

Exchange Ratios under Volatility: Protecting Relative Value between Signing and Closing

A Scenario Framework for Stock-Financed Mergers

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Abstract

In a stock-financed merger, value can move materially between signing and closing even when the negotiated exchange ratio remains unchanged. A fixed ratio transfers market-price risk to the recipient while preserving a negotiated ownership percentage subject to dilution. A floating ratio, collar, walk-away threshold, cash top-up or election mechanism reallocates some of that risk and introduces sensitivity to measurement periods, reference prices, volatility, correlation, dividends, share counts, foreign exchange and market disruption. This paper develops a board-ready framework for protecting relative value without treating one observed share price as the transaction outcome. It reconstructs the contractual payoff, reconciles fully diluted ownership, separates absolute from relative performance, models two-way and asymmetric collars, tests delayed-closing and extreme-move cases, and connects fairness, accounting, disclosure, financing and closing mechanics. Five figures and five tables present the fixed-versus-floating payoff, relative-performance bridge, collar geometry, scenario matrix and retained exchange-ratio certificate. The analysis draws on filed merger agreements and proxy statements, securities rules, takeover requirements and financial-reporting standards. Eight frequently asked questions and twenty-six primary or authoritative sources support application. Numerical values are illustrative analytical scenarios. Transaction-specific conclusions require executed documents, verified market and capitalisation data and independent board, legal, accounting, tax, regulatory, valuation and financial advice.

JEL Classification: G12, G13, G32, G34, K22

Keywords: exchange ratio, stock merger, collar, relative value, VWAP, signing, closing, volatility, ownership, merger consideration

1. Define the protected value objective

The transaction team should state whether the negotiation protects delivered value, relative ownership, premium, downside, control or a combination. The required output is a signed value-objective memorandum. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [1][2].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that the parties can optimise different outcomes while using the same exchange-ratio language. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

2. Reconstruct the exchange formula

The transaction team should translate every numerator, denominator, adjustment, rounding rule and timing convention from the executed agreement. The required output is an executable exchange-ratio formula. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [1][3].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that an apparently simple ratio can contain several conditional calculations. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

3. Reconcile fully diluted shares

The transaction team should map issued shares, options, awards, convertibles, treasury shares, new grants, buybacks and permitted issuance. The required output is a closing share-count bridge. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [3][14].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that ownership can move even when market prices do not. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

4. Separate value from ownership

The transaction team should calculate delivered market value, enterprise value, premium and pro forma ownership under each price point. The required output is a value-and-ownership bridge. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [2][4].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that one mechanism can stabilise value by allowing ownership to change. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

5. Choose fixed or floating exposure

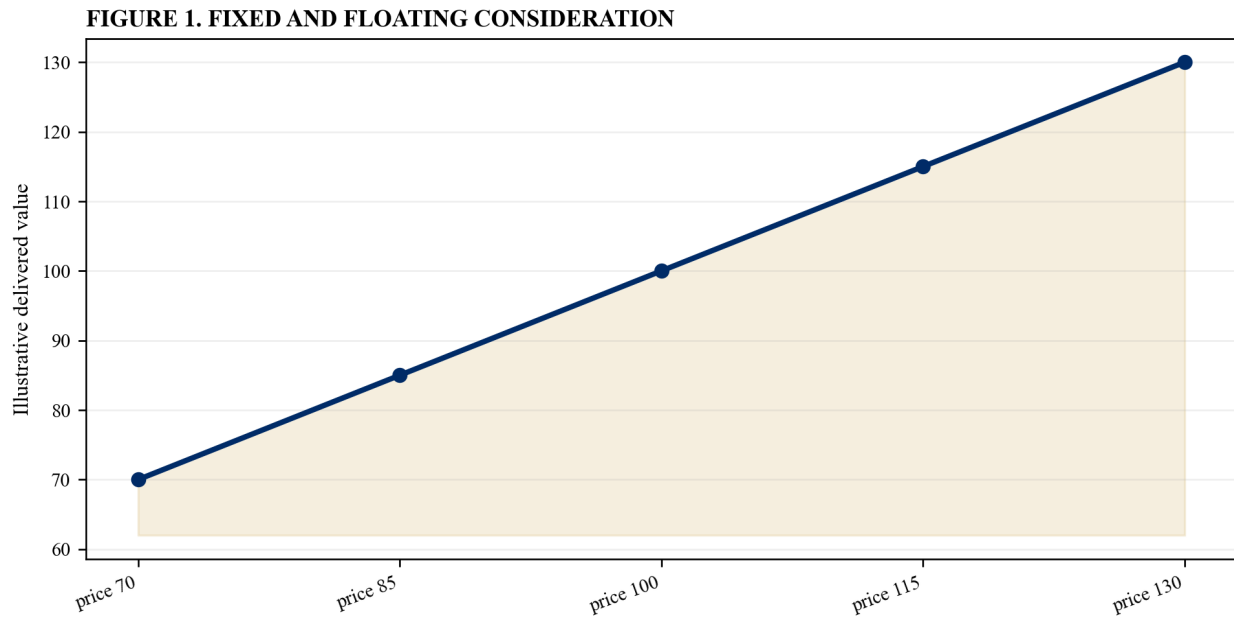
The transaction team should compare fixed-ratio, fixed-value, mixed and contingent structures against the value objective. The required output is a structure comparison. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [2][5].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that the selected mechanism can transfer more volatility than the board intended. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

