

Global Silver Mining Database 2024-2025

Comprehensive Analysis of Silver-Producing Nations: Production, Exports, and Mints

Compiled for AI Asset Builders Community

Date: December 30, 2025

EXECUTIVE SUMMARY

Global Production: 25,500 metric tons (819.7 million troy ounces) in 2024

Year-over-Year Growth: +0.9% from 2023

Top 10 Producers: Account for 83% of global output

Production Nature: ~70% byproduct from base metals (lead, zinc, copper, gold), 30% primary silver mines

Key Market Dynamics:

- Latin America dominates: >50% of global production (Mexico, Peru, Chile, Bolivia, Argentina)
 - Industrial demand reached record 680.5 million ounces in 2024 (+4%)
 - Solar PV is fastest-growing segment: 197.6 million ounces (+21%)
 - Supply/demand deficit continues to widen
-

TOP 20 SILVER-PRODUCING NATIONS

1. MEXICO 🇲🇽

World's Largest Silver Producer

PRODUCTION DATA:

- **2024 Output:** 6,300 metric tons (202 million oz)
- **Global Share:** ~25% of world production
- **Rank:** #1 globally
- **Year-over-Year:** Slight increase from 6,195 MT (2023)

MAJOR MINES:

- **Peñasquito** (Newmont): 935.5 MT (33M oz) - Largest in Mexico
 - Location: Zacatecas
 - Polymetallic: silver, gold, lead, zinc
 - Expected 2025: 28M+ oz
- **Fresnillo Operations** (Fresnillo plc):
 - Company total: 1,496 MT (56.3M oz) across all mines
 - Fresnillo, Saucito, San Julián, Juanicipio mines
 - World's largest silver producer by company
- **Key Regions:** Zacatecas (40%), Durango (25%), Chihuahua (15%)

EXPORT DATA:

- **2024 Exports:** 914 metric tons
- **Export Value:** \$1.9 billion
- **Main Destination:** United States (902 tons / 99%)
- **Trade Balance:** +\$2.5 billion net surplus
- **Note:** Exports declined 54% from 2023 due to increased domestic demand

MINT:

- **Casa de Moneda de México** (Mexican Mint)
- **Founded:** 1535 - Oldest mint in the Americas
- **Location:** San Luis Potosí (main facility)
- **Website:** www.cmm.gob.mx
- **Products:**
 - **Silver Libertad:** Premier bullion coin series (1982-present)
 - World's first modern silver bullion coin
 - Weights: 1/20 oz, 1/10 oz, 1/4 oz, 1/2 oz, 1 oz, 2 oz, 5 oz, 1 kg
 - Design: Winged Victory / National Coat of Arms
 - Mintage: Up to 936,000+ per year (1 oz), lower for other weights
 - Proof versions with much lower mintages (10,000 for 1 oz)
 - Historic silver pesos (1869-1979)

- Commemorative series
 - **International Client:** Produces coins for 30+ countries
 - **Certification:** One of world's most respected sovereign mints
-

2. CHINA 🇨🇳

Asia's Silver Giant

PRODUCTION DATA:

- **2024 Output:** 3,300 metric tons (106 million oz)
- **Global Share:** ~13% of world production
- **Rank:** #2 globally
- **Year-over-Year:** Down from 3,400 MT (2023)
- **Trend:** Declining due to lower ore grades at aging mines

MAJOR PRODUCTION:

- **Production Type:** 90%+ byproduct from lead, zinc, copper, gold mining
- **Key Regions:** Yunnan, Inner Mongolia, Hunan provinces
- **Companies:** State-owned enterprises dominate
- **Ying Mining District:** 197 MT annually (Silvercorp Metals)

EXPORT DATA:

- **2024 Exports:** Significant volumes as trading hub
- **Jan-Feb 2024:** 582.6 metric tons total exports
 - Unalloyed silver ($\geq 99.99\%$): 321 MT (January)
 - Semi-finished silver: 261.5 MT (February)
- **Trade Role:** Both major producer AND major importer/re-exporter
- **Destinations:** Global distribution through Hong Kong, direct exports

MINTS:

- **China Mint (People's Bank of China)**
 - Multiple facilities: Shanghai, Shenyang, Shenzhen
 - **Official Distributor:** China Gold Coin Incorporation (CGCI)
 - **Website:** www.chngc.net/en
 - **Products:**
 - **Silver Panda Coin (1983-present):**
 - **Weight:** 30 grams (.964 oz) since 2016 (previously 1 troy oz)
 - **Purity:** .999 fine silver
 - **Design:** Changes annually (except 2001-2002)
 - **Obverse:** Hall of Prayer for Good Harvests, Temple of Heaven
 - **Reverse:** Different panda design each year
 - **Security:** Diagonal reeding (added 2002)
 - **Mintage:** Varies by year, typically 50,000-300,000
 - **Collectibility:** High due to annual design changes
 - Other weights: 150g, 1kg available
 - Commemorative silver coins
 - **Note:** No mint marks on coins (unlike US/German mints)
-

3. PERU 🇵🇪

Largest Silver Reserves Globally

PRODUCTION DATA:

- **2024 Output:** 3,100 metric tons (100 million oz)
- **Global Share:** ~12% of world production
- **Rank:** #3 globally
- **Year-over-Year:** Down from 3,200 MT (2023)
- **Reserves:** 110,000 metric tons (world's largest)

MAJOR MINES:

- **Antamina Mine** (BHP, Glencore, Teck, Mitsubishi):
 - 11.36M oz (354 MT) in 2024
 - Byproduct of copper mining
 - One of world's top 30 silver mines
- **Other Major Operations:**
 - Inmaculada Mine
 - Toromocho Mine
 - Yauli Mine complex
- **Mining Challenge:** High-altitude Andean operations

EXPORT DATA:

- **2024 Silver Exports:** Approximately \$1.3 billion
- **Total Mineral Exports:** \$49 billion
- **Export Composition:** Silver is 2.7% of total mineral exports
- **GDP Contribution:** Mining sector = 9.5% of GDP
- **Trade Pattern:** Exports refined silver and concentrates globally

MINT:

- **Casa Nacional de Moneda (Peruvian National Mint)**
- **Founded:** 1565 - One of oldest continuously operating mints in Americas
- **Location:** Lima
- **Authority:** Banco Central de Reserva del Perú
- **Website:** www.bcrp.gob.pe
- **Products:**
 - Commemorative silver coins (1 Sol, various themes)
 - Historic silver reales and pesos (colonial to 1863)
 - Modern proof silver coins:
 - Recent: Tarata Reincorporation Centenary (2025)
 - Battle of Ayacucho Bicentenary
 - University of San Marcos series

- **Specifications:** Typically .925 sterling silver, 33.625g
 - **Mintmark:** LIMA monogram on coins
 - **Historical Note:** Produced only silver coins until mid-18th century
-

4. POLAND 🇵🇱

Europe's Silver Leader

PRODUCTION DATA:

- **2024 Output:** 1,300 metric tons (41.8 million oz)
- **Global Share:** ~5% of world production
- **Rank:** #4 globally (tied with Bolivia)
- **Reserves:** 61,100 metric tons (3rd largest globally)
- **Year-over-Year:** Down slightly from 1,320 MT (2023)

MAJOR PRODUCTION:

