PA US PGM Export YoY Z

Demand-side complement to Z102076 (Russia sanctions supply) + Z102077 (SA supply).

David Stendahl · Market Lab Analytics · November 6, 2026

What this signal is

Demand-side complement to Z102076 (Russia sanctions supply) + Z102077 (SA supply).

The composite is bounded between minus one and plus one through tanh. On 2020-09-28 it reached its series maximum plus 0.990 and on 2012-08-31 its series minimum minus 0.813.

Today the composite reads near +0.00. See live page for current state.

• • •

How the inputs compose

Demand-side complement to Z102076 (Russia sanctions supply) + Z102077 (SA supply).

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

• • •

What the state-conditional returns have actually done

The palladium forward-60-day return baseline (unconditional) is mean plus 1.27 percent, median plus 0.85 percent.

> **Reference baseline (9,204 palladium-aligned forward-60-day windows over the live engine window)**
>
> Palladium forward-60-day return baseline: mean plus 1.27 percent, median plus 0.85 percent. Phase 0 source: Z102106 engine parquet joined with NYMEX palladium back-adjusted continuous closes.

US PGM exports surging (Phase +1), 547 trading days, returned on average plus 1.52 percent.

Normal (Phase +0), 6,636 trading days, returned on average plus 2.05 percent.

US PGM exports weak (Phase −1), 1,131 trading days, returned on average minus 3.06 percent.

• • •

Three cases that frame how to read the signal

Case 1: 2020-09 composite series maximum

On 2020-09-28 the composite reached its series maximum plus 0.990. Palladium subsequent 60-day behavior aligned with the us pgm exports surging regime pattern.

Case 2: 2012-08 composite series minimum

On 2012-08-31 the composite reached its series minimum minus 0.813. Palladium subsequent 60-day behavior aligned with the us pgm exports weak regime pattern.

Case 3: March 2020 COVID shock window

The March 2020 COVID liquidity shock drove violent regime shifts across palladium drivers. The composite oscillated as the underlying mechanism repriced.

• • •

How to use the signal today

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

Three best uses. First, as a regime filter for palladium exposure (Phase +1 equals us pgm exports surging). Second, as a cross-check against positioning and price-momentum signals. Third, as a transition-window warning, pairing with price-based signals for conviction.

• • •

Methodology notes

Demand-side complement to Z102076 (Russia sanctions supply) + Z102077 (SA supply).

The 1989 start reflects the earliest reliable source coverage.

• • •

What this signal does not cover

Four caveats. The signal is a regime detector, not a timing signal. State-conditional means hold on average, not for every individual window. Regime persistence varies with macroeconomic backdrop. Individual windows can run much longer or shorter than mean sample. State-conditional edges are backward-looking empirical averages. Future regimes may differ. The baseline is NYMEX palladium back-adjusted continuous (PA_1240BD).

Not investment advice. Signal readings and empirical statistics are derived from publicly available data sources. (c) 2026 David Stendahl.