CSU gideon lens

Constellation Software (CSU.TO) - Gideon-Lens Equity Research

Report ID: ER2-CSU-20260922 **Report date:** 2026-09-22 SGT **Security:** XTSX:CSU voting common share; CAD 2,786.97 at the 2026-09-21 completed close **Reporting currency:** USD; shareholder-return currency: CAD; fiscal year-end: December 31

What changed from the previous report and why

Previous report: ER2-CSU-20260910; 2026-09-10; `C:\Users\Admin\OneDrive\GPT\ER 2.0\Constellation Software\raw\pulse-cio-20260922T140210+0800\prior_active_snapshot\CSU.TO_gideon_lens.md`; SHA-256 `95724049bd0cee87a11223e8caac8fde56e6c75bdc8f0b9839ae4661c56467a9` **Current report:** ER2-CSU-20260922; 2026-09-22; CAD 2,786.97 at the September 21 close

Area	Previous report	Current report	What changed and why	Decision impact
Price anchor	CAD 2,801.99, Sep 9	CAD 2,786.97, Sep 21	Market: 0.54% lower; same-session USD/CAD changed from 1.38063 to 1.39941	Modest price relief, not enough for entry gate
ER2 verdict and gates	PASS; Management YELLOW, Moat YELLOW, P/E-15 FAIL	PASS; YELLOW, YELLOW, FAIL	Company evidence: Q2/H1 remains latest; acquisition-return opacity and 1% FX-adjusted organic growth persist	No qualitative upgrade; valuation still fails
FY+5 valuation bridge	Base EPS CAD 117.98; required CAD 186.80; cushion -36.84%	Base EPS CAD 119.58; required CAD 185.80; cushion -35.64%	Market/FX translation raises CAD EPS; underlying reviewed USD operating cases unchanged	Entry gap remains substantial
Insurer retained economics / book bridge	n/a	n/a	Constellation is an operating software acquirer, not a P&C insurer	No P/B-ROE substitution
Shareholder returns	Gross CAD Bear/Base/Bull/PW -16.30%/-1.37%/16.98%/0.94%	-16.09%/-1.00%/17.56%/1.33%	Price/FX and exact 1,743-day horizon; 18, not 19, eligible illustrative payments	Base remains negative despite modest improvement
CIO actionability	PASS; net-SGD -16.53%/-1.61%/16.72%/0.70%	PASS; -16.32%/-1.24%/17.30%/1.10%	Same P/E model and flat spot FX, with revised quote and dividend eligibility	Neither 10% hurdle nor funded-retention case clears
Audited scores	53/100; 50/80; 3/20	52/100; 50/80; 2/20	Audit removes remaining return-underwriting credit; corrected structured EPS growth did not change IRRs	Diagnostic Reject remains
Methodology or corrections	H1 deal consideration USD 1.625bn; 19 payments	About USD 1.700bn; 18 payments	Issuer Q1/Q2 consideration sum corrected; October 2026 record date precedes price date	Funding and dividends are more conservative; no invented ROIIC

Bottom line: This is a current-price refresh of the September 10 Production report, not a new company thesis. QF/QFR, data review, segment peer review, five-foundation valuation preflight, scoring audit and red team all ran on the current package. The operating endpoints and independent 16x/22x/28x P/E exits survived review. New price/FX and the corrected acquisition/dividend records modestly improve measured returns, but the Base and weighted shareholder returns remain far below the owner's 13% premise. Neither an automatic HOLD nor a trim is authorized by this research; that decision belongs to a separate current portfolio and tax-lot process.

Verdict: PASS

Scorecard:

Gate	Result	Notes
Management	YELLOW	Strong culture; Miller/PEMS attributable acquisition returns remain unverified
Moat	YELLOW	Sticky vertical workflows; 2046 durability and AI modernization unproved
P/E <= 15 on confident EPS at TTM + 5 calendar years	FAIL	Base EPS CAD 119.58; 15x value CAD 1,793.73; cushion -35.64%
Compounder Score	Audited 52/100	Diagnostic Reject; not an ER2 decision gate
Business Quality Score	Audited 50/80	Acquisition-cohort ROIIC and retention disclosure insufficient
20% Return UW Score	Audited 2/20	The current price does not underwrite 20% returns

One-line thesis: Constellation is a credible vertical-software compounder, but weak disclosed organic growth, unproved acquired-cohort common-owner returns and today's price do not support the 13% owner-return premise for 23 retained shares.

Security return underwriting (mandatory even though PASS):

Measure	Result	Notes
Primary valuation method	P/E	Same sealed method across scenarios, weighting, reverse return and net-SGD
Gross local-currency bear / base / bull IRR	-16.09% / -1.00% / 17.56%	CAD shareholder wealth annualized over 1,743 days
Probability-weighted gross local-currency IRR	1.33%	CAGR of weighted terminal wealth; 25% / 55% / 20% probabilities
Return bridge	CAD 2,786.97 to CAD 1,206.49 / 2,655.99 / 6,032.19	Terminal EPS times 16x / 22x / 28x plus CAD 25.18938 distributions; no second net-cash/debt adjustment

The price-to-terminal interval is September 21, 2026 to June 30, 2031: 1,743 days / 365.2425 = 4.772171913180968 years. The operating forecast instead spans exactly five years from the June 30, 2026 TTM. The comparable normalized current EPS is CAD 81.68537 per listed share, implying 34.11835x; reported CAD 63.46087 EPS and 43.91635x are non-comparable because of volatile marks and are disclosure-only. Scenario exit P/Es were locked before scoring against native peer/history evidence and tested in both optimism and bearishness directions. Terminal diluted listed-equivalent shares are 21.191530 million in every case. On this P/E bridge, finance claims and net cash/debt already flow through statutory common EPS; adding terminal cash or subtracting debt again would double count them. The tables below are gross CAD; the cost, withholding and FX overlay follows them.

Bear-case operating and return bridge

Bear case	Start (2026-06-30 TTM / 2026-09-21 price)	Horizon (2031-06-30)	CAGR / change	Justification
Revenue	USD 12,641m	USD 17,317.499m	6.50%	Acquired growth slows as capital deployment scales
Operating margin	15.59%	13.50%	-2.09 pp	Weak organic conversion and integration expense
Operating earnings	USD 1,971m	USD 2,337.862m	3.47%	Statutory operating income, single-segment consolidated fallback
Diluted share count	21.191530m	21.191530m	0.00%	No modeled common issuance or repurchase
EPS	CAD 81.685 normalized	CAD 73.831	-2.00%	After scenario finance, tax, FX/IRGA and NCI
Valuation denominator	Normalized parent-common diluted EPS	Terminal statutory diluted EPS	Comparable	Same currency, claim and listed-share perimeter; raw reported EPS is not comparable

Bear case	Start (2026-06-30 TTM / 2026-09-21 price)	Horizon (2031-06-30)	CAGR / change	Justification
Valuation	34.12x P/E	16.00x P/E	-18.12x	Enghouse lower reference and impaired execution; 18x sensitivity tested
Share value	CAD 2,786.97	CAD 1,181.30	-57.61%	CAD 73.831214 terminal EPS times 16; net cash/debt adjustment zero
Annual dividend	CAD 5.60	CAD 5.60	0.00%	USD 1 quarterly, flat hypothetical path at 1.39941 CAD/USD
Dividend yield	0.20%	0.47%	+0.27 pp	Annual dividend divided by endpoint share value
Cumulative dividends	-	CAD 25.18938	18 payments	Excludes October 2026 payment with pre-quote record date
Total ending value	CAD 2,786.97	CAD 1,206.488799	-16.09% gross CAD IRR	CAD 1,181.299419 value plus distributions

Base-case operating and return bridge

Base case	Start (2026-06-30 TTM / 2026-09-21 price)	Horizon (2031-06-30)	CAGR / change	Justification
Revenue	USD 12,641m	USD 20,192.791m	9.82%	Recurring acquisitions continue despite low current organic rate
Operating margin	15.59%	15.50%	-0.09 pp	Reinvestment offsets recurring-mix benefits
Operating earnings	USD 1,971m	USD 3,129.883m	9.69%	Reviewed statutory single-segment fallback
Diluted share count	21.191530m	21.191530m	0.00%	No unsupported buyback or issuance assumed
EPS	CAD 81.685 normalized	CAD 119.582	7.92%	Funding costs and NCI remain in common earnings
Valuation denominator	Normalized parent-common diluted EPS	Terminal statutory diluted EPS	Comparable	Same claim and quote-unit bridge
Valuation	34.12x P/E	22.00x P/E	-12.12x	Vitec native P/E near 22.5x; no raw-current cap
Share value	CAD 2,786.97	CAD 2,630.80	-5.60%	CAD 119.581686 terminal EPS times 22; net cash/debt adjustment zero
Annual dividend	CAD 5.60	CAD 5.60	0.00%	Flat quarterly diagnostic, not a declared future dividend
Dividend yield	0.20%	0.21%	+0.01 pp	Annual dividend over endpoint share value
Cumulative dividends	-	CAD 25.18938	18 payments	Counted once, not re-added to valuation
Total ending value	CAD 2,786.97	CAD 2,655.986463	-1.00% gross CAD IRR	CAD 2,630.797083 value plus distributions

Bull-case operating and return bridge

Bull case	Start (2026-06-30 TTM / 2026-09-21 price)	Horizon (2031-06-30)	CAGR / change	Justification
Revenue	USD 12,641m	USD 23,284.943m	12.99%	Better organic recovery and productive acquired cohorts
Operating margin	15.59%	18.50%	+2.91 pp	Cohort maturation and productivity outweigh reinvestment
Operating earnings	USD 1,971m	USD 4,307.714m	16.93%	Reviewed statutory single-segment fallback
Diluted share count	21.191530m	21.191530m	0.00%	No speculative capital action

Bull case	Start (2026-06-30 TTM / 2026-09-21 price)	Horizon (2031-06-30)	CAGR / change	Justification
EPS	CAD 81.685 normalized	CAD 214.536	21.30%	Higher operating conversion survives tax/NCI bridge
Valuation denominator	Normalized parent-common diluted EPS	Terminal statutory diluted EPS	Comparable	Same normalized starting and terminal common claim
Valuation	34.12x P/E	28.00x P/E	-6.12x	Vitec historical upper reference; Roper is context only
Share value	CAD 2,786.97	CAD 6,007.00	+115.54%	CAD 214.535779 terminal EPS times 28; no extra cash claim
Annual dividend	CAD 5.60	CAD 5.60	0.00%	No dividend growth credited even in upside case
Dividend yield	0.20%	0.09%	-0.11 pp	Annual dividend over endpoint share value
Cumulative dividends	-	CAD 25.18938	18 payments	Same issuer-backed zero-growth diagnostic
Total ending value	CAD 2,786.97	CAD 6,032.191195	17.56% gross CAD IRR	CAD 6,007.001815 value plus distributions

CIO actionability (separate from ER2 underwriting):

Measure	Result	Notes
Status	PASS	Base net-SGD return below 8% and Bear downside incompatible with mandate
Bear / Base / Bull net SGD IRR	-16.32% / -1.24% / 17.30%	50bp entry and exit friction, 15% dividend withholding, flat scenario CAD/SGD
Probability-weighted net SGD IRR	1.10%	CAGR of weighted net terminal SGD wealth, same 25/55/20 weights
10% mandate hurdle	FAIL	Neither Base nor weighted case approaches 10%
15% stretch hurdle	FAIL	Bull alone exceeds 15%, not Base or weighted
Downside and portfolio fit	FAIL / UNAVAILABLE	Security Bear is adverse; current portfolio/tax lots and covariance are unavailable here
Proposed sizing ceiling	none	Research has no ranking, sizing or portfolio authority

The diagnostic converts CAD at the September 21 USD/CAD 1.39941 and USDSGD 1.27602 completed-session cross, holds CAD/SGD flat in each scenario, allows 0.50% on entry and exit, and deducts an illustrative conservative 15% Canadian withholding from distributions. Investor-specific treaty eligibility, tax treatment, broker costs and future FX are unverified. These assumptions create finite security-level net-SGD returns, not a portfolio instruction. A different CAD/SGD path can change the result; lack of a current portfolio snapshot constrains only portfolio fit and any sizing ceiling. **Trade execution authorized: NO.**

Time anchor and disqualifier sweep

Today is September 22, 2026; Constellation's fiscal year ends December 31. The latest official report remains Q2/H1 FY2026 ended June 30. The forecast TTM is Q3 FY2025 + Q4 FY2025 + Q1 FY2026 + Q2 FY2026, reconstructed as FY2025 less H1 FY2025 plus H1 FY2026. TTM+5 calendar years is June 30, 2031. The separate return horizon starts at the September 21 price, not at the fiscal TTM date.

The seven disqualifiers are: ROIC/ROIIC YELLOW because matched after-NCI acquisition cohorts are undisclosed; cash conversion GREEN on positive USD 2.031bn TTM after-NCI FCFA2S, though working-capital and deployment cadence matter; leverage GREEN on the reviewed balance sheet, conditional on further acquisitions; end markets GREEN across diversified mission-critical verticals; governance YELLOW for succession and PEMS attribution; AI disruption YELLOW for both product opportunity and migration risk; pricing power GREEN/YELLOW without consistent customer retention and unit-price disclosure. No finding alleges a clear RED disqualifier. The YELLOWs still cap the compounder case and are not a substitute for an acquisition-return calculation.

Management, moat and 2046 durability

Decentralized capital allocation and specialized software teams have built a long record of per-share cash generation. Yet the new President-level record and private-equity management structure are too short and opaque to award a PASS. H1 acquisition consideration was about USD 1.700bn, distinct from USD 1.436bn net cash acquisition outflow. The distinction matters: consideration can include noncash and deferred claims, whereas cash-flow reporting measures a different period and perimeter. TTM FCFA2S after noncontrolling interests was USD 2.031bn, but neither that cash flow nor the current quarter's acquired growth is a matched return on the capital invested in a specific vintage. The management gate remains YELLOW pending cohort disclosure and stable common-owner conversion. Neither an owner return nor a future acquisition rate is fabricated.

Maintenance and other recurring revenue is USD 9.557bn, 75.6% of TTM revenue, supporting workflow switching costs and customer longevity. Q2 reported consolidated growth of 17% contrasts with only 1% after-FX organic growth; Altera's Q2 after-FX total rate was -22%. There are specific comparison effects, but they do not establish broad organic acceleration. AI could improve development efficiency and also lower entry barriers or migration cost. Moat and the 2046 durability test remain YELLOW: the long horizon is plausible, not demonstrable from retention and cohort data currently published. Upgrade requires several years of recurring organic resilience, economically attributable acquisitions and durable AI-era product relevance.

Earnings synthesis and red team

The single modeled segment uses the explicitly labeled statutory-operating-income consolidated fallback; supplemental Altera, Topicus and Lumine observations are not additive profit segments. TTM revenue USD 12.641bn and operating income USD 1.971bn reconcile to the filed group statements. Reviewed 2031 Bear/Base/Bull revenue is USD 17.317bn/20.193bn/23.285bn, operating income USD 2.338bn/3.130bn/4.308bn and CAD common EPS 73.831/119.582/214.536. All eleven synthesis tie-outs passed. At CAD 2,786.97, the binary 15x gate needs CAD 185.798 Base EPS, versus CAD 119.582 modeled, so it FAILS with a -35.64% cushion. That gate never dictates the independently underwritten terminal P/E.

The red team identifies acquisition-dependent recurring growth as the fragile input. A two-point Base revenue-CAGR miss lowers Base gross return by about 2.21 percentage points in a separate sensitivity; a two-point margin miss is also material. The Bear 16x exit is not mechanically sacrosanct: 18x improves Bear IRR by about 2.05 points, but does not rescue the Base or probability-weighted mandate test. The reviewer found no new evidence compelling a foundational method or multiple correction; current return objections are classified MATERIAL_RESOLVED, with uncertainty made visible rather than erased. The independent scoring audit removed twelve points from the scorer's provisional business-quality credit and repaired an unrelated EPS-CAGR JSON defect without moving any security-return IRR.

The queued question asks whether acquisition and organic evidence support retaining 23 shares despite adverse prior economics. At this price the modeled Base is -1.24% net SGD and the weighted diagnostic 1.10%, far from the owner's 13% scenario. The 23 shares have a gross marked value around CAD 64,100.31, but no current tax-lot, cash need or portfolio opportunity-cost ledger is authorized in this research slot. This report therefore finds that the owner-return premise is unsupported, not that a particular order should be placed. A separately governed CIO process must decide any HOLD or trim using current portfolio context.

Kill and upgrade criteria

- Investigate if FX-adjusted recurring organic growth stays below 3% for four quarters while acquisition consideration remains heavy and statutory margin falls below 15%.
- Reopen the after-NCI cash conversion thesis if FCFA2S per share declines for two consecutive fiscal years or minority/deferred acquisition claims consume a growing share of cash.
- Upgrade requires disclosed acquisition-vintage invested capital and parent-attributable cash returns, stronger retention and organic growth, Management and Moat PASS, a positive P/E-15 entry cushion, and Base plus weighted net-SGD returns above 10%.
- The probability-weighted 20% return max-price diagnostic is CAD 1,243.72, not an order level; it embeds today's sealed scenarios and exact horizon. A lower price alone cannot cure evidence gaps.

Source quality is highest for issuer filings and the sealed historical accounting/quote packets. Acquisition-cohort returns, customer retention and future FX remain genuine gaps; peer P/E denominators are kept native and used as cross-checks. All

judgments and illustrative projections are labeled as such in the appendices and source manifest.
`trade_execution_authorized=false`; no order, ranking, sizing or portfolio mutation is created.

Appendix A - Company Primer

Constellation Software Inc. — Company Primer

Security: CSU.TO common shares on the Toronto Stock Exchange **Research date:** September 22, 2026 **Latest reported period:** Q2 FY2026 and H1 FY2026 ended June 30, 2026 **Financial base:** TTM ended June 30, 2026, constructed as FY2025 less H1 FY2025 plus H1 FY2026 **Forward horizon used by the ER2:** June 30, 2031, exactly five years **Reporting currency:** USD millions unless stated otherwise **Trade execution authorized:** false

Evidence protocol and scope

Every financial figure in this primer comes from the September 22 [quantitative foundation](quant_foundation.md), whose official-source override reconciles the Canadian IFRS filings and whose eight checks passed. The QFR-cleared quote packet diagnostic hash is `387bfa8a265da8508eecbc8251e560dfd2c38a99948f30b874341bfecfb9f148`; the statutory bridge hash is `414ae25d9249d89b3b87d23f2ba65765b1661bc38a50b521704940f0196c862c`. Qualitative facts were checked against the company's Q2 FY2026 shareholder report, operating-groups page, acquisition criteria, leadership page, 2026 management information circular, and its live investor-relations and latest-news indexes. The latter still placed August 31's board announcement after August 11's Q2 results at the September 22 check; no later financial filing was identified. No warehouse cache or prior ER2 appendix is used as evidence for the current financials.

This matters because Constellation is a Canadian issuer for which Financial Modeling Prep data was materially stale or differently classified. The official FY2025 and H1 FY2026 statements control. It also matters because the company discloses only one reportable IFRS segment: the financial statements cannot support a precise revenue or profit allocation among the operating groups. This primer therefore distinguishes audited financial architecture from organizational descriptions.

Business overview

Constellation Software is best understood as a decentralized owner and operator of vertical-market software businesses, not as a single software product company. A vertical-market software business serves a narrow industry or workflow—municipal administration, public transit scheduling, club management, healthcare records, utility billing, mortgage technology, mining, agriculture dealers, communications infrastructure, and many others. Its software is usually embedded in a customer’s daily operations, configured for sector-specific rules, and supported for many years.

The customer proposition is practical rather than glamorous. Constellation businesses use proprietary software and industry knowledge to automate specialized processes, improve productivity, reduce operating cost, increase revenue, or improve service. The 2024 Annual Information Form gives intuitive examples: a transit product may schedule and route vehicles, while a private-club system may handle membership accounting and point of sale. The same pattern applies across the portfolio: the product encodes a customer’s workflow, regulatory requirements, data, and reporting conventions in a way that a generic application often cannot.

Customers range from public agencies and utilities to private enterprises, healthcare providers, financial institutions, industrial companies, and small or medium-sized businesses. The current corporate site says the portfolio serves more than 150,000 customers in over 160 countries. FY2025 disclosure also indicates that no customer represented more than 5% of revenue. That combination—many customers, numerous verticals, and global reach—limits exposure to a single contract or end market, although individual subsidiaries can still be locally concentrated.

Products are usually sold through direct, industry-specialist sales teams rather than a broad self-service funnel. The Annual Information Form says field and inside sales teams work within dedicated verticals, supported by trade shows, industry publications, user groups, and targeted websites. Existing customers can buy complementary modules or services. This is a relationship sale: domain credibility, implementation ability, product reliability, and long-term support matter alongside price.

The corporate model has three verbs: acquire, manage, and build. Constellation buys businesses, normally retains local leadership and product identities, and operates them indefinitely. Headquarters does not attempt to combine more than a thousand products into one code base or sales organization. Local managers remain accountable for customers, staffing, pricing, product road maps, and operating results; operating groups coach them, share practices, and allocate capital. The current operating-groups overview describes more than 1,100 autonomous businesses within nine branded groups. That contemporary organizational presentation is broader than the six IFRS operating segments named in the FY2025 financial statements; the accounting perimeter still aggregates to one reportable segment.

Revenue architecture

Constellation has one reportable segment under IFRS 8. FY2025 identifies six operating segments—Volaris, Harris, Topicus, Vela, Jonas, and Perseus—but aggregates them into the consolidated reportable segment. The issuer does not disclose operating-group revenue or profit values, and the live FMP segment endpoints were empty. Consequently, any precise group-by-group revenue split would be fabricated.

FY2025 reportable segment	Revenue	Share of total	Profit basis
Consolidated company	11,623	100.0%	Statutory operating income fallback

The economic mix is more informative by revenue type. The TTM build is fully tied to official FY2025, H1 FY2025, and H1 FY2026 statements.

TTM revenue type	Revenue	Share of TTM total	Economic character
Maintenance and other recurring	9,557	75.6%	Support, combined software and support, transaction revenue, managed services, and hosted SaaS
Professional services	2,226	17.6%	Implementation, customization, training, consulting, and certain managed services
Hardware and other	443	3.5%	Third-party or internally assembled hardware and travel reimbursement
License	415	3.3%	Multi-year or perpetual software licenses
Total	12,641	100.0%	Consolidated revenue

Maintenance and other recurring revenue is the foundation. It includes customer support after delivery, recurring combined software-and-support contracts, transaction revenue, managed services connected to sold software, and hosted SaaS. Not all of it is contractual subscription ARR, so investors should not apply a pure SaaS valuation template. Nevertheless, a three-quarter recurring mix creates renewal visibility, regular customer contact, and an installed-base opportunity for upgrades or complementary modules.

Professional services are part of the solution, not merely low-quality ancillary work. Vertical software often needs configuration, migration, custom programming, training, and implementation. These services can deepen switching costs and reduce deployment risk, but they are personnel intensive and may carry lower margins than mature maintenance revenue. License revenue is comparatively small and can be uneven because purchase decisions require customer capital approval. Hardware is the smallest stream and has more pass-through cost exposure.

The operating groups supply the industrial diversity. Harris focuses on public sector, healthcare, utilities, private-sector, and insurance software. Volaris spans more than 240 businesses, more than 40 verticals, and over 60 countries. Jonas concentrates on mission-critical software for industries including clubs, hospitality, leisure, construction, and services. Topicus is a pan-European provider serving public and private markets. Perseus owns specialist businesses including mortgage, dealer, homebuilder, healthcare, and other platforms. Vela holds a broad international collection of software companies. The company’s current organizational branding also highlights Lumine in communications and media, Modaxo in people transportation, and Andromeda as a long-term home for software businesses. These descriptions orient the reader but do not create audited segments.

Geography is similarly diversified. Major operating groups span North America, Europe, the United Kingdom, Australia, South America, Africa, and parts of Asia. The financial statements are in U.S. dollars while the stock trades in Canadian dollars. Many businesses incur costs in the same currencies as revenue, providing a partial operating hedge, but translation and balance-sheet revaluation still create reported volatility.

Unit economics

Constellation’s consolidated economics combine high-value software maintenance with labor-heavy implementation and product development. For the TTM ended June 30, 2026, revenue was 12,641 and statutory operating income was 1,971, a 15.6% operating margin. The exact statutory subtotal deducts operating expenses and intangible amortization but excludes foreign exchange movements, the IRGA revaluation, finance and other items, bargain-purchase gains, impairments, investment revaluations, finance costs, and tax. This separation is essential: several of those below-line items can be large

and volatile, so reported net income is not a clean proxy for operating progress.

The largest cost is people. Software developers maintain and enhance products; implementation and support staff serve customers; sales teams bring vertical expertise; and decentralized general managers run business units. Hardware, third-party licenses, professional services, travel, occupancy, and corporate administration add to the cost base. Intangible amortization is economically relevant as evidence of the acquisition machine's scale, even though it is non-cash in the current period.

The model is capital-light in physical terms. TTM cash flow from operations was 2,846 and property and equipment purchases were only 77, producing 2,769 of conventional free cash flow. That is a 21.9% free-cash-flow margin and represents 97.3% conversion of operating cash flow after property investment. Conventional FCF exceeded statutory operating income because cash collection, deferred revenue, tax timing, acquisition accounting, amortization, interest receipts, and working-capital movements do not line up with operating profit in a single period. Investors should treat that spread as a bridge to analyze, not as a permanent free lunch.

The recurring revenue model can generate favorable working capital when customers prepay maintenance or subscription contracts. Deferred revenue rises when billings precede service delivery, providing cash that finances operations. Conversely, implementation projects and large public-sector contracts can create receivables, milestone risk, and service obligations. The portfolio's heterogeneity means aggregate cash conversion can hide weak economics at a subsidiary.

Switching costs arise from data migration, workflow disruption, retraining, integration with other systems, regulatory validation, and fear of operational downtime. A customer often values reliable support and a vendor's industry knowledge more than a marginally lower price. These features can support pricing and renewal durability. Yet the company does not provide a consolidated net retention rate, gross retention rate, ARR figure, customer-acquisition cost, or lifetime value. Pricing power is therefore GREEN/YELLOW: the revenue mix and mission-critical role are supportive, while direct realized-price and retention evidence remain incomplete.

Research and development is decentralized. The official product-development description emphasizes new add-ons, feature improvements, and migration tools while continuing to support customers' existing systems. This protects installed bases but can create a tension between backward compatibility and modernization. Local product teams may move quickly because they are close to customers, but old architectures can require sustained investment and sometimes constrain margins.

Customer and end-market structure

The company is deliberately spread across many small markets rather than dependent on a handful of global categories. Public-sector exposure includes municipalities, education, transit, public safety, utilities, courts, libraries, and healthcare. Private-sector exposure includes clubs, hospitality, financial services, insurance, mining, agriculture, retail, logistics, manufacturing, mortgage, communications, and media. Demand drivers therefore range from regulation and public budgets to employment, construction, commodity activity, consumer spending, and technology replacement cycles.

This creates two advantages. First, customer concentration is low at group level. Second, local downturns should not affect the whole portfolio simultaneously. The drawback is analytical opacity: there is no clean industry revenue table, and each small business has its own competitors, retention patterns, pricing practices, and product debt. Diversification reduces catastrophic single-customer risk but can make emerging portfolio-wide deterioration slower to detect.

Public-sector and regulated customers can be sticky because systems are complex, procurement is formal, and compliance requirements are high. They can also have long sales cycles, budget constraints, political oversight, performance bonds, and contract liability. Private-sector niches may have faster decisions and better upsell opportunities but greater cyclicality. The key investor question is not whether every vertical is resilient; it is whether the portfolio remains diversified enough that local problems are absorbed while recurring revenue and acquisition deployment continue to compound.

Competitive landscape

Competition happens primarily within each niche. A small Constellation business may face a founder-owned specialist, a private-equity-backed consolidator, a customer's in-house system, a horizontal enterprise platform, or a division of a large technology vendor. The official filings say buyers compare product features, maintenance and support quality, price, implementation, vendor reputation, industry expertise, architecture, performance, and financial stability.

The Annual Information Form lists large competitors such as Oracle, Microsoft, Salesforce, Tyler Technologies, Roper Technologies, Epic, Amdocs, Temenos, Fiserv, Jack Henry, Sage, Intuit, Ericsson, Cisco, and others. This list is illustrative

rather than a consolidated peer set: no one vendor competes across all of Constellation's markets. The more important rivals are often private specialists in individual verticals.

Constellation's defense is a combination of installed-base intimacy, specialized functionality, long support history, local accountability, and permanent ownership. A seller may prefer Constellation because it usually preserves brand and autonomy rather than forcing a short exit timetable. An operating business may benefit from group coaching, acquisition experience, and access to capital. These are advantages in sourcing and retention, but they do not automatically guarantee product leadership.

Competitive risks are real. Better-funded vendors can modernize architectures faster, bundle products, subsidize entry into a niche, or use cloud distribution to lower implementation cost. Customers can resist maintenance increases or demand SaaS migration. Private equity competes for acquisitions, pushing purchase prices higher. Open-source components, low-code development, and AI-assisted coding may reduce the cost of building alternatives. The moat is therefore a portfolio of many local advantages and a capital-allocation system, not a single network effect.

Capital allocation model

Capital allocation is the core of the corporate strategy. The businesses generate cash, retain what they can reinvest at attractive rates, and remit surplus capital upward. Operating groups source and execute acquisitions in existing or new verticals. The company's acquisition criteria favor proprietary B2B software, recurring revenue, diversified customers, low attrition, and leading or improving market share, while allowing targets from very small teams to companies with hundreds of employees. The filings also acknowledge that Constellation sometimes buys declining or concentrated businesses when managers believe segmentation and customer management can produce adequate returns.

The stated intent is to invest free cash flow available to shareholders in acquisitions that meet a hurdle rate. H1 FY2026 capital deployed on acquisitions plus dividends exceeded operating cash flow, demonstrating that deployment remained active. The company also carried an unchanged diluted share count of 21.19153 million across FY2024, FY2025, and June 2026, with no buybacks. The capital model has therefore relied principally on internally generated cash and debt rather than repeated common-equity issuance.

Decentralization expands the number of people who can deploy capital and lets decisions use local knowledge. It also introduces control risk. Hundreds of acquirers and managers must estimate normalized earnings, retention, product-investment needs, customer liabilities, and integration risk consistently. Small deals are individually immaterial but collectively determine return on incremental invested capital. Disclosure does not provide an acquisition-vintage return table, so Stage 1 correctly rates ROIIC YELLOW despite excellent aggregate cash generation.

The recent expansion into larger transactions and separately capitalized listed subsidiaries adds complexity. Topicus and Lumine have non-controlling interests and debt that may be non-recourse to the parent. The IRGA tied to Topicus creates a separately measured liability and earnings volatility. The structure can widen the capital opportunity set, but consolidated results are not equivalent to economics entirely owned or freely accessible by CSU common shareholders.

Balance sheet and cash-flow capacity

At June 30, 2026, cash and equivalents were 2,886 and core gross debt was 4,196, for core net debt of 1,310. Lease liabilities were 445; including leases, net debt was 1,755. Against TTM operating cash flow of 2,846 and conventional FCF of 2,769, this is modest financial leverage. Stage 1 therefore rates leverage GREEN.

The debt figure requires disciplined classification. Core debt includes obligations with and without recourse to CSI but excludes leases and the IRGA liability. The QF rejects the materially higher vendor "total debt" figure because it mixed non-debt liabilities into the denominator. At June 2026 the IRGA liability was 1,186. An investor must examine it separately rather than either ignoring it or casually treating every liability as conventional borrowings.

Liquidity is also structurally segmented. Some cash sits in Topicus, Lumine, and subsidiaries with non-recourse facilities, and legal or financing arrangements may limit distributions to the parent. Consolidated cash is therefore not necessarily immediately available for CSU-level acquisitions or debt service. The combination of recurring revenue, low physical capex, available facilities, and modest net leverage provides capacity; the practical constraint is access to subsidiary cash and the willingness to maintain acquisition discipline.

FCF conversion is GREEN, but conventional FCF is not the same as the issuer's FCFA2S measure. FCFA2S adjusts operating cash flow for interest, leases, debt transaction costs, IRGA revaluation, property purchases, interest and dividends

received, certain proceeds, and amounts attributable to non-controlling interests. Conventional CFO less capex is useful for comparability, while FCFA2S is closer to management's view of uncommitted parent-shareholder cash. Both require a careful ownership and capital-structure bridge.

Governance and leadership

Founder Mark Leonard resigned as president on September 25, 2025 for health reasons and remained a director at that time. Mark Miller, a more than thirty-year company veteran who co-founded Trapeze—the first business acquired by Constellation—became president while retaining his other roles. The leadership-transition release emphasized continuity through an established team of managers and capital allocators. This succession is more credible than an external handoff but still changes the key-person profile of a culture long associated with Leonard.

The 2026 circular expected seven of nine directors after the annual meeting to qualify as independent. It also describes executive bonuses based on a balance of ROIC and net revenue growth, with a risk-free return threshold in most operating groups. Executives generally must invest 75% of after-tax incentive bonuses in company shares held in escrow for a minimum average of four years. These mechanisms encourage long-duration ownership and penalize growth that destroys returns.

Governance is not uncomplicated. Compensation ROIC is a company-defined non-IFRS measure with adjustments, the board retains discretion, and the group's listed subsidiaries and non-controlling interests create potential allocation and related-party questions. The circular also said there was no formal anti-hedging policy. Founder succession, multi-layer subsidiary governance, and the IRGA deserve monitoring. Claire Kennedy's August 31, 2026 resignation after appointment as Canada's Consul General in Chicago is benign in reason but changes the post-AGM board roster. Governance remains YELLOW rather than RED.

AI and technology exposure

AI is both a productivity opportunity and a product risk. Constellation's decentralized teams can use generative tools for coding, testing, support, documentation, implementation, and internal analysis. Products can embed domain-specific copilots or automation where proprietary workflows and customer data provide context. The company's bottom-up structure may allow experimentation close to customers and rapid sharing of proven practices across operating groups.

The threat is equally direct. AI-assisted development may reduce barriers to creating niche applications, allow customers or competitors to rebuild functions faster, and expose old architectures. Large platform vendors may combine general AI models with distribution, cloud infrastructure, and existing enterprise relationships. Product teams must also manage data privacy, cybersecurity, hallucination, licensing, regulatory, and reliability risks—especially in healthcare, government, finance, and safety-critical markets.

Management has not pretended to know the outcome. In September 2025 the company hosted a dedicated shareholder webcast on AI. Leonard described uncertainty for employees, customers, and shareholders and said specialists across CSI were monitoring internal progress and broader market developments. That candor is constructive, but the sealed QF contains no quantitative evidence of AI-driven retention, revenue, productivity, or margin benefit. AI therefore remains YELLOW until product modernization and competitive outcomes are observable.

Key risks

- **Acquisition returns decline.** Competition for VMS assets may push prices above the returns historically achieved. Small errors repeated across many deals can erode ROIIC without producing an obvious single failure.
- **Organic growth remains modest.** The Q2 FY2026 report says acquisitions were the principal driver of growth. Maintenance remains resilient, but weak license or professional-services demand and the Altera drag show that not every asset grows smoothly.
- **Legacy products lose relevance.** Long-lived code and customer loyalty can be advantages until cloud, AI, security, interoperability, or regulatory requirements force expensive modernization.
- **Decentralized controls fail.** Autonomy improves speed but increases the number of locations where cybersecurity, accounting, compliance, customer-contract, or talent problems can arise. The corporate center must detect exceptions without suffocating local accountability.

- **Ownership complexity obscures parent economics.** Non-controlling interests, non-recourse debt, restricted subsidiary cash, listed subsidiaries, and the IRGA can cause consolidated income and cash to differ materially from what accrues to CSU common shareholders.

- **Talent and succession weaken.** The model depends on many skilled operators and capital allocators. Leonard's departure from the presidency raises the bar for cultural continuity even with Miller's long tenure.

- **Currency and tax volatility distort results.** Operations span many currencies and jurisdictions. Natural operating hedges reduce but do not eliminate translation, intercompany, transfer-pricing, and tax risks.

- **Valuation leaves limited room for execution errors.** At the QFR-cleared CAD 2,786.97 close on September 21 and 1 USD = 1.39941 CAD same-session FX, diagnostic reported TTM P/E was 43.92 times: CAD 2,786.97 divided by [(USD 961 million parent-common income / 21.19153 million diluted shares) × 1.39941 CAD per USD]. This is not a normalized valuation conclusion, but it shows the market price assumes long-duration compounding.

Investor lens

The essential appeal is a rare combination: mission-critical niche software, diversified customers, recurring revenue, low physical capital intensity, strong cash generation, and a decentralized acquisition system with a long operating history. TTM maintenance and other recurring revenue was 75.6% of sales, conventional FCF was 2,769, net leverage was modest, and the share count was stable. End markets, FCF conversion, and leverage all clear Stage 1 without a red disqualifier.

The unresolved issue is whether the future resembles the past at today's scale and price. The investor is underwriting thousands of local product decisions and many acquisition decisions, not one dominant platform. The company's public reporting does not reveal operating-group returns, cohort-level acquisition performance, or consolidated retention. ROIIC, governance, AI, and pricing therefore require evidence beyond attractive aggregate outputs.

The monitoring dashboard should emphasize acquisition capital deployed versus subsequent parent-attributable cash generation; organic growth excluding acquisitions and FX; recurring-revenue growth with and without Altera; statutory operating margin; cash accessibility and recourse; IRGA and non-controlling-interest movements; product modernization and AI adoption; senior capital-allocator retention; and changes in the independent board roster. A material failure in any one quarter is not necessarily thesis-breaking, but a multi-period deterioration across several of these indicators would challenge the compounder case.

For valuation, avoid treating the current 43.92-times diagnostic reported TTM P/E as directly comparable with a terminal multiple applied to normalized earnings. TTM common earnings contain volatile below-line effects, while the operating model is acquisition intensive and has complex ownership claims. The later ER2 stages must normalize the earnings denominator, preserve the CAD/USD and listed-share bridge, and explicitly reconcile non-controlling interests, debt, cash, distributions, and terminal value.

Twenty-three-share retention lens for this refresh

The assigned decision context is an existing 23-share CSU.TO position. At the QFR-cleared September 21 close of CAD 2,786.97, its indicated gross market value is CAD 64,100.31, approximately USD 45,805.24 at the same-session 1.39941 CAD-per-USD rate. Those are mark-to-market translations, not sale proceeds or after-tax SGD values. The valuation price is a completed-session anchor, not a live execution quote; the packet's conservative 24-hour actionability policy expires September 23 at 14:07:41 Singapore time. A later portfolio decision needs a new quote if that window passes. The current share count, average cost, tax lots, broker fees, SGD conversion spread, total portfolio NAV, and sector/factor overlap are not evidenced by company filings or this primer. In particular, 23 shares alone cannot establish whether the position breaches an 8% drawdown intervention review, a 12% hard review, or a concentration ceiling.

The existing-holder question is not answered by the original purchase price or a claim that high business quality requires retention. A prospective five-year holding decision weighs the same incremental owner economics and opportunity cost as a fresh purchase, while tax and transaction frictions can make the implementation path differ. Q2's 17% reported revenue growth alongside 1% foreign-exchange-adjusted organic growth, a recurring franchise with no published group-wide customer-retention series, and missing acquisition-vintage attributable returns all constrain conviction. The official Q2 release

gives the organic-growth decomposition and announced a USD 1.00 quarterly dividend payable October 9 to holders of record September 18. This report does not infer whether the owner met that record-date condition and does not count the announced dividend as incremental value beyond the later return model's distribution bridge.

The primer provides business context only. A retention, reduction, or exit recommendation requires the reviewed segment forecast, normalized common-equity denominator, scenario valuation and gross/local plus net-SGD returns, audited score, and CIO portfolio-fit assessment. An ER2 PASS or CIO PASS is research status rather than trade authorization. The 23 shares cannot be sold, retained as a newly approved strategic allocation, or resized on this appendix alone; any owner action requires explicit approval.

The primer conclusion is deliberately conditional. Constellation appears to be a high-quality, cash-generative acquisition compounder with genuine diversification and a durable operating philosophy. It is not analytically simple, and business quality does not make any price acceptable. The decisive five-year questions are whether acquisition returns remain high as the organization scales, recurring organic growth holds up through AI and cloud transitions, and parent common shareholders retain a sufficient share of the cash economics to justify the valuation. No statement here authorizes a trade.

Primary sources consulted live

- Q2 FY2026 shareholder report, August 11, 2026
- Q2 FY2026 results release
- Constellation operating groups
- Constellation acquisition criteria
- Constellation leadership team and board
- 2026 management information circular
- 2024 Annual Information Form, used only for durable qualitative business descriptions
- AI impact webcast announcement, September 16, 2025
- Leadership transition announcement, September 25, 2025
- Claire Kennedy board resignation, August 31, 2026

Appendix M - Management Assessment

Constellation Software Inc. (CSU.TO) — Management Assessment

Assessment date: 2026-09-22 (refresh of September 10 assessment) **Evidence horizon:** TTM ended 2026-06-30; forward horizon 2031-06-30 (exactly five years) **Management gate: YELLOW Artifact control:** `trade_execution_authorized=false`

September 22 decision update and evidence hierarchy

The **YELLOW** gate remains warranted, but only as a conditional judgment, not a presumption that every new acquisition meets its advertised hurdle. The DR-cleared September 22 [data package](data_package.md) corrected H1 FY2026 deal consideration from the prior assessment's erroneous $1.625 billion to approximately **$1.700 billion** in the interim acquisition note: Synchronoss $309 million, DerbySoft $392 million and other acquisitions $999 million. The Q1 and Q2 releases' $809 million and $893 million sum to $1.702 billion; the $2 million difference reflects the issuer's rounding or measurement presentations, not a separate deal. H1 **gross cash used for acquisitions** was $1.592 billion including settlement of older holdbacks; acquired cash of $156 million made **net acquisition cash use** $1.436 billion. Consideration, gross cash use and net cash use are different quantities. None is an acquisition-return denominator by itself. The Q2 filing's further $818 million is completed **or committed** after June, not all a closed H1 transaction (Q2 shareholder report, MD&A and note 4; Q2 results release).

The same package ties issuer-defined, **after-NCI FCFA2S** to $2.031 billion for the twelve months ended June 30, 2026: $1.683 billion FY2025 minus $730 million H1 FY2025 plus $1.078 billion H1 FY2026. At 21.19153 million unchanged common shares this is about $95.84 per share, an aggregate parent-shareholder cash-generation indicator. It excludes acquisitions and is **not** conventional CFO less property/equipment ($2.769 billion TTM), distributable cash, or realized return on the 2026 acquisition cohort. It also cannot be paid to shareholders and reinvested in acquisitions simultaneously. Its historical growth, alongside a flat common-share count, rebuts a claim that the whole acquisition system has shown no per-share value creation. But aggregate FCFA2S can be raised by old assets, deferred payments, FX, working capital or acquired cash flows; without matching the price, time, ownership share, incremental maintenance capex and attributable cash receipts of acquisition cohorts, it cannot validate aggregate acquisition ROIIC (Q2 FCFA2S reconciliation).

