REACTION FUNCTION CURVE · SUPPORTING ARCHITECTURE

The Research Program as Mandate Evidence

Six documents, built on each other: how the published work supports the mandate's design.

Each piece of the research program answers a question the mandate raises about itself. The work is centred on Brazil deliberately. It is the market where the data permit the deepest test, and where a claim about term premia can be pushed until it holds or breaks in public. Brazil is the pedagogical example: evidence that the mandate is organised around ideas solid enough to survive contact with real prices, rather than around a narrative. The methodology built there is country-agnostic by construction and now runs across the mandate's universe of markets in the Americas.

I · THE VEHICLE

Pod Platforms: A Perfect Filter, or a Perfectly Coarse One? and its ambiguity-aversion extension model the structure the mandate is written for: stop rules as a coarse filter on unobserved skill, and cross-pod correlation instability—not volatility—as the binding allocation risk. The mandate is designed against that model rather than despite it: a single explicit alpha source, a stated stop, and low structural correlation to a platform's crowded book.

II · THE OBJECT

Brazilian Interest Rates: Term Premium, Fiscal Dominance, and the Real Curve makes "rates identify the regime" measurable. Both curves decompose into an expected short rate, a **basal premium** set by global duration pricing—Brazil's nominal and real term premia are cointegrated with their US counterparts—and a local, tradable idiosyncratic residual. That split states the mandate's Decision Zone and Cycle Zone taxonomy in basis points, not prose.

III · THE ANCHOR

A mandate built on reaction functions needs a benchmark to read them against: without neutral, tight and loose are just adjectives. *Three Routes to a Neutral Rate* produces three independent estimates of that parameter —structural, bridge, reduced-form—and reports where they agree and where they don't. That parameter turns "rates identify the regime" into a measurement, not a judgment call.

IV · THE APPLICATION

Together, *Brazilian Interest Rates* and *Three Routes to a Neutral Rate* locate the curve: how far policy sits from neutral, and how much of the rest is compensation, not expectation. Beyond the horizon where central bank discretion dominates pricing—past roughly two years—the curve is set by risk premia. That is where the machinery earns its keep: DV01-neutral relative value between vertices, and outright term-premium positions against the basal level. The reaction function governs the front end; the premium prices what the rest of the curve charges for holding it.

V · THE SATELLITE

The BRL four-channel note prices the currency partly off the same term-premium object estimated in *Brazilian Interest Rates*. "Satellites monetize it" is not a statement of intent: the FX model takes a rates output as a literal input.

VI · THE REACH

The same ACM/BRW machinery that decomposes Brazil's nominal and real curves in *Brazilian Interest Rates* is not Brazil-specific: curve construction from liquid instruments, affine decomposition with bias correction, and cointegration against the global basal are generic steps. It now runs on the other markets in the mandate—the US, Canada, Mexico, Chile and Colombia—refreshed weekly, on nominal and, where the market allows, real curves. The tests travel; the answers need not: the Mexico results pack finds a US link that is short-run rather than long-run. The companion notes carry the Brazil results in simplified, less elaborated form. Brazil is where the method was proved; the mandate's universe is where it now runs.

Brazil is the worked example, not the domain.

VII · THE CONSTRAINT

Last, the fiscal work identifies where a reaction function stops being one. Debt composition and the parafiscal impulse imply a sustainability ceiling on the optimal policy rate, beyond which tightening transmits perversely. This is the regime-break case the mandate's risk section presumes exists, given a formal statement.