- **KGHM Polska Miedź** (dominant producer):
 - Total production: 1,341 MT (2024) including international operations
 - Polkowice-Sieroszowice Mine (main operation)
 - World's top copper-silver producer
 - **Production Type:** Byproduct from copper mining
 - **Sedimentary-hosted:** Kupferschiefer deposits (Permian age)
 - **Location:** Fore-Sudetic Monocline, southwest Poland

EXPORT DATA:

- **2024 Exports:** 1,328.27 metric tons
- **Export Value:** \$1.2 billion
- **Year-over-Year:** Up from 1,256.25 MT (2023)
- **GDP Contribution:** Mining sector = 7% of Poland's GDP
- **Destinations:** European Union markets, global distribution

MINT:

- **Mennica Polska S.A. (Polish Mint)**
 - **Founded:** 1766
 - **Location:** Warsaw
 - **Authority:** National Bank of Poland (NBP)
 - **Website:** www.nbp.pl
 - **Products:**
 - Polish silver commemorative coins
 - "History of Polish Coinage" series
 - Various themed collector series
 - **No regular silver bullion coin program** like Maple Leaf or Eagle
 - Commemoratives only, typically low mintage
 - Recent: Copper 'Trojak' series, Medal-Making Art series
-

5. BOLIVIA (tied for #4)

Historic Silver Mining Center

PRODUCTION DATA:

- **2024 Output:** 1,300 metric tons (41.8 million oz)
- **Global Share:** ~5% of world production
- **Rank:** #4 globally (tied with Poland)
- **Year-over-Year:** Down from 1,350 MT (2023)

MAJOR MINES:

- **San Cristóbal Mine** (San Cristobal Mining):
 - Location: Potosí (historic silver center)
 - 16.8M oz (523 MT) in 2024 (+33% YoY)
 - Type: Silver-lead-zinc polymetallic
 - Ownership: Acquired from Sumitomo in 2023

- **San Bartolomé** (Andean Precious Metals):
 - 4.32M oz (134 MT) in 2024
 - Declining from 5.47M oz (2020)
 - Processing tailings and third-party material

EXPORT DATA:

- **2024 Silver Exports:** \$1.2 billion
- **Economic Impact:** Mining is substantial portion of exports
- **Historical Note:** Bolivia was major global silver source in colonial era
- **War of Pacific:** Lost coastal access (1879-1884), now landlocked

MINT:

- **Casa Nacional de Moneda de Bolivia**
- **Founded:** 1572 in Potosí
- **Current Location:** La Paz
- **Historical Significance:** Colonial Spanish mint, now museum in Potosí
- **Modern Operations:** Limited commemorative production
- **Products:**
 - Historic silver pesos and reales (colonial period)
 - Modern commemorative coins
 - **No active bullion program**
- **Note:** Historic Potosí mint (1572-1825) was one of most important in Spanish Empire

6. RUSSIA

Strategic Metals Producer

PRODUCTION DATA:

- **2024 Output:** 1,200 metric tons (38.5 million oz)
- **Global Share:** ~4.7% of world production
- **Rank:** #6 globally

- **Year-over-Year:** Down from 1,240 MT (2023)
- **Reserves:** 45,000 metric tons

MAJOR MINES:

- **Dukat Mine** (Mangazeya Plus, formerly Polymetal):
 - Location: Magadan Oblast, Far East Russia
 - 7.7M oz (239 MT) in 2023
 - 90% of Russia's silver reserves
 - Also major gold producer
 - Operations until 2028
- **Prognoz Mine** (Yakutia):
 - Commissioned Q3 2024
 - Expected: 5-7M oz annually

EXPORT DATA:

- **2024 Exports:** Estimated 27.8M oz (864,370 kg) projected for 2026
- **Trade Redirection:** 80% surge in precious metals exports to China post-sanctions
- **China Imports from Russia:** \$325.7M silver ores/concentrates in 2024
- **Russia is China's 4th largest silver supplier** (after Peru, Mexico, Bolivia)
- **Sanctions Impact:**
 - March 2022: LBMA suspended all 6 Russian refiners
 - April 2024: US/UK ban on post-April 13, 2024 Russian metal
 - Trade isolated from Western markets, pivoting to China/Asia

MINTS:

- **Goznak (АО «Гознак»)** - State Enterprise (founded 1818)
 - **Website:** www.goznak.ru

1. Moscow Mint (ММД/ММД)

- **Website:** www.mmd.goznak.ru
- **Founded:** April 25, 1942

- **Products:** Circulation coins, commemoratives, investment coins, medals
- **Accepts:** Government AND private orders, including foreign governments

2. Saint Petersburg Mint (СПМД/SPMD)

- **Website:** www.spmg.gov.ru
- **Location:** Peter and Paul Fortress
- **Founded:** 1724 by Peter the Great
- **Products:** Bullion coins, commemoratives, state awards, bars
- **Accepts:** Government orders ONLY

PRIMARY SILVER BULLION COIN:

- **Saint George the Victorious (Георгий Победоносец)**
 - **First Issue:** January 11, 2009
 - **Face Value:** 3 Rubles
 - **Weight:** 31.1g (1 troy ounce)
 - **Purity:** .999 fine silver
 - **Diameter:** 39.0mm
 - **Annual Mintage:** Up to 500,000 pieces
 - **Mint Marks:** ММД (Moscow) or СПМД (St. Petersburg)
 - **Design:**
 - Reverse: Saint George on horseback slaying dragon
 - Obverse: Russian Federation State Coat of Arms (since 2016)
 - **Production History:**
 - Suspended 2011-2014 (Sochi Olympics focus)
 - Resumed 2015 with 100,000 pieces
 - Russia's only standardized bullion program

COMMEMORATIVE SERIES:

- Red Data Book: 54+ coins since 1993 (endangered species)
- Protect Our World: Wildlife conservation
- Outstanding Personalities: Cultural figures
- Architectural Monuments: Historic buildings

- Sports: Sochi 2014, FIFA 2018

REFINERS (all LBMA-suspended March 2022):

- Krastsvetmet (60%+ of refined precious metals)
- Novosibirsk Refinery
- Uralelectromed
- Prioksky Plant
- Shyolkovsky Factory

Note: Full detailed analysis available in previous research report "Russia's 2026 Silver Market"

7. CHILE

Copper Byproduct Powerhouse

PRODUCTION DATA:

- **2024 Output:** 1,200 metric tons (38.5 million oz)
- **Global Share:** ~4.7% of world production
- **Rank:** #7 globally
- **Year-over-Year:** Down from 1,260 MT (2023)
- **Reserves:** 26,000 metric tons

MAJOR PRODUCTION:

- **Production Type:** Primarily byproduct from world's largest copper mines
- **Major Copper Mines with Silver:**
 - Escondida (world's largest copper mine)
 - Collahuasi
 - Other Atacama Desert porphyry systems
- **Trend:** Rising byproduct output from copper expansions
- **Future:** Projected >2,000 MT annually by 2035

EXPORT DATA:

- **2024 Exports:** Most production exported
- **Export Value:** Approximately \$250 million
- **Main Destinations:**
 - United States: \$247M
 - Brazil: \$576,000
 - Argentina: \$339,000
 - United Kingdom: \$318,000
- **Domestic Use:** 50% electronics, 20% solar, 12% jewelry, 8% investment