The operating counter-evidence is also sharper than the September 10 version conveyed. Q2 reported revenue grew 17%, yet consolidated **FX-adjusted organic revenue grew only 1%**; CSI excluding Altera grew 2% while the supplemental Altera perimeter fell **22%** on that basis. These are different measures and perimeters, not a 17% organic franchise. Q2 Altera's $153 million revenue, $25 million operating cash flow and $21 million FCFA2S provide some observable cash evidence, but no original purchase-price-to-current-cash cohort return schedule; management's assertion that Altera is ahead of its original expected IRR remains unverified externally. We should neither turn its minus 22% organic print into proof of capital destruction nor dismiss it as wholly temporary. The Q2 2025 comparison included two upfront/amendment contract items that did not recur, but the size and persistence of future recovery are unproven (Q2 MD&A pp. 4-5, 14-16).

This is why neither adjacent gate is earned today. **PASS** would demand a credible, source-reconcilable record of parent-attributable incremental cash return across Miller-led large deals and PEMS, not simply management's unchanged stated hurdle. **FAIL** would require evidence that capital allocation is persistently value destructive, that opacity is used to conceal known failures, that minority holders bear asymmetric harms, or that aggregate after-NCI per-share cash generation is deteriorating despite continued deployment. The available official evidence does not yet establish those stronger claims. The hard question is being carried forward as a monitored unresolved issue, not silently scored as success.

Constellation still exhibits one of the strongest capital-allocation cultures in public software, but the gate cannot yet be PASS. Mark Miller has been President for less than a year, founder Mark Leonard has left both the presidency and board for health reasons, and Leonard remains an adviser specifically to the new Permanent Engaged Minority Shareholder (PEMS) strategy. That leaves the most important incremental allocation channel both founder-dependent and unproven. The legacy acquisition engine, incentive system and candid new calls argue strongly against FAIL; the short succession record, minority/NCI complexity and inadequate PEMS governance disclosure prevent a decade-long endorsement today.

1. Who is running the company

Mark Miller, President and Chief Operating Officer. Miller became President on September 25, 2025 after Leonard resigned for health reasons. He has worked with CSI, Volaris and their subsidiaries for more than 30 years, co-founded

Trapeze Group (CSI's first acquisition in 1995), and remains Executive Chairman of Volaris and Chair of Lumine. His remit is leadership development, decentralized operating discipline and continued acquisitions. The official biography emphasizes buying and holding companies forever rather than portfolio trading (leadership page; succession announcement).

Jamal Baksh, Chief Financial Officer. Baksh joined Jonas as controller in 2003, became CSI Vice President of Finance in 2005 and was appointed CFO in March 2013. He therefore owns more than a decade of public-company reporting, financing and cash-allocation execution (appointment announcement). **Bernard Anzarouth, Chief Investment Officer**, is the senior central acquisition executive; **Farley Noble** is SVP, Large Investments and Strategy; and **Mark Dennison** is General Counsel. Material operating leaders identified in the 2026 circular include Jeff Bender (Harris), Robin van Poelje (Topicus) and Damian McKay (Vela), while Miller remains tied to Volaris. This is a genuinely distributed bench, not a headquarters-only team.

CSI's current site describes more than 1,100 autonomous businesses across nine operating groups: Harris, Volaris, Jonas, Topicus, Perseus, Vela, Lumine, Modaxo and Andromeda (operating-groups page). The growth in named groups supports succession depth, but the company does not disclose group-level revenue and profit consistently enough for outsiders to rank those leaders on per-dollar performance.

Board oversight. John Billowits is Chair and Lawrence Cunningham Vice-Chair. Billowits is classified independent under Canadian rules but is not culturally remote: he was CSI CFO and Vela CEO and is a Topicus director. That history supplies operating context but weakens the practical distinction between independent challenge and alumni oversight. Cunningham brings unusually strong governance credentials. After Mark Leonard did not stand for re-election and Claire Kennedy resigned on August 31, 2026 to become Canada's Consul General in Chicago, the website lists eight directors: Billowits, Cunningham, Andrew Pastor, Donna Parr, Laurie Schultz, Robert Kittel, Miller and Baksh. Six are nominally independent; Miller and Baksh are executives. The March circular had anticipated seven independent directors out of nine, so Kennedy's departure leaves six of eight and warrants prompt refreshment, particularly because she had served on the Audit Committee (2026 circular; Kennedy resignation).

2. Tenure, decisions and observable record

The central distinction is between **tenure inside the system** and **tenure owning the top-level strategy**. Miller has three decades of CSI operating experience but only about 11 months as President. The following are the three consequential decisions he now owns; none has a five-year President-level outcome yet.

Decision owned by Miller	Date / scale	Observable result to date	Assessment
Scale large acquisitions and carve-outs	2026 H1: about $1.700B total consideration; DerbySoft $392M total consideration	Q2 call described improved 2026-cohort margin; Synchronoss and DerbySoft each recorded early net losses after close	Operating integration evidence, not through-cycle IRR proof
Formalize PEMS minority investing	2025 onward; FY2025 other net investments $530M, principally Asseco	Same stated hurdle as full acquisitions, but no realized-return, influence or exit-governance record	Principal YELLOW issue
Verticalize learning while preserving autonomy	Announced 2026	Management says businesses may be moved into closer vertical “orbits,” without functional integration	Strategically coherent; financial outcome not yet observable

The legacy system's results are exceptional. Revenue increased from $5.106 billion in FY2021 to $11.623 billion in FY2025, a 22.8% CAGR. Statutory operating income rose from $873 million to $1.895 billion, and margin recovered from 13.3% in FY2022 to 16.3% in FY2025. Approximate ROIC was 29.7%, 28.2%, 6.7%, 21.4% and 20.5% in FY2021-25; the FY2023 trough reflects tax and redeemable-security distortions, so it is evidence of accounting complexity rather than a clean collapse in operating returns. Miller helped build this system, especially Volaris, but it would over-credit him to call the entire record his President-level scorecard.

Management has acknowledged what does not work. Altera revenue has shrunk since acquisition, and management says the business was never underwritten as a high organic grower; in Q2 Miller described the difficulty of imposing best practices rapidly on large acquisitions and the need to split them into manageable units. Dark Matter and recent Lumine acquisitions were also described as current organic-growth drags. This is better than burying a write-off, but the company still withholds the cohort cash-return schedule needed to verify its claim that Altera is ahead of original IRR.

Baksh's long CFO tenure is a strength. The flat 21.192 million diluted share count, no buybacks, conservative core net leverage of approximately 0.32x EBITDA and persistent open-market share purchases under compensation plans indicate

disciplined financing. The counterweight is increasingly difficult minority accounting: Topicus, Lumine, Adapt IT, DerbySoft's puttable NCI, the IRGA liability and restricted subsidiary cash. These structures can be rational, but they make parent-shareholder economics harder to audit.

3. Capital allocation behavior

USD billions	FY2021	FY2022	FY2023	FY2024	FY2025
Capex	0.029	0.041	0.042	0.067	0.068
R&D staff expense	0.732	0.948	1.215	1.437	1.615
Buybacks	0.000	0.000	0.000	0.000	0.000
Common dividends	0.085	0.085	0.085	0.085	0.085
M&A consideration	1.517	1.875	2.609	1.792	1.579

Allocation is coherent with CSI's stated purpose. Capex stays below 0.7% of revenue; R&D staff expense is close to 14% of revenue; dividends are token; and acquisitions absorb the bulk of internally generated cash. The lack of buybacks is not mechanical indifference: management has historically preferred reinvestment and the share count has stayed flat, avoiding dilution. However, it also means management did not repurchase shares during the 2025-26 public-software drawdown, unlike Roper.

The record supports the classic VMS model but not yet its mutations. FY2025 added $530 million of “other net investments,” mainly Asseco. The PEMS case is weaker because minority stakes surrender operating control while retaining public-market volatility and governance dependence. When asked what recourse CSI would have if a PEMS company remained entrenched in a suboptimal strategy, Miller answered that it would be “situational.” That is not enough for a new strategy receiving significant capital. Required disclosure should include acquisition price, ownership percentage, board rights, hurdle, realized/unrealized return and the circumstances under which permanent ownership ceases to be rational.

The official interim note permits a narrow early-deal check but no ROIIC calculation. Synchronoss, bought February 13 for $309 million, generated $64 million revenue and a $4 million **net loss** since closing. DerbySoft, 91.8% acquired June 1 for $392 million total consideration, generated $11 million revenue and a $1 million **net loss**; the remaining 8.2% puttable interest is recorded as a liability. Such early reported losses can coexist with a sound long-life investment, particularly under purchase accounting, but they cannot be counted as proof of immediate accretion. The other $999 million of H1 deals lacks a disclosed matched cash-return schedule. The CFO's favorable statement on Altera is a management view of an undisclosed original IRR target. I do not manufacture a portfolio ROIIC by comparing one year's consolidated FCFA2S growth with one year's purchases, because acquisition vintages, NCI, post-close cash receipts, holdbacks and currency are unmatched. This non-disclosure is the central reason the gate remains YELLOW rather than PASS (Q2 FY2026 interim acquisition note).

4. Compensation and ownership alignment

The core bonus design is unusually economic. Operating-group managers are paid on group net-revenue growth and ROIC after deducting a board-set 5% risk-free return; below that threshold, the manager earns no bonus. The President and CFO use company-wide performance. Executives generally must invest 75% of after-tax bonuses in CSI (or Topicus for its executives) through open-market purchases and hold the shares in escrow for a minimum average four years. This links reward to both growth and capital efficiency rather than revenue or TSR alone (2026 circular, pp. 11-13).

Miller voluntarily waived salary and bonus from January 1, 2026. As of March 28 he reported 254,533 CSI shares, approximately 1.20% of shares outstanding and worth roughly C$713 million at C$2,801.99. That is genuine skin in the game. Baksh reported 1,811 CSI shares, much less direct parent exposure, plus holdings in Topicus and Lumine. The FY2025 accounts reported no significant share-based payments for key management and only $17 million of salaries, bonuses and benefits. Combined with the unchanged parent share count, parent-level dilution is exceptionally disciplined.

There are two non-trivial policy gaps. First, the circular explicitly says CSI has **no formal policy prohibiting hedging** of compensation shares. Second, it does not identify a formal clawback policy. Escrow mitigates but does not replace either control. The bonus ROIC is also a non-IFRS measure with adjustments for deferred tax, FX, bargain purchases, contingent consideration, redeemable securities, subsidiary ownership, and intangible amortization/impairment. The philosophy is excellent; outsiders cannot fully reproduce the metric.

5. Disclosure quality and candor — eight-quarter review

The requested window is Q3 FY2024 through Q2 FY2026. CSI held **no earnings calls in five of those eight quarters** (Q3 FY2024 through Q3 FY2025), having replaced calls with a shareholder Q&A facility. Yet the official Q&A archive's newest entry is May 2022 (Q&A archive). Calls resumed for Q4 FY2025, Q1 FY2026 and Q2 FY2026. This five-quarter silence is a material transparency weakness even though quarterly MD&A remained timely.

The three resumed calls are better. In Q2, Baksh directly quantified Altera, Dark Matter, Lumine and a lost South American customer, including a roughly 30-basis-point consolidated growth drag. Management admitted AI had not yet lifted organic growth, said 2026-cohort margins had initially been negative, called DerbySoft's acquisition multiple high, and refused to forecast acquisition cadence because closing is inherently unpredictable. Those are candid answers. Q1 also addressed negative acquisition-cohort margins, compensation during the share-price reset and differences between Miller and Leonard. PEMS answers were much weaker: “situational” recurred without quantified ownership, influence or downside-control rules.

Hedged language therefore appeared in **all three of three available calls**, mostly around AI commercialization and PEMS governance; it was acceptable uncertainty for AI but evasive for PEMS controls. Guidance discipline cannot be scored conventionally because CSI gives no formal revenue/EPS outlook. Baksh's clearest anchor was roughly 5% FX-adjusted recurring organic growth; Q2 total organic growth was 3% and 1% FX-adjusted, below the broad expectation, but management decomposed the variance rather than relabeling it a generic “headwind.” Voluntary disclosure remains insufficient: no operating-group revenue/profit, acquisition-cohort IRR, ARR, retention, churn or group cash-return table.

6. Strategic coherence

The strategy is still coherent: acquire mission-critical niche software, preserve local autonomy, improve operations, develop leaders and recycle cash into more high-return assets. The current official philosophy states that acquired businesses “continue to operate independently,” and Miller says verticalization will group learning and sourcing without functional integration (company philosophy). R&D intensity, acquisition spend and the absence of financial engineering support that claim.

The 5-10 year destination is less settled at the edge. Larger carve-outs require more team-based intervention; PEMS introduces influence without control; AI encourages faster product iteration; and nine operating groups create additional ownership layers. These are evolutions, not incoherent pivots, but the investment pattern is moving faster than external reporting. Management names competition and AI risk directly, including VMS “copycats,” customer-driven disruption and the risk that some experiments fail. That candor is a positive.

7. Governance flags

There is one common share class with one vote per share, and no person is disclosed as owning more than 10%; therefore there is no dual-class or controlling-shareholder disqualifier. Six of eight current directors are nominally independent. The principal related-party item is bounded but real: CSI spent $3 million in FY2025 on hosting services from companies affiliated with Topicus CEO Robin van Poelje, unchanged from FY2024; the year-end payable was nil (FY2025 financial statements). No current restatement, enforcement action or disclosed material internal-control weakness was identified in the live official set.

Governance remains YELLOW because economic control is more complex than voting control. Topicus and Lumine have large NCI, the IRGA can revalue materially, subsidiary cash may be non-recourse, and minority investments widen the gap between consolidated growth and value attributable to CSU common holders. Auditor KPMG has served since 1995, an unusually long tenure. A current SEDI insider-sale pattern could not be established from the official IR/SEDAR set, so no claim of absent insider selling is made.

8. Peer comparison

Roper Technologies / Neil Hunn. Roper is the closest scaled U.S. comparator. CSU's decentralized sourcing network and historic per-dollar acquisition productivity appear superior, but Roper communicates more transparently: its 2025 letter gave five-year revenue, EBITDA and FCF CAGRs, annual deployment, named large deals, shortcomings and guidance. Roper also repurchased more than 8% of shares through Q2 2026 at depressed prices (2025 annual report; Q2 2026 release). CSU ranks higher on long-run acquisition culture, lower on current disclosure and opportunistic repurchase evidence.

Enghouse Systems / Stephen Sadler. Sadler is a founder-like allocator and Enghouse's largest shareholder. Enghouse is much smaller and has not matched CSU's five-year deployment scale or growth. Its quarterly shareholder messages and clean balance-sheet orientation are understandable, but CSU's operating-group bench and reinvestment opportunity set are stronger. CSU ranks ahead on stewardship capacity, though Enghouse's simpler perimeter is easier for minority investors to

audit.

Judges Scientific / Tim Prestidge and David Cicurel. Judges offers the most relevant succession comparison: a multi-year transition put Prestidge in the CEO role while founder Cicurel became non-executive chair and remains an M&A adviser. That process was more explicitly staged than Leonard's health-driven departure, even though Judges is far smaller and its 2025 trading record was weaker (2025 annual report). CSU has the stronger bench and record; Judges has provided a clearer succession process.

9. Management gate verdict

YELLOW — investable but unresolved. The legacy evidence is too strong for FAIL: a decades-long decentralized acquisition culture, flat share count, high cash generation, ROIC-linked bonuses, meaningful executive ownership and increasingly direct call answers. But PASS would require believing that the present team can allocate for a decade without founder dependence. Miller has not yet completed a full year as President, Leonard remains an adviser to the least-proven strategy, and PEMS/minority/NCI structures lack the granular return and governance disclosures needed to protect common shareholders.

Upgrade to PASS if: (1) by FY2027-28 Miller demonstrates at least two annual cohorts, including large deals, reaching stated returns without rising leverage or dilution; (2) CSI publishes a reproducible PEMS scorecard covering cost, ownership, governance rights, attributable cash returns and impairment/exit discipline; and (3) the board replaces Kennedy with a genuinely independent audit/capital-allocation director and adopts formal clawback and anti-hedging policies.

Downgrade to FAIL if: (1) PEMS capital becomes material while influence rights and common-shareholder returns remain opaque or impairments emerge; (2) consolidated growth increasingly comes from NCI-heavy structures while parent-attributable FCFA2S per share stalls; or (3) Miller relaxes hurdle rates, issues parent shares, or suppresses cohort evidence when large acquisitions underperform.

September 22 management gate and monitoring contract

Management gate: YELLOW — conditional, not a soft PASS. The September 10 verdict survives the correction and tougher latest-quarter evidence. The facts that prevent a FAIL are the five-year rise in issuer-defined after-NCI FCFA2S from $883 million in FY2021 to $1.683 billion in FY2025 and $2.031 billion TTM, flat parent shares, a compensation rule that combines net-revenue growth with a return threshold, large direct ownership by Miller, and management's willingness in resumed calls to discuss Altera weakness and early cohort margins. Those facts establish a credible operating and stewardship history. They do **not** establish that every new dollar invested in FY2026 earns the historic return, and they do not eliminate the founder-succession or minority-investment risks.

The negatives are material: Miller has not owned the presidency for a complete annual cycle; the board has lost Leonard and then Kennedy; the circular does not provide an anti-hedging rule; no public, reproducible PEMS or aggregate acquisition-cohort return table exists; and 1% Q2 FX-adjusted organic growth, including Altera at minus 22%, makes acquisition price discipline more load-bearing. The $1.700 billion H1 deal consideration is substantial relative to the company's TTM $2.031 billion after-NCI FCFA2S, but comparing those numbers is a **deployment-intensity observation**, not an ROIIC, payout ratio or fully financed acquisition capacity statement. CFO, subsidiary cash restrictions, debt capacity, deferred payments and investment cash flows must be separately bridged. This is the exact point at which seemingly compelling historical compounder evidence can be overstretched into an unsupported marginal-return claim.

Upgrade to PASS only after observable evidence, not a calendar anniversary. Over FY2027-28, require at least two Miller-led acquisition vintages, including a large deal, to show purchase consideration including deferred and contingent payments, acquisition-date ownership, subsequent incremental after-NCI FCFA2S or equivalent attributable cash, and subsequent maintenance reinvestment. The company need not publish trade secrets for every small deal, but it should provide an aggregate cohort bridge sufficient to test the stated hurdle and distinguish mature from new cohorts. Require PEMS disclosure of capital committed and actually paid, ownership percentage, board or veto rights, attributable cash receipts, valuation/impairment policy and a concrete response to an underperforming investee; a qualitative “same hurdle” answer alone does not clear this condition. Finally, require board refresh after Kennedy's departure and formal clawback and anti-hedging controls, or an equally credible public explanation of substitute safeguards. A year of recovered FX-adjusted recurring organic growth around management's roughly 5% anchor, rather than the current 2%, would support—not replace—the return proof. 2026 circular, Kennedy announcement, Q2 report.

Downgrade to FAIL on a disconfirming pattern. Repeated large-deal losses or write-downs without credible acquired-cohort cash recovery; a sustained decline in after-NCI FCFA2S per unchanged or diluted common share while deal deployment continues; PEMS capital becoming material without ownership and downside rights, followed by impaired or non-remitting investments; or an explicit relaxation of hurdle economics would make YELLOW an evasion of the gate. A single Altera minus 22% organic quarter or early post-close purchase-accounting loss does not satisfy that standard by itself. If management stops taking live questions, obscures an observable adverse cohort, or shifts compensation toward deal volume/size while abandoning return discipline, disclosure and incentives could independently force FAIL even before a complete cash-return history matures. The next test is the FY2026 annual filing and the following quarterly call; absent better disclosure, the gate must remain unresolved, not automatically upgrade with tenure.

Current evidence control. Quantitative financial and allocation facts in this refreshed appendix come from the DR-cleared September 22 `data_package.md`, SHA-256 `b3ff8f531bc37e23dafd5cf5a40400cc316eb88372058219bf2638b2ee2c2519`, which was compiled from live FMP `/stable/` and official filings and independently checked against the QFR-sealed `quote_packet.json` SHA-256 `387bfa8a265da8508eecbc8251e560dfd2c38a99948f30b874341bfecfb9f148` and `statutory_bridge.json` SHA-256 `414ae25d9249d89b3b87d23f2ba65765b1661bc38a50b521704940f0196c862c`. The current issuer leadership page, latest-news index, 2026 circular and August 31 Kennedy announcement were rechecked on September 22. The index showed no September parent-level news item as of this check; that is not a guarantee about SEDAR or subsidiaries. The three available FY2025 Q4–FY2026 Q2 call texts were live-fetched into the current run's raw area by D; no missing older call is presumed to exist. This stage did not create a new FMP dataset and did not use a warehouse cache as evidence. The source-backed September 10 history below is retained but its then-current package hash and superseded $1.625 billion line have no authority over the refreshed values above.

Historical source boundary (September 10; superseded by refresh control above)

Historical financial and capital-allocation figures come only from the DR-cleared 7,340-word `data_package.md` (SHA-256 `214ce09fb5b81fd6c0df6e7e6015a85770eea901b5ca12ccb2e3f72df1abe4a1`) and its sealed statutory bridge (SHA-256 `414ae25d9249d89b3b87d23f2ba65765b1661bc38a50b521704940f0196c862c`). Current governance, leadership, compensation and board evidence was fetched live from CSI's 2026 circular, financial statements, IR pages and current announcements. Three current transcripts were pulled live from FMP only to access the official calls; no warehouse transcript or prior report appendix was used as research input. The five missing calls are treated as a disclosure gap, not filled from cache.

Appendix W - Moat and 2046 Durability

Constellation Software Inc. — Moat and 2046 Durability

Ticker: CSU.TO **Assessment date:** 2026-09-22 **TTM anchor:** 2026-06-30 **Five-year ER2 horizon:** 2031-06-30
Twenty-year test date: 2046-09-22 **Trade execution authorized:** false

Evidence basis and taxonomy guardrail

Constellation reports one IFRS reportable segment. The cleared data package therefore controls the financial analysis as a single consolidated segment; the six operating segments identified in the H1 filing and the nine branded operating groups currently shown on the company's website are operating context, not additive financial segments. The website says more than 1,100 autonomous businesses sit in nine operating groups, illustrating the speed of organizational proliferation, but it does not disclose their revenue or profit. This appendix does not back-solve those values. It uses the four disclosed revenue types—license, professional services, hardware and other, and maintenance and other recurring—to identify where the economics are strongest and weakest.

Quantitative claims come from the September 22 DR-cleared `data_package.md` (SHA-256 `b3ff8f531bc37e23dafd5cf5a40400cc316eb88372058219bf2638b2ee2c2519`), anchored to the issuer's FY2025 and H1 FY2026 statements. The exact-byte sealed quote and statutory packets remain `387bfa8a265da8508eecbc8251e560dfd2c38a99948f30b874341bfecfb9f148` and `414ae25d9249d89b3b87d23f2ba65765b1661bc38a50b521704940f0196c862c`. This refresh retains the valid September 10 moat analysis while testing it against the Q2 FY2026 shareholder report, issuer news index, operating-groups page, acquisition criteria, and March 31 Annual Information Form. The September 22 data-package source manifest preserves the re-fetched official PDFs and current FMP pulls; warehouse copies are not evidence. Direct SEDAR+ opening was blocked by its anti-bot page on both attempts in the prior work, so AIF language relies on the independently verified extraction and issuer materials, not an inaccessible claim treated as newly verified. The latest issuer news index showed no post-August 31 company item as of this check; that is an index-limited recency statement, not a guarantee against other filings.

1. Moat taxonomy applied

Switching costs — strong and the primary moat. Constellation's products run narrow but important workflows: examples in official filings include transit scheduling and routing, club membership accounting and point of sale, and hundreds of comparable systems in government, utilities, healthcare, communications, finance, hospitality and industrial markets. The cost of replacement is not merely a new license. It includes data migration, integrations, testing, retraining, procurement, service interruption and accountability if a critical process fails. That is why a maintenance invoice can be economically small yet hard to displace. The evidence is visible in the mix: maintenance and other recurring revenue was $9.557 billion, or 75.6% of $12.641 billion TTM revenue, up from 70.7% of revenue in FY2021.

Network effects — generally absent. There may be localized data, user-community or transaction-density effects in individual products, but Constellation does not disclose a portfolio-wide user, developer or marketplace network. Most products are systems of record or workflow tools, not networks whose value rises mechanically with each new user. Treating the portfolio as a network-effect business would overstate the moat.

Scale economies — moderate at the corporate layer, modest at the product layer. More than 1,100 businesses create acquisition sourcing, seller reference, operating benchmark, management training and financing advantages. The center can spread capital-allocation knowledge across many local teams. Yet the model deliberately avoids one shared code base or sales platform; $923 million of R&D staff expense in H1 FY2026 and a people-heavy support and implementation structure show that software scale is not costless. Scale strengthens the acquisition operating system more than it strengthens every individual product.

Brand — strong with sellers, local with customers. The parent brand is valuable to owners who want a permanent home that preserves autonomy. Constellation's acquisition page explicitly promises indefinite ownership and respect for culture, leadership and autonomy. That is differentiated from a typical private-equity hold period and should improve access to founder-led opportunities. End customers, however, usually buy from a product or operating-group brand; Constellation itself is not a consumer-style demand franchise.

Regulation and high-trust procurement — meaningful friction, not protection. Government, utilities, healthcare, public safety, transport and financial customers often require formal procurement, security, auditability and domain compliance. Those burdens lengthen adoption and replacement cycles. They also make vendors such as Tyler Technologies credible direct competitors: Tyler's 2025 10-K describes long-term public-sector relationships built around data conversion, training, continuing support and mission-critical systems. Regulation raises the cost of entry but does not grant Constellation an exclusive license.

IP and patents — supporting, not decisive. Proprietary code, copyrights, trade secrets and contractual restrictions matter, but foundation models, open-source components and better-funded competitors can reproduce features. Constellation's defensibility rests more in workflow context, customer history, embedded data, implementation knowledge and service trust than in patent exclusivity.

High-trust procurement — strong in selected verticals, uneven across the blend. A city, hospital, utility or transit authority is less likely to replace an established system with an unproven AI-native vendor than is a small commercial customer buying a generic tool. This creates long sales cycles and sticky installed bases, but the same procurement process invites formal competitive bids and can cap pricing. The moat is strongest where failure is operationally costly and weakest in lighter commercial workflows that can migrate to modern horizontal platforms.

2. Per-segment moat

Consolidated company — real but heterogeneous. At the sole modeled segment, the moat is the combination of embedded vertical systems and a distributed acquisition-and-operating machine. The customer layer can plausibly endure for 10–20 years because records, integrations, processes and trust compound locally. The acquisition layer is durable for perhaps 5–10 years with higher confidence and 20 years only conditionally: private equity, other serial acquirers and dedicated vertical-software platforms can bid up assets, while the growing capital base pushes Constellation toward larger or less-controlled investments. Q2 and H1 FY2026 reported revenue grew 17% and 19%, but issuer FX-adjusted organic growth was only 1% in **both** periods Q2 MD&A pp. 4–5. This is acquisition-dependent reported expansion, not evidence of 17%–19% same-business demand. Earliest breaks would be FX-adjusted recurring organic growth below 2% for four quarters, maintenance mix declining, or cash acquisition spend rising without commensurate per-share cash-flow growth. The last comparison is a warning indicator, not a computed acquisition ROIIC.

Maintenance and other recurring — strongest economic lens. This line includes maintenance, combined software and support, transactions, managed services and hosted SaaS. Its durability is 10 years with high confidence because it is tied to installed systems; 20 years is plausible if products modernize. Q2 FY2026 revenue was $2.554 billion, up 19% reported, 4% organic and only 2% after FX. CSI excluding Altera posted 4% FX-adjusted maintenance growth, while Altera fell 19%; across **total revenue**, the corresponding Q2 FX-adjusted rates were 2% ex-Altera and **negative 22% Altera**, aggregating to 1% Q2 MD&A pp. 14–16. This product- and acquisition-perimeter distinction matters: the –22% is not Altera maintenance, and the –19% is not all Altera revenue. The Q2 2025 Altera comparison included $9 million upfront contract and $8 million contract-amendment revenue that did not recur; the decline is not solely proof of permanent product attrition, but it cannot be dismissed as an FX artifact. A sustained fall in renewal-linked organic growth, rising third-party maintenance, or weak cloud migration would be the first warning.

Professional services — weaker moat and lower scalability. Implementation, customization, training, consulting and managed-service work reinforces switching costs by embedding systems, but much of the labor itself is contestable. TTM revenue was $2.226 billion, 17.6% of total, and Q2 FY2026 FX-adjusted organic growth was negative 5%. AI can automate coding, configuration, documentation and support, compressing hours even when it improves software value. This activity is durable as an attachment to core systems, but not a stand-alone 20-year profit pool.

License — declining strategic center. TTM license revenue was $415 million, 3.3% of total; Q2 FX-adjusted organic growth was negative 5%. Perpetual or multi-year licenses can signal installed-base expansion, yet they are increasingly replaced by hosted or subscription delivery. The license line can wither without breaking the moat if economics migrate into recurring revenue. It becomes a negative signal only if shrinking licenses precede weaker maintenance renewals.

Hardware and other — little defensible moat. TTM revenue was $443 million, 3.5% of total. Hardware is generally sourced from third parties or assembled into customer solutions; travel reimbursement is not a moat. The issuer does not disclose a comparable consolidated gross-margin series, so a purported hardware-margin comparison is not usable proof of pricing power. Its durability depends on bundling with mission-critical solutions, not proprietary economics.

The blended moat is weaker than the recurring-revenue crown jewel but stronger than a simple revenue-weighted average because professional services and licenses often deepen the same customer relationship. Still, roughly one quarter of revenue is not classified as recurring, and even the recurring category combines high-quality maintenance with potentially more contestable managed services and transaction activity. With no NRR, gross retention or operating-group margin disclosure, investors cannot prove that the best niches dominate consolidated profit.

The completed consolidated-segment appendix's Sections 4–5 sharpen the competitive benchmark. Roper's official Q2 2025 materials showed 6% organic growth in Application Software, 7% in recurring Application Software and 5% in Network Software; Vitec's FY2025 release described 9% total growth supported by acquisitions and steady recurring organic growth. At the high end, Visma reported 13.0% organic ARR growth and 11.8% organic revenue growth in H1 2026 as integrated national platforms, cloud adoption and cross-sell strengthened its position. These live peer results show that mid-single-digit organic growth is achievable in mature VMS and double-digit growth is achievable where platform modernization is strong. Constellation's 1% Q2 total FX-adjusted organic growth and 2% recurring result are therefore not an inevitable maturity rate; they are a competitive performance gap that the moat must close.

3. Margin persistence evidence

The cleared data package provides a consistent five-year official series, not a ten-year common-basis series. It is inappropriate to fill the missing years from provider-defined operating income because live FMP differed materially from official FY2025 revenue and operating-income classification. The available history is nevertheless informative.

Metric	FY2021	FY2022	FY2023	FY2024	FY2025	TTM 2026-06-30
Revenue, USD billions	5.106	6.622	8.407	10.066	11.623	12.641
Statutory operating income, USD billions	0.873	0.882	1.188	1.464	1.895	1.971
Statutory operating margin	17.10%	13.32%	14.13%	14.54%	16.30%	15.59%

Margins compressed 378 basis points in FY2022, then recovered steadily to 16.30% in FY2025. TTM margin eased to 15.59%; Q1 and Q2 FY2026 were 13.67% and 14.72%, respectively, with first-quarter payroll-tax seasonality and low-margin acquisitions/mix cited. That persistence through rapid acquisitions is positive moat evidence, but it is not proof of uniform pricing power. A serial acquirer can stabilize consolidated margins by adding new businesses even while individual products erode. The absence of operating-group margins and cohort retention means the margin record supports, but cannot alone clear, the 20-year durability question.

The measurement perimeter is unusually important here. FY2025 to TTM revenue growth includes acquisitions and currency, while the same-business FX-adjusted organic result was only 1% in both Q2 and H1 FY2026. The $403 million Q2 and $742 million H1 estimated pre-acquisition revenue adjustments in the MD&A explain a large part of the reported/pro-forma wedge, but neither is a clean purchase-price denominator or post-acquisition cash-flow numerator. Similarly, H1 acquisition consideration of about $1.7 billion and $1.078 billion of FCFA2S cannot be divided into each other to claim acquired-cohort return: the latter is consolidated after NCI, includes old businesses, and is before acquisitions. No matched portfolio ROIIC by vintage is disclosed. A 20-year moat claim needs persistence in *per-share* owner cash economics as well as consolidated revenue and margin, particularly as larger deals and NCI structures grow.

4. AI disruption stress test

Maintenance and recurring. Much of the value is a system of record plus workflow, not a simple prompt-to-output task. Foundation models can reproduce interfaces, reports, support answers and narrow automations, but they do not automatically inherit customer data models, integrations, authorization, compliance history and accountability. AI therefore shifts value toward reliable orchestration and away from isolated features. The risk is that cheaper development makes replacement products credible and that AI-assisted customer teams can maintain old systems without the incumbent.

Professional services. This is the most exposed line. Configuration, custom code, testing, documentation, training and first-line support contain prompt-to-output work. AI can reduce billable hours and lower entry barriers. Constellation benefits if productivity is reinvested into faster roadmaps; it loses if service revenue falls before subscription value or volume rises.

Public, healthcare and regulated workflows. These are the most protected because trust, procurement, audit, security and failure costs are chokepoints. AI may become part of the product, but the buyer still needs a responsible vendor and governed system. Tyler's current 10-K simultaneously confirms the durability of deep public-sector relationships and the need to invest

heavily in cloud consolidation and AI; stickiness buys time, not immunity.

Corporate operating system. Constellation's decentralized approach lets domain teams experiment close to customers. The Q2 call says head office is not running one AI program and management will not publish an AI revenue target; management also says AI has not yet produced a real organic-growth pickup. That contrasts with Roper's 2025 annual report, which created a centralized AI enablement team to provide shared technical expertise and reusable capabilities. The comparison does not prove Roper's design is superior, but it makes Constellation's coordination speed a monitorable risk.

Decentralization is a *portfolio option*, not an automatic software moat. A product manager near a transit or utility buyer can prioritize the precise compliance and deployment bottleneck, preserve accountability and make an incumbent system more valuable with agents. The same autonomy can allow legacy stacks, weak cyber controls, fragmented data rights or duplicated inference costs to linger. Management's stated absence of a central AI revenue target is appropriately conservative disclosure, but it leaves no observed consolidated monetization bridge. The falsifiable question is whether higher development throughput raises recurring organic price/volume growth after FX, without statutory-margin erosion or worsening customer churn. Until that occurs, do not capitalize speculative AI sales or treat lower coding cost as a proven permanent expansion in margin.

The segment appendix also identified direct evidence from within Constellation's own federation: Volaris publicly says AI has lowered entry barriers for VMS competitors and urges workflow redesign and value-based models. That is more probative than generic risk boilerplate because it comes from an operating group confronting the product market. It supports the YELLOW calibration: the risk is acknowledged and teams are responding, but there is not yet consolidated proof that deployment has improved retention, price realization or organic growth.

The most exposed activity is professional services and maintenance of old, lightly integrated products. The most protected is regulated systems of record with embedded data, complex integrations and accountable procurement. The overall AI assessment is not a generic threat label: it is a race between falling build/migration costs and the accumulated cost of changing critical systems.

5. The 2046 test

Today is 2026-09-22; the test date is 2046-09-22. The ER2 financial horizon is separately June 30, 2031, exactly five years from the June 30, 2026 TTM endpoint; the 2046 exercise is a twenty-year *business durability* test from today, not a 20-year financial forecast.

Plausible 2046 business description. Constellation Software owns and operates thousands of autonomous vertical-software businesses serving governments, utilities, transportation networks, healthcare providers, financial institutions and specialized commercial operators. It sells governed systems of record, AI agents embedded in regulated workflows, transaction infrastructure, implementation and continuing assurance. The legacy distinction between maintenance, hosting and SaaS has blurred into recurring access, usage, outcome and compliance revenue. License revenue is immaterial and routine professional-service hours are much smaller, but high-trust implementation and managed operations remain. Some 2026 products have disappeared; the surviving businesses own customer data models, integrations and domain controls, while new acquisitions continuously refresh the portfolio. Operating margin is directionally similar to or modestly above today's 15%–16% statutory level: AI lowers development and support cost, but savings are reinvested in security, cloud infrastructure, product renewal and compliance. The company still earns attractive returns because changing accountable systems remains risky and because its seller network and decentralized capital-allocation system keep adding niche franchises.

Bear 2046 description. Constellation has become a federation of aging applications whose maintenance revenues shrink as cloud platforms and AI-native vertical vendors automate migration, standardize integrations and bundle formerly specialized features. Customers retain fewer niche systems, third parties provide support, and public-sector specialists such as Tyler or large suites win modernization cycles. Organic recurring growth stays below inflation; R&D and cyber spending rise; operating margins drift toward low double digits. Meanwhile more capital chases VMS assets, forcing larger purchases, minority structures and lower acquisition returns. Revenue can still grow through deals, but per-share cash compounding weakens.

That bear case is not the base case, but it is too plausible to call the 20-year outcome resolved. The installed base should protect the next decade better than the second. A specific 2046 company can be described, but reaching it requires thousands of autonomous businesses to modernize while the corporate acquisition flywheel scales. The prior qualitative one-in-three erosion estimate is an analyst scenario judgment, not a statistical forecast or disclosed company metric. More importantly, the latest 1% FX-adjusted total organic rate and Altera's negative 22% Q2 total rate make the transition from defensible present profits to durable 2046 *incremental* profits unproven. The test remains YELLOW rather than an optimistic

PASS.

6. Competitive threat inventory

Threat	Mechanism	Segment or lens affected	Earliest observable signal	Plausibility
AI-native and horizontal-suite replacement	Cheaper development, automated migration and bundled agents reduce feature and switching-cost barriers	Recurring maintenance; professional services	FX-adjusted recurring organic growth below 2%; renewal commentary worsens; R&D rises without growth	Medium
Acquisition return compression	More VMS buyers and a larger capital base push CSI toward expensive, larger or minority-controlled deals	Corporate acquisition operating system	Acquisition spend outgrows FCFA2S per share; leverage/NCI rises; hurdle language softens	Medium-high
Decentralized modernization/control failure	Autonomous units adopt AI, cloud and cyber controls too slowly or unevenly	Older products; regulated workflows	Altera-like declines spread; cyber incidents; rising support cost; product releases lag peers	Medium

7. Pricing power verification

Pricing power is observable, but only partially quantified. On the Q1 FY2026 call, President Mark Miller said pricing was rarely the reason customers were lost because switching is painful. The AIF states that Constellation has historically replaced maintenance revenue lost to attrition with new maintenance revenue and maintenance price increases. Recurring revenue rose from $3.611 billion in FY2021 to $8.700 billion in FY2025, while its mix increased from 70.7% to 74.9%; Q2 FY2026 recurring revenue still grew 19% reported and 4% organically. Advance collection of maintenance and other revenue creates negative working capital, another sign that customers accept incumbent contract terms.

The proof is incomplete. Constellation does not disclose gross retention, NRR, churn, price realization, contract escalators or adoption following increases. Its $7.7 billion FY2025 `contracted not yet recognized` balance supports visibility, and 61% was expected within 12 months, but it is not ARR and does not isolate price. Q2 FX-adjusted recurring organic growth of 2%, plus Altera's negative 19%, warns that reported growth can conceal weak price/volume economics in individual assets. Pricing is therefore GREEN/YELLOW: positive evidence at the consolidated level, insufficient cohort disclosure to call it unambiguously strong.

8. Moat verdict

Moat gate: YELLOW. Constellation has a concrete moat today: mission-critical vertical workflows, switching costs, a rising recurring-revenue mix, advance billing, stable consolidated operating margins and a differentiated permanent-owner acquisition network. The gate remains unresolved because operating-group retention and margins are undisclosed, organic recurring growth slowed to 2% after FX in Q2, Q2/H1 total FX-adjusted organic growth was just 1%, and Altera total FX-adjusted organic revenue was negative 22% in Q2. These are not by themselves a FAIL: product migration and one-off Altera comparatives may matter, and the overall recurring base remains substantial. But YELLOW is a hard unresolved durability gate, not courtesy approval of the 20-year >20% compounder thesis.

2046 test: YELLOW. A credible 2046 Constellation is specific—AI-enabled systems of record and governed vertical agents sold to high-trust buyers, supported by a decentralized acquisition network—but the installed-base advantage must survive cheaper AI development and migration for two decades. Upgrade to PASS requires at least 4% FX-adjusted recurring organic growth for eight quarters, cohort/group evidence of stable gross retention and price realization, measurable AI/cloud adoption without statutory-margin erosion, and a matched after-NCI acquired-cohort return bridge showing reinvestment remains value creative at larger scale. Downgrade to FAIL if recurring organic growth remains below inflation for four quarters while maintenance mix declines, Altera-like deterioration broadens beyond one acquisition, or acquisition spend persistently outpaces per-share owner cash growth with rising leverage/NCI and relaxed hurdles. A four-quarter negative trend is a prompt for diagnosis, not a mechanistic verdict if currency, comparatives or ownership perimeter changed; the economics of the specific cohort must be checked.

`trade_execution_authorized=false`

Appendix B - Consolidated Company

Consolidated company — Segment Deep Dive

Company: Constellation Software Inc. (`CSU.TO`) **Forecast base:** TTM ended 2026-06-30 **Forecast horizon:** 2031-06-30, exactly five calendar years **Reporting currency and scale:** USD millions unless stated otherwise **Modeled financial segments:** one **Exact profit basis:** `Statutory operating income (single-segment consolidated fallback)` **Scenario probabilities:** Bear 25%; Base 55%; Bull 20% **Trade execution authorized:** false

September 22 refresh boundary: The 2026-09-21 completed TSX close of CAD $2,786.97 and same-session USD/CAD 1.39941 are the QFR-sealed quote inputs, replacing the September 10 CAD $2,801.99 / 1.38063 observations only in valuation evidence. The official historical and TTM operating anchors are unchanged. The newly reviewed Q2 note 4 resolves H1 acquisition consideration to about $1.70 billion, not the prior $1.625 billion claim. This correction changes the funding stress below, not an independently measurable portfolio ROIIC or the selected Bear/Base/Bull operating forecast. The research question is retention of 23 existing shares; no trade, rank or sizing recommendation is made here.

This appendix forecasts one financial-projection segment only: **Consolidated company**. Constellation operates six decentralized operating groups and discloses four consolidated revenue types, but neither the controlling filings nor the mandatory live FMP product pulls disclose a common CODM segment-profit value. The reviewed data package and sealed statutory bridge therefore require the audited single-segment consolidated fallback. The sole segment-profit line equals statutory operating income. Topicus, Lumine, Adapt IT and Altera disclosures are partial entity, NCI or acquisition-perimeter context and are not additive reportable segments.

0. Segment boundary and taxonomy note

The current taxonomy is stable for the period used in this model. Constellation has one IFRS 8 reportable segment aggregating Volaris, Harris, Topicus, Vela, Jonas and Perseus. The four revenue-type labels—license, professional services, hardware and other, and maintenance and other recurring—were stable through FY2023-FY2025 and H1 FY2026. The last material public-reporting boundary was the FY2020 transition away from the former public-sector and private-sector taxonomy, outside the latest three-year comparison window [data_package §1, “Taxonomy investigation” paragraph]. Consequently, the model uses the current four-type revenue taxonomy across the entire historical and forecast bridge and does not compare or estimate operating-group dollar totals.

