Brazing Alloys/Solders	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
Miscellaneous	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>0.5</b>	<b>0.6</b>	<b>0.5</b>	<b>0.5</b>	<b>0.6</b>	<b>0.7</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>
% Change Year Ago	—	16.4%	-14.1%	0.0%	13.3%	9.1%	-10.8%	6.0%	4.1%	6.0%	1.4%	0.0%	-1.9%	-1.4%	-1.2%
Coinage	4.0	2.3	3.1	4.5	1.8	2.4	4.6	1.1	3.1	2.0	2.1	0.6	0.6	0.5	0.6
<b>Total Including Coinage</b>	<b>4.5</b>	<b>2.9</b>	<b>3.6</b>	<b>5.0</b>	<b>2.4</b>	<b>3.1</b>	<b>5.2</b>	<b>1.7</b>	<b>3.7</b>	<b>2.7</b>	<b>2.8</b>	<b>1.3</b>	<b>1.3</b>	<b>1.2</b>	<b>1.3</b>
% Change Year Ago	—	-35.6%	24.4%	38.6%	-52.3%	27.3%	69.7%	-66.8%	117.7%	-28.3%	4.1%	-53.7%	-1.0%	-8.6%	7.9%
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Jewelry/Silverware	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Electronics	0.2	0.3	0.2	0.2	0.3	0.3	0.7	0.5	0.5	0.4	0.5	0.8	1.0	1.0	1.0
Brazing Alloys/Solders	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Miscellaneous	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>Total</b>	<b>0.7</b>	<b>0.8</b>	<b>0.9</b>	<b>0.9</b>	<b>1.0</b>	<b>1.1</b>	<b>1.5</b>	<b>1.2</b>	<b>1.0</b>	<b>0.91</b>	<b>1.1</b>	<b>1.4</b>	<b>1.62</b>	<b>1.7</b>	<b>1.7</b>
% Change Year Ago	0.0%	14.5%	17.1%	0.0%	9.0%	13.4%	36.4%	-20.0%	-16.7%	-9.0%	20.9%	27.3%	15.7%	2.5%	1.2%
Coinage	0.6	0.6	0.4	0.3	0.3	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8
<b>Total Including Coinage</b>	<b>1.3</b>	<b>1.4</b>	<b>1.3</b>	<b>1.2</b>	<b>1.3</b>	<b>1.3</b>	<b>1.8</b>	<b>1.2</b>	<b>1.0</b>	<b>0.9</b>	<b>1.1</b>	<b>1.4</b>	<b>1.6</b>	<b>1.7</b>	<b>9.5</b>
% Change Year Ago	0.0%	7.6%	-6.5%	-3.8%	3.7%	2.4%	38.5%	-33.3%	-16.7%	-9.0%	20.9%	27.3%	15.7%	2.5%	1.2%
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p	
Jewelry/Silverware	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
Electronics	0.8	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
Brazing Alloys/Solders	0.1	0.6	1.0	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	
Miscellaneous	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
<b>Total</b>	<b>1.4</b>	<b>2.0</b>	<b>2.4</b>	<b>2.1</b>	<b>2.0</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.0</b>	<b>2.1</b>	<b>2.1</b>	
% Change Year Ago	-17.3%	42.7%	23.0%	-12.1%	-5.7%	2.6%	-0.2%	-0.2%	-0.1%	0.9%	-0.1%	-2.3%	0.9%	0.9%	
Coinage	9.0	11.4	17.9	9.0	14.5	16.0	7.3	3.4	2.1	2.1	2.1	2.1	2.1	2.1	
<b>Total Including Coinage</b>	<b>10.4</b>	<b>13.3</b>	<b>20.3</b>	<b>11.1</b>	<b>16.5</b>	<b>18.1</b>	<b>9.4</b>	<b>5.5</b>	<b>4.2</b>	<b>4.2</b>	<b>4.2</b>	<b>4.1</b>	<b>4.2</b>	<b>4.2</b>	
% Change Year Ago	10.1%	28.2%	52.4%	-45.5%	48.9%	9.4%	-48.2%	-41.6%	-23.8%	0.5%	-0.1%	-1.2%	0.4%	0.5%	

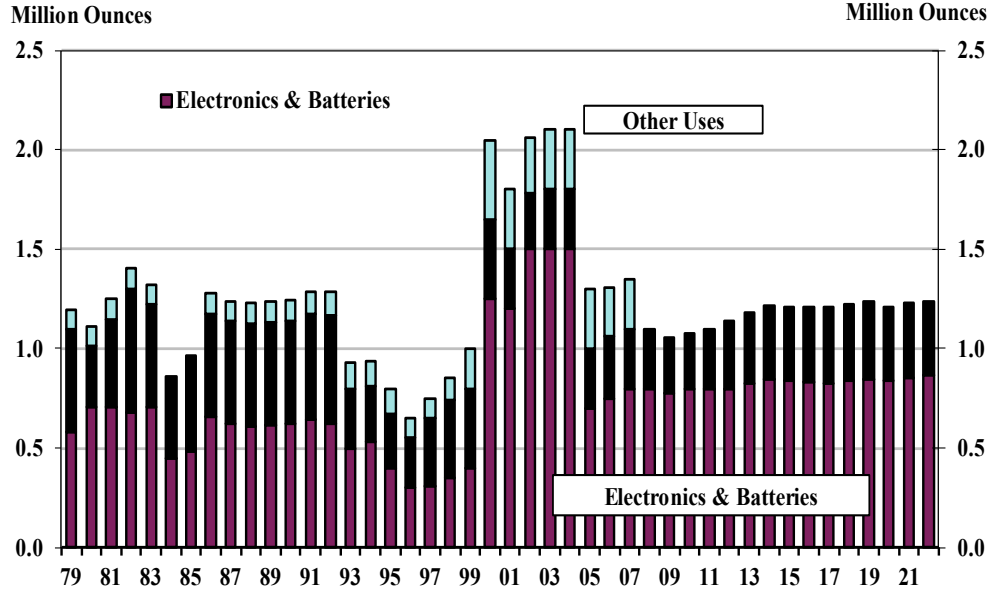
Notes: Totals may not equal the sums of categories due to rounding.

Sources: European trade sources, CPM Group.

30 March 2022

**Netherlands Fabrication Demand**

*Annual, Projected Through 2022*



## Netherlands - Silver Fabrication Demand

Million Troy Ounces

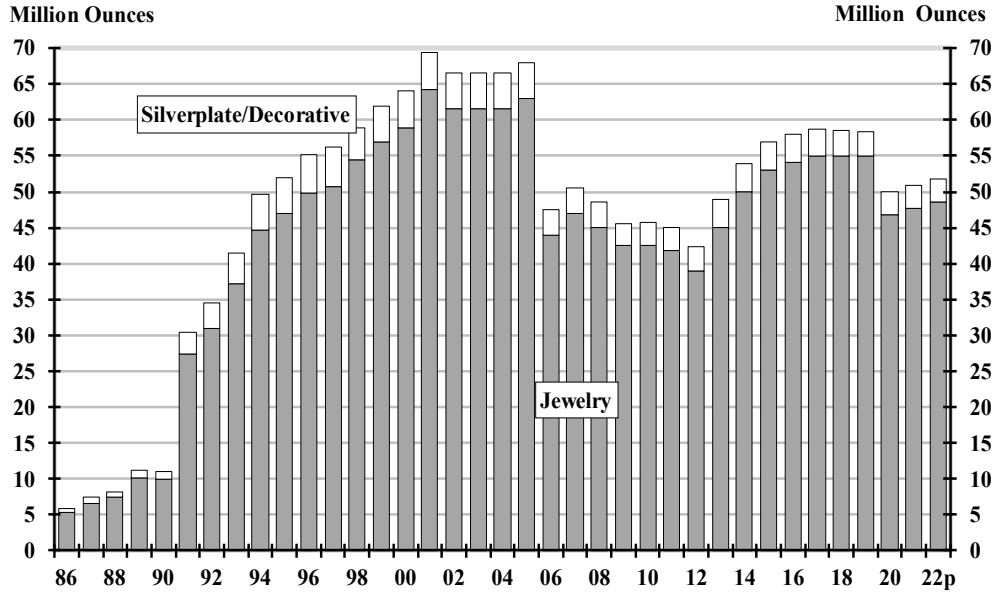
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Jewelry/Silverware	0.5	0.3	0.4	0.6	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3
Electronics	0.6	0.7	0.7	0.7	0.7	0.5	0.5	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.5
Miscellaneous	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>Total</b>	<b>1.2</b>	<b>1.1</b>	<b>1.2</b>	<b>1.4</b>	<b>1.3</b>	<b>0.9</b>	<b>1.0</b>	<b>1.3</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.3</b>	<b>1.3</b>	<b>0.9</b>
% Change Year Ago	—	-6.9%	12.1%	12.6%	-5.7%	-34.8%	11.7%	32.6%	-3.0%	-0.9%	0.8%	0.5%	3.4%	0.2%	-28.0%
Coinage	0.1	--	--	--	--	0.9	--	--	1.2	--	--	--	0.7	--	--
<b>Total Including Coinage</b>	<b>1.3</b>	<b>1.1</b>	<b>1.2</b>	<b>1.4</b>	<b>1.3</b>	<b>1.7</b>	<b>1.0</b>	<b>1.3</b>	<b>2.5</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>2.0</b>	<b>1.3</b>	<b>0.9</b>
% Change Year Ago	—	-12.8%	12.1%	12.6%	-5.7%	31.1%	-44.4%	32.6%	92.0%	-50.0%	0.8%	0.5%	57.4%	-34.2%	-28.0%
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Jewelry/Silverware	0.3	0.3	0.2	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Electronics	0.5	0.4	0.3	0.3	0.4	0.4	1.3	1.2	1.5	1.5	1.5	0.7	0.8	0.8	0.8
Miscellaneous	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.0
<b>Total</b>	<b>0.9</b>	<b>0.8</b>	<b>0.6</b>	<b>0.8</b>	<b>0.9</b>	<b>1.0</b>	<b>2.1</b>	<b>1.8</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>1.3</b>	<b>1.31</b>	<b>1.4</b>	<b>1.1</b>
% Change Year Ago	1.3%	-15.0%	-18.7%	15.4%	13.3%	17.6%	105.0%	-12.2%	14.4%	1.9%	0.0%	-38.1%	0.8%	3.1%	-18.5%
Coinage	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Total Including Coinage</b>	<b>0.9</b>	<b>0.8</b>	<b>0.6</b>	<b>0.8</b>	<b>0.9</b>	<b>1.0</b>	<b>2.1</b>	<b>1.8</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>1.3</b>	<b>1.3</b>	<b>1.4</b>	<b>1.1</b>
% Change Year Ago	1.3%	-15.0%	-18.7%	15.4%	13.3%	17.6%	105.0%	-12.2%	14.4%	1.9%	0.0%	-38.1%	0.8%	3.1%	-18.5%
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p	
Jewelry/Silverware	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
Electronics	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	
Miscellaneous	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
<b>Total</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	
% Change Year Ago	-4.0%	2.2%	1.9%	3.6%	3.9%	2.5%	-0.2%	-0.2%	-0.2%	1.5%	1.2%	-2.3%	1.5%	0.9%	
Coinage	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>Total Including Coinage</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	
% Change Year Ago	-4.0%	2.2%	1.9%	3.6%	3.9%	2.5%	-0.2%	-0.2%	-0.2%	1.5%	1.2%	-2.3%	1.5%	0.9%	

Notes: Totals may not equal the sums of categories due to rounding.

Sources: European trade sources, CPM Group.

30 March 2022

**Thai Silver Fabrication Demand**  
*Annual, Projected Through 2022*





## Thai Silver Fabrication Demand

*Million Troy Ounces*

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Jewelry	5.3	6.6	7.4	10.1	9.9	27.3	31.0	37.3	44.7	46.9
Silverplate/Decorative	0.6	0.7	0.8	1.1	1.1	3.0	3.4	4.1	5.0	5.1
Total Demand	5.9	7.4	8.2	11.2	11.0	30.4	34.5	41.4	49.7	52.0
% Change Year Ago	—	25.0%	11.1%	36.7%	-1.9%	176.2%	13.5%	20.0%	20.0%	4.7%
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Jewelry	49.8	50.8	54.5	57.0	59.0	64.2	61.5	61.5	61.5	63.0
Silverplate/Decorative	5.4	5.5	4.5	5.0	5.0	5.3	5.0	5.0	5.0	5.0
Total Demand	55.1	56.3	59.0	62.0	64.0	69.5	66.5	66.5	66.5	68.0
% Change Year Ago	6.0%	2.1%	4.8%	5.1%	3.2%	8.6%	-4.3%	0.0%	0.0%	2.3%
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Jewelry	44.0	47.0	45.1	42.5	42.5	41.8	39.0	45.0	50.0	53.0
Silverplate/Decorative	3.5	3.5	3.4	3.0	3.2	3.2	3.3	4.0	4.0	3.9
Total Demand	47.5	50.5	48.5	45.5	45.7	45.0	42.3	49.0	53.9	56.9
% Change Year Ago	-30.1%	6.3%	-4.0%	-6.2%	0.4%	-1.5%	-6.0%	15.8%	10.0%	5.6%
	2016	2017	2018	2019	2020	2021	2022p			
Jewelry	54.1	54.9	55.0	55.0	46.8	47.7	48.6			
Silverplate/Decorative	3.9	3.9	3.5	3.5	3.3	3.3	3.2			
Total Demand	58.0	58.8	58.5	58.5	50.0	50.9	51.9			
% Change Year Ago	1.9%	1.4%	-0.5%	-0.1%	-14.4%	1.8%	1.8%			

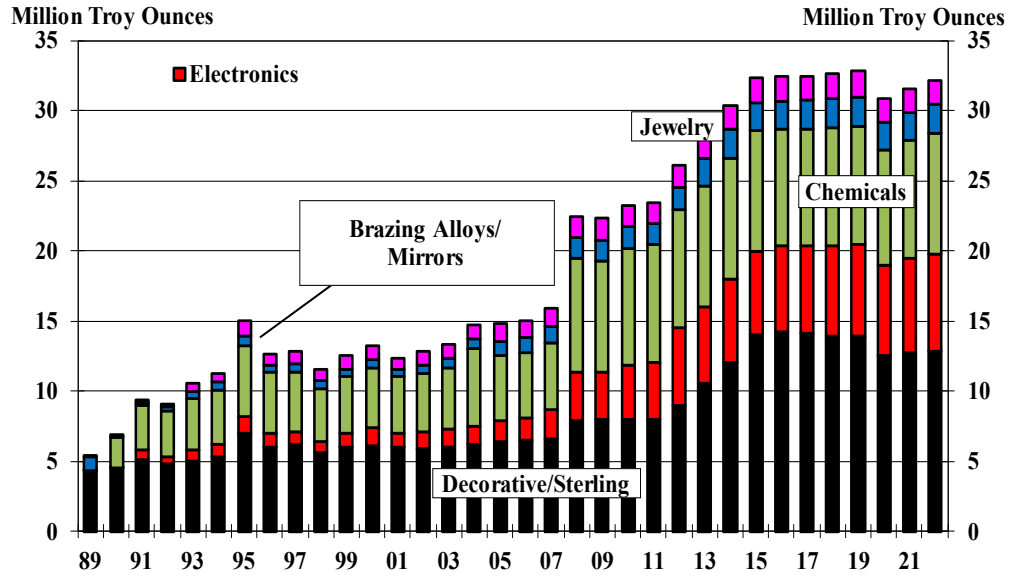
Notes: Totals may not equal the sums of categories due to rounding.

Sources: Thai trade sources, CPM Group.

30 March 2022

**Silver Fabrication Demand in South Korea**

*Annual, Projected Through 2022*



## South Korean Silver Fabrication Demand

Million Troy Ounces

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Decorative/Sterling	4.3	4.5	5.1	4.8	5.0	5.3	7.0	6.0	6.2	5.6	6.0	6.1
Electronics	0.0	0.0	0.6	0.5	0.8	0.9	1.2	1.0	0.9	0.8	1.0	1.3
Chemicals	0.0	2.2	3.2	3.2	3.7	3.9	5.0	4.3	4.2	3.8	4.0	4.2
Brazing Alloys	1.0	0.1	0.2	0.3	0.5	0.5	0.7	0.5	0.6	0.5	0.5	0.6
Jewelry	0.0	0.0	0.2	0.2	0.5	0.6	1.1	0.8	0.9	0.8	1.0	1.0
Total	5.3	6.8	9.3	9.0	10.5	11.2	15.0	12.6	12.8	11.5	12.5	13.2
% Change Year Ago	—	28.2%	36.2%	-3.1%	16.2%	6.7%	33.9%	-16.0%	1.6%	-10.2%	8.7%	5.6%
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Decorative/Sterling	6.0	5.9	6.0	6.2	6.4	6.5	6.6	7.9	8.0	8.0	8.0	9.0
Electronics	1.0	1.2	1.3	1.3	1.5	1.6	2.1	3.4	3.3	3.8	4.1	5.5
Chemicals	4.0	4.1	4.3	5.5	4.6	4.6	4.7	8.2	8.0	8.4	8.4	8.4
Brazing Alloys	0.5	0.6	0.7	0.7	1.0	1.1	1.2	1.4	1.5	1.5	1.5	1.6
Jewelry	0.8	1.0	1.0	1.0	1.3	1.2	1.3	1.5	1.5	1.5	1.5	1.6
Total	12.3	12.8	13.3	14.7	14.8	15.0	15.9	22.4	22.3	23.2	23.5	26.1
% Change Year Ago	-6.8%	4.1%	3.9%	10.5%	0.7%	1.4%	6.0%	40.9%	-0.4%	4.0%	1.1%	11.2%
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p		
Decorative/Sterling	10.5	12.0	14.0	14.3	14.1	14.0	14.0	12.6	12.7	12.8		
Electronics	5.5	5.9	6.0	6.1	6.2	6.4	6.5	6.4	6.7	6.9		
Chemicals	8.6	8.6	8.5	8.4	8.4	8.4	8.4	8.3	8.5	8.7		
Brazing Alloys	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0		
Jewelry	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.7	1.7	1.7		
Total	28.3	30.3	32.3	32.4	32.5	32.6	32.8	30.9	31.6	32.2		
% Change Year Ago	8.3%	7.3%	6.4%	0.5%	0.1%	0.4%	0.6%	-5.9%	2.3%	1.9%		

Notes: Totals may not equal sums of categories due to rounding. Consumption in individual industries prior to 1989 totaled less than 100,000 ounces.

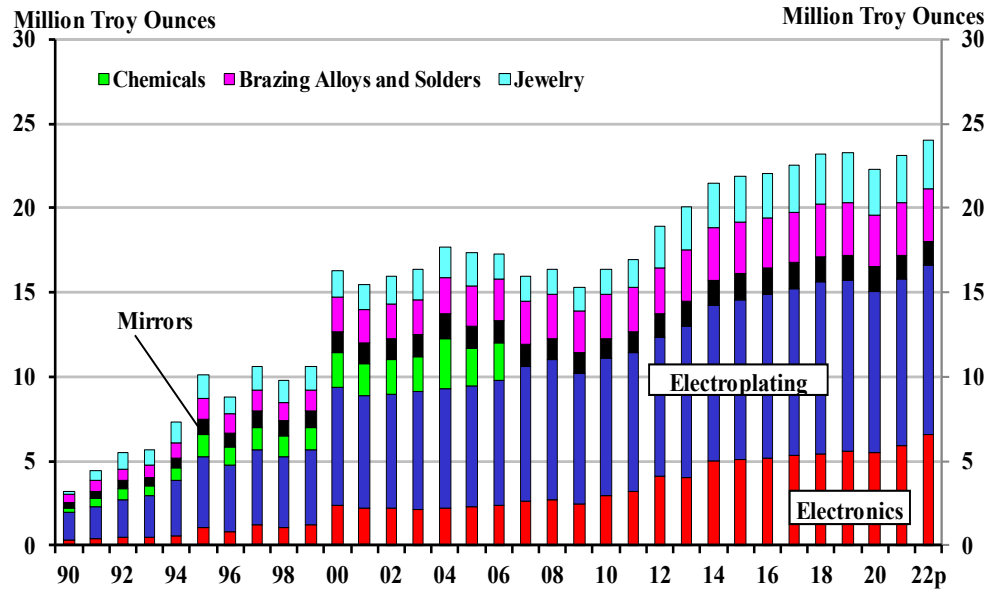
Dashes indicate that consumption was less than 100,000 ounces.

Sources: Trade sources, CPM Group

30 March 2022

**Silver Fabrication Demand in Taiwan**

*Annual, Projected Through 2022*



Taiwan Silver Fabrication Demand

Million Troy Ounces

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Photography	0.1	0.1	0.1	0.1	0.1	0.1	--	0.1	0.1	0.1	0.1	0.1	--	--	--	--	--
Electronics	0.3	0.3	0.4	0.4	0.5	1.0	0.8	1.1	1.0	1.1	2.3	2.1	2.2	2.1	2.2	2.3	2.4
Electroplating for																	
Electronics and Decorative	1.6	1.9	2.3	2.5	3.3	4.2	4.0	4.5	4.2	4.5	7.0	6.7	6.8	7.0	7.1	7.2	7.4
Chemicals	0.3	0.5	0.6	0.6	0.7	1.3	1.0	1.3	1.2	1.3	2.0	1.9	2.0	2.1	3.0	2.2	2.2
Mirrors	0.3	0.4	0.5	0.5	0.6	0.9	0.9	1.0	0.9	1.0	1.3	1.2	1.3	1.3	1.4	1.3	1.3
Brazing Alloys and Solders	0.5	0.6	0.7	0.7	0.9	1.2	1.1	1.2	1.1	1.2	2.0	2.0	2.0	2.1	2.2	2.4	2.5
Jewelry	0.1	0.6	1.0	0.9	1.2	1.4	1.0	1.4	1.3	1.4	1.6	1.5	1.7	1.8	1.8	2.0	1.5
<b>Total</b>	<b>3.2</b>	<b>4.5</b>	<b>5.5</b>	<b>5.6</b>	<b>7.3</b>	<b>10.1</b>	<b>8.8</b>	<b>10.6</b>	<b>9.8</b>	<b>10.6</b>	<b>16.3</b>	<b>15.5</b>	<b>16.0</b>	<b>16.4</b>	<b>17.7</b>	<b>17.4</b>	<b>17.3</b>
% Change Year Ago		40.5%	23.0%	2.2%	29.5%	38.4%	-12.9%	20.5%	-7.5%	8.2%	53.8%	-4.9%	3.2%	2.5%	7.9%	-1.7%	-0.6%
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p	
Photography	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Electronics	2.6	2.7	2.5	3.0	3.2	4.1	4.0	5.0	5.1	5.2	5.3	5.5	5.6	5.5	6.0	6.6	
Electroplating for																	
Electronics and Decorative	8.0	8.3	7.7	8.1	8.2	8.3	9.0	9.2	9.5	9.7	9.9	10.2	10.1	9.6	9.8	10.1	
Chemicals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Mirrors	1.3	1.3	1.2	1.2	1.3	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	
Brazing Alloys and Solders	2.6	2.6	2.5	2.6	2.6	2.7	3.0	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.2	
Jewelry	1.5	1.5	1.4	1.5	1.6	2.5	2.6	2.7	2.7	2.7	2.7	3.0	3.0	2.7	2.8	2.8	
<b>Total</b>	<b>16.0</b>	<b>16.4</b>	<b>15.3</b>	<b>16.4</b>	<b>16.9</b>	<b>18.9</b>	<b>20.1</b>	<b>21.5</b>	<b>21.8</b>	<b>22.1</b>	<b>22.5</b>	<b>23.2</b>	<b>23.3</b>	<b>22.3</b>	<b>23.1</b>	<b>24.0</b>	
% Change Year Ago	-7.5%	2.5%	-6.7%	7.2%	3.1%	11.9%	6.2%	7.0%	1.6%	1.1%	1.9%	3.1%	0.4%	-4.3%	3.4%	4.0%	

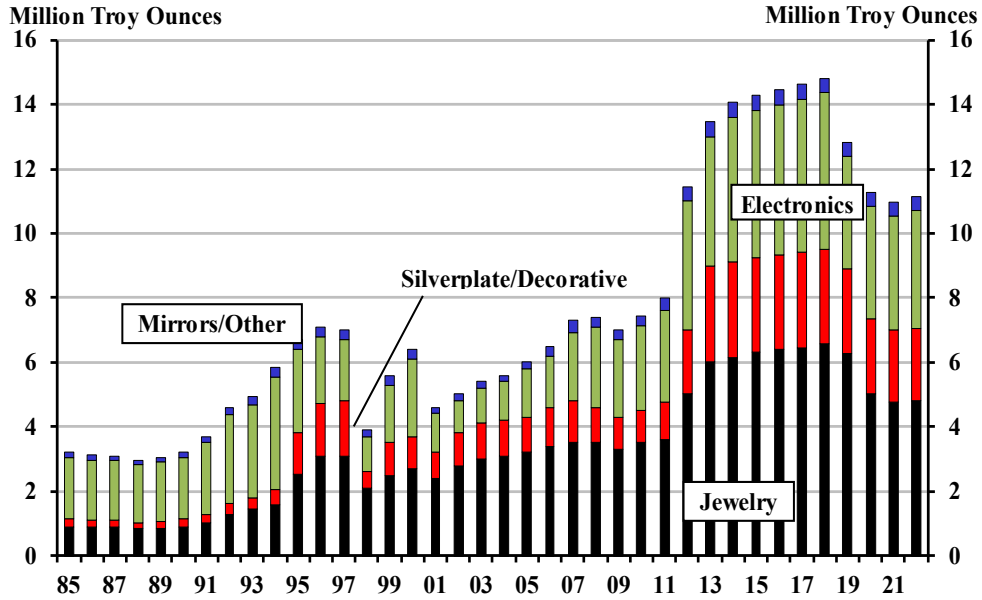
Notes: Totals may not equal sums of categories due to rounding. Consumption in individual industries prior to 1990 totaled less than 100,000 ounces.

Sources: Trade sources, CPM Group.

30 March 2022

**Silver Fabrication Demand In Hong Kong**

*Annual Projected Through 2022*



## Hong Kong Silver Fabrication Demand

Million Troy Ounces

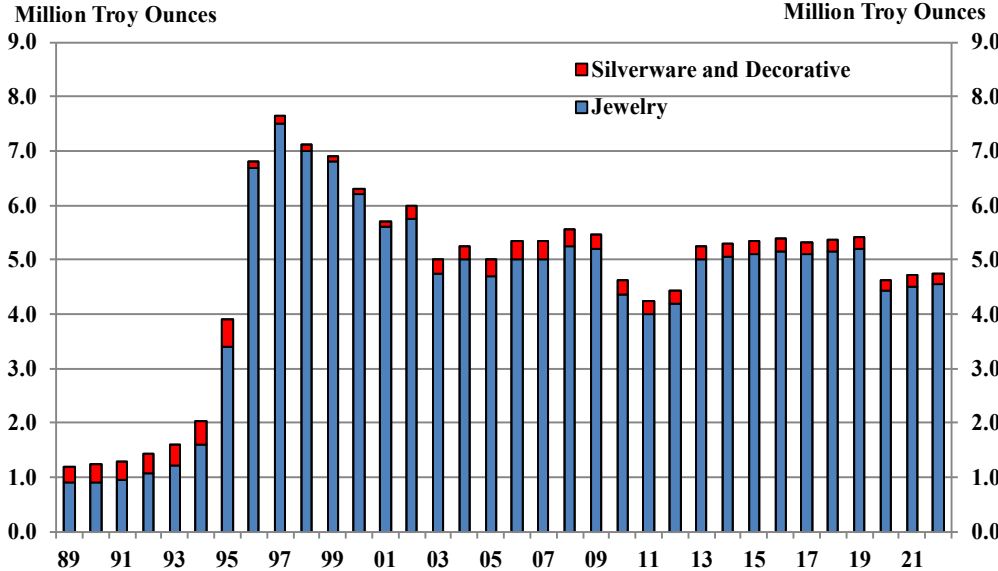
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Jewelry	0.9	0.9	0.8	0.9	0.9	1.0	1.3	1.4	1.6	2.5
Silverplate/decorative	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	1.3
Electronics	1.9	1.9	1.8	1.8	1.9	2.2	2.8	2.9	3.5	2.6
Mirrors/other	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3
Total Demand	3.1	3.1	3.0	3.1	3.2	3.7	4.6	4.9	5.8	6.7
% Change Year Ago		-1.0%	-4.2%	3.3%	5.3%	15.0%	24.4%	7.5%	17.9%	14.9%
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Jewelry	3.1	3.1	2.1	2.5	2.7	2.4	2.8	3.0	3.1	3.2
Silverplate/decorative	1.6	1.7	0.5	1.0	1.0	0.8	1.0	1.1	1.1	1.1
Electronics	2.1	1.9	1.1	1.8	2.4	1.2	1.0	1.1	1.2	1.5
Mirrors/other	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2
Total Demand	7.1	7.0	3.9	5.6	6.4	4.6	5.0	5.4	5.6	6.0
% Change Year Ago	6.0%	-1.4%	-44.3%	43.6%	14.3%	-28.1%	8.7%	8.0%	3.7%	7.1%
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Jewelry	3.4	3.5	3.5	3.3	3.5	3.6	5.0	6.0	6.2	6.3
Silverplate/decorative	1.2	1.3	1.1	1.0	1.0	1.2	2.0	3.0	3.0	2.9
Electronics	1.6	2.1	2.5	2.4	2.6	2.9	4.0	4.0	4.5	4.6
Mirrors/other	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5
Total Demand	6.5	7.3	7.4	7.0	7.4	8.0	11.4	13.5	14.1	14.3
% Change Year Ago	8.3%	12.3%	1.4%	-5.4%	6.3%	7.5%	42.7%	17.8%	4.5%	1.6%
	2016	2017	2018	2019	2020	2021	2022p			
Jewelry	6.4	6.5	6.6	6.3	5.0	4.8	4.8			
Silverplate/decorative	2.9	2.9	2.9	2.6	2.4	2.2	2.3			
Electronics	4.7	4.8	4.8	3.5	3.5	3.5	3.6			
Mirrors/other	0.5	0.5	0.5	0.5	0.4	0.4	0.4			
Total Demand	14.4	14.6	14.8	12.8	11.3	11.0	11.1			
% Change Year Ago	1.1%	1.3%	1.3%	-13.3%	-12.2%	-2.7%	0.0%			

Notes: Totals may not equal the sums of categories due to rounding. Consumption in individual industries prior to 1985 totaled less than 100,000 ounces.

Sources: Hong Kong trade sources, CPM Group.

30 March 2022

Pakistan Silver Fabrication Demand





## Pakistan Silver Fabrication Demand

Million Troy Ounces

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Jewelry	0.90	0.91	0.94	1.08	1.21	1.60	3.40	6.70	7.50
Silverware and Decorative	0.30	0.32	0.35	0.35	0.40	0.43	0.50	0.10	0.15
Total	1.20	1.23	1.29	1.43	1.61	2.03	3.90	6.80	7.65
% Change Year Ago	—	2.5%	4.9%	10.9%	12.5%	26.2%	92.1%	74.4%	12.5%
	1998	1999	2000	2001	2002	2003	2004	2005	2006
Jewelry	7.00	6.80	6.20	5.60	5.75	4.75	5.00	4.70	5.00
Silverware and Decorative	0.13	0.10	0.10	0.10	0.25	0.25	0.25	0.30	0.35
Total	7.13	6.90	6.30	5.70	6.00	5.00	5.25	5.00	5.35
% Change Year Ago	-6.8%	-3.2%	-8.7%	-9.5%	5.3%	-16.7%	5.0%	-4.8%	7.0%
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Jewelry	5.00	5.25	5.20	4.37	4.00	4.20	5.00	5.05	5.10
Silverware and Decorative	0.35	0.30	0.26	0.25	0.25	0.23	0.24	0.24	0.23
Total	5.35	5.55	5.46	4.62	4.25	4.43	5.24	5.29	5.33
% Change Year Ago	0.0%	3.7%	-1.6%	-15.4%	-8.0%	4.2%	18.3%	0.9%	0.9%
	2016	2017	2018	2019	2020	2021	2022p		
Jewelry	5.15	5.10	5.15	5.20	4.42	4.51	4.56		
Silverware and Decorative	0.23	0.23	0.23	0.23	0.20	0.20	0.20		
Total	5.38	5.33	5.38	5.43	4.62	4.71	4.75		
% Change Year Ago	0.9%	-1.0%	0.0%	0.0%	0.0%	0.0%	0.0%		

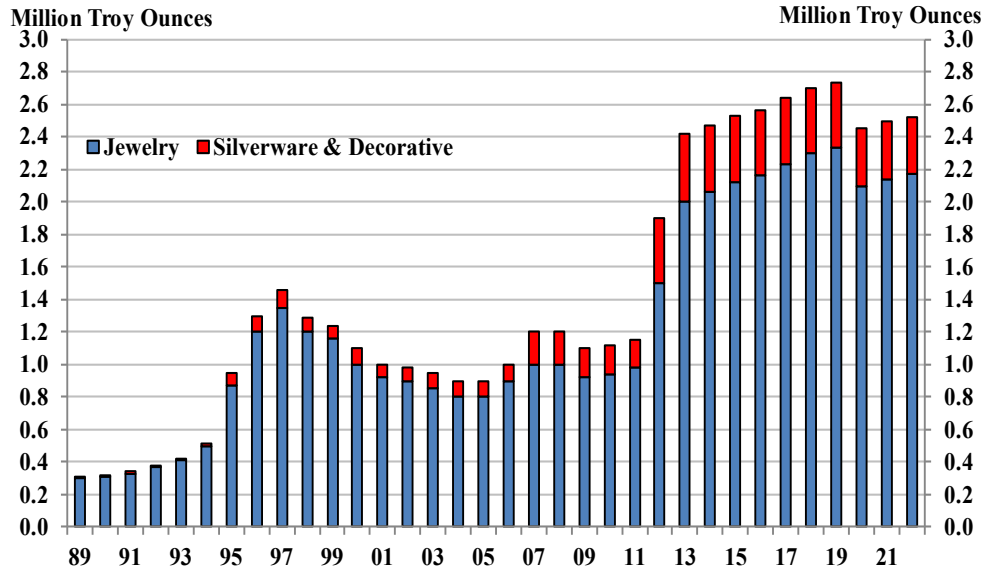
Note: Totals may not equal the sums of categories due to rounding.

Sources: Trade sources, CPM Group.

30 March 2022

**Bangladesh Silver Fabrication Demand**

*Annual, Projected Through 2022*



## Bangladesh Silver Fabrication Demand

Million Troy Ounces

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Jewelry	0.30	0.31	0.33	0.37	0.41	0.50	0.87	1.20	1.35
Silverware and Decorative	0.01	0.01	0.01	0.01	0.01	0.02	0.08	0.10	0.11
Total	0.31	0.32	0.34	0.38	0.42	0.52	0.95	1.30	1.46
% Change Year Ago	—	3.2%	6.3%	11.8%	10.5%	23.8%	82.7%	36.8%	12.3%
	1998	1999	2000	2001	2002	2003	2004	2005	2006
Jewelry	1.20	1.16	1.00	0.92	0.90	0.85	0.80	0.80	0.90
Silverware and Decorative	0.09	0.08	0.10	0.08	0.08	0.10	0.10	0.10	0.10
Total	1.29	1.24	1.10	1.00	0.98	0.95	0.90	0.90	1.00
% Change Year Ago	-11.6%	-3.9%	-11.3%	-9.1%	-2.0%	-3.1%	-5.3%	0.0%	11.1%
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Jewelry	1.00	1.00	0.92	0.94	0.98	1.50	2.00	2.06	2.12
Silverware and Decorative	0.20	0.20	0.18	0.18	0.17	0.40	0.42	0.41	0.41
Total	1.20	1.20	1.10	1.12	1.15	1.90	2.42	2.47	2.53
% Change Year Ago	20.0%	0.0%	-8.3%	1.8%	2.7%	65.2%	27.2%	2.3%	2.3%
	2016	2017	2018	2019	2020	2021	2022p		
Jewelry	2.16	2.23	2.30	2.33	2.10	2.14	2.17		
Silverware and Decorative	0.40	0.41	0.40	0.40	0.36	0.36	0.35		
Total	2.57	2.64	2.70	2.73	2.46	2.50	2.52		
% Change Year Ago	1.5%	2.7%	2.4%	1.1%	-10.0%	1.6%	1.1%		

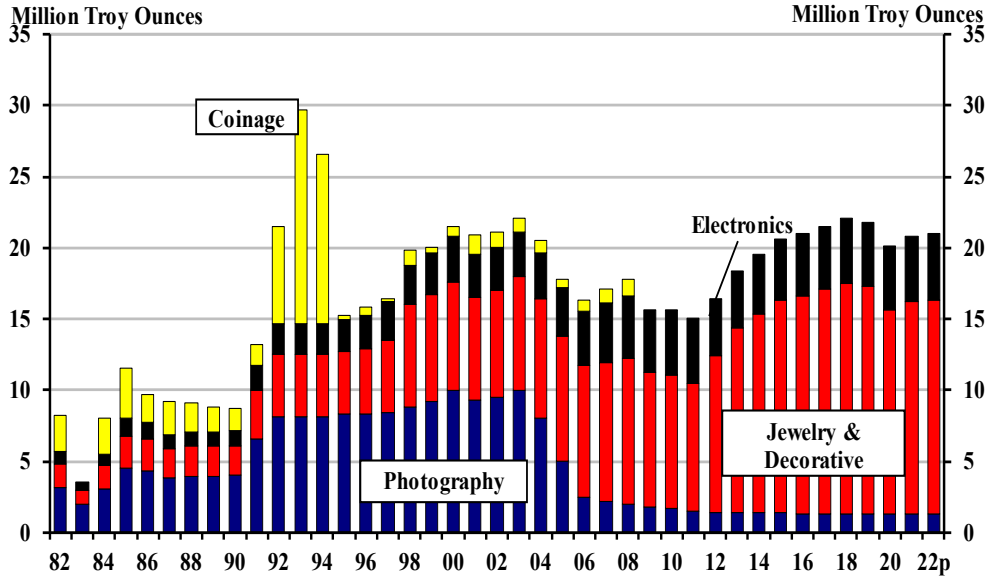
Note: Totals may not equal the sums of categories due to rounding.

Sources: Trade sources, CPM Group.

3 April 2022

**Silver Fabrication Demand in Mexico**

*Annual Projected Through 2022*



**Mexican Silver Fabrication Demand**

Million Troy Ounces

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
<b>Industrial</b>														
Photography	3.2	2.0	3.1	4.5	4.3	3.9	4.0	4.0	4.0	6.6	8.1	8.1	8.1	8.3
Jewelry and Decorative	1.7	1.0	1.6	2.3	2.2	2.0	2.1	2.1	2.1	3.4	4.4	4.4	4.4	4.5
Electronics	0.9	0.5	0.8	1.2	1.2	1.0	1.0	1.1	1.1	1.8	2.2	2.2	2.2	2.3
Subtotal	5.7	3.5	5.5	8.0	7.7	6.9	7.1	7.1	7.2	11.8	14.7	14.7	14.7	15.0
% Change Year Ago	-	-38.6%	57.1%	45.5%	-3.8%	-10.4%	2.9%	0.0%	1.4%	63.2%	25.1%	0.0%		2.0%
<b>Coinage</b>														
	2.5		2.5	3.5	2.0	2.3	2.0	1.7	1.5	1.5	6.8	15.0	11.9	0.3
% Change Year Ago	-	NM	NM	40.0%	-42.9%	15.0%	-13.0%	-15.0%	-11.8%	0.0%	353.3%	120.6%	-20.7%	-97.5%
<b>Total Fabrication Demand</b>	8.2	3.5	8.0	11.5	9.7	9.2	9.1	8.8	8.7	13.3	21.5	29.7	26.6	15.3
% Change Year Ago	-	-57.3%	128.6%	43.8%	-15.7%	-5.2%	-1.1%	-3.3%	-1.1%	52.3%	62.3%	38.1%	-10.4%	-42.5%
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Industrial</b>														
Photography	8.3	8.4	8.8	9.2	10.0	9.3	9.5	10.0	8.0	5.0	2.5	2.2	2.0	1.8
Jewelry and Decorative	4.6	5.1	7.2	7.5	7.6	7.2	7.5	8.0	8.4	8.8	9.2	9.7	10.2	9.5
Electronics	2.4	2.7	2.8	2.9	3.2	3.0	3.0	3.1	3.2	3.4	3.8	4.2	4.4	4.3
Subtotal	15.3	16.2	18.8	19.6	20.8	19.5	20.0	21.1	19.6	17.2	15.5	16.1	16.6	15.6
% Change Year Ago	2.0%	5.9%	16.0%	4.3%	6.1%	-6.3%	2.6%	5.5%	-7.1%	-12.2%	-9.9%	3.9%	3.1%	-6.0%
<b>Coinage</b>														
	0.5	0.3	1.0	0.4	0.7	1.4	1.1	1.0	0.9	0.6	0.8	1.0	1.2	
% Change Year Ago	66.7%	-49.2%	293.6%	-60.0%	75.0%	100.0%	-21.4%	-9.1%	-10.0%	-33.3%	33.3%	25.0%	-96.9%	
<b>Total Fabrication Demand</b>	15.8	16.5	19.8	20.0	21.5	20.9	21.1	22.1	20.5	17.8	16.3	17.1	17.8	15.6
% Change Year Ago	3.3%	4.1%	20.3%	1.0%	7.5%	-2.8%	1.0%	4.7%	-7.2%	-13.2%	-8.4%	4.9%	4.1%	-12.4%
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p	
<b>Industrial</b>														
Photography	1.7	1.5	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	
Jewelry and Decorative	9.4	9.0	11.0	13.0	14.0	15.0	15.3	15.8	16.2	16.0	14.4	14.9	15.1	
Electronics	4.5	4.6	4.0	4.0	4.2	4.3	4.4	4.5	4.5	4.5	4.5	4.6	4.7	
Subtotal	15.6	15.1	16.4	18.4	19.6	20.7	21.0	21.5	22.1	21.8	20.2	20.8	21.0	
% Change Year Ago	0.0%	-3.4%	8.8%	12.2%	6.4%	5.5%	1.7%	2.5%	2.5%	-1.2%	-7.6%	3.1%	1.1%	
<b>Coinage</b>														
% Change Year Ago														
<b>Total Fabrication Demand</b>	15.6	15.1	16.4	18.4	19.6	20.7	21.0	21.5	22.1	21.8	20.2	20.8	21.0	
% Change Year Ago	0.0%	-3.4%	8.8%	12.2%	6.4%	5.5%	1.7%	2.5%	2.5%	-1.2%	-7.6%	3.1%	1.1%	

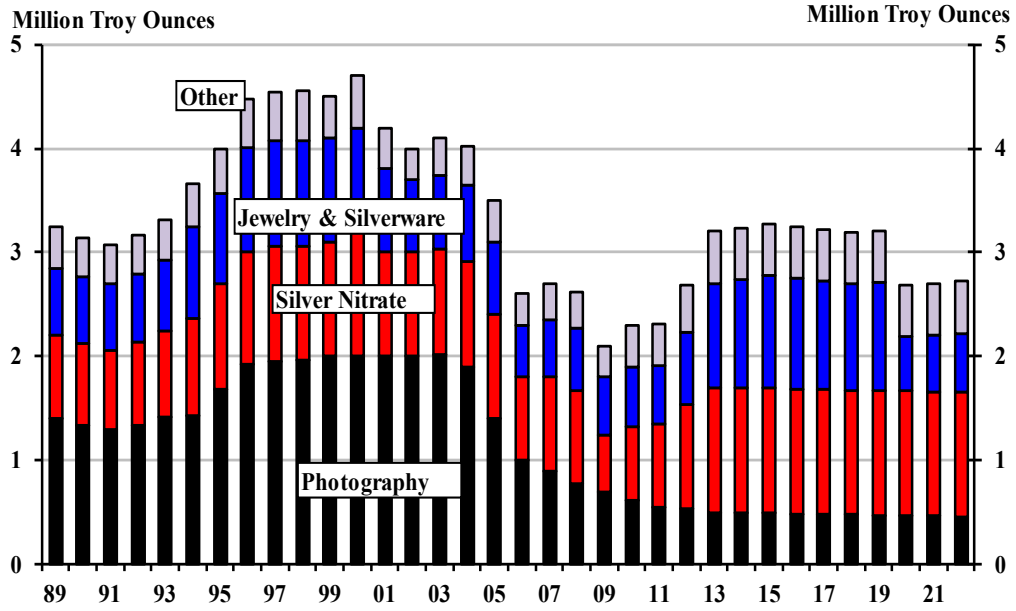
Notes: Totals may not equal the sums of categories because of rounding. NM - Not Meaningful.