Figure 1. Fixed and floating consideration



Illustrative analytical scenario; verified market, capitalisation and transaction data should replace index values.

6. Measure absolute price risk

The transaction team should model each party's price path from unaffected date through signing, measurement and closing. The required output is an absolute-price scenario file. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [4][6].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that delivered consideration can fall while the exchange ratio remains constant. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

7. Measure relative performance

The transaction team should compare the parties' returns over consistent periods and decompose market, sector and company effects. The required output is a relative-performance bridge. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [3][7].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that the acquirer price can rise while the target still loses relative value. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

8. Estimate volatility and correlation

The transaction team should use transparent windows, frequencies, corporate-action adjustments and stress assumptions for both shares. The required output is a market-risk calibration. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [6][8].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that historical volatility can understate transaction-period dislocation. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

Table 1. Exchange-ratio structure comparison

Structure	Value exposure	Ownership exposure
fixed ratio	market floats	largely fixed
floating ratio	targeted	market floats
two-way collar	shared by zones	shared by zones
cash top-up	partly protected	funding dependent

Illustrative structure; the executed merger agreement and verified closing inputs govern.

9. Define the reference price

The transaction team should specify closing, average, VWAP or other observable price, market, currency, source and adjustment rules. The required output is a reference-price specification. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [1][4].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that different price definitions can create materially different exchange outcomes. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

10. Set the measurement period

The transaction team should choose length, ending date, gap to closing and treatment of non-trading days. The required output is a measurement-window schedule. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [1][9].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that a short or stale window can be dominated by transient moves. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

11. Define market-disruption rules

The transaction team should address suspensions, extraordinary closures, erroneous prints, low liquidity and benchmark failure. The required output is a disruption protocol. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [9][10].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that the contractual price can become unavailable or unrepresentative. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

12. Design a two-way collar

The transaction team should set lower and upper boundaries, internal floating formula and external fixed ratios. The required output is a two-way collar payoff. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [1][4].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that risk can jump at the boundary if the payoff is misunderstood. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

13. Design an asymmetric collar

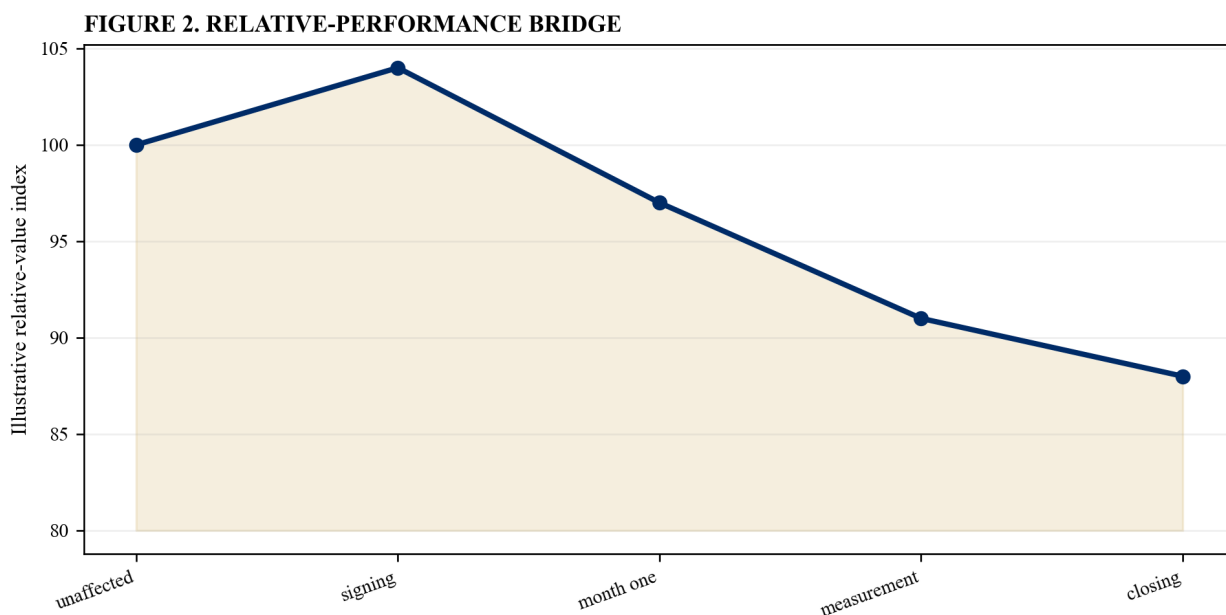
The transaction team should allocate downside and upside differently and quantify the economic concession embedded in each side. The required output is an asymmetric payoff map. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [5][11].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that one-sided protection can appear balanced in headline value. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