MINT:

- **Casa de Moneda de Chile**
 - **Founded:** 1743 in Santiago
 - **Location:** Santiago
 - **Authority:** Central Bank of Chile
 - **Modern Status:** Limited production, primarily commemorative
 - **Products:**
 - Historic Chilean silver pesos (19th-20th century)
 - Modern commemorative issues
 - **No active bullion program** comparable to major mints
 - **Historical Note:** 19th-century Chilean 8 Reales highly collectible today
-

8. UNITED STATES

Diverse Domestic Producer

PRODUCTION DATA:

- **2024 Output:** 1,100 metric tons (35.3 million oz)
- **Global Share:** ~4.3% of world production
- **Rank:** #8 globally

- **Year-over-Year:** Up from 1,020 MT (2023)
- **Reserves:** 25,500 metric tons
- **Value:** \$960 million (2024)

MAJOR PRODUCTION:

- **States Producing Silver:** 12 states
- **Top Producers:**
 1. **Alaska** (leading state)
 2. **Idaho** (second)
 3. Nevada
- **Mine Types:**
 - 4 primary silver mines
 - 31 operations producing silver as byproduct/co-product
 - Byproduct from base metal and gold mining

MAJOR MINES:

- **Greens Creek Mine** (Hecla Mining):
 - Location: Southeast Alaska
 - 8.48M oz (264 MT) in 2024
 - Largest silver operation in US
 - Polymetallic: silver, zinc, lead, gold

REFINING:

- **24 US refiners** producing commercial-grade silver
- **Total Output:** 3,000 MT from domestic/foreign ores and scrap
- **Combined:** Mine production + recycling/refining = significant supply

EXPORT DATA:

- **2024 Exports:** 140 metric tons
- **Domestic Consumption Dominates:** Majority used internally

- **Uses:** 30% investment bars, 29% electronics, 12% coins/medals, 12% solar PV

MINT:

- **United States Mint**
- **Founded:** 1792 (Philadelphia)
- **Facilities:** 6 locations:
 - Philadelphia, PA (main production)
 - Denver, CO
 - San Francisco, CA
 - West Point, NY (bullion, bars)
 - Washington, D.C. (headquarters)
 - Fort Knox, KY (bullion depository)
- **Website:** www.usmint.gov

PRIMARY SILVER PRODUCT:

- **American Silver Eagle**
 - **Launched:** 1986
 - **Weight:** 1 troy ounce
 - **Purity:** .999 fine silver
 - **Design:**
 - Obverse: Walking Liberty (Adolph A. Weinman)
 - Reverse: Heraldic eagle (original), new designs rotating
 - **Face Value:** \$1 (legal tender)
 - **Mintage:** Millions annually (varies by demand)
 - **Variations:** Bullion, Proof, Burnished, special editions
 - **Status:** World's most popular silver bullion coin

OTHER SILVER PRODUCTS:

- American Silver Eagle (Type 2, redesigned 2021)
- America the Beautiful 5 oz silver coins (2010-2021)
- Pre-1965 "junk silver" coins (90% silver dimes, quarters, half dollars)

- Various commemorative silver dollars
 - Silver Proof Sets
-

9. AUSTRALIA

Southern Hemisphere Leader

PRODUCTION DATA:

- **2024 Output:** 1,000 metric tons (32.1 million oz)
- **Global Share:** ~3.9% of world production
- **Rank:** #9 globally
- **Year-over-Year:** Down from 1,030 MT (2023)
- **Reserves:** 90,000 metric tons (2nd largest globally)
- **Projected:** >1,600 MT annually by 2035

MAJOR MINES:

- **Cannington Mine** (South32):
 - Location: Queensland
 - 12.67M oz (394 MT) in 2024
 - Type: Lead-silver-zinc polymetallic
 - Rank: 8th most productive globally
 - **Byproduct** from base metals

ECONOMIC IMPACT:

- **Mining GDP Share:** 12.2% of national GDP
- **Resources Exports:** 59.2% of total exports
- **Domestic Use:** Majority consumed internally for manufacturing/investment

EXPORT DATA:

- **Export Pattern:** Limited exports relative to production

- **Domestic Market:** Large internal demand for electronics, solar
- **Uses:** 45% electronics, 25% solar PV, 15% jewelry, 5% investment

MINT:

- **Perth Mint**
- **Founded:** 1899
- **Location:** Perth, Western Australia
- **Ownership:** Gold Corporation (owned by Western Australian government)
- **Status:** Australia's official bullion mint
- **Website:** www.perthmint.com
- **Refinery:** Processes ~~300 tons gold annually~~ (\$15B), full silver refinery
- **Accreditation:** One of few refiners accredited by all 5 major gold exchanges

SILVER PRODUCTS:

- **Australian Silver Kangaroo/Nugget**
 - Weight: 1 oz (also fractional)
 - Purity: .9999 fine silver
 - Design: Kangaroo changes annually
- **Lunar Series (II & III)**
 - Chinese zodiac animals
 - Multiple sizes
 - High collectibility
- **Australian Koala**
 - Annual design change
 - 1 oz primary
- **Kookaburra Series**
 - Longest-running changing design (since 1990)
 - Various sizes
- **Perth Mint Bars**
 - 1 oz to 1 kg

- Recognized globally

NOTABLE:

- Created world's largest gold coin (1 ton Kangaroo, 2012)
 - Known for exceptional quality and innovative designs
 - Strong collector market, high premiums
-

10. KAZAKHSTAN

Rising Central Asian Producer

PRODUCTION DATA:

- **2024 Output:** 1,000 metric tons (32.1 million oz)
- **Global Share:** ~3.9% of world production
- **Rank:** #10 globally
- **Year-over-Year:** Up from 985 MT (2023)
- **Growth:** Massive expansion since 2020 (435 MT)

MAJOR PRODUCTION:

- **Kazzinc Complex** (Glencore 70%, Tau-Ken Samruk 30%):
 - 3.34M oz (104 MT) in 2024
 - Up from 2.73M oz (2023)
 - Largest operation in Kazakhstan
 - State partnership with international company

ECONOMIC IMPACT:

- **Mineral Exports:** \$84.6 billion (2022)
 - +40.2% from 2021
 - 68% of country's total exports
- **Mining Boom:** Sector has exploded in recent years
- **Strategic Position:** Between Russia and China for export routes

EXPORT DATA:

- **2024 Exports:** Declining slightly (-3.1% from 2023)
- **Destinations:** China, Russia, global markets
- **Trade Role:** Concentrates and refined metal

MINT:

- **Kazakhstan Mint**
 - **Location:** Ust-Kamenogorsk
 - **Authority:** National Bank of Kazakhstan
 - **Products:**
 - Commemorative silver coins
 - National currency production
 - **No major bullion program** like Western mints
 - Limited international distribution
 - **Note:** Most Kazakh silver exported as concentrate or refined metal
-

ADDITIONAL SILVER-PRODUCING NATIONS (Ranked 11-30)

11. INDIA

Production: 740 metric tons (23.8M oz) in 2024

Type: Byproduct from lead-zinc-copper mining

Export: Primarily imports silver; limited exports

Mint: **India Government Mint** (Mumbai, Kolkata, Hyderabad, Noida)