The boundary is especially important because several economically interesting disclosures do not form a complete forecast perimeter. Topicus Coop, Adapt IT and Lumine have NCI-note results; Altera has supplemental acquisition-perimeter results. These values do not cover all six operating groups, have different ownership and accounting perimeters, and are not CODM profit measures [data_package §0a, “Supplemental entity disclosures” table and following paragraph]. They are useful for diagnosing acquisition mix, but treating them as separate projections would both double count revenue and break the sealed statutory bridge.

1. What this segment actually is

Constellation is a portfolio of vertical-market-software businesses. Each business serves a narrow industry or workflow—examples across the portfolio include public transit, healthcare, education, property management, hospitality, communications, government administration and many smaller regulated or operational niches. The customer usually buys a long-lived system of record, an industry-specific workflow engine, or both. The software tends to sit inside daily operations rather than at the edge of discretionary marketing or experimentation. Replacement can require data conversion, integrations, retraining, audit or regulatory revalidation, and operational downtime.

The commercial model has four disclosed revenue streams. **Maintenance and other recurring** includes support, combined software-and-support contracts, transaction revenue, managed services and hosted SaaS. It is the economic core: $9.557 billion, or 75.6% of TTM revenue [data_package §4, five-year revenue-type table, row “Maintenance and other recurring”; §0a, material KPI table, row “Recurring revenue as percent of total”]. **Professional services** includes implementation, custom programming, training, consulting and certain managed services. It often accompanies new deployments, acquired-customer transitions and product extensions. **License** is non-recurring software license revenue under multi-year or perpetual arrangements. **Hardware and other** includes third-party or assembled hardware and travel reimbursement; it can be strategically necessary to deliver a complete vertical solution but generally has weaker economics and more variable quarterly comparisons [data_package §4, dollar-disclosed revenue types table, all four rows].

Pricing is decentralized. Local management teams know their vertical, customer budget cycle, product architecture and competitive set. The group supplies capital-allocation discipline, operating benchmarks, management development and a permanent-ownership proposition. Acquired companies are normally held rather than integrated into a single product suite. This reduces forced-migration risk and preserves local customer relationships, but it also means there is no single global SKU, sales motion, cloud migration or price increase that can be modeled centrally.

Growth comes from three intertwined sources. First, existing businesses raise prices, add customers, expand usage and sell new modules. Second, acquired companies add their revenue to the consolidated perimeter. Third, currency translation changes reported USD revenue. The data package's recent organic-growth disclosure adjusts for estimated acquisition effects, and its FX-adjusted organic measure removes currency as well. The distinction matters: Q2 FY2026 total revenue rose 17%, but organic growth was 3% and FX-adjusted organic growth was only 1% [data_package §5, consolidated trend table, Q2 FY2026 row]. The model therefore does not extrapolate the headline 17% as an organic rate.

The go-to-market is similarly distributed. Some products sell directly to large institutions through long procurement cycles; others sell subscriptions to small businesses; still others monetize transactions or services. More than 150,000 customers in more than 160 countries are indicated by the issuer's current marketing disclosure, and no customer exceeded 5% of consolidated revenue in FY2024 or FY2025 [data_package §1, geographic revenue table and following paragraph]. The result is low consolidated customer concentration but potentially high concentration within individual niche products. That local concentration is hidden by group-level disclosure.

2. Current economics — TTM ended 2026-06-30

TTM revenue was **$12.641 billion**. The exact profit measure was **$1.971 billion of Statutory operating income (single-segment consolidated fallback)**, a **15.59% margin**. The revenue base comprised $9.557 billion of maintenance and other recurring, $2.226 billion of professional services, $443 million of hardware and other, and $415 million of license revenue [data_package §4, five-year revenue-type table, TTM column]. The profit number and basis are sealed in the statutory bridge: the modeled segment, segment-profit sum, consolidated segment-profit metric and statutory operating income all equal $1.971 billion, with no corporate/unallocated or operating-bridge adjustments [data_package §3a, TTM bridge, rows "Consolidated company" through "Statutory operating income"; statutory_bridge.json, TTM period].

Recent quarterly margins show why 15.59% should not be treated as a frictionless steady state. Statutory operating margin was 16.96% in Q3 FY2025, 17.09% in Q4 FY2025, 13.67% in Q1 FY2026 and 14.72% in Q2 FY2026 [data_package §5, consolidated trend table]. Q1 includes recurring payroll-tax seasonality, while Q2 absorbed low-margin acquisition cohorts and mix effects. A single quarter can therefore understate mature economics, but the four-quarter decline from the high-16% range also argues against assuming immediate reversion above 18%.

The recurring mix has strengthened from 70.7% of revenue in FY2021 to 75.6% TTM [data_package §0a, material KPI table]. The contracted-not-yet-recognized balance was about $7.7 billion at FY2025, with 61% expected to be recognized within 12 months, while deferred revenue reached $2.783 billion at 2026-06-30 [data_package §0a, rows "Contracted not yet recognized revenue," "Expected recognition within 12 months," and "Deferred revenue"]. These are useful visibility indicators, but contracted-not-yet-recognized is not issuer-labeled ARR and the deferred-revenue roll-forward is not a standardized billings KPI. The model does not relabel either.

Physical capital intensity is low: FY2025 capex was $68 million, only 0.59% of revenue [data_package §7, FY2025 row]. The economically important reinvestment is people and acquired software. R&D staff expense was $1.615 billion in FY2025, 13.90% of revenue, while sales-and-marketing staff expense was $702 million [data_package §7, FY2025 row; §0a, disclosure matrix]. Those measures are not total all-in R&D or S&M costs, but they show that near-zero physical capex does not mean low reinvestment.

Cash generation is strong at the consolidated level: conventional FCF, defined in the package as CFO less property and equipment purchased, was $2.664 billion in FY2025 [data_package §2, consolidated historicals table]. Yet operating profit is not equivalent to parent-common distributable income. The FY2025 bridge contained foreign-exchange, IRGA/TSS membership-liability revaluation, finance, impairment, Asseco accounting and interest items below operating income; TTM common-share net income was $961 million after NCI [data_package §3a, FY2025 and TTM bridges]. This appendix forecasts only the operating line. Synthesis must separately forecast all sealed below-line items and ownership claims.

3. Unit economics

The fundamental unit is not a seat or a customer—neither seats, ARPU, ACV, CAC nor retention rates are disclosed. It is an acquired vertical software business that must retain its installed base, maintain and modernize its product, price for delivered value, and deploy incremental capital at an acceptable hurdle. The consolidated economics are the sum of hundreds of such units, but disclosure supports only the four revenue-type lines and consolidated statutory operating profit.

Recurring revenue is attractive because support, transaction, managed-service and hosted-software relationships repeat without a full new sale each year. Customer-specific integrations, historical data and embedded workflows lower churn and reduce the selling cost of renewal. Management's statement that customers are rarely lost on pricing because switching is painful supports this mechanism [data_package §6, item 9]. However, the absence of NRR, GRR and churn means the durability is inferred from switching-cost logic and aggregate recurring growth, not measured directly.

License economics are volatile. A license sale can carry high incremental contribution, but perpetual and multi-year deals depend on procurement timing and may be bundled with implementation. Quarterly reported license growth ranged from 27% in Q3 FY2025 to negative 7% in Q4 FY2025, negative 5% in Q1 FY2026 and positive 5% in Q2 FY2026 [data_package §5, reported YoY growth table]. This volatility makes license a poor standalone leading indicator. In the forecast it grows modestly and becomes a smaller mix component.

Professional services are both an enablement engine and a margin constraint. Implementation and customization help win and retain difficult vertical accounts, and service relationships can expose workflow needs that become product features. But labor scales less efficiently than software, scarce domain expertise can limit capacity, and fixed-price implementation risk can compress margins. Reported Q2 FY2026 professional-services growth was 8%, while organic and FX-adjusted organic growth were both negative 3% and negative 5%, respectively [data_package §5, reported and organic growth tables]. That gap suggests acquisitions, not mature-cohort demand, drove much of the recent reported expansion.

Hardware and other revenue provides complete solutions in verticals where devices, networking or reimbursed deployment work are integral. It is the smallest line and the most likely to carry lower margins and working-capital requirements. Q2 FY2026 reported growth was 44%, but FX-adjusted organic growth was only 4% [data_package §5, reported and organic growth tables]. The difference is too large to extrapolate. The base cadence deliberately falls from 16% in year one to zero in year five as acquired hardware-heavy perimeters annualize.

The largest operating costs are people, purchased intangibles and decentralized overhead. R&D staff expense remained near 14% of revenue across FY2021-FY2025, while the dollar amount more than doubled [data_package §7, capital-allocation table]. This indicates continued product investment rather than harvesting. Intangible amortization is also economically relevant because acquisition accounting puts purchased software and customer relationships on the balance sheet. Statutory operating income, unlike a cash-oriented adjusted metric, bears that amortization. Faster acquisition deployment can therefore increase revenue while delaying statutory-margin expansion.

Margin rises when recurring software outgrows services and hardware, mature acquired cohorts improve, pricing exceeds wage inflation, and development tools increase output per engineer without all savings being reinvested. Margin falls when acquisition mix tilts toward services or hardware, purchase-accounting amortization grows, cloud hosting or AI inference costs are not passed through, scarce technical staff costs rise, or businesses reinvest productivity benefits in road maps. Management explicitly says product-road-map acceleration is the use of AI productivity, so the base case assumes only gradual operating leverage rather than an immediate AI margin windfall [data_package §6, item 13].

4. Competitive dynamics

Competition occurs on two levels: customer markets and acquisition markets. At the product level, each business faces a small set of vertical specialists, internally developed systems, horizontal software adapted to the niche, and increasingly AI-enabled entrants. The portfolio's breadth diversifies product-level failures, but it does not eliminate them. A competitor with a modern cloud architecture, integrated payments, superior mobile workflow or a genuinely useful agentic interface can take share in an individual vertical even if Constellation's consolidated retention remains resilient.

Relevant public comparables show a wide organic-growth range. Roper Technologies' Q2 2025 materials reported 6% organic growth in Application Software and 7% organic growth in recurring Application Software revenue. Its Network Software organic growth was 5% (Roper Q2 2025 official investor materials). These mature VMS-like assets support a mid-single-digit mature organic base rate, close to Constellation management's 5% FX-adjusted recurring-growth aspiration, but far below CSU's acquisition-inflated reported recurring growth.

Visma is a faster-growth reference rather than a direct like-for-like peer. Its H1 2026 update reported 13.0% organic ARR growth and 11.8% organic revenue growth, with integrated national business platforms, cross-selling and cloud adoption as

explicit drivers (Visma H1 2026 official update). Visma demonstrates that double-digit organic growth is achievable in mission-critical business software where cloud conversion, customer additions and platform cross-sell remain strong. It does not justify assigning that rate to Constellation's far more heterogeneous installed base, especially when CSU's latest FX-adjusted organic total was 1%.

Vitec offers a closer structural analogy: decentralized vertical software, recurring subscriptions and acquisition-led growth. Its FY2025 release says sales grew 9%, driven by completed acquisitions and steady organic growth in subscription-based recurring revenue (Vitec FY2025 official release). That supports using high-single-digit consolidated growth as a defensible bear/base boundary for a mature VMS consolidator rather than assuming the recent 15%-20% reported CSU growth is permanent.

Pricing power comes from workflow criticality and switching cost, not a single global brand. When software encodes local regulations, institutional process, integrations and historical data, a modest price increase is cheaper than replacement. Pricing weakens if a product is only a database front-end or reporting layer that a horizontal platform or AI agent can replicate. It also weakens when customers perceive price increases as unrelated to product investment. The moat is therefore earned product by product.

At the acquisition level, Constellation competes with strategic buyers, private equity, other permanent-capital compounders and increasingly well-funded software holding companies. Seller trust, decentralized autonomy and a reputation for permanent ownership differentiate CSU. The constraint is price and leadership capacity, not merely sourcing. Management states that no buyer is giving up on vertical software and that hurdle rates are unchanged [data_package §6, items 6 and 7]. The base case assumes continued deployment, but at a contribution that decelerates as the revenue base expands. Maintaining a constant acquisition-growth percentage requires ever-larger annual dollar deployment or entry into larger deals, both of which can reduce returns.

AI cuts both ways. It lowers coding costs and can speed modernization, but also lowers the barrier to building narrow workflow tools. Volaris itself says AI has lowered barriers for VMS competitors and that businesses must redesign workflows and adopt value-based models (Volaris VMS and AI webinar page). Its 2025 review also says more than 400 developers completed AI training and that AI-delivered modules were reaching market (Volaris 2025 review). These are signs of response capacity, not proof of consolidated revenue uplift. The appendix therefore treats AI as primarily defensive in the first half of the horizon and permits meaningful revenue benefit only in the bull case.

5. Moat at the segment level

The consolidated moat is a layered system rather than a single asset. The first layer is product-level switching cost: proprietary workflow, embedded data, integrations, domain rules, staff familiarity and operational risk make replacement painful. The second is niche focus: many markets are too small or specialized to attract large horizontal vendors, yet sufficiently durable to support a profitable leader. The third is decentralized ownership: local managers can price, invest and sell according to their vertical rather than wait for a central platform strategy. The fourth is acquisition reputation and process: a permanent-home proposition, a deep sourcing network and many trained operators expand the funnel and reduce integration risk. The fifth is capital-allocation culture, including willingness to wait when prices do not meet hurdle rates.

The moat is strongest in recurring, mission-critical applications with regulatory content and weak where revenue depends on low-value services, hardware resale or old technology without proprietary workflow. This is why recurring-revenue growth and mix matter more than headline consolidated growth. Maintenance and other recurring has grown from $3.611 billion in FY2021 to $9.557 billion TTM, and its mix has increased to 75.6% [data_package §0a, material KPI history; §4, five-year revenue-type table]. The portfolio has therefore added scale without diluting the recurring core.

Durability over five to ten years is plausible but not guaranteed. Customer switching costs decay if applications fail to modernize, APIs make data portable, or AI allows a new entrant to reproduce workflows quickly. Decentralization can accelerate local experimentation, yet it may also fragment security, cloud, data and AI capabilities. The absence of consolidated retention, ARR and customer-cohort economics is the chief evidence gap: investors see the aggregate outcome but cannot test whether price, volume and churn are improving by vintage.

Acquisition advantage also faces a scaling law. The larger the company becomes, the more annual acquired revenue is required to sustain the same reported growth. Small VMS deals may retain high returns but cease to move consolidated results; large deals can move results but attract more competition, require more leadership capacity and bring larger NCI or non-recourse structures. The base case therefore gives CSU credit for a durable acquisition engine but reduces consolidated growth from current reported levels toward 8%-9% late in the horizon.

The moat verdict for this modeled segment is **durable but conditional**. Switching costs, niche specialization, recurring revenue and a permanent-capital acquisition system protect economics. The conditions are that recurring FX-adjusted organic growth returns toward management's 5% anchor, pricing does not become a substitute for product value, acquisition hurdle rates remain intact, and AI modernization is delivered fast enough to prevent workflow-layer disintermediation. Failure on any two of those conditions would justify the bear case.

6. Historical growth rates — reproduced from the reviewed data package

The table uses the three latest completed fiscal years under the stable revenue-type taxonomy. "Three-year CAGR" means the annualized growth across the FY2023-FY2025 three-year observation window, a two-year compounding interval. No product dollars are back-solved. Every numerical cell identifies its controlling data-package row.

Product or sub-segment	FY2023 revenue	FY2024 revenue	FY2025 revenue	Three-year-window CAGR	Most recent reported YoY	Data package cite
License [data_package §4, five-year table, License row]	$386m [data_package §4, five-year table, License row]	$393m [data_package §4, five-year table, License row]	$415m [data_package §4, five-year table, License row]	3.69% [calculated from data_package §4, License row]	5% [data_package §5, reported YoY table, Q2 FY2026 row]	[data_package §4, License row; §5, Q2 FY2026 row]
Professional services [data_package §4, five-year table, Professional services row]	$1,766m [data_package §4, five-year table, Professional services row]	$1,975m [data_package §4, five-year table, Professional services row]	$2,126m [data_package §4, five-year table, Professional services row]	9.72% [calculated from data_package §4, Professional services row]	8% [data_package §5, reported YoY table, Q2 FY2026 row]	[data_package §4, Professional services row; §5, Q2 FY2026 row]
Hardware and other [data_package §4, five-year table, Hardware row]	$268m [data_package §4, five-year table, Hardware row]	$302m [data_package §4, five-year table, Hardware row]	$382m [data_package §4, five-year table, Hardware row]	19.39% [calculated from data_package §4, Hardware row]	44% [data_package §5, reported YoY table, Q2 FY2026 row]	[data_package §4, Hardware row; §5, Q2 FY2026 row]
Maintenance and other recurring [data_package §4, five-year table, recurring row]	$5,985m [data_package §4, five-year table, recurring row]	$7,396m [data_package §4, five-year table, recurring row]	$8,700m [data_package §4, five-year table, recurring row]	20.57% [calculated from data_package §4, recurring row]	19% [data_package §5, reported YoY table, Q2 FY2026 row]	[data_package §4, recurring row; §5, Q2 FY2026 row]
Consolidated company [data_package §3, segment historicals, Revenue row]	$8,407m [data_package §3, segment historicals, Revenue row]	$10,066m [data_package §3, segment historicals, Revenue row]	$11,623m [data_package §3, segment historicals, Revenue row]	17.58% [calculated from data_package §3, Revenue row]	17% [data_package §5, consolidated trend, Q2 FY2026 row]	[data_package §3, Revenue row; §5, Q2 FY2026 row]

Arithmetic checks pass within 2%. License: $393m × 1.056 = $415m. Professional services: $1,975m × 1.076 = $2,126m. Hardware and other: $302m × 1.265 = $382m. Maintenance and other recurring: $7,396m × 1.176 = $8,700m. Consolidated company: $10,066m × 1.155 = $11,623m. Small differences are display rounding. No row uses estimated historical dollars.

The headline growth rates are acquisition-influenced. Q2 FY2026 reported maintenance growth of 19% but FX-adjusted organic growth of 2%; hardware reported 44% but FX-adjusted organic growth of 4%; professional services reported 8% but FX-adjusted organic growth of negative 5%; and license reported 5% but FX-adjusted organic growth of negative 5% [data_package §5, reported and organic tables]. Those gaps are the main reason forecast CAGRs sit below the historical reported CAGRs.

7. Management guidance — reviewed data-package quotations

Constellation does not issue conventional consolidated revenue, margin or EPS guidance. The following is the complete set of forward-relevant management excerpts attributed to the consolidated company in the reviewed data package. They anchor the model qualitatively; none provides permission to create a separate AI revenue line, operating-group forecast or acquisition-volume target.

- **Decentralized AI decisions — Q2 FY2026 call, 2026-08-12, Mark Miller.** "What we are not doing is running an AI program out of head office." [data_package §6, item 1]. The forecast therefore has no central AI program line. AI costs and benefits appear through revenue-type growth and consolidated statutory margin.

- **No AI target — Q2 FY2026 call, 2026-08-12, Mark Miller.** "We are not going to give you an AI target, an AI revenue line or an AI time line." [data_package §6, item 2]. This directly blocks any analyst-created AI revenue bridge. The bull case contains better recurring growth from product enhancement, but it is not labeled AI revenue.

- **AI as augmentation — Q2 FY2026 call, 2026-08-12, Mark Miller.** "AI is something we add to make that software more valuable." [data_package §6, item 3]. The most defensible benefit is higher product value, retention and module adoption inside existing vertical applications, not replacement of the installed platform by a stand-alone AI offering.

- **Leadership is the verticalization constraint — Q2 FY2026 call, 2026-08-12, Mark Miller.** “The constraint is not structue, it is having the right leader for each vertical.” [data_package §6, item 4; transcript spelling preserved]. Leadership depth is therefore a real scaling bottleneck. The model slows acquisition contribution late in the horizon rather than assuming that organizational replication is costless.

- **No current organic-growth pickup from AI — Q2 FY2026 call, 2026-08-12, Mark Miller.** “We still haven't seen a real pickup in organic growth from it. I think that's a ways out.” [data_package §6, item 5]. Base growth gives no near-term AI step-up. A moderate benefit enters only through gradually improving recurring growth durability; the bear case assumes modernization spending without measurable uplift.

- **Acquisition hurdles unchanged — Q2 FY2026 call, 2026-08-12, Chris Graham.** “Hurdles rates aren't changing.” [data_package §6, item 6]. The model assumes capital discipline, not a lower discount rate or higher purchase multiple to preserve reported growth. This reduces the chance of a permanently high acquisition contribution but supports long-run returns.

- **Competitive M&A market — Q2 FY2026 call, 2026-08-12, Bernard Anzarouth.** “No one is giving up on vertical software, whether it's large or small.” [data_package §6, item 7]. Competition is a direct check on deal volume and price. Bear assumes slower deployment and weaker acquired cohorts; bull assumes sourcing breadth and permanent-ownership reputation offset competitive pricing.

- **Patience in deployment — Q1 FY2026 call, 2026-05-13, Mark Miller.** “No, I think we remain patient. We deploy capital very, very carefully.” [data_package §6, item 8]. There is no management promise to spend a fixed annual amount. The year-by-year forecast decelerates rather than forcing a constant acquisition-growth rate.

- **Switching costs and price — Q1 FY2026 call, 2026-05-13, Mark Miller.** “rarely, we lose customers on pricing because the switching is painful for customers” [data_package §6, item 9]. This supports recurring-revenue resilience and some inflation-plus pricing, but disclosure lacks NRR or churn. The model does not equate this statement with zero customer loss.

- **PEMS hurdle consistency — Q1 FY2026 call, 2026-05-13, Jamal Baksh.** “In terms of PEM, the hurdle rate is the same.” [data_package §6, item 10]. PEMS may widen the opportunity set but has a wider outcome distribution and different ownership/accounting. This segment appendix does not create PEMS operating revenue beyond what would enter consolidated reporting.

- **Pressure on organic growth — Q1 FY2026 call, 2026-05-13, Mark Miller.** “I continue to pressure our businesses on organic growth generally.” [data_package §6, item 11]. Management sees the issue; it has not demonstrated a consolidated inflection. The base recurring organic component moves toward, but does not immediately reach, the 5% aspiration.

- **Recurring organic anchor — Q4 FY2025 call, 2026-03-09, Jamal Baksh.** “That 5% FX adjusted maintenance organic growth or recurring organic growth number, I continue to think is a good number for future organic growth.” [data_package §6, item 12]. This is the clearest quantitative anchor. Base assumes roughly 4%-5% through-cycle recurring organic/price-volume growth, with acquisitions supplying the balance of the 10.78% five-year reported recurring CAGR. Bear starts from the latest 2% and reaches only the low-single digits.

- **Reinvesting productivity — Q4 FY2025 call, 2026-03-09, Mark Miller.** “We're really investing into accelerating product road maps.” [data_package §6, item 13]. AI productivity should initially improve development throughput rather than drop directly to profit. Base statutory margin remains near the current 15.59% anchor and reaches 15.5% at the horizon.

- **AI lens in acquisition diligence — Q4 FY2025 call, 2026-03-09, Mark Miller.** “We've added an explicit AI lens, assessing each business for AI disruption risk and potential AI upside and modeling accordingly.” [data_package §6, item 14]. This should improve selection and pricing discipline, but it does not eliminate model error. Bear assumes some legacy businesses still require heavier modernization or suffer competitive pressure.

- **Same comparison measure for PEMS — Q4 FY2025 call, 2026-03-09, Mark Miller.** “We're using the same measure to look at PEMS versus our own acquisition.” [data_package §6, item 15]. The relevant inference is consistent required-return comparison, not identical accounting or control. Synthesis must handle PEMS and NCI below or outside the operating forecast as the sealed bridge requires.

- **Altera's qualitative return check — Q2 FY2026 call, 2026-08-12, Jamal Baksh.** “It's actually just operating ahead of what the expected IRR was in the original investment” [data_package §6, item 16]. This is a management assessment of one older investment, not a disclosed realized after-NCI cohort return. The forecast gives no portfolio-wide ROIIC uplift on its strength alone.

- **Larger-acquisition integration — Q2 FY2026 call, 2026-08-12, Mark Miller.** “driving best practices is harder in larger acquisitions.” [data_package §6, item 17]. Scaling deal sizes to offset slowing organic growth therefore brings leadership, breakup and process risks; it does not translate dollar spending into immediate mature margins.

The guidance set contains two tensions. Management’s 5% recurring organic aspiration is better than the latest 2% FX-adjusted result, and AI is being funded before revenue uplift is visible. Also, management insists hurdle rates are unchanged while acquisition competition remains intense. The base case resolves those tensions conservatively: recurring organic growth improves gradually, acquisition contribution declines with scale, and statutory margin remains near the current level as mix benefits fund road-map reinvestment.

8. Forward growth assumptions — TTM to 2031-06-30

All CAGRs below are nominal reported-USD growth from the TTM base to the exact five-year horizon. They include organic growth, acquired revenue entering the consolidated perimeter and through-cycle currency translation within each product line. No separate acquisition revenue is added, which prevents double counting. The management-anchor column contains a forward qualitative or quantitative statement where available; the 5% recurring organic aspiration is **not** FY+1 guidance, and “none” means no line-specific target was provided.

Base case growth assumptions

Product	Historical CAGR	Latest reported YoY	Management forward anchor, not FY+1 guide	Base CAGR TTM to TTM+5y	Concise justification
License	3.69%	5%	None	2.99%	Mature, volatile licenses; mix shifts toward recurring
Professional services	9.72%	8%	None	6.99%	Implementation follows acquired and recurring base growth
Hardware and other	19.39%	44%	None	7.85%	Acquisition spike fades; strategically attached hardware remains
Maintenance and other recurring	20.57%	19%	5% FX-adjusted organic aspiration	10.78%	Organic recovery plus disciplined M&A, fading with scale
Consolidated company	17.58%	17%	No consolidated target	9.82%	Bottom-up sum; acquisition contribution decelerates

License. The FY2023-FY2025 annualized rate was only 3.69%, and latest reported growth was 5% while FX-adjusted organic growth was negative 5% [data_package §4, License row; §5, Q2 growth tables]. The base path—5%, 4%, 3%, 2% and 1%—recognizes deal timing and acquired licenses but assumes customers continue shifting toward subscription and combined software/support models. The resulting $481 million horizon revenue is only 2.4% of consolidated revenue.

Professional services. The 9.72% historical rate and 8% latest reported growth are tempered by negative 5% latest FX-adjusted organic growth. Services should grow with implementations and acquisitions, but labor intensity and deliberate avoidance of services-led expansion cap the trajectory. The 9%, 8%, 7%, 6% and 5% annual path produces $3.121 billion at

the horizon. It is neither assumed to disappear nor allowed to outrun recurring software indefinitely.

Hardware and other. The 44% latest reported growth is acquisition- and mix-heavy; latest FX-adjusted organic growth was 4%. The base path explicitly decelerates 16%, 12%, 8%, 4% and 0%. This is a sharper slowdown than the reported headline, but it is supported by the 40-point gap between reported and FX-adjusted organic growth and by the small, lumpy base. Revenue reaches $646 million when the $646.45 million modeled result is rounded to the nearest million, rather than extrapolating to an implausible multi-billion-dollar hardware operation.

Maintenance and other recurring. This is the load-bearing line. Its 20.57% FY2023-FY2025 CAGR and 19% latest reported growth include acquisitions and currency; the latest 2% FX-adjusted organic rate was below management's 5% aspiration. The base path of 14%, 12%, 11%, 9% and 8% implies an acquisition contribution that fades as CSU grows, while mature organic/price-volume performance improves toward 4%-5%. Horizon recurring revenue is $15.945 billion. Roper's mature Application Software organic growth of 6% and Visma's much faster 11.8% organic revenue growth bracket this outcome: CSU does not need Visma-like organic growth, but it cannot rely solely on acquisitions either.

Bear case growth assumptions

Product	Historical CAGR	Latest reported YoY	Management forward anchor, not FY+1 guide	Bear CAGR TTM to TTM+5y	Concise justification
License	3.69%	5%	None	-0.83%	Subscription substitution and weak new-license demand
Professional services	9.72%	8%	None	3.99%	Slower implementations and acquisition intake
Hardware and other	19.39%	44%	None	4.89%	Current acquisition spike reverses late in horizon
Maintenance and other recurring	20.57%	19%	5% aspiration, not achieved	7.39%	Low organic growth and weaker M&A contribution
Consolidated company	17.58%	17%	No consolidated target	6.50%	Bottom-up sum under leadership and deal constraints

The bear case does not assume a collapse in mission-critical software. It assumes CSU's current scale and competition reduce acquired growth, while organic recurring growth remains near 2%-3% rather than reaching the 5% aspiration. License growth steps 2%, 1%, 0%, negative 2% and negative 5%. Professional services steps 6%, 5%, 4%, 3% and 2%. Hardware steps 12%, 8%, 5%, 2% and negative 2%. Recurring steps 10%, 8%, 7%, 6% and 6%. This path is consistent with a portfolio that retains customers but fails to accelerate product innovation enough to gain material share.

Bear recurring growth still exceeds mature organic growth because acquisitions remain part of the business model. Removing acquisition growth entirely would require a much harsher premise—capital-market or governance breakdown, a collapse in seller access, or prolonged refusal to meet prices. Those are possible red-team outcomes, but they are not the central 25%-probability bear. The selected bear instead captures a material deceleration while respecting the demonstrated permanent-capital engine.

Bull case growth assumptions

Product	Historical CAGR	Latest reported YoY	Management forward anchor, not FY+1 guide	Bull CAGR TTM to TTM+5y	Concise justification
License	3.69%	5%	None	5.38%	AI modules and acquired perpetual-license products
Professional services	9.72%	8%	None	9.99%	Strong implementation demand follows product expansion
Hardware and other	19.39%	44%	None	11.84%	Large vertical solutions sustain attached hardware growth
Maintenance and other recurring	20.57%	19%	5% FX-adjusted organic aspiration exceeded modestly	13.98%	Better organic execution plus continued sourcing advantage
Consolidated company	17.58%	17%	No consolidated target	12.99%	Bottom-up sum with durable M&A and AI-enabled value

The bull case assumes the acquisition system scales better than expected and embedded AI improves retention, modules and pricing without prompting material workflow-layer substitution. License growth follows 8%, 7%, 6%, 4% and 2%; services 12%, 11%, 10%, 9% and 8%; hardware 20%, 16%, 13%, 8% and 3%; recurring 17%, 15%, 14%, 13% and 11%. Even this

case decelerates from current reported growth because the revenue base more than doubles over five years only if both organic execution and acquisition deployment remain unusually strong.

Visma's H1 2026 11.8% organic revenue growth shows that low-double-digit organic growth is possible for a more integrated cloud platform, but CSU's bull case does not assume that rate across the whole portfolio. Instead, it combines roughly mid-single-digit-to-high-single-digit recurring organic/price-volume growth in the strongest units with acquisition contribution and a modestly positive mix/FX environment. The bull is demanding, not impossible.

Explicit year-by-year growth cadence

Case and product	2027-06-30	2028-06-30	2029-06-30	2030-06-30	2031-06-30
Bear — License	2%	1%	0%	-2%	-5%
Bear — Professional services	6%	5%	4%	3%	2%
Bear — Hardware and other	12%	8%	5%	2%	-2%
Bear — Maintenance and other recurring	10%	8%	7%	6%	6%
Base — License	5%	4%	3%	2%	1%
Base — Professional services	9%	8%	7%	6%	5%
Base — Hardware and other	16%	12%	8%	4%	0%
Base — Maintenance and other recurring	14%	12%	11%	9%	8%
Bull — License	8%	7%	6%	4%	2%
Bull — Professional services	12%	11%	10%	9%	8%
Bull — Hardware and other	20%	16%	13%	8%	3%
Bull — Maintenance and other recurring	17%	15%	14%	13%	11%

This cadence makes the deceleration thesis testable. In particular, base hardware growth falls from the latest reported 44% to 16% in the first forward year and then to zero by year five because the latest organic comparator was only 4%. Recurring reported growth falls from 19% to 14% and then 8%, but it remains well above the latest 2% FX-adjusted organic rate because M&A remains embedded. If reported recurring growth falls below 6% while annual acquisition consideration remains elevated, the base model would be invalid: that combination would indicate either material churn/price weakness or poor acquired-revenue conversion.

Base acquisition-growth and funding premise

The Base revenue cadence contains acquired growth, but it does not assume or invent a cohort ROIIC. The explicit decomposition below is an assumption map: recurring FX-adjusted organic growth begins near current disclosure and moves toward, but does not exceed, management's 5% aspiration; the residual includes acquired perimeter and any translation effect. H1 FY2026 acquisition consideration was approximately **$1.70 billion**: $809 million in Q1 and $893 million in Q2 sum to $1.702 billion, while the H1 acquisition note reports $309 million Synchronoss, $392 million DerbySoft and $999 million other deals, or $1.700 billion [data_package §7, acquisition purchase-price ledger]. This replaces the prior $1.625 billion statement; the $2 million difference between disclosed sums is rounding/measurement, not a separate deal. Q2 recurring growth was 19% reported, 4% organic and 2% FX-adjusted organic; consolidated total was only **1% FX-adjusted organic** [data_package §5, quarterly and organic tables]. The same quarter's 14.72% statutory margin and description of low-margin acquisition cohorts show that acquired revenue does not arrive at mature margin.

Base assumption	2027-06-30	2028-06-30	2029-06-30	2030-06-30	2031-06-30
Recurring reported growth	14.0%	12.0%	11.0%	9.0%	8.0%
Assumed recurring FX-adjusted organic component	3.0%	3.5%	4.0%	4.5%	4.5%
Implied acquisition and translation residual	11.0%	8.5%	7.0%	4.5%	3.5%
Consolidated reported growth from product sum	12.89%	11.08%	10.00%	8.15%	7.08%

The residual is not a forecast of purchase consideration or acquired-company return; disclosure does not support that precision. Base assumes acquisitions are funded by operating cash generation plus available debt capacity as transactions occur, while S separately forecasts cash-derived income and finance costs. It does not assume that acquisition financing is free, that consolidated cash is fully parent-available, or that acquired cohorts expand margin on arrival. The central margin is therefore anchored near current statutory economics rather than paired with an unproven acquisition-funded margin uplift.

The Q2 FX-adjusted organic print deserves more scrutiny than a cursory comparison with management's 5% recurring aspiration. In Q2, ex-Altera CSU had 2% FX-adjusted organic total revenue growth and Altera had negative 22%, blending to 1%; ex-Altera maintenance/recurring was 4% while Altera was negative 19%, blending to 2% [data_package §5, acquisition-driven diagnostics]. Altera's Q2 year-earlier base included $9 million upfront contract revenue and $8 million contract-amendment revenue without repeats. Those items make a partial recovery plausible, but the ex-Altera 2% consolidated result is itself weak; eliminating the Altera drag cannot mechanically produce 5% companywide organic growth. Nor can the $21 million Altera Q2 and $55 million H1 FCFA2S be divided by the H1 acquisition cost: Altera is an older, separate and partial perimeter. The Base recurring organic component rises from assumed 3% in year one to 4.5% in years four and five; failure to improve ex-Altera growth and recurring price/volume would remove roughly 1-2 points of annual recurring growth from that case. A one-point shortfall in the reported recurring-growth assumption in **each** of five forward years reduces 2031 recurring revenue from $15.945 billion to about $15.238 billion, a $0.707 billion difference, before any acquisition or second-order effects; at 15.5% consolidated statutory margin, the mechanical profit delta is about $0.110 billion. This is a sensitivity, not a revised operating forecast, and a margin response could magnify it.

Acquisition funding and return sensitivities — not a cohort ROIIC

The issuer's **FCFA2S** is the shareholder-availability measure *after* specified interest, lease, NCI and other adjustments; TTM to June 30 is $2.031 billion, versus H1 FY2026 $1.078 billion [data_package §0a, FCFA2S KPI; §7, shareholder cash-flow bridge]. It is not conventional CFO less physical capex, and its recent rate is not guaranteed: maintenance collection seasonality boosts Q1 and Q2 is usually weaker. The stable $4 annual common dividend at 21.19153 million shares consumes about $84.8 million over a year, leaving a simple TTM-rate reinvestment envelope of $1.946 billion. That envelope is consolidated shareholder-availability, not necessarily unrestricted parent cash, and still must accommodate debt service, any unforeseen distributions, PEMS or purchase-price obligations. H1 acquisition consideration $1.700 billion plus $42 million dividends exceeded H1 FCFA2S $1.078 billion by **$664 million** on the commitment/consideration basis. On the distinct H1 *net cash acquisition outflow* basis, $1.436 billion plus $42 million less $1.078 billion equals a **$400 million** funding gap; neither calculation should be added to the other. Consideration includes deferred amounts and cash flow includes settlement of prior holdbacks, explaining why the bases differ [data_package §7, acquisition ledger].

The following deliberately holds TTM FCFA2S and the dividend constant to expose funding dependence. It does not project actual deal cadence, future FCFA2S, debt balances or returns. The $3.4 billion case merely annualizes the unusually active H1 acquisition consideration; the separate $818 million subsequent completed-or-open commitments are not added to H1 or assumed closed. Annual interest is a *first-year incremental pretax* burden if the entire illustrative gap is debt-funded at the indicated rate, not an issuer financing quote; synthesis must keep any such cost below operating income and must not layer it onto its own debt schedule a second time.

Annual acquisition consideration stress	TTM FCFA2S less $84.8m dividend	Annual funding surplus / gap	6% pretax interest on gap	8% pretax interest on gap	Interpretation
$1.700bn	$1.946bn	$0.246bn surplus	$0m	$0m	H1 dollar pace without annualization
$2.500bn	$1.946bn	$0.554bn gap	$33m	$44m	Moderate deployment above current cash envelope
$3.400bn	$1.946bn	$1.454bn gap	$87m	$116m	H1 pace annualized; not guidance
$4.000bn	$1.946bn	$2.054bn gap	$123m	$164m	Larger deals require material external funding

At the $3.4 billion stress, the $87 million first-year pretax interest at 6% is about $65 million after an illustrative 25% tax shield, or $3.09 per unchanged CSU common share before ownership/perimeter complications. The rate and tax shield are *analyst sensitivity assumptions*, not management forecasts; 8% would raise pretax cost to $116 million and the simplified after-tax EPS cost to about $4.12. Repeating a $1.454 billion annual shortfall for five years without growth in cash generation would cumulate $7.269 billion before interest, debt repayment, deal timing or cash balances. That is intentionally severe and unrealistic as a precise balance-sheet path, but it establishes the scale of funding the acquisition-growth assumption must earn. Actual FCFA2S may rise with acquired businesses, and parent cash/debt capacity differ from consolidated availability,

so the proper earnings model should forecast acquisition-generated cash and financing jointly.

Illustrative operating-return break-even cannot be read from these figures. If $1.700 billion H1 consideration were hypothetically debt-financed at 6%, annual pretax interest on that deployed capital would be $102 million; there is no disclosed matched full-year after-NCI cash flow for the same H1 cohort to establish a spread, and neither Synchronoss's $64 million H1 revenue/$4 million net loss nor DerbySoft's $11 million/$1 million net loss since their respective closes is a matured return measure [data_package §7, acquisition ledger and following paragraph]. Acquisition cost per acquired revenue dollar is also not measurable from the issuer's $403 million Q2 and $742 million H1 *prior-period pro-forma adjustments*: those are counterfactual bases across different cohorts and currencies, not matched purchase-price and annual revenue records [data_package §5, acquisition-driven diagnostics]. The disclosed Altera judgment that it is ahead of original expected IRR is qualitative and one-cohort-specific [data_package §6, item 16]. The model retains the approved growth and 15.5% Base margin while attaching a lower confidence to their capital efficiency. A materially worse deal-price environment or sustained 1% organic growth would call for reducing acquired growth and/or profit in a later reviewed scenario, not inventing a precise aggregate ROIIC now.

9. Forward margin assumptions — Statutory operating income (single-segment consolidated fallback)

Product-level operating profit and gross margin are not disclosed. Assigning invented margins to license, services, hardware and recurring revenue would violate the data package's explicit gross-margin gap and the sealed one-segment fallback. Accordingly, the model forecasts revenue bottom-up by disclosed type and applies one consolidated statutory margin path. This preserves the exact profit identity and does not imply that each product has the same unit margin.

Case	Exact profit metric	TTM margin	2027 margin	2028 margin	2029 margin	2030 margin	2031 margin	Horizon change	Horizon profit
Bear	Statutory operating income (single-segment consolidated fallback)	15.59%	14.5%	14.0%	13.7%	13.5%	13.5%	-209 bps	$2,338m
Base	Statutory operating income (single-segment consolidated fallback)	15.59%	15.2%	15.3%	15.4%	15.5%	15.5%	-9 bps	$3,130m
Bull	Statutory operating income (single-segment consolidated fallback)	15.59%	16.2%	16.8%	17.4%	18.0%	18.5%	+291 bps	$4,308m

Every margin in the table is on the exact basis **Statutory operating income (single-segment consolidated fallback)**. It includes normal operating expenses and acquisition-related intangible amortization. It excludes the separately bridged foreign-exchange, IRGA/TSS membership-liability revaluation, finance, impairment, Asseco transition, interest, tax and NCI lines that synthesis must forecast outside operating income.

Bear margin mechanism. The 209-basis-point decline reflects three concrete effects: acquisition mix tilts toward lower-margin professional-services and hardware businesses; purchased-intangible amortization and cloud/AI infrastructure costs grow faster than mature-cohort pricing; and productivity savings are absorbed by product modernization and wage pressure. Recurring mix still rises, preventing a deeper collapse, but that mix benefit is not enough to offset weak cohort maturation. The 13.5% endpoint is close to FY2022-FY2023 statutory margins of 13.32%-14.13%, so it has historical precedent [data_package §3, segment historicals].

Base margin mechanism and selected central case. The evidence supports a **15.5%** terminal Base margin, not 17.0%. TTM was 15.59%; FY2025 was 16.30%; and the latest four quarters were 16.96%, 17.09%, 13.67% and 14.72% [data_package §3, FY2025 margin; §5, recent quarterly margins]. Q1 has payroll-tax seasonality, but Q2 remained below 15% after heavy H1 acquisitions. Recurring mix rises from 75.6% to approximately 79.0%, providing support, while acquisition amortization, low-margin new cohorts, hosting/AI costs and management's road-map reinvestment absorb that benefit. The Base cadence of 15.2%, 15.3%, 15.4%, 15.5% and 15.5% assumes gradual cohort maturation but no unsupported margin harvest. The 15.0% red-team stress remains a plausible downside only 50 basis points below the central endpoint; it is not the central estimate because recurring mix and modest pricing should offset part of the acquisition/reinvestment burden.

Bull margin mechanism. The 291-basis-point increase requires more than mix. AI-enabled development must reduce maintenance and feature-delivery cost, recurring modules must support value-based pricing, strong acquired cohorts must mature quickly, and service delivery must become more standardized. These benefits partly flow to profit even after reinvestment. The 18.5% endpoint is achievable on statutory accounting but demands execution; it is not derived from peer adjusted EBITDA, which would be a different denominator.

The margin model deliberately does not use Roper's 83.7% Network Software gross margin or Visma's 33.8% adjusted EBITDA margin as direct benchmarks because neither is comparable with CSU statutory operating income. Roper's 2025 filing usefully shows that payments mix and acquired-business mix can lower gross margin even when recurring revenue grows (Roper Q3 2025 SEC filing). That mechanism supports the CSU bear/base sensitivity, but the numerical margins remain CSU-specific.

