

Offshore Inflation

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September, 2025

1. DAP Onshore contract characteristics

Inflation Future DAP

Understanding the DAP

How it works

- The DAP Future dynamics is like a swap contract.

	LONG	SHORT
BUY DAP	Accrued DI Rate	IPCA + Spread
SELL DAP	IPCA + Spread	Accrued DI Rate

This is a real interest rate futures contract obtained by the difference between the DI and the inflation rate measured by the IPCA

$$UP = \frac{100,000}{\left(1 + \frac{i}{100}\right)^{\frac{n}{252}}} \quad \text{Notional} = UP \times 0.00025 \times IPCA_{INDEX}$$

$$DV01 = UP_{i=i} - UP_{i=i+0.01\%}$$

Contract Specifications

Ticker B3 BBG	DAP WLA Index ->CT
Quotation	Rate per annum (252 business days)
Tick size	0,5 BP (0.005%)
Contract months	All months – with the expiration date on 15th calendar day of the contract month - Next six calendar months - Next January - All other maturities that match the maturities of NTN-Bs

How to trade

Switching between a floating and a fixed rate



Inflation strategies



Inflation Future DAP

Understanding the DAP

How it works

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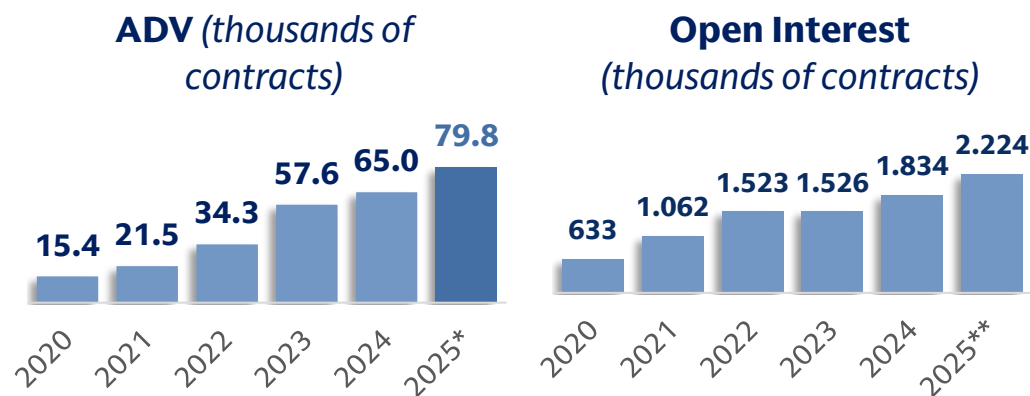
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Statistics



- * Until 08/26/25 **Until July 25

Source: B3

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Contract Months

Rule	Maturity
Next six calendar months	Sep/25, Oct/25, Nov/25, Dec/25, Jan/26, Feb/26
Next January	Jan/27
All other maturities that match the maturities of NTN-Bs	Aug/26, May/27, Aug/28, May/29, Aug/30, Aug/32, May/33, May/35, Aug/40, Aug/50, May/55, Aug/60

2. Offshore Inflation Swaps

characteristics

Trading Offshore Inflation

Through swaps

An inflation swap exchanges 100% of CDI on one leg against a fixed real rate plus IPCA on the other, and it can be settled in BRL (onshore) or cash settled in USD (offshore).

Onshore x Offshore

- The key distinction between the onshore and offshore markets lies in settlement. Onshore inflation swaps are BRL-denominated and settled in BRL, whereas **offshore inflation swaps are also BRL-denominated but are cash settled in USD.**

Fixed to float swap

Fixed leg: Exp/252 (business-day basis)

The fixed real rate accrues from the trade date through the contract's final trading day. The inflation indexation compounds monthly IPCA releases—using the index published on the 15th of each month and compounding by the monthly inflation rate until the next index publication on the subsequent 15th.

Floating leg: Exp/252 (business-day basis)

The floating rate accrues by daily compounding of CDI from the trade date through the contract's final trading day.