- **Products:** Limited commemorative silver coins
 - No major bullion program
 - Historical silver rupees highly collectible
-

12. ARGENTINA

Production: 810 metric tons (26M oz) in 2024

Trend: Growing, with major new discoveries in Puna region

Type: Epithermal vein systems, gold-silver projects

Export: Increasing, to global markets

Mint: Casa de Moneda de la Nación Argentina

- Founded: 1875 (Buenos Aires)
 - Products: Commemorative coins, limited silver issues
 - Historic silver pesos 19th-20th century highly valued
 - No active bullion program
-

13. SWEDEN

Production: 395 metric tons (12.7M oz) in 2024

Type: Byproduct from zinc, lead, copper mines

Region: Northern Sweden mining districts

Export: Within EU, global markets

Mint: No dedicated sovereign silver bullion mint

- Historic: Swedish coins produced by Svenska Myntverket (defunct 2002)
 - Commemoratives produced by foreign mints on contract
 - No modern bullion program
-

14. CANADA

Production: 221 metric tons (7.1M oz) in 2024

Rank: #14 globally

Note: Despite low mine production, Canada has world-class mint

Mint: Royal Canadian Mint (RCM)

- **Founded:** 1908 (Ottawa branch of Royal Mint)
- **Independence:** 1931
- **Facilities:** Ottawa (HQ), Winnipeg (production)

- **Website:** www.mint.ca

SILVER PRODUCTS:

- **Canadian Silver Maple Leaf**
 - **Launched:** 1988
 - **Weight:** 1 oz (also fractional: 1/2, 1/4, 1/10, 1/20 oz)
 - **Purity:** .9999 fine silver (99.99%)
 - **Design:** Maple leaf / Queen Elizabeth II (now King Charles III)
 - **Security:** Radial lines, micro-engraved laser mark
 - **Mintage:** Millions annually
 - **Status:** Second most popular silver bullion coin globally
- **Wildlife Series:** Predators, Birds of Prey
- **Lunar Series:** Chinese zodiac
- **\$20 for \$20 Series:** Silver coins at affordable face value premiums
- **Commemoratives:** Wide variety, high quality
- **MapleGrams:** 25x 1-gram gold/silver in sealed card

INNOVATIONS:

- First .9999 pure gold bullion (1979)
 - World's first million-dollar coin (100kg gold, 2007)
 - Leader in anti-counterfeiting technology
-

15. MOROCCO

Production: 275 metric tons (8.8M oz) in 2024

Region: Base metal mines, North Africa

Export: Primarily exports concentrates

Mint: No significant silver coin production

16. INDONESIA

Production: 321 metric tons (10.3M oz) in 2024

Major Mine: Grasberg (Freeport-McMoRan) - world-class

Type: Byproduct from copper-gold operations

Trend: Declining from previous years

Mint: Perum PERURI (Indonesian State Printing Company)

- Products: Commemorative coins, limited silver
 - No active bullion program
-

17. UZBEKISTAN

Production: 240 metric tons (7.7M oz) in 2024

Type: Base metal byproduct

Note: Former Soviet republic, developing mining sector

Mint: Limited commemorative production

18. PAPUA NEW GUINEA

Production: 134 metric tons (4.3M oz) in 2024

Major Operations: Porgera, other gold-silver mines

Export: Concentrates to Asian refiners

Mint: No domestic mint

19. SPAIN

Production: 115 metric tons (3.7M oz) in 2024

Historic: Major silver producer in colonial era

Type: Byproduct from base metals

Mint: Fábrica Nacional de Moneda y Timbre (FNMT)

- Products: Euro coins, limited silver commemoratives
 - No active bullion program
-

20. BRAZIL

Production: 103 metric tons (3.3M oz) in 2024

Type: Byproduct from gold and base metal operations

Export: Regional and global markets

Mint: Casa da Moeda do Brasil

- Founded: 1694
 - Products: Commemorative silver coins
 - Historic empire/republic coins highly collectible
 - No major bullion program
-

OTHER NOTABLE MINTS (NON-MAJOR PRODUCERS)

AUSTRIA

Production: Minimal

Mint: Austrian Mint (Münze Österreich)

- **Founded:** 1194 (oldest continuously operating mint)
 - **Website:** www.muenzeoesterreich.at
 - **Silver Product:**
 - **Vienna Philharmonic Silver Coin**
 - Europe's most popular silver bullion
 - Weight: 1 oz (also 1.5 oz)
 - Purity: .999 fine
 - Design: Musical instruments / Great Organ of Musikverein
 - Launched: 2008
 - Face value: 1.5 Euro
-

UNITED KINGDOM

Production: Minimal (117 metric tons, declining domestic mining)

Mint: The Royal Mint

- **Founded:** 886 AD (over 1,100 years)
- **Location:** Llantrisant, Wales
- **Website:** www.royalmint.com

SILVER PRODUCTS:

- **Britannia Silver Coin**
 - Weight: 1 oz (also fractional, 2 oz, 5 oz, 10 oz, 1 kg)
 - Purity: .999 fine silver
 - Design: Britannia / King Charles III
 - Launched: 1997
 - Security features: Holographic elements
 - **The Queen's Beasts Series** (completed)
 - **The Tudor Beasts Series** (ongoing)
 - **Lunar Series**
 - **Mythical Creatures**
 - Historic sovereigns and crowns
-

SOUTH AFRICA

Production: 79 metric tons (2.5M oz) in 2024

Mint: South African Mint (Rand Refinery)

- **Location:** Centurion, Gauteng
- **Website:** www.samint.co.za
- **Silver Product:**
 - **Silver Krugerrand**
 - Weight: 1 oz
 - Purity: .999 fine
 - Design: Springbok / Paul Kruger
 - Launched: 2017 (gold version 1967)

- Lower mintages than gold version
-

NEW ZEALAND

Production: 72 metric tons (2.3M oz) in 2024

Mint: New Zealand Mint (Private)

- Location: Auckland
 - Products: Licensed collector coins (Disney, Star Wars, etc.)
 - Silver bullion rounds and bars
 - Not a government mint but produces legal tender for Pacific nations
-

KEY EXPORT HUBS (Trading/Refining Centers)

HONG KONG

Role: World's largest silver trading hub

2024 Exports: \$4.4 billion (12.7% of global silver exports)

Function: Import/refine/re-export center

Production: None (pure entrepôt)

UNITED ARAB EMIRATES (UAE)

Role: Major trading and refining hub

2024 Export Growth: +164.3% (fastest-growing major exporter)

Dubai: Dubai Multi Commodities Centre (DMCC) - world's largest trading hub

Production: ZERO silver mines

Function: Pass-through for Russian, African metals to Asia

SWITZERLAND

Role: Global refining center

Major Refiners: PAMP, Valcambi, Argor-Heraeus

Production: Minimal mining

Function: Refine imported concentrates, produce bars/coins

GERMANY

Export Growth: +43.6% (2024)

Role: European refining and distribution

Production: Minimal domestic mining

GLOBAL SILVER RESERVES (Top Countries)

Rank	Country	Reserves (Metric Tons)
1	Peru	93,000-110,000
2	Australia	90,000
3	Poland	61,100-63,000
4	Russia	45,000
5	China	41,000
6	Mexico	37,000
7	Chile	26,000
8	United States	25,500
9	Bolivia	22,000
10	Argentina	17,000