Figure 2. Relative-performance bridge



Illustrative analytical scenario; verified market, capitalisation and transaction data should replace index values.

14. Set collar width

The transaction team should link boundaries to volatility, expected closing time, financing capacity and negotiated risk tolerance. The required output is a collar-width rationale. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [4][8].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that an arbitrary percentage can provide little protection in the relevant distribution. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

15. Model slope and boundary continuity

The transaction team should test the payoff immediately inside and outside each boundary and identify cliffs or kinks. The required output is a continuous-payoff audit. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [1][4].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that small price moves can create disproportionate value transfers. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

16. Define caps, floors and rounding

The transaction team should specify maximum shares, minimum shares, decimal precision and fractional-share treatment. The required output is a cap-floor schedule. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [1][12].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that rounding and share limits can accumulate into material value. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

Table 2. Collar mechanics

Zone	Ratio behaviour	Economic result
below floor	fixed maximum	value falls
inside collar	ratio floats	value targeted
above cap	fixed minimum	value rises
boundary	rounding applied	continuity tested

Illustrative structure; the executed merger agreement and verified closing inputs govern.

17. Consider cash top-ups

The transaction team should model optional or mandatory cash used to restore value within stated funding and legal limits. The required output is a cash-substitution matrix. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [2][13].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that protection can fail if funding is unavailable or capped. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

18. Design mixed-consideration elections

The transaction team should reconcile shareholder elections, proration, allocation limits and default choices. The required output is an election and proration model. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [2][13].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that individual outcomes can differ from the headline consideration mix. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

19. Adjust for dividends and distributions

The transaction team should state how ordinary, special and unequal dividends affect prices, ratios and permitted leakage. The required output is a distribution-adjustment schedule. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [3][15].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that one party can transfer value before closing through distributions. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

20. Adjust for splits and corporate actions

The transaction team should cover splits, consolidations, rights issues, spin-offs, tender offers and recapitalisations. The required output is a corporate-action adjustment file. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [3][12].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that mechanical price changes can distort the reference calculation. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