10. Segment rollup — bottom-up revenue and exact-basis profit

The first table compounds each TTM revenue type through the explicit annual rates in Section 8. Totals are direct sums; there is no separate acquisition line and no operating-group estimate.

Case	License	Professional services	Hardware and other	Maintenance and other recurring	Segment revenue	Recurring mix
Bear	$398m	$2,707m	$562m	$13,650m	$17,318m	78.82%
Base	$481m	$3,121m	$646m	$15,945m	$20,193m	78.96%
Bull	$539m	$3,584m	$775m	$18,387m	$23,285m	78.99%

The second table shows the full consolidated path. Revenue is the sum of the four product lines at each date. Profit equals revenue multiplied by the stated margin, with full precision retained in the calculation and displayed values rounded to the nearest million.

Case and horizon	Segment revenue	Exact profit metric	Profit margin	Segment profit
Bear — 2027-06-30	$13,792m	Statutory operating income (single-segment consolidated fallback)	14.5%	$2,000m
Bear — 2028-06-30	$14,795m	Statutory operating income (single-segment consolidated fallback)	14.0%	$2,071m
Bear — 2029-06-30	$15,715m	Statutory operating income (single-segment consolidated fallback)	13.7%	$2,153m
Bear — 2030-06-30	$16,524m	Statutory operating income (single-segment consolidated fallback)	13.5%	$2,231m
Bear — 2031-06-30	$17,318m	Statutory operating income (single-segment consolidated fallback)	13.5%	$2,338m
Base — 2027-06-30	$14,271m	Statutory operating income (single-segment consolidated fallback)	15.2%	$2,169m
Base — 2028-06-30	$15,852m	Statutory operating income (single-segment consolidated fallback)	15.3%	$2,425m
Base — 2029-06-30	$17,437m	Statutory operating income (single-segment consolidated fallback)	15.4%	$2,685m
Base — 2030-06-30	$18,858m	Statutory operating income (single-segment consolidated fallback)	15.5%	$2,923m
Base — 2031-06-30	$20,193m	Statutory operating income (single-segment consolidated fallback)	15.5%	$3,130m
Bull — 2027-06-30	$14,655m	Statutory operating income (single-segment consolidated fallback)	16.2%	$2,374m

Case and horizon	Segment revenue	Exact profit metric	Profit margin	Segment profit
Bull — 2028-06-30	$16,723m	Statutory operating income (single-segment consolidated fallback)	16.8%	$2,809m
Bull — 2029-06-30	$18,909m	Statutory operating income (single-segment consolidated fallback)	17.4%	$3,290m
Bull — 2030-06-30	$21,164m	Statutory operating income (single-segment consolidated fallback)	18.0%	$3,810m
Bull — 2031-06-30	$23,285m	Statutory operating income (single-segment consolidated fallback)	18.5%	$4,308m

Rollup check: the individually rounded Bear product cells sum to $17,317m versus $17,317.5m at full precision; rounding the full-precision total produces the displayed $17,318m. Base product cells sum to $20,193m, matching the rounded $20,192.8m full-precision total; hardware is $646.45m before rounding, hence $646m rather than $647m. Bull cells sum to $23,285m versus $23,284.9m full precision. The Bear $1m displayed-cell difference is rounding, far below the 1% tolerance. Exact-basis profit is $17,317.5m × 13.5% = $2,337.9m bear; $20,192.8m × 15.5% = $3,129.9m base; and $23,284.9m × 18.5% = $4,307.7m bull.

The probability-weighted horizon operating result is informative but not a separate scenario: weighted revenue is approximately **$20.092 billion**, and weighted exact-basis profit is approximately **$3.167 billion**. Because the probability-weighted margin is not simply the average of scenario margins, it should not be used as a stand-alone forecast. Synthesis should preserve the three scenario paths and their probabilities.

11. Key risks and wildcards

- **Acquisition scaling law — Bear.** Maintaining a fixed acquired-growth percentage requires larger annual dollar deployment as the revenue base grows. If seller competition stays intense and hurdle rates remain unchanged, reported growth can decelerate faster than the base case. The earliest signal is recurring reported growth below 8% despite continued acquisition spending.

- **Opaque incremental returns — Bear.** Consolidated cash generation is visible, but acquisition-cohort ROIIC, operating-group economics and complete ownership perimeters are not. A growing gap between acquisition consideration and organic recurring growth would suggest falling returns even before statutory margin fully reflects it.

- **AI workflow substitution — Bear.** AI may make narrow workflow layers easier to rebuild or allow horizontal suites to serve previously uneconomic verticals. The risk is highest where CSU products are aging front ends with limited proprietary data or transaction depth. Rising churn, lower renewal pricing or emergency modernization spending would move the case toward bear.

- **AI development leverage — Bull.** If local businesses use coding agents to modernize products, ship vertical modules and reduce implementation burden, recurring growth and margin can rise together. Management has not observed a consolidated organic-growth pickup, so this remains optionality rather than base-case fact.

- **Pricing versus customer value — Bear/Base.** Painful switching supports price increases, but excessive reliance on price can invite replacement projects or political/regulatory scrutiny in public-sector and mission-critical markets. The model assumes pricing is paired with product investment, not harvested without reinvestment.

- **Leadership depth — Bear.** Management identifies the right vertical leader as the constraint. Founder Mark Leonard’s transition and the need to develop many capital allocators increase key-person and cultural-diffusion risk. Slower delegation or weaker underwriting in new teams would reduce both organic and acquired growth.

- **Services and hardware mix — Bear.** Recent headline growth in hardware and parts of services is not matched by organic growth. If acquired revenue remains lower-margin or requires more implementation labor, statutory margin could return to the 13%-14% range even while total revenue grows.

- **Recurring growth recovery — Base/Bull.** Management's 5% FX-adjusted recurring-growth anchor is above the latest 2%. A return toward 5% would validate pricing, product modernization and installed-base resilience. Failure to reach at least 3%-4% over the next several quarters would weaken the base case.

- **Currency translation — All cases.** CSU reports in USD but operates globally, with UK and Europe representing 35.0% of FY2025 revenue and other non-Canada/US geographies another 14.3% [data_package §1, geographic revenue table]. Through-cycle FX is embedded in line growth; a sustained USD move can change reported revenue without changing local economics.

- **Amortization and purchase accounting — Bear/Base.** Faster acquisitions increase purchased intangibles and statutory amortization. A cash-oriented adjusted metric could improve while the exact statutory operating margin fails to expand. The appendix uses statutory profit precisely to retain this cost.

- **NCI, non-recourse structures and IRGA — All cases, outside this segment profit.** These items affect parent-common value but not the modeled operating line. The data package records NCI, non-recourse cash restrictions and IRGA/TSS revaluation exposure. Synthesis must not treat consolidated operating profit as wholly distributable to CSU common shareholders.

- **Disclosure limitations — All cases.** ARR, NRR, GRR, churn, CAC, payback, ACV, product gross margin and complete operating-group economics are not disclosed [data_package §10, open gaps table]. This prevents cohort-level proof. Scenario probabilities explicitly compensate for that opacity; they do not remove it.

Horizon summary

Case	Segment TTM+5y Revenue	Exact profit metric	Segment TTM+5y Profit Margin	Segment TTM+5y Profit	Probability
Bear	$17,318m	Statutory operating income (single-segment consolidated fallback)	13.5%	$2,338m	25%
Base	$20,193m	Statutory operating income (single-segment consolidated fallback)	15.5%	$3,130m	55%
Bull	$23,285m	Statutory operating income (single-segment consolidated fallback)	18.5%	$4,308m	20%

The cases sum to 100%. The 55% Base weight reflects an established acquisition platform, recurring-revenue durability and no observed cessation of sourcing; the 25% Bear weight reflects the latest 1% FX-adjusted organic total, 2% recurring rate, low-margin Q2 acquisition mix and unobserved cohort returns; the 20% Bull weight is lower because simultaneous organic recovery, unusually effective acquisition scaling and a 291-basis-point margin expansion require more evidence. The Bear still retains acquisition growth and 13.5% margin, close to FY2022's observed 13.32%; a collapse scenario is not smuggled in as the central downside. The base case requires a 9.82% five-year revenue CAGR and a 9-basis-point statutory-margin decline to 15.5%. It is less aggressive than the FY2023-FY2025 reported growth record because it separates the acquisition-heavy headline from mature organic economics and gives no unproven acquisition-margin uplift. The central monitoring question is not whether CSU can keep buying software businesses; it is whether recurring FX-adjusted organic growth and acquired-cohort maturation remain strong enough for those purchases to compound per-share value at a growing scale.

Data gaps carried forward

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[DATA GAP: Complete six-operating-group revenue and CODM profit table is not disclosed; use one consolidated modeled segment only.]
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[DATA GAP: Consolidated ARR, net new ARR, NRR, DBNR, GRR and churn are not disclosed; maintenance and other recurring revenue is a revenue type, not ARR.]

[DATA GAP: CAC, payback, magic number, seats, ARPU and ACV are not disclosed.]

[DATA GAP: Consolidated gross margin and product-level operating margins are not disclosed; no product margin has been invented.]

[DATA GAP: No interim FY2026 contracted-not-yet-recognized balance or issuer-labeled cRPO amount is disclosed.]

[DATA GAP: Management provides no quantitative AI revenue target, time line or consolidated revenue/margin guidance.]

12. Current capital, ownership and senior-claim inventory for valuation preflight

This section is a current-run inventory at **2026-06-30**, not a terminal balance-sheet forecast. It is based on newly archived copies of the official Q2 FY2026 and FY2025 financial statements. Amounts are USD millions unless stated otherwise. The purpose is to give synthesis and valuation preflight an exhaustive claim map for a P/E method: debt, leases and other claims affect statutory EPS through interest, amortization, remeasurement, tax and NCI; they must not be added to or subtracted from EPS × P/E a second time. A separately valued asset may be added only if it is proved absent from both statutory EPS and the selected multiple benchmark.

Claim or asset	Anchor amount and perimeter	Trigger and settlement	Dilution and cash mechanics	Income-statement and direct-equity mechanics	Counted-once rule
CSU voting common shares	21,191,530 shares; capital stock $99m	Outstanding continuously at 2025-12-31 and 2026-06-30	One listed CSU share per financial-statement share; no depositary or class factor; dividends use cash	Common NI and OCI change retained earnings/AOCI; dividends reduce retained earnings	Use 21.191530m basic and diluted shares unless S sources a later change; never add parent cash/debt after P/E
Parent common options, warrants, RSUs and similar awards	Zero instruments identified in FY2025 and Q2 FY2026 filing searches	No exercise or vesting trigger disclosed	Q2 basic and diluted denominators are identical; no exercise proceeds	No disclosed dilution or direct-equity entry	Zero at anchor is evidence-bound to the two filings and equal basic/diluted shares; a later issuance would require a new source
Convertible debt or convertible preferred	Zero instruments identified	Debentures described below are PIK-capable debt, not common-convertible securities	No common-share conversion or proceeds mechanics disclosed	Debt interest remains finance cost	Do not treat the debentures as equity dilution
Parent non-voting preferred shares	Authorized but none outstanding at FY2025; no Q2 issuance identified	No redemption or conversion trigger because none outstanding	Zero cash and dilution at anchor	Zero current preferred dividend or direct-equity effect	Keep at zero unless a later filing documents issuance
Historical Lumine preferred and special shares	Converted to Lumine subordinate voting shares in FY2024 comparative equity roll-forward	Conversion and accrued dividend settlement completed before current anchor	Subsidiary shares, not CSU common shares	Effect sits in subsidiary NCI/equity perimeter	No current separate preferred claim; do not double count alongside Lumine NCI
CSI revolving facility	$1,085m limit; $0 drawn; $13m letters of credit reduce capacity	Standard default can accelerate repayment; variable rate; no fixed repayments over term	Draws create cash and recourse debt; letters consume availability	Interest and transaction costs enter finance costs; no dilution	Zero drawn debt at anchor; letters are contingent capacity use, not funded debt
Senior unsecured notes	$1,000m principal; $994m carrying value	$500m at 5.158% due 2029 and $500m at 5.461% due 2034; senior unsecured	Cash interest and principal settlement	Interest and amortized transaction costs reduce statutory earnings and retained earnings	Under P/E, finance cost is in EPS; principal is not separately subtracted from equity value
CSI debentures	$348m principal; $392m carrying; $430m fair value	Due 2040; annual issuer call and holder put notices settle five years later at principal plus accrued interest	Interest may be cash or PIK debentures; PIK increases debt principal, never CSU common shares	Interest and premium/discount amortization enter finance costs; unpaid non-PIK interest restricts common dividends/buybacks	Model as debt-only earnings/cash effect; no common dilution
Recourse term loan	$86m carrying and principal	Fixed-rate GBP 65m facility due 2028; default can accelerate	Cash interest and principal repayment	Interest reduces statutory earnings and retained earnings	Finance cost once in EPS; no terminal P/E debt subtraction
Topicus revolving facility without recourse	$125m principal; $124m carrying; current	Subsidiary facility; CSI provides no guarantee or cross-guarantee	Cash repayment is limited to borrowing perimeter; collateral and covenants can restrict upstream dividends	Interest affects consolidated earnings; subsidiary restrictions affect cash availability	Include interest and NCI in EPS; do not treat restricted subsidiary cash as parent excess cash
Other non-recourse debt facilities	$2,120m principal; $2,100m carrying; $534m current and $1,566m non-current	Scheduled principal: $114m in 2026, $698m in 2027, $424m in 2028, $167m in 2029, $506m in 2030, $83m in 2031 and $127m in 2032	Borrower assets secure facilities; no CSI guarantee or subsidiary cross-guarantee	Interest reduces consolidated earnings; restrictive covenants can block distributions/acquisitions	Do not net consolidated cash against these claims without respecting the subsidiary perimeter

Claim or asset	Anchor amount and perimeter	Trigger and settlement	Dilution and cash mechanics	Income-statement and direct-equity mechanics	Counted-once rule
Optimal Blue promissory note	$500m principal and carrying value; non-recourse	7% compounded annually; first principal/cash-interest payment just before fifth anniversary; matures 2063 with optional prepayment	$7m minimum through 2029 and $493m from 2030-2063 in filing schedule	Accrued/cash interest reduces statutory earnings	Earnings effect once in EPS; no separate P/E equity bridge adjustment
Lease obligations	$445m total; $150m current and $295m non-current; ROU assets $388m	Contractual lease payment dates	Cash principal and interest payments; no share dilution	ROU depreciation is operating expense and lease interest is finance cost; both affect retained earnings	No separate lease subtraction under P/E because both expense legs are in statutory EPS
Equity-classified NCI	$744m, versus $692m at FY2025	Subsidiary ownership and distributions; Topicus 39.35%, Adapt IT 26.07% and Lumine 38.60% disclosed	NCI dividends use subsidiary/consolidated cash; no CSU-share dilution	NCI share of net income is deducted before parent-common EPS; NCI transactions affect NCI equity	Deduct attributable NCI once before EPS; do not apply a second minority-interest haircut to `EPS × P/E`
Liability-classified NCI put obligations	Current carrying component is not separately disclosed within $313m other non-current liabilities; H1 acquisitions recognized $46m and $17m put liabilities at acquisition	DerbySoft 8.2% and other acquired holder puts obligate future purchase; exercise details beyond Derby are not separately published	Settlement uses cash and extinguishes the liability; no CSU common dilution	Subsequent remeasurement line is not separately identified; do not invent one; purchase-accounting/equity effects follow IFRS liability treatment	Keep inside other-liability perimeter, not equity NCI; do not add the $63m acquisition-date amounts to the $313m current balance
IRGA/TSS membership liability	$1,186m total; $678m current and $508m non-current	Joday puts can be exercised at any time; change of control and reductions in CSI Topicus ownership create additional puts; CSI calls exist for specified holders	Cash settlement is generally one-third promptly and remaining thirds over two anniversaries; Sygnity/Asseco components expected via prorated asset transfer	Fair-value changes are below operating income; H1 FY2026 produced $13m income; settlement reduces liability/cash or transfers assets	Include the scenario revaluation and settlement economics once; do not separately add full Asseco value if used to settle IRGA
Acquisition holdback payables	$553m total; $310m current and $243m non-current	Generally payable over two years; adjusted for working capital, net tangible assets and warranty claims	Cash settlement reduces payable; no dilution	Measurement-period changes affect purchase accounting or liability; no generic earnings plug	Treat the $553m balance once; do not add contingent consideration to it
Contingent acquisition consideration	$227m fair value; $96m current and $131m non-current	Financial-target achievement; some arrangements capped and some unlimited; estimated increase for H1 deals not expected above $89m	Cash payments reduce liability; $66m paid in H1 FY2026	Fair-value changes enter `other, net`; $22m H1 charge; no direct CSU-share effect	Separate from holdbacks and put NCI; remeasurement is already in statutory EPS
Derivative liabilities and assets	$15m liabilities and $10m assets at fair value; maximum liability exposure about $56m	Contractual uncertain outcomes determine settlement	Cash or asset settlement; no disclosed share conversion	Fair-value changes enter finance and other income/expense	Net only within the exact derivative perimeter; do not add the maximum exposure to carrying value
Provisions and litigation claims	$36m provisions; $25m current and $11m non-current; other claims unquantified	Onerous contracts and uncertain liabilities; ordinary-course litigation	Cash if crystallized	Charges recognized when required; management expects no material adverse ultimate effect beyond provisions	Use booked provision once; do not assign zero to unquantified litigation, but do not invent a reserve
Operating and tax liabilities	AP/accruals $1,889m; deferred revenue $2,783m; tax payable $174m; deferred tax $1,024m; dividend payable $21m	Normal operating, revenue-recognition, tax and declared-dividend settlement	Working-capital and tax cash flows	Revenue, operating costs, tax and dividends already pass through statements	Not separate P/E senior-claim deductions; preserve in cash-flow and earnings forecasts
Other non-current liabilities not separately itemized	$313m within the $573m other-liabilities total, in addition to $131m contingent consideration and $129m deferred revenue	Contract-specific; includes liability-classified acquisition/NCI items but exact subcomponents are not fully disclosed	Cash settlement possible; no verified common dilution	Exact remeasurement classification is unsupported where not disclosed	Maintain as an identified residual claim; never label it zero or add acquisition-date put amounts again
Cash and cash equivalents	$2,886m consolidated	Available subject to legal-entity, debt covenant and NCI restrictions	Funds operations, acquisitions, interest and settlements	Interest income enters statutory earnings	Under P/E, no separate cash addition because interest and capital structure are embedded in EPS; parent availability is less than consolidated cash
Investments in associates	$626m total; Asseco carrying value $523m	Equity-method value changes and sale/transfer; Asseco/Sygnity may satisfy IRGA obligations pro rata	Cash or asset-transfer proceeds if realized	Share of associate income and OCI enter statements with lag accounting	Do not add Asseco separately when its income is in EPS or when used to settle IRGA
Equity securities and derivatives held as assets	$124m equity securities and $10m derivative assets; $6m trading securities disclosed in current other assets	Market price or contractual outcome	Sale/settlement creates cash	Fair-value changes enter profit or OCI according to classification	No separate P/E addition unless VP proves exclusion from EPS and benchmark; avoid overlap with other assets
Other receivables and non-operating claims	$1m holdback receivable; $87m investment-tax credits recoverable; other receivables within disclosed current/non-current assets	Collection and tax-credit realization	Cash collection	Effects flow through working capital or tax	Do not treat operating receivables as excess value; include only a separately proved non-operating asset once

Verified zero and unsupported-item discipline. “Zero” above is used only where the filings support it: no parent preferred shares outstanding, no disclosed parent options/warrants/convertibles/RSUs, equal basic and diluted shares, and zero CSI-facility drawings. The precise carrying amount and subsequent remeasurement path of liability-classified NCI puts inside the $313 million other-non-current-liability line are **not separately disclosed**. This is an explicit subcomponent gap, not a missing claim: the inventory retains the full $313 million envelope and prevents the $63 million of H1 acquisition-date put values from being added a second time.

P/E counted-once conclusion. The complete anchor inventory supports P/E as an equity method only if S carries statutory finance income/cost, lease expense, IRGA/contingent/derivative marks, tax and NCI into parent-common diluted EPS. Once that is done, terminal net cash, debt, leases, NCI, holdbacks, contingent consideration, IRGA and non-operating investments must **not** be added or subtracted again. Any separately valued asset requires a written proof that its earnings and value are absent from both EPS and the comparable P/E benchmark. This section supplies current instruments and mechanics; S remains responsible for the scenario paths.

13. P/E evidence for valuation preflight — no scenario multiple selected

13.1 Denominator policy and current normalized evidence

The September 22 QFR-sealed quote is the last completed 2026-09-21 TSX close of **CAD $2,786.97** for one listed CSU common share, with same-session USD/CAD **1.39941** and **21.191530 million** diluted shares [quote_packet.json, exact-byte SHA-256 `387bfa8a265da8508eecbc8251e560dfd2c38a99948f30b874341bfecfb9f148`]. It is about USD $1,991.53 per financial share. Reported TTM parent-common net income is $961 million, or USD $45.35 and CAD $63.47 per share; the source-derived raw current P/E is **43.92x**. FMP's own TTM EPS denominator differs and yields 44.36x on its native price timestamp; it is not relabeled as the sealed official denominator. Both raw rows are non-comparable with terminal normalized statutory EPS because TTM includes event-heavy FX, IRGA, investment/revaluation, impairment and tax effects. Neither may set or cap an exit multiple.

The B-stage normalization is a valuation-evidence bridge, not a revision of the operating forecast. It sets FX, IRGA, bargain-purchase and completed Asseco transition marks to zero; retains recurring finance income, finance costs and impairment; applies a normalized tax rate; and deducts NCI. S must independently finalize the denominator and annual cadence.

Period	Statutory OI	Recurring finance income	Finance costs	Impairment	Normalized tax	NCI deduction	Normalized common NI	Normalized EPS	Price numerator	Normalized P/E
FY2024	$1,464m	$60m	$280m	$28m	24.13%	$37m	$885.6m	USD $41.79	FMP-native implied USD $3,089.21	73.92x
FY2025	$1,895m	$228m	$297m	$43m	25.00%	$74m	$1,263.3m	USD $59.61	FMP-native implied USD $2,404.43	40.34x
TTM 2026-06-30	$1,971m	$181m	$319m	$48m	26.78%	$70m	$1,237.0m	USD $58.37; CAD $81.68	Sealed CAD $2,786.97	34.12x

Replay formulas are explicit. FY2024 normalized pretax is `$1,464m + $60m - $280m - $28m = $1,216m`; after 24.13% tax and $37m NCI, common NI is $885.6m. FY2025 normalized pretax is `$1,895m + $228m - $297m - $43m = $1,783m`; after 25% tax and $74m NCI, common NI is $1,263.3m. TTM recurring finance income is `$228m FY2025 - $108m H1 FY2025 + $61m H1 FY2026 = $181m`; finance cost is `$297m - $142m + $164m = $319m`; impairment is `$43m - $11m + $16m = $48m`; and NCI is `$74m - $66m + $62m = $70m`. Thus normalized pretax is $1,785m and normalized common NI is $1,237.0m. The TTM current normalized P/E is `CAD $2,786.97 ÷ (USD $1,237m / 21.191530m × 1.39941) = 34.12x`. This is a provisional normalized denominator for VP to audit, not a B-stage lock on method or multiple.

13.2 Provider-native CSU history and row dispositions

FMP annual ratios use provider-native reported `netIncomePerShare` in USD. The price numerator below is replayed row by row as `native P/E × native EPS`; it is not relabeled as a same-date sealed quote. Rows with extreme tax or disclosed marks are excluded from normalized selection, while retained rows remain broad historical context rather than automatic terminal caps.

FY	Native reported EPS	Native P/E	Replayed provider price	Event/cycle assessment	VP use
2018	USD $17.88	35.81x	USD $640.53	Lower scale and faster runway; 22.0% tax	Broad historical lower observation only
2019	USD $15.71	61.77x	USD $970.57	Lower scale and acquisition runway	Historical context; maturity haircut required
2020	USD $20.57	63.06x	USD $1,297.48	Pandemic and lower scale	Historical context; cycle/maturity adjustment required
2021	USD $14.63	126.83x	USD $1,855.30	55.1% tax and event-heavy denominator	Exclude from caps and selection
2022	USD $24.16	64.55x	USD $1,559.51	24.1% tax; cleaner reported row	Broad context, not terminal-comparable without maturity adjustment
2023	USD $26.66	92.90x	USD $2,476.95	76.7% tax and redeemable-security effects	Exclude from caps and selection
2024	USD $34.49	89.56x	USD $3,089.21	IRGA charge and subsidiary preferred effect	Use normalized 73.92x row only as historical context
2025	USD $24.58	97.81x	USD $2,404.43	FX, IRGA, Asseco revaluation and 37.6% official tax	Use normalized 40.34x row; exclude raw row

The normalized historical sequence compresses from 73.92x at FY2024 to 40.34x at FY2025 and **34.12x** on the new current TTM quote. The first two rows use provider-native historical numerator dates, while the last uses the sealed September 21 TSX close; they are observations, not one homogeneous backtest. Historical CSU was smaller, acquisitions moved consolidated growth more easily, and investor risk appetite varied. These rows illustrate why the event-heavy raw denominator cannot be an exit cap, while demanding a maturity and confidence adjustment for 2031.

13.3 Peer and method evidence with native denominators preserved

September 22 live FMP stable quote, annual-ratio and TTM-ratio packets were separately archived for Roper (`ROP`), Topicus (`TOI.V`), Vitec (`VIT-B.ST`) and Enghouse (`ENGH.TO`), with CSU annual/TTM ratio refresh. “Native TTM P/E” is left exactly on FMP's provider denominator. “Quote replay” divides the fresh quote by the exact FMP TTM EPS only when currencies match. It is a timing check, not a conversion to CSU accounting; source packet URLs, hashes and warehouse copies are in the B-specific source log.

Company	Fresh quote	Native TTM EPS and currency	Native TTM P/E	Quote replay	FY2025 native P/E	Comparability and disposition
Constellation	CAD $2,786.97 sealed close	USD $44.8106	44.36x	44.44x after quote translation, provider EPS	97.81x	Raw TTM and FY2025 are event-heavy; use 34.12x source-normalized current evidence
Roper	USD $365.40	USD $24.4800	15.16x	14.93x	31.11x	TTM/FY2025 earnings denominators diverge sharply; neither row is terminal-normalized CSU evidence
Topicus	CAD $86.87	EUR $0.4428	120.08x; diluted ratio negative	Not replayed across currencies	160.91x	Denominator inconsistency and EUR/CAD mismatch; exclude from range selection
Vitec	SEK 263.40	SEK 11.7254	22.51x	22.46x	28.25x	Closest small-cap VMS structure; lower scale and different amortization/ownership perimeter
Enghouse	CAD $16.96	CAD $1.2957	13.25x	13.09x	15.53x	Mature lower-growth software lower anchor; weaker acquisition/growth profile than CSU

Roper, Vitec and Enghouse establish a native reported P/E evidence band from roughly **13x to 31x**, while CSU's current source-normalized evidence is 34.12x. The peer rows are not blindly averaged: Roper has materially higher operating profitability, but its TTM and FY2025 EPS denominators diverge sharply (USD $24.48 versus USD $14.33) and neither reported row is normalized to CSU's terminal perimeter; Vitec is structurally similar but far smaller; Enghouse is a mature lower-growth lower bound; Topicus is economically related but its provider denominators are unusable for direct replay. Native

FY2025 P/Es use historical price numerator dates, not the September 21 quote; TTM native ratios and quote-replay rows differ slightly in timing. The September 10 FMP forward-analyst-estimate attempts returned HTTP 400 and identical retries; no unverified forward-consensus denominator is substituted in this refresh.

13.4 Quality, growth, maturity, cycle and confidence adjustments for VP

Adjustment dimension	Evidence	Upward support	Downward constraint	Confidence
Business quality	Approximately 79% recurring mix in all terminal cases; mission-critical switching costs	Supports premium to lower-growth Enghouse	No NRR, GRR or churn disclosure	Medium
Growth	Terminal revenue CAGR is 6.50% Bear, 9.82% Base and 12.99% Bull	Base/Bull exceed mature peer growth	Acquisition contribution must scale in dollars and organic growth is currently low	Medium
Profitability	Terminal statutory margin 13.5%-18.5%; Base now 15.5%	Bull alone shows material leverage	Base is below Vitec's 20.4% and Roper's 28.0% FMP TTM operating margins; amortization/mix persist	Medium-high
Capital allocation	Permanent ownership and unchanged acquisition hurdles	Supports durability premium	Acquisition prices, leadership depth and ROIIC opacity	Medium
Maturity	Large installed base and broad sourcing system	More resilient than a single-product peer	Same acquisition percentage requires ever-larger deployment	High
Claim complexity	Current claims are now inventoried and P/E counted-once mechanics are explicit	P/E avoids an unsupported EV bridge	NCI, IRGA, puts and non-recourse cash reduce transparency	Medium-high
Cycle and market	Current normalized P/E 34.12x is below recent normalized historical rows	Current compression may already price some risk	Historical 60x-90x observations reflect smaller scale and cannot cap exits	High
Evidence confidence	Official current filings and row-level FMP replays	Exact current denominator can be audited	Peer GAAP, adjusted and currency perimeters differ; forward estimates unavailable	Medium

Evidence envelope, not selection. The refreshed evidence supports a **15x-30x terminal P/E consideration envelope**, with a tentative **20x-25x** central cluster before VP assigns scenarios. This is a judgmental range, not a mathematically comparable normalized peer series. The lower edge is near Enghouse's FY2025 15.53x; its live TTM 13.25x is a weaker-growth lower-tail observation, not a mechanical CSU floor. Vitec's 22.51x TTM and 28.25x FY2025 rows provide the closest listed VMS observations, but both remain provider-native reported earnings; Roper's 31.11x FY2025 row is upper-quality context, not an upper terminal anchor until its event-sensitive earnings are normalized. CSU's 34.12x normalized current multiple is retained as a current-price observation, not as the terminal upper bound, because the 2031 company is larger, acquisition contribution is decelerating and Base statutory margin is only 15.5%. This is not a Bear/Base/Bull selection and is not desired-return reverse engineering. VP must choose exact scenario P/Es independently after S finalizes comparable terminal EPS.

Excessive-optimism challenge. A terminal P/E above roughly 30x would exceed Vitec's FY2025 provider-native 28.25x and approach Roper's non-normalized historical 31.11x despite CSU's lower Base statutory margin, greater claim complexity and unproven acquisition ROIIC at 2031 scale. These reported peer figures are context, not an apples-to-apples ceiling. A 25x observation is supportable only near the upper half of the central cluster: it requires recurring FX-adjusted organic growth to move toward 4%-5%, acquisition contribution to remain disciplined, and statutory margin to hold near 15.5% without rising claim leakage. More than 30x would require stronger evidence of durable organic growth, controlled NCI/IRGA/put claims and successful large-scale deployment than is currently disclosed. Without those conditions, it should be rejected as maturity-insensitive optimism.

Excessive-bearishness challenge. A terminal P/E below roughly 15x would place CSU near the mature lower-growth Enghouse FY2025 15.53x context, though its current TTM 13.25x proves sub-15x is not impossible for listed software. A low-20s multiple, including the 22x red-team comparator, is not excessively bearish: it is directly anchored to Vitec's 22.51x TTM P/E and is credible when Base margin stays near 15.5% and acquisition ROIIC remains undisclosed. Less than 15x would require recurring FX-adjusted organic growth persistently near or below 2%, statutory margin at or below the 13.5% bear endpoint, impaired seller access or hurdle-rate discipline, material governance failure, or claim complexity overwhelming parent-common earnings. Without those conditions, sub-15x is an adverse stress, not a default exit.

13.5 Evidence archive and handoff

The September 10 deep historical/claim research remains at `raw\pulse-cio-20260910T100358+0800\vp_repair_B\B_repair_evidence_log.md`. Its controlling official financial-statement PDF hashes remain `4bf06b9311988d1acd3bf10749a4f066d1dee8de97e09792bbe10b213b5897ad` for Q2 FY2026 and `fc229470851da51331c2480e83b85b8af4d0b39d4048b2ecfe01d81ae10b834a` for FY2025, independently re-fetched/verified by the current data-review gate. New September 22 live peer/CSU FMP packets, exact hashes, URLs and non-overwriting warehouse copies are recorded in `raw\pulse-cio-20260922T140210+0800\b_segment\b_source_log.md`, separate from the shared manifests. This section selects no scenario multiple, computes no IRR and changes none of the Bear/Base/Bull operating forecasts; VP must independently resolve denominators, capital structure and exact exits.

Appendix S - Earnings Synthesis

Constellation Software Inc. — Synthesis (Combined Earnings Model)

Ticker: CSU.TO **Run:** `pulse-cio-20260922T140210+0800` **Mode:** Production **Model boundary:** Mechanical consolidation of the sealed statutory bridge and the single reviewed segment. No source discovery, reclassification, residual plug, primary valuation-method choice, or security-return calculation is performed here. **Trade execution authorized:** `false`

1. Anchors

- Today: **2026-09-22**.
- Fiscal year end: **December 31**.
- TTM anchor: **2026-06-30**.
- TTM construction: **FY2025 less H1 2025 plus H1 2026**, arithmetically equivalent to Q3 FY2025 plus Q4 FY2025 plus Q1 FY2026 plus Q2 FY2026.
- Latest completed fiscal year: **FY2025**, used only for historical reconciliation.
- Operating-forecast horizon: **2031-06-30**, exactly **5.0 calendar years** after the 2026-06-30 TTM end. No six-year fiscal compounding is used.
- Exact security-return interval for VP/CS: price session **2026-09-21** to terminal date **2031-06-30** = **1,743 days ÷ 365.2425 = 4.772171913180968 years**. This immutable price-to-terminal interval is distinct from the 5.0-year operating forecast; no IRR is calculated in S.
- Valuation price: **CAD 2,786.97 per listed common share**, raw Toronto Stock Exchange completed close for session **2026-09-21**. Raw quote evidence SHA-256: `b550b1d9693444b64ba0ebbd993c8bbbd323adf56ef87771d2976281dff460ad`. QFR-sealed quote-packet SHA-256: `387bfa8a265da8508eecbc8251e560dfd2c38a99948f30b874341bfecfb9f148`. Actionability expiry: **2026-09-23T14:07:41+08:00**, conservative 24-hour policy following the 2026-09-22 information cutoff because the official exchange-calendar archive was inaccessible.
- Exact security: **XTSX:CSU**, ISIN **CA21037X1006**, one voting common share, not an ADR and not a dual listing. Quote currency is CAD; financial reporting currency is USD.
- Share basis: **21,191,530** financial-statement diluted common shares at 2026-06-30 × split factor **1.0** = **21,191,530** quote-basis diluted financial shares at 2026-09-21. The packet records no intervening split between those dates. Split evidence SHA-256: `3f99c855f32b7cf9ccca17ea567848c75288c744e3dcdbf957de48e901d49560`.
- Listed-unit bridge: depositary ratio **1.0** × share-class factor **1.0** = **1.0 financial share per listed unit**. Therefore 21,191,530 quote-basis financial shares ÷ 1.0 = **21,191,530 listed-unit equivalents**. Unit evidence is the official Q2 FY2026 statement, SHA-256 `4bf06b9311988d1acd3bf10749a4f066d1dee8de97e09792bbe10b213b5897ad`.
- FX bridge: **1.39941 CAD per USD**, FMP USDCAD completed close for 2026-09-21, raw evidence SHA-256 `6315713c67673428249fe3853f89539cfd531708df8c2a2423b0ad242a0e72bd`.
- Historical statutory bridge: exact packet SHA-256 `414ae25d9249d89b3b87d23f2ba65765b1661bc38a50b521704940f0196c862c`. The strict validator returned `STATUTORY_BRIDGE_VALID`; the quote validator returned `QUOTE_PACKET_VALID`; and `gate_manifest.json` records `STATUTORY BRIDGE VERIFIED — CLEARED FOR FORECASTING` from DR.

The quote packet and statutory bridge were strictly validated on **2026-09-22** against the two expected exact-byte SHA-256 values before model work. The quoted price, session, unit, share, split, and FX fields below reproduce that packet without amendment. The five-year operating interval is 2026-06-30 through 2031-06-30. The reviewed operating revenue, operating income, USD common-income forecast and share path are preserved; CAD translation and the entry-price comparison are refreshed.

2. Segment-level forward assumptions

Constellation reports one IFRS reportable segment and discloses no additive operating-group profit values. Under the QFR-sealed permitted fallback, the entire financial projection is therefore one modeled segment called `Consolidated company`. The exact metric is not an issuer-disclosed segment metric; it is the framework's explicitly labeled statutory-operating-income fallback. Revenue types remain the bottom-up business drivers, but there is only one profit margin and no invented product profit split.

Segment	Exact profit metric	TTM revenue, USD B	Bear 2031 revenue, USD B	Base 2031 revenue, USD B	Bull 2031 revenue, USD B	Bear margin	Base margin	Bull margin
Consolidated company	Statutory operating income (single-segment consolidated fallback)	12.641	17.317499	20.192791	23.284943	13.5%	15.5%	18.5%

Source: reviewed `appendix_B_consolidated_company.md`, Sections 8, 9 and 10. Probabilities are Bear **25%**, Base **55%**, and Bull **20%**, preserved exactly from the reviewed segment appendix and `gate_manifest.json`.

The product revenue arithmetic reproduced from the reviewed appendix is as follows. It retains the explicit year-by-year cadence; no separate acquisition revenue line is added because acquisitions are already embedded in the product growth paths.

Case	License, USDm	Professional services, USDm	Hardware and other, USDm	Maintenance and recurring, USDm	Sum, USDm	Reviewed segment total, USDm	Difference
Bear	398.033223	2,707.017480	562.420382	13,650.027768	17,317.498853	17,317.498853	0.000000
Base	480.872017	3,120.716775	646.452818	15,944.749191	20,192.790801	20,192.790801	0.000000
Bull	539.256025	3,583.513955	775.143992	18,387.029029	23,284.943001	23,284.943001	0.000000

The modeled consolidated CAGRs from the USD 12.641 billion TTM anchor are **6.4978%**, **9.8204%**, and **12.9949%**. The base case is below the 17.58% FY2023–FY2025 consolidated reported-growth CAGR and below the latest 17% reported quarterly growth. Its harder embedded assumption is that acquisition contribution remains material even as the revenue base grows, while the latest FX-adjusted organic result was only 1% for total revenue and 2% for recurring revenue.

3. Combined revenue build

Because the fallback has one consolidated segment, the segment sum is the combined company. The sealed historical bridge contains no corporate eliminations, and the reviewed segment appendix contains no forward elimination. Adding a zero placeholder would violate the reconciliation contract; the table therefore says `None` rather than creating an adjustment line with an artificial zero source.

Line	Bear	Base	Bull
Sum of segment TTM+5y revenue, USDm	17,317.498853	20,192.790801	23,284.943001
Corporate eliminations	None	None	None
Combined TTM+5y revenue, USDm	17,317.498853	20,192.790801	23,284.943001
TTM 2026-06-30 to 2031-06-30 CAGR	6.4978%	9.8204%	12.9949%

The probability-weighted horizon revenue is **USD 20,092.398254 million**, calculated as 25% × 17,317.498853 + 55% × 20,192.790801 + 20% × 23,284.943001. It is an expected value, not a fourth operating scenario.

The product paths make the growth premise observable. In Base, license growth steps from 5% to 1%, professional services from 9% to 5%, hardware from 16% to 0%, and recurring revenue from 14% to 8%. In Bear, recurring growth decelerates from 10% to 6%; in Bull, it decelerates from 17% to 11%. These paths are exactly those in the reviewed segment appendix and compound for five years only.

4. Combined statutory operating-income build

The sealed common metric is already statutory operating income. Thus segment profit, the consolidated modeled metric, and statutory operating income are identical. `corporate_unallocated_adjustments` and

`operating_bridge_adjustments` are empty in `statutory_bridge.json`; this model does not add corporate costs, amortization, or another bridge after the reviewed statutory margin. Normal operating expenses, depreciation, and purchased-intangible amortization are already inside the metric.

Line	Bear	Base	Bull
Sum of segment profit on sealed metric, USDm	2,337.862345	3,129.882574	4,307.714455
Corporate or unallocated adjustments	None	None	None
Consolidated TTM+5y segment-profit metric, USDm	2,337.862345	3,129.882574	4,307.714455
Operating bridge adjustments	None	None	None
Combined statutory TTM+5y operating income, USDm	2,337.862345	3,129.882574	4,307.714455
Statutory operating margin	13.5000%	15.5000%	18.5000%

The arithmetic is direct: Bear 17,317.498853 × 13.5% = 2,337.862345; Base 20,192.790801 × 15.5% = 3,129.882574; and Bull 23,284.943001 × 18.5% = 4,307.714455. Probability-weighted statutory operating income is **USD 3,167.443893 million**, equal to the probability-weighted sum rather than weighted revenue multiplied by an average of the three margins.

The Bear margin reverts close to the FY2022–FY2023 statutory range, reflecting lower-margin acquired mix, amortization and modernization investment. The repaired Base margin stays near the 15.59% TTM anchor and reaches 15.5% after annual rates of 15.2%, 15.3%, 15.4%, 15.5% and 15.5%; recurring mix and cohort maturation offset, but do not outrun, road-map reinvestment, hosting, amortization and low-margin acquired cohorts. The Bull margin still requires meaningful productivity and pricing benefits. These are the reviewed repaired-segment assumptions, not a synthesis-stage override.

5. Net income and EPS build

5.1 Below-line scenario ledger

The upstream forecast-driver schedule requires the below-line items to remain separate. The exact TTM statutory subtotal was a USD 562 million expense; it included volatile foreign exchange, membership-liability, finance and investment items, impairment and finance costs. The horizon model normalizes discontinued or one-time accounting transitions to zero, but it retains scenario exposure to FX, the IRGA/TSS membership liability, investment income, impairments and debt service.

Below-line item, USDm	Bear	Base	Bull	Driver and treatment
Foreign exchange loss or gain	-50	0	50	Natural hedges limit through-cycle exposure; Bear loss, Base neutral, Bull modest gain
IRGA or TSS membership-liability revaluation	-200	-100	100	Scenario mark linked to Topicus recurring revenue, tangible assets, Sygnity, Asseco and EUR/USD
Finance and other income excluding finance costs	150	160	550	Bear/Base cash is deployed into acquisitions; Bull alone accumulates materially stronger earnings assets
Bargain-purchase gain	0	0	0	Normalized to zero absent a sourced deal-specific amount
Impairment of intangible and other non-financial assets	-100	-50	0	Bear cohort stress capped to avoid duplicating the same acquisition shock; low Base charge; no Bull charge
Asseco equity-method-to-cost revaluation	0	0	0	FY2025 transition documented as completed; not repeated
Other income and expenses excluding interest	-200	10	700	Sum of the six rows above
Finance costs or net interest expense	-450	-480	-350	Base continued deployment raises funding burden; Bear stress is capped for correlation; Bull deleverages through stronger earnings

These amounts are scenario assumptions governed by the exact drivers in `data_package.md` Section 3a and the peer-reviewed B acquisition-funding premise. They do not repair or reinterpret the historical bridge. H1 FY2026 completed-deal consideration was approximately USD 1.700 billion in the financial-statement acquisition note, versus USD 1.702 billion summing the two results-release quarterly rounded amounts. This replaces the stale USD 1.625 billion assertion; USD 1.436 billion of H1 net acquisition cash use is a different cash-flow basis that includes prior-deal holdbacks and acquired cash. Base embeds continued acquired growth while current cash is not wholly parent-available and debt includes maturities through 2031. Accordingly, Base finance income declines from USD 181 million to USD 160 million as cash is deployed, while finance cost rises from USD 319 million to USD 480 million. The schedule does not assume free acquisition funding or growing idle cash.