Sources: Industry sources, CPM Group.

30 March 2022

**Silver Fabrication Demand in Brazil**

*Annual, Projected Through 2022*



## Brazilian Silver Fabrication Demand

Million Troy Ounces

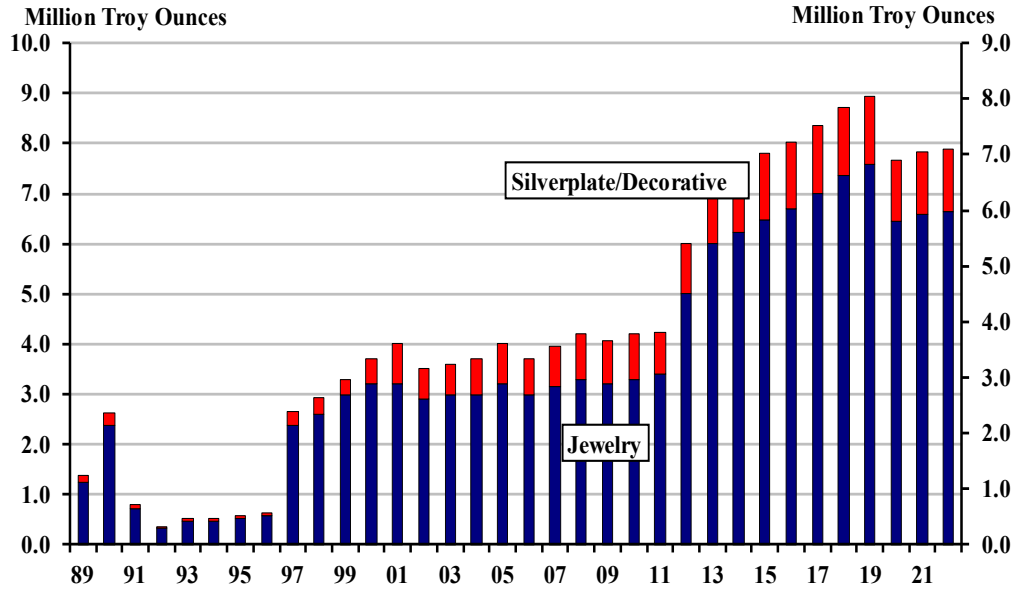
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Photography	1.40	1.34	1.30	1.34	1.41	1.43	1.68	1.92	1.95	1.96	2.00	2.00
Silver Nitrate	0.80	0.78	0.76	0.80	0.84	0.93	1.02	1.09	1.11	1.10	1.10	1.20
Jewelry and Silverware	0.65	0.64	0.64	0.65	0.67	0.89	0.87	1.00	1.01	1.02	1.00	1.00
Other	0.39	0.38	0.37	0.38	0.39	0.41	0.43	0.46	0.47	0.48	0.40	0.50
Total	3.24	3.14	3.07	3.17	3.31	3.66	4.00	4.47	4.54	4.56	4.50	4.70
% Change Year Ago	—	-3.1%	-2.2%	3.3%	4.4%	10.6%	9.2%	11.9%	1.6%	0.4%	-1.3%	4.4%
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Photography	2.00	2.00	2.02	1.90	1.40	1.00	0.90	0.77	0.69	0.62	0.55	0.53
Silver Nitrate	1.00	1.00	1.01	1.01	1.00	0.80	0.90	0.90	0.55	0.70	0.80	1.00
Jewelry and Silverware	0.80	0.70	0.71	0.73	0.70	0.50	0.55	0.60	0.56	0.58	0.56	0.70
Other	0.40	0.30	0.36	0.38	0.40	0.30	0.35	0.35	0.30	0.40	0.40	0.46
Total	4.20	4.00	4.10	4.02	3.50	2.60	2.70	2.62	2.10	2.30	2.31	2.69
% Change Year Ago	-10.6%	-4.8%	2.5%	-2.0%	-12.9%	-25.7%	3.8%	-3.0%	-19.8%	9.5%	0.4%	16.5%
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p		
Photography	0.50	0.50	0.49	0.49	0.48	0.48	0.47	0.47	0.46	0.46		
Silver Nitrate	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20		
Jewelry and Silverware	1.00	1.04	1.08	1.06	1.04	1.02	1.04	0.52	0.54	0.56		
Other	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50		
Total	3.20	3.24	3.27	3.25	3.22	3.19	3.21	2.69	2.70	2.72		
% Change Year Ago	19.0%	1.1%	1.1%	-0.8%	-0.8%	-0.8%	0.5%	-16.3%	0.6%	0.6%		

Note: Totals may not equal the sums of categories due to rounding.

Sources: Centromin, Doe Run Peru, industry sources, CPM Group.  
30 March 2021

**Peruvian Silver Fabrication Demand**

*Annual, Projected Through 2022*





## Peruvian Silver Fabrication Demand

Million Troy Ounces

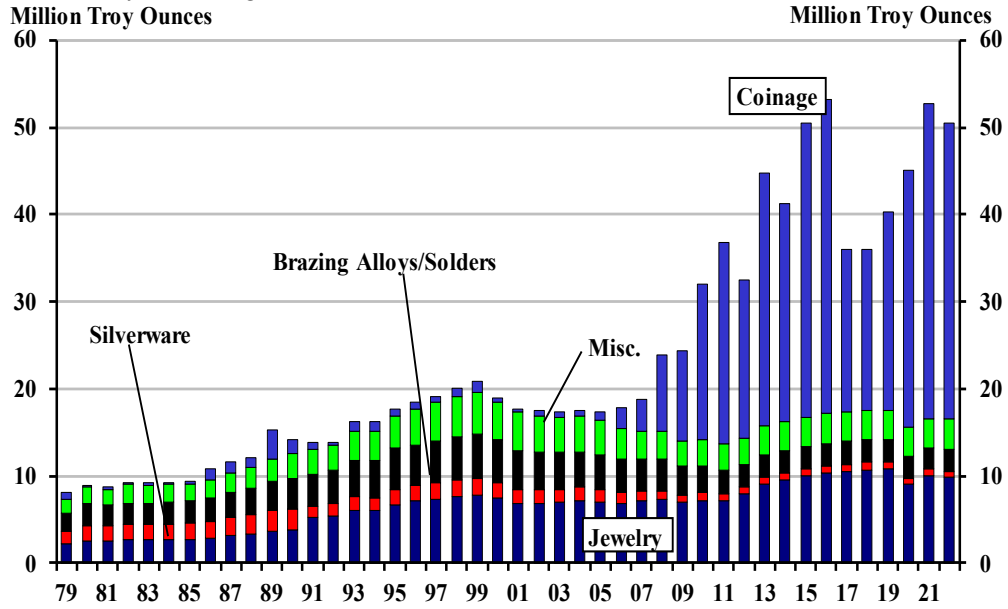
	1989	1990	1991	1992	1993	1994	1995	1996	1997
Jewelry	1.24	2.37	0.72	0.32	0.46	0.47	0.51	0.57	2.37
Silverplate/ Decorative	0.14	0.26	0.08	0.04	0.05	0.05	0.06	0.07	0.29
Total	1.37	2.64	0.80	0.35	0.51	0.52	0.57	0.64	2.66
% Change Year Ago	—	92.0%	-69.5%	-56.0%	45.5%	1.1%	10.5%	11.6%	314.7%
	1998	1999	2000	2001	2002	2003	2004	2005	2006
Jewelry	2.61	3.00	3.20	3.20	2.90	3.00	3.00	3.20	3.00
Silverplate/ Decorative	0.31	0.30	0.50	0.80	0.60	0.60	0.70	0.80	0.70
Total	2.92	3.30	3.70	4.00	3.50	3.60	3.70	4.00	3.70
% Change Year Ago	9.8%	13.0%	12.1%	8.1%	-12.5%	2.9%	2.8%	8.1%	-7.5%
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Jewelry	3.15	3.30	3.20	3.30	3.40	5.00	6.00	6.24	6.49
Silverplate/ Decorative	0.80	0.90	0.87	0.90	0.84	1.00	1.30	1.31	1.33
Total	3.95	4.20	4.07	4.20	4.24	6.00	7.30	7.55	7.82
% Change Year Ago	6.8%	6.3%	-3.1%	3.2%	1.0%	41.5%	21.7%	3.5%	3.5%
	2016	2017	2018	2019	2020	2021	2022p		
Jewelry	6.70	7.00	7.35	7.57	6.43	6.60	6.63		
Silverplate/ Decorative	1.34	1.35	1.37	1.37	1.24	1.25	1.26		
Total	8.04	8.35	8.72	8.94	7.67	7.84	7.89		
% Change Year Ago	2.9%	3.9%	4.4%	2.6%	-14.2%	2.3%	0.6%		

Note: Totals may not equal the sums of categories due to rounding.

Sources: Centromin, Doe Run Peru, industry sources, CPM Group.  
30 March 2022

**Silver Fabrication Demand in Canada**

*Annual, Projected Through 2022*



Canadian Silver Fabrication Demand

Million Troy Ounces

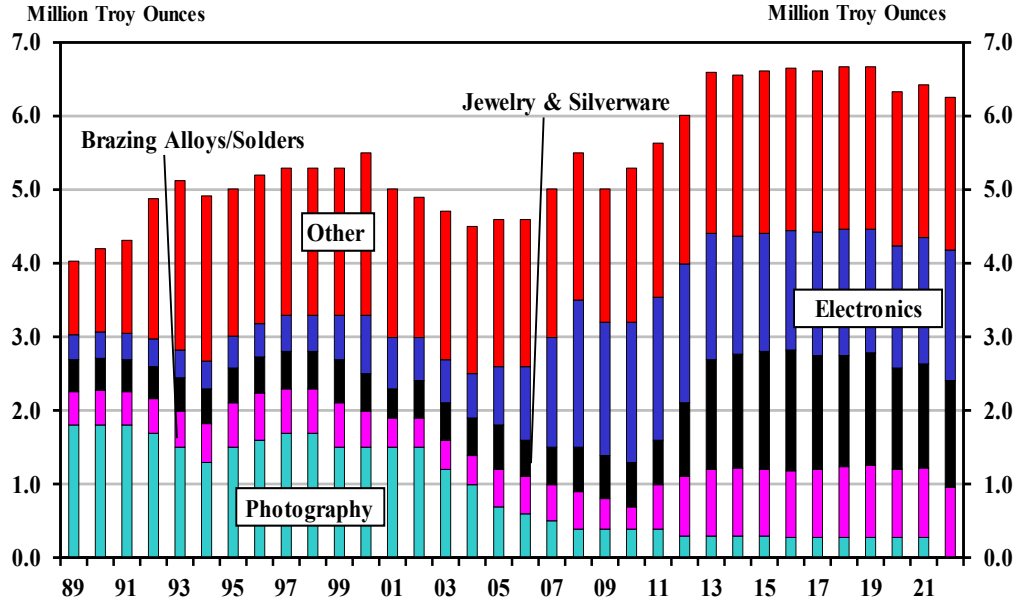
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Jewelry	2.2	2.6	2.6	2.7	2.7	2.7	2.7	2.9	3.1	3.3	3.6	3.8	5.2	5.4	6.1
Silverware	1.5	1.7	1.7	1.8	1.8	1.8	1.8	1.9	2.1	2.2	2.4	2.5	1.3	1.4	1.5
Brazing Alloys/Solders	2.0	2.4	2.4	2.3	2.4	2.4	2.5	2.7	2.9	3.1	3.4	3.5	3.7	3.8	4.3
Miscellaneous	1.6	1.9	1.9	2.2	2.0	2.1	2.0	2.1	2.3	2.4	2.6	2.8	2.9	3.0	3.3
Total	7.3	8.7	8.5	9.0	8.9	9.0	9.1	9.6	10.4	11.0	12.0	12.5	13.1	13.6	15.2
% Change Year Ago	—	19.2%	-2.3%	5.9%	-1.1%	1.1%	1.1%	5.5%	8.3%	5.8%	9.1%	4.2%	4.8%	3.8%	11.8%
Coinage	0.8	0.2	0.3	0.3	0.4	0.3	0.3	1.3	1.2	1.1	3.3	1.7	0.8	0.3	1.0
Total Including Coinage	8.1	8.9	8.8	9.3	9.3	9.3	9.4	10.9	11.6	12.1	15.3	14.2	13.9	13.9	16.2
% Change Year Ago	—	9.9%	-1.1%	5.7%	0.0%	0.0%	1.1%	16.0%	6.4%	4.3%	26.4%	-7.2%	-2.1%	0.0%	16.5%
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Jewelry	6.0	6.8	7.1	7.4	7.6	7.8	7.5	6.8	6.9	7.0	7.2	7.0	6.8	7.1	7.3
Silverware	1.5	1.7	1.8	1.8	1.9	1.9	1.8	1.6	1.5	1.5	1.6	1.4	1.3	1.2	1.0
Brazing Alloys/Solders	4.2	4.7	4.6	4.8	5.0	5.1	4.8	4.5	4.3	4.2	4.0	4.0	3.9	3.7	3.7
Miscellaneous	3.3	3.7	4.2	4.4	4.6	4.8	4.4	4.4	4.2	4.0	4.0	4.0	3.4	3.2	3.1
Total	15.1	16.9	17.7	18.4	19.1	19.6	18.5	17.3	16.9	16.7	16.8	16.4	15.4	15.2	15.1
% Change Year Ago	-0.7%	11.9%	4.7%	4.0%	3.8%	2.6%	-5.6%	-6.5%	-2.3%	-1.2%	0.6%	-2.4%	-6.1%	-1.3%	-0.7%
Coinage	1.2	0.7	0.7	0.8	1.0	1.2	0.4	0.4	0.6	0.7	0.7	1.0	2.5	3.5	8.8
Total Including Coinage	16.3	17.6	18.4	19.2	20.1	20.8	18.9	17.7	17.5	17.4	17.5	17.4	17.9	18.7	23.9
% Change Year Ago	0.6%	8.0%	4.5%	4.2%	4.9%	3.5%	-9.1%	-6.3%	-1.1%	-0.6%	0.5%	-0.7%	2.9%	4.8%	27.9%
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p	
Jewelry	7.0	7.2	7.2	8.0	9.0	9.5	10.0	10.3	10.5	10.7	10.8	9.0	10.0	9.8	
Silverware	0.8	0.9	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7	
Brazing Alloys/Solders	3.4	3.0	2.6	2.4	2.5	2.6	2.5	2.6	2.6	2.6	2.5	2.5	2.5	2.6	
Miscellaneous	2.8	3.0	3.1	3.1	3.3	3.3	3.4	3.4	3.4	3.4	3.3	3.3	3.3	3.4	
Total	14.0	14.1	13.7	14.3	15.7	16.3	16.8	17.1	17.4	17.5	17.6	15.6	16.6	16.5	
% Change Year Ago	-7.3%	0.7%	-2.8%	4.5%	9.6%	3.7%	3.1%	2.2%	1.6%	0.5%	0.2%	-11.4%	6.9%	-0.9%	
Coinage	10.3	17.9	23.1	18.1	29.0	25.0	33.6	36.0	18.5	18.4	22.8	29.6	36.0	36.0	
Total Including Coinage	24.3	32.0	36.8	32.5	44.7	41.3	50.4	53.1	35.9	35.9	40.3	45.1	52.6	52.5	
% Change Year Ago	1.5%	31.6%	15.2%	-11.9%	37.7%	-7.7%	22.2%	5.4%	-32.4%	-0.1%	12.2%	12.0%	16.6%	-0.3%	

Notes: Totals may not equal the sums of categories due to rounding.

Sources: Statistics Canada, trade sources, CPM Group.

30 March 2022

Silver Fabrication Demand In Australia



**Australian Silver Fabrication Demand**

Million Troy Ounces

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Photography	1.8	1.8	1.8	1.8	1.7	1.5	1.3	1.5	1.6
Brazing Alloys and Solders	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6
Jewelry and Silverware	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
Electrical/Electronics	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
Other	1.0	1.1	1.3	1.9	2.3	2.2	2.0	2.0	2.0
Total	4.0	4.2	4.3	5.0	5.3	5.1	4.8	5.1	5.2
% Change Year Ago	—	5.0%	2.4%	16.3%	6.0%	-3.9%	-6.3%	6.0%	2.2%
	1998	1999	2000	2001	2002	2003	2004	2005	2006
Photography	1.7	1.7	1.5	1.5	1.5	1.5	1.2	1.0	0.7
Brazing Alloys and Solders	0.6	0.6	0.5	0.4	0.4	0.4	0.4	0.5	0.5
Jewelry and Silverware	0.5	0.6	0.5	0.4	0.5	0.5	0.5	0.6	0.5
Electrical/Electronics	0.5	0.6	0.8	0.7	0.6	0.6	0.6	0.8	1.0
Other	2.0	2.0	2.2	2.0	1.9	2.0	2.0	2.0	2.0
Total	5.3	5.5	5.5	5.0	4.9	5.0	4.7	4.9	4.7
% Change Year Ago	1.9%	3.8%	0.0%	-9.1%	-2.0%	2.0%	-6.0%	4.3%	-4.1%
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Photography	0.6	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3
Brazing Alloys and Solders	0.5	0.5	0.4	0.3	0.6	0.8	0.9	0.9	0.9
Jewelry and Silverware	0.5	0.6	0.6	0.6	0.6	1.0	1.5	1.5	1.6
Electrical/Electronics	1.5	2.0	1.8	1.9	1.9	1.9	1.7	1.6	1.6
Other	2.0	2.0	1.8	2.1	2.1	2.0	2.2	2.2	2.2
Total	5.1	5.6	5.0	5.3	5.6	6.1	6.6	6.6	6.6
% Change Year Ago	8.5%	9.8%	-10.7%	6.0%	6.4%	8.2%	8.2%	-0.5%	0.8%
	2016	2017	2018	2019	2020	2021	2022p		
Photography	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
Brazing Alloys and Solders	0.9	0.9	0.9	1.0	0.9	0.9	1.0		
Jewelry and Silverware	1.6	1.5	1.5	1.5	1.4	1.4	1.4		
Electrical/Electronics	1.6	1.7	1.7	1.7	1.7	1.7	1.8		
Other	2.2	2.2	2.2	2.2	2.1	2.1	2.1		
Total	6.7	6.6	6.7	6.7	6.3	6.4	6.5		
% Change Year Ago	0.5%	-0.4%	0.6%	0.0%	-5.0%	1.6%	1.6%		

Note: Other includes small amount of decorative silver use. Totals may not equal the sums of categories due to rounding.

Sources: Australian trade sources, CPM Group.

30 March 2022

Italy - Silver Fabrication Demand

Million Troy Ounces

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
Jewelry/Silverware	16.5	8.0	9.7	10.6	7.3	10.3	14.8	23.0	28.6	29.0	34.3	38.3	43.1	44.7	42.1	47.4	54.2	50.6	54.3	66.5	63.6	61.5	Jewelry/Silverware
Photography	4.2	4.0	3.5	3.2	2.6	3.2	3.2	4.2	3.5	1.9	1.6	2.3	2.3	2.5	2.5	2.7	2.8	2.8	2.8	3.0	3.1	3.0	Photography
Electronics	0.0	0.0	8.0	6.4	5.5	4.5	3.2	3.7	3.7	4.2	4.2	4.5	4.5	4.0	4.1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	Electronics
Brazing Alloys/Solders	3.9	3.0	2.6	2.6	2.0	2.2	2.1	2.3	2.0	1.9	2.3	2.1	2.0	2.0	2.1	2.1	2.2	2.4	2.4	2.4	2.6	2.7	Brazing Alloys/Solders
Dental	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	Dental
Mirrors	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.8	0.9	1.0	1.0	1.0	Mirrors
Miscellaneous	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.6	0.7	0.9	1.0	Miscellaneous
Total	25.9	16.3	25.0	23.9	18.4	21.2	24.3	34.2	39.0	38.2	43.6	48.3	53.1	54.4	52.1	57.6	64.8	61.7	65.5	78.3	75.8	74.2	Total
% Change Year Ago	—	-37.1%	53.4%	-4.4%	-23.0%	15.4%	14.6%	40.7%	13.9%	-2.0%	14.1%	10.9%	9.8%	2.5%	-4.4%	10.7%	12.5%	-4.7%	6.1%	19.5%	-3.2%	-2.1%	% Change Year Ago
Coinage	1.6	0.3	0.3	0.4	0.6	0.2	0.5	0.2	0.2	0.2	0.2	0.1	—	0.2	—	—	—	—	—	—	—	—	Coinage
Total Including Coinage	27.5	16.6	25.3	24.3	19.0	21.4	24.8	34.4	39.2	38.4	43.8	48.4	53.1	54.6	52.1	57.6	64.8	61.7	65.5	78.3	75.8	74.2	Total Including Coinage
% Change Year Ago	—	-39.6%	52.4%	-4.0%	-21.8%	12.7%	15.8%	38.8%	13.8%	-2.1%	14.2%	10.6%	9.6%	2.9%	-4.7%	10.7%	12.5%	-4.7%	6.1%	19.5%	-3.2%	-2.1%	% Change Year Ago
2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022p		
Jewelry/Silverware	59.2	47.7	49.2	50.3	45.5	43.3	43.9	40.0	40.4	36.4	34.0	28.4	29.4	29.3	29.9	27.6	25.7	23.7	20.1	20.1	20.1	21.5	Jewelry/Silverware
Photography	2.0	2.0	2.0	2.0	1.8	1.6	1.4	1.2	1.0	0.9	0.8	0.8	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	Photography
Electronics	4.5	6.5	6.3	7.0	4.6	5.6	6.3	6.4	7.0	7.0	7.5	7.9	7.5	7.0	6.5	6.2	6.1	6.1	6.1	6.2	6.2	6.2	Electronics
Brazing Alloys/Solders	2.7	2.6	2.7	2.7	2.7	3.0	3.1	3.0	2.5	2.2	1.8	1.8	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	Brazing Alloys/Solders
Dental	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	Dental
Mirrors	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.3	Mirrors
Miscellaneous	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.5	1.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	Miscellaneous
Total	70.9	61.2	62.7	64.5	57.1	56.0	57.2	53.1	53.3	49.1	47.1	41.5	43.0	42.3	42.4	39.7	37.5	35.6	31.8	31.8	31.8	33.2	Total
% Change Year Ago	-4.4%	-13.7%	2.4%	3.0%	-11.5%	-1.9%	2.1%	-7.2%	0.4%	-7.9%	-4.1%	-11.9%	3.6%	-1.7%	0.3%	-6.5%	-5.4%	-5.2%	-10.6%	0.0%	0.0%	4.3%	% Change Year Ago
Coinage	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Coinage
Total Including Coinage	70.9	61.2	62.7	64.5	57.1	56.0	57.2	53.1	53.3	49.1	47.1	41.5	43.0	42.3	42.4	39.7	37.5	35.6	31.8	31.8	31.8	33.2	Total Including Coinage
% Change Year Ago	-4.4%	-13.7%	2.4%	3.0%	-11.5%	-1.9%	2.1%	-7.2%	0.4%	-7.9%	-4.1%	-11.9%	3.6%	-1.7%	0.3%	-6.5%	-5.4%	-5.2%	-10.6%	0.0%	0.0%	4.3%	% Change Year Ago

Notes: Totals may not equal the sums of categories due to rounding.

Sources: European trade sources, CPM Group.

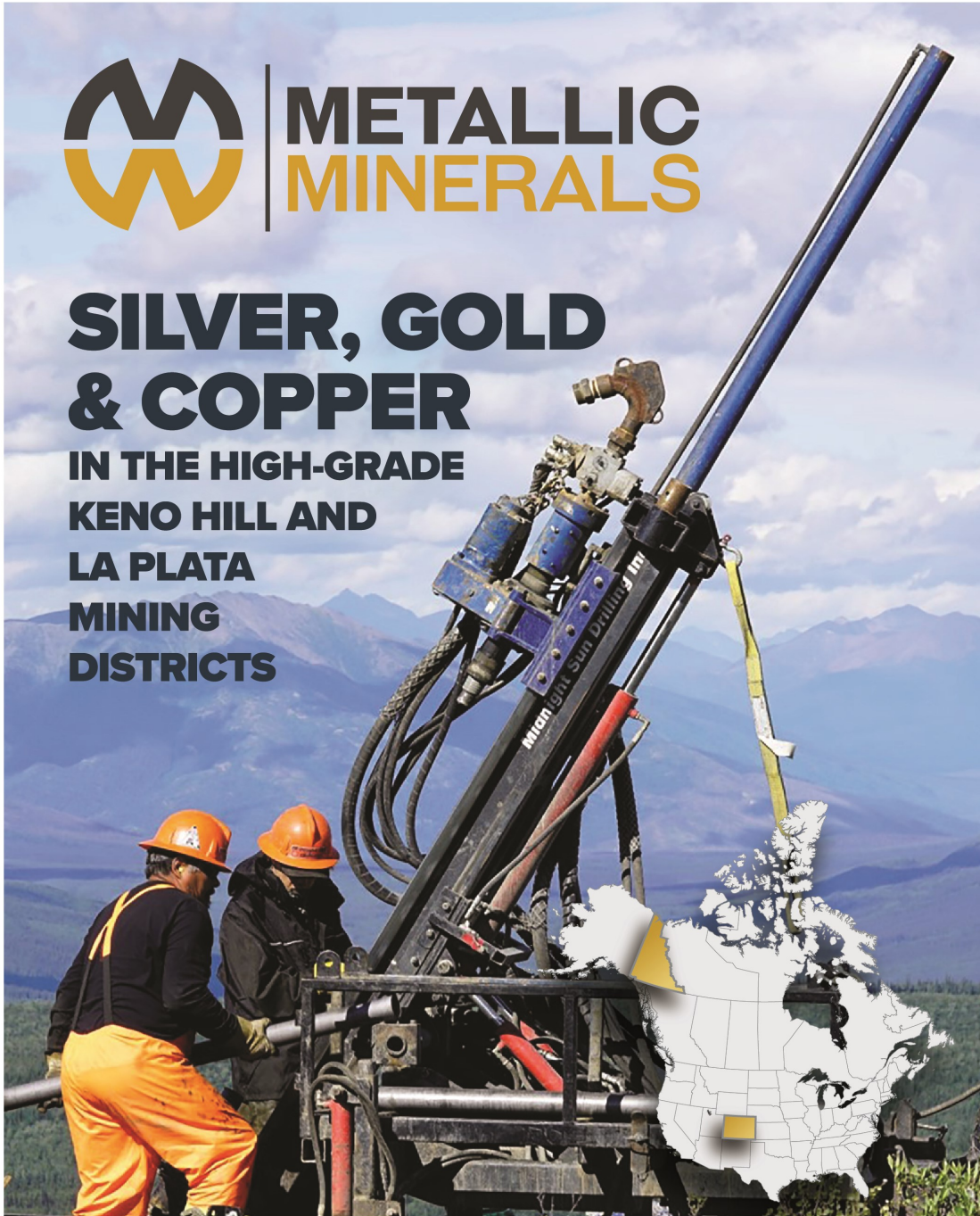
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# Inventories



**Inventories**

Total reported and estimated silver inventories of silver in *bullion and bullion coin form* were 5.51 billion ounces at the end of 2021. This was up from 5.41 billion ounces at the end of 2020.

In reality, there may well be another 500 million to more than one billion ounces of silver in unreported refined inventories, as explained on the next page.

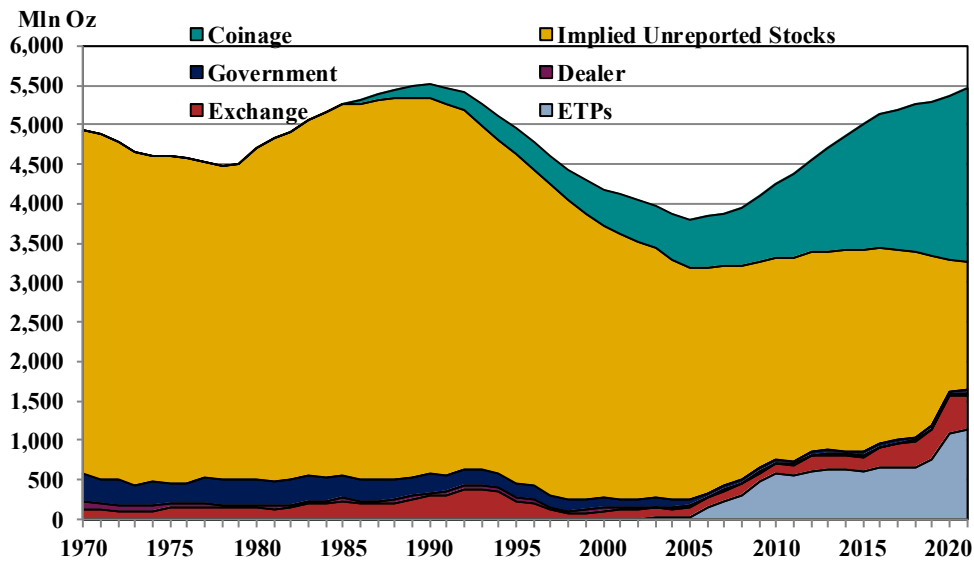
This figure includes reported bullion inventories, inferred and unreported inventories, and unreported coins and government stocks. Total reported and estimated silver inventories have been rising on a consistent basis since bottoming out in 2005, when they totaled 3.88 billion ounces.

Reported inventories were 2.06 billion ounces at the end of 2021, setting another record, up from 1.97 billion ounces at the end of 2020. These inventories include silver held in Comex, Tocom (JPX), SHFE, London registered depositories (with the London figures excluding silver exchange traded product holdings), reported industry inventories, and exchange traded product silver holdings (including a partial estimate of ETP bullion held in registered London depositories).

Exchange traded product silver holdings made up 55.5% of total reported inventories, 1.14 billion ounces, at the end of 2021. Inventories in London, excluding ETP holdings there, were 475.0 million ounces or 23.0% of total reported silver holdings at the end of 2021.

**Silver Bullion Inventories**

*Year-end Data, Through 2021*



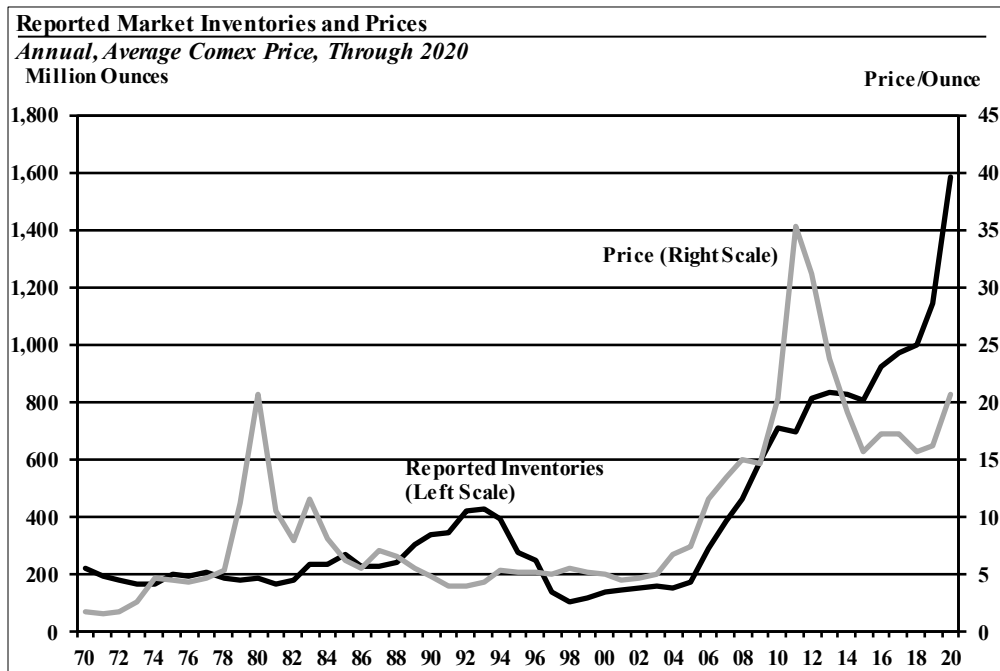
Comex registered depositories held 355.7 million ounces, 17.2% of total reported inventories while the SHFE held 75.9 million ounces or 3.7% of total reported inventories. It should be noted that Comex reported inventories are for 1,000 ounce bars deliverable against Comex futures contracts. The London inventory reports include silver in coin form and smaller bars, as well as 1,000 ounce bars.

Inferred and unreported inventories is another major category for silver stocks. It is estimated in the statistics used in these reports that 1.19 billion ounces were held in unreported bullion bar inventories at the end of 2021, down from 1.32 billion ounces at the end of 2020. Last year marked the sixth year of consecutive declines in these estimated inventories. These inventories are made

up of estimated private holdings in the U.S., Europe, Asia, and Latin America that have been built up and maintained for decades, all with no public disclosure.

**About Unreported Inventories**

*As alluded to on the previous page, there may well be another 500 million to more than one billion ounces of silver in unreported refined inventories, as explained on the next page. The reality, lost on so many silver conspiracy promoters, is that there are hundreds of millions of ounces of silver in working inventories at smelters, refineries, silver converters, and a host of manufacturers and component semi-manufacturers that are unreported, and always have been there.*



*These inventories most often are not owned by the processors and manufacturers, but rather are owned by banks and trading firms that lease the metal to the commercial companies. This frees up capital at the many often private or small companies involved in processing and using silver, provides them with a perfect match, and reduces their operating expenses.*

*These inventories fluctuate in line with mine production and scrap recovery trends, as well as demand for products. There is a constant, daily, flow of refined silver into these inventories and out of them.*

***This metal is unreported.***

*Tying the information in with the information on the roughly 59 billion ounces of silver estimated to have been*

*mined over the past six millennia (74% of which has been mined since 1900), one can see the enormous amount of silver unaccounted for in bullion form, in coins, and in jewelry and silverware, some of which is held as quasi-investments.*

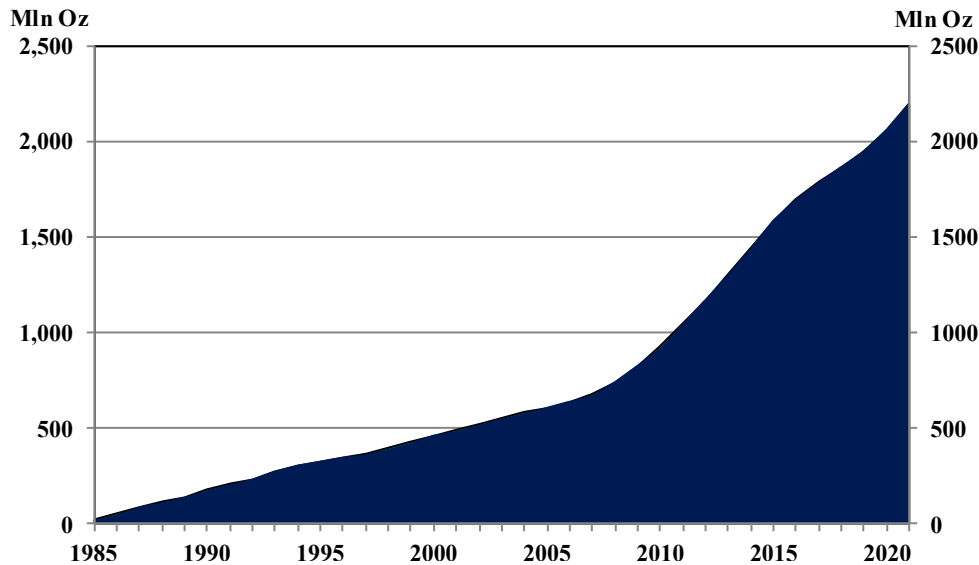
*In other words, there is no shortage of silver in the world.*

**Bullion Coins**

Bullion coins and other coins is the last major category in total reported and estimated silver holdings. It is estimated that at the end of 2021 there were 2.2 billion ounces held in coin form, up from 2.06 billion ounces at the end of 2020. These holdings have been estimated to be increasing in size for decades.

**Silver Coinage**

*Year-end Data, Cummulative Through 2021*



The surge really began when the Canadian and U.S. government mints began producing and selling silver bullion coins in the middle of the 1990s, followed by other government mints. Government stocks meanwhile have been unchanged at 46.8 million ounces year over year.

**London Vault Holdings**

Silver inventories in London began to be publicly reported in July 2016. Since the reporting has been available, it has provide insight into silver holdings in London, which had been trending higher overall until early 2020. Holdings dropped in the first half of 2020, began to rise in early 2021, and have been declining since late 2021.

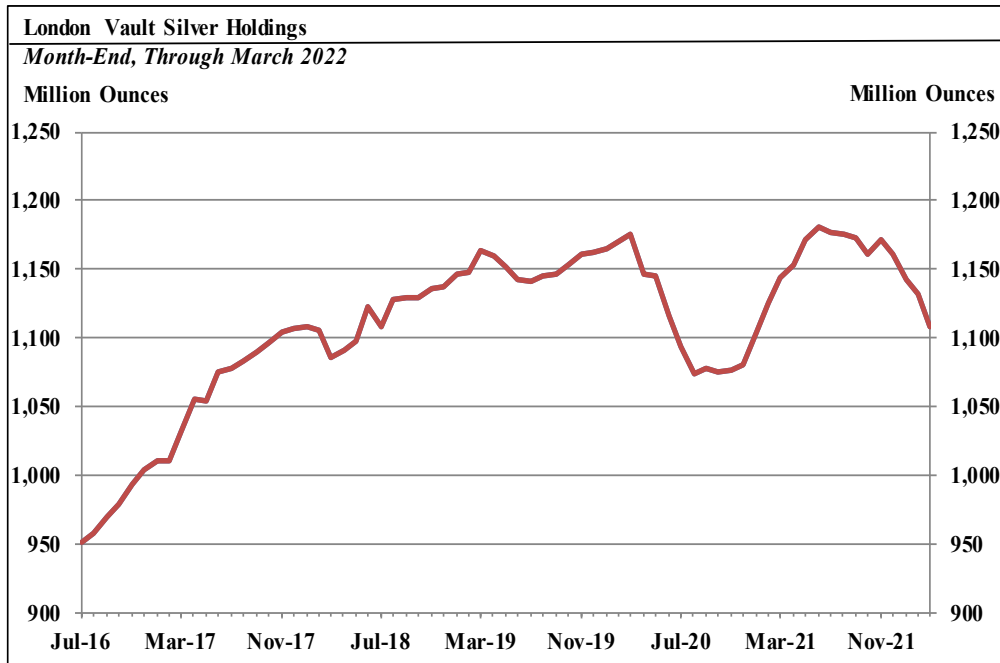
As of March 2022 London silver inventories stood at 1.11 billion ounces.

While that is down from their early 2021 totals, it still is significantly higher than the 950 million ounces in London reported silver inventories at the beginning of the disclosure period in 2016.

London held silver inventories include exchange traded product (ETP) holdings, which accounted for an estimated 669.6 million ounces of the total 1.11 billion ounces at the end of March 2022.

Over the past couple of years the majority of the silver held in London has been silver used in ETPs. Over the course of 2021 silver holdings rose 80.9 million ounces to 1.16 billion ounces at the end of 2021, up from 1.08 billion ounces at the end of 2020.

There are currently six custodians, LBMA members, offering vaulting services and holding some of the silver





held in London. These include Brinks, Malca-Amit, Loomis International (UK) Ltd, HSBC, ICBC Standard Bank, and JP Morgan.