21. Model currency exposure

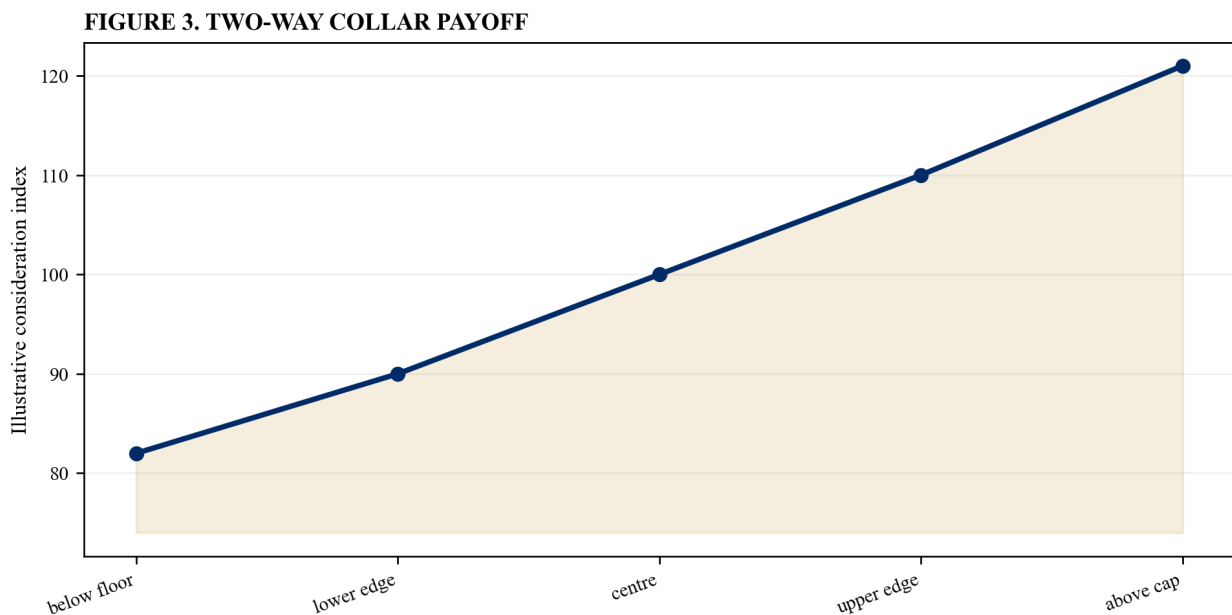
The transaction team should identify consideration, trading, reporting and shareholder currencies and the relevant FX dates. The required output is a currency-adjusted value bridge. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [16][17].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that stable local share prices can still produce volatile delivered value. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

Figure 3. Two-way collar payoff



Illustrative analytical scenario; verified market, capitalisation and transaction data should replace index values.

22. Account for equity consideration

The transaction team should measure acquisition-date fair value and reconcile it with signing-date analysis and pro forma disclosures. The required output is an accounting-value bridge. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [18][19].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that reported consideration can differ from the negotiated headline value. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

23. Model earnings-per-share effects

The transaction team should reconcile new shares, timing, options, synergies, financing and discontinued operations. The required output is a pro forma EPS bridge. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [14][20].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that exchange-ratio protection can change dilution and accretion. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

24. Update fairness analysis

The transaction team should rerun relative valuation, contribution, ownership and consideration scenarios using current evidence. The required output is a closing fairness update. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [3][7].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that a signing opinion can become stale as prices and forecasts diverge. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

Table 3. Relative-value evidence

Input	Source	Control
prices	named market feed	corporate-action adjusted
shares	capitalisation file	fully diluted
forecasts	board-approved models	version locked
FX	specified benchmark	date matched

Illustrative structure; the executed merger agreement and verified closing inputs govern.

25. Monitor operating divergence

The transaction team should compare actual and forecast revenue, margins, cash flow, capital expenditure and material events for both parties. The required output is an operating-divergence dashboard. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [3][21].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that market movement can reflect genuine changes in relative fundamentals. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

26. Read interim operating covenants

The transaction team should identify restrictions on dividends, issuance, buybacks, acquisitions, debt and other capital actions. The required output is an interim-covenant matrix. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [3][15].

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The principal risk is that permitted actions can change relative value before closing. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

27. Test material-adverse-effect interaction

The transaction team should separate price decline, industry conditions and company-specific deterioration under the executed definition. The required output is an MAE interaction map. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [3][22].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that exchange-ratio protection can be mistaken for a substitute for contractual conditions. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

28. Design price-based termination rights

The transaction team should specify thresholds, relative-index tests, notice, cure, top-up and board decision mechanics. The required output is a termination-right decision tree. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [11][22].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that a walk-away right can be unusable without timely evidence and authority. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