The Base funding endpoint is a scenario judgment, not a balance-sheet forecast or a cohort-return calculation. TTM issuer FCFA2S of USD 2.031 billion is already after specified lease, interest and NCI adjustments and is not the conventional USD 2.769 billion CFO-less-capex measure. Deducting the roughly USD 84.8 million annual common dividend leaves a simple USD 1.946 billion shareholder-availability envelope at the current TTM rate, with material subsidiary distribution constraints. Annualizing the unusually active USD 1.700 billion H1 consideration gives a USD 3.400 billion commitment diagnostic and a USD 1.454 billion annual gap on this *constant-cash-generation* stress, before other investments or contingencies. It is not guidance or a modeled 2031 debt balance. The separate observed H1 net-cash basis gives USD 1.436 billion acquisition outflow + USD 42 million common dividends − USD 1.078 billion H1 FCFA2S = USD 400 million; on the consideration basis the comparable diagnostic is USD 1.700 billion + USD 42 million − USD 1.078 billion = USD 664 million. They cannot be added. The USD 161 million increase from normalized USD 319 million finance cost to the USD 480 million Base terminal assumption corresponds illustratively to USD 2.683 billion of incremental interest-bearing capital at 6%, not a claim that the model has proved that capital path or acquisition ROIIC. Cash generation, financing, debt repayment, subsidiary restrictions and deal timing must be re-underwritten jointly; the 5.158% and 5.461% note coupons show rate scale only. No additional hypothetical financing interest is layered onto the USD 480 million finance-cost line.

The capital-allocation cross-check is consistent with `appendix_management.md` Section 3 and `data_package.md` Sections 7–8: physical property/equipment purchases were USD 68 million in FY2025 and USD 77 million TTM, while R&D staff expense was USD 1.615 billion in FY2025 and is already within the operating cost base, not an incremental capex charge. The reviewed margin cadence includes software reinvestment, acquired-intangible amortization and hosting costs; no second R&D or purchase-price expense is bolted onto statutory OI. Zero parent repurchases and the unchanged 21.191530 million common-share count mean deployment quality, not a buyback denominator benefit, drives projected per-share improvement. The management and 2046 moat appendices both remain YELLOW: acquisition-cohort after-NCI ROIIC, organic recurring retention and AI modernization durability are not demonstrated by aggregate FCFA2S. This uncertainty informs the scenario spread and confidence, without changing reviewed operating assumptions or inventing a cohort yield.

Bear is a joint event, not five independent worst cases. A weak acquisition cohort lowers organic and acquired growth, compresses the statutory margin and produces impairment; cash deployment reduces finance income and increases funding cost. A stronger USD can create an FX loss, but the IRGA liability also depends on Topicus tangible assets and Sygnity/Asseco values, so the model caps the simultaneous terminal FX and IRGA charges at USD 50 million and USD 200 million rather than the former USD 100 million and USD 350 million. Impairment is capped at USD 100 million, finance cost at USD 450 million, and NCI at 8% rather than 10% because subsidiary earnings also weaken in the correlated stress. This preserves a severe, coherent Bear without double-stacking every manifestation of the same capital/currency shock. Bull combines stronger investment income, a liability revaluation gain and no impairment, but still carries USD 350 million of finance cost.

The normalized tax rates are **28% Bear, 26% Base and 25% Bull**. TTM statutory tax was USD 377 million on USD 1,408 million pretax income, or 26.78%; FY2025 was an exceptional 37.59%. The scenario range normalizes exceptional deferred-tax effects while preserving a somewhat less favorable Bear jurisdictional mix. After statutory net income, the model deducts NCI at **8% Bear, 8% Base and 7% Bull**. This is a general-company common-income attribution assumption, not an insurer retained-economics shortcut. It is anchored to recent FY2025 and TTM attribution evidence: FY2025 NCI was USD 74 million and TTM NCI was USD 70 million. NCI remains explicitly outside parent-common earnings, while Bear no longer assumes that the same subsidiary stress simultaneously raises NCI to 10%.

5.2 Common net income and listed-unit EPS

Line	Bear	Base	Bull
Combined statutory operating income, USDm	2,337.862345	3,129.882574	4,307.714455
Net interest expense, USDm	-450.000000	-480.000000	-350.000000
Other income or expense, USDm	-200.000000	10.000000	700.000000
Pretax income, USDm	1,687.862345	2,659.882574	4,657.714455
Tax rate	28.0%	26.0%	25.0%
Total statutory net income, USDm	1,215.260889	1,968.313105	3,493.285841
NCI deduction, USDm	-97.220871	-157.465048	-244.530009
Net income attributable to common, USDm	1,118.040017	1,810.848056	3,248.755832
Quote-basis diluted financial shares, M	21.191530	21.191530	21.191530
USD EPS per quote-basis financial share	52.758815	85.451501	153.304449
Financial shares per listed unit	1.000000	1.000000	1.000000
USD EPS per listed unit	52.758815	85.451501	153.304449
CAD per USD	1.399410	1.399410	1.399410
CAD EPS per listed unit at TTM+5y	73.831214	119.581686	214.535779

The mandatory unit formula reproduces each case:

`EPS_USD_PER_QUOTE_BASIS_FINANCIAL_SHARE = COMMON_NI_USD ÷ 21.191530M`

`EPS_CAD_PER_LISTED_UNIT = EPS_USD_PER_QUOTE_BASIS_FINANCIAL_SHARE × 1.0 × 1.39941`

For Base, USD 1,810.848056 million ÷ 21.191530 million = USD 85.451501 per financial share; × 1.0 financial share per listed unit × 1.39941 CAD/USD = **CAD 119.581686 per listed unit**. No price conversion is made; the result is converted to the packet's quote currency only after the financial-share calculation.

5.3 Reported and normalized current denominator reconciliation

The reported TTM denominator and the normalized current denominator are distinct. Reported TTM parent-common net income is USD 961 million and reported diluted EPS is CAD 63.460874 per listed CSU share. That denominator contains the exact event-heavy statutory result. The normalized TTM denominator retains statutory operating income, recurring finance income, finance cost and impairment; sets FX, IRGA, bargain-purchase and the completed Asseco accounting transition to zero; excludes the immature first-half equity-investee pickup from the current run-rate; removes the two one-million-dollar filing-rounding residuals; applies the 26.78% normalized tax rate; and deducts the same USD 70 million NCI amount before common EPS.

Signed contributions below follow the statutory bridge convention: income is positive and expense is negative. The reported TTM line values reproduce FY2025 less H1 FY2025 plus H1 FY2026 using the repaired B evidence inventory. The USD 1 million component-to-subtotal residual and USD 1 million subtotal-to-pretax residual are disclosed rounding, not plugs.

TTM 2026-06-30 line, USDm	Reported signed contribution	Normalized signed contribution	Normalizing adjustment	Denominator treatment
Statutory operating income	1,971	1,971	0	Retained on the same statutory basis
Foreign exchange loss or gain	54	0	-54	Event-heavy translation gain set to zero
IRGA or TSS membership-liability revaluation	-207	0	207	Volatile fair-value charge set to zero
Finance and other income	181	181	0	Recurring cash and finance income retained
Share in net income of equity investee	22	0	-22	Initial lag-reported pickup excluded from current run-rate
Bargain-purchase gain	16	0	-16	Acquisition accounting gain excluded

TTM 2026-06-30 line, USDm	Reported signed contribution	Normalized signed contribution	Normalizing adjustment	Denominator treatment
Impairment	-48	-48	0	Recurring acquisition-cohort loss provision retained
Asseco equity-method-to-cost revaluation	-260	0	260	Completed accounting transition excluded
Finance costs	-319	-319	0	Debt and lease finance expense retained
Component-to-subtotal rounding	-1	0	1	Filing rounding removed in normalized arithmetic
Subtotal-to-pretax rounding	-1	0	1	Filing rounding removed in normalized arithmetic
Pretax income	1,408	1,785	377	Sum of the line-by-line adjustments
Income tax expense	-377	-478.023	-101.023	Normalized at 26.78% of USD 1,785m
Total statutory net income	1,031	1,306.977	275.977	Pretax less tax
NCI deduction	-70	-70	0	Same current ownership attribution
Parent-common net income	961	1,236.977	275.977	Exact normalized P/E denominator numerator

The reconciliation is complete: reported component contributions total a USD 561 million expense; the component-to-subtotal rounding residual produces the disclosed USD 562 million expense; and the second rounding residual produces USD 1,408 million reported pretax income. Normalization changes pretax income by USD 377 million: negative USD 54 million for removing the TTM FX gain, plus USD 207 million from removing the IRGA charge, negative USD 22 million for excluding the initial equity-investee pickup, negative USD 16 million for excluding the bargain gain, plus USD 260 million from removing the Asseco transition charge, plus USD 2 million from removing disclosed rounding residuals.

Denominator label	Parent-common NI, USDm	Diluted shares, M	USD EPS per financial share	Listed-unit factor	CAD per USD	CAD EPS per listed share	P/E at CAD 2,786.97
Reported TTM statutory	961.000000	21.191530	45.348307	1.000000	1.399410	63.460874	43.916351x
Normalized TTM current	1,236.977000	21.191530	58.371293	1.000000	1.399410	81.685371	34.118349x
Bear terminal statutory after scenario normalization	1,118.040017	21.191530	52.758815	1.000000	1.399410	73.831214	Not selected here
Base terminal statutory after scenario normalization	1,810.848056	21.191530	85.451501	1.000000	1.399410	119.581686	Not selected here
Bull terminal statutory after scenario normalization	3,248.755832	21.191530	153.304449	1.000000	1.399410	214.535779	Not selected here

The normalized current P/E is **CAD 2,786.97 ÷ CAD 81.685371 = 34.118349x**. The terminal denominators are comparable to the normalized current denominator: both start from statutory operating income, carry recurring finance income, finance cost and impairment below operating income, normalize volatile or completed marks under an explicit schedule, apply a stated cash-tax rate, deduct NCI before parent-common earnings, use the same 21.191530 million diluted quote-basis financial shares, use the same one-for-one listed-unit factor, and translate at the sealed 1.39941 CAD/USD fixing. The reported 43.916351x current P/E remains a disclosure row only. It is non-comparable and must not set or cap any terminal multiple.

5.4 Complete annual common-earnings cadence

The annual cadence preserves the peer-reviewed B revenue and statutory operating-income paths exactly. It does not alter terminal revenue, OI, probabilities or USD parent-common earnings; CAD EPS is retranslated at the new sealed FX. For independent first-forward-year support, every 2027 scenario begins with the normalized TTM recurring below-line settings: zero FX mark, zero IRGA mark, USD 181 million finance and other income, USD 48 million impairment, USD 319 million finance cost, 26.78% tax and a 5.3559% NCI share of statutory NI. Bargain-purchase gains, the completed Asseco transition

and the separate initial equity-investee pickup are zero in every forecast year. Only the reviewed B operating trajectory differs among scenarios in 2027.

From 2028 through 2031, each below-line item, tax rate and NCI rate moves in four equal annual steps from that independently supported 2027 anchor to the already published terminal Bear, Base and Bull values. This mechanical phasing exposes the prior terminal assumptions; it does not introduce a new terminal view. Finance and other income may include recurring cash yield and mature affiliate income after the 2027 normalized baseline. All amounts are USD millions except percentages and per-share values.

Case and year	Statutory OI	FX	IRGA	Finance and other income	Impairment	Other before finance cost	Finance cost	Pretax income
Bear 2027	1,999.799400	0.000	0.000	181.000	-48.000	133.000	-319.000	1,813.799400
Bear 2028	2,071.249572	-12.500	-50.000	173.250	-61.000	49.750	-351.750	1,769.249572
Bear 2029	2,152.995289	-25.000	-100.000	165.500	-74.000	-33.500	-384.500	1,734.995289
Bear 2030	2,230.767551	-37.500	-150.000	157.750	-87.000	-116.750	-417.250	1,696.767551
Bear 2031	2,337.862345	-50.000	-200.000	150.000	-100.000	-200.000	-450.000	1,687.862345
Base 2027	2,169.184400	0.000	0.000	181.000	-48.000	133.000	-319.000	1,983.184400
Base 2028	2,425.287211	0.000	-25.000	175.750	-48.500	102.250	-359.250	2,168.287211
Base 2029	2,685.279872	0.000	-50.000	170.500	-49.000	71.500	-399.500	2,357.279872
Base 2030	2,923.041398	0.000	-75.000	165.250	-49.500	40.750	-439.750	2,524.041398
Base 2031	3,129.882574	0.000	-100.000	160.000	-50.000	10.000	-480.000	2,659.882574
Bull 2027	2,374.046820	0.000	0.000	181.000	-48.000	133.000	-319.000	2,188.046820
Bull 2028	2,809.386166	12.500	25.000	273.250	-36.000	274.750	-326.750	2,757.386166
Bull 2029	3,290.072880	25.000	50.000	365.500	-24.000	416.500	-334.500	3,372.072880
Bull 2030	3,809.557594	37.500	75.000	457.750	-12.000	558.250	-342.250	4,025.557594
Bull 2031	4,307.714455	50.000	100.000	550.000	0.000	700.000	-350.000	4,657.714455

Case and year	Pretax income	Tax rate	Tax expense	Statutory NI	NCI rate	NCI deduction	Parent-common NI	USD diluted EPS	CAD listed-unit diluted EPS
Bear 2027	1,813.799400	26.7800%	485.735479	1,328.063921	5.3559%	71.129388	1,256.934532	59.313062	83.003292
Bear 2028	1,769.249572	27.0850%	479.201247	1,290.048325	6.0169%	77.620958	1,212.427367	57.212828	80.064204
Bear 2029	1,734.995289	27.3900%	475.215210	1,259.780079	6.6779%	84.127300	1,175.652779	55.477485	77.635747
Bear 2030	1,696.767551	27.6950%	469.919773	1,226.847778	7.3390%	90.037962	1,136.809816	53.644537	75.070702
Bear 2031	1,687.862345	28.0000%	472.601457	1,215.260889	8.0000%	97.220871	1,118.040017	52.758815	73.831214
Base 2027	1,983.184400	26.7800%	531.096783	1,452.087618	5.3559%	77.771937	1,374.315680	64.852122	90.754707
Base 2028	2,168.287211	26.5850%	576.439155	1,591.848056	6.0169%	95.779955	1,496.068101	70.597456	98.794786
Base 2029	2,357.279872	26.3900%	622.086159	1,735.193714	6.6779%	115.875116	1,619.318598	76.413482	106.933791
Base 2030	2,524.041398	26.1950%	661.172644	1,862.868754	7.3390%	136.715336	1,726.153417	81.454875	113.988766
Base 2031	2,659.882574	26.0000%	691.569469	1,968.313105	8.0000%	157.465048	1,810.848056	85.451501	119.581686
Bull 2027	2,188.046820	26.7800%	585.958938	1,602.087882	5.3559%	85.805758	1,516.282124	71.551328	100.129645
Bull 2028	2,757.386166	26.3350%	726.157647	2,031.228519	5.7669%	117.138981	1,914.089538	90.323329	126.399370
Bull 2029	3,372.072880	25.8900%	873.029669	2,499.043212	6.1779%	154.389276	2,344.653936	110.641088	154.832245
Bull 2030	4,025.557594	25.4450%	1,024.303130	3,001.254464	6.5890%	197.751688	2,803.502776	132.293552	185.132920
Bull 2031	4,657.714455	25.0000%	1,164.428614	3,493.285841	7.0000%	244.530009	3,248.755832	153.304449	214.535779

Every EPS row uses 21.191530 million quote-basis diluted financial shares, a factor of 1.0 financial share per listed unit, and 1.39941 CAD per USD. The 2027 denominator is independently anchored rather than inferred from the 2031 terminal result. The terminal rows reproduce Section 5.2 to the displayed precision. The repair preserves terminal revenue and probabilities, while revising Base operating income and Bear/Base common income and EPS as required by the red-team routes.

Tax rates are exact as displayed. Interim NCI rates are displayed to four decimal places, while NCI deductions, common NI and EPS retain the full-precision linear rate between the 5.3558708% normalized-current anchor and each terminal scenario rate; this accounts for sub-USD 0.001 million display differences if a rounded percentage is replayed.

5a. Return-method input bridge for VP and CS

This section supplies operating and capital-structure inputs. It deliberately does not choose PE, EV_NOPAT, or another primary method and does not calculate terminal security value or shareholder return. The upstream package provides only current balance-sheet anchors and no source-bound terminal cash, debt, lease, NCI-balance, IRGA-balance or other non-operating-asset path. Those unavailable EV-bridge balances are stated rather than replaced with a residual net-debt plug. The annual claim effects needed for an equity P/E denominator are nevertheless carried completely through parent-common diluted EPS.

Return-method input	Bear	Base	Bull	Source or limitation
Statutory operating income, USDm	2,337.862345	3,129.882574	4,307.714455	Reviewed repaired segment rollup and Section 4
Normalized cash tax rate	28.0%	26.0%	25.0%	Section 5 tax schedule anchored to TTM 26.78%
Normalized NOPAT, USDm	1,683.260889	2,316.113105	3,230.785841	Operating income × one minus normalized cash tax rate
Terminal cash	Unavailable	Unavailable	Unavailable	Current 2026-06-30 cash is USD 2.886B; no sealed terminal path
Terminal core gross debt	Unavailable	Unavailable	Unavailable	Current core debt is USD 4.196B; no sealed terminal path
Terminal lease liabilities	Unavailable	Unavailable	Unavailable	Current leases are USD 0.445B; no sealed terminal path
Parent preferred equity	0	0	0	None outstanding; no issuance assumed in any scenario; later issuance requires a fresh source
Terminal minority interest	Balance unavailable; earnings deduction explicit	Balance unavailable; earnings deduction explicit	Balance unavailable; earnings deduction explicit	NCI rate and deduction are annual in Section 5.4; no post-P/E haircut
Terminal IRGA and other senior claims	Balance unavailable; earnings mark explicit	Balance unavailable; earnings mark explicit	Balance unavailable; earnings mark explicit	Current IRGA liability is USD 1.186B; annual revaluation path is in Section 5.4
Separately valued non-operating assets	None added	None added	None added	Cash and investments remain inside common EPS; no unsupported P/E overlay
Diluted listed-equivalent shares, M	21.191530	21.191530	21.191530	Section 6 explicit share path and packet factor 1.0

Current 2026-06-30 capital anchors are USD 2.886 billion cash, USD 4.196 billion core gross debt, USD 0.445 billion lease liabilities, USD 1.186 billion IRGA liability and 21.191530 million diluted common shares. FY2025 common equity was USD 3.576 billion and NCI USD 0.692 billion. None of these point-in-time values is silently frozen as a 2031 terminal value.

The complete P/E-method inputs available for later preflight are common NI, diluted quote-basis shares, listed-unit factor and CAD/USD conversion. The EV/NOPAT operating denominator is available, but its EV-to-equity bridge is not complete because terminal net debt and senior-claim paths are unavailable. This is an explicit limitation, not a model failure for the statutory EPS synthesis.

5a.1 Share instruments, exercise mechanics and terminal dilution

The repaired current instrument inventory in `appendix_B_consolidated_company.md` Section 12 has SHA-256 `61dc9c644eb78ae114b06463df06c1747351c67410d021ec2b028e968b7d6231`. It identifies no parent option, warrant, RSU, common-convertible, outstanding parent preferred or other instrument that can add CSU common shares. Equal basic and diluted shares at 2026-06-30 corroborate the zero potential-dilution inventory. The CSI debentures can pay interest in additional debentures, but those PIK securities increase debt principal rather than CSU common shares.

Instrument	Current anchor	Exercise, conversion or settlement	Proceeds or cash	Income-statement effect	Direct-equity effect	Dilution effect	Bear terminal listed shares	Base terminal listed shares	Bull terminal listed shares	Counted-once proof
CSU voting common shares	21.191530m; capital stock USD 99m	Outstanding continuously; cash dividends	Dividends use cash	Parent-common NI is the numerator	NI and dividends change retained earnings	0.000000m	21.191530m	21.191530m	21.191530m	One denominator only; no cash or debt addition after P/E
Parent options, warrants, RSUs and similar awards	None identified	No exercise or vesting trigger	USD 0 proceeds	USD 0	USD 0	0.000000m	21.191530m	21.191530m	21.191530m	Zero is filing-bound; later issuance requires a new source
Convertible debt or convertible preferred	None identified	No common conversion; PIK debentures are debt-only	USD 0 equity proceeds	Debt interest is in finance cost	USD 0 common equity issuance	0.000000m	21.191530m	21.191530m	21.191530m	Finance cost once in EPS; no treasury-stock or if-converted shares
Parent non-voting preferred shares	Authorized; none outstanding	No current redemption or conversion trigger	USD 0	USD 0 preferred dividend	USD 0	0.000000m	21.191530m	21.191530m	21.191530m	No preferred claim or dividend is added to the common bridge
Historical Lumine preferred and special shares	Converted before current anchor	Completed conversion to Lumine subordinate voting shares	Subsidiary transaction completed	Included through subsidiary result and NCI perimeter	Subsidiary NCI only	0.000000m CSU	21.191530m	21.191530m	21.191530m	No separate current claim alongside Lumine NCI
CSI debentures	USD 348m principal; USD 392m carrying	Due 2040; call and put notices settle after five years; cash or PIK interest	Cash interest or added debt principal	Included within annual aggregate finance cost	No CSU common issuance	0.000000m	21.191530m	21.191530m	21.191530m	Debt-only effect in EPS; no common-share dilution

Terminal dilution proof is therefore identical in all cases: **21.191530m starting diluted quote-basis shares + 0.000000m option/warrant/RSU issuance + 0.000000m common-conversion issuance + 0.000000m SBC issuance − 0.000000m repurchase retirement = 21.191530m quote-basis diluted financial shares**. Dividing by the packet's 1.0 financial-share-per-listed-unit factor gives **21.191530m terminal listed-equivalent diluted shares** in Bear, Base and Bull.

5a.2 Non-dilutive claims and assets under the P/E method

Every row below has zero CSU common-share dilution and therefore uses the 21.191530 million terminal listed-equivalent denominator proved above. "Finance-cost path" means the full annual schedule in Section 5.4, which starts at USD 319 million in 2027 and reaches USD 450 million Bear, USD 480 million Base and USD 350 million Bull in 2031. "Finance-income path" means the Section 5.4 annual line from USD 181 million in 2027 to USD 150 million Bear, USD 160 million Base and USD 550 million Bull in 2031. Those aggregate envelopes include only recognized earnings effects; no instrument balance is subtracted again after a P/E is applied.

Claim or asset	Trigger and settlement	Proceeds or cash mechanics	Income-statement treatment	Direct-equity treatment	Bear	Base	Bull	Counted-once proof under P/E
CSI revolving facility	Default acceleration; variable-rate drawings; USD 13m letters reduce capacity	Draw creates cash and recourse debt; anchor draw is zero	Any draw interest enters finance-cost path	No direct common-equity entry	No assumed draw; Bear finance-cost envelope bears stress	No assumed draw; Base envelope	No assumed draw; Bull envelope	Letters are not funded debt; no balance subtraction after EPS
Senior unsecured notes	USD 500m due 2029 and USD 500m due 2034	Cash coupon and principal repayment or refinancing	Coupon and amortization in finance-cost path	Retained earnings reflect after-tax cost	Higher Bear finance-cost path	Orderly Base refinancing inside path	Lower Bull cost inside path	Principal is not subtracted from P/E equity value
Recourse term loan	GBP 65m due 2028; default can accelerate	Cash principal and interest	Interest in finance-cost path	No direct equity	Bear refinancing stress inside path	Base repayment or refinance inside path	Bull cash repayment inside path	Earnings effect once; no separate debt adjustment
Topicus non-recourse revolver	Subsidiary maturity and covenants; no CSI guarantee	Subsidiary cash repayment; can restrict upstream distributions	Interest in finance-cost path; ownership in NCI path	Subsidiary equity and NCI only	Finance cost plus Bear NCI cadence	Finance cost plus Base NCI cadence	Finance cost plus Bull NCI cadence	No restricted subsidiary cash netting or second NCI haircut

Claim or asset	Trigger and settlement	Proceeds or cash mechanics	Income-statement treatment	Direct-equity treatment	Bear	Base	Bull	Counted-once proof under P/E
Other non-recourse debt facilities	Contract maturities through 2032; secured by borrower assets	Borrower cash principal; no CSI cross-guarantee	Interest in finance-cost path	Subsidiary retained earnings and NCI	Higher cost and restrictions inside Bear paths	Base cost and NCI paths	Lower cost inside Bull path	Neither debt nor restricted cash is added after P/E
Optimal Blue promissory note	7% compounded; fifth-anniversary payment; 2063 maturity	Cash or accrued principal under filing schedule	Accrued and cash interest in finance-cost path	No direct common equity	Bear cost envelope	Base cost envelope	Bull cost envelope	No separate note subtraction after EPS
Lease obligations	Contractual payments; USD 445m anchor	Cash lease principal and interest	ROU depreciation is in statutory OI; interest in finance-cost path	After-tax expenses reduce retained earnings	OI and finance-cost paths	OI and finance-cost paths	OI and finance-cost paths	Both expense legs are in EPS; no lease subtraction
Equity-classified NCI	Subsidiary ownership and distributions	NCI dividends use subsidiary cash	NCI share deducted after statutory NI	NCI equity stays outside parent common	Annual NCI rate rises 5.3559% to 8.0%	Annual rate rises to 8.0%	Annual rate rises to 7.0%	Deducted once before EPS; no post-P/E minority haircut
Liability-classified NCI puts	Holder put settlement; exact subcomponents inside USD 313m envelope not fully disclosed	Cash settlement extinguishes liability	Any recognized remeasurement stays within finance and other income; no invented line	IFRS liability treatment; no common issuance	Captured only if recognized in Bear finance/other path	Captured only if recognized in Base path	Captured only if recognized in Bull path	USD 63m acquisition values are not added to USD 313m or P/E bridge
IRGA or TSS membership liability	Joday puts, ownership triggers and CSI calls; cash or prorated asset settlement	Generally one-third promptly and remaining thirds over two anniversaries	Explicit annual IRGA mark in Section 5.4	Settlement extinguishes liability; no CSU shares	Correlated mark capped at USD 200m expense	Mark phases to USD 100m expense	Mark phases to USD 100m income	Mark is in EPS once; no IRGA subtraction or Asseco addition after P/E
Acquisition holdback payables	Generally settle over two years subject to purchase adjustments	Cash settlement reduces USD 553m payable	No generic earnings plug; exact measurement effects only when recognized	Purchase accounting or liability extinguishment	No separate P/E adjustment	No separate P/E adjustment	No separate P/E adjustment	Holdbacks are not combined with contingent consideration or deducted again
Contingent acquisition consideration	Financial targets; some uncapped	Cash payment reduces USD 227m fair-value liability	Fair-value changes enter finance and other income path	No CSU-share issuance	Recognized changes only in Bear path	Recognized changes only in Base path	Recognized changes only in Bull path	Separate from holdbacks and puts; no balance subtraction after EPS
Derivative liabilities and assets	Contractual market or uncertain-outcome settlement	Cash or asset settlement	Fair-value changes in finance and other income path	OCI only when exact classification requires	Bear path recognizes earnings effect	Base path recognizes earnings effect	Bull path recognizes earnings effect	Net only exact asset/liability perimeter; no maximum-exposure addition
Provisions and litigation	Crystallization of onerous contracts or claims	Cash settlement if realized	Charges remain in statutory OI or exact below-line classification	After-tax charge reduces retained earnings	Bear OI/path bears recognized charge	Base OI/path	Bull OI/path	Booked provision used once; no invented reserve or P/E deduction
Operating and tax liabilities	Normal settlement and revenue recognition	Working-capital, tax and dividend cash flows	Revenue, costs and tax already in earnings schedule	Dividends and tax affect retained earnings	Included in OI and tax paths	Included in OI and tax paths	Included in OI and tax paths	Not separate senior-claim deductions under P/E
Other non-current liabilities	Contract-specific cash settlement; subcomponents not fully disclosed	Cash settlement possible	Exact recognized remeasurement stays in finance/other path	No verified common issuance	Full claim envelope retained; no zero assumption	Same perimeter retained	Same perimeter retained	No addition of acquisition-date puts and no post-P/E subtraction
Cash and cash equivalents	Used for operations, acquisitions, interest and claim settlement; restricted by entity/covenant perimeter	Cash receipts and payments	Interest income in finance-income path	Retained earnings reflect income and deployment	No cash addition after P/E	No cash addition after P/E	No cash addition after P/E	Earnings benefit is in EPS; consolidated cash is not treated as parent excess cash
Investments in associates including Asseco	Sale, equity-method change or IRGA asset transfer	Cash or asset transfer if realized	Recurring contribution can enter finance-income path; current initial pickup excluded	OCI or retained earnings by exact accounting	No separate asset addition	No separate asset addition	No separate asset addition	Never add Asseco when income is in EPS or asset can settle IRGA
Equity securities and derivative assets	Market sale or contractual settlement	Sale creates cash	Fair-value changes enter profit or OCI	Exact OCI remains equity	No separate value addition	No separate value addition	No separate value addition	Addition allowed only with proof of exclusion from EPS and benchmark; none assumed

Claim or asset	Trigger and settlement	Proceeds or cash mechanics	Income-statement treatment	Direct-equity treatment	Bear	Base	Bull	Counted-once proof under P/E
Other receivables and investment-tax credits	Collection and tax-credit realization	Cash collection	Working capital or tax line	Retained earnings through exact line	Included in operating or tax path	Included in operating or tax path	Included in operating or tax path	Operating receivables are not excess value and are not added after P/E

Claim-matrix scope	Incremental CSU dilution	Bear terminal listed-equivalent shares	Base terminal listed-equivalent shares	Bull terminal listed-equivalent shares	Reconciliation
Every non-dilutive claim and asset in Section 5a.2	0.000000m	21.191530m	21.191530m	21.191530m	Settlement, proceeds, earnings and direct-equity effects never create CSU shares

The counted-once conclusion is complete for a P/E method. Statutory OI already includes lease depreciation, provisions, ordinary operating liabilities and recognized acquisition costs. The annual finance-cost path captures debt and lease interest. The annual finance-and-other path captures recurring cash, investment, associate, contingent and derivative earnings effects when recognized. IRGA marks are explicit. Tax follows pretax income. NCI is deducted before common EPS. Because these effects reach the parent-common diluted EPS denominator, terminal cash, debt, leases, NCI, holdbacks, contingent consideration, IRGA, derivatives, provisions and non-operating investments are not added to or subtracted from `EPS × P/E` a second time. No separately valued non-operating asset is assumed.

6. Share-count path

Constellation had no buybacks in FY2021–FY2025 or the TTM period, disclosed no material SBC line, and kept diluted shares unchanged at 21.191530 million. The synthesis therefore carries a zero-repurchase, zero-SBC-issuance path. This is not an unsupported “flat share count” shortcut: the table explicitly shows the five annual movements and reconciles opening to ending shares.

Year ending	Starting quote-basis shares, M	Buyback, USD B	Average price, USD	Shares retired, M	SBC issuance, M	Ending quote-basis shares, M
2027-06-30	21.191530	0.000	Not applicable	0.000000	0.000000	21.191530
2028-06-30	21.191530	0.000	Not applicable	0.000000	0.000000	21.191530
2029-06-30	21.191530	0.000	Not applicable	0.000000	0.000000	21.191530
2030-06-30	21.191530	0.000	Not applicable	0.000000	0.000000	21.191530
2031-06-30	21.191530	0.000	Not applicable	0.000000	0.000000	21.191530

The reconciliation is **21.191530 + Σ(0.000000 SBC − 0.000000 retired) = 21.191530 million**. It begins with the packet’s quote-basis diluted financial shares. Because the depositary and class factors are both one, the terminal listed-unit equivalent count is also 21.191530 million. Any future common issuance, material SBC, or repurchase would invalidate this path and must be incorporated on both the share and capital-allocation sides.

The flat path is consistent with management’s historical practice of deploying free cash flow into acquisitions while paying only USD 85 million of annual common dividends and no buybacks. It does not assume buybacks will manufacture EPS growth, and it gives no credit for opportunistic repurchases at the current valuation.

7. P/E 15 entry-price test

The P/E 15 test uses the sealed CAD price and CAD EPS on the same listed common-share unit. Required EPS is **CAD 185.798000**, equal to CAD 2,786.97 ÷ 15. The gate is controlled by Base, not Bull.

Case	CAD EPS per listed unit at TTM+5y	EPS × 15, CAD	Packet price, CAD	Cushion	Pass?
Bear	73.831214	1,107.468206	2,786.97	-60.26%	FAIL
Base	119.581686	1,793.725284	2,786.97	-35.64%	FAIL
Bull	214.535779	3,218.036686	2,786.97	15.47%	PASS

Base cushion is `(CAD 1,793.725284 − CAD 2,786.97) ÷ CAD 2,786.97 = -35.6389%`. Therefore the binary entry-price gate is **FAIL**. The fact that Bull clears does not rescue the gate: the framework requires the confident Base case to support a purchase price no greater than 15× TTM+5y EPS.

This is an entry-price test only. It is not a selected exit multiple, a primary shareholder-return method, or a calculated terminal security value. Those decisions belong to VP and CS and must use the separate valuation-method contract.

8. Reflexivity and historical-anchor checks

The TTM revenue reconstruction is exact on the reviewed USD-million basis. License 415 + professional services 2,226 + hardware 443 + recurring 9,557 = **USD 12,641 million**, equal to consolidated TTM revenue. The only modeled segment therefore represents 100% of the TTM company. There is no revenue elimination or inferred operating-group allocation.

The sealed statutory profit bridge also ties. For TTM, the sole modeled segment is USD 1,971 million, corporate and operating adjustments are empty, and statutory operating income is USD 1,971 million. For FY2025, the corresponding amounts are USD 1,895 million and USD 1,895 million. Both residuals are zero. TTM operating income divided by TTM revenue is 15.591% and matches the reviewed 15.59% displayed anchor.

Below operating income, the TTM disclosed subtotal gives USD 1,971 million – USD 562 million = USD 1,409 million versus reported pretax income of USD 1,408 million. The USD 1 million difference is exactly the issuer's disclosed rounding unit and the bridge tolerance. It is preserved as historical rounding and not inserted into the forward forecast.

The Base first-forward-year revenue is USD 14,271 million versus the USD 12,641 million TTM anchor, an implied **12.90%** first-year growth rate. The latest official quarterly reported growth was **17%**, so Base decelerates by **4.10 percentage points**, inside the ten-percentage-point recency tolerance. The reviewed appendix supports the step with explicit product cadences: 5% license, 9% services, 16% hardware and 14% recurring in the first forward year. The weighted result is below the latest headline because acquisition contribution and hardware growth are intentionally assumed to fade.

9. Latest interim bridge reconciliation

The cumulative interim bridge is triggered. It uses like-for-like six-month periods and is arithmetically equivalent to the four named non-overlapping quarters. The formula is `FY2025 − H1 FY2025 + H1 FY2026`.

Consolidated line, USDm	FY2025	Less H1 FY2025	Add H1 FY2026	TTM 2026-06-30	Check
Revenue	11,623	5,498	6,516	12,641	PASS
Statutory operating income	1,895	851	927	1,971	PASS
Other income and expenses, net	-955	-409	-16	-562	PASS
Pretax income	939	441	910	1,408	PASS
Income tax expense	353	183	207	377	PASS
Total statutory net income	586	258	703	1,031	PASS
Net income attributable to common	512	192	641	961	PASS
Diluted shares, M	21.191530	21.191530	21.191530	21.191530	PASS

The H1 periods both cover January 1 through June 30. The construction removes H1 FY2025 from the completed fiscal year and adds H1 FY2026 once, leaving Q3 FY2025, Q4 FY2025, Q1 FY2026 and Q2 FY2026. There is no overlap between a cumulative half-year and a standalone quarter. The TTM common EPS is USD 961 million ÷ 21.191530 million = USD 45.3483, consistent with the quantitative foundation.

10. Sensitivity

The sensitivity starts from repaired Base CAD EPS of 119.581686. It holds the revised Base finance-income, finance-cost, IRGA, impairment, tax and NCI endpoints constant. Revenue growth shocks apply to the one consolidated segment because there is no second profit-reporting segment. The margin shock therefore changes the same exact statutory operating-income basis; it does not assign product margins.

Variable tested	Down case	CAD EPS	Change vs Base	Up case	CAD EPS	Change vs Base
Consolidated revenue CAGR	7.8204%, down 200 bps	107.227054	-12.354632	11.8204%, up 200 bps	132.869842	13.288157
Sole-segment statutory OI margin	13.5%, down 200 bps	101.425335	-18.156351	17.5%, up 200 bps	137.738035	18.156350
Quote-basis diluted share count	20.131954M, down 5%	125.875458	6.293773	22.251107M, up 5%	113.887320	-5.694365

Variable tested	Down case	CAD EPS	Change vs Base	Up case	CAD EPS	Change vs Base
Normalized tax rate	23.0%, down 300 bps	124.429592	4.847906	29.0%, up 300 bps	114.733780	-4.847906

`Segment 2 margin ±200 bps` is **NOT TRIGGERED** because the statutory bridge permits exactly one consolidated modeled segment. The economically equivalent required diagnostic is the sole-segment exact-metric margin shock shown above.

Margin and consolidated revenue growth are the two largest modeled sensitivities. A two-point margin miss removes approximately CAD 18.16 of horizon EPS, and a 200-basis-point growth miss removes about CAD 12.35. Neither the favorable revenue-growth shock nor the favorable margin shock alone reaches the required CAD 185.798000 EPS. The entry-price gate thus requires a combination of stronger growth, stronger statutory margins, lower dilution, more favorable below-line results, or a lower purchase price.

The sensitivity also highlights what is not carrying the forecast. No buyback benefit is assumed; a 5% lower share count is merely a diagnostic and not part of Base. Tax normalization matters, but its three-point swing is substantially smaller than the margin effect. Because the IRGA, NCI and financing lines are volatile, the published scenario spread remains more informative than a single deterministic sensitivity.

11. Combined earnings summary

Case	Revenue, USD B	OI, USD B	OI margin	Common NI, USD B	CAD EPS per listed unit	Probability	EPS × 15, CAD	Versus CAD 2,786.97
Bear	17.317499	2.337862	13.50%	1.118040	73.831214	25%	1,107.468206	-60.26%
Base	20.192791	3.129883	15.50%	1.810848	119.581686	55%	1,793.725284	-35.64%
Bull	23.284943	4.307714	18.50%	3.248756	214.535779	20%	3,218.036686	15.47%
Probability-weighted EPS	20.092398 expected revenue	3.167444 expected OI	Not a scenario margin	1.925228 expected common NI	127.134886	100%	1,907.023295	-31.57%

Probability-weighted EPS is **CAD 127.134886**, calculated as 25% × 73.831214 + 55% × 119.581686 + 20% × 214.535779. The weights are not uniform: Base receives 55% because the reviewed segment assumes continued acquisition contribution while margin stays near the TTM anchor; Bear retains 25% because organic recurring growth is weak, acquisition returns are opaque and AI durability is unresolved; Bull receives 20% because it requires simultaneous stronger acquisition scaling, recurring execution and statutory margin leverage.

The headline Base result is **USD 20.193 billion revenue, USD 3.130 billion statutory operating income, USD 1.811 billion common net income and CAD 119.58 EPS per listed unit**. Required EPS for the P/E 15 gate is **CAD 185.798**, leaving a **35.64% shortfall** on the price-value comparison. The earnings model can be internally coherent while the entry valuation still fails.

12. Tie-out checks

1. Reported-financial and statutory-bridge tie-out — PASS

TTM revenue types sum to USD 12,641 million, exactly matching consolidated TTM revenue. The TTM segment profit is USD 1,971 million + no corporate adjustments + no operating adjustments = USD 1,971 million statutory OI. FY2025 similarly ties USD 1,895 million to USD 1,895 million. Both operating residuals are zero, and both revenue/OI comparisons are within 2%. The sealed subtotal-to-pretax residual is USD 1 million, exactly its tolerance. The detailed official components carry a separate USD 1 million component-to-subtotal rounding residual, explicitly reproduced in Section 5.3. Sources: `data_package.md` Sections 2, 3 and 3a; `statutory_bridge.json` periods FY2025 and TTM.

2. NI, shares, listed unit and FX equal EPS — PASS

All 15 annual rows were recomputed. Each uses `parent-common NI ÷ 21.191530m × 1.0 × 1.39941`. The terminal checks are: Bear USD 1,118.040017 million ÷ 21.191530 million × 1.0 × 1.39941 = CAD 73.831214; Base USD 1,810.848056 million ÷ 21.191530 million × 1.0 × 1.39941 = CAD 119.581686; Bull USD 3,248.755832 million ÷ 21.191530 million × 1.0 × 1.39941 = CAD 214.535779. The normalized-current row similarly gives CAD 81.685371. Sources: Sections 5.2–5.4 and QFR-sealed `quote_packet.json`.

3. Segment sum at horizon — PASS

There is one segment and no eliminations. Bear 17,317.498853 ÷ 17,317.498853 = 100.000%; Base 20,192.790801 ÷ 20,192.790801 = 100.000%; Bull 23,284.943001 ÷ 23,284.943001 = 100.000%. Source: reviewed segment appendix Section 10 and this appendix Section 3.

4. Product-to-segment rollup — PASS

Bear product revenue sums to USD 17,317.498853 million, Base to USD 20,192.790801 million, and Bull to USD 23,284.943001 million. Each equals the full-precision segment total with zero residual. The rounded display components differ by less than USD 2 million, far below 1%. Source: reviewed segment appendix Section 10; arithmetic reproduced in Section 2.

5. Weighted margin check — PASS

`NOT TRIGGERED — product-level profit margins are not disclosed and must not be invented.` The sealed model contains one consolidated segment and one exact statutory operating margin. The segment horizon profits reproduce those margins exactly: 2,337.862345 ÷ 17,317.498853 = 13.5000%; 3,129.882574 ÷ 20,192.790801 = 15.5000%; 4,307.714455 ÷ 23,284.943001 = 18.5000%. This valid non-trigger does not substitute a mixed product-profit basis. Source: repaired reviewed segment appendix Section 9 and sealed fallback.

6. Share-count and security-unit path — PASS

21.191530 million financial diluted shares × split factor 1.0 = 21.191530 million quote-basis financial shares; ÷ depositary/class factor 1.0 = 21.191530 million listed equivalents. The five-year path is 21.191530 + Σ(0 SBC − 0 retirement) = 21.191530 million. The repaired B inventory finds no parent options, warrants, RSUs, common convertibles or outstanding preferred shares; PIK debentures are debt-only. The exercise, cash, income, direct-equity and dilution matrix produces 0.000000 million incremental CSU shares and 21.191530 million terminal listed equivalents in all cases. Sources: `quote_packet.json`, repaired segment appendix Section 12, Sections 5a.1 and 6.

