US Silver-Bullion Exports To China As A Chinese Demand Signal

Why US customs HS710691 silver-bullion exports to China captures Chinese industrial and retail silver pull with V-shape state-conditional pattern where transition windows underperform.

David Stendahl · Market Lab Analytics · November 6, 2026

What this signal is

China is the largest silver consumer in the world; the US is a major silver-bullion exporter. Direct US-to-China silver flow captures Chinese physical demand better than aggregate import data or positioning signals.

This signal reads US customs HS710691 silver-bullion monthly exports to China, takes year-on-year z-score, smooths, and bounds through tanh. A composite near plus one is sustained elevated Chinese pull. A composite near minus one is weak pull.

Across 15 years Phase +1 elevated-China-pull state has delivered plus 1.72 percent mean forward 60-day silver return. Phase –1 weak-pull state has delivered plus 0.98 percent. Phase 0 transition state has delivered minus 1.77 percent, the weakest state-conditional return.

On May 17, 2019 the composite reached its series maximum plus 1.000 during peak Chinese silver demand. On October 18, 2022 the composite reached minus 1.000 during the zero-COVID China industrial slowdown.

Today the composite reads near minus 0.99, in deep weak-pull territory. China's post-COVID silver-import recovery has been uneven.

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How the inputs compose

HS710691 is the US customs trade code for unwrought silver in bullion form. US Census Bureau publishes monthly US-to-China HS710691 exports in USD value with a 3-to-4-week lag.

The engine pulls the monthly series, computes year-on-year z-score against a trailing baseline, applies rolling smoothing to attenuate single-month reporting noise, and passes through tanh with scale 1.5. The polarity is as-is positive.

The engine also computes four confirming features: five-day velocity, 60-day volatility regime, 60-day correlation with silver returns, 63-day lag-1 autocorrelation.

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What the state-conditional returns have actually done

The silver forward-60-day return baseline (unconditional) is mean plus 1.02 percent, median plus 0.22 percent.

> **Reference baseline (3,898 silver-aligned forward-60-day windows from February 2011 through November 2026)**
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> Silver forward-60-day return baseline: mean plus 1.02 percent, median plus 0.22 percent. Phase 0 source: Z102609 engine parquet joined with COMEX silver back-adjusted continuous closes.

Elevated-China-pull (Phase +1), 1,450 trading days, delivered mean plus 1.72 percent.

Transition (Phase 0), 330 trading days, delivered mean minus 1.77 percent.

Weak-pull (Phase –1), 2,178 trading days, delivered mean plus 0.98 percent.

The pattern is V-shape: both extremes beat Normal, and the transition window carries the strongest negative state-conditional edge.

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Three cases that frame how to read the signal

Case 1: May 2019 peak China silver demand series maximum

On May 17, 2019 composite plus 1.000 as US-to-China silver exports surged year-on-year. Silver was rallying through 2019; the signal captured the regime at its peak.

Case 2: October 2022 zero-COVID China slack series minimum

On October 18, 2022 composite minus 1.000 during the zero-COVID industrial slowdown. US exports to China collapsed.

Case 3: 2020 COVID disruption regime

March 2020 COVID caused volatile cross-border silver flow as China reopened before the West. The composite oscillated between phase states.

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How to use the signal today

This is a physical-demand regime detector on a 60-day forward horizon.

Three best uses. First, as a Chinese-demand regime filter for silver exposure. Second, as a cross-check against positioning signals. Third, as a transition-window warning: Phase 0 carries the strongest negative state-conditional edge.

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Methodology notes

Tanh of z-scored 12-month year-on-year change of US HS710691 silver-bullion monthly exports to China, with rolling smoothing.

The 2011 start reflects US customs reliable HS710691 coverage.

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What this signal does not cover

Four caveats. Trade-policy shocks (tariffs, sanctions) distort flow unrelated to demand. Monthly reporting lag of 3-to-4 weeks. HS710691 is only one trade code; other silver forms (jewelry, coins, finished products) are not captured. Chinese demand through third-country routing (Hong Kong, Switzerland) bypasses direct US-to-China tracking.

Not investment advice. Signal readings and empirical statistics are derived from publicly available data (US Census Bureau HS710691 monthly trade data; COMEX silver back-adjusted continuous settles). (c) 2026 David Stendahl.