Protocol Transparency Rating

Huma (PST)

Independent Transparency Dashboard for PST, huma.accountable.capital

GRADE	**A** · composite 2.97
CAPTURED	**2026-11-13 15:23 UTC**
DEPTH	**Dashboard Deep-Audit (Protocol Transparency Rating v3.1)**
METHODOLOGY	**Protocol Transparency Rating v3, 2026-07-20 (RockawayX Research)**

A Protocol Transparency Rating grade rates disclosure, not safety. It measures how much of what a risk professional needs is actually on the page: not whether the assets are safe, and not whether the displayed numbers are true. A dashboard can be fully backed and score poorly because it proves none of it; it can score well and still hold assets that later fail. This is not a credit rating.

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Summary

Composite **2.97**, band A, published **A**. No critical omission and no mismatch gate. Two medium-impact omissions (items 5 and 25) cap the grade at AA, which does not bind. No item score moved since 2026-11-06. **The letter rests on the methodology owner's reading of 6 November, applied unchanged:** a matured note shown at full value while its contract is flagged is a gap, not a mismatch. The note that reading was made on resolved the way the reading expected. With `m` = 1 the grade is BBB ▼.

Captured 2026-11-13 15:23:57 to 15:24:32 UTC from the full rendered page after scroll, browser timezone UTC. **The page showed a snapshot taken at 10:31:07, 4 hours 53 minutes earlier, and still did at 16:15.** The payload gives the reason: the snapshot is blocked because the node cannot read the payment state of a note Huma does not hold (see L4). A re-capture would have served the same snapshot, so the grade describes the 10:31 figures. The absence protocol was run alongside, every FAQ entry was opened, info icons were hovered, and all 72 address rows were tested.

Last week's note, resolved. B-TFCYBH7W matured on 6 November at 02:00 UTC and was flagged 11 seconds later. Its coupon, USD 110,945.21, was funded on 9 November at 09:58, 80 hours after maturity, and the Safe claimed it on 10 November. A replacement of the same face, B-TFCYXSZB (dated 6 November, maturing 29 January 2027), was minted to the Safe on 6 November at 15:00, 13 hours after maturity. The row has left the page. Its principal is still unfunded through the contract, and the flag is still set. This is the pattern of the five late coupons before it, and the trigger published on 6 November did not fire.

This week's two maturities. The same picture recurs, with the replacements already minted:

Note	Matured	`flagDefault` set	Coupon through the contract	Replacement minted to the Safe	On the page
B-TFEUJPKS	13 Nov 02:00	02:00:11	**Not funded at 16:08**, 14 hours on	B-TFEUBN6A, 08:56:47	**USD 5,085,342, full value, no status**
B-TFCYXTIU	13 Nov 09:00	09:00:11	Funded 10:13:35, USD 102,410.96	B-TFCY8LFN, 08:57:47, before maturity	USD 5,000,000 at par plus a USD 102,411 coupon entitlement

The 10:31 snapshot shows both matured notes and neither replacement, though the Safe held both from 08:57. On the reading adopted, the old row stands for the position until the roll is recorded, and the total is consistent. What the page lacks is the status of the note it shows.

At capture	
Composite	**2.97, band A, published A (2.97, A, on 2026-11-06)**
Gates	`k` = 0, `j` = 2 (items 5, 25), `m` = 0, `v` = 0. The AA ceiling from `j` does not bind
Total PST Reserves	USD 387,861,046
Total Supply Value	USD 386,527,865. mPST supply **reproduced on-chain to the micro-token**; PST not re-readable at the snapshot slot (L1)
Collateralization	100.34%, surplus USD 1,333,181
Loan-type exposure, Arf and TradeFlow	USD 307.14M, **79.19% of reserves** (88.57% on 2026-11-06). Item 19 applies
Address rows that resolve	**72 of 72**, each to its own address

At capture	
Confidence	High on the on-chain legs at the snapshot and on the notes; Low on what a TradeFlow maturity means in cash; Medium on the off-chain credit book and the signing policy; Low on whether the 10:31 book still stands (L4)

Three further findings a reader of the 2026-11-06 grading would not expect:

- **The feed has been blocked since 10:31 by a note Huma does not hold.** The node's coupon capture fails on B-TFEUQNV4, a EURC note of the same EURO fund, with "Unsupported eNote payment currency". All 500 units sit with an externally owned address the page does not list; the Safe holds none. The page stamps its figures "Most Recent Retrieval: 2026-11-13 10:31:07" but does not say the snapshot is blocked. See L4.
- **The book has moved since the snapshot.** At about 16:20 neither published Jupiter wallet holds jlUSDC. USD 10.02M of the USD 31.44M the page shows was withdrawn at 14:55 and deposited into a new pool at 14:57, inside the same published wallet; the rest was not traced this pass. See L4.
- **Reserves rotated from credit into DeFi.** Arf fell from USD 220.55M to USD 195.87M and On-Demand Pool A closed; Jupiter rose from USD 19.52M to USD 31.44M; USD 25.31M of USDC was lent into two Morpho cbBTC/USDC markets the page does not name. Loan-type exposure fell from 88.57% to 79.19%.

How to read this grade

The grade measures **disclosure**: how much of what a risk professional needs is actually on the page. It is not a view on whether the assets are safe or whether the displayed numbers are true.

- **Items.** Twenty-five items, in nine weighted dimensions, are each scored 0 to 4 on evidence tier:
  - 4: reproduced or on-chain-verifiable;
  - 3: shown in detail or independently attested;
  - 2: headline only;
  - 1: ambiguous;
  - 0: absent.
- **Composite.** The **composite** is the weight-normalized sum of the dimension means, also 0 to 4.