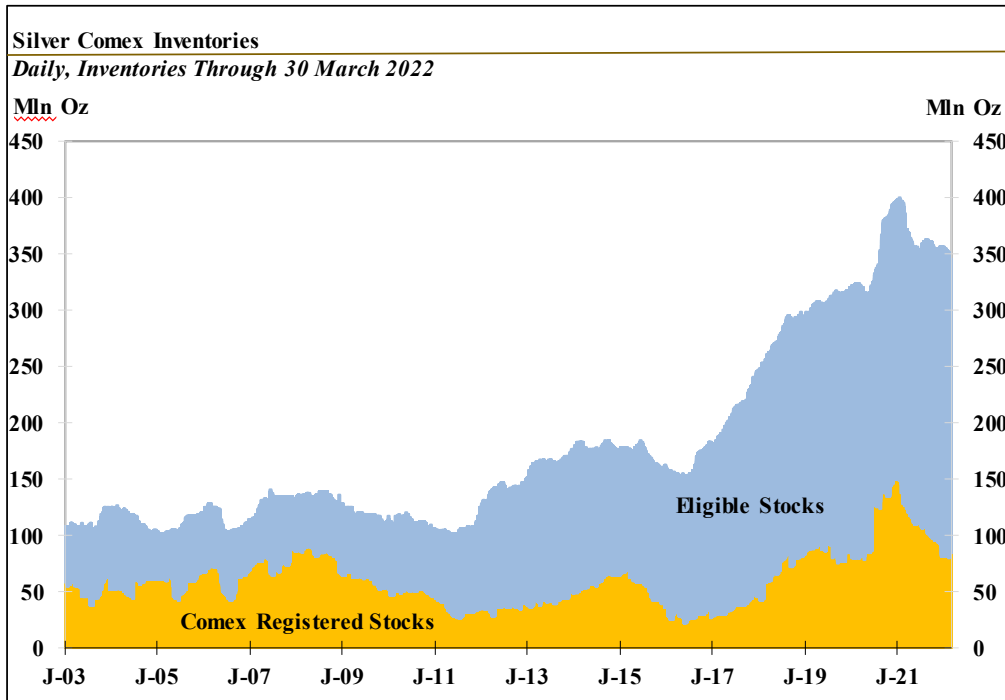
**Comex Inventories**

Comex inventories were 355.7 million ounces at the end of last year, down from 396.5 million ounces at the end of 2020. Comex inventories reached a record 399.8 million ounces on 3 February 2021. Since then inventories have been declining overall and were 333.6 million ounces as of the end of April 2022. Comex inventories have been at historically high levels since around 2019.

Comex inventories are made up of registered and eligible metal. Registered stocks are deliverable metal for which a warehouse receipt has been delivered to the Comex clearinghouse.

Eligible stocks are metal that satisfy the exchange standards for purity, size, and quality, but for which a warehouse receipt has not been delivered to the Comex clearinghouse. This metal is not registered until a warehouse receipt is received by the exchange clearinghouse. Once it is registered, in that the warehouse receipt has been delivered to the clearinghouse, then the metal may be used to meet delivery requirements. The only difference is who holds the warehouse receipt: the owner or the Comex clearinghouse.

At the end of 2021 registered inventories were 82.2 million ounces, down from 150.2 million ounces at the end of 2020. Eligible stocks meanwhile were 273.5 million ounces at the end of 2021, up from 246.4 million ounces at the end of 2020. As of end April 2022, registered stocks were 81.5 million ounces



while eligible stocks were 252.2 million ounces.

Comex silver inventories are held at nine approved depositories. These depositories include Manfra, Tordello, and Brooks (MTB), HSBC Bank, Brinks, Delaware Depository, CNT Depository, International Depository Services of Delaware, JP Morgan Chase, Malca Amit USA, and Loomis International (U.S) Inc.

There have always been market commentators who have contended that the Comex could run out of silver should there be actual deliveries of the metal to those Comex participants requesting the metal. This is not how the actual silver market on the Comex works, however. Most market participants do not take delivery of the silver they purchased. Even as most market participants do not take delivery of metal depository receipts via the Comex, some do. On average from 2018 through April 2022 there were more than 900,000 ounces of depository receipts of physical silver taken delivery of via the Comex on a daily basis.

On a typical day, 5 May 2022, there were 2,425,689.130 ounces of physical metal delivered into Comex registered depositories and 771,935.280 ounces taken out of those depositories.

This tends to represent a flow into and out of Comex-registered silver depositories. The total amount of silver registered with the Comex clearinghouse does not fall by such a total.

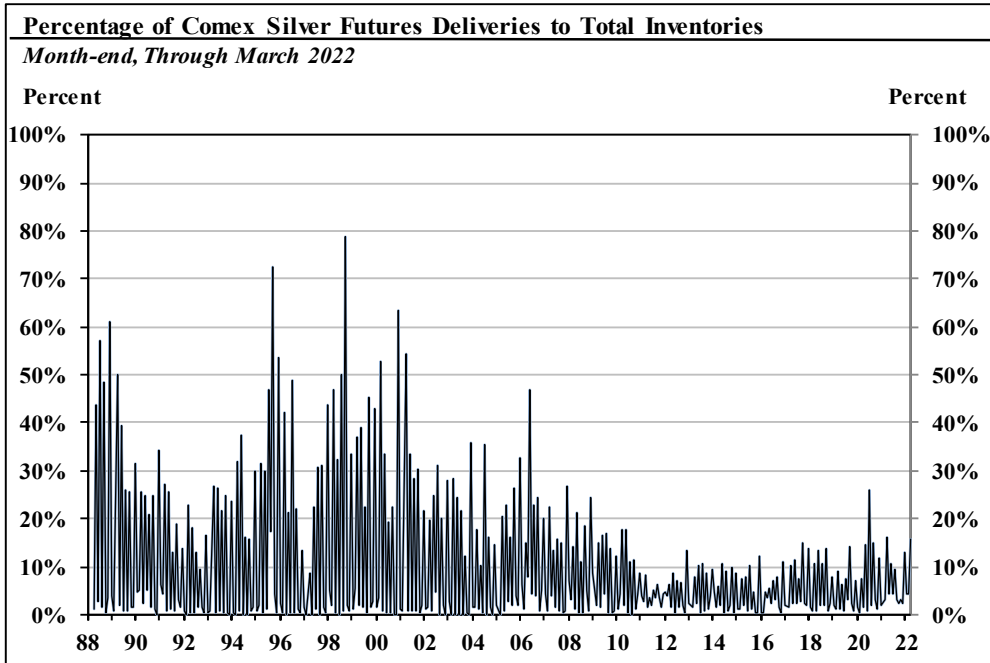
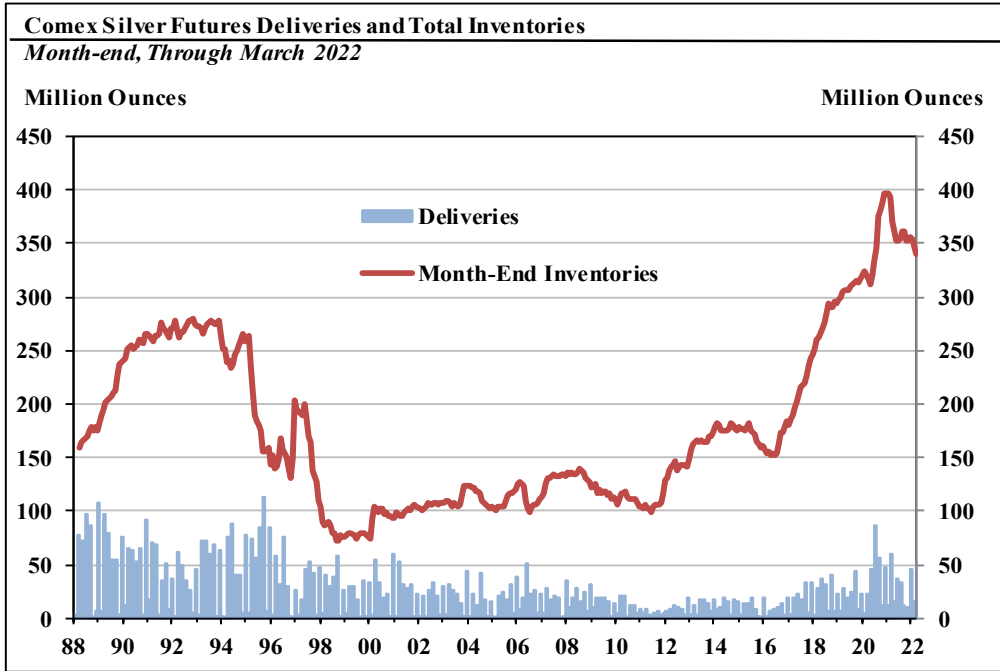
While some promoters of the inaccurate contention that the Comex silver con-

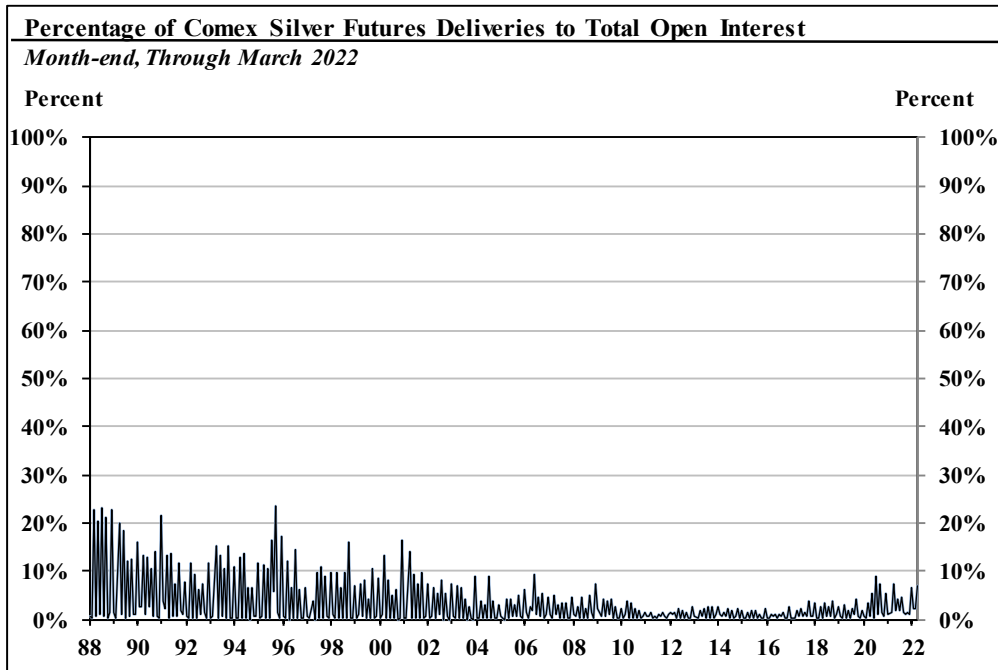
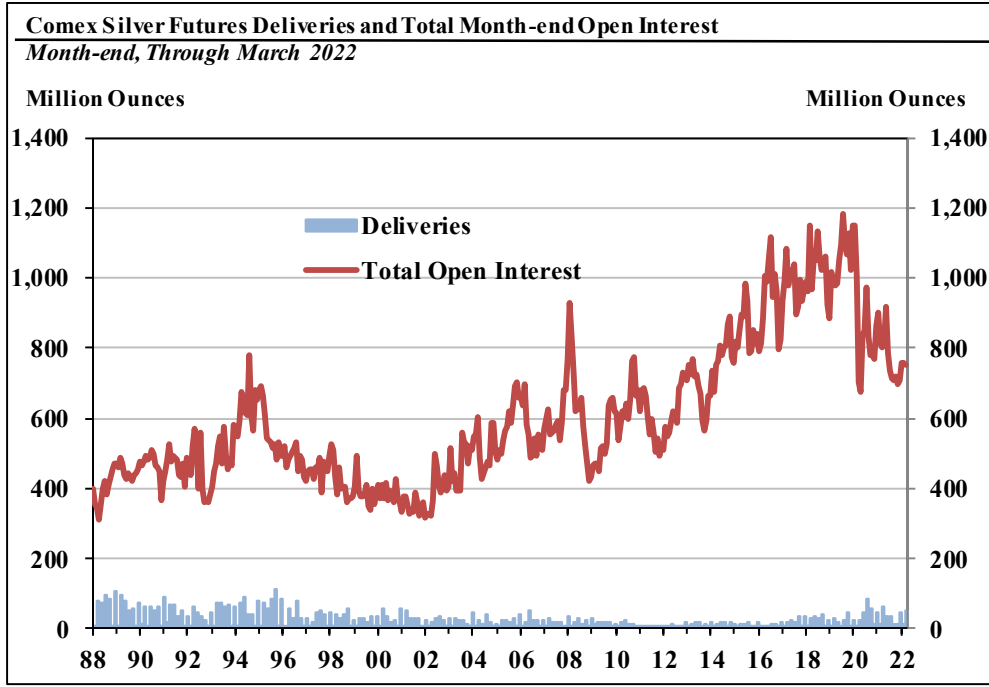
tract distorts silver market conditions have as part of their claims that it is virtually impossible to take delivery of physical silver via Comex contracts, the reality is that commercial companies and investors do so almost every day without any problem. Delivery done right takes two days. Promoters of conspiracy theories claim they were unable to take delivery for months.

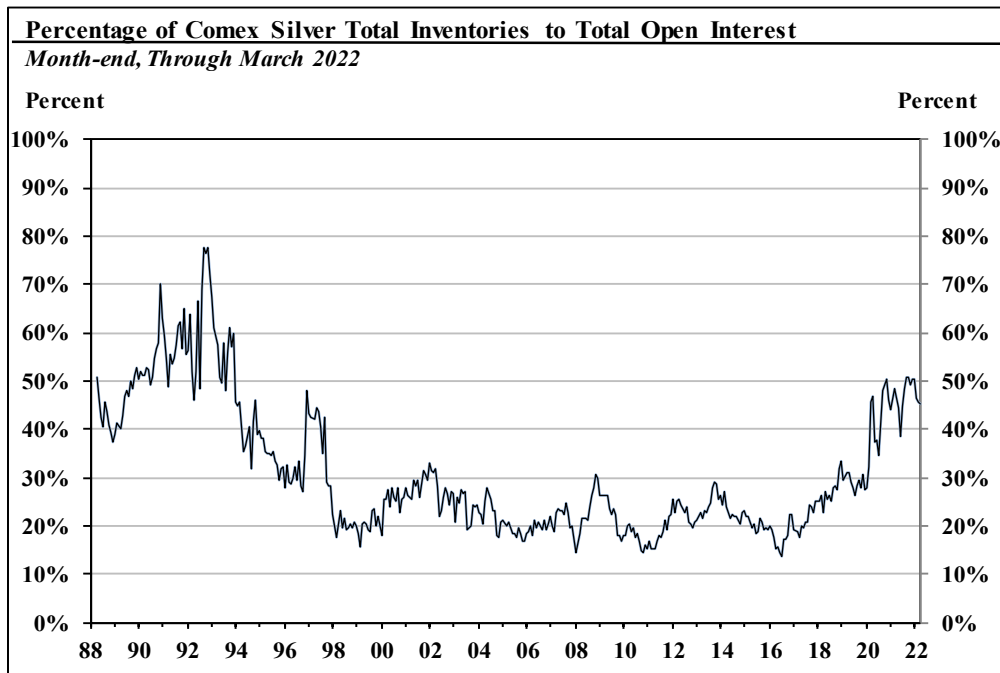
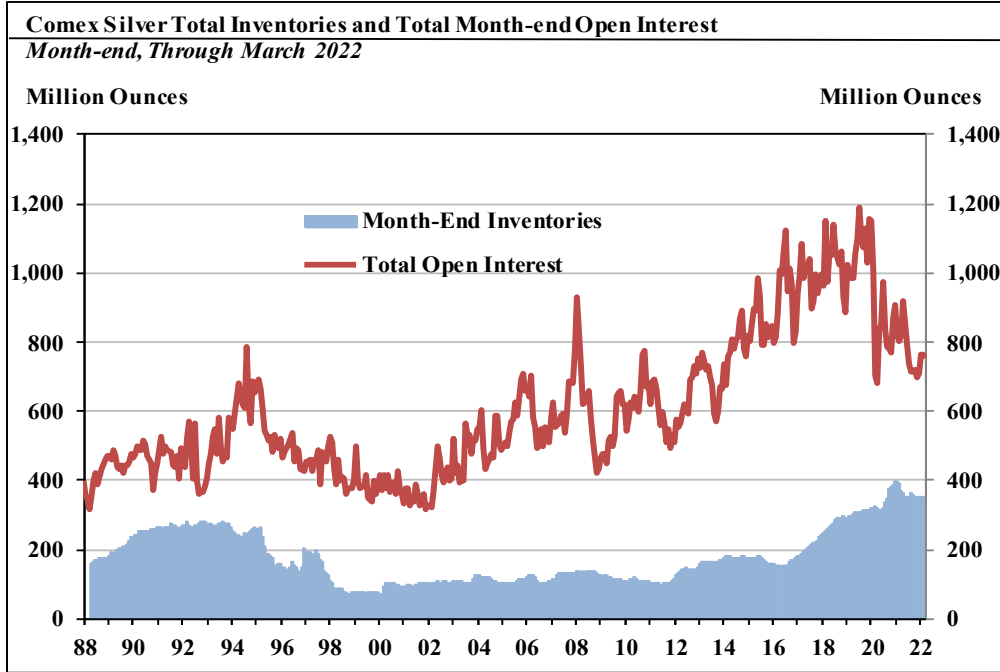
The charts of the following four pages illustrate the relations among Comex open interest, deliveries, and depository holdings. The key relationships related to deliveries, and not open interest, since most open interest is settled without taking deliveries. The argument that ‘if everyone took delivery of their open contracts the market would break’ ignores the reality that most long Comex positions are held by people and businesses with no interest in taking physical delivery. They want exposure to prices, not physical silver.

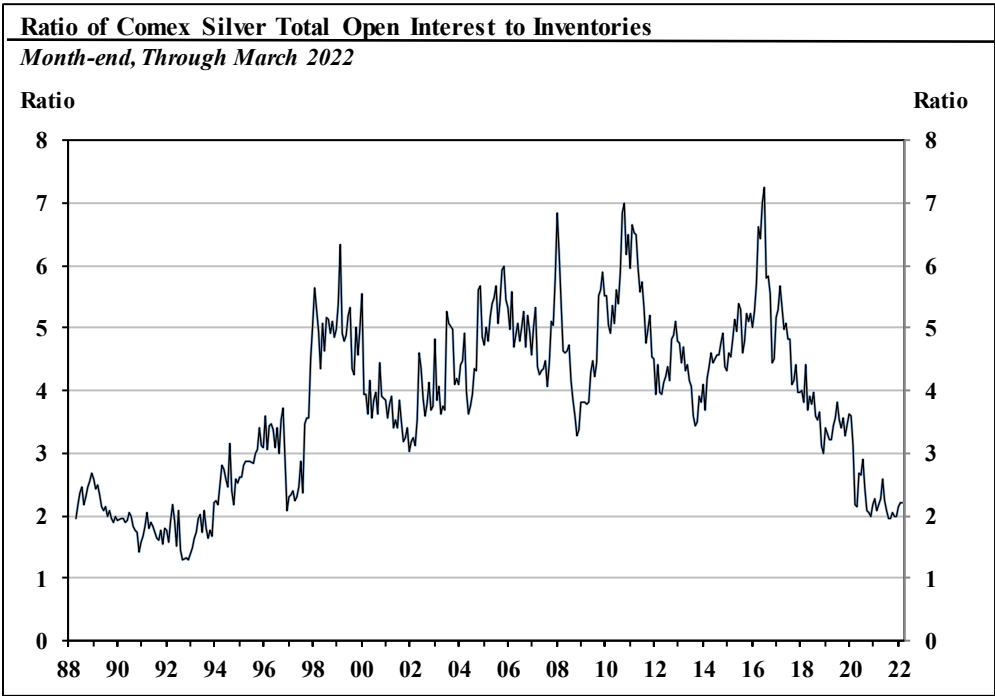
Actual deliveries over the past 10 years of silver futures contracts on the Comex have been less than 0.5% of open interest. Since 1975 those market participants that took delivery on the Comex have been around 0.1%.

The majority of market participants use the Comex to speculate, invest, and hedge. Very few use the Comex as a means of obtaining silver. It is on rare occasions that market participants will take actual delivery. This is because silver can be easily and readily obtained by physical brokers or dealers of silver and the varying degrees that end-users require them.









## Comex Silver Futures Deliveries and Inventory Changes

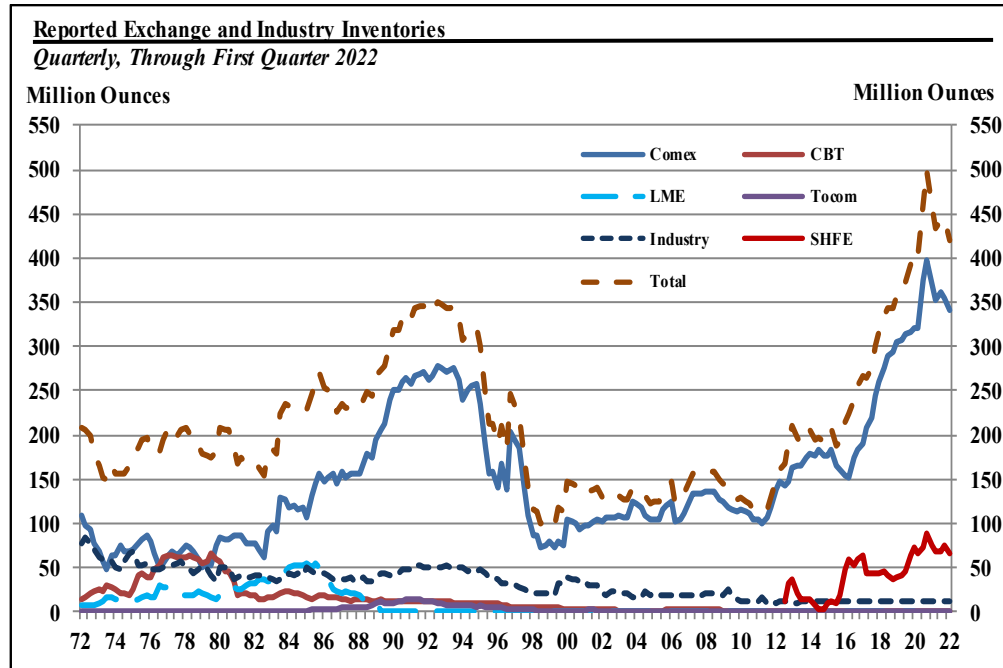
Troy Ounces

Monthly	Month-End Inventories				Net Monthly Changes in Inventories		
	Deliveries	Registered	Eligible	Total	Registered	Eligible	Total
Jan-19	5,920,000	88,142,120	209,862,800	298,004,920	6,287,420	-2,183,800	4,103,620
Feb-19	2,957,000	93,484,550	205,359,600	298,844,150	5,342,430	-4,503,200	839,230
Mar-19	27,960,000	88,475,240	216,469,800	304,945,040	-5,009,310	11,110,200	6,100,890
Apr-19	3,890,000	92,014,470	214,735,730	306,750,200	3,539,230	-1,734,070	1,805,160
May-19	19,492,000	87,865,440	217,988,400	305,853,840	-4,149,030	3,252,670	-896,360
Jun-19	2,681,000	91,127,150	215,186,800	306,313,950	3,261,710	-2,801,600	460,110
Jul-19	23,745,000	95,199,770	215,174,400	310,374,170	4,072,620	-12,400	4,060,220
Aug-19	10,077,000	81,244,970	230,654,800	311,899,770	-13,954,800	15,480,400	1,525,600
Sep-19	44,221,000	76,314,540	237,288,300	313,602,840	-4,930,430	6,633,500	1,703,070
Oct-19	7,710,000	78,511,780	236,991,700	315,503,480	2,197,240	-296,600	1,900,640
Nov-19	2,686,000	82,777,370	230,630,500	313,407,870	4,265,590	-6,361,200	-2,095,610
Dec-19	21,976,000	84,451,140	232,714,400	317,165,540	1,673,770	2,083,900	3,757,670
Jan-20	5,235,000	79,549,650	241,762,300	321,311,950	-4,901,490	9,047,900	4,146,410
Feb-20	1,613,000	82,398,380	241,275,300	323,673,680	2,848,730	-487,000	2,361,730
Mar-20	23,468,000	82,183,040	238,819,100	321,002,140	-215,340	-2,456,200	-2,671,540
Apr-20	4,962,000	88,754,820	227,879,900	316,634,720	6,571,780	-10,939,200	-4,367,420
May-20	45,870,000	85,801,560	225,768,100	311,569,660	-2,953,260	-2,111,800	-5,065,060
Jun-20	2,277,000	123,984,100	197,194,500	321,178,600	38,182,540	-28,573,600	9,608,940
Jul-20	86,605,000	131,786,600	202,722,000	334,508,600	7,802,500	5,527,500	13,330,000
Aug-20	6,712,000	138,098,600	206,871,800	344,970,400	6,312,000	4,149,800	10,461,800
Sep-20	56,160,000	139,813,900	235,389,400	375,203,300	1,715,300	28,517,600	30,232,900
Oct-20	11,675,000	135,461,600	246,341,500	381,803,100	-4,352,300	10,952,100	6,599,800
Nov-20	4,025,000	144,313,100	243,738,900	388,052,000	8,851,500	-2,602,600	6,248,900
Dec-20	46,870,000	150,150,200	246,391,660	396,541,860	5,837,100	2,652,760	8,489,860
Jan-21	7,415,000	149,221,800	248,101,020	397,322,820	-928,400	1,709,360	780,960
Feb-21	12,035,000	135,111,720	257,951,720	393,063,440	-14,110,080	9,850,700	-4,259,380
Mar-21	59,862,000	126,844,800	243,312,090	370,156,890	-8,266,920	-14,639,630	-22,906,550
Apr-21	15,353,000	120,010,610	241,307,390	361,318,000	-6,834,190	-2,004,700	-8,838,890
May-21	37,014,000	110,750,950	242,321,720	353,072,670	-9,259,660	1,014,330	-8,245,330
Jun-21	15,286,000	110,685,590	241,492,470	352,178,060	-65,360	-829,250	-894,610
Jul-21	33,960,000	107,096,080	246,861,750	353,957,830	-3,589,510	5,369,280	1,779,770
Aug-21	11,231,000	107,436,590	254,635,270	362,071,860	340,510	7,773,520	8,114,030
Sep-21	7,770,000	100,847,520	260,162,920	361,010,440	-6,589,070	5,527,650	-1,061,420
Oct-21	11,031,000	97,080,480	256,197,910	353,278,390	-3,767,040	-3,965,010	-7,732,050
Nov-21	8,135,000	99,189,200	252,883,520	352,072,720	2,108,720	-3,314,390	-1,205,670
Dec-21	45,990,000	82,235,980	273,467,560	355,703,540	-16,953,220	20,584,040	3,630,820
Jan-22	15,620,000	81,944,160	272,114,380	354,058,540	-291,820	-1,353,180	-1,645,000
Feb-22	15,620,000	81,046,140	265,764,310	346,810,450	-898,020	-6,350,070	-7,248,090
Mar-22	53,470,000	85,709,660	255,260,140	340,969,800	4,663,520	-10,504,170	-5,840,650

**London Vault Holdings of Silver**  
**Month-End, Troy Ounces**

	2016	2017	2018	2019	2020	2021	2022
January		1,010,942	1,108,613	1,146,502	1,165,549	1,104,241	1,142,061
February		1,010,268	1,104,999	1,148,400	1,170,061	1,125,154	1,131,432
March		1,031,321	1,086,259	1,163,695	1,175,737	1,249,355	1,107,969
April		1,055,393	1,090,476	1,159,570	1,146,719	1,153,154	
May		1,053,498	1,097,000	1,152,110	1,145,072	1,171,586	
June		1,074,647	1,122,091	1,143,018	1,115,657	1,180,113	
July	951,433	1,077,855	1,107,680	1,140,675	1,093,482	1,176,371	
August	957,798	1,083,032	1,128,297	1,145,738	1,073,500	1,175,664	
September	969,175	1,089,013	1,129,624	1,146,308	1,077,299	1,173,050	
October	978,229	1,096,559	1,129,268	1,153,427	1,075,121	1,160,965	
November	993,303	1,103,662	1,135,782	1,160,517	1,076,242	1,170,959	
December	1,004,313	1,106,489	1,137,680	1,162,162	1,080,538	1,161,454	

Notes: The data is reported monthly (three months in arrears). All physical forms of metal are included: large wholesale bars, coin, kilo bars and small bars. The data only includes physical metal held within the London environs and does not include precious metals physical holdings readily available at short notice in other secure overseas vaulting facilities. Jewellery and other private holdings held by retailers, individuals and smaller vaults not included in the London Clearing system are not included in the numbers.





Silver in Comex Approved Depositories  
Troy Ounces

	12/31/2013	12/31/2014	12/31/2015	12/30/2016	12/29/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021
<b>Manfra, Tordella, &amp; Brookes, Inc.</b>									
Registered	8,031,490	5,161,190	2,889,220	2,013,750	2,594,530	9,932,480	7,772,960	30,395,690	15,518,450
Eligible	12,499,090	5,022,980	3,174,410	14,583,170	10,822,110	10,933,050	5,806,600	2,923,820	7,284,010
Total	20,530,580	10,184,170	6,063,630	16,596,920	13,416,640	20,865,530	13,579,560	33,319,510	22,802,460
<b>HSBC Bank (NY)</b>									
Registered	4,690,070	3,988,420	4,049,150	2,678,940	7,562,560	10,548,030	6,699,100	6,520,410	4,740,140
Eligible	41,498,970	31,769,950	17,517,210	19,857,930	29,948,820	18,280,840	19,019,180	21,591,680	16,301,260
Total	46,189,040	35,758,370	21,566,360	22,536,870	37,511,380	28,828,870	25,718,280	28,112,090	21,041,400
<b>Brink's Inc.</b>									
Registered	13,904,420	19,525,950	15,117,110	8,346,020	18,645,550	36,365,460	28,287,790	27,919,100	19,628,780
Eligible	9,298,250	10,140,110	11,044,640	16,465,830	14,161,680	15,600,050	15,833,970	25,373,600	30,151,370
Total	23,202,670	29,666,060	26,161,750	24,811,850	32,807,230	51,965,510	44,121,760	53,292,700	49,780,150
<b>Delaware Depository</b>									
Registered	2,779,410	4,008,190	4,852,500	2,186,410	1,721,170	1,062,200	1,908,910	1,504,350	1,165,360
Eligible	20,292,550	22,386,390	21,908,520	18,824,130	14,697,580	14,570,260	12,391,140	13,841,280	19,092,210
Total	23,071,960	26,394,580	26,761,020	21,010,540	16,418,750	15,632,460	14,300,050	15,345,630	20,257,570
<b>JP Morgan Chase Bank NA</b>									
Registered	8,754,900	8,533,900	6,783,600	5,122,100	5,122,100	5,116,900	4,709,900	40,960,200	24,861,200
Eligible	33,363,400	39,226,300	62,092,600	76,947,100	114,232,600	141,849,900	156,640,500	151,218,900	159,802,400
Total	42,118,300	47,760,200	68,876,200	82,069,200	119,354,700	146,966,800	161,350,400	192,179,100	184,663,600
<b>CNT Depository Inc.</b>									
Registered	12,603,930	23,386,880	6,609,590	6,330,930	8,784,430	18,557,430	34,830,940	34,319,460	8,792,410
Eligible	6,210,440	2,386,670	4,632,520	9,833,635	13,517,770	9,553,950	20,750,220	24,871,760	24,619,640
Total	18,814,370	25,773,550	11,242,110	16,164,566	22,302,200	28,111,380	55,581,160	59,191,220	33,412,050
<b>International Depository Services of Delaware</b>									
Registered				258,280	317,740	272,183	241,589	2,729,129	3,422,144
Eligible				16,305	16,305	639,482	318,048	552,091	62,896
Total				274,584	334,045	911,665	559,637	3,281,220	3,485,040
<b>Malca-Amit USA</b>									
Registered					0	0	0	0	646,741
Eligible					1,214,329	238,833	0	760,712	1,581,117
Total					1,214,329	238,833	0	760,712	2,227,858
<b>Loomis International (US) Inc.</b>									
Registered						17	-49	5,801,861	3,460,755
Eligible						380,235	1,954,742	5,257,817	14,572,657
Total						380,252	1,954,693	11,059,678	18,033,412
<b>Combined Totals</b>									
Registered	50,764,220	64,604,530	40,301,170	26,936,430	44,748,040	81,854,700	84,451,140	150,150,200	82,235,980
Eligible	123,162,700	110,932,400	120,369,900	156,528,100	198,611,200	212,046,600	232,714,400	246,391,660	273,467,560
Total	173,926,920	175,536,930	160,671,070	183,464,530	243,359,240	293,901,300	317,165,540	396,541,860	355,703,540

Source: Comex, CPM Group.  
April 22, 2022

## Government Silver Inventories

Million Troy Ounces

	1970	1980	1995	2000	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Afghanistan	8.3	8.3	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Austria	1.1	0.6	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Belgium	6.3	2.7	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Australia	1.2	0.0	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Canada	0.9	0.9	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Colombia	0.0	0.3	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Ethiopia	0.2	0.2	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Finland	1.6	2.5	i	i	i	i	i	i	i	i	i	i	i	i	i	i
France	3.4	3.4	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Germany	28.0	6.6	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Greece	3.6	3.6	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Guatemala	1.1	1.3	i	i	i	i	i	i	i	i	i	i	i	i	i	i
India, Reserve Bank	2.6	69.0	67.5	67.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
India, non-RBI	-	-	19.1	19.1	15.3	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
Italy	9.9	9.9	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Japan	3.2	3.5	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Mexico	50.7	11.9	6.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Nepal	4.4	4.5	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Netherlands	0.6	0.1	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Norway	0.2	0.2	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Philippines	0.2	2.5	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Pakistan	49.9	0.0	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Portugal	4.0	1.8	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Saudia Arabia	4.3	4.7	i	i	i	i	i	i	i	i	i	i	i	i	i	i
South Africa	1.4	1.2	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Sweden	0.2	0.2	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Switzerland	4.6	5.9	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Taiwan	2.1	2.0	i	i	i	i	i	i	i	i	i	i	i	i	i	i
Thailand	0.7	0.3	i	i	i	i	i	i	i	i	i	i	i	i	i	i
United States	163.9	179.6	75.5	23.0	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
Others	0.1	0.1	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
<b>Total</b>	<b>359.0</b>	<b>327.8</b>	<b>177.8</b>	<b>126.3</b>	<b>49.2</b>	<b>46.8</b>	<b>46.8</b>	<b>46.8</b>	<b>46.8</b>	<b>46.8</b>	<b>46.8</b>	<b>46.8</b>	<b>46.8</b>	<b>46.8</b>	<b>46.8</b>	<b>46.8</b>

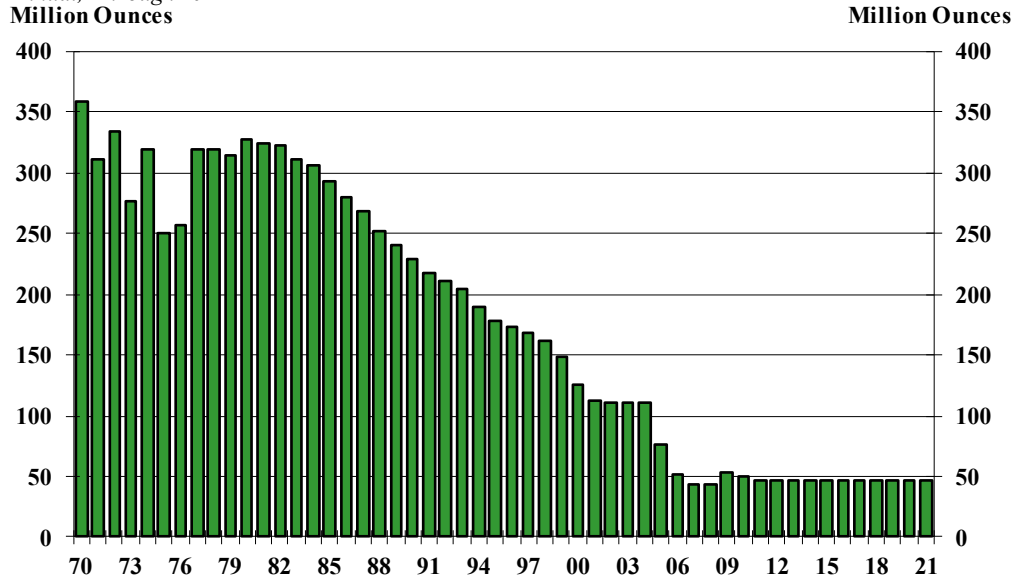
Notes: i - included in "Others".

Source: CPM Group.

April 6, 2022

**Government Silver Inventories**

*Annual, Through 2021*



**Reported and Estimated Silver Inventories**

Million Troy Ounces, Year-End Data

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Reported *</b>													
Comex *	203.5	109.8	75.8	76.0	94.0	104.5	107.4	124.3	103.6	120.0	111.1	132.6	127.7
Tocom	3.6	2.2	1.6	1.4	1.7	1.4	1.7	0.7	1.2	0.6	0.4	0.2	0.3
NYSE Liffe	6.1	4.8	4.4	4.0	4.0	3.7	3.9			2.2	2.3	2.3	2.3
SHFE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>London depositories, exETF</b>													
U.S. and Japanese Industry	32.7	23.0	21.0	32.0	34.1	30.6	23.2	16.2	18.4	18.8	19.6	18.5	18.5
Exchange Traded Products	-				6.6	6.6	11.9	14.8	26.2	31.0	155.1	230.4	313.9
<b>Total Market</b>	<b>245.8</b>	<b>139.8</b>	<b>102.8</b>	<b>113.4</b>	<b>140.4</b>	<b>146.9</b>	<b>148.2</b>	<b>156.0</b>	<b>149.4</b>	<b>172.5</b>	<b>288.5</b>	<b>384.0</b>	<b>462.7</b>
<b>Inferred, Unreported</b>													
Other U.S. depositories and private holdings	1,728.9	1,718.1	1,422.7	1,174.0	1,105.4	1,064.6	962.6	880.0	650.4	407.5	458.9	736.5	1,201.2
<i>Percent of Total Inferred</i>	41.4%	41.9%	36.1%	31.1%	30.9%	30.6%	28.5%	26.9%	20.7%	13.5%	15.8%	26.1%	43.8%
European depositories * and private holdings	1,521.0	1,506.4	1,970.1	2,033.5	1,963.8	1,985.2	2,048.0	1,993.0	2,052.6	2,299.8	1,994.5	1,280.9	439.7
<i>Percent of Total Inferred</i>	36.4%	36.7%	50.0%	53.9%	54.9%	57.1%	60.6%	60.8%	65.3%	76.1%	68.5%	45.5%	16.0%
Asia, Latin America	928.0	879.5	547.8	562.1	506.0	429.3	369.7	404.0	440.6	315.0	456.3	800.6	1,099.3
<i>Percent of Total Inferred</i>	22.2%	21.4%	13.9%	14.9%	14.2%	12.3%	10.9%	12.3%	14.0%	10.4%	15.7%	28.4%	40.1%
<b>Subtotal, Inferred</b>	<b>4,177.9</b>	<b>4,104.0</b>	<b>3,940.5</b>	<b>3,769.5</b>	<b>3,575.2</b>	<b>3,479.0</b>	<b>3,380.3</b>	<b>3,277.0</b>	<b>3,143.7</b>	<b>3,022.3</b>	<b>2,909.7</b>	<b>2,817.9</b>	<b>2,740.1</b>
<b>Subtotal, Bullion</b>	<b>4,423.7</b>	<b>4,243.8</b>	<b>4,043.3</b>	<b>3,882.9</b>	<b>3,715.7</b>	<b>3,625.9</b>	<b>3,528.5</b>	<b>3,433.0</b>	<b>3,293.1</b>	<b>3,194.8</b>	<b>3,198.2</b>	<b>3,202.0</b>	<b>3,202.8</b>
<b>Unreported Coins*</b>													
Bullion, Other Coins	349.0	368.9	398.2	427.8	466.4	493.1	523.3	554.1	584.9	613.9	644.0	680.3	744.3
Bags of U.S. monetized coins	20.0	20.0	18.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0
<b>Subtotal, Coins</b>	<b>369.0</b>	<b>388.9</b>	<b>416.2</b>	<b>429.8</b>	<b>468.4</b>	<b>495.1</b>	<b>525.3</b>	<b>556.1</b>	<b>586.9</b>	<b>615.9</b>	<b>646.0</b>	<b>681.3</b>	<b>745.3</b>
<b>Total, Bullion and Coins</b>	<b>4,792.7</b>	<b>4,632.8</b>	<b>4,459.6</b>	<b>4,312.7</b>	<b>4,184.0</b>	<b>4,121.0</b>	<b>4,053.8</b>	<b>3,989.0</b>	<b>3,880.0</b>	<b>3,810.7</b>	<b>3,844.3</b>	<b>3,883.3</b>	<b>3,948.1</b>
Government Stocks	172.8	167.5	167.5	149.4	126.3	112.2	111.6	111.6	111.1	76.1	52.1	44.1	44.1
<b>Total, with Government</b>	<b>4,965.5</b>	<b>4,800.3</b>	<b>4,627.1</b>	<b>4,462.1</b>	<b>4,310.3</b>	<b>4,233.2</b>	<b>4,165.4</b>	<b>4,100.6</b>	<b>3,991.0</b>	<b>3,886.7</b>	<b>3,896.4</b>	<b>3,927.3</b>	<b>3,992.2</b>

Notes: The total reported and unreported inventory figures cited in this table represent CPM Group's mid-point estimates of silver stocks, based on discussions with industry sources. CPM Group also derives low-end and high-end estimates from this information. It must be emphasized that these figures represent CPM Group's best estimates. There are no official data regarding unreported silver inventories, and there is a wide range between our high, low, and mid-point estimates. These figures exclude estimated silver held in bullion, coin, and medallion forms in China and India. Chinese data are not available. Enormous amounts of silver are held in these two countries. Much of the metal held in India appears to be held in the form of statue, silver decorative objects, and jewelry, as opposed to bullion and coins. Some is in bullion coin form, but the amount has not been estimated. Large volumes of silver coins and bars were imported into China over several hundred years prior to the take over in 1949 by the Chinese Communist Party. The disposition of this silver is unknown, although there was a steady stream of such silver exported from the 1960s into the 2000s. \* Reported stocks data include silver reported by respective exchanges, funds, and industry. Comex includes registered and eligible stocks. European estimates include London and Zurich bullion banks. NYSE Liffe formerly Chicago Board of Trade. Coin bags exclude private holdings of old coins, which are included in private holdings. \*\* NA means Not available. London LBMA registered vaults began reporting gold and silver holdings in 2016. They segregated ETF-allocated inventories from other inventories for 2019 and 2020 in early 2021. Estimates of non-ETF allocated London silver holdings for 2016 - 2018 CPM estimates. LBMA and CPM London stored ETF holdings include different ETFs from each other. See text for further explanations.