Applications

- Alternative channel to access Brazilian real rates in offshore markets
- Enables leverage not typically available in the cash bond market
- Replicates onshore risk via offshore structures
- Bilateral market which can be transitioned to central clearing at some point

How to calculate and price

Offshore Inflation Swap

DV01 Offshore

$$DV01_{Offshore} = f(BRL\ FV, DI\ Offshore, Discount\ Factor(USD\ Funding\ Curve^{(1)}), 1/NDF\ USDBRL\ offshore, 1/Real\ Rate)$$

Offshore Net Present Value

$$NPV_{Offshore} = f(BRL\ FV, Discount\ Factor(USD\ Funding\ Curve^{(1)}), 1/NDF\ USDBRL\ offshore)$$

Carry in bps

$$Carry = \frac{Price^{(2)}\ Today - (Price^{(2)}\ Yesterday * 1\ day\ of\ CDI)}{PV01\ in\ BRL}$$

- The opportunity cost of getting an exposure to this swap, against the CDI

IPCA Pro Rata

IPCA stands for Extended Consumer Price Index, it is Brazil's Official Inflation Index, and it is calculated on the 15th of each month, published monthly. It is calculated accumulating the most recent inflation release on the 15th of each month relative to the initial IBGE index base date of December 1979. (On Jul 15th, 2025 the IPCA index was 7331.98)

IPCA Pro Rata is the IPCA projection for a day in the current month, where the official index is not released yet. It is calculated based on the expected inflation for the month. It means IPCA Pro Rata is the expected inflation accrued over a period.

$$IPCA\ Pro\ Rata = Last\ IPCA\ Index\ Published * [1 + \%IPCA\ projection]^d \quad d = \left[\frac{Business\ days\ between\ 15th\ of\ previous\ month\ and\ Swap\ effective\ start\ date}{Business\ days\ between\ 15th\ of\ previous\ month\ and\ 15th\ of\ next\ month} \right]$$

(1): USD Funding Curve Depending on ISDA negotiated between counterparties.

(2): Considering price in BRL, adjusted by IPCA pro rata.

3. Onshore X Offshore

Difference Between Onshore and Offshore

Offshore Inflation Swap

Characteristics	DAP Onshore	Offshore Inflation Swap
Settlement currency	BRL	USD
Pricing	Local Price	Local Yield + OnOff Spread
Market	Exchange / Future	OTC
Liquidity	Liquid	As Liquid as the onshore
Market Risks	Inflation, Real Rate	Inflation, Real Rate, $FX^{(1)}$, OnOff Basis

(1): FX Risk in the offshore inflation swap is based on trade NPV.

How do we trade DAP Onshore?

DAP is an exchange-traded futures contract. However, it is not the primary instrument for obtaining inflation exposure, as market liquidity in Brazil is concentrated in government inflation-linked bonds (NTN-Bs). As a result, an active “Bond Casado” (asset swap) market has developed, combining the NTN-B with the DAP future to synthesize the desired exposure.

Liquidity resides in NTN-Bs, which are semiannual coupon bonds with maturities extending to 2060. The most actively traded on-the-run maturities include Aug 2030, Aug 2032, May 2035, May 2045, and Aug 2060.

Typical social size ranges from 10k to 20k DV01. Market depth is generally strong given the solid liquidity across the key components that underpin the offshore IPCA swap—NTN-B bonds, the DAP Casado (asset swap), and the on/off basis. Both the DAP Casado and the on/off basis (which is effectively akin to CDI on/off) tend to exhibit low volatility.

DI X “DAP” Offshore vs NTNB

Main differences between DI Offshore, DAP, NTNB and TRS

	DI Offshore	Offshore Inflation Swap	NTN-B	TRS
Settlement Currency:	USD	USD	BRL	USD
Exposure:	Fixed Nominal Rate vs Floating rate, $FX^{(1)}$, OnOff Basis	Inflation, Real Rate, $FX^{(1)}$, OnOff Basis	Fixed Real Rate + Inflation vs Floating Rate + Sovereign Risk	Fixed Real Rate + Inflation + Funding levels + Sovereign Risk
Can leverage your position?	Yes	Yes	No	Yes
Side:	Long /Short	Long/Short	Long/ <i>Short</i> ⁽²⁾	Long/Short

(1) FX Risk is based on trade NPV.

(2) Short can be done trough a Repo which is expensive and lack flexibility.