Composite	Band	What a reader can do with the page
3.60 to 4.00	AAA	Assess the position from the page alone. No critical or medium-impact omission
3.20 to 3.60	AA	Assess it, with a gap or two to close by asking. No critical omission
2.70 to 3.20	A	Assess it after closing a small number of gaps. No critical omission
2.20 to 2.70	BBB	Work from the page; **the adequacy threshold**. At most one critical omission
1.70 to 2.20	BB	Size the position, but not the risk inside it
1.20 to 1.70	B	Read the headline figures and little else, or two or more critical omissions
below 1.20	C	Not enough to assess anything, or a B ceiling lowered by a mismatch

Under v3.1, an item is **omitted** when it scores at or below 1. A fixed list decides what counts as critical:

- **Critical items:** 1, 3, 6, 7, 8, 14, 16, 19 and 20, plus 10 and 11 counted together.
- **Medium-impact items:** 2, 5, 13, 15, 17, 18, 22, 23, 24 and 25.

The gates then apply to the band, in this order:

	Trigger	Effect
Critical ceiling	`k` critical omissions	one caps at BBB, two or more at B
Medium-impact ceiling	`j` medium-impact omissions	one or more caps at AA
Single-vendor cap	`v` : items 10, 11 and 13 all absent	caps at BBB
Mismatch downgrade	`m` : a figure on the page contradicted by a primary source	one band lower, marked ▼
Kill-switch flag	item 22 absent with no independent verification path	a trailing (minus)

A grade is only valid with its capture date, and describes the page as it stood at that moment.

What this dashboard does not show

Four items score at or below 2. Each absence was verified with the absence protocol:

- `textContent` as well as `innerText` ;
- every collapsed node expanded;
- every `title` and `aria-label` read;
- every row and button clicked;
- info icons hovered;
- the payload's 1,008-field inventory.

	Not shown	What a reader therefore cannot answer	Composite gain at 4
25	Mandate and allocation constraints	What the operator may allocate to, in what size, and what change needs a signature. The page describes holdings, never limits	+0.12
19	Credit quality and defaults	Whether any Arf borrower or TradeFlow obligor is late, and whether each TradeFlow maturity was repaid in cash, rolled, or extended. Twenty-seven matured notes carry unpaid principal in their contracts and twenty-two a default flag; two are still shown	+0.12
5	Underlying position volatility	How far any leg can move against the holder. There is no volatility, drawdown or stress series anywhere	+0.11
17	Maturity and lock-up, on the v3.1 grid	How far from NAV each leg could be sold or redeemed at its stated horizon. The horizons are shown; no deviation bound is shown for any leg	+0.07

Negative-Space Map

Legend: ● shown, ◐ partial, ○ absent. Classification: critical, medium, mismatch, soft.

Not gated: matured notes shown while their contracts are flagged in default

Not gated, `m` = 0, on the methodology owner's reading of 2026-11-06. Tested against all 22 note rows the page shows; 20 are unflagged and unmatured, and two are not.

	The page	The contract `0x0Ef7...f4a4`, block 26,407,137 (16:08 UTC)
Position	B-TFEUJPKS, USD 5,085,342 in Total PST Reserves	5,000 of 5,000 units held by Huma's Safe
Maturity	"13 Nov 2026"	2026-11-13 02:00:00 UTC, passed
Value	USD 1,017.068493 per unit: "principal plus accrued contractual interest, using terms recorded in the eNote contract (ACT/365, capped at maturity)"	Par USD 1,000 plus coupon USD 17.068493: the terms reproduce exactly
Payment state	Nothing	`pendingPaymentIndex()` = 0: neither coupon nor principal funded; 0 USDC in the contract
Default state	Nothing	`creditEvents().flagDefault` = **true**, set at 02:00:11 UTC, tx `0x87ae6249...`
Replacement	Not shown	B-TFEUBN6A, 5,000 units dated 13 November 02:00, minted to the Safe at 08:56:47

B-TFCYXTIU differs in one respect. Its coupon was funded at 10:13, and the page values it at par "excluding completed coupon payments", with the coupon as a separate entitlement row. So the node reads payment state and prices it. It does not show a status, and it shows the flag on neither note.

The case for the gate. As on 6 November: both sides are directly observable, the page names the contract as its source, and it shows the terms while leaving out the state.

The reading adopted, and how it held. The flag marks a scheduled payment not yet funded, and the note is then paid or rolled at par. B-TFCYBH7W, the note this reading was adopted on, did exactly that: coupon paid 80 hours late, replacement minted 13 hours after maturity, row removed. The reading is still unproven for the principal [UNVERIFIED]: no principal has been funded through any contract, and the flag has no published definition. **Raters could differ here, and the letter turns on it:** with `m` = 1 this capture is BBB ▼.

What closes the question. Any one of: a status on the row, such as "matured, payment pending"; showing the replacement in place of the matured note at the roll; or a published definition of the flag, with the settlement status of each matured note.

No critical omission

`k` = 0. No critical-list item scores at or below 1.

Medium-impact omissions

- **Item 25, mandate. ○, 0.** No eligible-asset list, venue list, cap or change process on the page, in a tooltip or in the payload. Over the week USD 24.7M left Arf, USD 25.3M was lent into two Morpho cbBTC/USDC markets, Jupiter rose by USD 11.9M, and after the snapshot USD 10.0M went into a new pool. None of it is bounded by anything a reader can see.
- **Item 5, volatility. ○, 0.** Unchanged since 2026-07-19.

Material

- **Item 19, the TradeFlow book rolls and the page does not say so. ○ for the notes.**
  - **What the page shows.** Each note appears with a maturity date and a duration of "<=90 days".