Source: CPM Group  
April 21, 2021

**Reported and Estimated Silver Inventories**

Million Troy Ounces, Year-End Data

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Reported *</b>													
Comex *	112.4	104.6	117.3	148.2	173.9	175.5	160.7	183.5	243.4	293.9	317.2	396.5	355.7
Tocom (JPX)	0.3	0.5	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1
NYSE Liffe	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SHFE	N/A	N/A	N/A	31.2	14.4	3.9	19.2	59.7	43.1	35.8	63.2	89.3	75.9
London depositories, exETF								599.0	716.0	758.0	755.0	390.0	475.0
U.S. and Japanese Industry	13.2	11.3	12.2	11.9	11.6	11.8	12.9	12.9	12.9	12.9	12.9	12.9	12.9
Exchange Traded Products	469.2	591.8	567.7	630.4	633.3	632.9	613.6	666.2	668.0	656.9	749.6	1,083.4	1,144.6
<b>Total Market</b>	<b>595.1</b>	<b>708.2</b>	<b>697.3</b>	<b>822.0</b>	<b>833.3</b>	<b>824.2</b>	<b>806.5</b>	<b>1,521.5</b>	<b>1,683.6</b>	<b>1,757.6</b>	<b>1,898.1</b>	<b>1,972.4</b>	<b>2,064.2</b>
<b>Inferred, Unreported</b>													
Other U.S. depositories and private holdings	850.5	1,108.0	995.5	1,108.9	1,236.8	1,143.2	1,090.6	731.0	682.3	637.7	521.2	423.7	393.9
<i>Percent of Total Inferred</i>	31.9%	42.5%	37.9%	43.1%	48.1%	44.1%	41.7%	38.0%	39.5%	39.0%	36.0%	32.0%	33.0%
European depositories * and private holdings	682.5	511.4	776.5	732.7	658.3	723.3	761.9	417.7	272.9	261.6	260.6	291.3	238.7
<i>Percent of Total Inferred</i>	25.6%	19.6%	29.6%	28.5%	25.6%	27.9%	29.1%	21.7%	15.8%	16.0%	18.0%	22.0%	20.0%
Asia, Latin America	1,137.4	987.0	854.1	732.7	674.6	727.5	761.9	772.8	772.4	735.9	665.9	609.1	561.0
<i>Percent of Total Inferred</i>	42.6%	37.9%	32.5%	28.5%	26.3%	28.0%	29.1%	40.2%	44.7%	45.0%	46.0%	46.0%	47.0%
<b>Subtotal, Inferred</b>	<b>2,670.4</b>	<b>2,606.4</b>	<b>2,626.1</b>	<b>2,574.3</b>	<b>2,569.8</b>	<b>2,594.0</b>	<b>2,614.4</b>	<b>1,921.6</b>	<b>1,727.6</b>	<b>1,635.2</b>	<b>1,447.7</b>	<b>1,324.1</b>	<b>1,193.5</b>
<b>Subtotal, Bullion</b>	<b>3,265.6</b>	<b>3,314.6</b>	<b>3,323.4</b>	<b>3,396.3</b>	<b>3,403.0</b>	<b>3,418.2</b>	<b>3,420.9</b>	<b>3,443.1</b>	<b>3,411.2</b>	<b>3,392.9</b>	<b>3,345.8</b>	<b>3,296.4</b>	<b>3,257.7</b>
<b>Unreported Coins*</b>													
Bullion, Other Coins	826.6	928.5	1,049.3	1,171.1	1,306.1	1,448.4	1,584.4	1,699.4	1,788.0	1,866.9	1,951.1	2,065.7	2,201.2
Bags of U.S. monetized coin:	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
<b>Subtotal, Coins</b>	<b>827.6</b>	<b>929.5</b>	<b>1,050.3</b>	<b>1,172.1</b>	<b>1,307.1</b>	<b>1,449.4</b>	<b>1,585.4</b>	<b>1,700.4</b>	<b>1,789.0</b>	<b>1,867.9</b>	<b>1,952.1</b>	<b>2,066.7</b>	<b>2,202.2</b>
<b>Total, Bullion and Coins</b>	<b>4,093.2</b>	<b>4,244.2</b>	<b>4,373.7</b>	<b>4,568.4</b>	<b>4,710.1</b>	<b>4,867.7</b>	<b>5,006.3</b>	<b>5,143.5</b>	<b>5,200.2</b>	<b>5,260.7</b>	<b>5,297.9</b>	<b>5,363.1</b>	<b>5,459.9</b>
Government Stocks	53.0	49.2	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.8	46.8
<b>Total, with Government</b>	<b>4,146.2</b>	<b>4,293.4</b>	<b>4,420.5</b>	<b>4,615.2</b>	<b>4,756.9</b>	<b>4,914.4</b>	<b>5,053.1</b>	<b>5,190.2</b>	<b>5,247.0</b>	<b>5,307.5</b>	<b>5,344.7</b>	<b>5,409.9</b>	<b>5,506.7</b>

## Ratio Between Silver Demand and Reported Stocks

## Weeks of Demand Covered by Inventories

Year		Including	Excluding	Year		Including	Excluding
		Eligible	Eligible			Eligible	Eligible
		Comex Stocks	Comex Stocks			Comex Stocks	Comex Stocks
1972	1st Qtr.	8.53	-	1985	1st Qtr.	6.49	-
	2nd Qtr.	9.24	-		2nd Qtr.	5.99	-
	3rd Qtr.	8.68	-		3rd Qtr.	5.54	-
	4th Qtr.	7.85	-		4th Qtr.	5.70	-
1973	1st Qtr.	5.75	-	1986	1st Qtr.	4.99	-
	2nd Qtr.	5.62	-		2nd Qtr.	4.74	-
	3rd Qtr.	5.39	-		3rd Qtr.	4.26	-
	4th Qtr.	5.32	-		4th Qtr.	4.19	-
1974	1st Qtr.	5.28	-	1987	1st Qtr.	6.90	-
	2nd Qtr.	4.98	-		2nd Qtr.	6.97	-
	3rd Qtr.	5.91	-		3rd Qtr.	7.11	-
	4th Qtr.	6.87	-		4th Qtr.	5.08	-
1975	1st Qtr.	8.15	-	1987	1st Qtr.	4.15	-
	2nd Qtr.	6.18	-		2nd Qtr.	4.28	-
	3rd Qtr.	6.11	-		3rd Qtr.	4.42	-
	4th Qtr.	6.44	-		4th Qtr.	4.14	-
1976	1st Qtr.	4.90	-	1988	1st Qtr.	4.07	-
	2nd Qtr.	4.92	-		2nd Qtr.	4.11	2.06
	3rd Qtr.	4.89	-		3rd Qtr.	3.68	1.48
	4th Qtr.	5.03	-		4th Qtr.	3.69	1.77
1977	1st Qtr.	5.88	-	1989	1st Qtr.	4.14	1.13
	2nd Qtr.	5.75	-		2nd Qtr.	4.58	1.33
	3rd Qtr.	5.92	-		3rd Qtr.	4.61	0.61
	4th Qtr.	6.17	-		4th Qtr.	4.31	-0.56
1978	1st Qtr.	5.70	-	1990	1st Qtr.	4.32	-1.07
	2nd Qtr.	5.25	-		2nd Qtr.	4.33	-2.69
	3rd Qtr.	4.77	-		3rd Qtr.	4.67	-2.10
	4th Qtr.	5.25	-		4th Qtr.	4.74	-1.19
1979	1st Qtr.	5.99	-	1991	1st Qtr.	4.38	-1.44
	2nd Qtr.	5.33	-		2nd Qtr.	4.67	-0.21
	3rd Qtr.	4.63	-		3rd Qtr.	4.62	-0.27
	4th Qtr.	4.02	-		4th Qtr.	4.57	-1.25
1980	1st Qtr.	6.90	-	1992	1st Qtr.	4.40	-2.47
	2nd Qtr.	6.97	-		2nd Qtr.	4.36	-2.42
	3rd Qtr.	7.11	-		3rd Qtr.	4.45	-3.51
	4th Qtr.	5.08	-		4th Qtr.	4.45	-4.45
1981	1st Qtr.	5.44	-	1993	1st Qtr.	4.61	-2.60
	2nd Qtr.	5.71	-		2nd Qtr.	3.90	-2.15
	3rd Qtr.	5.51	-		3rd Qtr.	4.02	-2.98
	4th Qtr.	5.52	-		4th Qtr.	3.96	-4.22
1982	1st Qtr.	5.55	-	1994	1st Qtr.	3.79	-4.19
	2nd Qtr.	5.67	-		2nd Qtr.	3.52	-3.75
	3rd Qtr.	5.62	-		3rd Qtr.	3.57	-3.33
	4th Qtr.	5.40	-		4th Qtr.	3.48	-2.11
1983	1st Qtr.	5.16	-	1995	1st Qtr.	3.52	-1.34
	2nd Qtr.	4.75	-		2nd Qtr.	3.13	0.37
	3rd Qtr.	4.97	-		3rd Qtr.	2.91	-0.25
	4th Qtr.	5.20	-		4th Qtr.	2.84	0.23
1984	1st Qtr.	5.12	-	1996	1st Qtr.	2.55	-0.07
	2nd Qtr.	5.01	-		2nd Qtr.	2.29	-0.83
	3rd Qtr.	5.37	-		3rd Qtr.	2.29	-0.65
	4th Qtr.	5.11	-		4th Qtr.	2.25	-4.74

Note: Based on end-quarter data.

Sources: CPM Group, New York Commodity Exchange, JPX (Tokyo Commodity Exchange), NYSE Liffe (formerly Chicago Board of Trade), London Metal Exchange, Japanese Ministry of Trade and Industry, trade sources.

## Ratio Between Silver Demand and Reported Stocks

Weeks of Demand Covered by Inventories							
		Including Eligible	Excluding Eligible			Including Eligible	Excluding Eligible
Year		Comex Stocks	Comex Stocks	Year		Comex Stocks	Comex Stocks
1997	1st Qtr.	2.10	-3.74	2011	1st Qtr.	0.77	-3.26
	2nd Qtr.	1.95	-4.56		2nd Qtr.	1.06	-3.46
	3rd Qtr.	1.73	-3.78		3rd Qtr.	0.57	-4.23
	4th Qtr.	1.56	-3.02		4th Qtr.	0.77	-4.47
1998	1st Qtr.	1.40	-1.76	2012	1st Qtr.	0.64	-6.08
	2nd Qtr.	1.37	-1.46		2nd Qtr.	0.84	-6.23
	3rd Qtr.	1.35	-1.01		3rd Qtr.	0.84	-5.70
	4th Qtr.	1.33	-1.19		4th Qtr.	0.77	-6.20
1999	1st Qtr.	1.27	-0.95	2013	1st Qtr.	0.66	-6.88
	2nd Qtr.	1.15	-1.12		2nd Qtr.	0.66	-7.01
	3rd Qtr.	2.04	-0.12		3rd Qtr.	0.69	-6.96
	4th Qtr.	2.04	0.26		4th Qtr.	0.72	-6.95
2000	1st Qtr.	2.17	0.10	2014	1st Qtr.	0.72	-6.97
	2nd Qtr.	2.03	0.48		2nd Qtr.	0.72	-6.42
	3rd Qtr.	2.12	0.81		3rd Qtr.	0.72	-6.37
	4th Qtr.	1.94	0.60		4th Qtr.	0.72	-6.03
2001	1st Qtr.	2.02	0.27	2015	1st Qtr.	0.71	-5.61
	2nd Qtr.	1.83	0.15		2nd Qtr.	0.77	-6.54
	3rd Qtr.	1.84	-0.23		3rd Qtr.	0.77	-6.41
	4th Qtr.	1.82	-0.25		4th Qtr.	0.77	-6.40
2002	1st Qtr.	1.32	-0.67	2016	1st Qtr.	0.75	-6.39
	2nd Qtr.	1.14	-0.79		2nd Qtr.	0.75	-6.70
	3rd Qtr.	1.38	-1.39		3rd Qtr.	0.75	-7.58
	4th Qtr.	1.39	-1.35		4th Qtr.	0.75	-8.37
2003	1st Qtr.	1.38	-1.60	2017	1st Qtr.	0.73	-8.36
	2nd Qtr.	1.18	-2.44		2nd Qtr.	0.73	-8.99
	3rd Qtr.	1.19	-2.38		3rd Qtr.	0.73	-9.51
	4th Qtr.	0.96	-2.59		4th Qtr.	0.73	-10.51
2004	1st Qtr.	0.93	-2.99	2018	1st Qtr.	0.72	-10.58
	2nd Qtr.	0.85	-2.09		2nd Qtr.	0.72	-10.65
	3rd Qtr.	1.26	-1.28		3rd Qtr.	0.72	-11.45
	4th Qtr.	1.03	-1.34		4th Qtr.	0.72	-11.16
2005	1st Qtr.	1.08	-1.15	2019	1st Qtr.	0.73	-11.42
	2nd Qtr.	1.03	-2.20		2nd Qtr.	0.73	-11.35
	3rd Qtr.	1.01	-2.01		3rd Qtr.	0.73	-12.59
	4th Qtr.	1.01	-1.77		4th Qtr.	0.73	-12.33
2006	1st Qtr.	1.11	-2.10	2020	1st Qtr.	0.77	-13.43
	2nd Qtr.	1.03	-2.24		2nd Qtr.	0.77	-10.96
	3rd Qtr.	1.10	-1.44		3rd Qtr.	0.77	-13.23
	4th Qtr.	1.19	-1.42		4th Qtr.	0.77	-13.88
2007	1st Qtr.	1.11	-1.66	2021	1st Qtr.	0.76	-13.53
	2nd Qtr.	1.13	-2.91		2nd Qtr.	0.76	-13.42
	3rd Qtr.	1.20	-2.28		3rd Qtr.	0.76	-14.52
	4th Qtr.	1.11	-1.48		4th Qtr.	0.76	-15.30
2008	1st Qtr.	1.25	-1.52				
	2nd Qtr.	1.25	-2.12				
	3rd Qtr.	1.27	-1.79				
	4th Qtr.	1.13	-2.58				
2009	1st Qtr.	1.26	-2.19				
	2nd Qtr.	1.66	-1.89				
	3rd Qtr.	1.20	-2.54				
	4th Qtr.	0.86	-2.91				
2010	1st Qtr.	0.72	-3.23				
	2nd Qtr.	0.72	0.72				
	3rd Qtr.	0.72	-2.91				
	4th Qtr.	0.72	-3.01				

## Market Silver Inventories

Million Troy Ounces

		Comex	NYSE Liffe	LME	Tocom	SHFE	Industry	Total
1972	1st Qtr.	109.1	15.0	6.7	-	-	77.0	207.8
	2nd Qtr.	98.6	17.3	6.4	-	-	83.4	205.7
	3rd Qtr.	92.8	19.9	7.7	-	-	78.4	198.8
	4th Qtr.	77.6	22.8	7.5	-	-	70.9	178.8
1973	1st Qtr.	69.1	26.5	9.1	-	-	60.9	165.6
	2nd Qtr.	56.1	23.1	12.3	-	-	59.5	151.0
	3rd Qtr.	47.5	29.4	15.4	-	-	57.1	149.4
	4th Qtr.	64.3	27.4	16.3	-	-	56.4	164.4
1974	1st Qtr.	64.4	25.9	14.8	-	-	50.9	156.0
	2nd Qtr.	74.3	20.3	13.5	-	-	48.0	156.1
	3rd Qtr.	68.2	20.0	11.5	-	-	57.0	156.7
	4th Qtr.	68.0	19.5	12.0	-	-	66.3	165.8
1975	1st Qtr.	70.3	25.0	12.2	-	-	69.1	176.6
	2nd Qtr.	78.3	40.3	14.6	-	-	52.4	185.6
	3rd Qtr.	82.6	42.8	16.4	-	-	51.8	193.6
	4th Qtr.	85.7	38.5	17.8	-	-	54.6	196.6
1976	1st Qtr.	79.8	39.4	15.3	-	-	48.5	183.0
	2nd Qtr.	65.2	47.9	17.5	-	-	48.7	179.3
	3rd Qtr.	50.0	53.6	29.8	-	-	48.4	181.8
	4th Qtr.	54.8	61.0	28.5	-	-	49.8	194.1
1977	1st Qtr.	63.2	64.4	27.5	-	-	53.5	208.6
	2nd Qtr.	69.4	63.9	25.1	-	-	52.3	210.7
	3rd Qtr.	64.8	61.3	18.8	-	-	53.9	198.8
	4th Qtr.	68.4	62.2	19.2	-	-	56.1	205.9
1978	1st Qtr.	74.1	62.5	19.2	-	-	51.3	207.1
	2nd Qtr.	72.8	64.0	18.0	-	-	47.3	202.1
	3rd Qtr.	67.8	62.2	18.2	-	-	42.9	191.1
	4th Qtr.	58.2	59.9	23.0	-	-	47.3	188.4
1979	1st Qtr.	49.6	55.3	21.3	-	-	52.8	179.0
	2nd Qtr.	54.1	56.8	18.8	-	-	47.0	176.7
	3rd Qtr.	51.5	65.3	15.9	-	-	40.8	173.5
	4th Qtr.	74.8	58.3	13.1	-	-	35.4	181.6
1980	1st Qtr.	83.6	57.8	17.8	-	-	49.7	208.9
	2nd Qtr.	82.0	45.8	28.0	-	-	50.2	206.0
	3rd Qtr.	82.1	46.1	26.6	-	-	51.2	206.0
	4th Qtr.	86.6	34.2	27.3	-	-	36.6	184.7
1981	1st Qtr.	85.4	18.9	24.5	-	-	38.4	167.2
	2nd Qtr.	86.7	20.4	25.8	-	-	40.3	173.2
	3rd Qtr.	77.4	21.2	29.7	-	-	38.9	167.2
	4th Qtr.	77.6	18.9	32.2	-	-	39.0	167.7
1982	1st Qtr.	77.1	18.6	33.2	-	-	40.7	169.6
	2nd Qtr.	70.8	15.2	35.7	-	-	41.6	163.3
	3rd Qtr.	61.5	13.5	36.9	-	-	41.2	153.1
	4th Qtr.	90.7	15.5	35.2	-	-	39.6	181.0
1983	1st Qtr.	97.2	15.5	34.1	-	-	37.6	184.4
	2nd Qtr.	90.9	19.0	35.4	-	-	34.6	179.9
	3rd Qtr.	129.3	21.1	37.7	-	-	36.2	224.3
	4th Qtr.	127.4	23.8	45.4	-	-	37.9	234.5



## Market Silver Inventories

Million Troy Ounces

		Comex	NYSE Liffe	LME	Tocom	SHFE	Industry	Total
1984	1st Qtr.	116.8	23.4	50.0	-	-	42.4	232.6
	2nd Qtr.	120.9	21.3	51.7	-	-	41.5	235.4
	3rd Qtr.	115.0	21.2	52.6	-	-	44.4	233.2
	4th Qtr.	118.5	19.1	51.6	-	-	42.3	231.5
1985	1st Qtr.	106.6	17.4	54.1	-	-	50.2	228.3
	2nd Qtr.	132.4	14.9	50.5	2.1	-	46.3	246.2
	3rd Qtr.	144.0	16.6	55.0	2.4	-	42.8	260.8
	4th Qtr.	155.3	17.8	51.2	2.7	-	44.1	271.1
1986	1st Qtr.	148.2	17.6	40.8	2.9	-	43.8	253.3
	2nd Qtr.	151.9	17.5	35.8	3.3	-	41.6	250.1
	3rd Qtr.	157.2	16.5	25.2	3.6	-	37.4	239.9
	4th Qtr.	145.4	16.7	23.1	4.0	-	36.8	226.0
1987	1st Qtr.	157.9	15.0	21.8	4.2	-	35.7	234.6
	2nd Qtr.	152.5	14.0	23.1	4.2	-	36.8	230.6
	3rd Qtr.	155.7	12.6	21.1	4.4	-	38.0	231.8
	4th Qtr.	155.3	13.5	20.1	4.5	-	35.5	228.9
1988	1st Qtr.	155.8	13.5	18.7	4.4	-	37.8	230.2
	2nd Qtr.	168.2	13.8	14.8	5.3	-	38.2	240.3
	3rd Qtr.	178.8	13.8	15.1	5.8	-	34.2	247.7
	4th Qtr.	174.4	12.0	15.0	8.0	-	34.3	243.7
1989	1st Qtr.	194.8	11.4	11.8	9.8	-	39.8	267.6
	2nd Qtr.	206.1	13.2	-	10.8	-	44.0	274.1
	3rd Qtr.	212.3	12.7	-	9.8	-	44.3	279.1
	4th Qtr.	238.8	11.8	-	10.5	-	41.4	302.5
1990	1st Qtr.	252.1	11.9	-	10.3	-	43.6	317.8
	2nd Qtr.	251.6	12.1	-	11.2	-	43.7	318.6
	3rd Qtr.	260.2	12.9	-	11.4	-	47.1	331.6
	4th Qtr.	265.4	12.3	-	14.2	-	47.8	339.7
1991	1st Qtr.	257.9	12.0	-	14.0	-	48.8	332.7
	2nd Qtr.	266.1	12.1	-	13.9	-	52.1	344.2
	3rd Qtr.	269.7	12.1	-	13.4	-	51.5	346.6
	4th Qtr.	270.7	12.1	-	12.1	-	50.9	345.8
1992	1st Qtr.	262.2	12.1	-	12.1	-	50.5	336.9
	2nd Qtr.	267.8	11.7	-	10.8	-	49.9	340.2
	3rd Qtr.	278.6	11.7	-	9.3	-	51.0	350.6
	4th Qtr.	276.6	11.7	-	8.8	-	51.0	348.1
1993	1st Qtr.	271.8	11.7	-	7.8	-	52.8	344.1
	2nd Qtr.	273.9	11.5	-	7.6	-	50.0	343.1
	3rd Qtr.	276.8	10.7	-	7.6	-	51.6	346.6
	4th Qtr.	263.1	10.7	-	7.5	-	50.8	332.1
1994	1st Qtr.	239.4	10.7	-	7.5	-	50.2	307.8
	2nd Qtr.	237.2	10.7	-	7.2	-	46.6	301.8
	3rd Qtr.	255.2	10.7	-	6.7	-	47.2	319.8
	4th Qtr.	258.6	10.7	-	6.2	-	46.0	321.6
1995	1st Qtr.	235.1	10.7	-	6.4	-	48.3	300.5
	2nd Qtr.	184.6	10.6	-	6.2	-	43.0	244.4
	3rd Qtr.	156.5	10.2	-	5.1	-	40.0	211.9
	4th Qtr.	159.1	10.2	-	4.5	-	39.0	212.8

## Market Silver Inventories

Million Troy Ounces

		Comex	NYSE Liffe	LME	Tocom	SHFE	Industry	Total
1996	1st Qtr.	139.7	10.2	-	4.1	-	37.0	191.0
	2nd Qtr.	167.6	6.4	-	4.0	-	33.3	211.3
	3rd Qtr.	139.3	6.3	-	3.8	-	33.3	182.7
	4th Qtr.*	203.5	6.1	-	3.6	-	32.7	245.8
1997	1st Qtr.	191.7	5.5	-	2.5	-	31.0	230.7
	2nd Qtr.	185.5	5.5	-	2.4	-	28.8	222.2
	3rd Qtr.	138.1	5.4	-	2.4	-	25.5	171.5
	4th Qtr.	109.8	4.8	-	2.2	-	23.0	139.8
1998	1st Qtr.	86.9	4.4	-	2.0	-	22.0	115.3
	2nd Qtr.	86.2	4.4	-	1.8	-	21.5	113.9
	3rd Qtr.	72.8	4.1	-	1.5	-	21.3	99.7
	4th Qtr.	75.8	4.4	-	1.6	-	21.0	102.8
1999	1st Qtr.	79.6	4.3	-	1.5	-	20.0	105.4
	2nd Qtr.	73.5	4.3	-	1.5	-	18.0	97.4
	3rd Qtr.	79.4	4.2	-	1.5	-	32.0	117.1
	4th Qtr.	76.0	4.0	-	1.4	-	32.0	113.4
2000	1st Qtr.	104.3	4.0	-	1.5	-	38.0	147.7
	2nd Qtr.	102.7	4.0	-	1.7	-	35.6	144.0
	3rd Qtr.	99.6	4.0	-	1.7	-	37.2	142.4
	4th Qtr.	94.0	4.0	-	1.7	-	34.1	133.8
2001	1st Qtr.	96.7	3.9	-	1.6	-	34.0	136.3
	2nd Qtr.	98.7	3.7	-	1.8	-	30.8	135.0
	3rd Qtr.	101.5	3.7	-	2.0	-	30.9	138.2
	4th Qtr.	104.5	3.7	-	1.4	-	30.6	140.3
2002	1st Qtr.	102.2	3.9	-	1.7	-	22.0	129.8
	2nd Qtr.	106.6	3.9	-	1.7	-	19.0	131.2
	3rd Qtr.	107.5	3.9	-	1.7	-	23.0	136.2
	4th Qtr.	107.4	3.9	-	1.7	-	23.2	136.3
2003	1st Qtr.	108.7	-	-	0.0	-	23.4	132.1
	2nd Qtr.	107.2	-	-	0.0	-	19.9	127.1
	3rd Qtr.	105.9	-	-	0.5	-	20.1	126.5
	4th Qtr.	124.3	-	-	0.7	-	16.2	141.1
2004	1st Qtr.	122.1	-	-	0.5	-	16.7	139.2
	2nd Qtr.	118.4	-	-	0.6	-	15.3	134.3
	3rd Qtr.	107.8	-	-	0.4	-	22.5	130.7
	4th Qtr.	103.6	-	-	1.2	-	18.4	123.2
2005	1st Qtr.	103.6	-	-	1.0	-	20.2	124.8
	2nd Qtr.	104.7	-	-	0.9	-	19.3	124.9
	3rd Qtr.	116.7	-	-	0.9	-	18.8	136.4
	4th Qtr.	120.0	2.2	-	0.6	-	18.8	141.5
2006	1st Qtr.	125.0	2.3	-	0.6	-	18.3	146.2
	2nd Qtr.	102.3	2.3	-	0.6	-	16.9	122.0
	3rd Qtr.	105.2	2.3	-	0.4	-	18.2	126.1
	4th Qtr.	111.1	2.3	-	0.4	-	19.6	133.4
2007	1st Qtr.	125.8	2.3	-	0.3	-	18.5	146.8
	2nd Qtr.	134.1	2.3	-	0.4	-	18.8	155.6
	3rd Qtr.	132.6	2.3	-	0.4	-	19.9	155.2
	4th Qtr.	132.6	2.3	-	0.2	-	18.5	153.6

## Market Silver Inventories

Million Troy Ounces

		Comex	NYSE Liffe	LME	Tocom	SHFE	Industry	Total
2008	1st Qtr.	135.9	2.3	-	0.3	-	20.4	158.9
	2nd Qtr.	136.0	2.3	-	0.3	-	20.5	159.1
	3rd Qtr.	135.5	2.3	-	0.7	-	20.8	159.3
	4th Qtr.	127.7	2.3	-	0.3	-	18.5	148.8
2009	1st Qtr.	124.8	N/A	-	0.3	-	19.5	144.6
	2nd Qtr.	117.0	N/A	-	0.3	-	25.6	142.8
	3rd Qtr.	115.4	N/A	-	0.2	-	18.5	134.1
	4th Qtr.	112.4	N/A	-	0.3	-	13.2	126.0
2010	1st Qtr.	116.6	N/A	-	0.2	-	11.3	128.2
	2nd Qtr.	113.7	N/A	-	0.2	-	11.3	125.3
	3rd Qtr.	111.6	N/A	-	0.3	-	11.3	123.2
	4th Qtr.	104.6	N/A	-	0.5	-	11.3	116.4
2011	1st Qtr.	105.4	N/A	-	0.3	-	12.2	117.8
	2nd Qtr.	99.5	N/A	-	0.3	-	16.7	116.5
	3rd Qtr.	106.7	N/A	-	0.3	-	9.0	116.0
	4th Qtr.	117.3	N/A	-	0.2	-	12.2	129.7
2012	1st Qtr.	138.6	N/A	-	0.2	-	9.9	148.8
	2nd Qtr.	146.5	N/A	-	0.2	-	13.0	159.7
	3rd Qtr.	142.5	N/A	-	0.2	11.4	13.0	167.2
	4th Qtr.	148.2	N/A	-	0.2	31.2	11.9	191.6
2013	1st Qtr.	164.2	N/A	-	0.1	35.7	10.7	210.7
	2nd Qtr.	166.1	N/A	-	0.1	20.0	10.6	196.9
	3rd Qtr.	165.2	N/A	-	0.1	14.7	11.1	191.1
	4th Qtr.	173.9	N/A	-	0.1	14.4	11.6	200.0
2014	1st Qtr.	179.8	N/A	-	0.1	13.6	11.9	205.5
	2nd Qtr.	175.5	N/A	-	0.1	7.7	11.9	195.3
	3rd Qtr.	182.8	N/A	-	0.2	2.6	11.9	197.5
	4th Qtr.	175.5	N/A	-	0.2	3.9	11.8	191.4
2015	1st Qtr.	176.7	N/A	-	0.2	9.2	11.9	198.0
	2nd Qtr.	182.4	N/A	-	0.2	12.1	12.9	207.6
	3rd Qtr.	165.0	N/A	-	0.2	10.2	12.9	188.3
	4th Qtr.	160.7	N/A	-	0.1	19.2	12.9	192.9
2016	1st Qtr.	155.0	N/A	-	0.1	48.0	12.9	216.0
	2nd Qtr.	151.5	N/A	-	0.1	60.3	12.9	224.8
	3rd Qtr.	173.3	N/A	-	0.2	52.6	12.9	239.0
	4th Qtr.	183.5	N/A	-	0.2	59.7	12.9	256.3
2017	1st Qtr.	190.2	N/A	-	0.2	63.3	12.9	266.7
	2nd Qtr.	209.0	N/A	-	0.1	43.6	12.9	265.6
	3rd Qtr.	219.8	N/A	-	0.1	42.8	12.9	275.7
	4th Qtr.	243.4	N/A	-	0.1	43.1	12.9	299.6
2018	1st Qtr.	260.5	N/A	-	0.1	42.4	12.9	315.9
	2nd Qtr.	275.9	N/A	-	0.1	45.3	12.9	334.3
	3rd Qtr.	289.7	N/A	-	0.1	41.1	12.9	343.8
	4th Qtr.	293.9	N/A	-	0.1	35.8	12.9	342.8
2019	1st Qtr.	304.9	N/A	-	0.1	39.0	12.9	357.0
	2nd Qtr.	306.3	N/A	-	0.1	40.9	12.9	360.3
	3rd Qtr.	313.6	N/A	-	0.1	45.9	12.9	372.6
	4th Qtr.	317.2	N/A	-	0.1	63.2	12.9	393.5

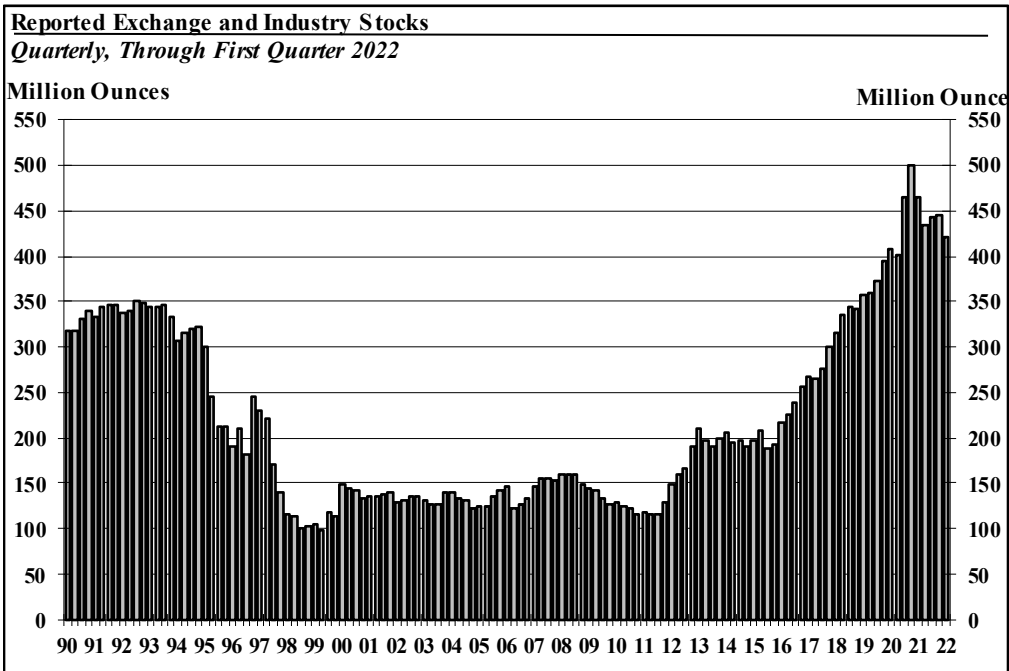
Market Silver Inventories

Million Troy Ounces

		Comex	NYSE Liffe	LME	Tocom	SHFE	Industry	Total
2020	1st Qtr.	321.0	N/A	-	0.1	72.8	12.9	406.8
	2nd Qtr.	321.2	N/A	-	0.1	67.3	12.9	401.5
	3rd Qtr.	375.2	N/A	-	0.1	76.3	12.9	464.5
	4th Qtr.	396.5	N/A	-	0.1	89.3	12.9	498.9
2021	1st Qtr.	370.2	N/A	-	0.1	82.5	12.9	465.6
	2nd Qtr.	352.2	N/A	-	0.1	68.1	12.9	433.3
	3rd Qtr.	361.0	N/A	-	0.1	67.7	12.9	441.7
	4th Qtr.	355.7	N/A	-	0.1	75.9	12.9	444.6
2022	1st Qtr.	341.0	N/A	-	0.1	65.9	12.9	419.9

Notes: Industry stocks include dealer, importer, and refiner stocks, in the United States and Japan. The London Metals Exchange ceased its silver contract in June 1989. Stocks formerly registered against the contracts now are held in private hands. The London Metal Exchange re-launched its silver contract in May 1999, but does not publicly report warehouse stocks. \*Comex began reporting Wilmington Trust stocks eligible for Comex delivery in the fourth quarter of 1996. Wilmington Trust became a licensed Comex silver depository on January 1, 1997. NA – not available. Data for NYSE Liffe inventories are not publicly available since 2009.

Sources: Comex, Chicago Board of Trade, JPX (Tokyo Commodity Exchange), London Metal Exchange, U.S. Bureau of Mines, Japanese Ministry of Trade and Industry, CPM Group. April 6, 2022



**Reported and Unreported Silver Holdings**  
 Million Troy Ounces

	Reported Stock Levels					Year-to-Year Changes			
	Government	Market			Total	Reported Stocks	Coins	Unreported	
		Exchange	ETPs	Dealer				Stocks	Total
1970	359.0	135.0	-	82.2	217.2	NA	23.4	NA	NA
1971	311.9	135.7	-	57.1	192.8	-24.4	27.8	-11.6	-36.0
1972	333.6	107.9	-	70.9	178.8	-14.0	38.1	-82.6	-96.6
1973	277.2	108.0	-	56.4	164.4	-14.4	28.5	-114.6	-129.0
1974	319.2	99.5	-	66.3	165.8	1.4	31.6	-53.4	-52.0
1975	250.8	142.0	-	54.6	196.6	30.8	33.4	-40.9	-10.1
1976	257.0	144.3	-	49.8	194.1	-2.5	30.0	-23.2	-25.7
1977	319.0	149.8	-	56.1	205.9	11.8	34.5	-58.2	-46.4
1978	318.8	141.1	-	47.3	188.4	-17.5	39.5	-37.2	-54.7
1979	314.6	146.2	-	35.4	181.6	-6.8	34.7	30.3	23.5
1980	327.8	148.1	-	36.6	184.7	3.1	17.4	206.1	209.2
1981	323.8	128.7	-	39.0	167.7	-17.0	12.0	132.2	115.2
1982	322.8	141.4	-	39.6	181.0	13.3	13.3	69.8	83.1
1983	311.7	196.6	-	37.9	234.5	53.5	11.4	110.7	164.2
1984	307.0	189.2	-	42.3	231.5	-3.0	15.1	90.2	87.2
1985	294.0	227.0	-	44.1	271.1	39.6	14.3	376.7	416.3
1986	280.0	189.2	-	36.8	226.0	-45.1	34.2	535.7	490.6
1987	267.8	193.4	-	35.5	228.9	2.9	33.1	476.6	479.6
1988	251.6	209.4	-	34.3	243.7	14.8	27.1	495.3	510.0
1989	240.9	261.1	-	41.4	302.5	58.8	28.1	468.8	527.6
1990	229.9	291.9	-	47.8	339.7	37.2	37.7	525.1	562.3
1991	218.4	294.9	-	50.9	345.8	6.1	27.7	601.1	607.2
1992	210.3	367.8 *	-	51.0	418.8	72.9	29.0	553.5 *	626.5
1993	204.6	373.3	-	50.8	424.1	5.3	37.4	699.6	704.9
1994	189.7	347.4	-	46.0	393.4	-30.7	33.0	751.6	720.9
1995	177.8	233.2	-	39.0	272.2	-121.2	21.7	856.5	735.3
1996	172.8	213.1	-	32.7	245.8	-26.3	17.9	799.9	773.6
1997	167.5	116.8	-	23.0	139.8	-106.0	19.9	19.9	-73.8
1998	161.5	81.8	-	21.0	102.8	-37.0	29.3	27.3	-163.5
1999	149.4	81.4	-	32.0	113.4	10.6	29.6	13.6	-171.0
2000	126.3	99.7	6.6	34.1	140.4	27.1	38.6	38.6	-194.3
2001	112.2	109.7	6.6	30.6	146.9	6.4	26.7	26.7	-96.2
2002	111.6	113.1	11.9	23.2	148.2	1.3	30.2	30.2	-98.7
2003	111.6	124.9	14.8	16.2	156.0	7.8	30.7	30.7	-103.3
2004	111.1	104.8	26.2	18.4	149.4	-6.6	30.9	30.9	-133.3
2005	76.1	122.7	31.0	18.8	172.5	23.1	28.9	28.9	-121.4
2006	52.1	113.8	155.1	19.6	288.5	116.0	30.2	30.2	-112.6
2007	44.1	135.1	230.4	18.5	384.0	95.5	36.2	35.2	-91.8
2008	44.1	130.3	313.9	18.5	462.7	78.6	64.0	64.0	-77.8
2009	53.0	112.7	469.2	13.2	595.1	132.5	84.5	84.5	-69.7
2010	49.2	105.0	591.8	11.3	708.2	113.1	101.9	101.9	-64.0
2011	46.8	117.5	567.4	12.2	697.1	-11.1	120.8	120.8	19.6
2012	46.8	179.7	619.1	11.9	810.7	113.5	121.9	121.9	-50.9
2013	46.8	188.4	633.3	11.6	833.3	22.6	134.9	134.9	-5.4
2014	46.8	179.6	632.9	11.8	824.2	-9.0	142.4	142.4	24.2
2015	46.8	180.0	613.6	12.9	806.5	-17.8	135.9	135.9	20.5
2016	46.8	243.4	666.2	12.9	922.5	116.0	115.0	115.0	-692.9
2017	46.8	286.6	668.0	12.9	967.6	45.1	88.6	88.6	-194.5
2018	46.8	329.8	656.9	12.9	999.6	32.1	78.8	78.8	-92.7
2019	46.8	380.5	749.6	12.9	1,143.1	143.5	84.2	84.2	-184.9
2020	46.8	486.0	1,083.4	12.9	1,582.4	439.2	114.6	114.6	-123.6
2021	46.8	431.7	1,144.6	12.9	1,589.2	6.9	135.4	135.4	-130.5

Notes: Changes in total stocks represents the change in the supply/demand balance of new metal. Coinage is included in demand. Market stocks include reported U.S. dealer inventories, exchange registered stocks, and exchange traded product (ETP) holdings.

New York Commodity Exchange stocks also include eligible stocks. Changes in market stocks are end-year; 2004 change is through end-December. Changes in unreported stocks is the change in the supply/demand balance of new metal, adjusted for changes in reported inventories. End of year data. \*Adjusted to include Wilmington Trust stocks that would have been eligible for Comex delivery. Wilmington Trust became a licensed Comex silver depository on January 1, 1997.

Sources: U.S. Bureau of the Mint; U.S. Bureau of Mines; New York Commodity Exchange; London Metal Exchange; NYSE Liffe (formerly Chicago Board of Trade); Tokyo Commodity Exchange; ETP websites, SHFE, Bloomberg, CPM Group.