7. Growth plausibility — PASS

Every Base product CAGR is below 1.2× its reviewed FY2023–FY2025 CAGR: License 2.99% versus 4.43% threshold; services 6.99% versus 11.66%; hardware 7.85% versus 23.27%; recurring 10.78% versus 24.68%; consolidated 9.82% versus 21.10%. No comparable-company override is needed. Source: reviewed segment appendix Sections 6 and 8.

8. Historical and five-year compounding arithmetic — PASS

Each product uses exactly five annual cadence factors. Examples: Bear license USD 415 million × 1.02 × 1.01 × 1.00 × 0.98 × 0.95 = USD 398.033223 million; Base recurring USD 9,557 million × 1.14 × 1.12 × 1.11 × 1.09 × 1.08 = USD 15,944.749191 million; Bull services USD 2,226 million × 1.12 × 1.11 × 1.10 × 1.09 × 1.08 = USD 3,583.513955 million. All reproduced rows agree with reviewed horizons within 1%. The repaired annual OI rows also equal exact annual product revenue sums times the reviewed margin path. Source: reviewed segment appendix Sections 8–10 and Section 5.4.

9. Recency anchor — PASS

The Base first-forward-year total is USD 14,271 million versus USD 12,641 million TTM, implying 12.90% growth. The latest official quarterly reported growth is 17%, a 4.10-percentage-point deceleration, within 10 percentage points. The appendix supplies quantified product paths and source-based reasons: first-year 5% license, 9% services, 16% hardware and 14% recurring, versus latest reported rates of 5%, 8%, 44% and 19%. Source: reviewed segment appendix Sections 6 and 8; `data_package.md` Section 5.

10. Period and horizon integrity — PASS

FY2025 − H1 FY2025 + H1 FY2026 uses identical January 1–June 30 interim windows. It produces the non-overlapping Q3 FY2025, Q4 FY2025, Q1 FY2026 and Q2 FY2026 TTM. Revenue, OI, pretax income, tax, total NI, common NI and shares tie in Section 9. The operating forecast starts 2026-06-30 and ends 2031-06-30, exactly five calendar years; every product row has five factors and no FY2025 anchor is used for compounding. Section 5.4 contains exactly five forward rows per case; 2027 independently retains the normalized TTM below-line settings and the following four rows phase to the re-underwritten terminal assumptions. Separately, the immutable security-return interval begins at the 2026-09-21 price session and ends 2031-06-30: 1,743 days ÷ 365.2425 = 4.772171913180968 years. Sources: quantitative foundation P4 and Sections 1, 2, 5.4 and 9.

11. Valuation, unit bridge, hashes and probability arithmetic — PASS

Exact packet-byte hashes revalidate as `387bfa8a265da8508eecbc8251e560dfd2c38a99948f30b874341bfecfb9f148` for the quote packet and `414ae25d9249d89b3b87d23f2ba65765b1661bc38a50b521704940f0196c862c` for the statutory bridge. The repaired B hash is `61dc9c644eb78ae114b06463df06c1747351c67410d021ec2b028e968b7d6231`. Price is CAD 2,786.97 on one XTSX:CSU common share; split, depositary and class factors are 1.0; FX is 1.39941 CAD/USD. Bear, Base and Bull EPS × 15 equal CAD 1,107.468206, CAD 1,793.725284 and CAD 3,218.036686. Probabilities total 25% + 55% + 20% = 100%, and probability-weighted EPS equals CAD 127.134886. Normalized current P/E is 34.118349x on CAD 81.685371 normalized EPS; raw reported 43.916351x is non-comparable and not used as a cap. Base controls the binary entry gate and produces a -35.6389% cushion. Sources: validators, repaired B, packet files, Sections 5, 7 and 11.

13. VP blocker-resolution map

S-routed foundation	Prior blocker	Repair location	Resolution status
Earnings normalization	No normalized TTM parent-common NI/EPS and no annual common-earnings cadence	Sections 5.3 and 5.4	RESOLVED: USD 1,236.977m normalized common NI, CAD 81.685371 EPS, and 15 complete annual scenario rows
Denominator integrity	Raw 43.916351x current P/E was not comparable to terminal EPS	Section 5.3	RESOLVED: normalized current P/E is 34.118349x; terminal denominators use the same accounting, unit and FX perimeter; raw P/E cannot cap exits
Capital structure	No three-scenario exercise, settlement, cash, equity, dilution and counted-once matrix	Sections 5a.1 and 5a.2	RESOLVED: all repaired-B instruments and claims mapped; zero dilution proved; terminal listed-equivalent shares are 21.191530m in every case

These repairs select no scenario exit multiple and calculate no security return. They leave the separate B-routed exit-multiple evidence work to valuation preflight and preserve `trade_execution_authorized=false`.

14. Red-team route resolution map

Red-team route	Repair	Result
Base margin optimism	Repaired B cadence 15.2%, 15.3%, 15.4%, 15.5%, 15.5%; terminal OI USD 3,129.882574m	RESOLVED; Base terminal CAD EPS recomputed to 119.581686
Base acquisition-funding mismatch	Finance income 181, 175.75, 170.50, 165.25, 160m; finance cost 319, 359.25, 399.50, 439.75, 480m	RESOLVED; cash income no longer grows while acquisition-funded revenue persists
Bear correlated penalty stacking	Terminal FX -50m, IRGA -200m, finance income 150m, impairment -100m, finance cost -450m and NCI 8%	RESOLVED; common effects jointly bounded and Bear CAD EPS recomputed to 73.831214
Price-to-terminal calendar	Operating horizon remains 5.0 years; security return uses 1,743 days ÷ 365.2425	RESOLVED; exact return horizon is 4.772171913180968 years

The red-team repair preserves the 25%/55%/20% scenario probabilities, terminal revenue, normalized current CAD 81.685371 EPS and 34.118349x P/E, claim matrices, quote hash and statutory hash. It selects no exit multiple and calculates no IRR.

Gate conclusion

SYNTHESIS CLEARED — 11/11 TIE-OUTS PASSED.

P/E 15 gate: FAIL — cushion -35.64%.

The model clears because every required historical, segment, share, unit, horizon, probability and valuation arithmetic check passes. The entry-price gate nevertheless fails because Base CAD EPS of 119.581686 supports only CAD 1,793.725284 at 15×, below the sealed CAD 2,786.97 price. The strongest operational dependencies are sustained acquisition-influenced recurring growth, funding that growth without excessive finance cost, and holding statutory margin near 15.5%. The main common-equity uncertainties are acquisition ROIIC, IRGA/FX outcomes, NCI attribution and the absence of a sealed terminal EV bridge.

P&C insurer lane: **NOT TRIGGERED — issuer is not a P&C insurer or reinsurer.** No `insurer_return_bridge.json` is created.

```
trade_execution_authorized=false
```

Appendix CS - Compounder Score

Constellation Software Inc. (XTSX:CSU) — Compounder Score

Production refresh: 2026-09-22, run `pulse-cio-20260922T140210+0800`. **Listed security:** one Toronto voting common share, ISIN CA21037X1006, not an ADR. **Reporting currency:** USD; **quote and primary gross return currency:** CAD. **Information cutoff:** the QFR-sealed September 21, 2026 completed CAD 2,786.97 close. **TTM:** June 30, 2026; **terminal:** June 30, 2031. The operating forecast spans five years, whereas the share purchase-to-terminal interval is exactly 1,743 days / 365.2425 = 4.772171913180968 years. This appendix is security research, not portfolio sizing, ranking, tax advice or trade authorization. Trade execution authorized: **NO**.

1. Executive Verdict

The diagnostic **Compounder Score is 64/100**: **Business Quality 62/80** plus **20% Return Underwriting 2/20**. Its score-implied classification is **Reject under the 20% rubric**, not a determination to sell an existing holding or the separate ER2/CIO verdict. The company owns enduring, deeply installed vertical software and has delivered remarkable aggregate cash growth with unchanged parent share count. That does not demonstrate acquisition-vintage incremental returns after outside ownership, nor does it make today's share price sensible at a 20% return hurdle. The independently selected 22x Base terminal P/E, below the comparable normalized current 34.11835x, yields **-1.00% gross CAD annualized**. Bear is **-16.09%** and Bull **17.56%**. The 25%/55%/20% terminal-wealth-weighted outcome is **1.33% gross CAD**; an illustrative same-method, friction/withholding/flat-FX translation gives **1.10% net SGD**. This is much less than the owner's separate 10–15% annualized SGD mandate, though that CIO assessment belongs to the report's decision layer.

The existing **23-share direct holding** should be framed as a *retention research question*: what after-tax SGD return is credible from maintaining that actual exposure versus alternative uses of capital? The owner's **13% scenario** is a portfolio-weight/owner context, not a probability, share count, prescribed position, or instruction to trade. Twenty-three shares at the quote equal CAD 64,100.31 of marked exposure before FX or costs. A 13% portfolio weight cannot be inferred from 23 shares without contemporaneous full-portfolio NAV, account placement, cost basis, tax status, overlap and available cash. The low Base and weighted security returns warrant owner review of opportunity cost; neither this score nor an implied max-buy price authorizes a reduction, purchase, rank or size.

2. Data Source Map and Sealed Foundations

The controlling files are [QFR-sealed quote packet](quote_packet.json), [statutory bridge](statutory_bridge.json), [reviewed data package](data_package.md), [reviewed consolidated forecast](appendix_B_consolidated_company.md), [management](appendix_management.md), [moat](appendix_moat.md), [synthesis](appendix_synthesis.md) and [valuation preflight](valuation_preflight.json). The latter was independently validated with `validate_valuation_preflight.py --check-evidence-files`: **CLEARED**, all five foundations passed, no blockers; exact SHA-256 **2ace0475dd3e50b2721270c36dbe74c7d23196e7408d168de75a6cfd8a8f1c3c**. Quote packet SHA-256 is **387bfa8a265da8508eecbc8251e560dfd2c38a99948f30b874341bfecfb9f148**; synthesis SHA-256 is **8a1f8278e6c0ec247d65eca5596614cae0ae9ca3fe0296f58c22401b136b7734**. No VP-controlled multiple, normalization, denominator or claim treatment was changed.

Evidence	Controlling period and unit	Application and confidence
Quote packet and QFR seal	September 21 close; CAD 2,786.97; 21.191530m listed shares	Price, identity, one-for-one share bridge; high
Official FY2025 and Q2 FY2026 reports, statutory packet	FY2025 and TTM June 2026; USDm	Earnings, cash, balance sheet, after-NCI FCFA2S; high
Reviewed consolidated B and synthesis	TTM through June 2031; USDm/CAD per share	Five-year operating cases, EPS, finance/NCI; scenario judgment
Management and moat appendices	Current official filings and calls	Succession, acquisition controls, switching costs, AI; medium
Valuation preflight and live peer ratios	September 22 verification; P/E	Independently locked 16x/22x/28x exits; medium
FMP stable USDCAD and USDSGD EOD	September 21 completed close; 1.39941 and 1.27602	Reporting-to-quote and illustrative SGD translation; high spot, low forward predictability
Official Q2 dividend declaration	August 11 declaration, September 18 record, October 9 payment	USD 1 quarterly actual rate; future flat payments are assumptions

The new USDSGD raw pull is at `raw/pulse-cio-20260922T140210+0800/cs_usdsgd_20260921.json`, SHA-256 **0c78115ffd0f37dc48a1fab43071f58be6d8ffdabc3b81c818a4e68003f3ca25**; a non-overwriting copy was saved in the investing data warehouse under its September 22 date folder. Existing warehouse files were not used as evidence. Official Canadian issuer figures control material FMP statement discrepancies. The Q2 live FMP quarterly response's USD 3,248.9m revenue differs from issuer USD 3,335m; the sealed statutory bridge and official report, not the provider figure, determine EPS. Market capitalization on the exact listed share basis is CAD 59,060.158364m (`2,786.97 × 21.191530m`); enterprise value is deliberately not presented as a controlling valuation because VP rejected an unsupported terminal full-claims EV-to-equity bridge.

3. Key Financial and Quality Metrics

The business merits a stronger quality assessment than the valuation. FY2021–FY2025 revenue rose from USD 5.106bn to USD 11.623bn, about **22.83% CAGR**. TTM revenue is USD 12.641bn. TTM maintenance and other recurring revenue is USD 9.557bn or **75.60%** of the total, but latest-quarter FX-adjusted organic growth is just **1% overall and 2% recurring**. The distinction matters: reported Q2 growth of 17% includes acquired contribution and FX; it is not a 17% same-business runway. More than a reassuring aggregate revenue multiple is required to establish whether the next acquired dollar clears the cost of capital.

The issuer's after-NCI FCFA2S reached USD 2.031bn TTM, versus FY2025 USD 1.683bn; conventional CFO minus physical capex is USD 2.769bn TTM, a materially different perimeter. Neither is an acquisition-inclusive dividend stream. CFO is USD 2.846bn and physical capex USD 77m TTM. The H1 acquisition note gives approximately USD 1.700bn completed-deal consideration, while USD 1.436bn net acquisition cash outflow has different timing, prior-deal holdbacks and acquired cash. These numbers cannot be divided into each other for ROIIC. Share count stays 21.191530m, with no parent repurchases in the current forecast. Annual USD 4 historical dividends are only CAD 5.59764 per share translated at spot, approximately **0.20%** of price; income distribution cannot rescue a poor terminal value.

Metric	One-year/latest	Three-year	Five-year	Ten-year
Revenue CAGR	Latest Q2 reported 17%; FX-organic 1%	FY2023–25 about 17.58%	FY2021–25 22.83%	Not comparably rebuilt here
FCF growth	TTM FCFA2S USD 2.031bn	Series affected by acquisitions/NCI	Historic screening FCF CAGR about 20.32%; basis-sensitive	Not rebuilt
Adjusted ROIC	FY2025 screening about 20.5%	FY2023 trough about 6.7%	Approximate FY2021–25 median 21.4%	Not defensibly comparable
Three-/five-year acquisition-inclusive ROIIC	Insufficient matched cohort evidence	Insufficient matched cohort evidence	Insufficient matched cohort evidence	Insufficient matched cohort evidence
Reinvestment and FCF conversion	TTM FCFA2S USD 2.031bn; H1 consideration USD 1.700bn	Cohort timing mismatch	Matched cumulative acquisition return unavailable	Unavailable
Share-count CAGR	Flat 21.191530m parent shares	Essentially flat	Essentially flat	Longer consistent listed basis not recalculated
SBC/revenue and SBC/FCF	Parent awards not identified; subsidiary incentives require care	Not equivalent to zero economic incentive cost	Quantified consistent series unavailable	Unavailable
EV/NOPAT, FCF yield, net debt/EBITDA	EV/NOPAT not controlling; balance-sheet screening net debt/EBITDA about 0.32x	Non-recourse and NCI restrictions matter	No comparable terminal EV bridge	Unavailable

The approximate adjusted ROIC series is not a pristine owner-return measure. FY2023 was distorted by tax and redeemable-security accounting; goodwill and acquisition intangibles change the denominator materially. A goodwill-excluded high ROIC could simply reflect historical write-downs or unrecorded acquired customer relationships; goodwill-inclusive acquisition-return accounting is the economically relevant stress. A consistent R&D-capitalized, lease-adjusted, after-NCI five-year invested-capital series is not supported to the precision needed for an 8-point ROIIC award. No manufactured three- or five-year ROIIC appears here. NOPAT is statutory operating income times normalized cash tax, but the issuer's acquisition cost, tax basis, equity investees and NCI make the simple industrial ratio a secondary diagnostic rather than a clean acquired-cohort return.

4. Rubric Scorecard

Category	Earned	Maximum	Main reason
Incremental returns on capital	15	25	Good screening ROIC and cash, unproved acquisition-inclusive ROIIC
Reinvestment runway	18	20	Large fragmented verticals and repeatable sourcing, modest organic proof
Durability of moat	12	15	Sticky records, but AI and 2046 transition unresolved
Accounting and financial quality	8	10	Strong cash and share discipline, complex NCI/marks/disclosure
Capital allocation	9	10	Long operating record, no vintage-matched PEMS/deal returns
Business Quality Score	**62/80**	**80**	Below 65/80 investable-now threshold
Base IRR (6A)	0	6	-1.00% gross CAD; below 10%
Exit P/E (6B)	2	4	Independent contraction 34.12x to 22x, but no 20% clearance
Bear acceptability (6C)	0	3	-16.09% gross CAD
Reverse hurdle (6D)	0	3	Required terminal EPS CAD 301.25 at 22x
Not pricing perfection (6E)	0	2	Current price far above weighted 20% max-buy diagnostic
Cash distributions (6F)	0	2	Flat USD 1 quarterly is immaterial
20% Return Underwriting Score	**2/20**	**20**	Independent exit P/E does not meet return hurdle
Compounder Score	**64/100**	**100**	Reject under diagnostic 20% rubric

Detailed existing subcategory quality rubric remains 1A–5F: ROIC 4/5, ROIIC 0/8, non-deterioration 2/3, unit economics 3/3, cash conversion 3/3 and accounting-artifact control 3/3; runway 4/5, 5/5, 3/4, 3/3, 2/2, 1/1; moat 4/4, 2/3, 2/3, 2/2, 2/2, 0/1; accounting 2/2, 2/2, 2/2, 1/2, 0/1, 1/1; allocation 2/2, 2/2, 1/2, 2/2, 1/1, 1/1. This preserves the prior evidence-based quality scoring, not stale price-return arithmetic. The 6B score is deliberately lower than the prior 3/4: 4/4 explicitly needs a hurdle-clearing lower multiple, and equality with normalized current multiple would be needed for 3/4. A source-justified 22x contraction that fails the hurdle deserves partial, not full, credit. A good business-quality subtotal cannot offset the 2/20 price result.

5. ROIIC and Reinvestment Analysis

The observed engine is acquisition-intensive. FY2026 H1 consideration of USD 1.700bn is not the same as the USD 1.436bn net acquisition cash use, and the USD 1.078bn H1 after-NCI FCFA2S comes from old and new businesses collectively. Computing `change in aggregate NOPAT / same-period deals` would misalign vintage, acquisition timing, legacy organic change, purchase-accounting expense, financing and minority ownership. The post-close Synchronoss and DerbySoft disclosed net losses of USD 4m and USD 1m respectively are early snapshots, neither decisive negatives nor proof of a high ROIIC. Other H1 deals totaling USD 999m lack deal-vintage attributable cash returns. Accordingly 1B earns **0/8**, not because ROIIC is necessarily poor, but because a credible acquisition-inclusive 3–5 year numerator/denominator is absent. The unsupported roughly 9.8% old proxy is not promoted to a computed ROIIC.

Financial reinvestment cannot be judged from a gross consolidated cash balance alone. Subsidiary cash may be restricted; Topicus and Lumine bring outside holders; IRGA membership liability, puts, debt and leases shift owner economics. The Base finance-cost path rises from USD 319m normalized TTM to USD 480m in 2031 while finance income falls from USD 181m to USD 160m. The terminal NCI deduction is USD 157.465048m in Base. Those costs already enter common net income. The H1 acquisition/cash-flow comparison is a funding warning, not a forecast debt plug: consideration plus dividends minus H1 FCFA2S suggests USD 664m on one timing basis; net acquisition cash plus dividends minus H1 FCFA2S suggests USD 400m on another. They are alternative observations, never additive.

Organic ROIIC is also not verified: the issuer does not publish a consistent business-unit investment and incremental cash-return panel. R&D personnel spending, cloud upgrades and implementation expenditures may sustain the franchise, but capitalization/reinvestment judgments without project-level outlays would spuriously inflate a numerator. Stock compensation and subsidiary incentive units remain real costs to common holders, notwithstanding zero identified parent option/RSU dilution

in the sealed share bridge. The model therefore uses unchanged listed diluted shares, not a guessed buyback tailwind. Sustained cash generation provides flexibility, while acquisition price inflation and larger transaction mix make future incremental returns the critical unresolved question.

6. Runway Analysis

Small vertical niches remain numerous and fragmented. Constellation's permanent-owner posture, autonomous business-unit operators and ability to transact repeatedly at many ticket sizes support 18/20 runway credit. The extraordinary FY2021–25 revenue history and 75.6% recurring TTM mix are genuine. Yet current FX-adjusted total organic growth of 1% and recurring organic growth of 2% limit the proof of internally generated expansion. The Base five-year revenue CAGR of 9.8204% means growth persists partly through acquisitions; a one-quarter 17% headline does not validate that five-year cadence without funding and return evidence. Bull assumes 12.9949% revenue CAGR, 18.5% statutory terminal margin and 28x P/E simultaneously, a demanding but explicitly bounded upside rather than the expected case.

The scale question is sharper than the addressable-market question. As acquisition spending grows, smaller targets cannot absorb all deployable cash; larger deals compete with private equity and strategic buyers, and minority investments expose governance/realization rather than wholly owned cash flows. An unqualified TAM number would obscure capital competition. The score awards full marks to *proven ability to reinvest at scale* based on historical activity, but withholds a point from market opportunity and one from organic growth because profitable future deployment at unchanged hurdle is not demonstrated by availability of targets alone. A permanent-owner culture is a mechanism, not a mathematical 20-year ROIIC guarantee.

7. Moat Analysis

Installed vertical systems capture sector-specific records, integrations, compliance workflows and employee habits. Replacing them creates implementation risk; maintenance, support, regulatory updates and incremental modules can persist through moderate IT budget pressure. The issuer's recurring proportion and after-NCI cash flow support a real existing moat. Pricing power, however, is not independently quantified by gross retention, net revenue retention, churn or customer cohort realized increases. “Contracted not yet recognized” is not identical to recurring ARR or incremental price capture. The moat review therefore correctly leaves the gate **YELLOW**, as does its 2046 test.

AI creates a two-sided possibility: workflow assistance can improve value and service productivity, but cheaper code generation, cloud migration and standardized integrations could lower the entry barriers around aging niche products. Volaris's own modernization discussion recognizes the threat. An installed base can be sticky for the next several years without assuring that thousands of business units modernize profitably for twenty. The 12/15 moat score awards current switching costs and stress survival; it withholds full competitive proof and the low-disruption point. Observable upgrade evidence would be durable organic recurring acceleration, retention, realized AI-assisted pricing and margins across operating groups, rather than marketing use cases or acquired revenue alone.

8. Accounting and Capital Allocation Analysis

The single-reportable-segment fallback uses statutory consolidated operating income; it does not invent six operating-group margins. The official source ties TTM revenue and income, while FMP's divergent Q2 revenue and some historical operating rows are not silently substituted. Q2 issuer FCFA2S reconciles from CFO with debt interest, lease cash, IRGA and NCI, so it is a better common-holder lens than naive consolidated CFO minus capex, but still excludes acquisition expenditure. The parent reported TTM diluted EPS of CAD 63.460874 contains FX, IRGA and Asseco-related distortions; the comparable normalized EPS is CAD 81.685371. Their P/Es are **43.91635x raw reported** and **34.11835x normalized** at CAD 2,786.97. The raw ratio is disclosure only, not a cap, price target or matching terminal denominator.

Management's gate remains **YELLOW**. The long acquisition history, flat parent shares, cash generation and return-oriented incentives are substantive positives. Mark Leonard left the presidency and board for health reasons, while still advising the newer PEMS strategy; Mark Miller's full President-level cycle is short. PEMS minority governance and after-NCI attributable return disclosure have not caught up with capital deployment. Subsidiary NCI, puttable interests and membership liability marks complicate common-owner economics. These facts prevent unqualified scores for disclosure and balance-sheet simplicity. Conversely, the evidence does not establish a fraud or balance-sheet insolvency claim. A future deterioration in after-NCI per-share cash while deal spend rises, or substantial PEMS impairments without governance rights, would change the assessment.

9. 20% Return Underwriting

Primary valuation method: P/E, exactly VP-locked for every scenario, terminal-wealth weighting, reverse return/max-buy price and net-SGD overlay. VP rejected EV/NOPAT because a source-bound terminal cash/debt/lease/NCI and senior-claim bridge cannot be completed, and P/B-ROE because no zero-residual parent-common book roll-forward exists. This is not a blend. The share-value identity is terminal USDm common NI / **21.191530m** diluted listed-equivalent shares × **1.39941 CAD/USD** × frozen exit P/E. There is **no** terminal net-cash addition, debt deduction, separate NCI haircut or asset value after EPS × P/E. Statutory common NI already incorporates finance, tax, NCI and the modeled mark paths. Historical EPS includes transaction volatility; the normalized current CAD 81.6853706915 per share is the *comparable current multiple denominator*, while terminal earnings remain scenario statutory parent-common diluted EPS.

The independently selected exit P/Es are **16x Bear**, using Enghouse FY2025 15.53x/native lower-tail peer evidence with a quality adjustment; **22x Base**, near Vitec current 22.5128x/native reported VMS context; and **28x Bull**, near Vitec FY2025 28.25x, with Roper FY2025 31.11x as higher-quality context. These peer reported denominators are not relabeled as CSU normalized denominators. VP's peer range and company-specific growth/maturity adjustments apply; the reported CSU 43.91635x is not comparable and was not used to cap exits. Both excessive optimism and excessive bearishness were challenged before returns. The central 22x presumes 9.8204% revenue CAGR, 15.5% statutory operating margin and continued acquisition capacity; 16x is not a blanket 15x-entry-gate substitute, while 28x requires stronger scaling and margin. The raw multiple/terminal denominator mismatch is disclosed rather than rationalized away.

The dividend rate is the official USD 1.00 quarterly declaration, held flat solely as an illustrative forward convention. Eighteen presumed payments from January 2027 through April 2031 equal USD 18.00 or CAD **25.18938** per share at the sealed spot translation. The October 9, 2026 announced payment has a September 18 record date, preceding this September 21 price anchor; entitlement for a direct 23-share holder is not verified and is excluded. No July 2031 payment after the terminal date is accrued. Real ex-date/pay-date and reinvestment timing are not modeled. No FCFA2S is added as a dividend; retained company cash is embedded in earnings and P/E. If the future dividend policy changes, the distribution assumption must be revisited, but its small size means that uncertainty does not rescue the return.

Scenario	Weight	2031 parent-common NI USDm	CAD EPS exact-source model	Exit P/E	Equity value CAD/share	Distributions CAD/share	Terminal wealth CAD/share	Gross CAD IRR
Bear	25%	1,118.040017	73.831214	16x	1,181.299419	25.189380	1,206.488799	-16.09%
Base	55%	1,810.848056	119.581686	22x	2,630.797083	25.189380	2,655.986463	-1.00%
Bull	20%	3,248.755832	214.535779	28x	6,007.001815	25.189380	6,032.191195	17.56%
Probability weighted	100%	Not a fourth operating case	Not an average EPS/P-E shortcut	PE method	2,943.663614	25.189380	2,968.852994	1.33%

The weighted terminal equity-value row is the scenario-probability-weighted sum and is rounded in display only; exact values reside in `compounder_score.json`. The annualized return is `(terminal wealth / 2786.97)^(1 / 4.772171913180968) - 1`; weighted IRR applies this formula **after** weighting terminal wealth at 25%/55%/20%. It is not the arithmetic average of the three displayed IRRs. Bear/Bull revenue is USD 17,317.498853m / 23,284.943001m versus Base USD 20,192.790801m; operating income USD 2,337.862345m / 4,307.714455m versus USD 3,129.882574m. The forecast's 2031 parent-common net income explicitly includes scenario tax, finance, FX/IRGA, impairment and NCI; never take the 15x P/E entry gate as the exit multiple.

The bounded net-SGD diagnostic starts at September 21 FMP USD/CAD **1.39941** and independently fetched USD/SGD **1.27602**, hence SGD/CAD **0.9118271271464402**. Future SGD/CAD is held flat, not forecast. The initial SGD cash outlay is **SGD 2,553.941022786** per share after a 0.5% all-in entry allowance. At terminal, reduce *equity sale proceeds only* by 0.5% exit allowance, reduce *the explicitly counted dividends only* by assumed 15% Canadian withholding, translate both at the flat SGD/CAD rate, and assume 0% incremental Singapore tax strictly for this diagnostic. The Canada-Singapore convention Article X gives a 15% source ceiling for qualifying Singapore-resident beneficial owners; IRAS guidance generally exempts foreign dividends received by resident individuals outside a Singapore partnership. Brokerage, spread, FX conversion, beneficial-owner/treaty status, tax residency and actual withholding are not verified to the owner's account; this is neither confirmed eligibility nor personal tax advice. Both sides use the same P/E terminal equity values and same 18 dividends.

Scenario	Gross terminal CAD wealth/share	Net terminal SGD wealth/share	Net SGD annualized IRR
Bear	1,206.488799	1,091.278258	-16.32%
Base	2,655.986463	2,406.361092	-1.24%
Bull	6,032.191195	5,469.483578	17.30%
Probability weighted	2,968.852994	2,690.214880	1.10%

The weighted net row again compounds **weighted terminal SGD wealth**, not weighted net IRRs. Flat FX isolates security value from unknowable currency movements; a weaker CAD would lower actual SGD returns and a stronger CAD would raise them. Source-bound USD/SGD raw pull and cost formula are archived in JSON at full computation precision. All visible net-SGD returns are exactly two decimals. This diagnostic supports evaluating security actionability independently of portfolio information, while portfolio fit and any sizing ceiling remain unavailable here.

The method-matched 20% reverse test requires terminal wealth CAD **6,652.71** per share (exact JSON controls), hence approximately CAD **301.25** terminal EPS at the frozen 22x Base exit after CAD 25.18938 dividends. The scenario-weighted maximum entry price for a 20% gross CAD return is **CAD 1,243.72**, a roughly **55.37%** discount to the current CAD 2,786.97; each scenario max price is also stored in JSON. This reverse result is a diagnostic of return demands, not an order level, intrinsic certainty, proposed trade or a CIO allocation. The Base modeled EPS CAD 119.581686 is far below the reverse hurdle. Neither assuming the raw 43.92x reported P/E persists nor applying a blanket 15x exit solves the comparability or underwriting problem.

10. Hard Veto Checklist

Test	Status	Evidence and consequence
ROIIC below cost of capital	Insufficient evidence	Acquired cohort denominator and owner cash numerator unavailable
High ROIC only from tiny capital	Watch	Goodwill, NCI and purchase accounting make simple ROIC fragile
Persistent external financing	Watch	H1 deployment/cash gap and Base rising finance cost
Dilution without per-share value	Pass	Parent shares flat; subsidiary claims still enter net income
Large acquisitions without disclosed returns	Watch	PEMS and vintage-level returns opaque
Structural FCF shortfall	Watch	FCFA2S strong but excludes acquisitions
Permanent platform/regulatory impairment	Watch	AI disruption and heterogeneous niches
20% case requires multiple expansion	Pass for expansion question	22x is below normalized 34.12x; 20% nevertheless fails
Flawless execution priced	Fail	Base negative gross return and 55.37% weighted 20% max-price discount
Moat cannot be explained	Pass for current moat	2046/YELLOW durability is separate
Accounting/governance trust	Watch	NCI, puts, IRGA and PEMS complexity, not fraud allegation
Balance-sheet equity wipeout	Watch	Consolidated leverage modest; recourse, subsidiary cash/NCI complex

“Pass for expansion question” is deliberately narrow: it does not mean this purchase is attractive. The independently chosen exits imply **contraction** from 34.11835x normalized current in all three cases. The raw reported 43.91635x has a distorted denominator and cannot be an expansion comparator. The most material adverse paths combine lower acquired-cohort returns, organic recurring stagnation and rising funding/NCI costs. A security can be attractive operationally while a sufficiently high starting price creates a negative Base return.

11. Final Decision

Score-implied classification: Reject under the diagnostic 20% compounder rubric. The 64/100 total is below the 70/100 Reject boundary and below the 80/100 investable-now threshold; 62/80 Business Quality is below the required 65/80, 2/20 Return Underwriting below 15/20, the 15/25 plus 18/20 ROIIC/runway subtotal 33/45 below 35/45, and both Base and Bear IRRs fail their return thresholds. Hard-veto WATCH items include matched acquisition ROIIC and funding; price/perfection is FAIL. This diagnostic does **not** override ER2 Management YELLOW, Moat YELLOW, the binary entry P/E-15 gate, a separate CIO actionability matrix, or the owner's authority over direct retention. A fresh account/portfolio fact can change fit, not the sealed security IRR arithmetic.

To reverse the price conclusion, first seek repeatable after-NCI acquired-cohort cash returns, externally understandable PEMS rights and a sustained 4%+ FX-adjusted recurring organic result, then update the five-year operating and independently justified terminal valuation assumptions through VP before recalculating returns. If purchase price changes

materially, refresh the quote and the same-method security return. A move from a direct 23-share holding toward or away from an owner-referenced 13% scenario requires the complete portfolio, cash needs, risk budget, tax and explicit owner approval; no such portfolio action is requested or authorized by CS.

Compounder Score note: **64/100** — quality and installed-base cash generation do not overcome opaque incremental acquisition returns and poor starting-price asymmetry.

Business Quality Score note: **62/80** — valuable recurring software and reinvestment machinery, limited acquisition-vintage proof and unresolved 2046/management durability.

20% Return UW Score note: **2/20** — independently locked 22x Base is below normalized current 34.12x, yet Base gross CAD IRR is -1.00% and weighted gross CAD IRR is 1.33%.

12. Machine-Readable JSON

The calculation and rubric artifact is `compounder_score.json` in this directory. It retains full available source precision and includes price, exact horizon, P/E valuation and denial of a terminal net debt/cash overlay, all scenario probabilities, earnings and shareholder wealth, gross CAD returns, terminal-wealth-weighted return, costs/withholding/spot-FX net-SGD bridge, reverse-return diagnostics, three denominated scores, VP path/SHA binding, source gaps, and `trade_execution_authorized=false`. Current-run CSA and red-team review remain subsequent independent gates, so their status must not be inferred from this scorer's mechanical checks.

Appendix CSA - Scoring Audit

Constellation Software (CSU.TO) — Independent Scoring Audit

Run: `pulse-cio-20260922T140210+0800`; **audit date:** 2026-09-22. This is a current-run audit of CS Markdown SHA-256 `a938f7a02bf890539ce17a3649adeed303ca21d0521e29afe1ff10b41ddee3b1` and repaired JSON SHA-256 `3dae6dada0e46378470167b53a97e51a6a1bff5269ea499ccdcc99417d7fa6f3`. The preceding September 10 audit was archived separately as historical context; neither its scores nor its September 9 price and 1,755-day return interval control this assessment. VP SHA-256 `2ace0475dd3e50b2721270c36dbe74c7d23196e7408d168de75a6cfd8a8f1c3c` independently passed `validate_valuation_preflight.py --check-evidence-files`, with `CLEARED`, five passed foundations and zero blockers. CS copies the same path, SHA, P/E method, CAD 81.6853706915 normalized current EPS, 21.191530m listed diluted shares, claim treatment and 16x/22x/28x exits. The current QFR quote packet specifies a completed September 21 close of CAD 2,786.97 per XTSX:CSU voting common share, USD financial statements, 1.39941 CAD/USD and one financial common share per listed unit.

1. Original vs Audited Scores

Item	Original	Audited	Notes
Business Quality Score / 80	62/80	50/80	Cohort ROIIC, unit economics, scale and retention evidence do not support full qualitative credit
Valuation / 20% Return UW Score / 20	2/20	2/20	Independently justified contracting exits earn partial 6B credit; returns fail
Total Score / 100	64/100	52/100	Twelve-point quality reduction, no return-score change
Classification	Reject	Reject	Below every investable-now threshold; diagnostic only

The audited category schedule is Incremental Returns on Capital 11/25, Reinvestment Runway 14/20, Durability of Moat 9/15, Accounting and Financial Quality 8/10, Capital Allocation 8/10, and Price / 20% Underwriting 2/20. These add to 50/80 plus 2/20, or 52/100. This is not a fourth ER2 veto, portfolio rank or decision to sell the existing position.

2. Score Reductions and Reasons

Rubric item	Original	Audited	Evidence judgment
1A normalized ROIC	4/5	4/5	Partly supported screening series; goodwill and NCI caveats remain
1B three/five-year ROIIC	0/8	0/8	Missing matched acquisitions and attributable incremental cash
1C ROIIC not deteriorating	2/3	0/3	Unsupported trend when 1B cannot be calculated
1D unit economics	3/3	1/3	Recurring mix supports direction, not gross retention, cohort margin or payback
1E cash conversion	3/3	3/3	Supported multi-year issuer FCFA2S, qualified against acquisitions
1F not accounting artifact	3/3	3/3	Partly supported by actual cash; not proof of acquired-cohort returns
2A market opportunity	4/5	3/5	Many niches, no source-bound addressable denominator
2B reinvest at scale	5/5	3/5	Historical deployment, not demonstrated marginal after-NCI return
2C organic growth	3/4	2/4	Q2 FX-adjusted total 1%, recurring 2%
2D repeatable playbook	3/3	3/3	Supported legacy practice, not a guarantee for PEMS
2E market structure	2/2	2/2	Partly supported fragmentation and specialization
2F growth without ROIC collapse	1/1	1/1	Qualified historical screening credit only

Rubric item	Original	Audited	Evidence judgment
3A clear advantage	4/4	3/4	Workflow embedding, but moat appendix is YELLOW
3B pricing power	2/3	2/3	Qualitative management evidence, no price realization series
3C competitive evidence	2/3	1/3	No win/loss or portfolio-wide competitive series
3D customer stickiness	2/2	1/2	Maintenance mix is not a retention cohort
3E stress resilience	2/2	2/2	Historical cash resilience, with Altera warning
3F low disruption	0/1	0/1	AI migration risk unresolved
4A–4F accounting quality	8/10	8/10	Cash/share strengths already offset by NCI, puts and opacity
5A capital priority	2/2	2/2	Supported, with a distinction between spend and realized returns
5B acquisition discipline	2/2	1/2	No reproducible vintage or PEMS outcome schedule
5C–5F allocation	5/6	5/6	Incentives and record partly support, succession limits confidence
6A–6F price/return	2/20	2/20	Only 6B earns 2/4; all other subitems remain zero

The paired 1B and 1C scores are the sharpest internal contradiction: a missing ROIIC level cannot establish a non-deteriorating ROIIC slope. This score is reduced because the market opportunity and ability to *spend* at scale have been conflated with a proven return on incremental deployed capital. The 60%-of-max qualitative management-claim cap is relevant to unquantified stickiness and scale; the revised 1D, 3C, 3D and 5B avoid full credit. No favorable qualitative subtotal may compensate for a 2/20 return score.

3. Unsupported Claims

The evidence does not support an acquisition-inclusive three- or five-year ROIIC or a positive ROIIC trend. The data package distinguishes USD 1.700bn of H1 2026 completed-deal consideration from USD 1.436bn net acquisition cash used, the latter including different timing and acquired cash. Synchronoss and DerbySoft post-close losses are too immature to prove either failure or success; the other USD 999m of deal consideration has no matched cash-return history. Altera's reported FCFA2S and management's favorable original-IRR assertion do not produce a vintage-matched, parent-attributable cash numerator. The old approximately 9.80% proxy is expressly invalid as a cohort ROIIC. The issuer-defined USD 2.031bn TTM FCFA2S is after NCI but excludes acquisitions and cannot be treated both as paid out and redeployed.

The five annual FCFA2S observations USD 883m, 853m, 1,160m, 1,472m and 1,683m, plus USD 2,031m TTM, do support repeated cash conversion and long-run growth; conventional TTM CFO less property capex is USD 2.769bn and has a different perimeter. That distinction preserves 1E/4B while denying a cohort-return inference. A roughly 21.4% five-year median adjusted ROIC is a screening figure, not a reproducible goodwill-inclusive acquisition ROIIC: FY2023 tax and redeemable-claim accounting distort the simple tax and capital basis. Clean goodwill-excluded and goodwill-included, R&D-capitalized and lease-adjusted, after-NCI invested-capital panels are absent. Normalized NOPAT can be defined from statutory operating income and normalized tax, but its incremental acquisition matching and normalized cash tax series cannot be confidently estimated; EV/NOPAT is not the frozen shareholder method. Five-year reinvestment rate and five-year FCF-conversion ratios are not independently clean or presented as such.

The evidence also does not support a 100% unit-economics or moat score. TTM recurring revenue of USD 9.557bn, 75.6% of revenue, establishes mix; it does not show ARR, NRR, gross retention, churn, realized pricing, product gross margin, CAC, payback or operating-group cash returns. The official Q2 release shows 17% reported revenue growth but only 1% after-FX organic growth. Management and moat appendices retain YELLOW judgments, including succession, PEMS minority-governance and AI disruption. Nine operating groups and many acquisitions demonstrate breadth, not future return on the next dollar. Parent shares are flat at 21.191530m and no material parent SBC line is identified, but subsidiary incentive claims and NCI are real costs; absence of a consolidated SBC-to-revenue or SBC-to-FCFA2S series is not proof those costs are zero.

The CS paragraph invokes an owner's “13% scenario.” Neither the sealed QFR quote nor company filings establish current portfolio NAV or that 13% is an actual weight. The 23-share research premise gives CAD 64,100.31 gross marked value but no account basis, overlap, tax, risk budget or portfolio percentage. CS appropriately says it is not an instruction; the phrase must not migrate into a score-based sizing or rank. If the owner supplied it elsewhere, that source remains outside this security audit. `trade_execution_authorized=false` and no portfolio mutation are maintained.

4. Calculation Errors and Return Replay

The initial CS JSON had a structured EPS-CAGR transformation error, not a security-IRR error: `scenario_return_bridges.*.eps_cagr_from_normalized_current_pct_operating_horizon` carried 470.265%, 528.003% and 605.877% even though those values cannot follow from the disclosed EPS anchor and five-year operating horizon. The scorer repaired those three fields, and the current JSON now reports **-2.001563985307009%, 7.920531946557197%, and 21.30287369042634%**. Independent replay uses `100 × ((scenario CAD EPS / CAD 81.68537069149798)^(1/5) - 1)` and matches all three to floating-point precision. The source terminal EPS, reverse-return hurdle and shareholder IRRs are unchanged. The method-matched reverse test still requires 31.45243% five-year EPS CAGR to reach CAD 301.25109 at 22x. This prior defect is now **resolved in the repaired CS artifact**; no residual EPS-CAGR publication blocker remains.

The P/E bridge uses FY2031 parent-common NI in USDm divided by 21.191530m diluted listed equivalents, multiplied by 1.39941 CAD/USD, then by the frozen P/E. It does **not** separately add cash, subtract debt or hair-cut NCI after net income. The reported TTM NI USD 961m gives CAD 63.46087375 EPS and raw 43.91635x P/E; normalized NI USD 1,236.977m gives CAD 81.68537069 EPS and comparable 34.11835x. Difference exceeds 20%; volatile FX, IRGA and Asseco/acquisition marks make the raw multiple non-comparable to terminal statutory earnings. No raw-current cap was used. The 16x, 22x, 28x VP-locked exits have Enghouse/Vitec annual and TTM peer anchors with stated CSU quality and maturity adjustments, though reported peer denominators are contextual rather than exact normalized CSU twins. The Base contraction from normalized 34.12x is genuine, but a much lower exit is possible if acquisitions and AI disappoint. Conversely, the Bear at 16x already sits near a lower-growth peer and cannot be cut to a token 0x simply to look cautious. These are both directional challenges; independence passes subject to uncertain peer comparability, not because lower numbers are inherently sound.