  - **What the chain shows.**
    - Twenty-seven notes, USD 150.0M face value, have matured since 30 April, and no principal has been funded through any contract.
    - Twenty-two of the twenty-seven carry `flagDefault`.
  - **What is disclosed elsewhere.** The Arf series carry footnotes that say "3-month rollover". The TradeFlow row carries none.
  - **What the gap means for a reader.** A reader of the page cannot tell that the eNote position has behaved as a revolving facility rather than a ladder of self-liquidating notes, or what the flags mean.
  - **What the page publishes on Arf.** Monthly origination and payback, 30-day turnover and weekly outstanding facilities: facility-level flow, not performance.
- **Item 17, no deviation bound.**
  - **Horizons without a bound.** Every leg carries a horizon:
    - <=90 or <=14 days for the credit legs;
    - "no fixed term" or "multiple terms" for the DeFi legs, with "withdrawals subject to available liquidity and access restrictions" on Morpho and "subject to liquidity and limits" on Jupiter.
  - **No bound anywhere.** None states how far from NAV the leg could be realised.
  - **The eNote horizon is a roll date.** The overlay finds the TradeFlow horizon is a roll date in every observed instance [UNVERIFIED as to cash settlement off-chain].
- **Items 3 and 4, no obligor look-through on 79.19% of reserves.** ◐
  - Arf (USD 195.87M) and TradeFlow (USD 111.27M) are named to series, tranche and issuing segregated portfolio.
  - The borrowers are not named, counted or characterised.
  - **Five notes, USD 25.20M (6.50%), read "Issuer: Not provided". The name is on-chain.** `debtAdditionalInfo()` returns "Cayman Emerging Manager Platform SPC - EURO Trade Flow Fund SP". A rendering gap, not a withheld field.
  - **The Morpho USDC is credit to cbBTC borrowers, and the page does not say so.** USD 25.31M sits as supply in two cbBTC/USDC markets at 86% LLTV (USD 10.26M on Ethereum, USD 15.02M on Base). The row reads "Morpho, USDC". Not loan-type exposure under item 19's reading, but a counterparty the page does not name.
- **Item 3, a reflexive strand not flagged (judgment, not applied; open with the methodology owner).**
  - Jupiter Lend vault 45 borrows USD 21.40M of USDC against 22.65M PST. That is 5.27% of the USDC lent across all 21 USDC-borrowing Jupiter Lend vaults and 4.57% of the USDC supplied to the layer Huma's jlUSDC sits in.
  - Huma's pro-rata share at the snapshot is about USD 1.44M, 0.37% of reserves (USD 0.88M, 0.24%, on 2026-11-06), because the leg rose from USD 19.52M to USD 31.44M.
  - The v3.1 rubric caps item 3 at 1 for an unflagged leg "allocated to a market whose collateral ... is the issuer's own token". This pass reads that as a market built on the issuer's token.
  - **Undecided.** Whether pooled layers are in scope remains the methodology owner's decision. The cap is not applied here; the strict reading is in "How fragile this grade is".
- **Item 9, the off-chain evidence is self-reported.** The Arf receivables rest on monthly Wadsack confirmations delivered as issuer-hosted DocSend links, unsigned. The latest is as of 2026-09-30; the October confirmation has not appeared and is not yet late.

Soft

- **The feed is blocked, and the page does not say so.** See L4.
- **Two timestamps, five hours apart.** The Merkle root on the page reads "Timestamp 2026.11.13 15:18:14" and "Signature was validated at 2026.11.13 15:24:03", beside reserve and supply figures from 10:31. The page does not say which figures the root covers.
- **No Morpho row names its market or vault** (USD 45.71M, 11.78%). The USDe row is collateral with no borrow, as on 2026-11-06; a borrow would make it a loop needing the v3.1 loop disclosure.
- **Unnamed valuation provider on 12.34% of reserves** (6.02% on 2026-11-06). Morpho, Pendle and Merkl rows read "Provider-reported valuation", with position data four to thirteen hours old at the snapshot. The Morpho values reproduce within 0.1% (L1). Two immaterial Kamino rows (USD 1,526) read "Method: Not recorded".
- **Seventeen of 22 eNote marks were set on 12 November at 00:33,** about 34 hours before the snapshot. Each states its own time.
- **The signing-policy statement still does not describe the upgrade authority.** The page states a 3-of-4 multisig over "most treasury wallets, program upgrade authority and pool ownership"; the PST program upgrades through a different authority, unchanged. See L1.
- **The headline supply value is USD 16,627 above the sum of its two series.** One exchange rate applied to both tokens, the conservative direction, as before.
- Item 6: the ratio is nominal, and the page says so.

How fragile this grade is

No critical-list item sits at 1 or 1.5, so no half-point on an item crosses a band. **One judgment moves the letter: the mismatch gate, not applied on this pass.** A second, the reflexive reading, is also not applied, and no general rule for pooled lending layers is set.

If this changed	Composite	Letter
Mismatch gate applied to B-TFEUJPKS, `m` = 1, on the same items	**2.97**	**BBB ▼**
Item 19 half a point lower, 2 to 1.5	2.94	A
Item 19 to 1: an omission on the critical list	2.91	BBB
Item 3 half a point lower, 2.5 to 2	2.96	A
Item 7 half a point lower, 3.5 to 3, on the unnamed provider's larger share	2.93	A
Item 17 to 1, reading the DeFi legs' "subject to liquidity" as a claim without a horizon	2.94	A
Reflexive cap applied to the Jupiter Lend leg: item 3 to 1	**2.93**	**BBB**
Items 3 and 19 both at 1	2.87	B
Mandate, volatility series and credit series published (25 to 3, 5 to 3, 19 to 3.5)	3.24	AA

