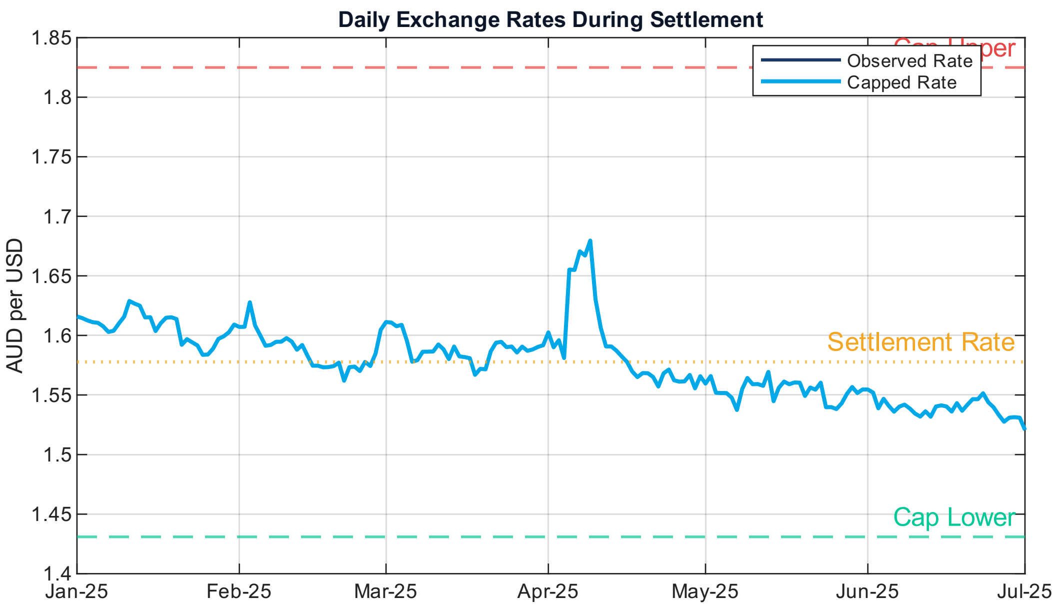
FAIR TRADE FX

Financial Shock Absorber for Exchange Rates | Statmechs Pty Ltd

CASE STUDY 4: MAJOR IRON ORE EXPORT TO CHINA

APilbara-based mining company exports USD 10,000,000 of iron ore to a Chinese steel mill. Settlement spans 180 days aligned to shipping and payment milestones.

Currency Pair	Contract Period	Notional Value	Industry
USD / AUD	**Jan 2025 to Jul 2025**	**USD $10.00M**	**Mining & Resources**



KEY METRICS

Spot Rate at Inception	**1.6160**
Cap Upper Bound	**1.8249**
Cap Lower Bound	**1.4309**
Settlement Rate (Capped Avg)	**1.5778**
Annualised Volatility	**7.3%**
Forecast Risk Reduction	**76.5%**
Days Cap Activated	**0 / 182**
Actual Vol Reduction	**0.0%**

FINANCIAL IMPACT (AUD)

FairTradeFX Settlement	Uncapped Average	Worst-Case Single Day	Best-Case Single Day
AUD $15.78M	**AUD $15.78M**	**AUD $16.80M**	**AUD $15.21M**

Protection vs Worst-Case: AUD $1.02M saved

Methodology:

FairTradeFX uses a GARCH(1,1) volatility model fitted to 720 days of historical exchange rate data sourced from XE.com. The model forecasts conditional volatility over the contract horizon and establishes 95% confidence bands that serve as immutable cap and floor rates.

During the settlement period, each daily observed rate is clipped to the cap bounds before being included in a running average. The final settlement rate is the mean of all capped daily rates, providing dual protection: (1) daily cap limits protect against extreme single-day moves, and (2) averaging across the full period smooths residual volatility within the bands.

All figures in this case study are back-calculated using actual historical market rates — not simulations.