Total Global Reserves: ~640,000 metric tons

Reserve-to-Production Ratio: ~25 years at current rates

PRODUCTION TRENDS & MARKET DYNAMICS

BYPRODUCT DOMINANCE

- ~70% of silver comes from lead, zinc, copper, gold mining
- ~30% from primary silver mines

- Silver production tied to base metal demand and prices

REGIONAL CONCENTRATION

- **Latin America:** >50% of global production
 - Mexico, Peru, Chile, Bolivia, Argentina = dominant force
- **Asia:** ~30% (China, Kazakhstan, India, Indonesia)
- **Europe:** ~7% (Poland, Sweden)
- **North America:** ~5% (USA, Canada)
- **Oceania:** ~4% (Australia)

SUPPLY-DEMAND DYNAMICS

- **2024 Production:** 25,500 MT
- **2024 Industrial Demand:** Record 680.5M oz (+4%)
- **Solar PV Demand:** 197.6M oz (+21%) - fastest growing
- **Electronics:** Remains largest industrial use
- **Investment Demand:** Varies regionally
- **Deficit Continues:** Supply not meeting demand growth

FUTURE OUTLOOK

- Solar PV expected to consume 20-25% of supply by 2030
 - EV batteries using more silver for connectivity
 - Mine supply constrained by base metal economics
 - Recycling ~18% of total supply (193.9M oz in 2024)
-

MAJOR SILVER REFINERS (Global)

LBMA GOOD DELIVERY REFINERS (Pre-Sanctions)

- **Mexico:** Multiple LBMA-approved refiners
- **Peru:** Southern Peru refiners

- **USA:** Multiple approved facilities
- **Switzerland:** PAMP, Valcambi, Argor-Heraeus, Metalor
- **UK:** Johnson Matthey (historical)
- **Canada:** Royal Canadian Mint refinery
- **Australia:** Perth Mint refinery
- **Germany:** Heraeus
- **Belgium:** Umicore

RUSSIAN REFINERS (Suspended March 2022)

All 6 removed from LBMA Good Delivery List:

- Krastsvetmet (largest, 60%+ of Russian output)
- Novosibirsk Refinery
- Uralelectromed
- Prioksky Plant
- Shyolkovsky Factory

STRATEGIC ANALYSIS: WEAKNESSES, OPPORTUNITIES & THREATS

GLOBAL SILVER MARKET OVERVIEW

Current State: Structural deficit with production (25,500 MT) trailing demand growth, accelerating industrial consumption (especially solar PV +21%), and supply concentration in politically volatile regions.

COUNTRY-BY-COUNTRY ANALYSIS

1. MEXICO - Weaknesses, Opportunities, Threats

WEAKNESSES:

- **Labor Relations Risk:** Frequent strikes (Peñasquito suspended 4 months in 2023)
- **Cartel Violence:** Mining regions (Zacatecas, Durango) face organized crime
- **Aging Infrastructure:** Many colonial-era districts reaching end of high-grade ore

- **Water Scarcity:** Mines compete with agriculture in arid regions
- **Environmental Protests:** Indigenous community blockades increasingly common
- **Export Dependency:** 99% of exports to single buyer (USA) = concentration risk
- **Declining Exports:** -54% export volume (2024) indicates internal supply issues

OPPORTUNITIES:

- **Largest Producer Status:** 25% global share = pricing power potential
- **Fresnillo Expansion:** World's largest silver company planning new projects
- **Mining Tradition:** 500+ years expertise, skilled workforce
- **Libertad Coins:** Growing international demand, low mintages = premium potential
- **Nearshoring Trend:** US-Mexico manufacturing growth = increased industrial silver demand
- **Reserves:** Still significant untapped deposits in established districts
- **New Technologies:** Ore reprocessing with modern methods recovering more silver

THREATS:

- **Political Uncertainty:** AMLO's resource nationalism, potential expropriation risk
 - **Cartel Expansion:** Organized crime targeting mines for extortion
 - **US Recession:** Primary buyer, economic downturn = export collapse
 - **Energy Costs:** Mexico's power grid instability affects mine operations
 - **Water Rights Battles:** Agriculture vs. mining conflicts escalating
 - **Social License:** Communities demanding higher revenue shares
 - **Byproduct Economics:** 80%+ silver from lead/zinc = vulnerable to base metal price collapse
-

2. CHINA - Weaknesses, Opportunities, Threats

WEAKNESSES:

- **Declining Production:** -2.9% (2024), trend accelerating due to ore depletion
- **Ore Grade Decline:** Mature mines showing 3-5% annual grade degradation
- **State Control:** Inefficient allocation, political priorities override economics

- **Environmental Crackdown:** CCP shuttering polluting mines without warning
- **Export Data Opacity:** Difficult to verify true production/export figures
- **Regional Concentration:** Production concentrated in politically sensitive regions
- **90%+ Byproduct:** Minimal primary silver mines = no control over output

OPPORTUNITIES:

- **Massive Domestic Demand:** World's largest solar panel manufacturer
- **Electronics Manufacturing:** 50%+ of global electronics = captive market
- **Panda Coin Collectibility:** Annual design changes, strong Asian demand
- **Recycling Infrastructure:** Developing world's largest e-waste recovery
- **Deep Pockets:** State can finance massive exploration/development
- **Belt and Road:** Securing foreign silver supplies through infrastructure loans
- **Strategic Stockpiling:** Government accumulating reserves = price support

THREATS:

- **Geopolitical Isolation:** US/EU sanctions could restrict silver trade
- **Taiwan Conflict:** War would devastate electronics supply chains
- **Real Estate Crisis:** Construction collapse = reduced industrial demand
- **Debt Bubble:** Local government bankruptcies = mine closures
- **Water Shortage:** Northern mining regions facing catastrophic aquifer depletion
- **Zero-COVID Risk:** Future lockdowns = supply chain chaos
- **Rare Earth Retaliation:** If West restricts imports, China could restrict silver exports

3. PERU - Weaknesses, Opportunities, Threats

WEAKNESSES:

- **Political Instability:** 6 presidents in 5 years, constant protests
- **Social Unrest:** Indigenous communities blocking mines (Cuajone, Las Bambas)
- **High-Altitude Operations:** Logistics nightmares, weather delays common
- **Ore Grade Decline:** -8% production (2024) due to lower grades

- **Corruption:** Permits delayed/denied for political bribes
- **Infrastructure Decay:** Roads, ports inadequate for mining expansion
- **Declining Production Trend:** Output falling despite world's largest reserves

OPPORTUNITIES:

- **Massive Reserves:** 110,000 MT (world's #1) = decades of potential supply
- **Copper Tie-in:** Silver byproduct from booming copper demand
- **Antamina Expansion:** \$2B investment approved (Feb 2024)
- **Untapped Deposits:** Andean mountains barely explored with modern tech
- **Export Markets:** Diversifying from just North America to Asia
- **Artisanal Formalization:** Bringing illegal miners into legal framework = production boost
- **High Silver Grades:** Andean deposits among world's richest

THREATS:

- **Revolution Risk:** Communist/socialist movements gaining strength
 - **Mine Nationalization:** Government seizure increasingly discussed
 - **Narco-Terrorism:** Shining Path remnants active in mining regions
 - **Environmental Disasters:** Tailings dam failures = industry shutdown
 - **Chinese Dependence:** Beijing controlling more Peruvian mines
 - **Water Wars:** Glacial melt = conflicts between mines and agriculture
 - **Currency Collapse:** Sol volatility = investment flight
-

4. POLAND - Weaknesses, Opportunities, Threats

WEAKNESSES:

- **Single-Company Dependency:** KGHM = 100% of production
- **Copper Price Exposure:** 100% byproduct = no direct silver control
- **Aging Mines:** Kupferschiefer deposits in mature phase
- **Energy Costs:** EU carbon taxes making Polish coal-powered operations expensive

- **Minimal Bullion Program:** No iconic coin like Maple Leaf/Eagle = lost premium revenue
- **Labor Costs:** Rising EU wages eroding competitiveness

OPPORTUNITIES:

- **World's 3rd Largest Reserves:** 61,100 MT = multi-decade supply
- **EU Market Access:** Tariff-free exports to world's largest economy
- **KGHM International:** Expanding to Chile, Canada = diversification
- **Technology Leader:** Automated mining reducing costs
- **Strategic EU Position:** Brussels seeking supply chain independence from China
- **Copper Boom:** EV revolution = sustained byproduct silver
- **Heritage Coins:** Historic Polish silver thaler/zloty collectible market

THREATS:

- **Russia Invasion:** Poland is NATO frontline, war = mine closure
- **EU Regulations:** Brussels imposing impossible environmental standards
- **Germany Industrial Decline:** Largest customer collapsing = demand destruction
- **Renewable Energy Mandate:** Forced coal phaseout = grid instability
- **Copper Substitution:** Technology shifts away from copper = silver collapse
- **Brain Drain:** Skilled miners emigrating to higher-wage EU countries
- **Ukraine Refugee Crisis:** Social services burden = higher taxes on mining

5. BOLIVIA - Weaknesses, Opportunities, Threats

WEAKNESSES:

- **Landlocked:** War of Pacific (1879) = no coastal access, export logistics nightmare
- **Political Extremism:** Socialist government hostile to foreign investment
- **Nationalization History:** Repeatedly seized mines, investor confidence destroyed
- **Infrastructure Collapse:** Roads, power grid among worst in South America
- **Corruption Endemic:** Mining permits require bribes at every level
- **Declining Production:** -50 MT (2024) despite large reserves

- **No Modern Mint:** Limited coin production capability

OPPORTUNITIES:

- **San Cristóbal Expansion:** New ownership planning production increase
- **Lithium-Silver Deposits:** Uyuni Salt Flat has combined reserves
- **Historic Potosí Revival:** Colonial mines being re-evaluated with modern tech
- **Chinese Investment:** Beijing willing to operate despite risks
- **Artisanal Sector:** Formalizing small miners = production surge
- **Regional Hub:** Could service Peru/Argentina mining if stable
- **Rare Earth Combination:** Silver deposits with high-tech metals

THREATS:

- **Communist Revolution:** Evo Morales return = industry collapse
 - **Chilean Tensions:** Border disputes = trade disruption
 - **Mine Seizures:** Government confiscation without compensation (history repeating)
 - **Economic Collapse:** Currency hyperinflation = investment flight
 - **Narco-State:** Cocaine production corrupting mining sector
 - **Water Rights:** Mines vs. indigenous communities = violent conflict
 - **UN Sanctions:** If Bolivia aligns with Russia/China = trade cutoff
-

6. RUSSIA - Weaknesses, Opportunities, Threats

WEAKNESSES:

- **LBMA Sanctions:** Cut off from Western markets (March 2022)
- **Export Restrictions:** US/UK ban on Russian metal = stranded supply
- **Brain Drain:** Sanctions driving metallurgical expertise abroad
- **SWIFT Exclusion:** Can't receive USD/EUR payments = barter economy
- **Polymetal Sale:** Lost key producer to sanctions pressure
- **Two-Tier Pricing:** Trading at Western parity despite isolation

- **Limited Domestic Demand:** No industrial boom like China

OPPORTUNITIES:

- **China Pivot:** 80% surge in exports to China = replacement buyer
- **India Market:** Delhi refuses sanctions = growing customer
- **BRICS Exchange:** Planning sanctions-proof precious metals trading
- **Dukat Mine Expansion:** Production increase possible
- **Prognoz New Mine:** 5-7M oz/year just came online (Q3 2024)
- **Strategic Reserves:** Central bank buying silver (first ever)
- **Massive Reserves:** 45,000 MT = major player long-term
- **Arctic Deposits:** Untapped reserves in Siberia

THREATS:

- **Ukraine War Escalation:** Full NATO conflict = industry destruction
 - **Further Sanctions:** Secondary sanctions on Chinese/Indian buyers
 - **Regime Change:** Revolution = chaos, production collapse
 - **Mine Nationalization:** Kremlin seizure of private operations
 - **Labor Shortage:** Military mobilization draining workforce
 - **Technology Cutoff:** Can't import Western mining equipment
 - **Permafrost Thaw:** Climate change destabilizing Siberian infrastructure
 - **Isolation Perpetual:** Even post-war, West may maintain sanctions
-

7. CHILE - Weaknesses, Opportunities, Threats

WEAKNESSES:

- **100% Copper Byproduct:** No control over silver output
- **Water Crisis:** Atacama Desert facing terminal aquifer depletion
- **Lithium Priority:** Government focusing on lithium over copper/silver
- **Export Infrastructure:** Ports at capacity, expansion blocked
- **No Bullion Program:** Missing out on coin premium revenues

- **Environmental Opposition:** Coastal communities blocking expansions

OPPORTUNITIES:

- **World's Top Copper:** Copper boom = automatic silver increase
- **EV Revolution:** Copper demand surge = byproduct silver surge
- **Technology Leadership:** Most automated mines in South America
- **Political Stability:** Most democratic/stable in region
- **2035 Projection:** >2,000 MT/year possible with expansions
- **Chinese Investment:** Beijing funding new projects
- **Green Mining:** ESG certification attracting premium buyers

THREATS:

- **Copper Peak Demand:** EV substitution = copper decline = silver collapse
 - **Constitutional Crisis:** New leftist constitution = nationalization risk
 - **Water Wars:** Mines vs. agriculture = production shutdown
 - **Peru Border Tensions:** Territorial disputes = trade disruption
 - **Seismic Risk:** World's most earthquake-prone country = disaster risk
 - **Chinese Control:** Beijing owning majority of production = leverage
 - **Labor Militancy:** Unions increasingly aggressive on wages
-

8. UNITED STATES - Weaknesses, Opportunities, Threats

WEAKNESSES:

- **Regulatory Burden:** Federal/state permits taking 7-10 years
- **Environmental Lawsuits:** Every new mine faces litigation
- **Labor Shortage:** Mining jobs unpopular, aging workforce
- **High Costs:** Most expensive jurisdiction to operate
- **Limited Production:** Only 4.3% global share despite demand
- **Import Dependent:** Massive industrial user, insufficient supply

- **Alaska Remoteness:** Greens Creek logistics extremely expensive

OPPORTUNITIES:

- **Reshoring Boom:** US manufacturing revival = increased demand
- **Solar Tariffs:** Domestic panel production = silver demand surge
- **Alaska Potential:** Massive untapped reserves in Arctic
- **Idaho Silver Valley:** Historic district revival with new tech
- **US Mint Premium:** American Silver Eagle carries highest bullion premium globally
- **Defense Priority:** Military electronics = guaranteed demand
- **Recycling Leader:** E-waste recovery technology advancing
- **Strategic Stockpile:** Government may start accumulating (following Russia)

THREATS:

- **China Trade War:** Beijing restricting silver exports = shortage
 - **Recession:** Major consumer, downturn = demand destruction
 - **Green New Deal:** Aggressive regulations = mine closures
 - **Public Lands Ban:** Federal government closing areas to mining
 - **Dollar Collapse:** Currency crisis = domestic chaos
 - **Energy Grid Failure:** Rolling blackouts = smelter shutdowns
 - **Political Polarization:** Mining policy whiplash with each administration
-

9. AUSTRALIA - Weaknesses, Opportunities, Threats

WEAKNESSES:

- **Geographic Isolation:** Expensive to export from Australia
- **Domestic Consumption:** 59%+ used internally = limited exports
- **Labor Costs:** World's highest mining wages
- **Regulatory Complexity:** State/federal conflicts delay projects
- **Cannington Depletion:** Largest mine maturing, grades declining
- **Water Scarcity:** Outback mines facing severe drought

- **Aboriginal Land Rights:** Complex negotiations for mine access

OPPORTUNITIES:

- **Massive Reserves:** 90,000 MT (2nd largest globally)
- **Perth Mint Prestige:** World-class minting, high premiums
- **Asian Proximity:** Close to largest silver consumers
- **Technology Leadership:** Most automated mines globally
- **Lunar Series Popularity:** Chinese zodiac coins = Asian demand
- **Gold Tie-in:** Silver byproduct from booming gold sector
- **Political Stability:** Safe jurisdiction for investors
- **ESG Leader:** Highest environmental standards = premium pricing

THREATS:

- **China Conflict:** Taiwan war = trade embargo on Australia
 - **Beijing Retaliation:** Already facing coal/wine bans = silver next?
 - **Real Estate Crash:** Australian property bubble = recession
 - **Climate Extremes:** Unprecedented floods/fires disrupting operations
 - **Energy Costs:** Coal phaseout = power prices soaring
 - **Labor Militancy:** Unions demanding unsustainable wage increases
 - **Indonesia Competition:** Cheaper labor next door = market share loss
-

10. KAZAKHSTAN - Weaknesses, Opportunities, Threats

WEAKNESSES:

- **Russia Dependence:** Moscow controls export routes
- **Authoritarian Regime:** Nazarbayev dynasty = arbitrary rule
- **Corruption:** Bribes required at every bureaucratic level
- **Infrastructure Gaps:** Roads, rail inadequate for expansion
- **China Border Risk:** Beijing eyeing territory

- **No Bullion Program:** Missing premium coin revenues
- **Single Project Risk:** Kazzinc = 100% of production

OPPORTUNITIES:

- **Explosive Growth:** +130% since 2020 (435→1,000 MT)
- **Glencore Partnership:** World-class operator developing assets
- **Belt and Road:** China building infrastructure = easier exports
- **Untapped Potential:** Barely explored with modern techniques
- **Middle Position:** Between Russia and China = leverage both
- **Mineral-Rich:** Combined with zinc, lead, copper deposits
- **State Partnership:** Tau-Ken Samruk 30% stake = government support

THREATS:

- **Russian Invasion:** If Moscow annexes Kazakhstan = chaos
- **Chinese Colonization:** Beijing flooding region with Han settlers
- **Revolution Risk:** Arab Spring-style uprising (2022 precedent)
- **Ethnic Conflict:** Kazakh vs. Russian minorities = violence
- **Water Scarcity:** Aral Sea disaster = regional ecological collapse
- **Sanctions Spillover:** If Kazakhstan helps Russia evade sanctions
- **Currency Crisis:** Tenge hyperinflation = investment flight


GLOBAL STRATEGIC THREATS

SUPPLY CHAIN RISKS


CONCENTRATION VULNERABILITY:

- Top 3 producers (Mexico, China, Peru) = 50% of supply
- Single point of failure: Major mine/smelter disruption = global shortage
- Latin America instability = 50%+ production at risk
- **Threat Level:** ● CRITICAL

BYPRODUCT DEPENDENCY:


- 70% of silver from base metals = no direct supply control
- Copper/zinc/lead price collapse = silver production crash
- Mine economics based on primary metal, not silver
- **Example:** 2008 crisis = base metals -60%, silver production -15%
- **Threat Level:**  HIGH

GEOPOLITICAL FRACTURING:

- Russia cut off from West = -5% supply to traditional buyers
 - China could restrict exports (precedent: rare earths 2010)
 - US-China decoupling = fragmented markets
 - Shanghai premium (\$7-8/oz) = two-tier pricing emerging
 - **Threat Level:**  MODERATE-HIGH
-

DEMAND EXPLOSION RISKS

SOLAR PV RUNAWAY:

- 2024: 197.6M oz (+21% YoY) for solar panels
- 2030 Projection: 400M+ oz = 50% of current total supply
- China controls 80% of panel production = leverage
- No economical silver substitute identified
- **Risk:** Supply deficit becomes crisis
- **Threat Level:**  CRITICAL

STRUCTURAL DEFICIT ACCELERATION:

- 2024: Supply 25,500 MT vs. Demand ~27,000 MT
- Gap widening 17% annually per Silver Institute
- Recycling at maximum capacity (~18%)
- Investment demand still suppressed (could surge)

- **Threat Level:** ● HIGH
-

INSTITUTIONAL OPPORTUNITIES

CENTRAL BANK BUYING:

- Russia announced silver reserves (first central bank ever)
- Signals potential trend: gold+silver strategic reserves
- If 10 central banks buy 100 MT each = 1,000 MT (4% of supply)
- Precedent: Central banks bought 1,000+ MT gold in 2023
- **Opportunity Level:** ● STRATEGIC

COMEX MANIPULATION END:

- Paper silver (COMEX) 100:1 leverage to physical
- Physical tightness forcing cash settlement
- Shanghai premium proving paper disconnect
- If COMEX breaks = price discovery revolution
- **Opportunity Level:** ● HIGH

ESG PREMIUM PRICING:

- "Green silver" from certified mines commanding 5-10% premium
 - European buyers requiring conflict-free certification
 - Mints charging higher premiums for ESG-certified sources
 - Trend accelerating with younger investors
 - **Opportunity Level:** ● MODERATE
-

TECHNOLOGICAL DISRUPTIONS

SOLAR EFFICIENCY THREAT:

- New panel designs use less silver per watt

- 2024: ~25mg/watt → 2030 target: ~15mg/watt
- 40% reduction = demand destruction of 80M oz
- **Counter:** Panel deployment growth still net positive
- **Threat Level:** ● MODERATE

SILVER SUBSTITUTION:

- Copper in some electronics applications
- Aluminum in solar panels (experimental)
- Graphene research for conductivity
- **Reality Check:** No viable substitute at scale yet
- **Threat Level:** ● LOW (near-term)

MINING TECHNOLOGY OPPORTUNITY:

- AI/ML optimizing ore recovery
- Autonomous equipment reducing costs
- Sensor networks identifying new deposits
- Reprocessing tailings with modern chemistry
- **Opportunity:** 10-15% production increase possible
- **Opportunity Level:** ● MODERATE-HIGH

MINT-SPECIFIC OPPORTUNITIES & THREATS

US MINT (American Silver Eagle)

OPPORTUNITIES:

- Highest recognition globally = premium pricing
- US reshoring = increased industrial demand
- Patriotic buying during crisis = surge demand
- Budget crisis = government minting more coins?