Item-level scores

#	Item	Score	Evidence
1	Composition by instrument	4	Every leg itemised with issuer entity, maturity, duration, unit price and tranche. The classes sum to Total PST Reserves to the cent (USD 387,861,046.12). Ten Solana Arf tranche positions and the 22 displayed eNotes reproduce on-chain. The Morpho USDe position is collateral with no borrow; no looped leg. Two replacement notes held since 08:57 are not yet shown (Negative-Space Map)
2	Asset-category mix	3	PayFi Assets, PayFi Liquid Assets, DeFi Liquid Assets (with Stablecoins and Other), and an allocation map from total reserves through chain to asset
3	Counterparty identity per leg	2.5	Look-through reading. Facility, series, tranche and segregated-portfolio issuer named for the credit legs; no end obligor named, counted or described for 79.19% of reserves. Five eNotes, USD 25.20M, read "Issuer: Not provided". DeFi legs named by protocol; the Morpho cbBTC/USDC markets are not named. The Jupiter Lend reflexive strand is not flagged; the cap is not applied (see Negative-Space Map)
4	Concentration	2.5	Per-instrument values, share of pool and share of tranche held, at facility level; obligor concentration not shown
5	Underlying position volatility	0	Absent from page text, hidden nodes, attributes, tooltips and payload
6	Ratio and definition	3	Formula stated beside the ratio, and "A haircut-adjusted ratio is not used for this dashboard." No stressed ratio
7	Pricing / oracle source per leg	3.5	Per position: unit price, method, named source and price time. Morpho, Pendle and Merkl legs (USD 47.85M, 12.34%) cite an unnamed "Provider-reported valuation"; the Morpho values reproduce within 0.1%
8	Custody location per leg	3.5	On-chain Wallets table (37 rows) and On-chain Contracts (33), mapped to legs, all resolving
9	Custody tier, source-directness	2.5	On-chain legs retrieved directly. Receivables rest on issuer-hosted unsigned confirmations, latest as of 2026-09-30. The weakest material leg governs
10	On-chain self-verify links	4	**72 of 72 address rows resolve to their own address**, each checked against the row's displayed address: 33 Etherscan, 17 Solscan, 15 jup.ag portfolio, 4 Stellarchain, 2 Monadscan, 1 Basescan
11	Cryptographic verification	3	Merkle root with signature, validated by the page at 15:24:03 UTC; enclave attestation and ZK proofs described
12	Acquisition method and issuer credibility	3.5	Method and source per position, plus the connections table with type, exposure, interval and last-updated
13	Independent attestor	3	Wadsack, a named Swiss audit firm independent of issuer and vendor, confirms Arf receivable balances monthly; latest as of 2026-09-30. The rating block on the page is not credited
14	Liabilities (supply)	4	PST and mPST mints published and linked. mPST supply on-chain, 393,110.026275, equals the payload to the micro-token. PST could not be read at the 10:31 snapshot slot; at 16:10 it was 336,480,561.84, 0.17% below the snapshot
15	First-loss / junior buffer	3.5	Junior subordination 12% per Arf pool, senior and junior tranches labelled and valued, fixed senior yield stated

#	Item	Score	Evidence
16	Redemption terms and gating	3.5	Target 7 days, average 6 hours, SLA 100%, notice 0 days, daily cap 10,000,000 shares, instant cap 6,000,000, minimum, 24-hour window, pool status and the remaining daily amounts, the caps read from the Solana program accounts at 15:18; the terms' source is stated in a tooltip as Huma's memorandum
17	Maturity / lock-up	2	v3.1 grid. Horizons per leg: maturity dates on all 22 eNotes, <=90 / <=14 days on the Arf pools with rollover footnotes, "no fixed term" with liquidity caveats on the DeFi legs. No deviation bound from NAV for any leg
18	Funds in transit and pending redemptions	4	Live queue read from the Solana program account at 15:18 and linked: 37 requests, 510,537.41 shares pending, with the remaining daily redemption and instant-withdrawal amounts
19	Credit quality and defaults	2	Applicable: loan-type exposure 79.19%. Facility-level origination, payback, turnover and outstanding facilities for Arf. No principal or payment status for any note, beyond the coupon method label on one; no default or delinquency series. The matured rows are set out in the Negative-Space Map, not scored again here
20	Cadence, timestamp, history	3.5	Retrieval interval, most-recent-retrieval stamp, eight months of reserves, supply and ratio history. The stamp is accurate on the blocked snapshot; the block itself is not stated
21	Per-leg true freshness	3.5	Price time, position-data time and retrieval time per position, each accurate, including 17 eNote marks from 12 November
22	Feed control and kill-switch	3	FAQ answer, opened and read, unchanged: Accountable can halt the external server, Huma can disconnect its node, and the dashboard freezes on its last snapshot. Self-reported
23	Key custody and signing policy	3	3-of-4 multisig over "most treasury wallets, program upgrade authority and pool ownership", key custody, scope, 12-hour timelock. Self-reported; the upgrade authority differs (see L1)
24	Deployment security	3	12-hour timelock over program upgrades and pool ownership; the PST program has not been redeployed since 2026-06-16
25	Mandate and allocation constraints	0	Absent: no eligible assets, venues, caps or change process on the page, in tooltips or in the payload

Dimension scores

Dim	Dimension	Weight	Items	Mean	Contribution
D1	Holdings and Composition	14	4, 3, 2.5, 2.5, 0	2.400	0.3360
D2	Valuation	16	3, 3.5	3.250	0.5200
D3	Custody	12	3.5, 2.5	3.000	0.3600
D4	Source Integrity and Verification	16	4, 3, 3.5, 3	3.375	0.5400
D5	Liability and Loss-absorption	8	4, 3.5	3.750	0.3000
D6	Liquidity	10	3.5, 2, 4	3.167	0.3167
D7	Credit and Counterparty	6	2	2.000	0.1200
D8	Freshness	6	3.5, 3.5	3.500	0.2100
D9	Control and Operational Security	12	3, 3, 3, 0	2.250	0.2700