## Comex Inventories

Troy Ounces

		Eligible	Registered	Total
1988	January			
	February			
	March			
	April	20,931,178	137,735,862	158,667,040
	May	23,267,595	141,080,749	164,348,344
	June	19,048,467	149,149,501	168,197,968
	July	22,419,309	147,324,079	169,743,388
	August	20,844,158	154,751,024	175,595,182
	September	20,430,956	158,341,924	178,772,880
	October	20,595,315	154,686,825	175,282,140
	November	18,220,714	160,236,251	178,456,965
	December	17,859,494	158,060,356	175,919,850
1989	January	19,160,193	163,496,673	182,656,866
	February	23,131,632	167,111,383	190,243,015
	March	28,976,762	165,825,629	194,802,391
	April	38,647,464	162,347,967	200,995,431
	May	35,066,425	168,140,357	203,206,782
	June	31,200,288	174,848,870	206,049,158
	July	31,155,105	176,130,744	207,285,849
	August	32,577,746	177,807,340	210,385,086
	September	38,453,219	173,830,263	212,283,482
	October	45,019,114	181,551,266	226,570,380
	November	43,900,831	194,045,589	237,946,420
	December	46,787,483	191,985,060	238,772,543
1990	January	52,157,110	188,639,227	240,796,337
	February	48,801,419	194,619,375	243,420,794
	March	54,362,447	197,741,690	252,104,137
	April	54,149,135	199,623,503	253,772,638
	May	57,134,847	198,286,005	255,420,852
	June	70,866,114	180,759,827	251,625,941
	July	72,595,954	180,730,153	253,326,107
	August	82,219,388	173,594,421	255,813,809
	September	68,279,740	191,904,669	260,184,409
	October	79,486,485	179,127,685	258,614,170
	November	55,330,949	202,354,370	257,685,319
	December	59,768,672	205,570,595	265,339,267
1991	January	61,113,795	205,092,178	266,205,973
	February	58,398,935	205,433,464	263,832,399
	March	64,871,675	192,979,471	257,851,146
	April	66,858,781	196,704,194	263,562,975
	May	62,069,034	201,617,049	263,686,083
	June	54,444,776	211,641,952	266,086,728
	July	60,249,532	216,711,025	276,960,557
	August	56,648,508	214,155,505	270,804,013
	September	54,478,488	215,182,765	269,661,253
	October	58,918,511	206,955,342	265,873,853
	November	57,058,278	205,776,673	262,834,951
	December	64,848,241	205,886,040	270,734,281
1992	January	63,890,330	207,801,743	271,692,073
	February	69,174,680	209,815,116	278,989,796
	March	78,754,912	190,820,207	269,575,119
	April	73,747,831	188,491,645	262,239,476
	May	79,940,269	187,062,531	267,002,800
	June	77,623,785	190,194,292	267,818,077
	July	83,215,228	188,044,215	271,259,443
	August	82,821,967	190,920,787	273,742,754
	September	91,230,401	187,344,698	278,575,099
	October	92,762,047	185,764,386	278,526,433
	November	98,153,181	182,558,939	280,712,120
	December	101,939,323	173,216,882	275,156,205

## Comex Inventories

Troy Ounces

		Eligible	Registered	Total
1993	January	106,998,830	165,825,641	272,824,471
	February	86,961,954	186,667,499	273,629,453
	March	82,662,229	189,193,714	271,855,943
	April	80,895,709	185,391,189	266,286,898
	May	77,063,808	193,735,970	270,799,778
	June	77,578,847	196,367,983	273,946,830
	July	85,711,618	191,516,305	277,227,923
	August	87,728,399	191,016,115	278,744,514
	September	89,815,975	187,003,403	276,819,378
	October	97,885,085	177,485,327	275,370,412
	November	112,165,854	165,500,524	277,666,378
	December	105,016,928	158,120,600	263,137,528
1994	January	97,437,653	154,247,251	251,684,904
	February	95,900,884	154,829,493	250,730,377
	March	105,568,497	133,805,368	239,373,865
	April	104,233,160	136,059,600	240,292,760
	May	79,737,856	154,212,232	233,950,088
	June	96,149,822	141,224,293	237,374,115
	July	98,196,337	148,094,476	246,290,813
	August	93,530,348	155,886,182	249,416,530
	September	91,233,359	163,964,469	255,197,828
	October	97,483,828	162,150,002	259,633,830
	November	91,432,535	174,277,752	265,710,287
	December	73,964,895	184,653,457	258,618,352
1995	January	77,729,176	181,925,185	259,654,361
	February	77,301,784	186,743,449	264,045,233
	March	66,693,322	168,421,093	235,114,415
	April	38,952,612	172,075,316	211,027,928
	May	47,374,096	142,293,524	189,667,620
	June	37,984,494	146,585,835	184,570,329
	July	40,169,295	141,099,427	181,268,722
	August	32,983,203	142,780,620	175,763,823
	September	43,442,226	113,101,277	156,543,503
	October	52,007,958	103,983,191	155,991,149
	November	38,836,229	119,188,166	158,024,395
	December	35,831,045	123,280,548	159,111,593
1996	January	36,940,389	107,025,922	143,966,311
	February	33,366,191	117,967,447	151,333,638
	March	38,068,627	101,672,254	139,740,881
	April	34,243,584	107,567,990	141,811,574
	May	43,247,715	106,072,060	149,319,775
	June	45,337,013	122,259,056	167,596,069
	July	49,138,317	107,484,770	156,623,087
	August	38,299,394	112,452,911	150,752,305
	September	38,911,341	100,411,090	139,322,431
	October	42,753,103	87,275,643	130,028,746
	November	39,979,743	108,471,715	148,451,458
	December*	101,619,515	101,831,268	203,450,783
1997	January	101,738,914	93,110,545	194,849,459
	February	87,402,640	105,816,663	193,219,303
	March	86,111,053	105,600,425	191,711,478
	April	85,722,960	104,078,774	189,801,734
	May	101,394,054	98,802,811	200,196,865
	June	95,997,795	89,531,201	185,528,996
	July	90,018,293	79,591,120	169,609,413
	August	83,284,069	81,012,292	164,296,361
	September	81,331,218	56,818,062	138,149,280
	October	74,874,064	58,051,601	132,925,665
	November	70,579,064	56,460,142	127,039,206
	December	67,618,752	42,229,326	109,848,078

## Comex Inventories

Troy Ounces

		Eligible	Registered	Total
1998	January	68,780,324	35,324,866	104,105,190
	February	53,563,944	36,531,320	90,095,264
	March	49,746,209	37,179,714	86,925,923
	April	52,506,354	36,050,079	88,556,433
	May	52,985,545	37,347,768	90,333,313
	June	44,538,232	41,707,022	86,245,254
	July	38,926,117	39,581,321	78,507,438
	August	35,148,850	43,532,564	78,681,414
	September	37,194,347	35,602,263	72,796,610
	October	40,196,352	32,862,795	73,059,147
	November	39,129,372	37,688,599	76,817,971
	December	39,731,390	36,076,073	75,807,463
1999	January	41,143,162	34,025,293	75,168,455
	February	45,015,339	33,119,380	78,134,719
	March	34,966,954	44,638,085	79,605,039
	April	34,623,366	44,195,505	78,818,871
	May	34,889,797	42,621,838	77,511,635
	June	35,536,370	37,977,406	73,513,776
	July	35,374,638	42,217,393	77,592,031
	August	34,472,469	45,133,568	79,606,037
	September	33,824,345	45,566,758	79,391,103
	October	33,608,471	45,546,418	79,154,889
	November	33,551,213	44,864,649	78,415,862
	December	27,938,474	48,056,048	75,994,522
2000	January	28,218,317	45,730,145	73,948,462
	February	28,778,744	65,003,696	93,782,440
	March	36,268,761	67,990,735	104,259,496
	April	28,224,388	74,364,580	102,588,968
	May	26,381,397	72,903,682	99,285,079
	June	27,253,384	75,459,430	102,712,814
	July	25,114,032	77,176,922	102,290,954
	August	23,216,925	74,661,578	97,878,503
	September	22,905,824	76,645,930	99,551,754
	October	21,975,302	73,773,921	95,749,223
	November	20,492,787	75,224,472	95,717,259
	December	23,581,876	70,401,291	93,983,167
2001	January	24,818,365	68,376,467	93,194,832
	February	25,978,135	72,680,650	98,658,785
	March	29,548,156	67,145,444	96,693,600
	April	28,577,377	67,167,204	95,744,581
	May	27,393,422	68,696,703	96,090,125
	June	28,204,631	70,495,433	98,700,064
	July	36,392,330	64,102,014	100,494,344
	August	36,440,680	66,328,997	102,769,677
	September	34,839,925	66,698,130	101,538,055
	October	36,640,993	67,340,623	103,981,616
	November	34,934,455	70,300,573	105,235,028
	December	34,715,333	69,832,178	104,547,511
2002	January	34,494,716	67,900,097	102,394,813
	February	32,428,939	68,554,133	100,983,072
	March	33,243,387	68,932,187	102,175,574
	April	32,389,844	71,533,549	103,923,393
	May	33,757,824	74,068,776	107,826,600
	June	32,133,892	74,432,507	106,566,399
	July	42,706,117	63,434,826	106,140,943
	August	46,886,596	61,202,926	108,089,522
	September	46,218,923	61,322,723	107,541,646
	October	48,334,900	59,547,885	107,882,785
	November	47,645,570	59,458,840	107,104,410
	December	45,734,368	61,660,853	107,395,221



Comex Inventories

Troy Ounces

		Eligible	Registered	Total
2003	January	50,562,260	56,514,494	107,076,754
	February	50,484,559	58,647,084	109,131,643
	March	50,500,867	58,189,084	108,689,951
	April	53,168,722	54,999,604	108,168,326
	May	59,025,032	46,067,341	105,092,373
	June	61,179,745	46,042,085	107,221,830
	July	65,315,896	41,186,781	106,502,677
	August	60,982,910	43,861,897	104,844,807
	September	60,407,335	45,451,486	105,858,821
	October	60,061,555	55,401,789	115,463,344
	November	60,430,739	64,104,546	124,535,285
	December	59,970,714	64,300,016	124,270,730
2004	January	72,056,800	52,123,986	124,180,786
	February	70,368,603	52,825,960	123,194,563
	March	70,198,328	51,889,166	122,087,494
	April	72,266,724	50,420,414	122,687,138
	May	71,605,034	46,867,062	118,472,096
	June	52,764,168	65,605,072	118,369,240
	July	52,976,426	63,276,608	116,253,034
	August	52,632,893	56,678,487	109,311,380
	September	45,350,018	62,439,079	107,789,097
	October	42,970,021	61,654,128	104,624,149
	November	41,511,949	61,319,474	102,831,423
	December	42,302,549	61,287,203	103,589,752
2005	January	40,765,019	61,594,562	102,359,581
	February	40,435,337	61,058,686	101,494,023
	March	41,688,765	61,938,594	103,627,359
	April	38,851,493	65,143,967	103,995,460
	May	60,118,068	44,910,706	105,028,774
	June	60,314,695	44,404,436	104,719,131
	July	58,880,816	50,585,264	109,466,080
	August	56,040,938	59,547,308	115,588,246
	September	56,338,376	60,348,359	116,686,735
	October	56,707,193	59,549,790	116,256,983
	November	52,036,979	65,570,801	117,607,780
	December	51,925,748	68,048,244	119,973,992
2006	January	56,693,377	68,099,235	124,792,612
	February	55,602,621	72,295,794	127,898,415
	March	52,883,807	72,134,632	125,018,439
	April	50,366,357	73,306,429	123,672,786
	May	49,035,059	59,806,533	108,841,592
	June	53,888,844	48,379,108	102,267,952
	July	54,581,537	44,427,711	99,009,248
	August	59,789,785	43,844,166	103,633,951
	September	41,860,766	63,359,473	105,220,239
	October	41,936,630	63,967,485	105,904,115
	November	43,854,607	63,915,798	107,770,405
	December	42,978,703	68,092,069	111,070,772
2007	January	40,230,953	73,738,727	113,969,680
	February	40,175,700	77,017,356	117,193,056
	March	46,099,254	79,676,282	125,775,536
	April	50,705,366	80,682,365	131,387,731
	May	50,263,196	80,233,963	130,497,159
	June	67,326,637	66,743,167	134,069,804
	July	62,688,362	69,417,607	132,105,969
	August	63,230,331	68,668,082	131,898,413
	September	57,805,695	74,818,218	132,623,913
	October	60,122,505	73,582,186	133,704,691
	November	46,197,101	88,171,409	134,368,510
	December	43,199,020	89,427,093	132,626,113

**Comex Inventories**

Troy Ounces

		Eligible	Registered	Total
2008	January	47,252,737	88,233,925	135,486,662
	February	46,691,952	88,344,972	135,036,924
	March	45,296,025	90,584,666	135,880,691
	April	42,910,257	90,602,091	133,512,348
	May	47,534,597	87,539,541	135,074,138
	June	55,099,430	80,859,308	135,958,738
	July	55,310,523	83,903,309	139,213,832
	August	51,690,290	86,891,886	138,582,176
	September	50,157,896	85,345,613	135,503,509
	October	47,653,980	82,653,850	130,307,830
	November	47,851,650	80,738,570	128,590,220
	December	60,693,580	66,998,730	127,692,310
2009	January	52,567,170	69,741,600	122,308,770
	February	56,196,020	67,925,340	124,121,360
	March	53,288,020	71,557,460	124,845,480
	April	53,408,230	63,402,220	116,810,450
	May	56,122,330	63,763,270	119,885,600
	June	54,782,030	62,208,560	116,990,590
	July	55,120,650	62,590,550	117,711,200
	August	56,603,350	61,659,060	118,262,410
	September	57,728,930	57,692,160	115,421,090
	October	60,985,510	55,346,290	116,331,800
	November	58,895,020	52,718,400	111,613,420
	December	58,069,250	54,376,760	112,446,010
2010	January	64,428,660	47,399,480	111,828,140
	February	60,144,570	46,387,020	106,531,590
	March	62,362,180	54,240,630	116,602,810
	April	65,927,170	50,250,370	116,177,540
	May	66,535,300	52,601,590	119,136,890
	June	64,149,610	49,583,550	113,733,160
	July	58,121,570	52,429,860	110,551,430
	August	58,951,210	51,910,520	110,861,730
	September	57,197,460	54,380,380	111,577,840
	October	58,810,850	51,927,120	110,737,970
	November	59,790,970	48,035,940	107,826,910
	December	58,831,240	45,736,400	104,567,640
2011	January	59,949,220	43,512,710	103,461,930
	February	59,440,340	43,155,000	102,595,340
	March	63,679,090	41,700,030	105,379,120
	April	68,623,790	33,308,530	101,932,320
	May	70,609,520	31,102,670	101,712,190
	June	71,359,720	28,090,710	99,450,430
	July	77,446,920	26,729,370	104,176,290
	August	73,329,480	32,146,140	105,475,620
	September	75,650,630	31,091,250	106,741,880
	October	73,676,810	31,498,180	105,174,990
	November	74,093,950	34,051,870	108,145,820
	December	82,797,470	34,501,720	117,299,190
2012	January	92,444,800	36,538,230	128,983,030
	February	94,224,270	36,214,860	130,439,130
	March	103,961,730	34,635,700	138,597,430
	April	107,074,860	35,050,410	142,125,270
	May	107,414,980	35,735,180	143,150,160
	June	109,436,600	37,096,190	146,532,790
	July	99,958,820	38,638,470	138,597,290
	August	101,692,450	39,258,390	140,950,840
	September	101,122,480	41,426,380	142,548,860
	October	106,305,320	36,161,840	142,467,160
	November	103,333,050	38,834,890	142,167,940
	December	107,905,570	40,299,630	148,205,200

**Comex Inventories**

Troy Ounces

		Eligible	Registered	Total
2013	January	119,947,700	37,180,130	157,127,830
	February	122,795,600	40,629,410	163,425,010
	March	121,160,400	43,002,690	164,163,090
	April	120,505,100	45,934,980	166,440,080
	May	122,479,100	42,035,560	164,514,660
	June	123,243,200	42,874,120	166,117,320
	July	122,161,700	42,519,140	164,680,840
	August	121,103,100	42,668,270	163,771,370
	September	122,784,900	42,412,780	165,197,680
	October	125,263,900	44,261,770	169,525,670
	November	124,125,700	45,859,060	169,984,760
	December	123,162,700	50,764,220	173,926,920
2014	January	128,568,000	50,729,100	179,297,100
	February	131,915,800	50,914,970	182,830,770
	March	126,363,200	53,427,620	179,790,820
	April	121,327,000	53,226,890	174,553,890
	May	118,648,300	56,079,570	174,727,870
	June	117,296,700	58,220,600	175,517,300
	July	117,551,400	59,206,680	175,513,280
	August	116,161,700	60,586,320	176,748,020
	September	116,599,200	66,193,560	182,792,760
	October	114,319,700	66,185,700	180,505,400
	November	111,810,800	65,197,300	177,008,100
	December	110,866,600	64,604,530	175,471,130
2015	January	110,391,800	67,726,650	178,118,450
	February	108,083,300	68,811,880	176,895,180
	March	106,080,700	70,569,400	176,650,100
	April	112,204,000	62,176,760	174,380,760
	May	120,862,200	58,424,490	179,286,690
	June	122,694,800	59,689,280	182,384,080
	July	119,076,300	56,594,520	175,670,820
	August	116,386,100	54,775,370	171,161,470
	September	120,472,700	44,536,230	165,008,930
	October	118,957,400	43,134,010	162,091,410
	November	115,306,900	43,646,880	158,953,780
	December	120,369,900	40,301,170	160,671,070
2016	January	129,735,300	28,530,300	158,265,600
	February	129,465,100	24,795,530	154,260,630
	March	122,676,000	32,323,010	154,999,010
	April	119,822,400	31,957,080	151,779,480
	May	124,208,000	29,689,720	153,897,720
	June	127,909,300	23,572,010	151,481,310
	July	127,259,700	26,829,780	154,089,480
	August	135,770,600	26,968,700	162,739,300
	September	142,959,300	30,362,180	173,321,480
	October	142,988,500	30,460,220	173,448,720
	November	146,588,600	32,352,310	178,940,910
	December	156,528,100	26,936,430	183,464,530
2017	January	150,846,000	29,958,890	180,804,890
	February	155,981,400	30,624,590	186,605,990
	March	160,721,000	29,502,480	190,223,480
	April	164,034,800	32,531,660	196,566,460
	May	167,803,700	33,563,440	201,367,140
	June	171,836,000	37,172,530	209,008,530
	July	176,888,000	38,624,150	215,512,150
	August	176,025,200	41,715,780	217,740,980
	September	180,971,900	38,824,060	219,795,960
	October	183,898,800	42,005,230	225,904,030
	November	180,053,100	55,852,750	235,905,850
	December	198,611,200	44,748,040	243,359,240

## Comex Inventories

## Troy Ounces

		Eligible	Registered	Total
2018	January	201,935,100	45,041,680	246,976,780
	February	195,761,100	55,558,980	251,320,080
	March	201,658,400	58,851,680	260,510,080
	April	197,722,200	65,226,010	262,948,210
	May	204,996,500	65,522,180	270,518,680
	June	202,980,300	72,930,320	275,910,620
	July	205,326,000	79,453,910	284,779,910
	August	207,159,500	87,047,950	294,207,450
	September	217,214,000	72,467,180	289,681,180
	October	207,849,600	82,408,800	290,258,400
	November	208,582,200	86,585,550	295,167,750
	December	212,046,600	81,854,700	293,901,300
2019	January	209,862,800	88,142,120	298,004,920
	February	205,359,600	93,484,550	298,844,150
	March	216,469,800	88,475,240	304,945,040
	April	214,735,730	92,014,470	306,750,200
	May	217,988,400	87,865,440	305,853,840
	June	215,186,800	91,127,150	306,313,950
	July	215,174,400	95,199,770	310,374,170
	August	230,654,800	81,244,970	311,899,770
	September	237,288,300	76,314,540	313,602,840
	October	236,991,700	78,511,780	315,503,480
	November	230,630,500	82,777,370	313,407,870
	December	232,714,400	84,451,140	317,165,540
2020	January	241,762,300	79,549,650	321,311,950
	February	241,275,300	82,398,380	323,673,680
	March	238,819,100	82,183,040	321,002,140
	April	227,879,900	88,754,820	316,634,720
	May	225,768,100	85,801,560	311,569,660
	June	197,194,500	123,984,100	321,178,600
	July	202,722,000	131,786,600	334,508,600
	August	206,871,800	138,098,600	344,970,400
	September	235,389,400	139,813,900	375,203,300
	October	246,341,500	135,461,600	381,803,100
	November	243,738,900	144,313,100	388,052,000
	December	246,391,660	150,150,200	396,541,860
2021	January	248,101,020	149,221,800	397,322,820
	February	257,951,720	135,111,720	393,063,440
	March	243,312,090	126,844,800	370,156,890
	April	241,307,390	120,010,610	361,318,000
	May	242,321,720	110,750,950	353,072,670
	June	241,492,470	110,685,590	352,178,060
	July	246,861,750	107,096,080	353,957,830
	August	254,635,270	107,436,590	362,071,860
	September	260,162,920	100,847,520	361,010,440
	October	256,197,910	97,080,480	353,278,390
	November	252,883,520	99,189,200	352,072,720
	December	273,467,560	82,235,980	355,703,540
2022	January	272,114,380	81,944,160	354,058,540
	February	265,764,310	81,046,140	346,810,450
	March	255,260,140	85,709,660	340,969,800

Notes: Stocks are month-end. \*Comex began reporting Wilmington Trust stocks eligible for The Comex deliver in the fourth quarter of 1996. Wilmington became a licensed Comex silver depository as of January 1, 1997.

Source: Comex.

SHFE Silver Inventories  
Month-end Data, Troy Ounces

	Total	MoM▲
January	-	
February	-	
March	-	
April	-	
May	-	
June	-	
2012 July	1,993	
August	2,412,110	120908%
September	11,401,491	373%
October	15,972,716	40%
November	29,679,158	86%
December	31,241,684	5%
2013 January	34,793,184	11%
February	37,265,512	7%
March	35,702,440	-4%
April	32,274,881	-10%
May	24,604,227	-24%
June	20,027,440	-19%
July	18,979,904	-5%
August	14,885,088	-22%
September	14,691,991	-1%
October	13,620,985	-7%
November	13,447,371	-1%
December	14,379,389	7%
2014 January	15,781,001	10%
February	18,478,995	17%
March	13,635,099	-26%
April	8,303,155	-39%
May	7,366,154	-11%
June	7,697,725	5%
July	4,775,254	-38%
August	3,057,118	-36%
September	2,588,167	-15%
October	3,834,587	48%
November	3,003,298	-22%
December	3,947,887	31%
2015 January	5,649,754	43%
February	7,164,569	27%
March	9,212,153	29%
April	9,929,501	8%
May	11,507,910	16%
June	12,099,933	5%
July	8,445,583	-30%
August	8,592,158	2%
September	10,165,841	18%
October	14,989,450	47%
November	16,484,202	10%
December	19,171,683	16%
2016 January	25,789,593	35%
February	35,024,155	36%
March	47,977,595	37%
April	60,270,786	26%
May	61,801,708	3%
June	60,303,805	-2%
July	61,918,448	3%
August	57,985,158	-6%
September	52,566,053	-9%
October	51,372,263	-2%
November	58,632,577	14%
December	59,721,748	2%
2017 January	64,105,116	7%
February	67,613,470	5%
March	63,346,745	-6%
April	57,189,394	-10%
May	47,151,545	-18%
June	43,572,974	-8%
July	39,200,473	-10%
August	40,925,746	4%
September	42,843,153	5%
October	42,686,707	0%
November	43,511,116	2%
December	43,141,544	-1%

SHFE Silver Inventories  
Month-end Data, Troy Ounces

	Total	MoM▲
2018 January	42,132,525	-2%
February	43,240,697	3%
March	42,372,594	-2%
April	43,067,854	2%
May	42,634,494	-1%
June	45,331,460	6%
July	44,297,267	-2%
August	43,763,596	-1%
September	41,067,370	-6%
October	40,529,135	-1%
November	34,461,196	-15%
December	35,801,978	4%
2019 January	38,615,072	8%
February	40,542,445	5%
March	38,977,379	-4%
April	34,982,295	-10%
May	36,211,064	4%
June	40,923,174	13%
July	44,421,626	9%
August	45,863,972	3%
September	45,887,893	0%
October	46,473,422	1%
November	54,816,927	18%
December	63,234,764	15%
2020 January	72,628,376	15%
February	76,821,026	6%
March	72,802,569	-5%
April	67,612,956	-7%
May	66,324,611	-2%
June	67,253,639	1%
July	68,717,141	2%
August	71,371,024	4%
September	76,265,718	7%
October	74,603,268	-2%
November	77,561,104	4%
December	89,334,643	15%
2021 January	90,914,917	2%
February	91,258,930	0%
March	82,451,072	-10%
April	79,012,614	-4%
May	76,705,862	-3%
June	68,100,779	-11%
July	65,937,355	-3%
August	65,441,719	-1%
September	67,694,201	3%
October	71,689,670	6%
November	74,831,377	4%
December	75,864,702	1%
2022 January	75,330,968	-1%
February	73,308,493	-3%
March	65,877,073	-10%

Notes: Stocks are month-end, and include total stocks of SHFE-registered warehouses. SHFE began reporting silver stocks in July 2012.  
Source: SHFE



**PAN AMERICAN**  
— SILVER —



# SILVERCORP METALS INC.



# Markets



**Markets**

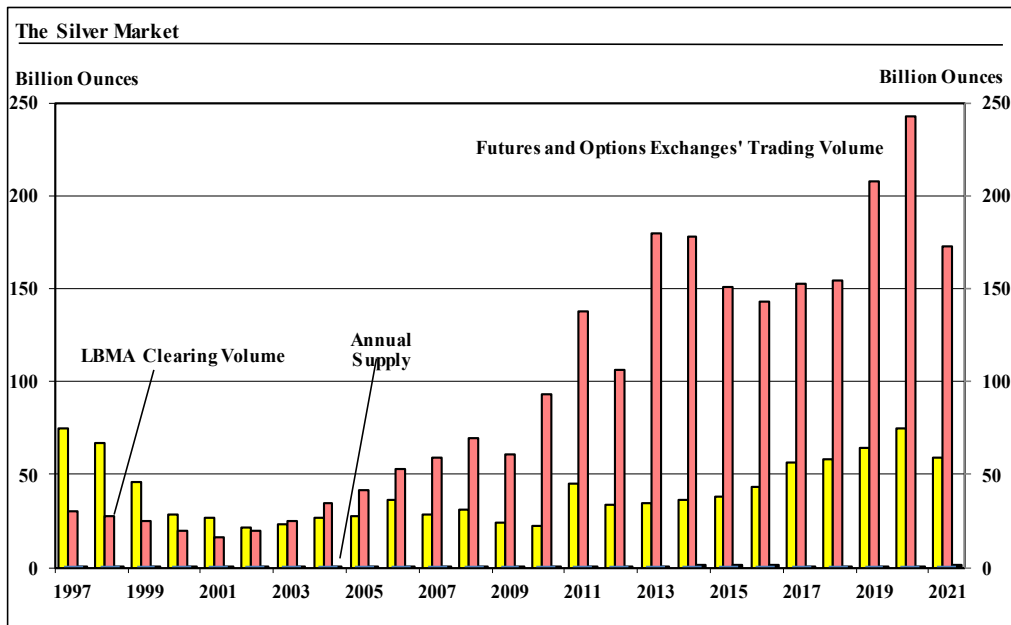
Much of the silver market, like other precious metals and commodities markets, is unreported. This is true of secondary recovery from scrap, fabrication demand, investment demand, inventories, trading volumes away from organized exchanges and markets, and other factors. As a result, measuring the ‘size of the market’ is difficult and relies on many estimates. This chapter focuses on what is known in terms of the trading volumes, open interest, and transaction volumes in the silver market.

The size of the silver market as defined below and measured here was 232.0 billion ounces in 2021, down from a record 318.5 billion ounces in 2020. Last year’s silver market was the third highest level on record, behind the 2020 record and 272.5 billion ounces in 2019.

*The silver market is measured here as physical annual supply of newly refined silver, the total volume of silver cleared across banks that are members of the London Bullion Market Association (LBMA), and volumes on major futures and options exchanges.*

The total dollar value of the silver market in 2021 was \$5.9 trillion, down from the record \$6.6 trillion in 2020. Last year’s total dollar value of the silver market was the third highest on record, behind \$6.5 trillion traded in 2011 as well as 2020’s value.

Contributing to higher total dollar value of silver traded in 2021 was the silver price, which averaged \$25.28 last year. This higher price helped offset the decline in the size of the silver market,



**The Silver Market 1997 - 2021***Million Troy Ounces*

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Annual Supply	607.8	647.6	684.9	787.1	811.8	801.5	817.1	823.2	875.4	890.2	905.8	915.5
Futures and Options Exchanges Trading Volume	29,951	27,839	24,818	19,571	16,548	20,158	25,094	34,627	41,285	53,190	58,742	69,661
London Bullion Market Clearing Volume	74,574	67,059	46,112	28,475	26,553	21,889	23,460	26,403	27,886	36,785	28,951	31,518
Total	105,132	95,546	71,615	48,834	43,913	42,848	49,371	61,853	70,047	90,864	88,599	102,095
Average Price	\$4.91	\$5.53	\$5.23	\$5.00	\$4.38	\$4.60	\$4.90	\$6.70	\$7.35	\$11.61	\$13.45	\$14.97
Dollar Value (\$Bil)	\$516	\$528	\$375	\$244	\$192	\$197	\$242	\$414	\$515	\$1,055	\$1,192	\$1,528
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Annual Supply	951.5	973.7	957.9	1000.3	978.3	1010.4	1011.0	1029.6	975.1	988.1	966.6	954.7
Futures and Options Exchanges Trading Volume	60,461	92,741	137,665	106,260	179,973	178,191	150,440	142,974	152,670	154,444	207,654	242,439
London Bullion Market Clearing Volume	24,454	22,515	44,831	33,509	34,448	36,215	37,806	43,605	56,542	57,881	63,922	75,148
Total	85,867	116,230	183,454	140,769	215,399	215,416	189,257	187,609	210,188	213,314	272,543	318,542
Average Price	\$14.67	\$20.31	\$35.29	\$31.17	\$23.74	\$19.09	\$15.67	\$17.17	\$17.16	\$15.71	\$16.23	\$20.67
Dollar Value (\$Bil)	\$1,260	\$2,360	\$6,475	\$4,388	\$5,114	\$4,112	\$2,966	\$3,222	\$3,607	\$3,350	\$4,422	\$6,583
	2021											
Annual Supply	1,005											
Futures and Options Exchanges Trading Volume	172,275											
London Bullion Market Clearing Volume	58,732											
Total	232,011											
Average Price	\$25.28											
Dollar Value (\$Bil)	\$5,865											

Sources: LBMA, exchange websites, industry sources, CPM Group  
April 2022

which is used to calculate the total dollar value of the silver market. In 2020 the silver price averaged \$20.67, lower than last year's average price, but the size of the trading market in 2020 was 86.5 million ounces more than in 2021.

Trading of silver futures and options on organized exchanges accounted for 74.3% of the total silver market volume in 2021, little changed from the 76.1% that silver futures and options trading on exchange accounted for in 2020.

Clearing volume via members of the LBMA was 58.7 billion ounces in 2021, down from 75.1 billion ounces in 2020. The volume cleared via these LBMA member banks and non-bank financial institutions accounted for 25.3% of the total silver market in 2021, also little changed from 23.6% that was accounted for by the LBMA in 2020.

The physical market is measured as the volume of newly refined metal entering the market from mine production and secondary recovery. This new metal was 1.0 billion ounces in 2021, making up just 0.43% of the total silver market trading and clearing volumes.

Annual total physical supply typically accounts for less than 0.5% every year of the total silver market. This grossly under-measures actual physical silver transactions, but there simply are no data available in the physical flow of metal through markets around the world.

It is estimated that an ounce of physical metal may pass through more than 10 transactions along the way from mine to smelter, to refinery, through various converters and semi-fabricators on the way to finished silver-bearing products.

The size of the physical market is known, but the volumes are not measured or measurable.

Another often overlooked reality of the silver market, and other commodities markets, is that there are a series of financial transactions related to this multi-stage flow of physical metal that creates larger volumes of financial transactions than merely counting the first stage of the physical silver market, the refining of metal from mines and scrap.

Silver conspiracy theorists and others rail against the 'massive' amounts of such 'paper' transactions and the banks and non-bank financial institutions that make these transactions. However, the reality is that physical metal flows from mining companies, smelters, refiners, and a range of companies that fabricate silver into manufactured products or retail investor bullion bars and coins depend on these financial institutions to lease them metal during their manufacturing processes and inventory holding periods, as well as for other financial services that make the flow of silver from mine to consumer possible.

As mentioned above, futures and options trading volumes accounted for 74.3% of the total silver market in 2021. Comex futures trading volume accounted for 61.4% of total futures trading volume while futures trading on the SHFE accounted for 34.0% of the total. These two exchanges accounted for 95.5% of total futures trading volume.

### ***London Bullion Market***

London Bullion Market Association members cleared 58.7 billion ounces last year, down from a 75.1 billion

ounces in 2020. Last year's decline in volume cleared by LBMA members follows a near-record high reached in 2020. Clearing volume in 2020 actually was just slightly less than the clearing volume in 1997, the first year that London banks and the LBMA began to report full year figures.

The LBMA is made up mostly of international banks, bullion dealers, refiners, fabricators, brokers and others that trade both physical silver and silver derivatives in the over-the-counter market.

The daily average number of transfers in 2021 was 1,772, down from 2,014 averaged per day in 2020. The daily average number of transfers was as high as 2,737 last year reached for the month of February, while the low was 1,424 averaged in November.

The daily average value of silver cleared in 2021 was \$5.9 billion, down from \$6.0 billion in 2020. The daily average value cleared per month ranged from \$4.2 to \$9.2 billion last year, little changed from the range of \$4.2 to \$9.1 billion in 2020.

The average number of ounces transferred per day last year was 233.1 million ounces, down from 295.8 million ounces transferred per day on average in 2020.

The daily average trade size in 2021 was 132,085 ounces, down from 152,831 ounces averaged in 2020. The daily average value per trade was \$3.3 million in 2021, up from \$3.1 million in 2020.

In 2018 the LBMA began publishing data on gold, silver, platinum, and palladium trading volumes and activities in the loco London market. The London cleared ounces reported by the LBMA is a subset of the total volume traded in London. It is estimated that the total silver traded in London was a little more than 100 million ounces in 2021, following on the reported similar trading volumes in 2020 and 2019.

The majority of the silver traded in London are spot transactions, roughly 60% to 70%. There also are around 30% of the total number of transactions that are swaps or forwards. The remaining transactions are options or lease transactions.

### *Futures and Options*

Silver futures trading volume on the five major exchanges was 163.9 billion ounces in 2021, down sharply from a record 231.9 billion ounces in 2020. Total trading volume of futures declined to levels not seen since 2018.

Combining options trading volume with futures provided a total trading volume at the five major exchanges of 172.3 billion ounces in 2020, down from 242.4 billion ounces in 2020.

The five major silver futures exchanges include the Comex, the Shanghai Futures Exchange (SHFE), the Multi Commodity Exchange of India (MCX), NYSE Liffe, and the Tokyo Commodity Exchange (Tocom), which is now under the Japan Exchange Group (JPX).

Trading volume on the Comex was 100.7 billion ounces last year, down 24.5% from a record 133.4 billion unc-

es traded in 2020. Trading volume on the Comex fell to levels not seen since 2016. Despite the decline, trading volume on the Comex accounted for 61.4% of total futures trading volume last year. Of the total silver market, futures trading volume on the Comex accounted for 43.4% of total trading volume. When combined with options, the Comex accounted for 47.0% of the total silver market as measured in this chapter.

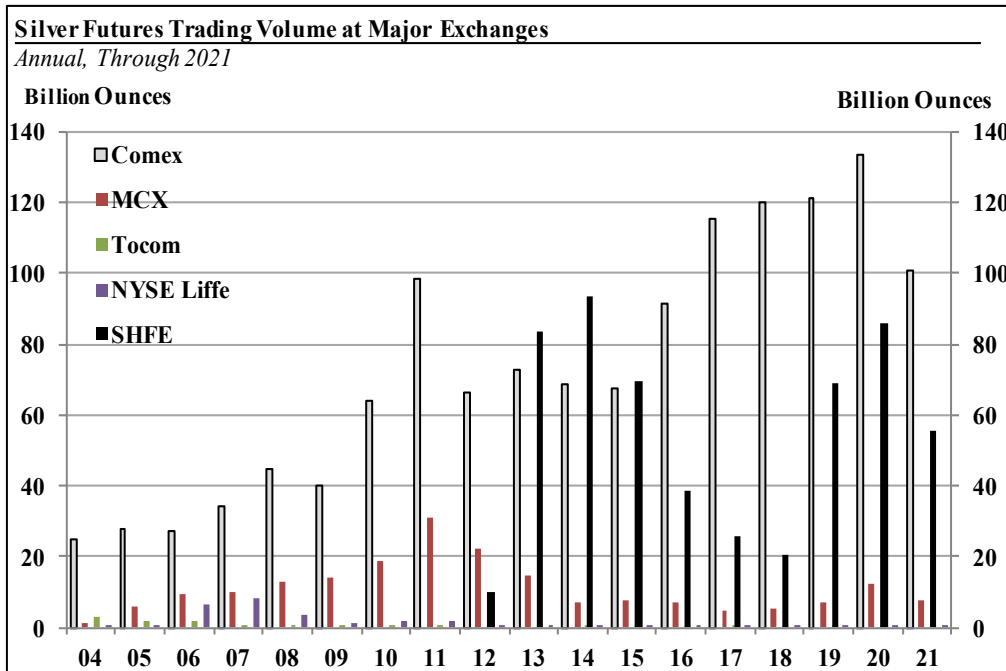
Trading volume on the SHFE was 55.8 billion ounces in 2021, a sharp drop from 86.1 billion ounces traded in 2020. Silver trading volume on the SHFE accounted for 34.0% of total silver futures trading volume and 24.1% of the total silver market last year.

Trading volume of futures on the SHFE has been volatile, with annual volumes ranging from 20.4 billion ounces to 93.3

billion ounces since 2013 when full year volume was first available.

The MCX continued to be the third largest silver futures exchange in 2021, with silver futures trading volume at 7.4 billion ounces last year. This was down from 12.4 billion ounces traded in 2020, but still higher than in the prior six years. Trading volume on the MCX accounted for 4.5% of total silver futures trading volume and 3.2% of the total silver market.

Trading volume on the Tocom, now under the Japan Exchange Group (JPX), was the fourth largest silver futures exchange last year. Trading volume was 13.3 million ounces, down from 14.5 million ounces in 2020. Trading volume on the NYSSE Liffe was 8.6 million ounces last year, down sharply from 46.5 million ounces in 2019.



Open interest of futures on the five major exchanges was 893.8 million ounces at the end of 2021, down from 1.07 billion ounces at the end of 2020. Open interest really comes from the top two major exchanges, Comex and SHFE, which was 875.3 million ounces at the end of 2021, down from 1.05 billion ounces at the end of 2020.

Open interest on the Comex at the end of 2021 was 708.5 million ounces, down from 865.5 million ounces at the end of 2020.

Open interest on the SHFE at the end of last year was 166.8 million ounces last year, down from 186.5 million ounces.

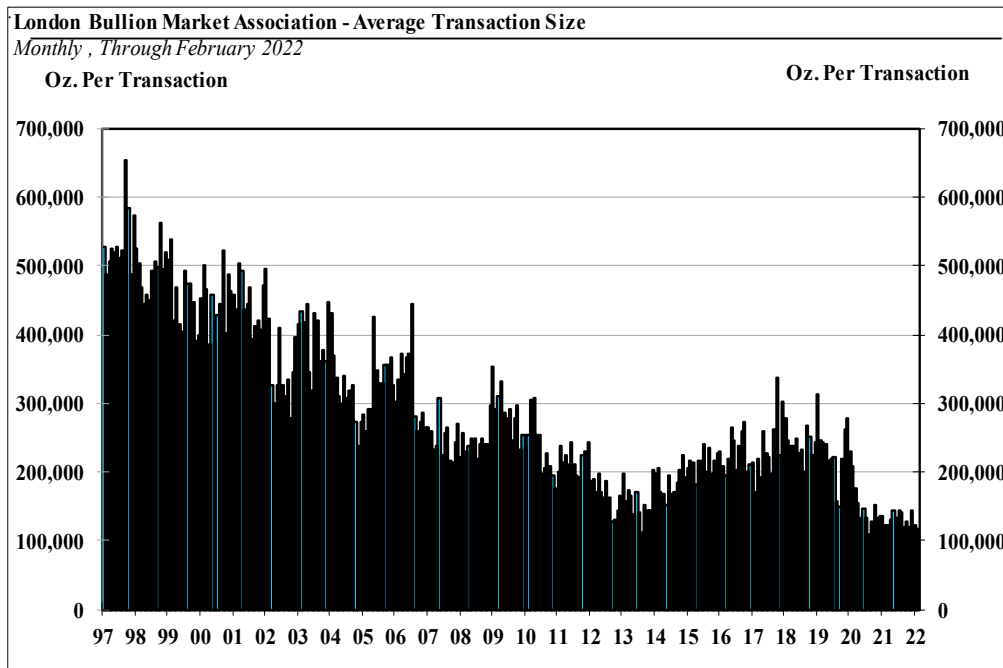
Open interest on the MCX meanwhile was 17.7 million ounces, up from 17.2 million ounces at the end of 2020.

The Comex continues to be the largest options exchange for silver futures. Trading volume on the Comex for options was 8.3 billion ounces last year, down from 10.5 billion ounces in 2020.

The volume of calls was 5.9 billion ounces in 2021, down from 7.1 billion ounces in 2020.

The volume of puts was 2.5 billion ounces last year, down from 3.4 billion ounces in the previous year.

Total open interest of both calls and puts meanwhile was 424.9 million ounces at the end of last year, down from 453.6 million ounces at the end of 2020.