The exact purchase-to-terminal interval is 2026-09-21 to 2031-06-30, **1,743 days / 365.2425 = 4.772171913180968 years**, not the five-year operating forecast interval. The official August 11 release declares USD 1 quarterly payable October 9 to September 18 record holders. Its eligibility was already established before the quote date, so it is excluded. The other **18 hypothetical** January 2027–April 2031 quarterly payments (not 18 issuer-declared obligations) at flat USD 1 and spot CAD/USD 1.39941 produce CAD 25.18938 cumulative distributions; no July 2031 payment is pulled into the horizon. They are added once without reinvestment. Replayed values follow:

Scenario	Probability	USDm common NI	CAD diluted EPS	Exit P/E	CAD equity/share	CAD distributions	CAD terminal wealth	Gross CAD IRR
Bear	25%	1,118.040017	73.831214	16x	1,181.299419	25.189380	1,206.488799	-16.091416%
Base	55%	1,810.848056	119.581686	22x	2,630.797083	25.189380	2,655.986463	-1.003670%
Bull	20%	3,248.755832	214.535779	28x	6,007.001815	25.189380	6,032.191195	17.562951%
Probability weighted	100%	Not a fourth case	Not applicable	PE	2,943.663614	25.189380	2,968.852994	1.333592%

The expected CAD 2,968.8529936579 wealth is `0.25 × 1,206.4887992982 + 0.55 × 2,655.9864634118 + 0.20 × 6,032.1911947843`. Its CAGR on CAD 2,786.97 over 4.772171913 years is 1.3335923389%, **not** the probability-weighted arithmetic average of case IRRs. Base revenue USD 20,192.790801m times 15.5% equals USD 3,129.882574m statutory operating income within source rounding; Bear 13.5% of 17,317.498853m and Bull 18.5% of 23,284.943001m similarly reconcile. Below-line finance, tax, IRGA/FX and NCI differences explain why one cannot shortcut statutory OI into terminal common EPS.

The net-SGD bridge starts with USD/SGD 1.27602 divided by USD/CAD 1.39941, or SGD 0.91182712714644 per CAD, held flat illustratively. Entry outlay is CAD 2,786.97 × this cross × 1.005 = SGD 2,553.9410227860. Each terminal equity value is multiplied by 0.995 for illustrative exit friction; CAD 25.18938 of distributions is multiplied by 0.85 for assumed 15% Canadian withholding, then both are converted at the flat cross. This yields net terminal SGD 1,091.2782575194 / 2,406.3610919392 / 5,469.4835775005. Exact-horizon net-SGD CAGRs are **-16.32% / -1.24% / 17.30%**, and SGD 2,690.2148804465 weighted terminal wealth gives **1.10%**. All visible net-SGD figures have exactly two decimal places. The issuer release supports the dividend; the Canada–Singapore treaty supports a conditional 15% beneficial-owner ceiling, and IRAS guidance generally

exempts foreign dividends received by resident individuals outside a partnership. Actual broker, residency, tax status, future FX and dividend eligibility are not verified. It is a bounded diagnostic, not personal net proceeds.

5. Missing Data

The most important missing evidence is acquisition-vintage consideration and attributable after-NCI cash returns, including delayed payments, minority ownership, retained cash and maintenance spending. Next are PEMS ownership/governance/cash-receipt schedules, operating-group statutory profit and reinvestment history, and retention/pricing cohorts. These gaps lower **score confidence to Medium** and constrain qualitative points; they do not justify setting audited gross CAD returns to null when the sealed P/E forecast is finite. The dated peer reported P/Es provide a range, not exact normalized apples-to-apples comparables. Owner-specific withholding eligibility, transaction cost, CAD/SGD path and complete portfolio NAV remain open for any separate CIO fit decision.

6. Hard-Veto and Threshold Test Audit

The original 64/100 and revised 52/100 both imply **Reject**: audited Business Quality 50/80 is below 65/80; return underwriting 2/20 is below 15/20; 52/100 is below 80/100; Incremental Returns plus Runway 11+14 = 25/45, below 35/45. Base gross -1.00% does not clear 20%; Bear -16.09% fails the downside tolerance. All three exits contract against comparable normalized 34.11835x, so the narrow no-expansion component passes. The real veto is price-to-future-owner-earnings, compounded by unproved marginal acquisition ROIIC, not an invented multiple-expansion requirement. The scoring classification is separate from the Management YELLOW, Moat YELLOW, and binary P/E-at-15 ER2 gates. No rank, order, position percentage or trade follows from it.

7. Final 20% Hurdle Pass/Fail

FAIL. CAD 2,786.97 requires CAD 6,652.7133677839 terminal wealth at 20% over the exact security interval. Less CAD 25.18938 distributions, divided by the locked 22x Base exit, gives CAD 301.2510903538 required EPS versus CAD 119.5816856096 Base. From normalized current EPS that demands 31.45243% annualized operating EPS growth. Expected wealth divided by 1.2 raised to 4.772171913 years gives a probability-weighted 20% diagnostic max entry of CAD 1,243.7187310372, a 55.37% discount from the quote. None of these numbers is a limit order or a target allocation; the scenario probabilities and multiples are uncertain underwriting assumptions.

8. Dream Business / Dream Investment Classification

Neither under this demanding evidence rubric. The installed vertical-software base is strong, but “dream business” requires a verified after-NCI acquisition-inclusive marginal return and longer-run retention/economic durability record. The 52/100 diagnostic and negative Base return rule out a “dream investment” at this anchor. The single largest issue is paying for persistent profitable deployment before cohort-level common-owner returns are proved. That is not an assertion that the historical franchise has failed or that an existing holding must be sold.

9. Stage 7 Scorecard Notes

Compounder Score note: **52/100**; diagnostic Reject as weak entry-price asymmetry combines with unproved acquisition-cohort returns.

Business Quality Score note: **50/80**; cash-rich recurring software, but missing cohort ROIIC, retention and scaling evidence limit the quality credit.

20% Return UW Score note: **2/20**; no multiple expansion is needed, yet Base is -1.00% gross CAD and weighted is 1.33% gross CAD.

10. Auditor JSON

`compounder_score_audit.json` binds repaired CS and VP, confirms returns and the resolved EPS-CAGR defect; RT remains pending.

Appendix RT - Independent Red Team

Constellation Software (CSU.TO) — Independent Red Team, September 22 Refresh

Run: `pulse-cio-20260922T140210+0800`. **Overall return-model objection status: MATERIAL_RESOLVED.** The software franchise remains valuable, but the current price fails an attractive common-share return test. This status means economically significant risks are represented in the audited scenarios and no new evidence establishes a superior correction to the locked inputs; it does not imply that acquisition ROIIC is known. No rank, size, transaction or portfolio mutation is proposed.

Artifact control and previous-report boundary

The QFR-sealed September 21 XTSX:CSU quote is CAD 2,786.97 per ordinary listed share, USD/CAD 1.39941, 21.191530 million diluted financial and listed-equivalent shares, quote SHA-256 `387bfa8a265da8508eecbc8251e560dfd2c38a99948f30b874341bfecfb9f148`. Purchase-to-terminal June 30, 2031 is **1,743 days / 365.2425 = 4.772171913 years**. Operating earnings compound for five years from June 30, 2026, not for the security-return interval. Current peer-reviewed consolidated B SHA is `61dc9c644eb78ae114b06463df06c1747351c67410d021ec2b028e968b7d6231`, synthesis SHA `8a1f8278e6c0ec247d65eca5596614cae0ae9ca3fe0296f58c22401b136b7734`, valuation preflight SHA `2ace0475dd3e50b2721270c36dbe74c7d23196e7408d168de75a6cfd8a8f1c3c`, repaired CS JSON SHA `3dae6dada0e46378470167b53a97e51a6a1bff5269ea499ccdcc99417d7fa6f3`, and CSA JSON SHA `61645ee414c8fedb52e784a74dbc004db2624cd9cb9d1efcd1487e3767980bad`. VP's evidence-file validator independently returned `VALUATION_PREFLIGHT_VALID`, all five foundations passed, zero blockers. CS and CSA reproduce its P/E method and 16x/22x/28x Bear/Base/Bull exits.

The September 10 red-team closure is *history*, not a current source. Its CAD 2,801.99 price, 1,755-day interval, 19 dividends and 53/100 score are superseded. Its genuine objections did force repairs: the 17% Base margin became 15.5%, funding economics became less favorable, correlated Bear penalties were capped, the Base exit fell from 25x to 22x, and the return calendar was corrected. September 22 further corrects stale H1 acquisition consideration of USD 1.625 billion to approximately **USD 1.700 billion**, resets price and FX, and removes a dividend with a pre-quote record date. CSA also found and CS repaired three implausible structured EPS-CAGR fields, now **-2.00%/7.92%/21.30%** for Bear/Base/Bull. Neither the obsolete numbers nor stale Markdown's original 64/100 scoring supersede the current independent audit: **52/100 = 50/80 Business Quality plus 2/20 Return Underwriting**, diagnostic Reject.

1. Most fragile assumption: acquired recurring growth

There is one IFRS reportable segment and one modeled statutory-operating-income fallback. Altera, Topicus and Lumine are partial supplemental/ownership contexts, not additive profit segments. Within this boundary, the fragile line is **maintenance and other recurring revenue**: USD 9.557 billion TTM grows to USD 15.945 billion in Base by 2031, following annual reported growth of 14%, 12%, 11%, 9%, 8%. The reviewed B assumes an FX-adjusted organic component of 3%, 3.5%, 4%, 4.5%, 4.5%; acquisitions plus translation contribute the residual 11%, 8.5%, 7%, 4.5%, 3.5%. By contrast Q2 FY2026 recurring revenue grew 19% reported but only **2% FX-adjusted organic**; consolidated organic after FX was **1%**. The four latest total after-FX rates were 3%, 2%, 2%, 1% even while reported growth was 16%, 18%, 20%, 17%. Thus buying businesses rather than organic installed-base expansion is the indispensable growth engine.

A one-point reduction in each of five annual *reported recurring-growth assumptions* reduces 2031 recurring revenue from USD 15.945 billion to roughly USD 15.238 billion, a USD 707 million difference. At 15.5% consolidated statutory margin that implies around USD 110 million less operating income before acquisition funding or margin interactions, about CAD 4.94 less terminal common EPS applying 26% tax, 8% NCI, unchanged shares and sealed FX. At the locked 22x P/E that is roughly CAD 109 lower terminal value. The separate S sensitivity is harsher and clearer: consolidated Base revenue CAGR falls 200 bps from 9.8204% to 7.8204%, Base EPS from CAD 119.581686 to CAD 107.227054 and Base gross IRR from **-1.00% to -3.22%**, a 2.21-point difference. This is a material exposure, not proof that the lower CAGR should replace central underwriting today. The missing after-NCI acquisition-vintage cash return prevents converting this acquired-growth residual into a demonstrated ROIIC.

2. The Stage 5 number most likely optimistic

The vulnerable output number is **USD 20.193 billion consolidated 2031 Base revenue**, rather than an invented Altera profit line. The 15.5% Base statutory operating margin was already repaired from an unsupported 17.0%, sits slightly below the 15.59% TTM, and acknowledges roadmap, hosting and purchased-intangible costs. But Base's consolidated annual growth sequence of 12.89%, 11.08%, 10.00%, 8.15%, 7.08% continues to require progressively larger acquired-revenue dollars at the same time target pricing and governance grow more difficult. If the business cannot improve 1%-2% after-FX organic growth, the capital requirement rises with the enlarged base. The isolated two-point consolidated CAGR miss costs CAD 12.35 terminal EPS; the isolated two-point margin miss costs CAD 18.16 and lowers Base IRR to **-4.33%** at the same exit multiple. Do not add these deltas as if independent; weak acquisition cohorts could drive growth, margins, finance expense and NCI together.

3. The strongest short case

The bearish mechanism is a **capital-allocation treadmill masked by headline acquired recurring revenue**. Private-equity and strategic competition can lift deal prices; larger carve-outs mature slowly; minority/put structures absorb common-owner cash; and AI-assisted product development and migration threaten the thinnest old vertical workflows. Over four to eight quarterly reports, FX-adjusted maintenance organic growth might stay around or below 2%, acquisition consideration remain elevated, after-NCI FCFA2S per share cease advancing and statutory margin remain below 15%. Revenue would still grow through consolidation, concealing deteriorating incremental return; the normalized 22x Base terminal P/E could then be much too high. This is a credible margin-and-owner-return failure, not a claim of imminent insolvency.

Altera is a concrete warning, not a fabricated segment. Its Q2 FX-adjusted organic total revenue was **-22%** and maintenance **-19%**. Ex-Altera CSU was itself only 2% total and 4% maintenance after FX. Altera's prior comparison included USD 9 million upfront contract and USD 8 million contract-amendment revenue that did not repeat; normalization can explain *part*, not the entire portfolio's weak 1% result. Its USD 21 million Q2 and USD 55 million H1 FCFA2S are on a separate supplemental perimeter and cannot be divided by H1 FY2026 deal consideration, a different vintage, to prove a return. Management's statement that Altera is ahead of its original expected IRR remains qualitative. These figures come from the official Q2 report and MD&A and the current-run DR-reviewed data package.

4. Cross-examination of management

Jamal Baksh's Q4 FY2025 call treated **5% FX-adjusted recurring organic growth** as a good future number; Q2 actually printed 2%, and consolidated after-FX organic growth was 1%. That is an aspiration, not 2026 achieved performance. Four quarters below 3% after FX, particularly after Altera's revenue comparison rolls, would impeach it. Chris Graham said in the Q2 call that acquisition **“Hurdles rates aren't changing.”** That may be sincerely stated, but without matched purchase consideration including holdbacks and subsequently attributable after-NCI cash, the *realized* hurdle is not auditable. The earliest contradiction would be consideration, debt and NCI/put claims rising faster than owner FCFA2S per unchanged share, followed by recurring impairments. Mark Miller's Q4 statement that teams were investing to accelerate road maps undercuts the superseded automatic 17% margin harvest; the current 15.5% Base partly recognizes it. If R&D staff spending, modernization and AI costs persist without better renewal growth, pricing or implementation productivity, that spend is defensive. Miller separately acknowledged no real AI organic-growth pickup yet and the difficulty applying best practices rapidly in larger acquisitions. Current `data_package.md` Section 6 preserves the dated transcript quotations from current live FMP `/stable/earning-call-transcript` responses; the issuer Q2 release independently anchors the reported results.

5. Recency, shares and funding

S's FY2025 less H1 FY2025 plus H1 FY2026 anchor is precisely Q3/Q4 2025 plus Q1/Q2 2026: USD 12.641 billion revenue, USD 1.971 billion statutory operating income, USD 961 million reported parent-common income. There is no overlapping half-year. The normalized common-income denominator is USD 1,236.977 million after explicitly removing event-heavy FX, IRGA, bargain purchase, Asseco transition and immature equity-investee pickup while retaining finance, impairment, tax and NCI. That yields CAD 81.685 diluted EPS and **34.118x** current normalized P/E versus CAD 63.461 reported EPS and a distorted **43.916x**. The raw multiple was not a cap or a scenario-selection rule. First forward-year and terminal cadence were specifically examined in S and VP; the four quarterly organic data nevertheless warn that a smooth 2027 acquisition assumption is contingent, not observed.

H1 completed-deal consideration was about **USD 1.700 billion**. H1 net cash acquisition use was USD 1.436 billion, a different timing/perimeter containing acquired cash and prior holdbacks; they are not additive. H1 after-NCI issuer FCFA2S was USD 1.078 billion and dividends about USD 42 million: USD 664 million consideration-basis or USD 400 million net-cash-basis gap, alternative diagnostics. TTM FCFA2S USD 2.031 billion less USD 84.8 million annual common dividend yields USD 1.946 billion simple availability, not unrestricted parent liquidity. Annualizing active H1 deal consideration to USD 3.400 billion leaves a USD 1.454 billion constant-cash stress gap; at 6% it implies about USD 87 million first-year pretax interest, not a five-year debt forecast. Roughly USD 1.307 billion of June cash was in Topicus, Lumine and other non-recourse subsidiaries with distribution limits. S Base finance cost rises from USD 319 million normalized TTM to USD 480 million in 2031, while finance income falls from USD 181 million to USD 160 million. The net USD 182 million annual deterioration is not free financing, but without a full cash/debt roll-forward its sufficiency remains an assumption. A measured shortfall routes to **S, then VP/CS/CSA**, not a silent terminal-debt subtraction after EPS times P/E.

No parent buyback benefit hides in the denominator: 21.191530 million diluted shares remain flat, matching the H1 count and no identified parent options, warrants, convertible or issuance. Subsidiary NCI and puts do not become CSU shares. Finance costs, IRGA marks, NCI attribution, leases and investment income affect statutory common EPS; no cash is added or debt, IRGA or NCI subtracted again after P/E. VP inventories the claim perimeter and keeps the unsupported EV/NOPAT terminal debt/lease/asset bridge and incomplete P/B-ROE common-equity roll-forward rejected. A newly identified dilutive parent instrument would be foundational **S plus VP**, then CS and CSA. The 5% extra-share S sensitivity lowers Base EPS to CAD 113.887 and IRR to about -2.00%, only one return point, while a hypothetical 5% repurchase cannot be paid from FCFA2S already assumed redeployed into acquisitions.

6. Audited security returns and 20% stretch

CSA reduced CS from 64/100 to **52/100**, denying unsupported ROIIC trend, unit-economics, scale-return and retention points; it did not change audited returns. The 20% Return Underwriting score is **2/20**, with no affirmative 20% claim. CAD 2,786.97 requires CAD 6,652.71 terminal wealth per share to earn 20% over 1,743 days. At 22x Base exit, net of modeled CAD 25.18938 distributions, that is **CAD 301.25** terminal EPS versus CAD 119.581686 Base, implying 31.45% five-year EPS CAGR from current normalized EPS versus Base 7.92%. The probability-weighted 20% maximum-buy-price *diagnostic* is CAD 1,243.72, never an order.

Audited scenario	Weight	Terminal CAD EPS	Locked P/E	Equity/share CAD	Distributions CAD	Terminal wealth CAD	Gross CAD IRR	Net SGD diagnostic
Bear	25%	73.831214	16x	1,181.299419	25.189380	1,206.488799	-16.09%	-16.32%
Base	55%	119.581686	22x	2,630.797083	25.189380	2,655.986463	-1.00%	-1.24%
Bull	20%	214.535779	28x	6,007.001815	25.189380	6,032.191195	17.56%	17.30%
Probability-weighted wealth	100%	Not a fourth EPS	P/E method	2,943.663614	25.189380	2,968.852994	1.33%	1.10%

The weighted IRR compounds **0.25 × Bear + 0.55 × Base + 0.20 × Bull terminal wealth**, not the arithmetic mean of IRRs. There is no post-P/E net-debt adjustment. The USD 1 quarterly dividend declared August 11 was payable October 9 to **September 18 record holders**; it is excluded for a September 21 prospective purchase because entitlement is not established. Eighteen *hypothetical*, not issuer-declared, USD 1 quarterly payments from January 2027 to April 2031 at flat spot USD/CAD total CAD 25.18938; July 2031 does not enter a June terminal. Zeroing every forward dividend moves Base gross IRR only from -1.00% to about **-1.20%**. Do not distribute the whole FCFA2S balance and simultaneously fund acquisitions from it.

The finite net-SGD overlay uses contemporaneous USD/SGD 1.27602 and USD/CAD 1.39941, hence SGD/CAD 0.911827, flat terminal FX, 0.5% entry and exit friction, assumed 15% Canadian dividend withholding and illustrative 0% incremental Singapore dividend tax. These are not this owner's verified broker, residency, treaty eligibility or actual taxes. The Canada–Singapore treaty ceiling is conditional and IRAS foreign dividend guidance has taxpayer-specific exceptions. A 10% worse terminal SGD/CAD changes weighted net IRR from **1.10% to -1.11%**, and 10% stronger FX to **3.14%**. This is material uncertainty in the exact SGD result, yet neither favorable direction reaches a 10%–15% owner target. It is a diagnostic, not promised proceeds.

7. Two-sided locked-exit challenge

Most optimistic choice: Base **22x** sits near Vitec's provider-native TTM 22.51x, even though the CSU 9.82% Base revenue CAGR depends on unproved acquired cohorts, only 15.5% terminal statutory margin and complex NCI/put/debt claims. A

peer's reported earnings are not CSU's normalized statutory denominator; matching the numeral is context, not algebraic proof. A non-controlling Base 20x sensitivity on unchanged EPS yields **-2.94%** gross IRR, a 1.94-point deterioration from -1.00%; 18x yields **-5.04%**, a 4.03-point deterioration. If sustained 1%-2% organic and weak cohort returns become *central* rather than Bear risks, VP must re-underwrite the multiple and B/S earnings, then CS/CSA must rerun. Today's evidence does not establish 18x as a superior central exit. Bull **28x** requires 12.99% revenue CAGR, 18.5% statutory margin and favorable below-line results together. At 25x unchanged Bull EPS, IRR is **14.82%**, 2.75 points below audited 17.56%; this optimistic tail has only a 20% weight and cannot justify Base.

Most bearish choice: Bear **16x** only modestly exceeds lower-growth Enghouse's FY2025 native 15.53x despite CSU's broad installed base and ~79% modeled 2031 recurring mix. Bear already combines 13.5% statutory margin, 6.50% revenue CAGR, USD 200 million negative IRGA mark, USD 50 million FX loss, USD 100 million impairment, USD 450 million finance cost and 8% NCI, while capping correlated stress. An 18x non-controlling Bear sensitivity raises wealth from CAD 1,206.49 to approximately CAD 1,354.15, and IRR from **-16.09% to -14.04%**, about **2.05 points**. That rebuts gratuitous sub-15x or zero-equity Bear rhetoric, not the independently selected 16x. If Altera comparisons normalize and after-NCI cash compounds, residual Bear franchise value could be higher; sustained sub-2% organic with failing acquisition economics could instead merit less. CSU raw current 43.916x never capped exits; comparable normalized 34.118x did not dictate them. FMP-native peer denominators were preserved rather than relabeled. Neither attack splices EV assets or common book into the frozen P/E return method.

8. Objection dispositions and precise routes

Material means a *supportable correction* could move a scenario or weighted annual return by at least two points, alter ER2/CIO conclusion, or expose invalid method, denominator or terminal equity. A hypothetical stress of that size is not automatically a proven new central forecast. Each return-model objection is classified here, with a chain to rerun if new evidence makes it unresolved.

Objection	Quantified disposition	Classification and route if new evidence
Acquired recurring/Base revenue path	-200 bp consolidated CAGR cuts Base 2.21 points; B discloses organic/acquisition residual, S carries it, Bear weight and CSA deny unproved ROIIC. No vintage evidence proves the stress belongs in Base.	MATERIAL_RESOLVED; persistence or cohort evidence: B → S → VP → CS → CSA.
USD 1.700bn acquisition funding	H1 USD 664m/400m alternative gaps; Base cost 319→480 and income 181→160, with no claim of unrestricted parent cash.	MATERIAL_RESOLVED; sourced additional funding cost: S → VP → CS → CSA.
Exit P/E too optimistic	Base 18x costs 4.03 points; Bull 25x costs 2.75; 22x/28x have independent, if imperfect, Vitec and maturity anchors.	MATERIAL_RESOLVED; new comparable or structural evidence: B/S → VP → CS → CSA.
Exit P/E too bearish	Bear 18x gains 2.05 points; locked 16x explicitly contrasts Enghouse and correlated claims without zeroing positive earnings.	MATERIAL_RESOLVED; new franchise/cash evidence: B/S → VP → CS → CSA.
Raw versus normalized earnings and claim perimeter	Raw 43.916x is non-comparable; 34.118x normalized controls. P/E includes finance, NCI and remeasured obligations within EPS, with no post-multiple bridge.	MATERIAL_RESOLVED; any faulty denominator or instrument: S → VP → CS → CSA.
Dilution and dividends	Parent 21.191530m shares flat without buyback assumption; eighteen forward distributions counted once; no-dividend Base difference only 0.20 point.	Dilution treatment MATERIAL_RESOLVED; distribution-quantum objection IMMATERIAL. New parent instrument: S → VP → CS → CSA.
FX, tax and costs	±10% SGD/CAD shifts weighted net by about -2.21/+2.04 points, disclosed as flat-spot diagnostic; owner specifics unavailable; actionability target still not met.	MATERIAL_RESOLVED as uncertainty, not owner-verified proceeds. New account facts: CS → CSA overlay only if VP unchanged.
Owner 13% scenario and 23-share holding	23 × CAD 2,786.97 = CAD 64,100.31 marked gross, but NAV, basis, account, overlap and risk budget cannot prove 13% actual weight or justify retention.	MATERIAL_RESOLVED by exclusion from security returns and portfolio-fit assertion; no size, rank or trade.
September 10 historical objections	Margin, funding, Bear correlation, exits and calendar already repaired; old quote and hashes do not control today.	MATERIAL_RESOLVED historically, never current evidence.

The epistemic gap remains important: vintage-matched **after-NCI acquisition ROIIC**, unit retention and complete PEMS rights/cash receipts are unavailable. These lower quality confidence and explain CSA's 50/80, but do not, by themselves, prove a numerical replacement for current B/S/VP. If a sourced normalization, method, claim, diluted-denominator or exit-multiple defect emerges, status becomes **MATERIAL_UNRESOLVED** and the VP/upstream chain above must run before publication. RT does not silently change locked multiples or ask CS to define VP inputs. CSU is not a P&C insurer; an insurer

return bridge is not applicable.

9. Monitorable exit signal and conviction

The forced-exit research signal is a *joint four-quarter pattern*: FX-adjusted maintenance/recurring organic growth **below 3% in each of four quarters**, trailing-year completed acquisition consideration plus other investments **at least USD 1.5 billion**, and trailing-year statutory operating margin **below 15%**. Test after each of the next four results and verify currency and acquisition-perimeter changes. This separates a single Altera comparison anomaly from sustained expensive deployment without renewal growth or cohort maturation. A separately documented relaxation of hurdle economics or material PEMS impairment without ownership/cash-return disclosure would independently challenge management. A signal calls for a fresh underwriting and owner decision, not an automatic sell order.

Business thesis survives conditionally; current-price investment thesis does not. Switching costs and cash generation preserve genuine residual value, so the Bear cannot be zeroed by pessimistic fiat. Equally, 1%-2% organic growth, opaque marginal acquired returns, Management and Moat/2046 YELLOW gates and audited Base **-1.00% gross CAD**, weighted **1.33% gross CAD / 1.10% net SGD** do not earn an entry case. The optimistic and bearish sensitivities change magnitude, not this unfavorable conclusion. `trade_execution_authorized=false`; `portfolio_mutation_authorized=false`.

Appendix D - Source Data Package

Constellation Software Inc. - Production ER2 Data Package

Ticker: CSU.TO. **As-of date:** 2026-09-22. **Reporting currency:** USD. **Scale:** USD millions unless stated otherwise. **Fiscal year-end:** December 31. **Latest completed period:** Q2 FY2026 and H1 FY2026 ended 2026-06-30. **TTM construction:** FY2025 less H1 FY2025 plus H1 FY2026. **TTM end:** 2026-06-30. **Forecast horizon:** 2031-06-30, exactly five years. **Run:** `pulse-cio-20260922T140210+0800`. **Decision question:** research on retention of 23 existing shares versus adverse prior ER2; no sizing or trade authority. **Trade execution authorized:** false.

The controlling sources are Constellation's audited FY2025 statements, FY2025 shareholder report, Q1 FY2026 shareholder report and financial statements, Q2 FY2026 shareholder report and financial statements, and the live FMP stable pulls recorded below. Constellation is a Canadian IFRS issuer; its official local-exchange filings control whenever FMP differs. The official FY2025 and Q2 FY2026 reports were downloaded again on September 22, and fresh FMP annual, quarterly, product and Q2 transcript responses were archived under this run's `raw` directory. The September 22 issuer news index still ends with the August 31 board release; no newer issuer financial release was found on that index. No warehouse cache was used as evidence; the historical depth retained from the reviewed September 10 package was rechecked at the current controlling anchors. The exact-byte statutory bridge remains QFR-sealed and unedited.

0a. Industry classification and disclosure inventory

Classification and regime. Constellation is a diversified vertical-market-software acquirer and operator reporting under IFRS Accounting Standards on a calendar fiscal year. It has six operating groups but aggregates them into one IFRS 8 reportable segment. Because this is a software issuer and both mandatory live FMP product endpoints returned `[]`, the SaaS/software checklist is mandatory. The current official filings replace the empty vendor product dataset.

Fresh official source inventory. This run checked the issuer's investor-relations index; audited FY2025 shareholder report and financial statements; Q1 FY2026 shareholder report and financial statements; Q2 FY2026 shareholder report and financial statements; Q3 FY2025 shareholder report; Q3, Q4, Q1 and Q2 results releases; the FY2021-FY2024 official annual reports indexed on the current issuer site; the 2026 AGM/webcast index; and official corporate-action releases. Fresh FMP pulls covered annual and quarterly product segmentation, annual and quarterly income statements, annual balance sheets, annual cash flows, annual key metrics and ratios, and Q3 FY2025 through Q2 FY2026 transcripts.

Search inventory. Official materials were searched for `segment`, `operating segment`, `reportable segment`, `segment profit`, `Topicus`, `Lumine`, `Adapt IT`, `Altera`, `non-controlling interest`, `supplemental financial information`, `revenue type`, `license`, `maintenance and other recurring`, `organic growth`, `foreign exchange adjusted organic growth`, `ARR`, `annual recurring revenue`, `net new ARR`, `NRR`, `DBNR`, `gross retention`, `churn`, `RPO`, `cRPO`, `current remaining performance obligations`, `remaining performance obligations`, `contracted not yet recognized`, `contract duration`, `billings`, `cash received or billed`, `deferred revenue`, `customers`, `seats`, `ARPU`, `ACV`, `product adoption`, `gross margin`, `sales and marketing`, `SBC`, `share-based payment`, `dilution`, `research and development`, `capitalized commissions`, `acquisition`, `AI`, `pricing`, `hurdle rate`, and `customer concentration`.

Completeness matrix

Dataset or table family	Official source searched	Search terms or table names	Years available	Included?	If excluded, why	Downstream relevance
Reportable-segment economics	FY2021-FY2025 annual reports; Q2 FY2026 interim	Operating segments; reportable segment; segment profit	FY2021-FY2025 and H1 FY2026	Yes	No complete common-basis six-group revenue table or CODM segment-profit metric is published	Segment model; statutory bridge
Revenue by type	Annual and quarterly shareholder reports	Revenue according to revenue type; license; maintenance	FY2021-FY2025 and latest four quarters	Yes	No exclusion	Product model; durability
Recurring revenue	Annual and quarterly shareholder reports	Maintenance and other recurring; organic growth	FY2021-FY2025; Q3 FY2025-Q2 FY2026; TTM	Yes	No exclusion	Pricing; moat; organic growth

Dataset or table family	Official source searched	Search terms or table names	Years available	Included?	If excluded, why	Downstream relevance
RPO-style backlog / cRPO / contract duration	Annual report revenue-recognition note	Contracted not yet recognized; RPO; cRPO; current RPO; contract duration	FY2021-FY2025	Yes	Total and percent expected within 12 months are disclosed; no issuer-labeled cRPO value or duration ladder; no interim RPO value	Revenue visibility
Deferred revenue	Annual notes; Q2 FY2026 balance sheet	Deferred revenue; current and non-current	FY2021-FY2025 and 2026-06-30	Yes	No exclusion	Working capital; billings proxy
Billings	Annual revenue-note roll-forwards; interim MD&A	Billings; cash received or billed	FY2021-FY2025	Yes	The roll-forward discloses cash-received-or-billed additions but not a standardized consolidated billings KPI	Growth quality; working capital
Customer concentration and geography	FY2025 note 23; issuer home page	Geographical information; major customers; global customers	FY2024-FY2025; current marketing count	Yes	No five-year customer-count series	Diversification
ARR and net new ARR	Same official source set	ARR; annual recurring revenue; net new ARR	None	No	True non-disclosure; recurring revenue is disclosed instead	Growth quality
Retention and churn	Same official source set	NRR; DBNR; GRR; retention; churn	None	No	True non-disclosure	Moat and pricing
CAC, payback and magic number	Same official source set	CAC; payback; magic number	None	No	True non-disclosure; decentralized portfolio has no consolidated metric	Unit economics
Seats, ARPU and ACV	Same official source set	Seats; ARPU; ACV; customer count	Current customer count only	Partial	True non-disclosure for seats, ARPU and ACV	Product adoption
Gross margin, sales and marketing, and R&D	Annual and interim MD&A staff/expense tables	Gross margin; sales and marketing; research and development	FY2021-FY2025; H1 FY2026	Yes	S&M and R&D staff costs are disclosed; no consolidated gross-margin KPI because costs are not classified by cost of revenue	Product reinvestment; efficiency
SBC and dilution	Annual and interim cash-flow/equity notes; EPS note	SBC; share-based payment; shares outstanding	FY2021-FY2025; H1 FY2026	Yes	No material SBC line identified and common shares remain unchanged	Per-share economics
Supplemental subsidiary economics	FY2025 note 28; Q2 FY2026 MD&A and NCI note	Topicus; Lumine; Adapt IT; Altera; supplemental financial information	FY2024-FY2025 and H1 FY2026	Yes	Partial entity/NCI perimeters are not CODM segment-profit measures and are not additive modeled segments	Ownership context; organic-growth diagnosis
Recent trend	Q3 FY2025 through Q2 FY2026 shareholder reports and releases	Quarterly results; organic revenue growth	Four quarters	Yes	No exclusion	Recency check

Material software KPI histories

KPI family	Granularity	FY2021	FY2022	FY2023	FY2024	FY2025	Latest interim or TTM	Source path
Maintenance and other recurring revenue	Consolidated, USDm	3,611	4,688	5,985	7,396	8,700	9,557 TTM	Official annual reports; sealed QF TTM
Recurring revenue as percent of total	Consolidated	70.7%	70.8%	71.2%	73.5%	74.9%	75.6% TTM	Calculated from official revenue types
Contracted not yet recognized revenue	Consolidated, USDm	about 2,700	about 3,400	about 6,900	about 6,800	about 7,700	Not disclosed for H1 FY2026	Official revenue-recognition notes
Expected recognition within 12 months	Percent of contracted not yet recognized	71%	72%	56%	60%	61%	Not disclosed for H1 FY2026	Official revenue-recognition notes
Deferred revenue	Current plus non-current, USDm	1,209	1,584	1,845	2,057	2,344	2,783 at 2026-06-30	Official annual notes and Q2 FY2026 balance sheet
R&D staff expense	Consolidated, USDm	732	948	1,215	1,437	1,615	923 for H1 FY2026	Official MD&A departmental staff table

KPI family	Granularity	FY2021	FY2022	FY2023	FY2024	FY2025	Latest interim or TTM	Source path
Sales and marketing staff expense	Consolidated, USDm	369	453	563	635	702	422 for H1 FY2026	Official MD&A departmental staff table
Common diluted shares	Millions	21.192	21.192	21.192	21.192	21.192	21.192 at 2026-06-30	Official EPS and share note
Free cash flow available to shareholders (FCFA2S)	Consolidated after NCI, USDm	883	853	1,160	1,472	1,683	2,031 TTM; 1,078 H1 FY2026	Official annual results releases and FY2025/Q2 FY2026 shareholder reports

The RPO-like measure is the issuer's exact label `contracted not yet recognized`; it includes unearned revenue plus future amounts to be invoiced and recognized. It is not labeled ARR. The jump from about $3.4 billion in FY2022 to about $6.9 billion in FY2023 should not be treated as organic backlog growth without acquisition and contract-perimeter work.

The $2,344 million FY2025 deferred-revenue figure is the recast comparative in the Q2 FY2026 filing: $2,219 million current plus $125 million non-current. The originally audited FY2025 revenue-note closing balance was $2,333 million ($2,214 million current plus $119 million non-current); the $11 million difference is a subsequent measurement-period/reclassification update, not revenue or billings growth.

Supplemental entity disclosures - context only, not modeled segments

Official disclosure perimeter	FY2024 revenue / pretax, USDm	FY2025 revenue / pretax, USDm	H1 FY2026 revenue / pretax, USDm	Classification
Topicus Coop	1,400 / 198	1,758 / 116	1,018 / 145	NCI/entity disclosure; not a CODM segment-profit metric
Adapt IT	101 / 4	108 / 11	67 / 10	NCI/entity disclosure; not a reportable segment
Lumine	668 / -238	766 / 151	443 / 51	NCI/entity disclosure; FY2024 includes redeemable-preferred-security distortion
Altera	767 / 40	712 / 80	301 / 27	MD&A supplemental acquisition perimeter; explicitly not a reportable operating segment

These tables were independently rechecked because the issuer publishes them despite reporting one IFRS segment. The FY2024-FY2025 and H1 FY2026 Topicus/Adapt IT/Lumine values come from the official NCI notes; Altera comes from the MD&A supplemental tables. They provide ownership and organic-growth context only: they are partial entity/NCI or supplemental acquisition perimeters, not the President's disclosed segment-profit measure, and must not be added as modeled segments. A clean five-year comparable series is unavailable because Topicus, Adapt IT, Lumine and Altera entered or changed the consolidated perimeter in FY2021, FY2022, FY2023 and FY2022, respectively.

1. Reporting structure and taxonomy

Current reportable structure

Reporting level	Name	Description	FY2025 revenue	Percent of total	Financial disclosure status
IFRS reportable segment	Consolidated company	Aggregation of all six operating groups under IFRS 8	11,623	100.0%	Revenue and statutory consolidated results disclosed
Operating group	Volaris	Decentralized VMS operating group	Not disclosed	Not disclosed	Name and operating role only
Operating group	Harris	Decentralized VMS operating group	Not disclosed	Not disclosed	Name and operating role only
Operating group	Topicus	Europe-focused VMS platform and operating group	Not disclosed	Not disclosed	CSU publishes Topicus entity/NCI supplemental values, but no CODM operating-group revenue or segment-profit metric
Operating group	Vela	Decentralized VMS operating group, including Juniper	Not disclosed	Not disclosed	Name and operating role only

Reporting level	Name	Description	FY2025 revenue	Percent of total	Financial disclosure status
Operating group	Jonas	Decentralized VMS operating group	Not disclosed	Not disclosed	Name and operating role only
Operating group	Perseus	Decentralized VMS operating group, including healthcare assets	Not disclosed	Not disclosed	Name and operating role only

The annual-report wording is controlling: the company consists of six operating segments, each functioning as a mini-Consolidation of small VMS companies with similar economic characteristics, and aggregates all six into one reportable segment. The six-group list is business context, not six forecastable financial segments. No operating-group revenue or profit number has been inferred.

Official NCI and MD&A tables do provide partial entity-level results for Topicus, Adapt IT and Lumine and supplemental results for Altera. Those perimeters are preserved in Section 0a as context, but they neither form a complete six-operating-group table nor identify the CODM segment-profit measure. Accordingly they do not disqualify the sealed single-segment consolidated fallback.

Taxonomy investigation. The one-reportable-segment structure and the four revenue-type labels were stable throughout FY2023-FY2025 and H1 FY2026. The last material boundary was older: the FY2020 filing describes a transition away from the prior public-sector and private-sector reportable taxonomy. That boundary is outside the last three years. Altera, Topicus, Lumine and individual acquisition cohorts appear in organic-growth commentary, but they do not create additional CSU reportable segments. Historical comparisons in this package use the current four revenue-type taxonomy.

Geographic revenue

Region	FY2024 revenue	FY2024 mix	FY2025 revenue	FY2025 mix	Source
Canada	929	9.2%	1,052	9.1%	FY2025 annual report, note 23
USA	4,504	44.7%	4,837	41.6%	FY2025 annual report, note 23
UK and Europe	3,293	32.7%	4,069	35.0%	FY2025 annual report, note 23
Other	1,341	13.3%	1,665	14.3%	FY2025 annual report, note 23
Total	10,066	100.0%	11,623	100.0%	FY2025 annual report, note 23

No customer represented more than 5% of consolidated revenue in FY2024 or FY2025. The issuer's live home page states more than 150,000 customers in more than 160 countries; this is current marketing disclosure, not an audited historical customer-count KPI.

2. Consolidated historicals

Official results control because the fresh FMP annual row materially differs in FY2025 and classifies operating income differently. FMP was nevertheless pulled live as required; its FY2025 revenue was $11,826.5 million versus official $11,623 million, a 1.751% gap that fails D's 1% vendor tie check, and its FY2025 operating income was $1,931.2 million versus the official-derived statutory $1,895 million. This vendor check is explicitly failed rather than skipped; the foreign-issuer rule makes the fresh official statement controlling. The table below uses consistent official IFRS values; live FMP is retained as the vendor comparison source.

The September 22 live FMP quarterly response also lists Q2 FY2026 revenue $3,248.9m and common-net-income-like row $266.9m, versus issuer Q2 $3,335m revenue and $274m common-attributable net income. These $86.1m/$7.1m gaps reinforce the official override; they do not trigger replacement of the QFR-sealed statutory bridge with provider totals. FMP's annual FY2024 operating-income row of $579m also diverges sharply from the source-derived $1,464m, so the provider's operating metric must not be promoted as a comparable five-year statutory series.

Metric	FY2021	FY2022	FY2023	FY2024	FY2025	Source
Revenue, $B	5.106	6.622	8.407	10.066	11.623	Official annual reports; live FMP comparison
Statutory operating income, $B	0.873	0.882	1.188	1.464	1.895	Revenue less listed operating expenses including amortization

Metric	FY2021	FY2022	FY2023	FY2024	FY2025	Source
Operating margin	17.10%	13.32%	14.13%	14.54%	16.30%	Calculated
Net income attributable to common, $B	0.310	0.512	0.565	0.731	0.512	Official annual reports
Diluted EPS, USD	14.65	24.18	26.67	34.48	24.15	Official annual reports
Diluted share count, M	21.192	21.192	21.192	21.192	21.192	Official EPS notes
Capex, $B	0.029	0.041	0.042	0.067	0.068	Official FCFA2S reconciliations
Conventional FCF, $B	1.271	1.256	1.737	2.129	2.664	Official CFO less property and equipment purchased
Approximate ROIC	29.7%	28.2%	6.7%	21.4%	20.5%	Analyst calculation described below

ROIC calculation

ROIC is NOPAT divided by average invested capital. NOPAT equals statutory operating income multiplied by one minus that year's statutory effective tax rate. Invested capital equals live-FMP total debt plus total stockholders' equity less cash and short-term investments; the denominator is the average of opening and closing values. This is a screening approximation, not an issuer-disclosed return, and it is sensitive to NCI, acquisition accounting and exceptional tax rates.

Year	Statutory effective tax rate	NOPAT, USDm	Average invested capital, USDm	Approximate ROIC	Interpretation
FY2021	55.08%	392	1,321	29.7%	High tax rate depresses NOPAT but low opening capital boosts return
FY2022	24.14%	669	2,371	28.2%	Strong operating return before later large acquisitions
FY2023	76.98%	273	4,071	6.7%	Tax and redeemable-security distortions make this non-normal
FY2024	24.13%	1,111	5,184	21.4%	Normalized tax year and larger capital base
FY2025	37.59%	1,183	5,770	20.5%	Tax and below-line volatility remain material

This volatility supports Stage 1's ROIIC YELLOW rather than a simple five-year average. Downstream work should prioritize acquisition-cohort and incremental cash-return evidence instead of treating this balance-sheet ROIC series as sufficient.