Dim	Dimension	Weight	Items	Mean	Contribution
	Composite	100			**2.9727**

Gates applied

Gate	Input	Effect
Band from composite	`C` = 2.9727	A
1 Critical-omission ceiling	k = 0: no item on the critical list scores at or below 1	ceiling AAA, not binding
1b Medium-impact ceiling	`j` = 2: items 5 and 25	ceiling AA, not binding
2 Single-vendor cap	v = 0: items 10, 11 and 13 all present	no cap
3 Mismatch downgrade	`m` = 0: B-TFEUJPKS at full value in reserves against `flagDefault = true` is treated as a gap, on the methodology owner's reading of 2026-11-06; `m` = 1 would give BBB ▼	no downgrade
4 Kill-switch flag	item 22 disclosed; independent paths via items 10, 11 and 13	no minus
Grade		**A**

Frontier set

`F` is named and counted, **n = 6**: the four followed dashboards (Huma, Tori, Upshift, Yuzu) and Coinshift and Noon, graded outside the followed set. Huma and Tori carry v3.1 grades captured 2026-11-13; the other four carry their v3 grades of 2026-10-23 until their first v3.1 pass. A v3.1 composite includes item 25 and, where item 19 is not applicable, is taken over 94, so composites under the two methods are not strictly comparable and no set mean is given.

Dashboard	Composite	Published	Method	Captured
Huma PST	**2.97**	**A**	**v3.1**	**2026-11-13 15:23**
Tori trUSD	2.79	BBB	v3.1	2026-11-13 15:24
Upshift earnAUSD (Monad)	2.00	B ▼	v3	2026-10-23 07:21
Noon USN	1.79	BB	v3	2026-10-23 07:21
Yuzu yzUSD	1.78	BB	v3	2026-10-23 07:21
Coinshift iUSPC	1.12	C ▼	v3	2026-10-23 07:21

Huma PST is first of six by composite and by letter, 0.18 above Tori trUSD. Of the two members graded under v3.1, it is the one with no critical omission.

Quick-win path

Action	Item	Composite effect
Publish the mandate: eligible assets and venues, per-venue caps, and what change needs a signature	25: 0 to 3	**+0.09**
Publish a default and delinquency series, and the settlement status of every matured note (repaid in cash, rolled, extended)	19: 2 to 3.5	**+0.09**
Publish a volatility or drawdown series per leg	5: 0 to 3	+0.08
Publish a stressed, haircut-adjusted ratio beside the nominal one	6: 3 to 4	+0.08
Obtain signed or direct-from-source balance confirmations	9: 2.5 to 3.5	+0.06
Publish obligor look-through for Arf and TradeFlow: count, top-1 and top-10 share, sector and geography	3: 2.5 to 3.5, 4: 2.5 to 3.5	+0.06
State the expected deviation from NAV at each leg's stated horizon	17: 2 to 3	+0.03
State the upgrade quorum correctly and have a third party confirm the signing policy and halt arrangement	22: 3 to 3.5, 23: 3 to 3.5	+0.03

One change is not in this table, because it moves no item. Show a status on any matured note the page still counts, or show its replacement at the roll, and the question in the Negative-Space Map closes. The node already reads payment state: it priced B-TFCYXTIU "excluding completed coupon payments" this morning.

The first three rows together reach AA (3.24), because they also clear both medium-impact omissions. The full list carries the composite to 3.50.

Verification overlay (does NOT change the grade)

L1 Reproduction ledger

Claim on page	Method	Result	Reconciles
Total PST Reserves USD 387,861,046	Sum of the five classes in the payload	USD 387,861,046.12	Yes, to the cent
Collateralization 100.34%, surplus USD 1,333,181	Arithmetic on displayed reserves and supply	1.003449, USD 1,333,181.11	Yes
mPST supply	`getTokenSupply` at slot 468,988,354, 16:10 UTC	393,110.026275	**Yes, to the micro-token**
PST supply	`getTokenSupply` at slot 468,988,353, 16:10 UTC	336,480,561.84 against 337,069,575.36 at 10:31. The mint's last 1,000 transactions span 74 minutes, so the snapshot slot was not reconstructed	Not reproduced at the snapshot; 0.17% lower 5h40m later
Supply value units	Headline against the chart's PST and mPST series	USD 386,527,865 against 386,119,499 plus 391,739	USD 16,627 apart, conservative

Claim on page	Method	Result	Reconciles
Address rows	All 72 tested, by anchor or by click with `window.open` intercepted, each URL compared with the row's address	72 of 72 resolve to their own address	Yes
Arf tranche positions	Token balances of ten Solana tranche mints held by `HGLs...Mbpj`, slot 468,991,254, against payload value divided by unit price	All ten match to 0.005 units; Stellar row not re-read	Yes; unit prices not independently recomputed
22 displayed eNotes	`totalSupply()`, `balanceOf(Safe)`, `creditEvents()`, `pendingPaymentIndex()`, `payments()` and `debt()` on each, block 26,406,975	5,000 of 5,000 held on each; 20 unmatured and unflagged; **B-TFEUJPKS and B-TFCYXTIU matured and flagged**	Not gated; see Negative-Space Map
Notes held and not shown	Same calls on all 27 others held by the Safe	B-TFEUBN6A and B-TFCY8LFN, 10,000 units, unmatured; 25 matured earlier. See L3	**Not reflected on the page**
B-TFCYXTIU coupon entitlement USD 102,411	USDC held by the note contract; Safe's balance of the payment token `0xce50...e4de`	102,410.96 USDC; Safe holds 5,000 of 5,000	Yes
Morpho USDC USD 25,310,337	Morpho API, positions of Safe `0xbf87...9b36`	Supply USD 10,260,054 in cbBTC/USDC on Ethereum and USD 15,024,256 on Base, both 86% LLTV	Yes, within 0.1%; markets not named on the page
Morpho USDe USD 15,340,234	Morpho API, market `0xd9d2fc09...`, USDe/RLUSD, 91.5% LLTV	Collateral USD 15,328,230; borrow 0	Yes; no loop
Morpho PYUSD USD 5,058,010	Morpho API, vault V2 `0xb576...9FB2`, "Paypal USD Main"	USD 5,054,899	Yes, within 0.06%; vault not named on the page
Jupiter jlUSDC USD 31,442,703	Token balances of the two published wallets, slot 468,991,682, 16:20 UTC	0.02 units against 29,414,400 implied. Movements after the snapshot in L4	**Not reproduced at capture time;** the 10:31 position is not re-readable
Program upgrade authority	BPF upgradeable-loader program data of `HumaX...C5fn`	Authority `D6GE...raaF`, unchanged; last deployed slot 426,862,901 (2026-06-16)	Unchanged
Main EVM treasury	`getThreshold()` and `getOwners()` on Safe `0xbf87...9b36`	3 of 4, nonce 236	Yes
Holder concentration (v3.1 item 16 probe)	PST holders from Jupiter's holder API at 16:12 UTC against supply	Top-1 address 67.34% (USD 259.5M), top-10 93.65%. The top address holds no SOL, consistent with a program authority pooling many holders	An address is not an entity
Feed cadence	Huma and Tori feeds polled every five minutes from 15:27 UTC	See L4	See L4