29. Model regulatory delay

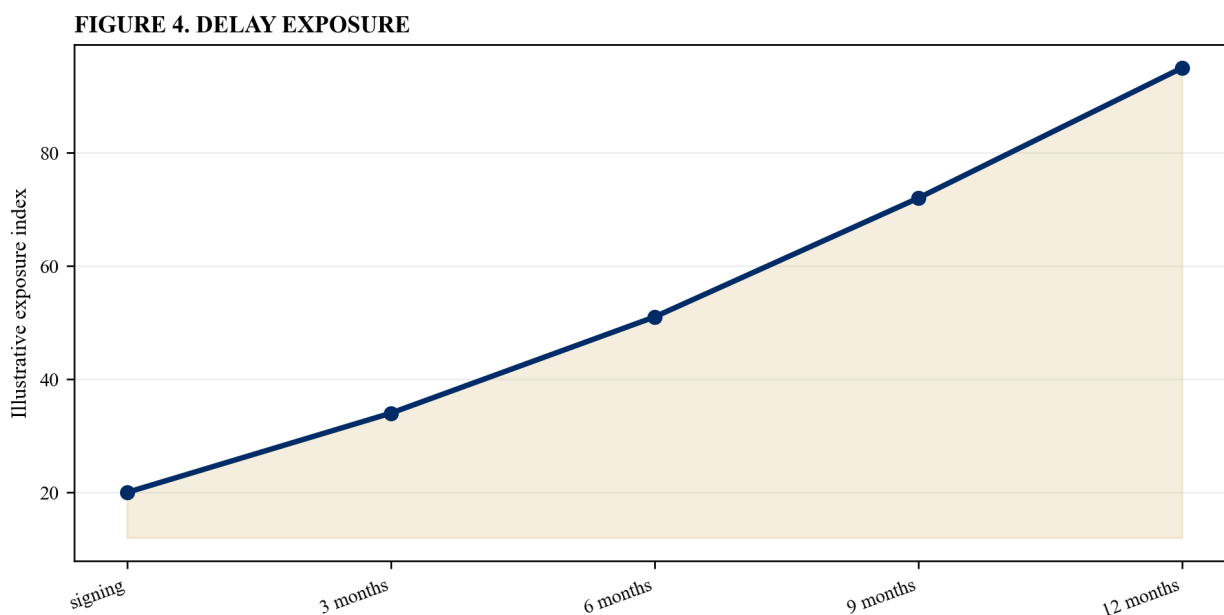
The transaction team should extend volatility, forecast divergence, dividends, financing and reference-window risk across delayed closing dates. The required output is a delay scenario grid. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [9][23].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that a structure calibrated for months can fail over a longer approval period. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

Figure 4. Delay exposure



Illustrative analytical scenario; verified market, capitalisation and transaction data should replace index values.

30. Assess financing interaction

The transaction team should connect cash substitution, bridge facilities, rating capacity, leverage and funding conditions. The required output is a financing-capacity overlay. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [13][24].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that value protection can create an unfinanceable cash requirement. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

31. Assess capital and regulatory constraints

The transaction team should test share issuance limits, listing approvals, bank capital, foreign ownership and sector permissions. The required output is a closing-capacity checklist. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [12][23].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that the calculated ratio can exceed authorised or regulatory capacity. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

32. Model hedging and market behaviour

The transaction team should identify permitted hedging, merger-arbitrage positioning, borrow constraints and disclosure obligations. The required output is a market-behaviour risk file. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [10][25].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that transaction trading can affect liquidity and reference prices. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

Table 4. Downside scenario matrix

Scenario	Primary movement	Board question
relative decline	target underperforms	value transfer
high volatility	boundaries crossed	payoff stability
delay	window extends	protection duration
combined	market and operations	closing decision

Illustrative structure; the executed merger agreement and verified closing inputs govern.

33. Build the base scenario

The transaction team should apply the signed forecasts, expected closing date and central market assumptions. The required output is a base exchange-ratio outcome. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [3][6].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that a single central estimate can hide asymmetric exposure. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

34. Build the relative-underperformance case

The transaction team should stress one party against the other while holding the broad market path explicit. The required output is a relative-downside outcome. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [3][7].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that absolute price protection can leave relative value exposed. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

35. Build the high-volatility case

The transaction team should increase both volatilities, vary correlation and test boundary crossings. The required output is a volatility-and-correlation grid. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [4][8].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that collar protection can behave differently when both shares move. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

36. Build the delay-and-deterioration case

The transaction team should combine extended closing, operating divergence, distributions, financing cost and market decline. The required output is a combined downside case. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [15][23].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that several modest changes can compound into a material transfer. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

37. Set board escalation triggers

The transaction team should define price, relative-performance, forecast, financing and boundary thresholds with decision clocks. The required output is an escalation protocol. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [3][22].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that the board can receive information after protective actions expire. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

38. Control shareholder communications

The transaction team should reconcile public value illustrations, sensitivity tables, forward-looking statements and updates. The required output is a disclosure-control file. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [3][10].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that headline values can be repeated after the underlying price has moved. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