THREATS:

- Congressional funding cuts = mintage restrictions
 - Quality control issues (2024 problems reported)
 - Competition from private mints
 - Digital dollar = reduced coin relevance?
-

ROYAL CANADIAN MINT (Maple Leaf)

OPPORTUNITIES:

- .9999 purity leader = technology premium
- Security features = anti-counterfeiting advantage
- Cryptocurrency-style innovation (MintChip experimented)
- Strong Asian demand for Maple Leaf

THREATS:

- Canadian dollar weakness = pricing volatility
 - Trudeau government anti-mining policies
 - US protectionism = export barriers
 - Competition from Australian innovation
-

MEXICAN MINT (Libertad)

OPPORTUNITIES:

- Heritage appeal = collector premium
- Low mintages (vs. Eagle/Maple) = scarcity value
- Nearshoring boom = US demand surge
- Spanish-speaking market underserved

THREATS:

- AMLO nationalization = mint restructuring

- Cartel counterfeiting operations
 - Quality inconsistency vs. US/Canada
 - Limited international distribution
-

PERTH MINT (Multiple Series)

OPPORTUNITIES:

- Design innovation leader = collector appeal
- Asian proximity = largest consumer market
- Lunar series = cultural relevance in China
- ESG certification = European premium

THREATS:

- Australia-China trade war = export ban
 - Domestic scandals (2021 allegations) = reputation risk
 - High premiums = price resistance
 - Competition from cheaper Asian mints
-

CHINA MINT (Panda)

OPPORTUNITIES:

- Annual design changes = collector frenzy
- Domestic market 1.4B people
- National prestige product = government support
- Belt and Road = distribution network

THREATS:

- CCP could halt exports for political leverage
- Counterfeiting epidemic in China

- No LBMA approval = Western market skepticism
 - Opacity on true mintages = trust issues
-

INVESTMENT THESIS SUMMARY FOR AI ASSET BUILDERS

STRUCTURAL BULL CASE 🚀

Supply Side:

- Production plateauing/declining (top producers all flat/down)
- No major new mines in pipeline (7-10 year development)
- Byproduct dependency = no supply elasticity
- Geopolitical fracturing = constrained trade

Demand Side:

- Solar PV exponential growth (+21% YoY)
- Electronics insatiable (AI data centers, EVs)
- Investment awakening (inflation hedge)
- Central banks entering market (Russia first)

Result: Supply deficit widening to crisis levels by 2027-2030

BEAR CASE RISKS ⚠️

Demand Destruction:

- Global recession = industrial collapse
- Solar substitution = 40% demand loss
- Technology shift away from silver

Supply Surge:

- China dumps strategic reserves
- Russia floods market for hard currency

- Massive new discovery

Alternative:

- Graphene revolution = silver obsolete
- Digital currency = no physical coins
- Copper substitution scales up

Assessment: Bear risks are lower probability, but tail risks exist

BEST POSITIONING STRATEGIES

GEOGRAPHIC DIVERSIFICATION:

- 40% North America (US/Canada/Mexico)
- 30% Australia (safe jurisdiction)
- 20% European sources (Poland)
- 10% opportunistic (Peru, Chile)

PRODUCT MIX:

- 60% bullion coins (Eagle, Maple, Libertad)
- 25% low-mintage commemoratives (Panda, Perth specials)
- 15% physical silver exposure (mining stocks, ETFs)

RISK MANAGEMENT:

- Avoid single-country concentration
 - Monitor Shanghai premium as leading indicator
 - Track solar panel deployment rates
 - Watch COMEX warehouse levels
-

COMPANIES TO WATCH WITH RISK ASSESSMENT

TIER 1 - LOWEST RISK:

- **Hecla Mining** (USA) - Jurisdiction safe, Greens Creek producing
- **Newmont** (Global) - Diversified, Peñasquito scale
- **South32** (Australia) - Cannington leader, safe jurisdiction

TIER 2 - MODERATE RISK:

- **Fresnillo** (Mexico) - Largest producer, cartel exposure
- **KGHM** (Poland) - European stability, Russia border risk
- **First Majestic** (Mexico) - Primary silver, strike risk

TIER 3 - HIGH RISK/HIGH REWARD:

- **Coeur Mining** (USA/Mexico) - Leveraged to price, mixed jurisdiction
 - **MAG Silver** (Mexico) - Development stage, Juanicipio ramp-up
 - **Pan American Silver** (Peru/Mexico/Argentina) - Latin America exposure
-

CRITICAL WATCH INDICATORS

Supply Stress Signals:

1. Shanghai premium >\$10/oz sustained = physical shortage
2. COMEX inventory <100M oz = paper market break
3. US Mint suspends Eagle sales = acute shortage
4. Russian refiners re-enter LBMA = sanctions collapse
5. Peru mine nationalizations = 12% supply lost

Demand Surge Signals:

1. Solar panel deployments >500 GW/year = demand explosion
2. Central bank buying >500 MT = institutional legitimization
3. India VAT elimination on silver = 1.4B person market opening

4. China export restrictions = supply fracture
5. Major ETF inflows (SLV >700M oz) = investment mania

Price Breakout Levels:

1. \$35/oz = break 2021 high, technical signal
2. \$50/oz = 2011 peak, major psychological level
3. \$75/oz = inflation-adjusted 1980 high
4. \$100/oz = paradigm shift, supply crisis

This strategic analysis provides risk assessment context and is not investment advice. Market conditions can change rapidly. Always conduct additional due diligence and consult qualified advisors before making investment decisions.

METHODOLOGY & SOURCES

Production Data:

- US Geological Survey (USGS) Mineral Commodity Summaries 2024-2025
- Silver Institute World Silver Survey
- Individual mining company reports
- National geological surveys

Export Data:

- UN Comtrade Database
- World's Top Exports (worldstopexports.com)
- National customs authorities
- Mining Data Online (MDO)

Mint Information:

- Official mint websites
- Numismatic catalogs

- Industry publications
- Coin dealer resources

Date Compiled: December 30, 2025

Next Update: Quarterly

NOTES FOR RESEARCH USE

1. **Production figures** are mine production, not including recycling (~18% additional supply)
 2. **Export data** includes both refined silver and concentrates (different HS codes)
 3. Many "**mints**" in smaller countries contract production to larger facilities
 4. **Commemorative coins** often have higher premiums than bullion but lower liquidity
 5. **Reserve estimates** are based on known deposits at current prices; higher prices make more reserves economic
 6. **LBMA suspension** of Russian refiners doesn't affect domestic Russian coins/bars
-

Compiled for AI Asset Builders Community - Silver Market Research Initiative

This document provides investment research context and is not investment advice.

Always conduct additional due diligence before making investment decisions.