Against the item 16 probe: the instant-withdrawal cap is 6,000,000 shares (USD 6.87M) and the daily cap 10,000,000 (USD 11.45M), against a top-1 address of USD 259.5M. Pending redemptions at 15:18, about USD 0.58M, sit inside the stablecoin leg (USD 1.43M); the next liquid layer is USD 79.25M of DeFi legs at the snapshot.

L2 Attestation and custody trace

Unchanged in structure. Wadsack confirms Arf receivable balances monthly, independent of Huma and of Accountable, delivered as issuer-hosted DocSend links. The series runs from 2026-01-31 to 2026-09-30.

Huma's Arf holdings, USD 195.87M, compare with Arf's displayed outstanding facilities of USD 223.30M at 8 November (which include a USD 10M off-chain facility). The page shows "share of pool held ≈100%" on each Solana series, so Huma is still in effect the funder of most of the book Wadsack confirms.

No party attests to the TradeFlow notes beyond their on-chain existence and Huma's holding of them.

The page's rating block still reads "A, Last rating Oct 30, 2026". RockawayX issues this rating, so the block is a display of it rather than independent evidence, and it is not credited under any item.

L3 Adversarial check

The claim tested hardest was again that the TradeFlow book is a ladder of performing three-month notes. It is 28.69% of reserves, and the page shows nothing about it beyond price and maturity.

All 27 matured notes the Safe holds were read at block 26,406,975, and the three that moved this week again at block 26,407,137:

Notes matured	Count	Units in the Safe	Coupon funded through the contract	Principal funded through the contract	`flagDefault`
30 April to 11 September 2026	11	70,000	11 of 11	**0 of 11**	9 of 11
18 September to 16 October 2026	10	50,000	10 of 10	**0 of 10**	8 of 10
23 and 30 October 2026	3	15,000	3 of 3	**0 of 3**	2 of 3
6 November 2026 (B-TFCYBH7W)	1	5,000	1 of 1, 80 hours late, claimed 10 November	**0 of 1**	1 of 1
13 November 2026 (B-TFEUJPKS, B-TFCYXTIU)	2	10,000	**1 of 2** at block 26,407,137	**0 of 2**	2 of 2
Total	**27**	**150,000, USD 150.0M face**	26	**0**	**22**

The flag still follows the coupon.

Coupon funded	Notes	When `flagDefault` was set
After maturity, or not yet: B-TFCYFHPU, B-TFCYKCAL, B-TFEU88JQ, B-TFEU35SX, B-TFEUPMR2, B-TFCYBH7W, B-TFCYXTIU, B-TFEUJPKS	8	Within 83 seconds of maturity. On seven the coupon then arrived 1.2 to 80.0 hours later; on B-TFEUJPKS it had not, 14 hours on
Before maturity	14	24 hours after maturity, within 155 seconds
Before maturity: B-TFCYEDFS, B-TFCY9MA5, B-TFEUJ2KV, B-TFEUUJTL, B-TFEUICL1	5	Never, at the last read

All 22 flags were sent by `0x0c48...7819`, which holds the contracts' `DEBT_CREDIT_EVENT_ROLE`. B-TFCYXTIU shows the rule is mechanical: its replacement was minted three minutes before maturity, its coupon was not yet funded at maturity, and it was flagged at 09:00:11. On this reading the flag records a scheduled payment the contract shows as unfunded; whether the issuer regards it as a default is [UNVERIFIED].

The replacements. Each of this week's three replacements was created the day before or two days before the maturity it replaces, with the same face, a twelve-week term and the same 8.90% coupon, and minted to the Safe by `0x3eae...36c0`, which holds `MINTER_ROLE`:

Matured	Replacement	Created	Minted to the Safe
B-TFCYBH7W, 6 Nov 02:00	B-TFCYXSZB, matures 29 Jan 2027	4 Nov 23:09	6 Nov 15:00:23
B-TFEUJPKS, 13 Nov 02:00	B-TFEUBN6A, matures 5 Feb 2027	12 Nov 16:07	13 Nov 08:56:47
B-TFCYXTIU, 13 Nov 09:00	B-TFCY8LFN, matures 5 Feb 2027	12 Nov 16:04	13 Nov 08:57:47

The cash side since 6 November (artifact in Sources):

- **From the note contracts.** The only USDC a note contract paid the Safe is B-TFCYBH7W's coupon, USD 110,945.21 on 10 November. It went to Morpho's bundler contract (BlueBundlesV1) five minutes later. No principal came from a note contract, and no USDC went from the Safe to a note issuer.
- **By CCTP.** USD 10.04M was minted to the Safe through Circle's CCTP on 6 November at 23:24 and 23:26, and USD 10.14M went to the same Morpho bundler at 23:37. The Safe's Ethereum cbBTC/USDC supply now stands at USD 10.26M.
- **Outside the contracts.** On 9 November the two addresses holding `ISSUER_ROLE` on the newest USD and EURO notes, `0xfcbd...bfe8` and `0xb9db...fc1c`, sent USD 23,013.70 and USD 91,095.89 straight to the Safe. The first also funded B-TFCYBH7W's coupon through the contract that morning. USD 114,109.59 went to Circle's CCTP TokenMinter seven hours later. What the two direct payments are for is not shown [UNVERIFIED].