## London Bullion Market Clearing Turnover

## Daily Averages

## Ounces Transferred (Million Ounces)

	1996	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
January	-	149	77	70	120	149	152	145	146	156	208	306	288	272	259	201
February	-	173	78	89	141	160	122	186	143	141	172	233	197	300	336	191
March	-	134	94	94	146	157	133	134	150	135	203	199	247	432	264	
April	-	107	88	93	179	141	165	122	113	175	218	249	238	281	227	
May	-	121	152	104	259	135	143	137	148	182	266	232	212	296	266	
June	-	97	123	85	173	149	153	163	134	166	204	229	291	277	257	
July	-	93	95	57	160	142	123	122	155	179	207	210	264	316	221	
August	-	101	104	66	172	120	122	121	142	180	190	181	213	339	214	
September	-	117	127	89	176	124	137	142	163	179	225	218	253	289	180	
October	279	82	125	92	197	98	110	136	136	194	261	211	245	227	193	
November	244	98	132	109	165	104	111	172	155	158	242	220	277	255	172	
December	249	116	131	100	197	134	168	153	166	218	326	262	321	266	209	

## Value in Billions of Dollars

	1996	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
January	-	0.8	0.5	1.2	3.4	4.6	4.7	2.9	2.5	2.2	3.5	5.3	4.5	4.9	6.7	4.7
February	-	0.9	0.5	1.4	4.3	5.5	3.7	3.9	2.4	2.1	3.1	3.9	3.1	5.4	9.2	4.5
March	-	0.7	0.7	1.6	5.2	5.2	3.8	2.8	2.4	2.1	3.6	3.3	3.8	6.4	6.8	
April	-	0.5	0.6	1.7	7.5	4.5	4.2	2.4	1.8	2.9	3.9	4.1	3.6	4.2	5.8	
May	-	0.6	1.1	1.9	9.5	3.9	3.3	2.7	2.5	3.1	4.5	3.8	3.1	4.8	7.3	
June	-	0.5	0.9	1.6	6.2	4.2	3.2	3.2	2.2	2.8	3.5	3.8	4.4	4.9	6.9	
July	-	0.5	0.7	1.0	6.1	3.9	2.4	2.6	2.3	3.6	3.3	3.3	4.2	6.5	5.7	
August	-	0.5	0.7	1.2	6.9	3.4	2.7	2.4	2.1	3.5	3.2	2.7	3.7	9.1	5.2	
September	-	0.6	0.9	1.8	6.7	4.2	3.1	2.6	2.4	3.5	3.9	3.1	4.6	7.5	4.2	
October	1.4	0.4	1.0	2.2	6.3	3.3	2.4	2.3	2.1	3.4	4.4	3.1	4.3	5.5	4.5	
November	1.2	0.5	1.0	2.9	5.5	3.4	2.3	2.8	2.2	2.7	4.1	3.2	4.8	6.1	4.2	
December	1.2	0.5	1.1	2.9	6.0	4.3	3.3	2.5	2.3	3.6	5.3	3.9	5.5	6.6	4.7	

## Number of Transfers

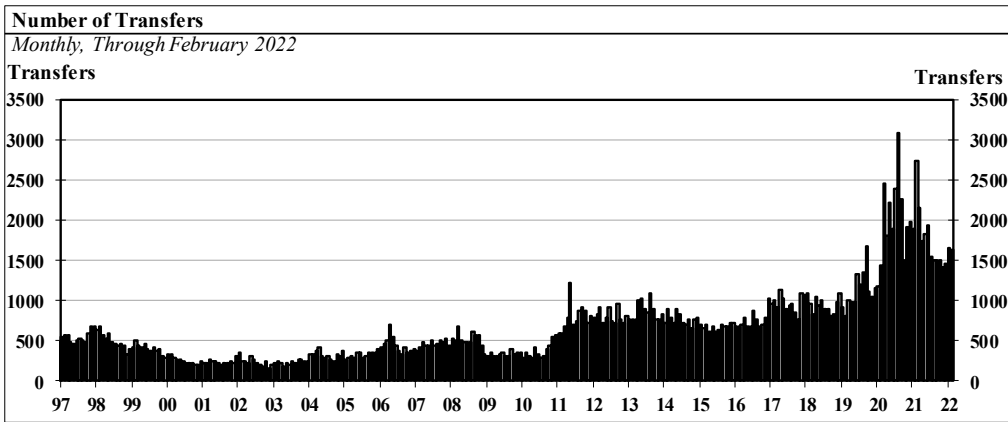
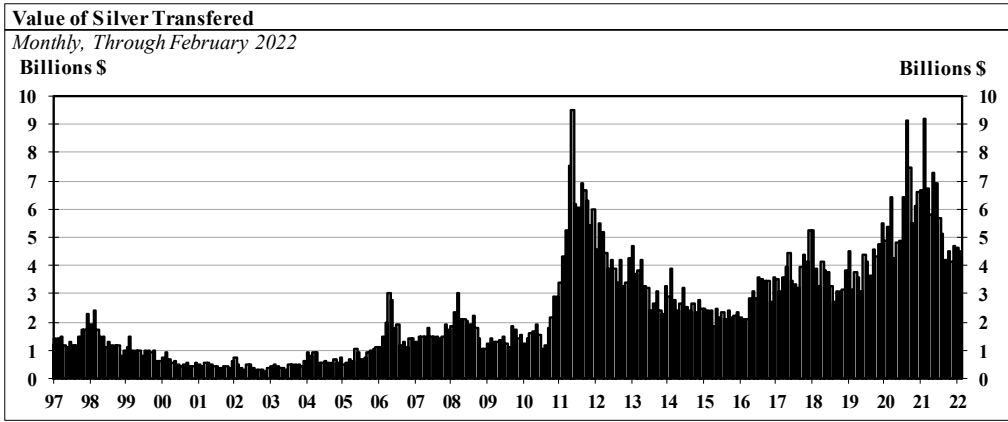
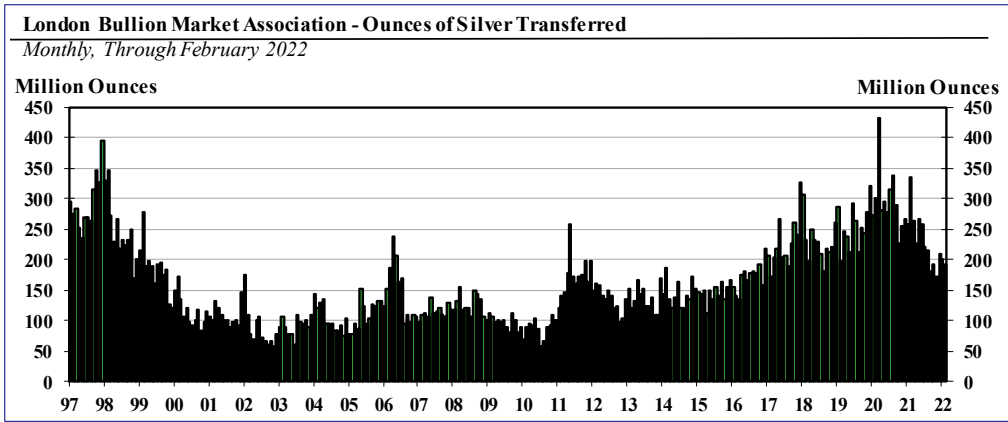
	1996	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
January	-	329	272	298	597	795	764	733	710	676	966	1096	917	1190	1898	1646
February	-	344	299	351	591	841	776	907	663	674	1007	954	802	1442	2737	1641
March	-	288	321	307	685	927	765	779	697	695	924	834	1012	2461	2155	
April	-	277	299	300	799	715	1007	732	620	798	1132	1050	985	1817	1749	
May	-	264	357	410	1227	796	1027	898	684	690	1029	931	978	2224	1830	
June	-	250	355	333	708	912	900	843	623	672	892	1004	1329	1895	1943	
July	-	217	289	290	756	755	862	719	644	881	939	904	1193	2392	1538	
August	-	226	318	318	884	732	1096	709	712	757	957	899	1344	3087	1514	
September	-	224	356	389	919	967	902	775	691	691	857	817	1682	2269	1511	
October	481	205	349	441	879	757	769	669	686	708	772	842	1113	1497	1510	
November	484	200	359	560	718	721	764	772	714	783	1083	985	1053	1919	1424	
December	493	251	403	570	811	815	828	795	732	1027	1080	1082	1149	1977	1452	

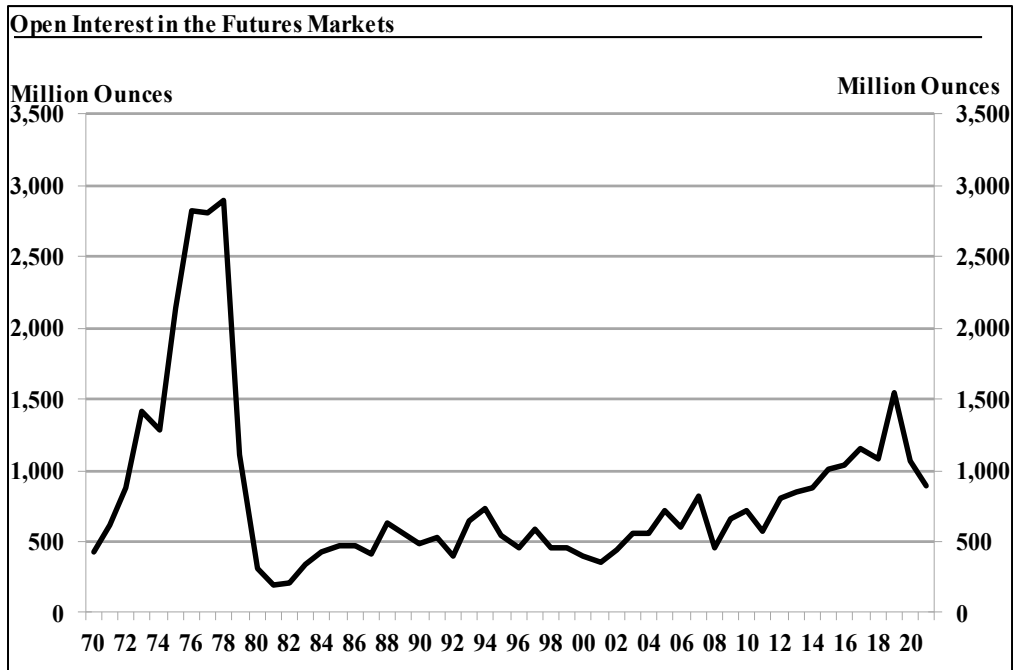
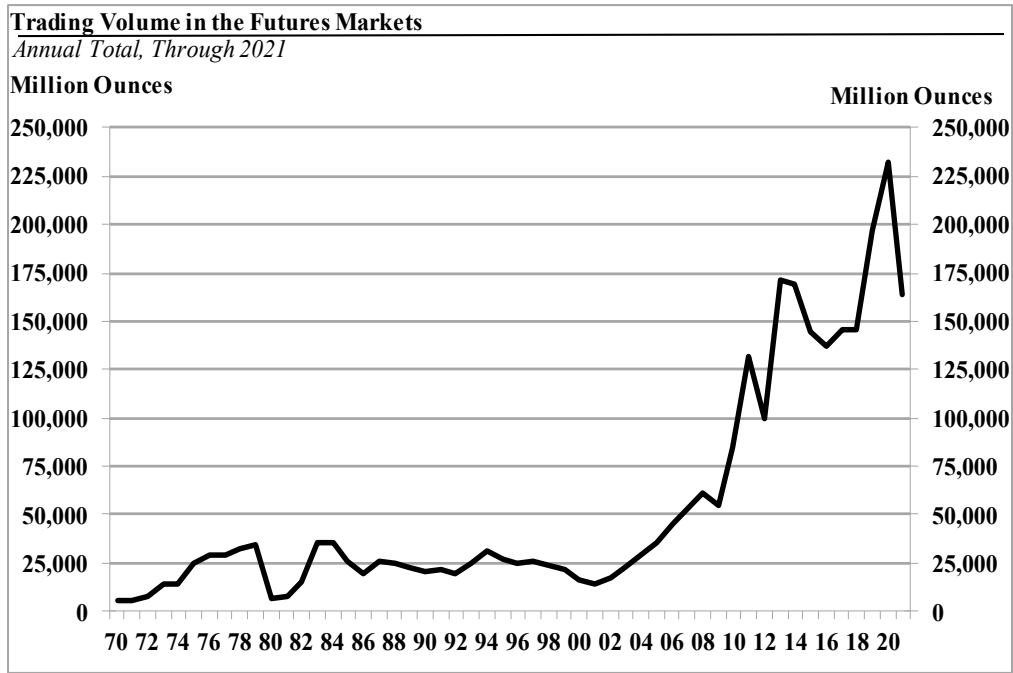
Note: \* partly estimated.

Value is calculated using the monthly average London fixing for silver. Allocations between Clearing Members where the sole purpose is for overnight credit and physical movements arranged by Clearing Members in locations other than London are excluded.

Source: London Bullion Market Association, CPM Group.

March 2022





Silver Futures Exchange Activity  
Million Troy Ounces

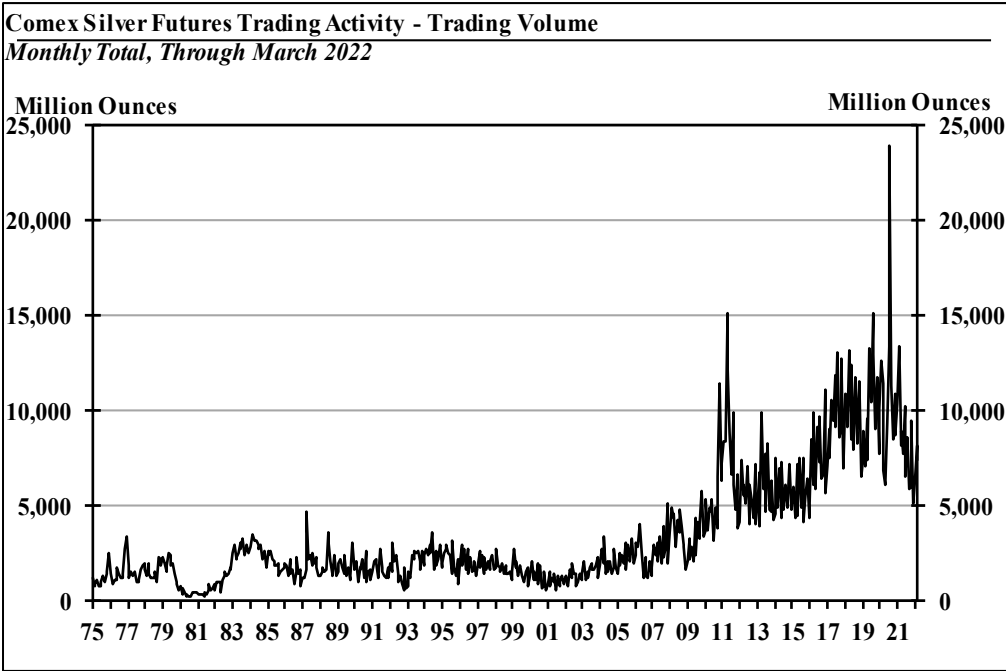
	Trading Volume					Total
	Comex	NYSE Liffe	Tocom	MCX	SHFE	
1970	3,468.5	1,813.1	—	—	—	5,281.6
1971	3,081.2	2,520.5	—	—	—	5,601.7
1972	4,074.5	3,770.2	—	—	—	7,844.7
1973	6,189.3	8,153.0	—	—	—	14,342.3
1974	6,829.6	7,314.0	—	—	—	14,143.6
1975	14,511.6	9,763.5	—	—	—	24,275.1
1976	18,709.5	10,055.2	—	—	—	28,764.7
1977	17,700.2	11,285.3	—	—	—	28,985.5
1978	19,110.4	13,289.2	—	—	—	32,399.6
1979	20,403.1	13,602.9	—	—	—	34,006.0
1980	5,293.7	1,705.2	—	—	—	6,998.9
1981	6,203.6	1,257.3	—	—	—	7,460.9
1982	14,188.1	1,163.6	—	—	—	15,351.7
1983	32,619.9	2,750.5	—	—	—	35,370.4
1984	33,712.5	1,887.3	—	—	—	35,599.8
1985	24,106.0	1,034.8	591.1	—	—	25,731.9
1986	19,248.4	511.2	227.1	—	—	19,986.8
1987	25,278.3	597.0	473.2	—	—	26,348.5
1988	23,323.3	502.4	740.2	—	—	24,565.9
1989	21,833.1	266.7	442.3	—	—	22,542.1
1990	19,568.5	192.0	486.4	—	—	20,246.9
1991	20,773.5	117.5	1,020.1	—	—	21,911.1
1992	18,941.6	55.1	223.6	—	—	19,220.3
1993	24,279.6	94.3	639.9	—	—	25,013.8
1994	29,971.7	139.8	1,005.2	—	—	31,116.7
1995	25,773.7	139.9	1,389.2	—	—	27,302.7
1996	24,354.0	42.1	726.3	—	—	25,122.5
1997	24,467.6	31.2	1,237.3	—	—	25,736.0
1998	20,473.1	35.5	3,240.1	—	—	23,748.7
1999	19,234.5	21.2	1,865.1	—	—	21,120.7
2000	15,585.2	12.6	1,077.9	—	—	16,675.7
2001	12,846.0	10.5	1,274.8	—	—	14,131.4
2002	15,677.8	8.1	1,795.7	—	—	17,481.7
2003	20,020.2	34.8	2,238.8	0.1	—	22,293.9
2004	25,030.6	266.2	2,842.2	1,376.1	—	29,515.2
2005	27,681.8	594.5	1,577.2	5,772.6	—	35,626.1
2006	27,165.4	6,589.5	1,558.7	9,641.0	—	44,954.7
2007	34,052.6	8,018.3	517.5	9,866.4	—	52,454.7
2008	44,605.9	3,601.0	290.5	12,659.4	—	61,156.8
2009	39,942.4	1,187.0	107.7	13,871.1	—	55,108.3
2010	64,194.7	1,651.2	76.0	18,882.4	—	84,804.3
2011	98,309.2	1,778.6	120.1	31,090.3	—	131,298.2
2012	66,630.0	703.5	38.7	22,431.4	10,255.3	100,058.9
2013	72,482.6	506.2	30.3	14,595.8	83,538.5	171,153.5
2014	68,662.6	189.5	27.2	7,320.4	93,311.6	169,511.3
2015	67,378.0	130.9	19.9	7,399.9	69,824.9	144,753.5
2016	91,233.4	140.1	19.4	6,846.2	38,394.4	136,633.4
2017	115,270.6	83.1	7.1	4,892.3	25,561.4	145,814.5
2018	120,082.8	59.4	6.4	5,084.1	20,375.8	145,608.4
2019	121,225.9	41.5	7.1	6,943.2	68,878.3	197,096.0
2020	133,350.1	46.5	14.5	12,357.4	86,139.6	231,908.2
2021	100,715.4	8.6	13.3	7,403.3	55,811.5	163,952.1

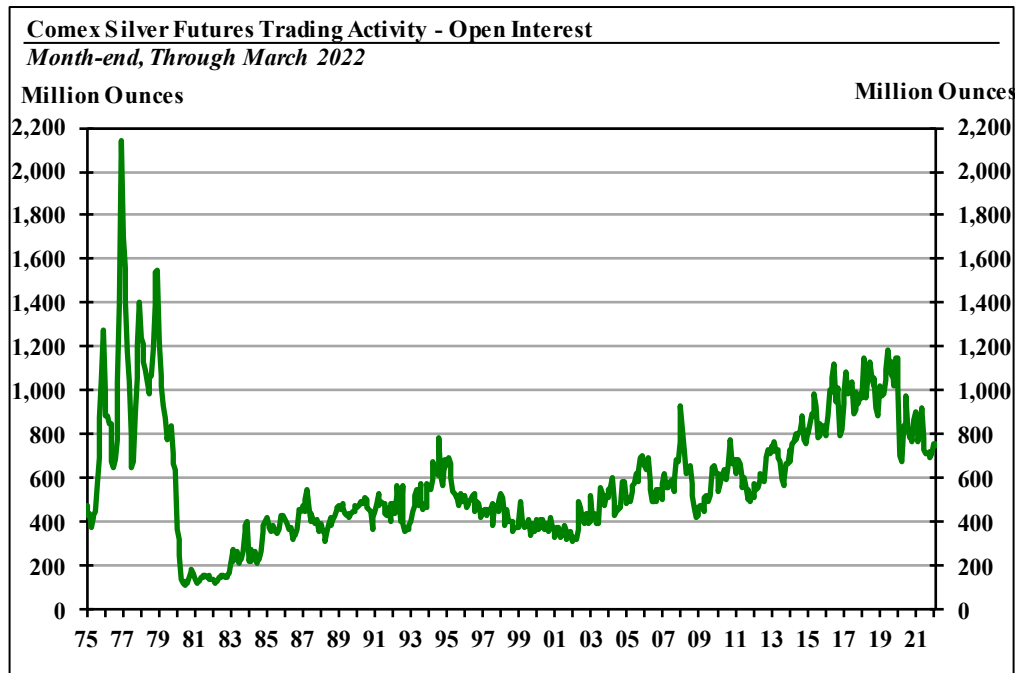
Notes: Trading volume is the total for the year. Open interest is Year-end Sources: New York Commodity Exchange, Silver futures trading on CBOT were acquired by NYSE Liffe as of September 2008. Tokyo Commodity Exchange (now under the Japan Exchange Group, Inc.), Shanghai Futures Exchange and Multi Commodity Exchange.

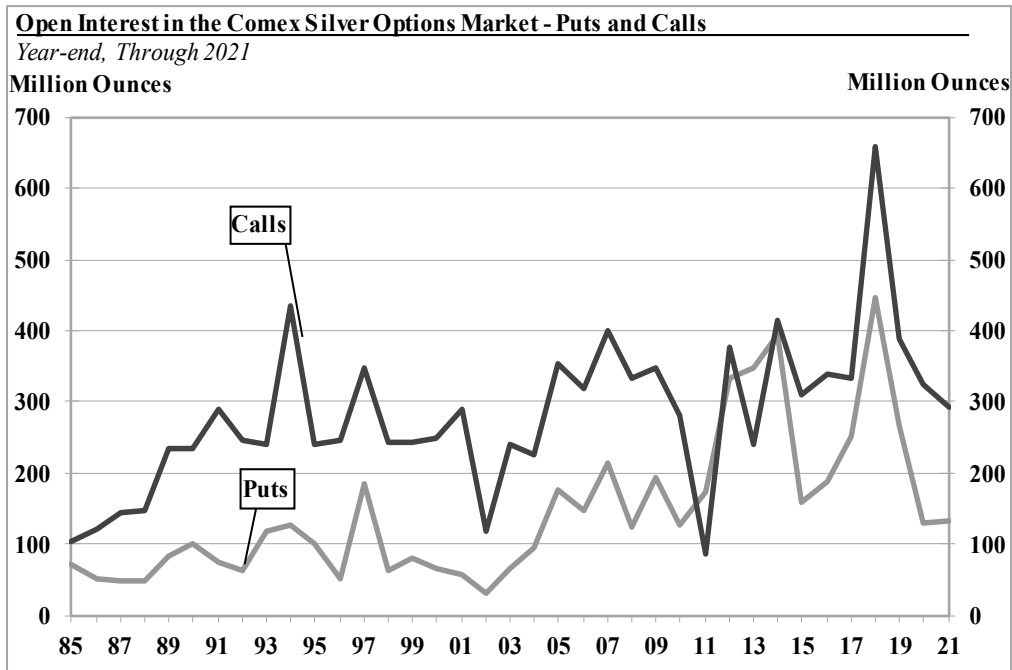
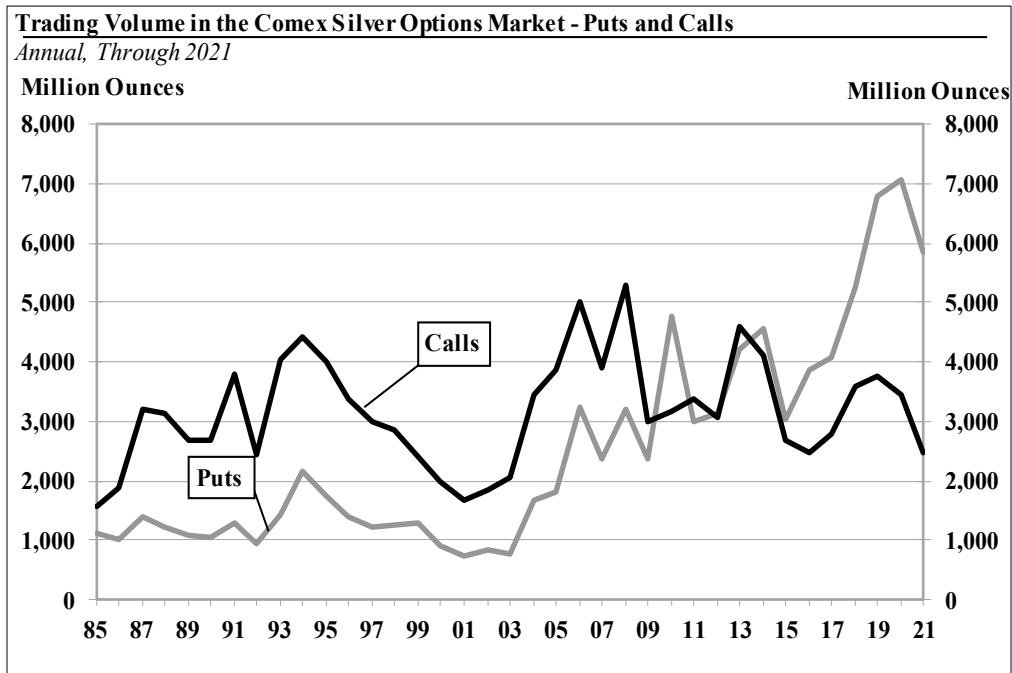
## Silver Futures Exchange Activity

Million Troy Ounces

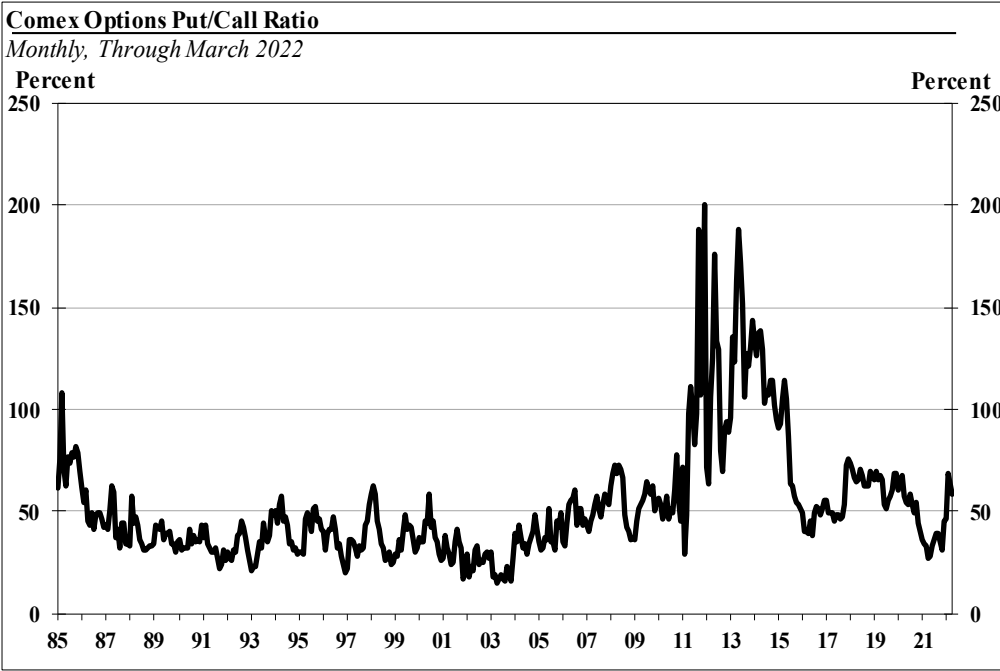
Comex	Open Interest				Total	
	NYSE Liffe	Tocom	MCX	SHFE		
230.9	191.2	—	—	—	422.1	1970
245.5	366.7	—	—	—	612.2	1971
327.8	544.7	—	—	—	872.5	1972
428.0	981.6	—	—	—	1,409.6	1973
658.4	623.5	—	—	—	1,281.9	1974
1,276.4	864.5	—	—	—	2,140.9	1975
2,138.7	680.3	—	—	—	2,819.0	1976
1,404.9	1,409.8	—	—	—	2,814.7	1977
1,549.0	1,343.9	—	—	—	2,892.9	1978
636.8	468.7	—	—	—	1,105.5	1979
166.2	143.1	—	—	—	309.3	1980
140.0	56.3	—	—	—	196.3	1981
169.0	34.8	—	—	—	203.8	1982
301.7	32.4	—	—	—	334.1	1983
401.5	26.8	—	—	—	428.3	1984
430.7	18.5	17.6	—	—	466.8	1985
449.1	12.7	12.2	—	—	474.0	1986
371.2	11.2	24.8	—	—	407.2	1987
470.0	13.5	141.5	—	—	625.0	1988
474.2	9.7	80.2	—	—	564.1	1989
421.7	10.9	49.7	—	—	482.3	1990
488.8	6.1	38.0	—	—	532.9	1991
381.3	6.1	15.7	—	—	403.2	1992
578.9	7.0	62.1	—	—	648.0	1993
652.3	36.0	47.8	—	—	736.0	1994
492.8	2.5	51.9	—	—	547.2	1995
423.5	1.8	30.4	—	—	455.7	1996
494.5	1.2	85.0	—	—	580.6	1997
376.8	1.1	82.7	—	—	460.5	1998
381.9	1.2	71.3	—	—	454.4	1999
360.6	1.3	37.7	—	—	399.6	2000
315.5	0.3	30.8	—	—	346.6	2001
404.6	0.3	38.1	—	—	443.1	2002
511.3	1.4	42.0	0.0	—	554.7	2003
502.9	5.3	33.2	9.8	—	551.2	2004
656.1	10.8	32.6	19.6	—	719.2	2005
507.1	54.8	14.5	17.2	—	593.5	2006
770.7	28.3	9.2	11.3	—	819.4	2007
429.8	14.2	5.3	12.8	—	462.1	2008
620.6	11.3	3.2	22.5	—	657.6	2009
680.9	11.3	3.1	23.7	—	719.0	2010
529.0	7.1	1.9	27.0	—	565.0	2011
708.1	5.6	1.2	33.7	58.9	807.5	2012
664.0	2.6	1.4	14.4	161.6	843.9	2013
757.3	1.9	1.5	15.2	99.7	875.6	2014
841.8	1.6	1.0	23.8	132.9	1,001.1	2015
825.2	1.6	0.9	17.6	198.0	1,043.3	2016
967.7	1.4	0.5	22.3	155.1	1,146.9	2017
882.5	1.1	0.4	21.9	180.0	1,086.0	2018
1,151.9	0.7	0.3	12.5	385.4	1,550.8	2019
865.5	0.5	0.5	17.2	186.5	1,070.2	2020
708.5	0.2	0.6	17.7	166.8	893.8	2021











## Comex Trading Volume

Thousand Ounces

	1975	1976	1977	1978	1979	1980	1981	1982
January	1,277,415	1,414,390	1,927,810	1,650,015	2,299,675	838,665	353,450	563,915
February	777,410	912,215	1,191,535	1,353,430	1,941,390	380,785	355,225	969,410
March	897,705	904,350	1,593,455	1,954,990	1,522,985	717,365	374,555	1,057,695
April	1,118,530	1,092,145	1,371,570	1,437,350	1,836,625	469,865	363,075	964,700
May	809,070	1,129,005	1,367,295	1,224,720	2,587,495	233,090	290,245	498,490
June	825,540	1,814,445	1,545,700	1,236,180	2,402,495	316,300	486,960	1,086,795
July	1,024,830	1,426,260	1,010,710	1,270,555	1,919,265	228,240	386,770	1,315,360
August	1,322,000	1,229,505	970,615	1,580,935	2,020,290	208,930	580,055	1,586,215
September	987,705	1,175,930	1,114,725	960,045	1,465,965	504,555	859,335	1,290,145
October	1,393,015	1,403,615	1,671,705	2,345,235	958,500	464,595	607,240	1,444,480
November	1,573,875	2,792,515	1,899,965	2,189,865	892,995	478,115	682,895	1,753,185
December	2,504,480	3,415,165	2,035,150	1,907,105	555,415	453,165	863,795	1,657,705
Total	14,511,575	18,709,540	17,700,235	19,110,425	20,403,095	5,293,670	6,203,600	14,188,095
	1983	1984	1985	1986	1987	1988	1989	1990
January	2,554,445	2,853,930	2,659,165	1,970,040	1,236,730	1,370,490	1,585,760	1,715,875
February	3,007,130	3,493,840	2,439,950	1,844,575	1,239,790	1,505,595	2,042,425	2,066,435
March	2,233,185	3,478,740	2,592,200	1,387,955	1,715,890	1,744,525	2,236,615	1,050,965
April	2,264,275	3,149,325	2,248,800	2,194,000	4,663,655	1,569,635	1,771,175	1,820,275
May	2,580,325	3,133,730	2,123,830	1,400,655	2,193,070	1,705,725	1,392,480	1,644,520
June	3,118,505	2,936,830	1,889,500	1,680,350	2,432,050	3,634,300	2,423,555	2,169,240
July	2,726,465	2,773,345	1,888,405	939,480	1,893,700	3,194,670	1,361,270	1,211,440
August	3,282,270	3,007,745	1,942,655	1,588,995	2,513,645	2,058,325	1,801,905	2,624,075
September	2,460,115	2,156,285	1,338,265	2,273,190	1,951,330	1,499,290	1,124,630	1,006,365
October	2,844,905	2,246,105	1,569,820	1,433,400	2,340,320	1,341,915	1,305,510	1,542,245
November	2,984,705	2,671,160	1,663,850	1,694,670	1,779,465	2,376,870	3,110,615	1,618,320
December	2,563,585	1,811,505	1,749,590	841,125	1,318,615	1,321,935	1,727,115	1,098,790
Total	32,619,910	33,712,540	24,106,030	19,248,435	25,278,260	23,323,275	21,883,055	19,568,545
	1991	1992	1993	1994	1995	1996	1997	1998
January	1,549,205	2,040,895	836,005	2,445,275	1,952,265	2,079,005	2,009,975	1,763,440
February	2,100,460	1,601,130	1,579,580	2,775,680	2,507,270	2,918,835	2,652,570	2,754,000
March	2,232,455	3,036,685	1,214,870	2,420,670	2,709,035	1,840,875	1,804,355	1,840,635
April	1,979,785	2,127,235	2,382,770	2,925,290	2,963,100	2,738,145	2,469,995	1,800,650
May	1,277,740	2,426,950	2,167,300	2,581,980	2,502,610	1,674,865	1,402,680	1,550,650
June	2,737,475	1,476,790	2,619,805	3,647,070	2,382,405	2,748,155	2,361,530	1,969,855
July	1,723,415	989,730	2,519,675	1,696,490	1,403,255	1,484,525	1,701,225	1,393,870
August	1,603,195	1,331,735	2,658,860	2,678,610	3,131,785	2,303,430	2,127,355	1,836,285
September	1,343,300	865,825	2,141,830	1,887,700	1,720,910	1,581,830	1,677,000	1,417,375
October	1,264,915	627,685	1,690,945	2,225,245	1,361,810	1,608,905	2,151,985	1,400,330
November	1,748,490	1,778,640	2,602,955	2,946,100	2,235,475	2,077,205	2,440,120	1,596,080
December	1,213,085	638,270	1,865,025	1,741,615	903,775	1,298,265	1,668,810	1,149,910
Total	20,773,520	18,941,570	24,279,620	29,971,725	25,773,695	24,354,040	24,467,600	20,473,080

Notes: Monthly total.

Source: New York Commodity Exchange.

April 6, 2021

## Comex Silver Trading Volume

Thousand Ounces

	1999	2000	2001	2002	2003	2004	2005	2006
January	1,575,825	1,290,265	875,130	1,328,865	1,455,600	1,925,425	1,427,245	2,478,245
February	2,751,355	2,129,550	1,510,175	1,356,465	2,048,685	2,724,695	2,568,085	3,122,455
March	1,777,795	1,156,680	778,290	819,490	1,083,300	2,042,235	1,851,690	2,811,650
April	2,124,110	1,593,760	1,262,430	1,629,445	1,576,200	3,355,885	2,429,160	4,036,345
May	1,370,010	1,084,690	1,022,760	1,217,375	1,255,480	1,393,515	1,960,780	2,569,110
June	1,868,310	2,037,275	1,409,230	1,948,990	1,762,820	2,127,505	3,108,235	2,543,730
July	1,342,400	876,175	564,780	1,406,070	2,039,655	1,581,320	1,674,515	1,278,885
August	1,336,625	1,853,695	1,338,555	1,482,895	1,677,540	2,139,865	3,004,805	2,262,755
September	968,140	730,035	801,645	822,685	1,677,540	1,408,685	2,275,165	1,341,965
October	1,591,280	746,260	1,051,330	1,046,245	1,867,965	1,820,790	2,124,860	1,220,760
November	1,721,445	1,518,365	1,330,385	1,464,305	2,321,220	2,706,830	3,264,585	2,123,855
December	807,170	568,435	901,280	1,154,990	1,254,175	1,803,875	1,992,630	1,375,665
Total	19,234,465	15,585,185	12,845,990	15,677,820	20,020,180	25,030,625	27,681,755	27,165,420
	2007	2008	2009	2010	2011	2012	2013	2014
January	1,823,795	3,598,310	2,078,755	3,781,343	7,164,335	4,139,845	5,114,810	4,587,499
February	2,948,295	4,949,795	3,263,760	5,329,575	8,386,263	7,400,843	6,737,605	7,517,196
March	2,400,865	4,413,213	2,170,825	3,752,243	8,451,230	5,607,410	3,904,595	4,885,775
April	3,126,990	4,566,508	2,880,053	4,975,763	15,125,578	6,110,198	9,909,033	6,967,529
May	2,087,820	2,905,588	2,092,983	4,688,020	12,362,870	5,147,655	5,863,343	4,429,437
June	3,404,705	4,301,160	4,350,138	5,399,633	8,859,728	7,089,488	7,782,578	7,305,865
July	2,022,205	3,614,680	2,384,213	3,216,125	6,645,248	4,025,975	4,669,570	4,793,191
August	3,922,163	4,766,628	4,215,903	4,894,885	9,938,973	6,163,978	8,276,920	6,100,941
September	2,348,118	3,961,915	3,290,798	3,788,180	6,119,988	5,349,980	4,805,501	4,964,908
October	2,906,315	2,974,098	4,012,110	6,577,788	4,773,220	4,376,838	4,754,058	5,081,093
November	5,094,740	2,891,063	5,799,978	11,430,180	6,647,225	7,192,230	6,363,680	7,191,364
December	1,966,580	1,662,950	3,402,920	6,360,933	3,834,578	4,025,543	4,300,925	4,837,822
Total	34,052,590	44,605,905	39,942,433	64,194,665	98,309,233	66,629,980	72,482,615	68,662,617
	2015	2016	2017	2018	2019	2020	2021	2022
January	4,914,177	4,809,610	7,078,282	10,941,850	7,648,832	10,108,229	10,391,782	6,595,625
February	5,992,580	8,479,575	9,053,675	10,790,871	8,942,395	12,625,464	13,380,401	8,181,579
March	4,389,261	6,071,282	7,486,043	9,219,900	7,114,284	11,468,060	8,231,609	7,477,372
April	7,158,503	9,880,769	10,610,858	13,141,118	9,627,281	6,833,802	8,958,883	
May	4,438,440	5,927,989	9,531,188	8,518,869	7,411,228	6,125,292	7,793,392	
June	7,506,754	9,157,470	11,865,891	12,445,398	13,288,480	9,358,234	10,224,831	
July	4,953,126	7,311,255	9,156,389	7,921,553	10,469,116	13,397,848	6,524,423	
August	7,565,712	9,707,919	13,036,276	11,833,038	15,168,079	23,963,962	8,629,627	
September	4,117,522	6,460,334	8,658,724	8,264,024	12,975,533	11,301,707	5,852,400	
October	5,544,897	6,652,524	9,138,383	8,979,504	9,101,960	8,488,799	6,034,725	
November	6,466,761	11,087,996	12,707,496	11,510,705	11,732,226	10,950,014	9,548,694	
December	4,330,252	5,686,648	6,947,383	6,515,948	7,746,441	8,728,692	5,144,597	
Total	67,377,982	91,233,367	115,270,586	120,082,774	121,225,852	133,350,100	100,715,360	22,254,576

## Comex Open Interest

Thousand Ounces

	1975	1976	1977	1978	1979	1980	1981	1982
January	475,905	995,275	1,705,165	1,236,140	1,226,220	365,205	142,830	136,765
February	426,820	886,325	1,560,845	1,208,870	1,067,780	318,680	119,310	127,025
March	443,215	883,435	1,413,210	1,127,325	1,018,345	243,685	129,055	146,315
April	372,680	844,265	1,175,485	1,091,580	928,155	136,080	129,650	142,810
May	425,065	849,795	1,035,510	1,043,645	871,710	119,275	143,370	136,755
June	427,075	676,175	792,900	985,085	771,940	114,845	149,690	141,355
July	447,710	652,680	650,945	1,059,995	785,475	125,395	156,200	141,575
August	578,225	684,615	675,750	1,067,020	789,760	121,190	154,930	135,575
September	698,145	771,720	895,200	1,184,620	838,615	149,920	145,315	126,370
October	880,275	1,035,445	1,053,655	1,394,035	712,765	174,300	158,600	145,060
November	1,055,395	1,399,210	1,204,240	1,536,055	670,490	180,660	140,845	156,335
December	1,276,405	2,138,745	1,404,875	1,548,985	636,765	166,160	140,005	169,040
	1983	1984	1985	1986	1987	1988	1989	1990
January	221,475	308,785	421,865	409,745	478,360	397,350	470,890	464,460
February	276,220	326,170	383,330	395,040	447,190	355,010	459,550	476,570
March	221,295	364,160	376,670	392,030	503,755	343,540	486,585	493,760
April	255,600	321,500	352,650	369,340	544,410	311,780	469,245	482,715
May	269,870	332,050	382,365	376,080	469,015	355,415	435,830	487,845
June	214,205	286,280	359,550	322,390	403,725	397,155	428,945	511,780
July	223,320	326,660	364,700	356,190	441,385	419,795	441,760	500,960
August	234,185	299,945	352,415	338,690	411,800	384,350	420,060	467,520
September	263,985	323,620	369,640	369,475	392,865	409,515	440,555	459,035
October	257,130	359,480	428,955	449,990	414,900	430,450	443,810	447,070
November	281,440	385,260	426,830	454,760	355,845	455,520	452,395	368,535
December	301,670	401,500	430,700	449,110	371,165	469,950	474,215	421,715
	1991	1992	1993	1994	1995	1996	1997	1998
January	448,630	481,715	404,500	560,010	679,610	518,975	449,660	525,760
February	483,065	438,035	447,180	548,910	690,380	462,005	453,520	509,935
March	526,675	518,290	473,365	592,320	662,620	480,960	456,620	429,930
April	475,815	568,620	522,800	676,560	606,420	493,065	425,875	384,410
May	494,445	513,940	547,515	641,145	542,205	504,065	459,665	457,855
June	485,810	401,915	473,075	617,190	531,150	517,960	456,385	399,490
July	482,645	561,920	577,030	609,295	514,280	532,645	485,215	405,720
August	439,900	397,630	497,920	782,415	523,800	451,485	388,125	404,915
September	434,090	359,445	453,315	609,710	479,905	490,550	477,945	358,895
October	468,735	365,230	481,785	564,990	530,310	483,890	473,355	373,610
November	405,200	362,335	464,030	682,760	494,645	430,240	450,630	373,790
December	488,835	381,320	578,860	652,255	492,775	423,465	494,530	376,765

Notes: Month-end data.

Source: New York Commodity Exchange.