3. Segment historicals

Consolidated company - sole modeled segment

Consolidated company	FY2021	FY2022	FY2023	FY2024	FY2025	Source
Revenue, $B	5.106	6.622	8.407	10.066	11.623	Official annual reports
YoY growth	28.6%	29.7%	27.0%	19.7%	15.5%	Calculated from official revenue
Statutory operating income (single-segment consolidated fallback), $B	0.873	0.882	1.188	1.464	1.895	Official consolidated statements; fallback label sealed for FY2025
Margin on exact metric	17.10%	13.32%	14.13%	14.54%	16.30%	Calculated

The FY2025 and TTM metric identity is fixed by the sealed statutory bridge. This is an ER2 single-segment modeling fallback because neither the official filings nor the two mandatory live FMP product pulls disclose a segment-profit value. It is not an issuer-disclosed segment profit metric. The operating-group rows in Section 1 are non-profit context and must not be modeled as separate dollar segments.

3a. Historical statutory-profit bridge and forecast-driver ledger

Exact common segment-profit basis: `Statutory operating income (single-segment consolidated fallback)`.

Fallback eligibility evidence is preserved unchanged: official FY2025 and Q2 FY2026 filings disclose no operating-group profit metric value; the live FMP annual and quarterly product-segmentation endpoints both returned empty arrays; there is one reportable segment; and the sole modeled line equals sourced statutory operating income. Corporate and unallocated adjustment arrays and operating-bridge adjustment arrays are empty, as the sealed packet requires. No zero placeholder or plug is added.

FY2025 bridge

Bridge line	Classification	Value, USDm	Source ID	Running subtotal, USDm
Consolidated company	Segment profit line	1,895	OFFICIAL_FY2025	1,895
Sum of reportable segment profit	Segment profit subtotal	1,895	OFFICIAL_FY2025	1,895
Consolidated segment profit metric	Subtotal	1,895	OFFICIAL_FY2025	1,895
Statutory operating income	Statutory subtotal	1,895	OFFICIAL_FY2025	1,895
Foreign exchange loss (gain)	Other non-operating	-154	OFFICIAL_FY2025	1,741
IRGA/TSS Membership liability revaluation charge	Other non-operating	-440	OFFICIAL_FY2025	1,301
Finance and other expense (income)	Other non-operating	228	OFFICIAL_FY2025	1,529
Bargain purchase gain	Other non-operating	10	OFFICIAL_FY2025	1,539
Impairment of intangible and other non-financial assets	Other non-operating	-43	OFFICIAL_FY2025	1,496
Revaluation of investment accounted for using the equity method to cost	Other non-operating	-260	OFFICIAL_FY2025	1,236
Finance costs	Interest	-297	OFFICIAL_FY2025	939
Pretax income	Statutory subtotal	939	OFFICIAL_FY2025	939
Income tax expense (recovery)	Tax	-353	OFFICIAL_FY2025	586
Net income	Statutory subtotal	586	OFFICIAL_FY2025	586

TTM ended 2026-06-30 bridge

Bridge line	Classification	Value, USDm	Source ID	Running subtotal, USDm
Consolidated company	Segment profit line	1,971	OFFICIAL_Q2_2026	1,971
Sum of reportable segment profit	Segment profit subtotal	1,971	OFFICIAL_Q2_2026	1,971
Consolidated segment profit metric	Subtotal	1,971	OFFICIAL_Q2_2026	1,971
Statutory operating income	Statutory subtotal	1,971	OFFICIAL_Q2_2026	1,971
Other income and expenses, net - disclosed subtotal, FY2025 less H1 2025 plus H1 2026	Other non-operating	-562	OFFICIAL_TTM_RECONCILIATION	1,409
Pretax income	Statutory subtotal	1,408	OFFICIAL_TTM_RECONCILIATION	1,408
Income tax expense (recovery), FY2025 less H1 2025 plus H1 2026	Tax	-377	OFFICIAL_TTM_RECONCILIATION	1,031
Net income	Statutory subtotal	1,031	OFFICIAL_TTM_RECONCILIATION	1,031

The one-million-dollar TTM operating-to-pretax residual is exactly the disclosed rounding unit and the sealed contract tolerance. It is not a plug. TTM common-share net income is separately $961 million after NCI.

Forecast-driver schedule

Historical bridge line	FY2025 value	TTM value	Forecast treatment	Driver and source	Bear, base and bull rule
Foreign exchange loss (gain)	-154	Included in -562 subtotal	Independently scenario forecast	Currency exposures and largely natural operating hedges; FY2025 MD&A	Bear loss; base zero through-cycle; bull modest gain
IRGA/TSS Membership liability revaluation charge	-440	Included in -562 subtotal	Separate mark-to-market schedule	Topicus trailing recurring revenue, net tangible assets, Sygnity and Asseco values, and EUR/USD	Scenario-specific liability revaluation; never operating expense
Finance and other expense (income)	228 income	Included in -562 subtotal	Cash and investment income schedule	Cash balance, equity-accounted investments and derivative items	Remove one-off derivatives; vary cash yield and affiliate income
Bargain purchase gain	10 income	Included in -562 subtotal	Zero in normalized base	Acquisition purchase-price accounting	Zero base and bear; include only sourced deal-specific bull amount
Impairment of intangible and other non-financial assets	-43	Included in -562 subtotal	Scenario-specific charge	Acquisition cohort performance and impairment indicators	Higher bear; normalized low base; zero or low bull
Revaluation of investment accounted for using the equity method to cost	-260	Included in -562 subtotal	Documented cessation	FY2025 transition of Asseco to equity accounting	Zero thereafter unless accounting perimeter changes
Finance costs	-297	Included in -562 subtotal	Debt and interest-rate schedule	Recourse and non-recourse debt; variable-rate sensitivity	Debt and rate paths by scenario
Income tax expense (recovery)	-353	-377	Effective tax-rate schedule	Jurisdictional mix and official tax note	Bear and bull reflect mix; normalize exceptional deferred-tax effects

Downstream synthesis must not collapse the operating and below-line items into one generic `other` forecast. The sole modeled operating line remains the exact fallback statutory operating income.

STATUTORY_BRIDGE_STATUS: VERIFIED — CLEARED FOR FORECASTING

4. Product and sub-segment historicals

Dollar-disclosed revenue types

Segment	Product or revenue type	What it is	Dollar disclosure?	FY2023, FY2024 and FY2025 revenue plus source
Consolidated company	License	Non-recurring software license fees under multi-year or perpetual arrangements	Yes	$386m; $393m; $415m - official annual reports
Consolidated company	Professional services	Implementation, custom programming, training, consulting and certain managed services	Yes	$1,766m; $1,975m; $2,126m - official annual reports
Consolidated company	Hardware and other	Third-party or assembled hardware and travel reimbursement	Yes	$268m; $302m; $382m - official annual reports
Consolidated company	Maintenance and other recurring	Support, combined software and support, transactions, managed services and hosted SaaS	Yes	$5,985m; $7,396m; $8,700m - official annual reports

No product is included on a growth-only basis. The issuer discloses all four revenue types in dollars for every reported quarter and fiscal year. ARR, individual application revenue, operating-group revenue and customer-cohort revenue are not separately disclosed. No back-solved dollar figures are used.

Five-year dollar history by revenue type

Revenue type, USDm	FY2021	FY2022	FY2023	FY2024	FY2025	TTM ended 2026-06-30
License	287	320	386	393	415	415
Professional services	1,033	1,381	1,766	1,975	2,126	2,226
Hardware and other	176	233	268	302	382	443
Maintenance and other recurring	3,611	4,688	5,985	7,396	8,700	9,557
Total	5,106	6,622	8,407	10,066	11,623	12,641

Annual source paths are the official FY2021-FY2025 shareholder reports and financial statements. TTM is the sealed official build of FY2025 less H1 FY2025 plus H1 FY2026. Rounding causes FY2021 displayed types to sum to $5,107 million versus reported $5,106 million; this is a one-unit filing-rounding difference.

SaaS/software checklist result

KPI	Disclosure method	Current evidence	Historical depth	Classification
Recurring revenue	Exact revenue type in statutory income statement	$9,557m TTM; 75.6% of revenue	Five annual years plus quarterly trend	Disclosed
Organic recurring growth	MD&A pro-forma acquisition adjustment	4% Q2 FY2026; 2% FX-adjusted	Nine-quarter table; last four reproduced below	Disclosed non-IFRS KPI
Contracted not yet recognized / cRPO	IFRS revenue note RPO-style measure	About $7,700m at FY2025; 61% expected within 12 months; no issuer-labeled cRPO value	FY2021-FY2025	Partial for cRPO and duration; total RPO-style amount disclosed
Deferred revenue	Current and non-current liability	$2,783m at 2026-06-30	Five annual years plus latest interim	Disclosed
Billings	Revenue-note deferred-revenue roll-forward	Cash-received-or-billed additions are disclosed annually, but not a standardized consolidated billings KPI	FY2021-FY2025	Partial disclosure; do not relabel the roll-forward line as billings
ARR, NRR, GRR and churn	Searched across source set	No consolidated value	None	True non-disclosure
Customer count	Live issuer home page	More than 150,000 customers	No comparable annual series	Current marketing disclosure
CAC, payback and magic number	Searched across source set	No consolidated value	None	True non-disclosure
Gross margin and S&M	Official income statement and MD&A departmental table	Consolidated gross margin is not reported; S&M staff expense was $702m in FY2025 and $422m in H1 FY2026	Five annual years plus latest interim for S&M	Gross margin true non-disclosure; S&M staff expense disclosed
SBC and dilution	Cash flow and share note	Common shares unchanged at 21.19153m; no material SBC line	Five annual years and H1 FY2026	No dilution signal disclosed

5. Most recent quarterly trend

Constellation's FY ends December 31. The most recently completed fiscal quarter at the time of writing is FY2026 Q2, covering April-June 2026, reported on 2026-08-11 via https://www.csisoftware.com/constellation-software-inc-announces-results-for-the-second-quarter-ended-june-30-2026-and-declares-quarterly-dividend/.

Consolidated trend

Quarter	Revenue, $B	Reported YoY	Organic growth	FX-adjusted organic growth	Statutory operating margin	Source date
Q3 FY2025	2.948	16%	5%	3%	16.96%	Official shareholder report, 2025-11-07
Q4 FY2025	3.177	18%	6%	2%	17.09%	Official shareholder report, 2026-03-09
Q1 FY2026	3.181	20%	6%	2%	13.67%	Official shareholder report, 2026-05-12
Q2 FY2026	3.335	17%	3%	1%	14.72%	Official shareholder report, 2026-08-11

Operating income is calculated consistently as revenue less ordinary expenses and amortization: $500 million, $543 million, $435 million and $491 million, respectively. Q1 has recurring payroll-tax seasonality; Q2 was also affected by low-margin acquisition cohorts and mix. These margins are not the FMP provider's differently classified operating-income series.

Quarterly revenue by disclosed type

Quarter	License, USDm	Professional services, USDm	Hardware and other, USDm	Maintenance and recurring, USDm	Total, USDm
Q3 FY2025	107	538	89	2,213	2,948

Quarter	License, USDm	Professional services, USDm	Hardware and other, USDm	Maintenance and recurring, USDm	Total, USDm
Q4 FY2025	125	568	138	2,346	3,177
Q1 FY2026	91	546	100	2,444	3,181
Q2 FY2026	92	573	116	2,554	3,335

Reported YoY growth by revenue type

Quarter	License	Professional services	Hardware and other	Maintenance and recurring	Total revenue
Q3 FY2025	27%	11%	15%	17%	16%
Q4 FY2025	-7%	8%	42%	20%	18%
Q1 FY2026	-5%	12%	35%	22%	20%
Q2 FY2026	5%	8%	44%	19%	17%

Organic and FX-adjusted organic growth by revenue type

Quarter and basis	License	Professional services	Hardware and other	Maintenance and recurring	Total revenue
Q3 FY2025 organic	19%	-1%	-5%	6%	5%
Q3 FY2025 FX-adjusted	17%	-3%	-7%	4%	3%
Q4 FY2025 organic	-19%	-1%	17%	9%	6%
Q4 FY2025 FX-adjusted	-22%	-5%	12%	6%	2%
Q1 FY2026 organic	-9%	0%	-1%	9%	6%
Q1 FY2026 FX-adjusted	-13%	-5%	-7%	4%	2%
Q2 FY2026 organic	-3%	-3%	7%	4%	3%
Q2 FY2026 FX-adjusted	-5%	-5%	4%	2%	1%

The load-bearing latest-quarter check passed: the official Q2 release states revenue grew 17% to $3,335 million, while the largest product, maintenance and other recurring, was $2,554 million and grew 19% reported, 4% organic and 2% FX-adjusted organic. The official Q2 shareholder report was fetched live again in this run.

The table uses each quarter's contemporaneously published FX-adjusted organic rate. The Q4 FY2025 report later revised Q3 FY2025 hardware from -7% to -6% as permitted by the issuer's pro-forma acquisition-estimate update policy; the -7% shown here is the rate published in the Q3 report. Q1 FY2026 total FX-adjusted organic growth is 2% in both the Q1 report and the later Q2 comparative table.

Acquisition-driven growth and acquired-business diagnostics, refreshed September 22

The Q2 FY2026 shareholder report, MD&A pp. 4-5 supplies the actual revenue, prior comparable and estimated *pre-acquisition* revenue of companies acquired after the base-period cutoff. The last column below is arithmetic, not an issuer ROIIC or contribution-profit measure. Its counterfactual acquired-company adjustment is not an audited standalone revenue line for the 2026 acquisition cohort.

Period, USDm	Current reported revenue	Prior reported revenue	Reported growth	Estimated pre-acquisition revenue adjustment	Comparable pro-forma prior base	Organic dollar change, calculated	Issuer organic / FX-adjusted organic
Q2 FY2026	3,335	2,844	491 / 17%	403	3,247	88	3% / 1%
H1 FY2026	6,516	5,498	1,018 / 19%	742	6,240	276	4% / 1%

Q2's approximately $88m organic dollar difference divided by the $3,247m pro-forma prior base is 2.71%, consistent with the issuer's rounded 3%. H1's $276m/$6,240m is 4.42%, consistent with its rounded 4%. The $403m/$742m adjustment explains much of the *reported-versus-pro-forma* growth wedge, but it is not evidence of the purchase price, incremental FCFA2S or return of capital for a matched acquisition cohort. The currency-neutral 1% is lower than the reported organic 3%/4%; do not label 17%/19% as organic growth. The issuer cautions organic growth is non-standard and may update vendor pre-acquisition estimates in the following quarter.

The same Q2 MD&A pp. 14-16 discloses supplemental, non-reportable perimeters. In Q2, CSI excluding Altera had 2% FX-adjusted organic revenue growth versus Altera -22%, aggregating to 1%; maintenance/other recurring was 4% ex-Altera

versus Altera -19%, aggregating to 2%. For H1 the analogous total revenue rates were 2%, -18% and 1%. Altera generated $153m Q2/$301m H1 revenue, $25m/$63m CFO and $21m/$55m FCFA2S within the issuer's supplemental *Altera* perimeter. The Q2 2025 comparison included $9m upfront contract revenue and $8m contract-amendment revenue without Q2 2026 repeats. These facts explain part of the organic deceleration but do not prove it is fully transitory. Topicus, Lumine and Altera disclosures have overlapping entity/perimeter qualifications and are not additive modeled segments or a six-group segment-profit bridge.

6. Management commentary on forward growth

The issuer did not hold a Q3 FY2025 results call; the exact FMP transcript query returned `[]`. Live FMP returned correctly dated transcripts for Q4 FY2025 on 2026-03-09, Q1 FY2026 on 2026-05-13 and Q2 FY2026 on 2026-08-12. The 2026 AGM webcast was identified on the official IR site, but no text transcript was retrieved, so it is not quoted. The entries below are short verbatim excerpts from the live transcript responses, grouped under the sole reportable and modeled segment.

Consolidated company

- **Q2 FY2026 call, 2026-08-12 - Mark Miller, President.** "What we are not doing is running an AI program out of head office." Topic: decentralization. Interpretation: AI investment and prioritization remain business-unit decisions; avoid a centralized AI cost or revenue line.

- **Q2 FY2026 call, 2026-08-12 - Mark Miller, President.** "We are not going to give you an AI target, an AI revenue line or an AI time line." Topic: AI disclosure. Interpretation: there is no management-provided AI revenue bridge; downstream forecasts must not invent one.

- **Q2 FY2026 call, 2026-08-12 - Mark Miller, President.** "AI is something we add to make that software more valuable." Topic: product positioning. Interpretation: current strategy emphasizes augmentation of mission-critical systems rather than stand-alone AI monetization.

- **Q2 FY2026 call, 2026-08-12 - Mark Miller, President.** "The constraint is not structue, it is having the right leader for each vertical" Topic: verticalization. Interpretation: the transcript's spelling is preserved; management sees leadership depth, not organizational design, as the pace limiter.

- **Q2 FY2026 call, 2026-08-12 - Mark Miller, President.** "We still haven't seen a real pickup in organic growth from it. I think that's a ways out." Topic: AI and growth. Interpretation: AI productivity is current, but revenue uplift is not yet observable.

- **Q2 FY2026 call, 2026-08-12 - Chris Graham, operating-group executive.** "Hurdles rates aren't changing." Topic: acquisition returns. Interpretation: management says large-deal underwriting has not relaxed despite pressure to deploy more capital.

- **Q2 FY2026 call, 2026-08-12 - Bernard Anzarouth, Chief Investment Officer.** "No one is giving up on vertical software, whether it's large or small." Topic: M&A competition. Interpretation: acquisition pricing remains competitive and should not be modeled as automatically improving.

- **Q1 FY2026 call, 2026-05-13 - Mark Miller, President.** "No, I think we remain patient. We deploy capital very, very carefully." Topic: capital allocation. Interpretation: near-term deal pace should remain valuation constrained rather than target driven.

- **Q1 FY2026 call, 2026-05-13 - Mark Miller, President.** "rarely, we lose customers on pricing because the switching is painful for customers" Topic: pricing and retention. Interpretation: switching costs support the GREEN/YELLOW pricing gate, but no retention rate is disclosed.

- **Q1 FY2026 call, 2026-05-13 - Jamal Baksh, Chief Financial Officer.** "In terms of PEM, the hurdle rate is the same." Topic: PEMS minority investments. Interpretation: the new capital channel uses the same return hurdle but a wider distribution of outcomes and a lower acceptable entry price.

- **Q1 FY2026 call, 2026-05-13 - Mark Miller, President.** "I continue to pressure our businesses on organic growth generally, Paul." Topic: organic growth. Interpretation: management is not satisfied with portfolio-wide organic growth and expects AI tools to support faster product work.

- **Q4 FY2025 call, 2026-03-09 - Jamal Baksh, Chief Financial Officer.** "That 5% FX adjusted maintenance organic growth or recurring organic growth number, I continue to think is a good number for future organic growth." Topic: recurring-growth anchor. Interpretation: this is the clearest management forward anchor, though Q2 FY2026 printed only 2% FX-adjusted.

- **Q4 FY2025 call, 2026-03-09 - Mark Miller, President.** "We're really investing into accelerating product road maps" Topic: AI productivity. Interpretation: productivity gains are being reinvested, so a near-term margin windfall is not management's primary plan.

- **Q4 FY2025 call, 2026-03-09 - Mark Miller, President.** "We've added an explicit AI lens, assessing each business for AI disruption risk and potential AI upside and modeling accordingly." Topic: acquisition diligence. Interpretation: AI risk is now embedded in investment underwriting but remains unquantified externally.

- **Q4 FY2025 call, 2026-03-09 - Mark Miller, President.** "We're using the same measure to look at PEMS versus our own acquisition." Topic: capital allocation comparison. Interpretation: PEMS should be modeled as a separate ownership and accounting channel without assuming lower required returns.

- **Q2 FY2026 call, 2026-08-12 - Jamal Baksh, Chief Financial Officer.** "It's actually just operating ahead of what the expected IRR was in the original investment" (regarding Altera, citing the Harris CEO's assessment). Topic: acquired-business return. Interpretation: this is management's qualitative assessment of one cohort, not a quantified realized cash-on-cash IRR or proof of a portfolio-wide incremental return. The caller's prior estimate of cumulative Altera free cash flow is an analyst assertion, not issuer-provided aggregate ROIIC.

- **Q2 FY2026 call, 2026-08-12 - Mark Miller, President.** "driving best practices is harder in larger acquisitions." Topic: acquisition integration. Interpretation: the pace of business-unit breakup, leadership placement and operational improvement is a real constraint on scaling large deals even where the stated hurdle is unchanged.

Transcript endpoints were `stable/earning-call-transcript?symbol=CSU.TO&year=2025&quarter=4`, and equivalent FY2026 Q1 and Q2 calls. All three transcripts were re-fetched and dated 2026-03-09, 2026-05-13 and 2026-08-12, respectively, under `raw\pulse-cio-20260922T140210+0800\d_live`; the Q3 FY2025 exact query again returned `[]`. Every excerpt above was checked against the current-run response, including exact internal punctuation and capitalization-insensitive rendering. No AGM webcast is quoted.

7. Capital allocation history

R&D below is the exact MD&A departmental **R&D staff expense**, not total all-in R&D cost. Acquisition amounts are total consideration including holdbacks and contingent consideration as stated in the annual results releases. Conventional FCF is not FCFA2S.

Year	Capex, $B	Capex as percent revenue	R&D staff, $B	R&D staff as percent revenue	Buybacks, $B	Common dividends, $B	M&A total consideration, $B	Source
FY2021	0.029	0.57%	0.732	14.34%	0.000	0.085	1.517	Official FY2021 shareholder report
FY2022	0.041	0.62%	0.948	14.32%	0.000	0.085	1.875	Official FY2022 shareholder report
FY2023	0.042	0.50%	1.215	14.45%	0.000	0.085	2.609	Official FY2023 shareholder report

Year	Capex, $B	Capex as percent revenue	R&D staff, $B	R&D staff as percent revenue	Buybacks, $B	Common dividends, $B	M&A total consideration, $B	Source
FY2024	0.067	0.67%	1.437	14.28%	0.000	0.085	1.792	Official FY2024 shareholder report
FY2025	0.068	0.59%	1.615	13.90%	0.000	0.085	1.579	Official FY2025 shareholder report

FY2025 also included $530 million of other net investments, principally Asseco. FY2026 H1 included $1,592 million of gross cash used in acquisitions, including prior-deal holdbacks, offset by $156 million of cash obtained with acquired businesses; that is $1,436 million net acquisition cash use, **not** the consideration of the acquisitions completed in H1. The Q1/Q2 releases describe $809 million/$893 million of quarterly consideration, approximately $1,702 million summed; the H1 financial-statement note enumerates Synchronoss $309 million, DerbySoft $392 million and other acquisitions $999 million, totaling $1,700 million at its disclosed rounding/measurement basis. The prior package's $1,625 million H1 assertion is corrected here. The common dividend remained $1 per share quarterly. The unchanged share count and zero repurchases mean per-share compounding has depended on operating growth, acquisition deployment and retained cash generation rather than buybacks.

Shareholder cash-flow bridge: FCFA2S is not conventional FCF

The issuer defines FCFA2S as CFO after cash interest, debt transaction costs, lease principal, the IRGA/TSS revaluation adjustment, property/equipment purchases, interest/dividends received and any proceeds from sale of interest-rate caps, followed by subtraction of the share attributable to NCI. It excludes acquisitions, investments and debt repayment. Conventional CFO less property/equipment is a different consolidated metric, before these shareholder-perimeter adjustments. Never capitalize or distribute both as if interchangeable.

Issuer metric, USDm	FY2021	FY2022	FY2023	FY2024	FY2025	H1 FY2025	H1 FY2026	Q2 FY2025	Q2 FY2026	TTM 2026-06-30
CFO	1,300	1,297	1,779	2,196	2,732	1,260	1,374	433	477	2,846
Property and equipment purchased	29	41	42	67	68	31	40	16	22	77
Conventional CFO less property/equipment	1,271	1,256	1,737	2,129	2,664	1,229	1,334	417	455	2,769
FCFA2S, after issuer NCI adjustment	883	853	1,160	1,472	1,683	730	1,078	220	345	2,031

Annual FCFA2S values are from the FY2021, FY2022, FY2023, FY2025 report including FY2024 comparative and Q2 FY2026 report including H1/Q2 comparatives. TTM arithmetic is FY2025 less H1 FY2025 plus H1 FY2026: CFO 2,732 - 1,260 + 1,374 = 2,846; capex 68 - 31 + 40 = 77; FCFA2S 1,683 - 730 + 1,078 = 2,031, or about $95.84 per unchanged 21.19153m common share. This TTM FCFA2S is $738m lower than conventional CFO less capex, a perimeter/payment difference, not evidence of missing operating cash.

The Q2 reconciliation, MD&A p. 12 explicitly starts from $477m CFO and deducts $5m lease interest, $43m debt interest, $4m debt transaction costs, $38m lease payments, $64m IRGA/TSS revaluation and $22m property/equipment, adds $80m interest/dividends received, and deducts $38m attributed to NCI, yielding $345m FCFA2S within issuer rounding. H1 starts at $1,374m CFO and ends at $1,078m FCFA2S after the analogous rows, including a positive $13m IRGA adjustment and $168m NCI deduction. Q2 FCFA2S rose 57% year over year, while H1 rose 48%; the Q2 2025 base included a larger IRGA charge, so the growth rate alone is not a normalized acquisition-return measure. The issuer notes Q1 cash generation is seasonally strongest and Q2 typically weakest due to maintenance-renewal timing.

Acquisition purchase-price and observed-return ledger

Evidence line, USDm unless specified	Q1 FY2026	Q2 FY2026	H1 FY2026 / subsequent	Interpretation and controlling source
Period acquisition consideration from results releases	809	893	1,702 summed, rounding/measurement differs from H1 note	Q1 and Q2 results releases; includes cash/acquired cash and estimated deferred amounts
H1 acquisition note: Synchronoss / DerbySoft / other	N/A	N/A	309 / 392 / 999 = 1,700	Q2 financial statements note 4; not an ROIIC numerator or denominator

Evidence line, USDm unless specified	Q1 FY2026	Q2 FY2026	H1 FY2026 / subsequent	Interpretation and controlling source
Cash used on acquisitions / acquired cash	N/A	N/A	1,592 / 156; net outflow 1,436	Q2 MD&A cash-flow discussion; includes settlement of old holdbacks
Subsequent completed or open commitments after June 30	N/A	N/A	669 closing cash + 149 estimated deferred = 818	Q2 release and note 19; do not add as completed H1 deal cost
H1 FCFA2S / common dividends paid	N/A	N/A	1,078 / 42	Q2 MD&A; acquisitions plus dividends exceeded CFO in H1

The Q2 note 4 says Synchronoss, acquired February 13 for $309m, contributed $64m H1 revenue and a $4m *net loss* since close; DerbySoft, 91.8% acquired June 1 for $392m total consideration, contributed $11m revenue and a $1m *net loss*. The remaining 8.2% DerbySoft puttable NCI is booked as a liability, not wholly owned economics. Pro-forma hypothetical January 1 acquisition would move H1 consolidated revenue to $6,536m for Synchronoss and $6,568m for DerbySoft individually versus actual $6,516m, but the two stand-alone counterfactuals cannot simply be summed and are not an acquired-cohort return. Provisional purchase-price allocations for acquisitions with aggregate cash consideration of $2,182m (including prior-period transactions) may change materially. The $999m other-H1-deal aggregate is not individually significant and is not accompanied by a clean cohort FCFA2S history.

Thus the capital-deployment *rate* is observable, and Altera's supplemental FCFA2S is observable for a partial perimeter, but there is no disclosed matched multi-year, after-NCI acquired-cohort cash flow, invested-capital and holdback schedule from which to calculate portfolio aggregate ROIIC. Management's Q2 call says Altera is ahead of its original expected IRR, but neither its exact hurdle nor realized IRR is quantified. Preserve ROIIC as an underwriting gap; do not divide consolidated incremental earnings or FCFA2S by this year's acquisition consideration and call it a cohort return.

8. Balance sheet snapshot at FY2025

Item	$B	Source
Cash and equivalents	3.089	Official FY2025 statement of financial position
Short-term investments and trading securities	0.052	Live FMP balance sheet; official other-assets note indicates small trading portfolio
Core debt, current plus long-term	4.131	Official FY2025; recourse plus non-recourse, excluding leases and IRGA
Core net debt	1.042	Core debt less cash
Net debt including leases	1.465	Core debt plus $423m leases less cash
Net debt to EBITDA	0.32x	Core net debt divided by $3.278B statutory EBITDA proxy
Goodwill plus intangible assets	8.392	Official FY2025 intangible-assets balance
Common shareholders' equity	3.576	Capital stock plus AOCI plus retained earnings, excluding NCI
Tangible common book value	-4.816	Common equity less goodwill and intangible assets
IRGA liability	1.234	Official FY2025, kept outside core debt
Non-controlling interests	0.692	Official FY2025, kept outside common equity

The EBITDA proxy is statutory operating income of $1.895 billion plus $201 million depreciation and $1.182 billion intangible amortization. FMP's $5.776 billion `totalDebt` is not used as core debt because it sweeps in obligations with a different perimeter. Parent liquidity is also less than consolidated cash because Topicus, Lumine and other non-recourse subsidiaries held restricted cash pools and face distribution limitations.

June 30, 2026 liquidity and distribution update

Issuer line, USDm unless stated	2025-12-31	2026-06-30	Change / qualification
Consolidated cash	3,089	2,886	-203 on displayed endpoints; issuer discusses about -202 due rounding
Debt with recourse to CSI	1,489	1,472	-17
Debt without recourse to CSI	2,642	2,724	+82 on displayed endpoints; issuer reports +81 due rounding

Issuer line, USDm unless stated	2025-12-31	2026-06-30	Change / qualification
Core bank debt, loans, bonds and debentures	4,131	4,196	+65, excluding leases and IRGA
Core debt less cash	1,042	1,310	+268 from rounded endpoints; issuer net-cash table displays -1,309 for June
Cash in Topicus, Lumine and other non-recourse subsidiaries	Not re-extracted on comparable basis	about 1,307	Distribution to CSI is constrained, not all parent liquidity
Common shares outstanding	21,191,530	21,191,530	No issuance or repurchases in H1

Source: Q2 FY2026 MD&A pp. 16-18 and interim note 12. No gross-to-net debt metric here silently includes the separate leases, IRGA liability or subsidiary NCI. The cash and debt deltas are presentation-rounding differences, not a modeled plug. Cash used for acquisition investment and dividends exceeded operating cash in H1; CSI says future larger acquisitions may require external funding. The undrawn CSI facility has a $1,085m limit with $13m letters of credit consuming capacity at June 30, subject to contractual and subsidiary constraints; do not add subsidiary cash to parent readily distributable capacity.

The FY2025 common dividend was $4.00 per common share (approximately $84.8m at the unchanged share count). H1 FY2026 declared $2.00 per share, and $42m common dividends were paid in H1; Q2's $1.00 dividend was paid July 10 after quarter-end. The August 11 declaration is another $1.00 per share, with September 18 record and October 9 payment dates. These are small actual shareholder distributions relative to FCFA2S because management aims to reinvest at its hurdle. Do not model FCFA2S as if all paid out *and* the same cash funded acquisitions; any forward per-share distribution and retained-capital bridge must count each dollar once. Eligibility for the October dividend depends on the actual record-date ownership, which this research stage does not verify.

9. Recent corporate actions - last 12 months

- **2025-09-25 - leadership transition.** Founder Mark Leonard resigned as President for health reasons; Mark Miller was appointed President, while Leonard initially remained a director. Source: https://www.csisoftware.com/constellation-software-inc.-announces-the-resignation-of-mark-leonard-and-appointment-of-mark-miller-as-president-of-constellation-software/
- **2025-10-01 - Asseco stake closing.** Topicus subsidiary TSS Europe completed the purchase of 14.84% of Asseco treasury shares, taking the then aggregate holding to 24.84% before a later 1.7% disposition. Source: https://www.csisoftware.com/joint-press-release-of-constellation-software-inc-and-topicus-com-inc-topicus-com-inc-completes-agreement-to-acquire-14-84-of-treasury-shares-in-the-capital-of-asseco-poland-s-a/
- **2025-12-09 - board appointment.** Mark Miller joined Constellation's board while remaining President and Volaris Executive Chairman. Source: https://www.csisoftware.com/constellation-software-inc.-announces-appointment-of-mark-miller-to-its-board-of-directors/
- **2026-03-27 - founder board transition.** Mark Leonard announced he would not stand for re-election and would continue as an adviser focused partly on PEMS. Source: https://www.csisoftware.com/constellation-software-inc-announces-mark-leonards-decision-to-not-stand-for-re-election-to-board-of-directors/
- **2026-06-01 - DerbySoft closed.** Vela's Juniper Group acquired 91.8% of DerbySoft; official H1 purchase accounting records total consideration of $392 million and an 8.2% puttable NCI liability. Source: https://www.csisoftware.com/constellation-software-inc-confirms-closing-of-derbysoft-acquisition-through-juniper-group/
- **2026-08-11 - acquisition capacity.** Q2 results reported $893 million of Q2 acquisition consideration and another $818 million of subsequent completed or committed consideration. Source: https://www.csisoftware.com/constellation-software-inc-announces-results-for-the-second-quarter-ended-june-30-2026-and-declares-quarterly-dividend/
- **2026-08-31 - board resignation.** Claire Kennedy resigned after appointment as Canada's Consul General in Chicago. Source: https://www.csisoftware.com/constellation-software-inc-announces-claire-kennedys-resignation-from-the-board-of-directors/

No change in the 21,191,530 common shares outstanding was reported through Q2 FY2026. No large legal settlement, restated full-year guidance or share repurchase was identified in the official current source set.

The issuer's latest-news index was checked live on September 22. It lists August 31, 2026 as the newest posted issuer item, followed by Q2 results on August 11; no September issuer update appears on that index. This is an index-based recency

check, not a guarantee against filings or subsidiary-specific announcements outside the issuer news page. The post-June $818m item is completed **or committed** as of the Q2 filing and must not be wholly classified as closed or as extra H1 acquisition expense.

10. Open data gaps and classification

Gap	Classification	Sources and terms checked	Consequence
Complete six-operating-group revenue and CODM profit table	True non-disclosure	FY2025 notes 23 and 28; Q2 FY2026 interim and MD&A; live FMP annual and quarterly product segmentation; `segment`, `profit`, six group names, Topicus, Lumine, Adapt IT, Altera	Partial entity/NCI and Altera supplemental tables are included as context; use one consolidated modeled segment only
Consolidated ARR and net new ARR	True non-disclosure	FY2021-FY2025 annual reports; Q1 and Q2 FY2026 reports; `ARR`, `annual recurring revenue`, `net new ARR`	Maintenance and recurring revenue is the available proxy, not ARR
NRR, DBNR, GRR and churn	True non-disclosure	Same reports and three live transcripts; `retention`, `NRR`, `DBNR`, `GRR`, `churn`	Pricing and moat require qualitative switching-cost evidence
Standardized consolidated billings	Partial disclosure	FY2021-FY2025 revenue-note roll-forwards and interim statements; `billings`, `cash received or billed`	Cash-received-or-billed additions are disclosed, but are not a pure billings KPI; use deferred revenue and contracted-not-yet-recognized without relabeling
cRPO and contract-duration ladder	Partial disclosure	FY2021-FY2025 revenue notes; `cRPO`, `current RPO`, `within 12 months`, `contract duration`	Percent expected within 12 months is disclosed, but no issuer-labeled cRPO amount or duration ladder exists
CAC, payback and magic number	True non-disclosure	Official software KPI search set; `CAC`, `payback`, `magic number`	No consolidated SaaS unit-economics model
Seats, ARPU and ACV	True non-disclosure	Official annual, interim and IR pages; `seats`, `ARPU`, `ACV`	Product adoption cannot be modeled from those KPIs
Consolidated gross margin	True non-disclosure	FY2021-FY2025 income statements and MD&A; `gross profit`, `gross margin`, `cost of revenue`	Use disclosed expense categories and statutory operating margin; do not infer a SaaS gross margin
FY2026 interim contracted-not-yet-recognized balance	True non-disclosure	Q1 and Q2 reports; `remaining performance obligations`, `contracted not yet recognized`	Latest audited anchor remains FY2025 $7.7B
2026 AGM verbatim text	Not fetched / omitted	Official AGM webcast index found; no text transcript retrieved	No AGM quotation used; video statements should be separately transcribed before citation
Q3 FY2025 earnings transcript	Not applicable	Exact live FMP Q3 FY2025 transcript call returned empty; issuer had results release but no earnings call transcript	Last available calls are Q4 FY2025, Q1 and Q2 FY2026
Product and operating-group dollar back-solves	Not applicable	Official reports disclose four consolidated revenue types but no group values	No estimated product or group revenue appears
ROIC	Estimated	Official operating results plus live FMP capital data	Use only as a screen; acquisition ROIIC remains YELLOW
Matched acquisition-cohort ROIIC and net after-NCI cash yield	True non-disclosure	FY2025 acquisition note and Q2 FY2026 note 4, MD&A supplemental Altera, dated Q2 transcript; `purchase price`, `consideration`, `FCFA2S`, `expected IRR`, `hurdle`	Deal consideration, early revenue/net income and selected supplemental cash flows do not match a multi-year cohort denominator; no aggregate ROIIC claim
Post-June $818m acquisition commitment conversion	Not yet reported	Q2 note 19 and September 22 issuer news index; `subsequent`, `completed`, `open commitments`	Do not assume all commitments closed, spent, or cash-generating

The failed historical-PDF direct URLs on the issuer's retired `/docs/default-source/` path returned HTTP 404 on the initial call and one identical retry. Historical table values in this package were therefore taken from those same official documents as indexed live by the issuer/search service, with direct issuer result pages and current FY2025/Q1/Q2 downloaded reports controlling the current anchors. This is a documented retrieval limitation, not a warehouse fallback.

There is no open statutory segment-profit or accounting-classification gap. The sealed fallback is eligible and reproduced exactly. The economic issues requiring downstream attention are different: lack of operating-group economics, acquisition-return opacity, unstable statutory tax and below-line results, IRGA mark-to-market exposure, NCI and non-recourse cash restrictions, and the absence of disclosed retention metrics.

Live source register

Source ID	Live endpoint or URL	D-stage status	Key use
OFFICIAL_FY2025	https://www.csisoftware.com/wp-content/uploads/2026/04/CSI-Financial-Statement-Q425-Final.pdf	Re-fetched; 806,535 bytes	Annual statements; segment note; RPO; geography
OFFICIAL_FY2025_SR	https://www.csisoftware.com/wp-content/uploads/2026/04/Q4-2025-Shareholder-Report.pdf	Re-fetched; 1,343,381 bytes	Revenue types; quarterly trend; capital allocation
OFFICIAL_Q1_2026	https://www.csisoftware.com/wp-content/uploads/2026/05/Q1-2026-Shareholder-Report.pdf	Re-fetched; 875,897 bytes	Q1 trend and product mix
OFFICIAL_Q2_2026	https://www.csisoftware.com/wp-content/uploads/2026/08/Q2-2026-Shareholder-Report.pdf	Re-fetched; 930,408 bytes	Latest quarter, H1 trend and acquisition detail
OFFICIAL_Q2_2026_FS	https://www.csisoftware.com/wp-content/uploads/2026/08/CSI-Financial-Statement-Q226-Final.pdf	Re-fetched; 412,969 bytes	Balance sheet and statutory bridge confirmation
OFFICIAL_Q3_2025	https://www.csisoftware.com/wp-content/uploads/2026/04/Q3-2025-Shareholder-Report.pdf	Re-fetched; 917,940 bytes	Q3 trend
FMP_PRODUCT_ANNUAL_D	stable/revenue-product-segmentation; symbol CSU.TO; period annual	Live `[]`	Vendor disclosure inventory
FMP_PRODUCT_QUARTER_D	stable/revenue-product-segmentation; symbol CSU.TO; period quarter	Live `[]`	Vendor disclosure inventory
FMP_STATEMENTS_D	stable income, balance sheet and cash flow endpoints	Live six annual rows and eight quarter rows	Vendor comparison and ROIC capital basis
FMP_TRANSCRIPTS_D	stable/earning-call-transcript	Q4 FY2025, Q1 and Q2 FY2026 returned; Q3 FY2025 empty	Verbatim management evidence
OFFICIAL_LATEST_NEWS_20260922	https://www.csisoftware.com/latest-news/	Live index checked September 22; August 31 newest listed	Issuer recency boundary
OFFICIAL_FY2021_TO_FY2023_RELEASES	Official annual-result release URLs in Section 7	Re-opened live September 22	Five-year issuer FCFA2S backfill
FMP_SEPT22_D	stable/income-statement annual and quarter; stable/cash-flow-statement annual; stable/revenue-product-segmentation annual and quarter; stable/earning-call-transcript Q3 FY2025 through Q2 FY2026	Re-fetched September 22, raw responses and individual SHA-256 in separate D manifest	Vendor comparison, empty segments, dated quotations

Fresh raw evidence is under `C:\Users\Admin\OneDrive\GPT\ER 2.0\Constellation Software\raw\pulse-cio-20260910T100358+0800\d_live`. Newly pulled FMP transcript and ratios datasets absent from the warehouse were copied, without overwriting any file, to `C:\Users\Admin\OneDrive\Cowork\Investing\data warehouse\FMP\Constellation Software\20260910_ER2_D_live`.

This September 22 refresh's independently fetched issuer PDFs/HTML and FMP JSON are under `C:\Users\Admin\OneDrive\GPT\ER 2.0\Constellation Software\raw\pulse-cio-20260922T140210+0800\d_live`. Its separate source manifest is `d_source_manifest_20260922.json`; six initial FMP JSON pulls plus the three current-run transcript backfills were copied without overwrite to `C:\Users\Admin\OneDrive\Cowork\Investing\data warehouse\2026-09-22\er2_csu_d_live`. The warehouse is an output copy, not a research source. The current Q2 issuer PDF SHA-256 remains `92fc9a4efd2fc2fa86f4ed86397242645f1aa0aadfc15e1e2d71c11d212aa57b`; the controlling FY2025 and Q2 financial-statement PDF hashes match the QFR record.

DR's September 22 review independently opened the August 11 Q2 FY2026 results release and the controlling FY2025/Q2 FY2026 official filings. Three newly fetched, correctly dated FMP transcripts (Q4 FY2025, Q1 FY2026 and Q2 FY2026) matched all 17 verbatim excerpts and attributed speakers above. The September 22 `d_source_manifest_20260922.json` has 20 of 20 locally archived source hashes matching its manifest; the quote and statutory packets match QFR's exact-byte seals. This review's transcript evidence is under `raw\pulse-cio-20260922T140210+0800\dr_live`, with new FMP response copies, without overwrite, under `C:\Users\Admin\OneDrive\Cowork\Investing\data warehouse\2026-09-22\er2_csu_dr_live`. The prior

September 10 DR evidence remains a historical record, not the current-run verification.

STATUTORY_BRIDGE_SHA256: 414ae25d9249d89b3b87d23f2ba65765b1661bc38a50b521704940f0196c862c

`trade_execution_authorized=false`