Three readings still fit:

- **A planned roll.** The principal of each note is rolled into the next. The contract cannot record a roll, so it shows the principal as unpaid, and the flag follows mechanically.
- **Settlement off-chain.** The principal is repaid in fiat and the new notes are bought off-chain, with the contracts never updated.
- **An extension of notes that could not be repaid.**

The first two are supported by the face-for-face replacement of every maturity so far, by coupons that have always arrived, if sometimes days late, and by the PST rate: 1.143770 on 6 November and 1.145394 on 13 November, about 7.2% a year, with no step down. None of the three can be excluded from the page or the chain [UNVERIFIED].

The questions for the issuer:

- Is the TradeFlow position a revolving facility?
- What is its contractual exit?
- What does the default flag mean, and who sets it?
- Why does a matured, flagged note stay in reserves at full value, and why are replacements not shown at the roll?
- What are the direct payments from the notes' issuer-role addresses to the Safe?

The second claim tested was that the DeFi legs are what they say at the snapshot. They are: the Morpho positions reproduce within 0.1%, and the USDe is collateral with no debt. Jupiter's API at 16:12 UTC showed USD 406.3M lent

against USD 468.3M supplied in the USDC layer, about 87% utilisation [UNVERIFIED on-chain]. A second PST vault (61) borrows 23.81M JupUSD against 24.84M PST; together the two vaults hold 14.11% of PST supply.

L4 Liveness and kill-switch

The FAQ answer is unchanged. Accountable can halt the external server, Huma can disconnect its node, and the dashboard freezes on its last snapshot.

Verdict on the freshness at capture: a blocked snapshot, 4 hours 53 minutes old, accurately stamped, with its cause in the payload and not on the page.

- **Served at 15:24.** Reserve and supply snapshot 10:31:07; the page read "Most Recent Retrieval: 2026-11-13 10:31:07" and the connections table 10:30:01 to 10:31:07. Tori on the same platform served 15:16.
- **The stated cause.** The payload's `enote_coupon_capture` block reads `report_snapshot_status: blocked`, "Huma coupon capture is incomplete, stale or not yet saved for 0xbf87...9b36", and "No complete agreeing payment state for B-TFEUQNV4: Unsupported eNote payment currency".
- **The note.** B-TFEUQNV4, `0x443f...e531`, is "TFEU 6.90% 14Nov26 EURC", 500 units, issued on 14 August through the issuance program and held in full by `0x399b...62d3`, an externally owned address the page does not list. The Safe holds none. Its payments read as both funded (`pendingPaymentIndex()` = 2).
- **Still blocked.** Every poll from 15:27 to 16:15 UTC served the 10:31:07 snapshot with the same status. Tori advanced every 15 minutes in the same window. Parts of the payload kept refreshing: the Merkle root (15:18, then 16:04) and the redemption queue (15:18).
- **What has moved since.** In the published wallet `HGLs...Mbpj`, USD 10.02M of USDC entered Jupiter Lend at 00:11 and left at 14:55, and USD 10.0M went into a new pool at 14:57 (program `EVQ4...sJq9`, instruction `MakeInitialDeposit`, USD 1.2M and USD 8.8M in two tranches). The same wallet made the same Jupiter round trip on 6 November, 06:22 to 14:37. At about 16:20 neither published Jupiter wallet held jlUSDC; the balance of about USD 21.4M the page attributes to `9936...L3QK` was not traced this pass. The page cannot show any of this while the snapshot is blocked.
- **Not gated.** The stamp was accurate at every read, as on 23 October and 6 November. The stalls observed so far: about an hour on 23 October and on 6 November, and from 10:31 on 13 November with the cause above.

Quantified decisive risk

The surplus over par is **USD 1,333,181, 0.34% of reserves**. B-TFEUJPKS, at USD 5,085,342, is 3.8 times that. Excluding that one row, as arithmetic and not as a claim of loss, the ratio is **99.03%**. The whole eNote position, USD 111.27M, is 83 times the surplus, and the 27 notes replaced or awaiting replacement since April total USD 150.0M face.

Deltas since the last pass

Prior pass: `gradings/2026-11-06-v3.1/dashboard-audit-huma-pst-2026-11-06.md`, composite 2.97, A, under v3.1, captured 2026-11-06 06:42 UTC, `m` kept at 0 by decision of the methodology owner.

	2026-11-06 06:42	2026-11-13 15:23	Note
Published grade	**A**	**A**	**No item moved; `m` at 0 on the same reading**
Composite	**2.97**	**2.97**	**Unchanged to four decimals**