April 6, 2021

## Comex Silver Open Interest

Thousand Ounces

	1999	2000	2001	2002	2003	2004	2005	2006
January	404,975	411,470	333,090	327,300	517,550	546,340	483,325	666,295
February	494,770	370,350	374,600	327,400	421,010	552,890	508,190	639,195
March	391,300	411,940	376,770	319,525	443,555	601,640	496,255	698,075
April	376,640	372,965	325,305	368,090	391,685	489,325	536,320	581,270
May	378,675	413,250	339,770	496,100	394,355	428,480	566,790	551,190
June	381,370	366,485	335,610	463,950	395,780	445,665	575,105	489,370
July	412,285	394,065	388,080	412,065	560,055	459,250	621,890	495,710
August	347,410	389,285	361,180	389,720	531,255	476,150	586,780	544,270
September	339,055	359,970	322,815	405,850	527,710	466,045	633,980	495,035
October	397,525	424,205	338,720	436,010	471,745	586,640	690,690	551,185
November	357,870	374,150	359,835	394,870	520,610	584,790	704,540	533,335
December	381,935	360,605	315,505	404,600	511,250	502,930	656,145	507,060
	2007	2008	2009	2010	2011	2012	2013	2014
January	571,725	928,030	465,133	617,375	617,760	509,140	750,013	733,826
February	623,550	833,430	471,715	538,288	681,550	574,800	724,488	675,171
March	552,940	733,475	473,783	574,103	688,593	549,260	769,015	753,970
April	557,255	619,325	446,465	621,243	662,218	560,053	717,705	765,422
May	563,035	623,500	513,518	604,755	605,045	591,170	727,123	806,387
June	583,678	630,685	523,180	640,143	555,423	620,208	693,066	780,288
July	592,993	658,135	497,413	595,763	598,470	609,493	671,140	803,802
August	537,175	578,003	525,378	654,185	561,730	588,140	590,340	809,225
September	588,383	519,300	638,533	762,900	506,575	687,688	566,356	867,701
October	682,100	469,145	652,485	774,895	545,585	697,173	593,651	888,504
November	679,615	421,010	657,695	666,480	490,870	728,255	665,127	776,444
December	770,685	429,823	620,568	680,945	529,008	708,103	663,982	757,294
	2015	2016	2017	2018	2019	2020	2021	2022
January	817,981	793,291	935,412	991,934	1,019,106	1,150,415	904,137	760,790
February	802,808	811,546	989,126	962,432	985,483	1,008,174	814,835	759,945
March	851,482	882,489	1,082,542	1,147,602	980,429	700,842	765,031	751,731
April	895,320	1,006,587	980,860	968,775	984,994	677,025	816,601	
May	888,634	991,803	1,023,258	1,054,051	1,051,879	835,991	917,157	
June	984,921	1,058,400	1,006,390	1,048,037	1,094,090	851,642	786,535	
July	933,004	1,117,893	1,039,649	1,135,280	1,184,485	973,412	733,750	
August	787,936	945,035	895,927	1,061,193	1,097,296	834,068	712,542	
September	790,323	1,009,469	916,502	1,020,650	1,069,774	781,166	710,082	
October	849,712	965,160	996,054	1,062,194	1,128,403	778,567	718,352	
November	812,613	797,329	937,021	925,301	1,025,697	769,610	697,114	
December	841,806	825,189	967,671	882,500	1,151,858	865,488	708,505	

**Tocom Trading Volume**  
Thousand Troy Ounces

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
January	60,287	21,080	8,997	26,654	18,755	46,351	96,887	25,596	13,031	153,885
February	60,308	29,469	8,553	24,096	21,235	39,883	83,567	20,471	26,421	102,995
March	76,384	18,465	11,568	29,009	17,754	34,587	187,591	32,075	17,538	124,089
April	73,794	28,215	90,571	28,551	26,398	38,128	89,526	17,447	17,434	92,452
May	66,243	14,395	82,387	34,931	5,208	34,139	79,162	8,981	51,215	81,909
June	38,716	13,697	43,302	154,434	20,843	28,381	206,990	15,890	56,594	92,995
July	46,170	10,392	38,845	212,471	13,688	25,326	93,472	10,531	66,842	59,589
August	36,881	14,802	60,997	56,233	15,669	39,002	55,688	24,277	55,091	65,357
September	47,415	33,814	24,700	65,511	18,566	35,046	39,417	13,272	51,530	55,610
October	32,279	15,460	35,049	42,711	26,164	52,113	28,101	19,571	62,037	52,196
November	28,872	16,901	40,719	43,175	174,388	54,194	22,404	22,865	80,212	47,042
December	23,739	10,440	27,509	22,473	83,680	59,288	37,271	12,662	142,004	77,088
Annual Total	591,087	227,130	473,199	740,247	442,347	486,439	1,020,075	223,638	639,949	1,005,209
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	51,637	126,413	73,756	288,403	115,125	110,011	104,448	270,724	126,510	342,627
February	73,714	102,148	102,339	489,257	217,671	168,103	110,906	154,821	173,893	370,424
March	113,865	70,336	59,463	406,233	208,294	117,876	87,523	149,150	111,161	416,420
April	113,422	66,005	56,609	200,032	160,871	87,449	82,866	163,253	127,959	265,974
May	120,048	43,418	101,981	212,401	188,861	92,980	172,480	135,045	191,911	186,673
June	84,000	60,082	48,145	155,328	135,243	71,967	92,133	156,590	177,605	180,605
July	141,165	47,497	65,530	207,484	120,202	77,428	66,573	125,644	266,831	192,565
August	241,263	38,772	60,495	289,019	131,069	68,983	87,422	134,134	286,235	186,234
September	259,723	45,365	61,195	298,072	208,161	64,825	110,563	128,839	248,331	186,309
October	89,288	43,452	143,218	335,725	171,351	64,746	98,929	107,357	209,656	185,641
November	63,417	45,900	126,842	197,077	124,792	69,575	87,899	97,990	134,134	160,315
December	37,653	36,893	337,692	161,079	83,431	83,948	173,093	172,173	184,551	168,405
Annual Total	1,389,196	726,279	1,237,263	3,240,110	1,865,071	1,077,891	1,274,834	1,795,718	2,238,779	2,842,193
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
January	111,439	138,959	45,553	32,111	8,868	4,528	11,997	2,846	4,616	1,778
February	141,827	164,422	46,430	31,736	12,121	5,100	9,948	3,927	3,007	3,108
March	152,917	195,728	51,419	38,615	10,397	4,700	13,764	3,706	1,978	2,025
April	110,507	353,242	44,633	23,911	9,058	4,619	22,377	2,583	3,679	1,749
May	106,913	166,953	37,720	19,454	5,488	4,413	21,795	2,291	2,228	1,915
June	129,853	109,535	59,338	18,124	9,789	3,708	8,519	2,956	2,448	2,747
July	92,083	94,367	43,175	28,126	5,544	2,646	5,518	1,948	1,483	1,911
August	112,911	88,983	62,364	25,141	4,787	3,692	7,298	3,319	2,552	1,440
September	109,408	89,428	30,934	25,506	9,544	4,650	7,622	5,386	2,338	1,650
October	108,156	60,416	37,822	26,343	10,855	8,998	4,566	3,117	2,132	2,931
November	174,021	37,281	38,331	11,950	9,357	16,216	3,293	3,546	1,990	2,799
December	227,197	59,410	19,758	9,511	11,863	12,701	3,370	3,095	1,857	3,174
Annual Total	1,577,231	1,558,723	517,478	290,529	107,669	75,971	120,065	38,721	30,307	27,228
	2015	2016	2017	2018	2019	2020	2021	2022		
January	3,027	1,522	783	514	441	835	1,523	1,309		
February	1,535	1,389	786	741	446	460	2,236	1,460		
March	1,493	1,671	777	564	463	1,372	1,570	1,683		
April	1,280	2,447	359	655	234	289	944			
May	1,662	1,190	705	453	430	487	1,206			
June	1,688	1,883	493	639	375	752	1,480			
July	2,255	2,796	539	430	760	1,767	605			
August	1,728	2,441	561	525	792	2,779	566			
September	1,339	1,463	672	475	1,450	1,611	689			
October	1,686	869	249	432	777	1,047	736			
November	920	901	295	443	382	1,336	898			
December	1,313	800	866	484	505	1,811	875			
Annual Total	19,925	19,373	7,084	6,353	7,056	14,547	13,329	4,452		

Notes: Monthly total.  
Source: Tokyo Commodity Exchange.  
April 6, 2022

## Tocom Open Interest

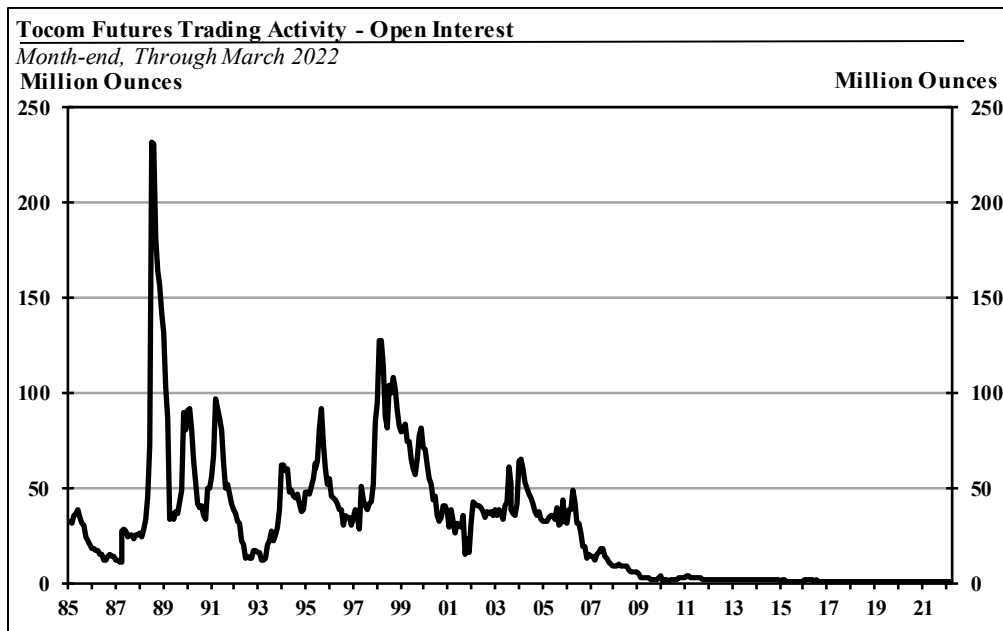
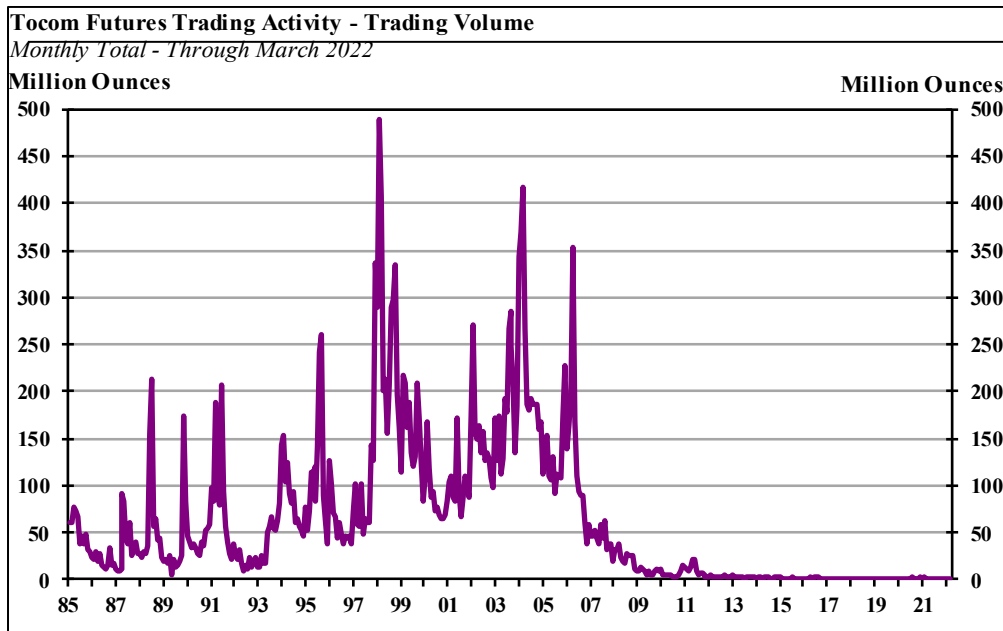
Thousand Troy Ounces

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
January	32,081	18,424	12,141	25,931	131,536	90,795	55,759	36,758	15,729	62,094
February	31,384	16,535	10,851	23,938	103,423	92,016	67,521	32,821	11,407	59,259
March	35,193	17,039	10,489	28,131	86,682	80,726	97,007	31,148	11,920	60,269
April	35,981	14,962	26,807	33,494	33,625	63,777	91,167	22,321	12,840	47,360
May	38,086	14,879	28,590	45,741	36,144	53,238	86,944	20,200	19,850	48,373
June	34,687	12,147	26,846	72,179	33,433	42,022	80,315	12,931	22,225	45,259
July	31,613	12,156	23,987	232,124	37,394	39,830	63,273	13,960	26,752	44,163
August	30,309	14,148	24,707	230,850	36,279	40,426	50,039	12,553	21,648	46,568
September	24,405	14,980	25,512	181,423	42,976	35,808	51,783	12,839	24,739	41,173
October	21,588	14,268	23,596	164,789	48,627	33,393	46,960	17,226	29,524	37,475
November	19,989	14,148	25,181	156,212	90,100	49,366	41,240	17,050	38,215	38,259
December	17,612	12,154	24,757	141,542	80,200	49,750	38,012	15,718	62,113	47,813
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
January	48,006	54,321	34,438	94,969	78,900	69,692	29,433	42,568	35,238	63,732
February	46,867	45,997	38,046	127,473	80,624	62,418	38,139	41,937	38,101	64,787
March	50,513	44,758	34,061	127,245	83,402	54,773	32,331	40,629	36,361	60,385
April	55,028	43,178	28,225	113,732	73,931	52,115	26,337	40,572	33,446	52,937
May	63,228	41,934	50,433	88,011	73,954	43,517	31,289	39,445	40,107	49,794
June	59,931	38,491	43,573	81,635	64,640	45,169	29,782	37,337	42,105	46,718
July	63,852	38,190	40,566	104,054	60,236	35,464	29,204	34,518	60,875	45,066
August	81,741	30,010	38,523	100,331	56,934	32,246	34,908	37,680	51,756	41,885
September	91,636	34,937	41,771	108,414	64,735	34,835	14,546	36,139	38,641	37,848
October	72,928	34,628	42,927	102,206	77,536	40,080	23,546	37,065	36,474	34,937
November	60,329	34,289	51,725	90,597	81,026	40,874	16,228	35,820	35,604	37,827
December	51,925	30,419	84,959	82,652	71,257	37,728	30,795	38,143	41,962	33,187
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
January	32,693	31,092	13,915	8,355	4,916	1,092	3,501	1,897	1,309	1,416
February	32,333	38,490	14,152	8,820	3,145	1,228	3,330	1,871	1,162	1,198
March	32,634	38,405	12,351	9,752	2,452	1,179	2,678	1,772	1,233	1,268
April	33,999	48,797	14,545	8,812	2,274	978	2,341	1,462	1,147	1,558
May	35,487	42,601	15,807	8,662	2,329	1,214	3,067	1,524	1,299	1,654
June	35,311	31,609	18,020	9,207	2,313	1,388	2,759	1,421	1,355	1,262
July	33,351	31,283	17,736	8,863	2,060	1,429	2,448	1,523	1,431	1,374
August	39,221	25,764	13,453	6,784	1,212	1,617	2,278	1,479	1,202	1,317
September	30,570	19,250	12,545	6,066	1,706	2,285	1,979	1,535	1,201	1,502
October	31,727	18,770	10,724	5,722	2,080	2,661	1,928	1,522	1,208	1,532
November	43,454	12,783	9,963	5,608	2,283	2,994	1,862	1,406	1,411	1,593
December	32,595	14,475	9,203	5,270	3,188	3,142	1,926	1,207	1,381	1,528
	2015	2016	2017	2018	2019	2020	2021	2022		
January	1,091	1,167	863	434	367	364	368	553		
February	1,117	1,129	613	654	247	349	600	530		
March	1,118	1,129	635	706	342	389	657	577		
April	1,101	1,107	456	560	295	364	566			
May	1,031	1,168	559	496	435	341	523			
June	932	1,022	517	369	395	314	455			
July	866	1,258	620	482	269	377	506			
August	921	1,004	531	491	321	328	469			
September	954	1,024	536	527	381	323	539			
October	936	868	504	490	368	333	498			
November	1,030	831	519	511	400	352	456			
December	1,041	918	451	429	342	498	600			

Note: Month-end data

Source: Tokyo Commodity Exchange.

April 6, 2022





## Multi Commodity Exchange Silver Open Interest

Thousand Ounces

	2003	2004	2005	2006	2007	2008	2009	2010
January	-	46	10,309	25,156	11,103	16,501	17,413	20,660
February	-	145	6,576	17,020	8,302	15,749	9,164	15,591
March	-	401	8,023	14,515	12,783	7,680	9,266	16,246
April	-	344	12,401	8,659	13,553	6,520	8,326	22,666
May	-	533	17,026	8,589	17,106	6,302	20,158	18,641
June	-	649	10,151	5,231	17,817	5,398	20,231	21,833
July	-	2,143	10,000	6,399	15,236	7,762	12,646	25,313
August	-	2,033	19,575	8,219	14,509	12,881	17,365	45,760
September	-	4,572	21,320	15,222	12,940	19,544	18,401	46,036
October	-	5,199	21,941	9,876	13,202	24,052	18,401	37,926
November	8	5,296	25,706	10,161	12,942	16,814	17,003	26,746
December	14	9,821	19,602	17,233	11,297	12,837	22,549	23,656
	2011	2012	2013	2014	2015	2016	2017	2018
January	37,781	21,420	32,020	22,937	13,912	15,480	16,621	20,699
February	25,563	19,143	30,857	14,926	14,733	14,404	14,298	24,375
March	22,575	22,988	28,817	23,939	10,637	12,810	13,746	27,454
April	26,880	26,304	24,730	21,958	14,478	17,008	19,253	20,465
May	19,668	24,821	18,561	25,297	12,930	16,240	21,061	19,239
June	22,770	34,716	19,343	13,824	24,348	21,303	21,921	20,855
July	24,393	30,002	14,579	12,327	22,568	14,032	22,453	30,865
August	16,655	31,507	7,348	15,255	16,511	15,424	15,346	33,619
September	24,249	26,148	6,789	26,785	16,578	11,309	19,317	26,646
October	19,928	29,854	10,148	30,002	16,887	23,351	21,986	35,988
November	17,709	24,214	14,003	19,523	21,227	17,544	23,321	35,023
December	26,953	33,662	14,403	15,161	23,814	17,610	22,253	21,930
	2019	2020	2021	2022				
January	20,112	10,172	18,024	23,337				
February	19,110	13,549	18,601	10,778				
March	25,790	6,066	16,342	10,605				
April	25,615	6,970	11,760					
May	36,706	15,201	15,106					
June	23,592	15,195	14,787					
July	20,512	15,705	15,329					
August	16,413	21,091	17,790					
September	14,742	18,447	23,142					
October	13,206	18,508	19,732					
November	12,544	17,798	17,877					
December	12,457	17,232	17,704					

Notes: Open interest is month-end. Trading volume is monthly total.

Source: Multi Commodity Exchange of India.

## Multi Commodity Exchange Silver Trading Volume

Thousand Ounces

	2003	2004	2005	2006	2007	2008	2009	2010
January	-	523	271,814	837,462	937,610	1,101,315	1,179,112	1,029,145
February	-	2,001	385,303	458,768	871,683	1,040,379	1,159,141	1,539,790
March	-	5,294	431,363	817,263	976,270	1,183,279	1,126,540	1,320,086
April	-	14,212	417,323	1,195,571	725,486	909,127	848,131	1,010,348
May	-	13,169	408,402	938,309	677,561	759,235	947,636	1,401,852
June	-	30,709	451,328	820,512	724,762	880,879	1,311,398	1,489,429
July	-	63,895	324,738	659,254	644,731	1,077,776	841,178	1,396,682
August	-	124,859	408,049	809,700	833,252	1,116,783	1,037,505	1,470,508
September	-	178,684	536,125	855,400	764,512	1,466,777	1,340,760	1,504,666
October	-	297,014	674,890	768,593	921,579	1,226,704	1,253,394	2,143,848
November	40	302,863	636,050	729,435	1,105,288	948,701	1,462,441	2,592,374
December	78	342,869	827,266	750,762	683,672	948,438	1,363,907	1,983,700
Total	118	1,376,092	5,772,649	9,641,029	9,866,406	12,659,393	13,871,143	18,882,429

	2011	2012	2013	2014	2015	2016	2017	2018
January	2,239,400	2,057,849	1,778,769	756,470	726,136	560,870	389,846	378,534
February	2,257,295	2,104,894	1,798,609	666,510	690,523	570,568	320,805	424,408
March	2,668,192	1,985,710	1,432,883	661,299	584,918	533,589	324,496	374,041
April	3,192,863	3,414,275	2,150,144	537,172	583,224	562,283	326,186	425,671
May	3,019,347	1,845,047	1,729,678	566,482	592,699	604,765	426,413	374,005
June	2,358,247	1,772,096	1,598,754	598,648	659,992	654,178	466,003	451,679
July	3,027,045	1,371,534	874,964	497,470	672,512	757,672	526,135	364,315
August	3,208,490	1,547,396	900,163	407,234	706,077	628,557	567,863	493,594
September	2,672,179	1,802,187	615,804	555,146	561,695	557,198	451,650	466,411
October	2,147,971	1,390,636	615,096	574,892	639,419	505,330	321,921	487,006
November	2,282,120	1,654,977	479,812	761,925	453,479	514,175	452,035	451,048
December	2,017,171	1,484,816	621,170	737,191	529,186	396,973	318,948	393,378
Total	31,090,319	22,431,416	14,595,845	7,320,440	7,399,859	6,846,158	4,892,301	5,084,091

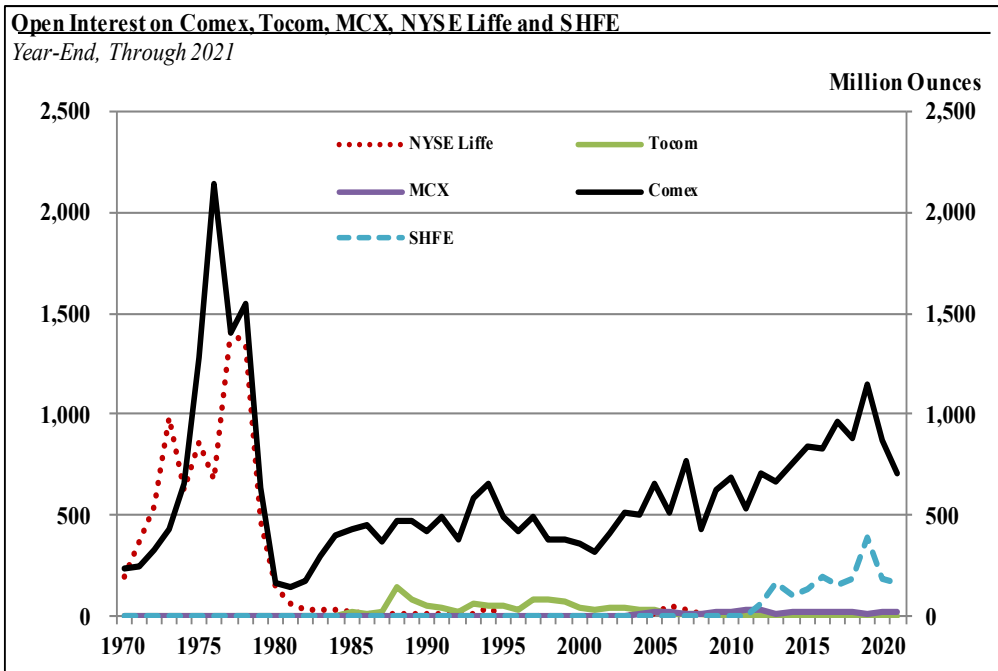
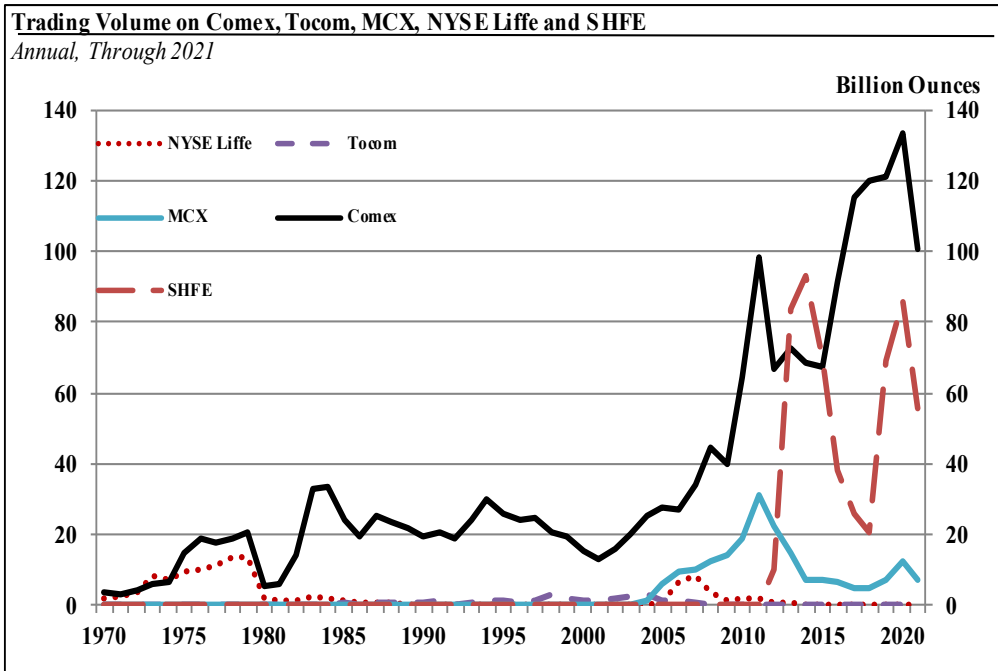
  

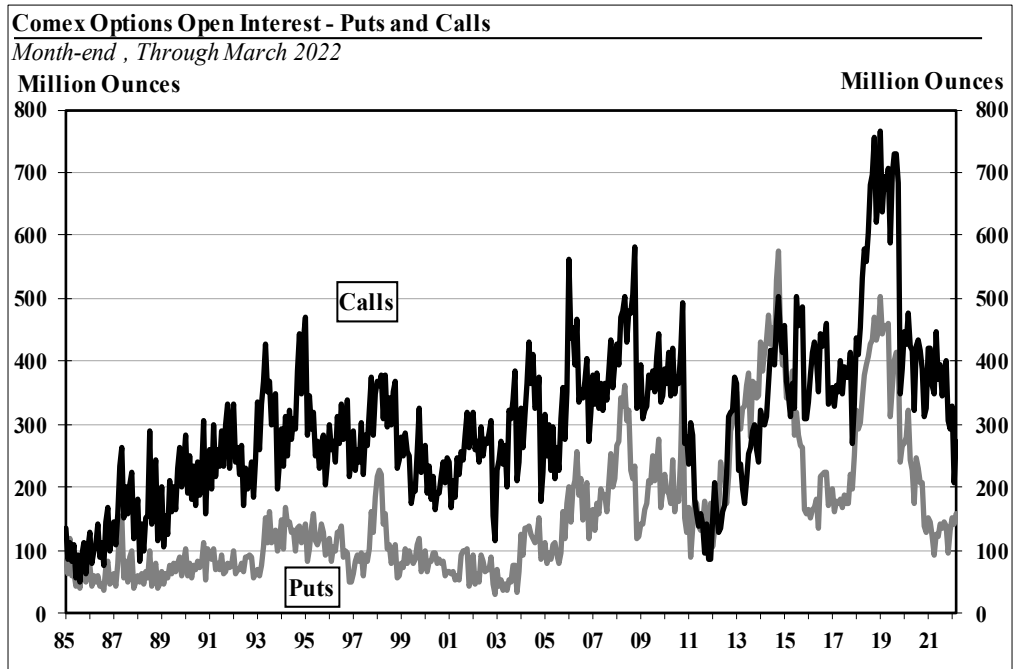
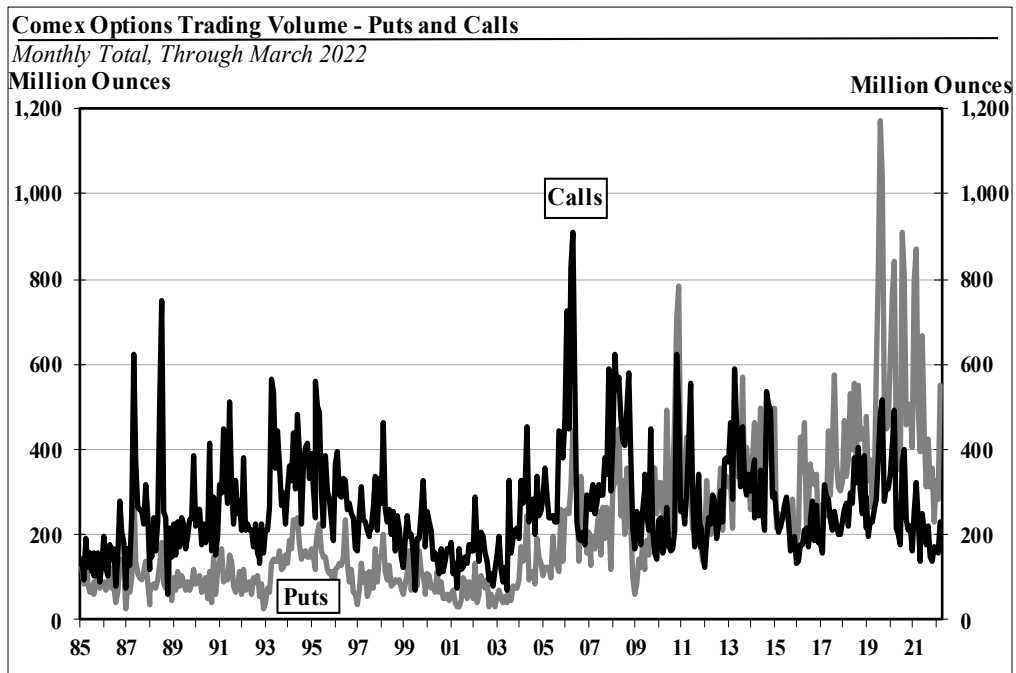
	2019	2020	2021	2022
January	420,713	843,180	942,041	514,478
February	385,082	658,133	865,119	534,842
March	387,351	911,690	616,678	557,983
April	464,403	373,346	503,590	
May	477,706	811,883	712,962	
June	540,294	1,177,568	661,481	
July	693,708	1,829,084	477,616	
August	800,869	1,703,733	513,245	
September	825,530	1,095,576	528,458	
October	688,874	974,774	540,772	
November	648,004	950,504	555,299	
December	610,690	1,027,916	486,014	
Total	6,943,225	12,357,388	7,403,273	1,607,302

Notes: Open interest is month-end. Trading volume is monthly total.

Source: Multi Commodity Exchange of India.

April 1, 2022





## Annual Silver Options Activity

Troy Ounces

	Trading Volume		
	Puts	Calls	Total
1985	1,095,955,000	1,563,237,744	2,659,192,744
1986	1,018,975,000	1,878,150,000	2,897,125,000
1987	1,373,015,000	3,217,305,000	4,590,320,000
1988	1,211,685,000	3,148,845,000	4,360,530,000
1989	1,070,900,000	2,692,325,000	3,763,225,000
1990	1,040,990,000	2,696,505,000	3,737,495,000
1991	1,292,890,000	3,802,575,000	5,095,465,000
1992	930,160,000	2,452,555,000	3,382,715,000
1993	1,424,615,000	4,048,895,000	5,473,510,000
1994	2,145,140,000	4,438,110,000	6,583,250,000
1995	1,722,725,000	4,009,840,000	5,732,565,000
1996	1,385,065,000	3,361,130,000	4,746,195,000
1997	1,216,195,000	2,998,420,000	4,214,615,000
1998	1,252,370,000	2,837,895,000	4,090,265,000
1999	1,280,270,000	2,407,960,000	3,688,230,000
2000	900,820,000	1,994,605,000	2,895,425,000
2001	735,975,000	1,680,955,000	2,416,930,000
2002	825,100,000	1,851,020,000	2,676,120,000
2003	753,045,000	2,047,045,000	2,800,090,000
2004	1,678,040,000	3,433,700,000	5,111,740,000
2005	1,797,130,000	3,861,815,000	5,658,945,000
2006	3,231,580,000	5,003,215,000	8,234,795,000
2007	2,378,655,000	3,908,870,000	6,287,525,000
2008	3,214,560,000	5,289,850,000	8,504,410,000
2009	2,352,685,000	3,000,485,000	5,353,170,000
2010	4,782,565,000	3,154,220,000	7,936,785,000
2011	2,983,725,000	3,383,040,000	6,366,765,000
2012	3,136,380,000	3,065,085,000	6,201,465,000
2013	4,207,400,000	4,611,955,000	8,819,355,000
2014	4,577,130,000	4,102,740,000	8,679,870,000
2015	3,013,295,000	2,673,640,000	5,686,935,000
2016	3,880,860,000	2,459,920,000	6,340,780,000
2017	4,075,835,000	2,780,010,000	6,855,845,000
2018	5,245,005,000	3,590,925,000	8,835,930,000
2019	6,791,985,000	3,766,260,000	10,558,245,000
2020	7,083,740,000	3,447,600,000	10,531,340,000
2021	5,867,270,000	2,455,265,000	8,322,535,000

Sources: New York Commodity Exchange.

## Annual Silver Options Activity

Troy Ounces

	Open Interest		Total
	Puts	Calls	
1985	72,470,000	103,565,000	176,035,000
1986	50,745,000	121,025,000	171,770,000
1987	48,825,000	143,570,000	192,395,000
1988	47,830,000	145,455,000	193,285,000
1989	81,520,000	235,390,000	316,910,000
1990	100,935,000	235,110,000	336,045,000
1991	74,975,000	290,255,000	365,230,000
1992	62,745,000	244,670,000	307,415,000
1993	116,695,000	239,840,000	356,535,000
1994	126,165,000	433,525,000	559,690,000
1995	99,035,000	240,585,000	339,620,000
1996	50,115,000	246,480,000	296,595,000
1997	184,180,000	347,110,000	531,290,000
1998	61,145,000	243,145,000	304,290,000
1999	78,820,000	242,225,000	321,045,000
2000	64,570,000	247,515,000	312,085,000
2001	57,815,000	287,930,000	345,745,000
2002	31,180,000	116,650,000	147,830,000
2003	65,580,000	238,745,000	304,325,000
2004	93,095,000	225,090,000	318,185,000
2005	174,560,000	353,105,000	527,665,000
2006	146,765,000	319,030,000	465,795,000
2007	213,515,000	398,410,000	611,925,000
2008	122,720,000	333,465,000	456,185,000
2009	192,915,000	346,380,000	539,295,000
2010	127,425,000	280,805,000	408,230,000
2011	173,520,000	86,360,000	259,880,000
2012	334,045,000	376,355,000	710,400,000
2013	346,085,000	240,550,000	586,635,000
2014	394,605,000	414,790,000	809,395,000
2015	158,695,000	309,055,000	467,750,000
2016	186,795,000	337,555,000	524,350,000
2017	250,870,000	332,610,000	583,480,000
2018	446,345,000	659,380,000	1,105,725,000
2019	265,450,000	387,255,000	652,705,000
2020	129,130,000	324,490,000	453,620,000
2021	132,210,000	292,690,000	424,900,000

## Comex Options Trading Volume

Thousand Troy Ounces

	1985	1986	1987	1988	1989	1990	1991	1992
January	266,155	283,135	243,530	260,255	326,100	351,820	455,335	496,310
February	179,250	195,970	190,630	225,560	221,965	360,135	467,925	283,225
March	362,940	183,260	347,870	321,835	345,745	243,400	538,570	297,650
April	206,795	299,430	945,225	232,870	252,785	260,485	440,300	299,875
May	216,150	215,220	506,820	324,425	344,900	302,005	370,280	271,110
June	182,095	247,170	372,460	645,510	312,370	279,455	664,690	271,725
July	244,780	120,225	354,450	933,410	236,075	247,270	456,225	311,570
August	161,630	213,200	348,845	338,190	283,860	527,835	309,320	260,655
September	187,605	423,115	339,310	313,690	303,620	206,060	390,850	207,155
October	261,770	314,195	455,155	263,655	327,215	434,325	332,210	186,370
November	163,820	302,435	333,900	305,765	502,655	213,035	395,445	310,170
December	223,585	99,770	152,125	195,365	305,935	311,670	274,315	186,900
Annual Total	2,656,575	2,897,125	4,590,320	4,360,530	3,763,225	3,737,495	5,095,465	3,382,715
	1993	1994	1995	1996	1997	1998	1999	2000
January	252,505	548,670	452,490	483,725	317,940	420,735	270,725	366,635
February	286,850	492,030	358,520	517,680	447,155	661,555	358,085	330,765
March	327,035	674,380	725,320	426,195	323,710	371,550	360,525	283,655
April	696,420	526,010	710,335	417,865	341,010	323,130	269,575	221,300
May	677,550	721,560	715,680	479,015	269,430	383,405	261,070	224,230
June	492,825	563,825	458,570	566,080	268,035	284,010	231,560	249,495
July	583,330	369,530	366,635	393,025	320,655	339,270	272,945	174,000
August	528,445	520,840	533,140	364,485	309,160	260,295	353,350	254,810
September	390,540	565,350	421,810	365,725	337,060	333,590	366,300	161,705
October	420,030	561,175	390,415	309,060	501,140	310,510	430,410	191,215
November	378,770	481,075	349,335	226,845	301,360	218,150	281,820	231,040
December	439,210	558,805	250,315	196,495	477,960	184,065	231,865	206,575
Annual Total	5,473,510	6,583,250	5,732,565	4,746,195	4,214,615	4,090,265	3,688,230	2,895,425
	2001	2002	2003	2004	2005	2006	2007	2008
January	242,055	421,655	203,425	498,645	393,505	986,950	390,680	721,630
February	176,300	221,855	268,410	414,935	479,425	693,410	462,540	944,405
March	175,735	199,715	170,395	455,450	415,890	1,140,020	513,010	941,980
April	103,170	219,640	132,650	698,660	361,955	1,349,000	418,440	1,019,520
May	198,700	309,380	178,030	326,550	339,990	866,375	485,230	721,420
June	161,660	280,275	109,695	366,240	440,205	540,845	569,640	745,150
July	217,925	233,240	399,880	401,150	370,275	329,370	446,460	608,260
August	236,630	228,620	205,265	356,115	356,755	523,235	560,810	851,285
September	182,685	122,495	271,490	287,275	558,540	465,955	571,765	801,980
October	265,120	171,205	286,150	526,985	696,855	412,740	608,090	610,050
November	243,560	120,210	292,015	392,650	519,975	451,690	841,860	311,720
December	213,390	147,830	282,685	387,085	725,575	475,205	419,000	227,010
Annual Total	2,416,930	2,676,120	2,800,090	5,111,740	5,658,945	8,234,795	6,287,525	8,504,410

Source: Commodity Exchange.  
April 6, 2022

## Comex Options Trading Volume

Thousand Troy Ounces

	2009	2010	2011	2012	2013	2014	2015	2016
January	339,560	556,360	541,575	299,770	684,600	720,700	790,965	349,185
February	388,145	560,590	562,350	519,490	781,285	839,415	464,220	607,505
March	297,765	419,515	726,905	460,490	500,975	560,720	453,100	523,055
April	444,910	390,480	741,310	424,040	1,039,250	619,220	434,960	676,875
May	427,365	754,820	863,015	503,105	797,290	596,560	479,965	439,470
June	520,465	482,895	514,780	560,425	762,750	847,580	523,515	442,260
July	435,620	366,400	369,255	402,610	640,030	556,880	540,530	592,120
August	365,355	497,230	466,015	503,400	1,025,035	547,880	463,430	591,065
September	681,210	686,815	545,585	661,260	644,685	919,075	360,710	619,765
October	550,060	1,329,385	336,495	439,960	700,300	892,805	470,260	501,090
November	513,230	1,276,725	402,685	707,465	680,110	984,305	392,425	610,145
December	389,485	615,570	296,795	719,450	563,045	594,730	312,855	388,245
Annual Total	5,353,170	7,936,785	6,366,765	6,201,465	8,819,355	8,679,870	5,686,935	6,340,780

	2017	2018	2019	2020	2021	2022
January	451,080	728,490	763,505	956,405	1,054,210	496,710
February	374,505	612,920	519,695	1,171,260	1,192,015	442,560
March	626,550	597,525	609,960	1,337,000	728,440	776,600
April	530,675	830,330	495,105	637,050	533,405	
May	724,830	671,835	574,520	742,340	758,890	
June	527,625	936,920	871,005	528,675	915,235	
July	626,070	696,905	1,200,585	1,284,235	649,395	
August	829,825	954,635	1,650,275	1,210,085	488,455	
September	600,065	726,945	1,552,160	694,485	643,040	
October	513,630	698,740	797,790	674,430	462,825	
November	501,755	824,930	760,350	726,060	493,430	
December	549,235	555,755	763,295	569,315	403,195	
Annual Total	6,855,845	8,835,930	10,558,245	10,531,340	8,322,535	1,715,870



## Comex Options Open Interest

Thousand Troy Ounces

	1985	1986	1987	1988	1989	1990	1991	1992
January	219,055	204,515	207,985	242,625	266,925	385,315	358,125	431,075
February	148,085	120,100	151,910	131,335	149,570	252,850	283,280	304,560
March	231,150	156,565	238,970	204,905	219,330	328,815	400,995	332,460
April	142,695	156,265	377,555	144,165	181,185	239,710	285,830	290,010
May	174,595	200,845	418,485	216,535	289,250	310,815	337,185	346,090
June	99,180	132,485	210,490	211,685	226,145	242,260	305,360	235,335
July	157,860	159,270	283,145	388,425	280,305	320,725	379,515	320,485
August	91,515	112,365	207,630	186,240	229,415	261,730	294,955	287,775
September	161,095	215,180	292,925	273,145	311,650	303,570	365,130	306,585
October	206,415	252,110	320,620	319,745	353,130	419,310	411,695	331,025
November	113,150	143,105	160,320	155,965	259,805	212,025	304,455	241,035
December	176,035	171,770	192,395	193,285	316,910	336,045	365,230	307,415
	1993	1994	1995	1996	1997	1998	1999	2000
January	406,805	443,185	610,590	419,115	353,730	584,920	361,045	367,085
February	320,210	335,945	365,810	342,685	307,710	587,555	322,380	256,900
March	407,475	479,455	446,475	378,225	352,385	599,130	389,170	315,225
April	475,835	390,795	426,695	339,025	325,560	449,470	337,735	262,440
May	578,575	466,270	477,200	440,945	400,040	534,975	351,355	314,200
June	463,325	406,460	366,575	397,165	282,000	398,915	260,380	262,060
July	528,930	442,100	381,215	469,815	373,810	449,195	272,945	271,260
August	409,290	392,015	349,310	362,860	348,095	378,335	279,640	277,910
September	453,095	517,915	410,215	389,480	425,600	445,540	365,650	297,870
October	479,230	582,300	412,080	432,590	535,050	478,860	442,525	322,880
November	294,735	459,940	296,680	268,005	410,865	286,200	289,510	269,730
December	356,535	559,690	339,620	296,595	531,290	304,290	321,045	312,085
	2001	2002	2003	2004	2005	2006	2007	2008
January	304,155	410,015	297,640	449,970	427,405	763,120	541,740	694,305
February	231,015	305,145	287,330	356,735	329,865	583,560	466,465	668,830
March	277,320	336,555	323,630	451,915	396,300	652,210	556,805	811,665
April	237,395	289,480	274,100	499,605	312,320	606,220	485,560	808,105
May	306,720	387,385	311,185	567,325	402,720	723,110	562,655	865,570
June	274,070	331,735	237,585	492,255	326,880	523,790	511,195	735,635
July	349,560	344,750	376,705	528,925	355,515	569,530	553,330	801,385
August	343,485	341,560	357,770	437,040	306,470	492,410	500,225	704,060
September	384,070	355,545	415,155	454,810	403,430	553,950	591,840	722,975
October	420,300	394,565	462,220	525,675	521,465	611,550	689,355	813,530
November	307,070	202,600	242,925	263,175	395,530	389,385	558,365	442,020
December	345,745	147,830	304,325	318,185	527,665	465,795	611,925	456,185

Notes: Open interest is month-end.

