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# *Estimating Acquisition Prices in Corporate Mergers and Acquisitions*

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***Abstract.*** This paper examines whether the valuation evidence available at signing supports Microsoft's $95-per-share offer for Activision Blizzard. It reconstructs a discounted cash flow model as of 31 December 2021 using management forecasts prepared during negotiations and disclosed subsequently, and compares the results with listed-company and precedent-transaction benchmarks. Enterprise values calculated in this study are distinguished from the financial adviser's disclosed per-share ranges. With a 7.25% weighted average cost of capital and 2.50% perpetual growth, estimated standalone enterprise value is $72.030 billion. Terminal value contributes 82.04%, and increasing the discount rate to 8.00% reduces enterprise value by approximately 14.00%. The offer falls within the disclosed discounted cash flow (DCF) and precedent-transaction ranges but exceeds both comparable-company ranges. Differences between peer medians and adviser-selected multiples further demonstrate the importance of input choices. The findings support a conditional interpretation of the offer: several valuation benchmarks accommodate it, but they do not establish a positive buyer return. Recommendations emphasize testing forecast sustainability, evaluating net synergies separately and negotiating closing risk alongside price. The study is limited by reliance on management forecasts and disclosed adviser equity ranges, without a complete independent per-share reconstruction.

***Keywords:*** Mergers and acquisitions, acquisition pricing, discounted cash flow, comparable company analysis, synergies

## 1. Introduction

Microsoft announced in January 2022 that it had agreed to acquire Activision Blizzard for $95 in cash per share [1]. The central valuation question is whether the target's expected future benefits could justify that price. Activision Blizzard's game franchises, development capabilities, intellectual property and player relationships generate earnings through new releases, in-game purchases, subscriptions and continuing user engagement. Estimating the associated cash flows makes Microsoft's strategic rationale financially testable rather than merely descriptive.

However, an acquisition involving attractive assets can still produce a poor return for the buyer if the seller captures too much of the anticipated benefit. The premium over Activision Blizzard's unaffected market price must therefore be distinguished from the amount paid above its estimated standalone value. Forecast operating improvements should also be allocated consistently so that they

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are not counted in both the standalone valuation and the synergy estimate. Similarly, post-transaction earnings accretion does not, by itself, demonstrate economic value creation because accounting earnings may not reflect the acquisition's full cost or risk [2].

Research concerning comparable-company selection and the estimation of capital costs demonstrates that valuation inputs require considerable professional judgment [3, 4]. This study investigates how such choices affect the assessment of a single transaction by connecting operating forecasts, terminal-value assumptions and comparable-company multiples. Its contribution is a transparent and reproducible comparison within the Microsoft–Activision Blizzard case, rather than a general explanation of acquisition outcomes.

The analysis reconstructs the transaction's signing-stage pricing using a discounted cash-flow valuation date of 31 December 2021 and management forecasts prepared during negotiations but disclosed subsequently. It independently estimates Activision Blizzard's enterprise and equity values and separately compares the financial adviser published per-share valuation ranges with Microsoft's offer. