PL CHIRPS South Africa Bushveld

Bushveld dominates global PGM supply. Drought + heat stress -> Eskom power constraints -> mine-shaft ventilation/cooling outages -> production loss. 2008 + 2022 South African load-shedding episodes were canonical PL/PA p

David Stendahl · Market Lab Analytics · November 6, 2026

What this signal is

Bushveld dominates global PGM supply. Drought + heat stress -> Eskom power constraints -> mine-shaft ventilation/cooling outages -> production loss. 2008 + 2022 South African load-shedding episodes were canonical PL/PA premium drivers. Same mechanic potentially serves PA.

The composite is bounded between minus one and plus one through tanh. On 2025-01-14 it reached its series maximum plus 1.000 and on 1991-05-07 its series minimum minus 0.794.

Today the composite reads near −0.70. See live page for current state.

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How the inputs compose

Bushveld dominates global PGM supply. Drought + heat stress -> Eskom power constraints -> mine-shaft ventilation/cooling outages -> production loss. 2008 + 2022 South African load-shedding episodes were canonical PL/PA premium drivers. Same mechanic potentially serves PA.

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

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What the state-conditional returns have actually done

The platinum forward-60-day return baseline (unconditional) is mean plus 1.63 percent, median plus 1.22 percent.

> **Reference baseline (8,960 platinum-aligned forward-60-day windows over the live engine window)**

> Platinum forward-60-day return baseline: mean plus 1.63 percent, median plus 1.22 percent. Phase 0 source: Z4308 engine parquet joined with NYMEX platinum back-adjusted continuous closes.

Bushveld precip surplus (Phase +1), 4,507 trading days, returned on average minus 0.38 percent.

Normal (Phase +0), 1,427 trading days, returned on average plus 1.63 percent.

Bushveld precip deficit (Phase −1), 3,026 trading days, returned on average plus 2.73 percent.

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Three cases that frame how to read the signal

Case 1: 2025-01 composite series maximum

On 2025-01-14 the composite reached its series maximum plus 1.000. Platinum subsequent 60-day behavior aligned with the bushveld precip surplus regime pattern.

Case 2: 1991-05 composite series minimum

On 1991-05-07 the composite reached its series minimum minus 0.794. Platinum subsequent 60-day behavior aligned with the bushveld precip deficit regime pattern.

Case 3: March 2020 COVID shock window

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

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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 platinum exposure (Phase +1 equals bushveld precip surplus). Second, as a cross-check against positioning and price-momentum signals. Third, as a transition-window warning, pairing with price-based signals for conviction.

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Methodology notes

Bushveld dominates global PGM supply. Drought + heat stress -> Eskom power constraints -> mineshaft ventilation/cooling outages -> production loss. 2008 + 2022 South African load-shedding episodes were canonical PL/PA premium drivers. Same mechanic potentially serves PA.

The 1990 start reflects the earliest reliable source coverage.

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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 platinum back-adjusted continuous (PL_1240BD).

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