Source: Commodity Exchange.

April 7, 2022

**Comex Options Open Interest**

Thousand Troy Ounces

	2009	2010	2011	2012	2013	2014	2015	2016
January	535,690	606,020	406,820	252,715	715,245	750,795	867,835	501,515
February	451,380	559,025	391,800	337,600	536,475	690,915	713,210	529,595
March	487,955	605,940	417,050	330,615	531,820	713,420	708,560	576,490
April	504,275	521,755	359,295	288,255	523,715	743,985	665,425	599,895
May	589,075	662,780	330,565	376,405	503,295	835,440	746,705	586,370
June	565,110	510,870	278,670	373,540	573,005	844,135	607,485	487,700
July	632,795	567,050	287,920	396,405	634,885	871,400	820,730	659,605
August	565,355	544,800	283,500	392,925	542,425	815,565	739,605	644,215
September	645,950	666,365	274,115	527,880	658,605	994,400	729,895	659,585
October	720,600	874,550	290,465	608,965	662,970	1,077,590	750,775	685,745
November	503,525	420,965	200,750	622,365	603,455	880,540	472,340	500,970
December	539,295	408,230	259,880	710,400	586,635	809,395	467,750	524,350
	2017	2018	2019	2020	2021	2022		
January	555,095	758,540	1,266,245	715,830	574,335	481,040		
February	489,660	703,990	1,082,955	706,855	564,850	351,875		
March	541,185	756,510	1,153,120	797,865	481,675	432,305		
April	526,455	875,460	1,126,260	667,860	440,955			
May	581,970	957,195	1,164,180	643,645	575,085			
June	514,955	953,120	903,715	497,770	494,695			
July	577,485	1,012,720	1,056,510	670,925	536,740			
August	549,800	1,106,775	1,132,930	663,130	479,245			
September	548,905	1,130,650	1,143,635	624,400	520,740			
October	634,760	1,227,275	1,097,755	596,075	539,830			
November	467,820	1,052,600	586,755	449,010	400,490			
December	583,480	1,105,725	652,705	453,620	424,900			

## SHFE Silver Futures Trading Volume

Thousand Troy Ounces

	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	830,732	12,941,722	10,185,541	2,424,371	2,348,622	1,777,479	2,791,615	3,201,932
February	-	508,135	10,614,750	5,841,488	1,633,873	2,239,907	1,493,364	1,441,483	1,740,298
March	-	782,874	11,627,087	8,563,665	3,873,600	2,313,762	2,223,931	2,192,596	3,256,125
April	-	1,505,656	5,430,306	6,430,112	4,292,430	1,943,625	1,788,238	1,570,020	2,198,578
May	1,723,427	2,880,185	3,893,906	6,064,914	3,045,167	1,912,394	1,687,454	1,628,914	5,236,290
June	1,277,035	1,696,867	5,163,144	4,703,014	2,630,187	1,954,316	1,934,792	2,432,790	5,617,723
July	746,234	8,974,535	5,232,757	6,088,910	5,935,216	2,756,256	1,443,270	5,727,044	9,213,729
August	834,505	19,585,710	3,433,531	8,352,769	1,055,642	3,310,937	1,807,371	11,900,124	#####
September	1,619,028	15,604,241	4,415,422	4,356,566	3,016,383	2,018,196	1,556,237	13,626,860	#####
October	1,125,368	9,607,308	4,607,378	2,784,118	2,079,831	1,227,982	1,301,023	8,007,340	7,099,526
November	1,392,174	8,213,988	11,347,493	3,217,963	4,492,228	1,837,359	1,685,649	8,971,358	7,718,164
December	1,537,491	13,348,314	14,604,090	3,235,828	3,915,510	1,698,005	1,677,001	8,588,206	9,861,760
Total	10,255,262	83,538,544	93,311,586	69,824,887	38,394,438	25,561,361	20,375,810	68,878,350	86,139,587

	2021	2022
January	7,647,524	3,015,975
February	5,966,331	2,350,886
March	6,698,944	4,169,217
April	4,571,562	
May	5,429,261	
June	3,905,222	
July	3,642,532	
August	3,612,004	
September	3,252,982	
October	2,990,165	
November	4,201,149	
December	3,893,829	
Total	55,811,506	9,536,078

Notes: Monthly total volume. Open Interest is month-end.

Data is calculated on one side, instead of both buy and sell sides as reported by SHFE.

Source: Shanghai Futures Exchange

## SHFE Silver Futures Open Interest

Thousand Troy Ounces

	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	-	50,708	116,044	125,425	123,726	163,886	178,181	189,858	173,149
February	-	63,509	136,323	96,580	144,020	193,407	215,933	197,693	165,578
March	-	63,044	120,612	133,114	163,400	152,637	230,072	205,462	165,883
April	-	50,478	122,027	155,267	215,694	142,190	196,319	203,925	133,734
May	26,724	59,610	129,057	110,927	181,301	134,342	193,150	179,859	162,357
June	28,068	68,149	119,413	149,714	211,860	171,184	163,560	209,558	144,620
July	21,715	84,852	113,667	136,675	179,412	149,911	177,238	314,830	176,376
August	43,659	122,635	136,967	103,898	156,385	167,036	207,721	418,072	187,542
September	53,252	84,081	156,961	92,100	136,398	143,284	186,921	294,526	191,500
October	50,997	105,147	192,560	113,263	174,863	142,569	176,830	359,015	192,575
November	64,234	143,475	144,149	108,209	202,313	150,290	154,731	290,539	176,602
December	58,932	161,601	99,736	132,882	198,014	155,143	180,021	385,441	186,475

	2021	2022
January	164,417	154,628
February	155,523	156,774
March	149,289	157,443
April	133,870	
May	136,735	
June	144,548	
July	134,261	
August	142,664	
September	150,141	
October	155,711	
November	169,420	
December	166,766	

Notes: Monthly total volume. Open Interest is month-end.

Data is calculated on one side, instead of both buy and sell sides as reported by SHFE.

Source: Shanghai Futures Exchange



Advancing our flagship Cerro Las Minitas (CLM) Ag-Pb-Zn Project in Durango, Mexico  
 ‘One of the worlds largest undeveloped Ag-Zn deposits’

Category	Tonnes	Silver		Gold		Zinc		Lead		Copper		Silver Equivalent	
		g/t	M oz	g/t	000 oz	%	M lbs	%	M lbs	%	M lbs	g/t	M oz
Indicated	12.3M	106	42.1	0.07	28	3.3	895	1.3	358	0.16	44	347	137
Inferred	19.6M	117	73.6	0.12	78	2.3	1,009	1.2	500	0.23	98	314	198

- **100% OWNERSHIP**– Following the highly accretive acquisition of Electrum’s 60% stake
- **MULTI-COMMODITY EXPOSURE-NI 43-101 resource**; 116Moz Ag, 1.9 Blbs Zn, 0.9Blbs Pb, 142Mlbs Cu
- **TARGETING PEA BY Q2 2022**- Excellent metallurgical recoveries/Engineering studies underway
- **DISCOVERY POTENTIAL**- 10,000 m drill program at CLM (4 targets) underway
- **COMPELLING VALUATION**- Trading at a 67% discount to primary silver developers on an EV/oz basis
- **SUCCESSFUL MINE EXPLORERS** - Grown AgEq resources by ~200% since initial 2016 resource estimate

↑33% in tonnage and ↑26% in silver eq. resources in October 2021 NI 43-101 Resource Update



**Oro Cu-Mo-Au Project, New Mexico, USA:**

- Cu-Mo-Au Porphyry Target – multiple drill-ready targets within a six sq.km alteration footprint
- Z-TEM survey over entire property completed and evaluated, additional claim stake
- Initial drilling at Oro Project (~4,000 m)





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# Prices



**Prices**

Silver prices averaged \$25.17 in 2021, up 21.7% from \$20.68 averaged in 2020, basis the nearby active Comex contract. Last year’s annual average silver price was the highest since 2012, when silver averaged \$31.17. In addition, last year’s annual average silver price was the third highest on record, behind both the 2012 average and the \$35.29 record annual average price reached in 2011.

Year-end to year-end, silver prices fell 11.6% to close 2021 at \$23.352, down from \$26.412 at the end of 2020. Last year’s silver performance measured year-over-year was the worst since 2014, when silver prices fell 22.5% over the course of the year. In 2020 silver prices gained 47.4% during the year, which was the best price gain since 2010, when silver was up 83.7%.

The price of silver moved between \$21.41 and \$30.35 in 2021, an \$8.94 band, the intraday low and high for the year. This was much narrower than in 2020, when silver traded between \$11.64 and \$29.915, a \$20.688 band.

Volatility in the silver price eased last year, to 30.6%, after having surged in 2020 to 45.6% amid the Covid pandemic. This said, price volatility remained above the levels from 2014 through 2019, when annual volatility ranged from 17.2% to 26.9%

So far in 2022 silver prices have moved between \$21.945 and \$24.495, a \$5.55 band. Price volatility has appeared to ease from previous years’ levels, but could easily spike once more.



*The Year In Review*

Silver began 2021 trading above \$26. Prices reached \$28.105 before retreating, dropping to the monthly low of \$24.365 on 8 January before recovering.

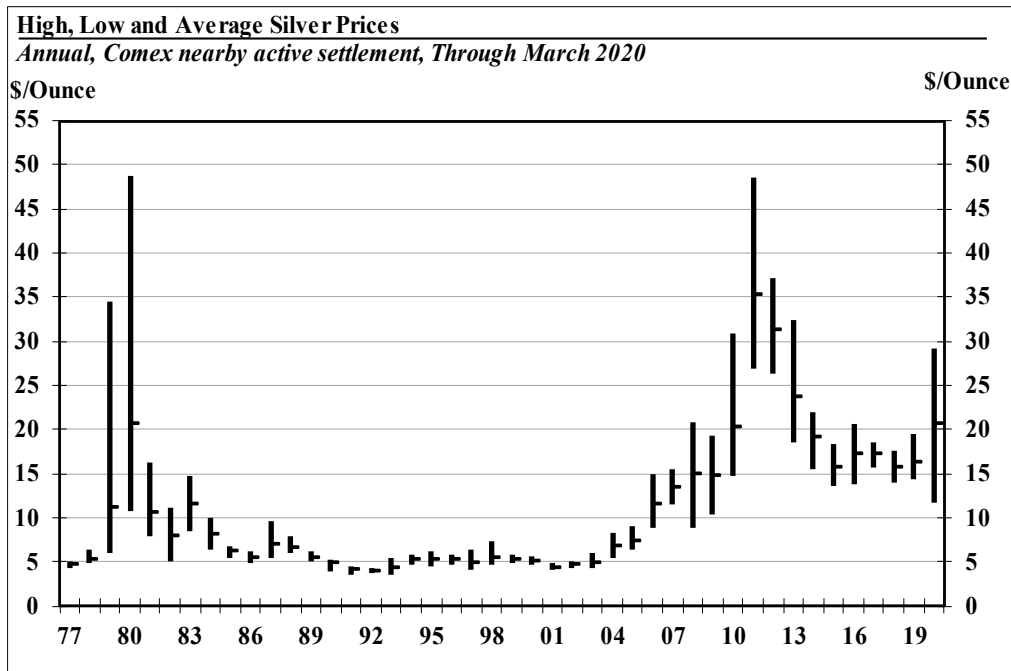
Price moved on either side \$25 over the next couple of weeks, climbing higher by month's end and spiking to an intraday high of \$30.35 on 1 February before retreating. This would be the high price for the year. Silver would drop sharply the following day, to trade mostly between \$27 and \$28 for the rest of the month. During the final month of the first quarter prices fell to close at March \$24.532.

In April prices began to trend higher, continuing to climb through May. Silver rose to firmly move above \$26 by early May. By the middle of May silver would top \$27 and traded on either side

of \$28 into the first half of June. In the middle of June, however, prices would drop toward \$26, ending the month at \$26.165

After having traded mostly between \$24 and \$29 in the first half of 2021, silver would move to trade mostly between \$22 and \$26 in the second half of the year. Silver prices trended lower from the start of July through the middle of August. Silver recovered by the end of August, trading around \$24 into September. Prices fell in the middle of September and by month's end had touched \$21.41, which was the low for they year, before recovering to close at \$22.047 on 30 September.

From October through the middle of November silver prices were in an uptrend, reaching \$25.49 on 16 November before falling back to close the month at \$22.765. Silver prices would move side-



ways during most of December, except on 15 December when prices fell to test 21.41 again before recovering. Prices inched higher by the end of the year, closing at \$23.352.

During the first quarter of 2022 silver prices moved between \$21.945 and \$27.495. Silver prices moved higher overall from January into early March, spiking higher at the end of February as Russia invaded Ukraine before easing to around \$25 by month's end.

**Volatility**

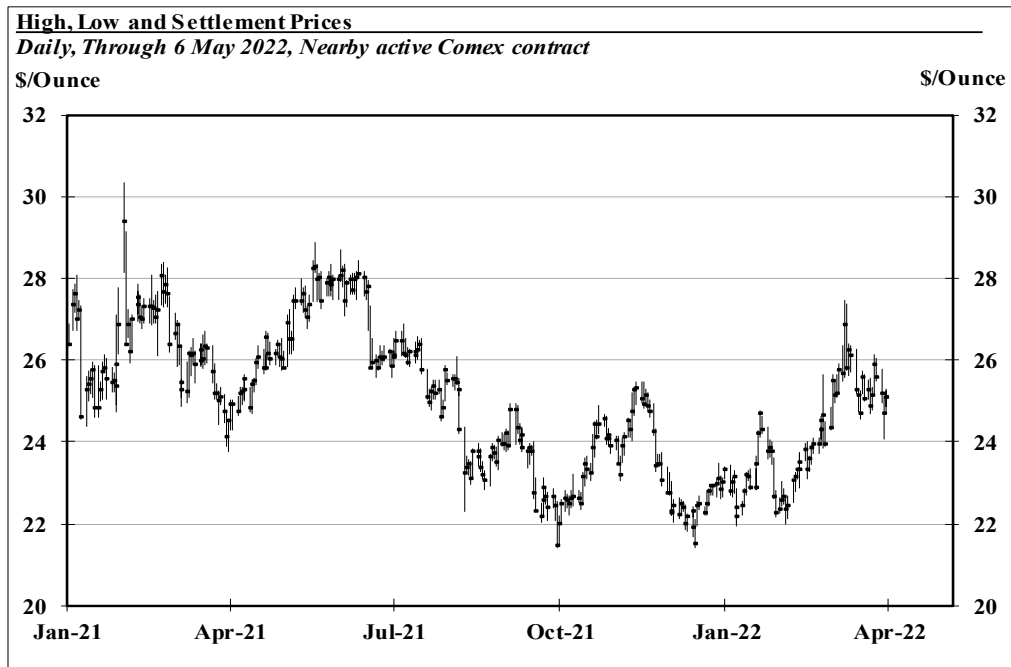
Silver price volatility remained at a high level in 2021, 30.6%, but was off from the decade high 45.6% in 2020. Volatility measures the dispersion of silver returns, which is calculated as the standard deviation of the daily logarithmic settlement price changes.

Monthly price volatility ranged from 20.2% to 58.3% last year. The bulk of the volatility occurred in early 2021, with January measuring at 46.3% and February at 58.3%.

Monthly price volatility measured between 22.2% and 30.9% for the remainder of the year, with July 2021 accounting for the month with the lowest volatility.

**Seasonality**

Silver prices reverted to move in line with its seasonal patterns for the most part in 2021. Prices rose early on in the year in the first quarter and second, declined in the third quarter and moved higher from October into the middle of November. It was in the last month and a half that prices deviated from their seasonal pattern of rising overall in the last quarter of the year.



Prices follow this seasonal pattern guided by fabricator and consumer demand preferences, and investor activity. Fabricators, which include jewelry and electronics manufacturers, tend to purchase silver in the first, second and last quarters of the year. This timing is done in alignment with metal needs in the fabrication process.

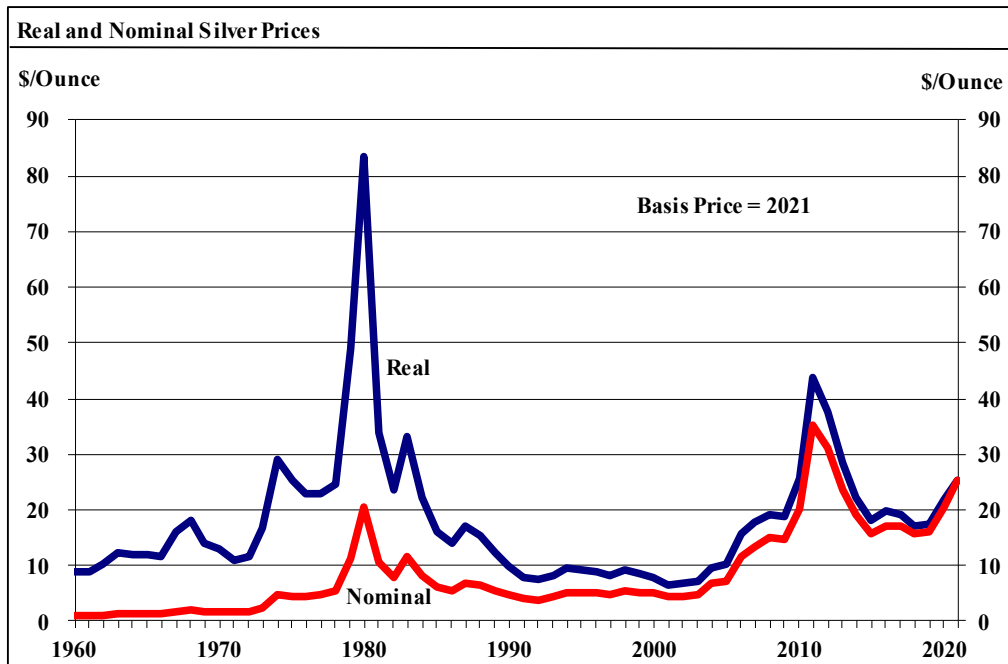
Investors know this pattern and also tend to time their purchases similarly. Another reason investors and fabricators follow this trend is because in the Northern Hemisphere the summer months are a time when there is reduced activity for silver demand, as many step back from the market for vacation.

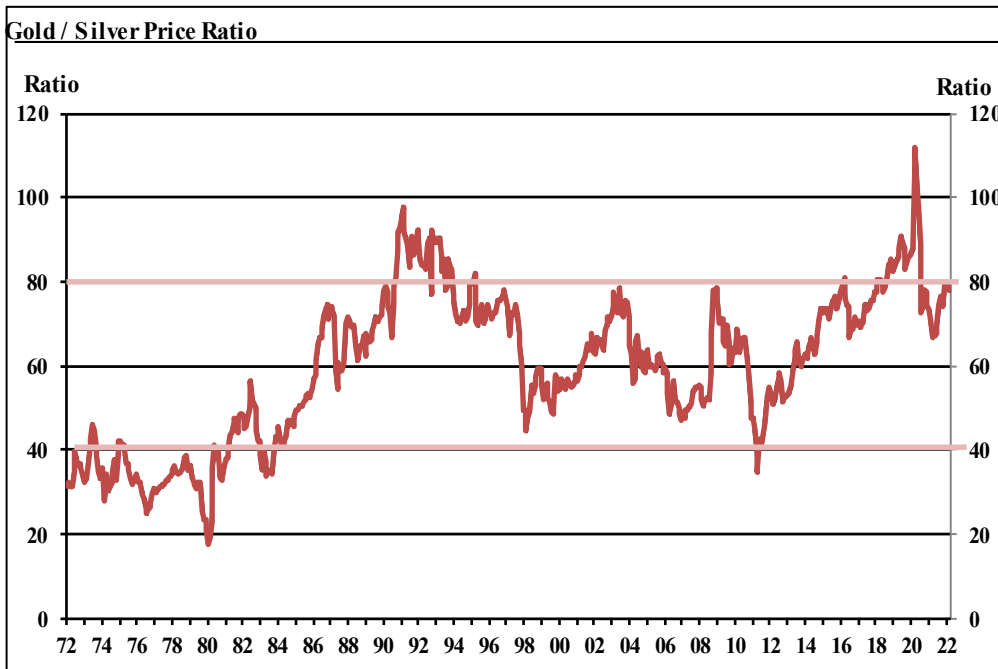
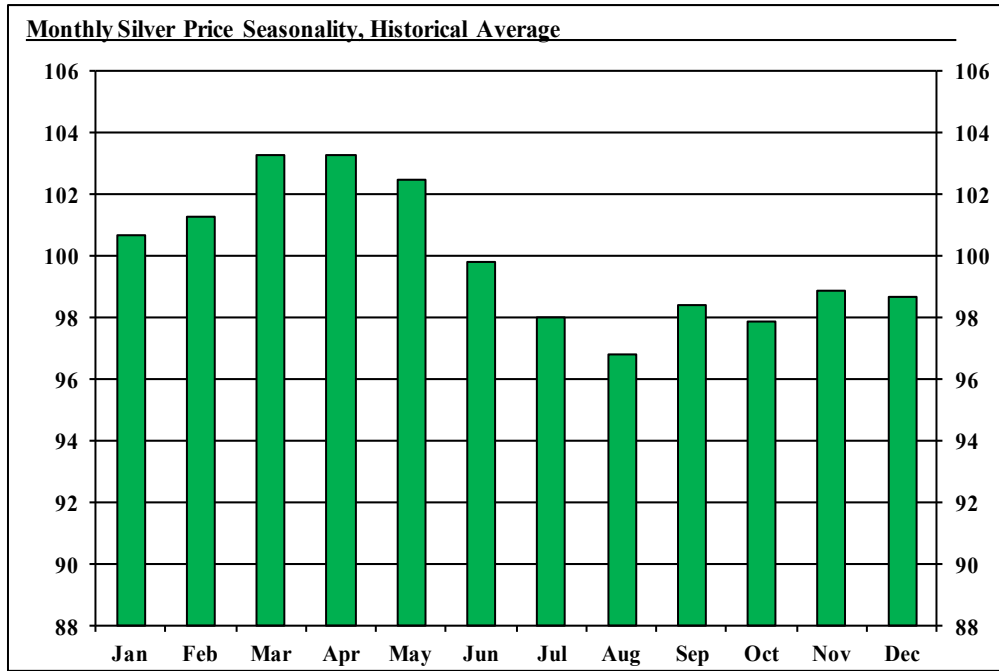
**Gold/Silver Price Ratio**

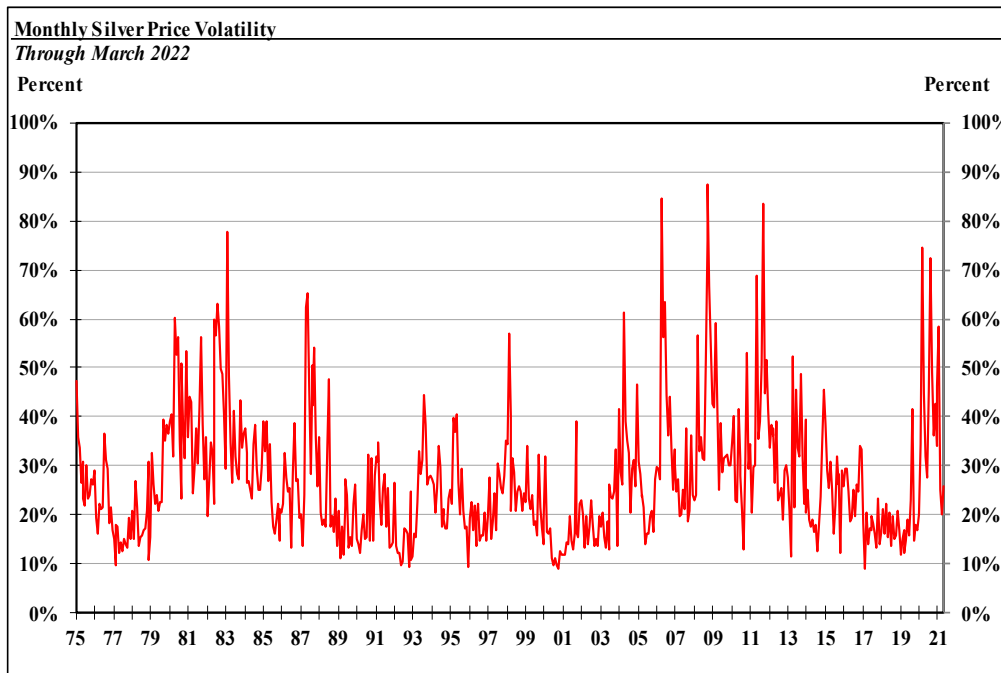
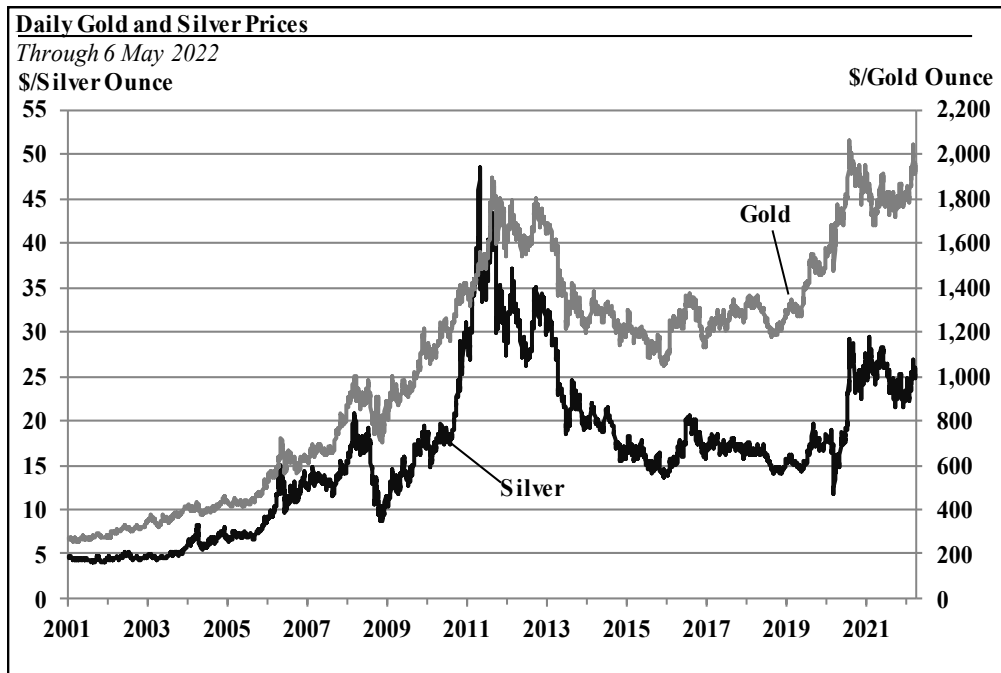
The gold to silver ratio moved back within its longer term historical range in 2021, following a record high in 2020.

The ratio had spiked to 112:1 in April of 2020 before subsiding to below 80:1 in August of that year.

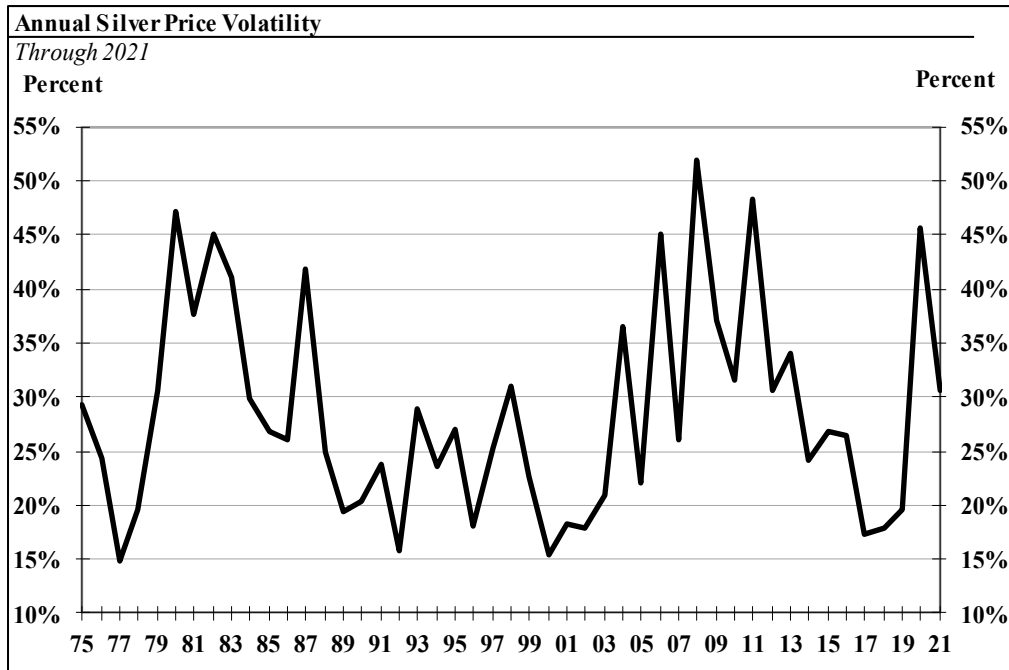
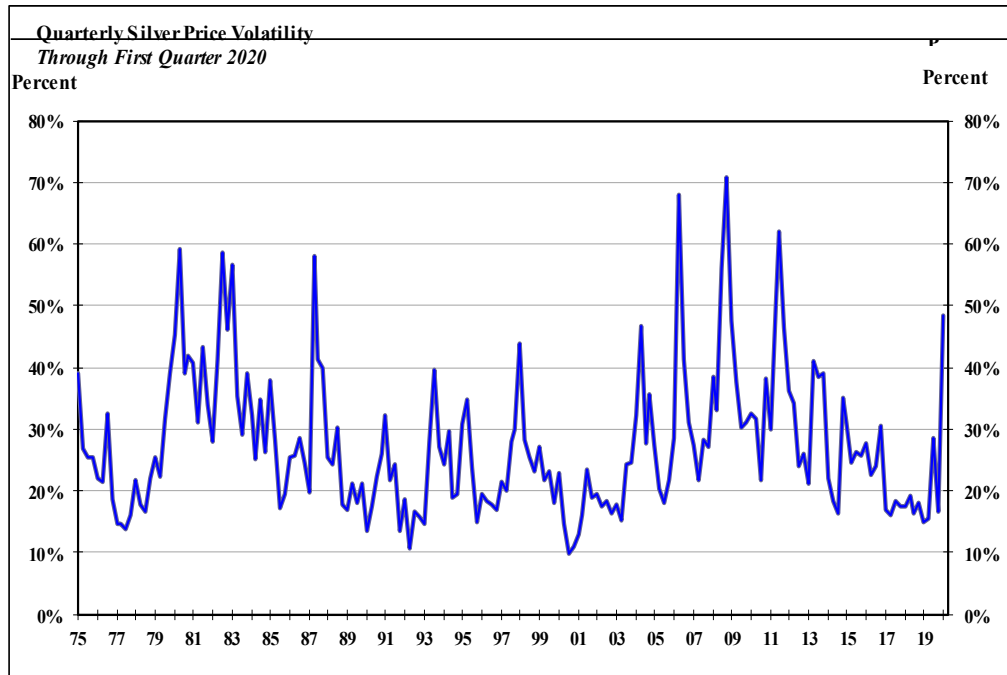
In 2021 the gold to silver ratio moved between 67:1 and 80:1. Many investors sometimes will buy or sell gold or silver depending on where the gold to silver price ratio is. These investors compare the trends in the ratio, which on a historical basis has trended mostly between 40:1 and 80:1 since the early 1980s.











## Monthly Average Silver Prices

## Comex Settlement Price

	1963	1964	1965	1966	1967	1968	1969	1970	1971
January	—	\$1.29	\$1.30	\$1.30	\$1.29	\$2.06	\$1.98	\$1.87	\$1.64
February	—	1.29	1.29	1.29	1.29	1.98	1.82	1.89	1.60
March	—	1.29	1.29	1.29	1.29	2.25	1.83	1.88	1.67
April	—	1.29	1.29	1.29	1.30	2.24	1.78	1.84	1.72
May	—	1.29	1.29	1.29	1.39	2.40	1.76	1.66	1.66
June	1.28	1.29	1.28	1.29	1.70	2.44	1.63	1.63	1.60
July	1.29	1.29	1.28	1.29	1.75	2.31	1.61	1.68	1.58
August	1.29	1.29	1.29	1.29	1.73	2.20	1.65	1.80	1.58
September	1.29	1.29	1.29	1.30	1.68	2.22	1.78	1.79	1.42
October	1.29	1.30	1.29	1.29	1.80	1.96	1.87	1.75	1.33
November	1.29	1.29	1.29	1.30	1.97	2.01	1.92	1.74	1.32
December	1.29	1.29	1.29	1.30	2.11	1.96	1.79	1.63	1.39
Annual	\$1.29	\$1.29	\$1.29	\$1.29	\$1.82	\$2.16	\$1.78	\$1.76	\$1.54
Percent Change	—	0.0%	0.0%	0.0%	41.1%	18.7%	-17.6%	-1.1%	-12.5%
	1972	1973	1974	1975	1976	1977	1978	1979	1980
January	\$1.47	\$2.01	\$3.65	\$4.19	\$4.06	\$4.41	\$4.94	\$6.25	\$38.28
February	1.50	2.24	5.27	4.39	4.09	4.54	4.94	7.43	35.28
March	1.54	2.23	5.34	4.34	4.17	4.85	5.28	7.42	23.95
April	1.57	2.18	5.02	4.22	4.35	4.78	5.11	7.49	14.45
May	1.58	2.38	5.41	5.55	4.49	4.69	5.13	8.40	12.69
June	1.57	2.60	4.89	4.49	4.81	4.44	5.31	8.54	15.82
July	1.75	2.68	4.41	4.72	5.00	4.50	5.35	9.18	16.15
August	1.85	2.63	4.41	4.92	4.22	4.45	5.49	9.40	16.00
September	1.77	2.67	4.04	5.00	4.30	4.54	5.57	14.02	20.20
October	1.81	2.88	4.80	4.31	4.22	4.77	5.19	16.85	20.18
November	1.82	2.86	4.64	4.32	4.37	4.83	5.88	16.59	18.61
December	1.97	3.14	4.39	4.08	4.36	4.71	5.93	22.81	16.28
Annual	\$1.68	\$2.54	\$4.69	\$4.54	\$4.37	\$4.63	\$5.34	\$11.20	\$20.65
Percent Change	9.1%	51.2%	84.6%	-3.2%	-3.7%	5.9%	15.3%	109.7%	84.4%
	1981	1982	1983	1984	1985	1986	1987	1988	1989
January	\$14.78	\$8.03	\$12.51	\$8.20	\$6.11	\$6.07	\$5.54	\$6.73	\$5.98
February	12.97	8.29	13.83	9.17	6.07	5.86	5.49	6.33	5.87
March	12.35	7.23	10.66	9.69	6.03	5.64	5.43	6.43	5.94
April	11.48	7.28	11.76	9.24	6.46	5.22	7.36	6.46	5.78
May	10.90	6.66	13.02	8.97	6.27	5.11	8.44	6.55	5.44
June	9.96	5.61	11.73	8.73	6.18	5.15	7.43	7.03	5.28
July	8.63	6.20	12.13	7.41	6.11	5.05	7.72	7.12	5.23
August	8.99	7.15	12.14	7.65	6.26	5.21	7.81	6.70	5.18
September	10.05	8.74	11.89	7.28	6.20	5.69	7.61	6.35	5.14
October	9.27	9.51	9.85	7.30	6.20	5.67	7.56	6.29	5.14
November	8.54	9.82	8.88	7.50	6.13	5.57	6.71	6.29	5.49
December	8.47	10.62	9.14	6.65	5.88	5.37	6.79	6.13	5.52
Annual	\$10.53	\$7.93	\$11.46	\$8.15	\$6.15	\$5.47	\$6.99	\$6.53	\$5.50
Percent Change	-49.0%	-24.7%	44.6%	-28.9%	-24.6%	-11.1%	27.8%	-6.6%	-15.8%

Notes: Comex nearby active silver futures contract prices.

Source: New York Commodity Exchange.

April 1, 2020

## Monthly Average Silver Prices

## Comex Settlement Price

	1990	1991	1992	1993	1994	1995	1996	1997	1998
January	\$5.24	\$4.03	\$4.13	\$3.67	\$5.14	\$4.75	\$5.52	\$4.79	\$5.86
February	5.27	3.72	4.13	3.64	5.28	4.69	5.64	5.10	6.71
March	5.06	3.96	4.11	3.65	5.45	4.66	5.56	5.22	6.22
April	5.05	3.97	4.03	3.97	5.31	5.54	5.39	4.74	6.30
May	5.08	4.04	4.07	4.45	5.44	5.53	5.39	4.77	5.55
June	4.90	4.39	4.05	4.37	5.38	5.34	5.13	4.73	5.26
July	4.85	4.29	3.95	5.04	5.27	5.19	5.06	4.36	5.47
August	4.97	3.93	3.79	4.80	5.20	5.40	5.13	4.50	5.13
September	4.78	4.04	3.76	4.16	5.53	5.47	5.04	4.76	5.02
October	4.34	4.10	3.74	4.34	5.43	5.37	4.94	5.02	4.98
November	4.16	4.05	3.76	4.51	5.17	5.29	4.83	5.06	4.96
December	4.08	3.91	3.71	4.99	4.75	5.21	4.86	5.85	4.89
Annual	\$4.82	\$4.03	\$3.93	\$4.30	\$5.28	\$5.20	\$5.21	\$4.91	\$5.53
Percent Change	-12.4%	-16.4%	-2.5%	9.4%	22.8%	-1.4%	0.1%	-5.8%	12.7%
	1999	2000	2001	2002	2003	2004	2005	2006	2007
January	\$5.17	\$5.24	\$4.71	\$4.47	\$4.84	\$6.37	\$6.65	\$9.24	\$12.91
February	5.52	5.27	4.55	4.42	4.65	6.47	7.08	9.53	13.98
March	5.17	5.11	4.40	4.54	4.52	7.31	7.29	10.46	13.19
April	5.07	5.09	4.37	4.58	4.52	7.06	7.13	12.65	13.76
May	5.28	5.05	4.44	4.73	4.75	5.86	7.06	13.42	13.24
June	5.06	5.03	4.36	4.90	4.53	5.85	7.32	10.72	13.11
July	5.22	5.03	4.25	4.93	4.85	6.39	7.05	11.23	13.02
August	5.28	4.92	4.19	4.53	5.01	6.70	7.02	12.24	12.31
September	5.28	4.97	4.45	4.58	5.20	6.43	7.24	11.68	13.06
October	5.39	4.88	4.41	4.40	5.02	7.17	7.72	11.67	13.79
November	5.16	4.70	4.10	4.52	5.19	7.51	7.89	12.99	14.69
December	5.22	4.70	4.35	4.66	5.67	7.14	8.29	13.38	14.52
Annual	\$5.23	\$5.00	\$4.38	\$4.60	\$4.90	\$6.69	\$7.26	\$11.60	\$13.47
Percent Change	-5.3%	-4.5%	-12.4%	5.1%	6.3%	36.6%	8.5%	59.8%	16.1%
	2008	2009	2010	2011	2012	2013	2014	2015	2016
January	\$16.14	\$11.39	\$17.73	\$28.51	\$30.97	\$31.18	\$19.82	\$17.22	\$14.09
February	17.68	13.42	15.90	30.86	34.24	30.21	21.14	16.73	15.14
March	19.23	13.09	17.14	35.85	32.96	28.78	20.71	16.23	15.42
April	17.50	12.50	18.16	42.59	31.54	25.20	19.70	16.34	16.32
May	17.07	14.13	18.43	36.92	28.79	23.06	19.33	16.79	16.91
June	17.03	14.63	18.49	35.76	28.06	21.07	19.91	16.02	17.27
July	18.13	13.38	17.90	38.30	27.37	19.65	20.93	15.02	20.00
August	14.49	14.41	18.45	40.26	28.92	22.10	19.72	14.90	19.54
September	12.29	16.52	20.64	38.01	33.95	22.50	18.38	14.73	19.35
October	10.37	17.23	23.44	32.08	33.19	22.06	17.17	15.80	17.72
November	9.80	17.87	26.64	33.25	32.79	20.69	15.98	14.40	17.44
December	10.36	17.63	29.41	30.20	31.80	19.70	16.29	14.07	16.48
Annual	\$15.01	\$14.68	\$20.20	\$35.22	\$31.22	\$23.85	\$19.09	\$15.69	\$17.14
Percent Change	11.5%	-2.2%	37.5%	74.4%	-11.4%	-23.6%	-20.0%	-17.8%	9.3%
	2017	2018	2019	2020	2021				
January	\$16.93	\$17.17	\$15.66	\$17.97	\$25.90				
February	17.90	16.56	15.78	17.83	27.35				
March	17.61	16.46	15.28	14.94	25.81				
April	18.01	16.63	15.00	15.28					
May	16.75	16.49	14.65	16.64					
June	16.91	16.52	15.00	17.90					
July	16.86	15.74	15.80	20.83					
August	17.42	14.95	17.19	27.08					
September	17.46	14.28	18.19	25.95					
October	16.96	14.58	17.66	24.35					
November	16.98	14.34	17.13	24.08					
December	16.22	14.79	17.26	25.20					
Annual	\$17.17	\$15.71	\$16.22	\$20.67	\$26.35				
Percent Change	0.2%	-8.5%	3.2%	27.5%	55.8%				



## If You Want To Print This Book

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