	2026-11-06 06:42	2026-11-13 15:23	Note
`m`	0	0	B-TFCYBH7W resolved as the reading expected; B-TFEUJPKS treated the same way
Total PST Reserves	USD 374,552,931	USD 387,861,046	+3.55%
Total Supply Value	USD 373,506,573	USD 386,527,865	+3.49%
Collateralization	100.28%	100.34%	Surplus USD 1,046,358 to USD 1,333,181
Loan-type exposure	88.57%	79.19%	USD 331.74M to USD 307.14M
Arf	USD 220.55M	USD 195.87M	On-Demand Pool A closed
DeFi and stablecoin legs	USD 42.77M	USD 80.73M	Jupiter USD 19.52M to 31.44M; Morpho USDC USD 25.31M new
eNotes shown	22	22	B-TFCYBH7W left, B-TFCYXSZB joined; **two shown past maturity; two replacements held and not shown**
eNote coupon entitlements shown	none	1 row, USD 102,411	B-TFCYXTIU
eNotes with no issuer named	5, USD 25.16M	5, USD 25.20M	Names are in the contracts
Matured notes read on-chain	25, USD 140.0M	27, USD 150.0M	Principal unpaid through the contract on all; `flagDefault` 20 to 22
eNote marks older than one day	0	17	Set 12 November 00:33
Pending redemptions	55 requests, 173,271.61 shares	37 requests, 510,537.41 shares	
Address rows	77 of 77	72 of 72	Pool A rows removed
Latest Wadsack confirmation	as of 2026-09-30	as of 2026-09-30	October not yet due
Feed at capture	stalled at 06:22, current at 06:42	blocked since 10:31	Graded on the blocked snapshot, accurately stamped
Reflexive strand, pro rata	USD 0.88M, 0.24%	USD 1.44M, 0.37%	Not applied; decision open
Unnamed valuation provider	6.02%	12.34%	Morpho USDC added
Top-1 and top-10 addresses	67.22%, 92.90%	67.34%, 93.65%	
Rating block on the page	"A, Oct 30, 2026"	"A, Oct 30, 2026"	Not credited

Re-grade triggers

- **B-TFEUJPKS.** `m` stays at 0 on the reading that the flag marks a payment not yet funded and the note is then paid or rolled at par. The roll is done: a replacement of the same face, B-TFEUBN6A, was minted to the Safe at 08:56

UTC, before this capture. What remains is the coupon. The mismatch gate applies if the issuer says the flag means otherwise, or if at the next pass the page still counts the matured note, or a coupon entitlement for it, while its coupon is unfunded through the contract. A status on the row, or removal at the roll, closes the question. B-TFEUSXNW and B-TFEULPS5 mature on 20 November at 15:00 and 21:00 UTC.

- The snapshot resuming: whether it shows B-TFEUBN6A and B-TFCY8LFN in place of the matured rows, and where the Jupiter balance went.
- Another blocked or stalled feed at capture, a stall the retrieval stamp does not show, or a snapshot that omits held positions without saying so.
- An explanation of the TradeFlow roll and of the contracts' default flags, or settlement status per matured note: item 19, and with a default series and a mandate, AA.
- Whether any TradeFlow principal is ever funded through a contract, and what the issuer-role addresses' direct payments to the Safe are.
- A general rule on whether the v3.1 reflexive cap covers pooled lending layers: item 3, A to BBB if it does.
- Publication of a mandate (item 25) or a volatility series (item 5): both medium-impact omissions clear.
- Obligor-level look-through for the Arf and TradeFlow books, and the Morpho markets named: items 3 and 4.
- A borrow against the Morpho USDe collateral: item 1 and item 5 under the loop rubric.
- The October Wadsack confirmation not published by mid-December: item 13 cadence.
- Any change to, or correction of, the stated signing policy: item 23.

Sources

- Rendered dashboard, `https://huma.accountable.capital`:
  - graded capture 2026-11-13 15:23:57 to 15:24:32 UTC, browser timezone UTC, full page after scroll, 29,075 characters, 75 links; feed snapshot 10:31:07, served 15:24:02;
  - artifacts: `captures/huma-pst-2026-11-13-{tabs.json,network.json,meta.json}` and screenshots.
- Absence protocol, `captures/huma-pst-2026-11-13-absence-probe.json`:
  - `innerText` 29,075 to 50,202 characters after monotonic expansion, `textContent` 64,963;
  - 155 titles and 432 aria-labels;
  - 428 anchors;
  - payload inventory of 1,008 fields.
- Row, FAQ and hover probe, `captures/huma-pst-2026-11-13-hover-rows-faq.json`:
  - 72 address rows tested (the Stellar contract row by its anchor);
  - five FAQ entries opened, all unchanged;
  - 451 info icons hovered, fourteen tooltips. Nine tooltips read on 2026-11-06 sit on text labels this pass did not hover; the text around them is unchanged.
- Feed polling: `captures/huma-pst-2026-11-13-feed-poll.txt`.
- On-chain artifacts:
  - every note the Safe holds, with payments and flags: `captures/huma-pst-2026-11-13-notes.json`;
  - payment, flag, claim and mint events of the notes that moved: `captures/huma-pst-2026-11-13-credit-events.json`;
  - the Safe's USDC ledger since 6 November: `captures/huma-pst-2026-11-13-safe-usdc.json`;

  - Solana, Morpho, Jupiter and role reads: `captures/huma-pst-2026-11-13-overlay-reads.json`.
- On-chain reads:
  - Ethereum via `eth.drpc.org` at blocks 26,406,905 to 26,407,137, logs via `rpc.mevblocker.io`;
  - eNote implementation ABI from Sourcify (`0x86E4...a6fc`, behind beacon `0xa2b3...51d6`);
  - Solana via `api.mainnet-beta.solana.com` and `solana-rpc.publicnode.com` at slots 468,988,353 to 468,991,682;
  - B-TFEUQNV4 located through Blockscout search.
- Off-chain APIs:
  - Morpho positions via `api.morpho.org`;
  - Jupiter Lend vaults and earn tokens via `lite-api.jup.ag/lend/v1`;
  - PST holders via `datapi.jup.ag`.
- Prior passes, `gradings/2026-11-06-v3.1/` and `gradings/2026-10-30-v3.1/`.
- Methodology:
  - Protocol Transparency Rating v3, `spec/protocol-transparency-rating-v3-2026-07-20.md` and the source PDF, which governs;
  - as amended by `spec/protocol-transparency-rating-v3.1-addendum-2026-10-26.md`.

Standing disclaimer

A Protocol Transparency Rating grade rates disclosure, not safety. It measures how much of what a risk professional needs is actually on the page: not whether the assets are safe, and not whether the displayed numbers are true. A dashboard can be fully backed and score poorly because it proves none of it; it can score well and still hold assets that later fail. This is not a credit rating.