4. Breakeven Inflation

Breakeven Inflation

Offshore Inflation Swap

Onshore X Offshore

Breakeven inflation is the implied inflation rate derived from the difference between the nominal rate and the real rate. If the current Inflation On/Off spread is zero, the offshore breakeven equals the onshore breakeven.

Note: the Inflation On/Off spread is currently zero but may change over time with market supply and demand.

How to Calculate

Offshore Breakeven

Onshore Breakeven

$$\left[\frac{(1+DI\ Off\%)}{(1+DAP\ Off\%)} - 1 \right] = \left[\frac{(1+DI\ On\%)}{(1+DAP\ On\%)} - 1 \right]$$

Why use it

When clients want to express a view on breakeven inflation, the DAP futures contract provides practical advantages over buying or selling NTN-B bonds. DAP makes it straightforward to go long or short inflation, delivers greater capital efficiency by requiring only daily margining instead of full cash outlay for the bond, and taps into the deep onshore liquidity that underpins the structure (NTN-Bs plus the DAP/asset-swap market). As a result, investors can implement breakeven views with flexibility, leverage if desired, and lower balance-sheet usage versus outright NTN-B positions.

5. Local Corporate Bonds linked at Inflation

Corporate Bonds Linked to Inflation

Pricing & Volume of Market

How it works?

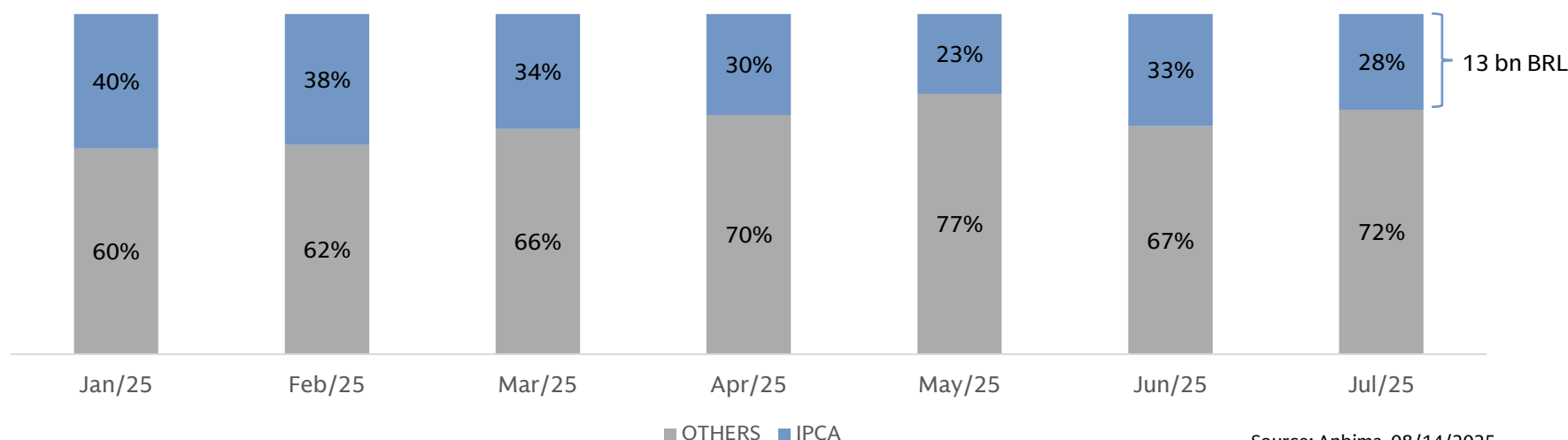
Pricing of local IPCA-linked corporate bonds is based on the period's IPCA plus a market-traded credit spread. Using an NTN-B of comparable duration as the benchmark, we extract the spread and mark the bonds to market in secondary trading.

Issuers can also swap their IPCA exposure into floating CDI, aligning liabilities with typical treasury preferences, since most corporate debt is managed against CDI for simplicity at the board level.

The market according to Anbima*

June had a volume of incentivized issuances of BRL 12.05 billion, and a total of BRL 74.54 billion in issuances through June 2025, compared to BRL 64 billion in the same period in 2024.

IPCA Linked vs Total Issued in Primary Market of Corporate Bonds



*Source: Anbima 07/24/2025