39. Validate the closing calculation

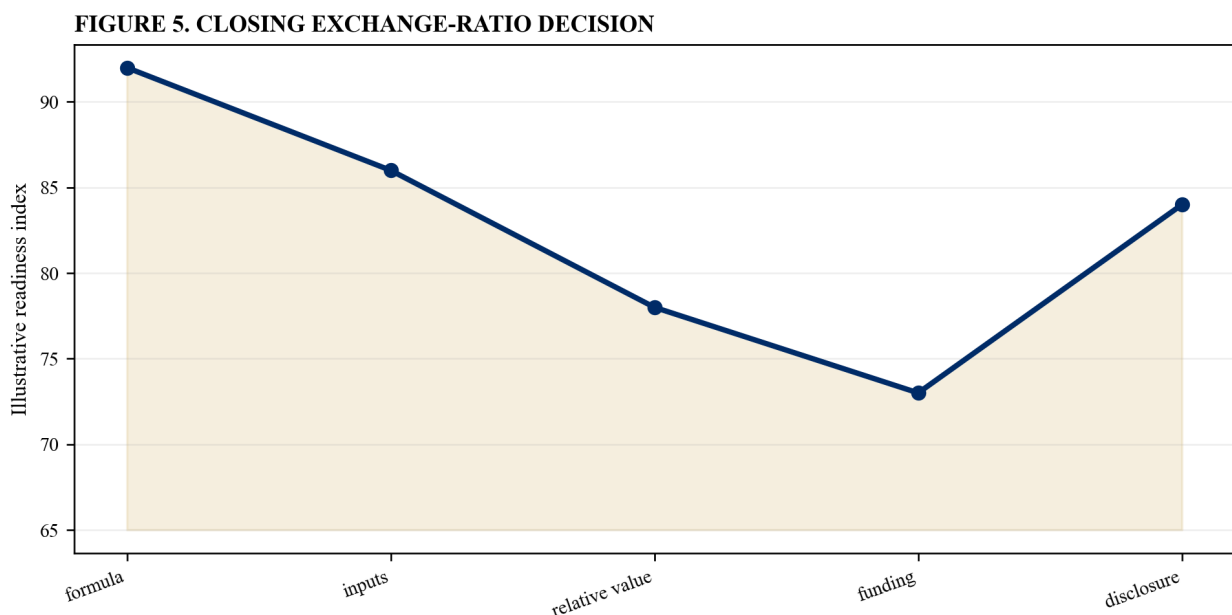
The transaction team should independently recalculate reference prices, share counts, corporate actions, cash, proration and fractional amounts. The required output is a closing calculation certificate. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [1][12].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that an input or formula error can affect every shareholder. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

Figure 5. Closing exchange-ratio decision



Illustrative analytical scenario; verified market, capitalisation and transaction data should replace index values.

40. Issue the exchange-ratio certificate

The transaction team should approve the formula, data, scenario grid, fairness update, financing, disclosures and closing outcome. The required output is a retained board and shareholder-ready exchange-ratio certificate. Use current source data and link every material conclusion to retained merger, market, capitalisation, operating, financing and regulatory evidence [3][18].

Translate the conclusion into the executed exchange-ratio model and board paper. Identify the formula, reference date, data owner, source system, currency, fully diluted share count, corporate-action treatment, approval threshold and decision deadline. Reconcile legal drafting, valuation analysis, accounting, financing and shareholder disclosure.

The principal risk is that the transaction can close without one reconciled view of delivered relative value. Quantify delivered value, pro forma ownership, premium, dilution, cash requirement and accounting consideration across fixed-ratio, floating-ratio, collar, relative-underperformance, high-volatility, delayed-closing and combined downside cases.

Retain the source, model version, reviewer, independent recalculation, legal and financial approval and board response. Compare actual market and operating movements with the signed cases; refresh the sensitivity grid after material changes; and assign every exception an owner and deadline.

Table 5. Exchange-ratio certificate

Conclusion	Evidence	Approval test
formula	executed agreement	recalculated
inputs	prices and share counts	verified
outcomes	scenario and fairness update	board reviewed
closing	final calculation	independently checked

Illustrative structure; the executed merger agreement and verified closing inputs govern.

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About the Author

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Chennakeshav (CK) is a corporate finance and investment banking executive with 25+ years of global experience in deal origination, structuring and execution across M&A, growth capital and corporate strategy. He has led value-creation mandates for founders, corporates and funds; bridging the boardroom view to hands-on execution and close.

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