

# CRL Base — Indicative Technical Term Sheet

## Conditional Retroactive Leverage

*For discussion with professional counterparties and internal teams (product, risk, quant, technology)*

**Important:** This document is for discussion purposes only. Not a binding offer. Final terms subject to broker internal approval, local regulation and client classification. CRL-based structures are intended for Professional Clients only.

**Patent Status:** The CRL retroactive leverage mechanism is protected by a pending U.S. patent. The discontinuous payoff transformation at the trigger cannot be statically replicated by any combination of vanilla or exotic derivatives (Carr-Lee framework).

## 1. Parties and Roles

<b>Technology Provider</b>	<b>CRL Technologies, Inc.</b> (Delaware C-Corp) — Provides calculation engine, payoff/state logic and APIs. Does NOT act as broker, dealer, issuer, advisor or custodian.
<b>Issuer / Intermediary</b>	[Broker / Bank name] — Regulated entity manufacturing, distributing and booking CRL-based products. Responsible for all product governance, documentation, suitability and regulatory obligations.
<b>End-client</b>	Professional Client or Eligible Counterparty under applicable regulation (e.g. MiFID II) of the Issuer.

## 2. Product Summary

### Client View

The client pays a fixed premium to participate with leverage in a move that has already been confirmed by the market, with maximum loss capped at that premium and no margin calls at the product level.

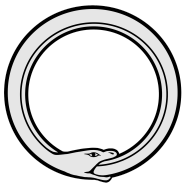
### Issuer View

A payoff that:

- (i) behaves linearly until a defined trigger is hit,
- (ii) then retroactively multiplies accumulated profit by a fixed leverage factor,
- (iii) can be hedged and booked using existing infrastructure and risk models.

## 3. Key Parameters

Parameter	Description
Underlying	FX pair, equity index, single stock, commodity future or other asset class approved by Issuer's product governance
Notional (q)	Number of underlying units or notional amount, per Issuer's ticket size and risk limits
Entry Price ( $S_0$ )	Underlying spot at trade inception
<b>Trigger Level (K)</b>	Barrier expressed as percentage above/below $S_0$ in client's favour (e.g. +5% = 105 if $S_0 = 100$ )
<b>Leverage Factor (L)</b>	Retroactive leverage multiplier (e.g. 3x, 5x, 10x), bounded by regulatory and risk constraints



Parameter	Description
Premium (P)	Fixed amount paid up-front (typically 0.5-2% of notional). Client's maximum loss is limited to P.
Tenor (T)	From intraday to medium term (up to 6-12 months), set by Issuer per product
Direction	Long or Short on the underlying

#### 4. Formal Payoff Definition

Let  $S_0$  be the entry price,  $S_t$  the price at time  $t$ , and  $\tau_K$  the first time  $S_t$  reaches trigger  $K$ . For a **long** CRL Base position:

Pre-trigger (Linear State, $t < \tau_K$ ):
$\varphi(t) = q \cdot (S_t - S_0)$
Post-trigger (Leveraged State, $\tau_K \leq t \leq T$ ):
$\varphi(t) = L \cdot q \cdot (S_t - S_0)$
Instantaneous retroactive jump at $t = \tau_K$ :
$\Delta\varphi = (L - 1) \cdot q \cdot (S_{\tau} - S_0)$

**Net payoff at maturity:**  $\Pi(T) = \varphi(T) - P$  (minus any Issuer fees)

#### 5. Numerical Example

**Parameters:** Entry  $S_0 = 100$  | Trigger  $K = 105$  (+5%) | Leverage  $L = 5\times$  | Quantity  $q = 100$  units | Premium  $P = 150$  (1.5%)

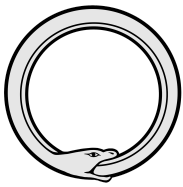
Event	Spot	State	Gross Payoff	Net (less premium)
Entry	100.00	Linear (1×)	0	-150
Pre-trigger	103.00	Linear (1×)	+300	+150
Just before K	105.00	Linear (1×)	+500	+350
<b>TRIGGER HIT</b>	<b>105.00</b>	<b>RETROACTIVE</b>	<b>500 → 2,500</b>	<b>+350 → +2,350</b>
Post-trigger	107.00	Leveraged (5×)	+3,500	+3,350

**Key Insight:** At trigger, payoff jumps instantaneously from 500 to 2,500 — a +2,000 gain in one moment. This equals  $(L-1) \times \text{accumulated profit} = 4 \times 500 = 2,000$ . This **retroactive jump** cannot be replicated by any standard derivative.

**Downside profile:** If the trigger never hits and the underlying ends below  $S_0$ , the client's loss is limited to **P = 150 (premium)** — no margin calls.

#### 6. Risk and Suitability

- CRL Base is a **high-risk leveraged derivative** for Professional Clients and Eligible Counterparties only
- Client can lose the entire premium  $P$  even if leverage never activates
- Once leverage is activated, the position is highly sensitive to price moves; profits can be quickly eroded
- Gap risk, liquidity risk, execution risk and currency risk remain and must be assessed by the Issuer
- Issuer responsible for target market definition, suitability/appropriateness, KIDs and disclosures



## 7. Operational Specifications

Capability	Specification
Core latency	<250 microseconds per calculation
E2E latency (p99)	<10 milliseconds
Throughput	146,000+ calculations/second
Authentication	HMAC-SHA256 + mTLS (enterprise)
Audit trail	AWS KMS signed, hash-chained, WORM storage, 7-year retention
SDKs	Python, TypeScript, Java, C#, Go — published and tested
Compliance	MiFID II Art 16(6), EMIR fields, best execution evidence

## 8. Technology Commercial Terms

This section covers the **technology service** provided by CRL to the Issuer (not end-client product pricing).

Commercial terms are agreed bilaterally based on scope, volume and partnership level. Typical structures include:

- **One-off setup/integration fee** in the EUR 50,000 – 150,000 range, covering tenant provisioning, technical support and certification
- **Ongoing revenue share** typically 20–35% of CRL-enabled premium, designed to be accretive to the Issuer's economics
- **Tiered pricing** for larger Tier-2 issuers, with volume discounts and enhanced SLAs

**Early Partner Program:** Firms joining in the current phase may qualify for preferred terms, including locked revenue share and direct input on product roadmap. Contact us to discuss eligibility.

## 9. Disclaimer

*This document is for information purposes only and is intended exclusively for professional clients and eligible counterparties. It does not constitute investment advice, an offer to sell, or a solicitation of an offer to buy any financial instrument.*

*Any implementation of CRL-based products must be carried out by a regulated entity acting as Issuer, which remains solely responsible for regulatory compliance, product approval, disclosure, hedging and risk management.*

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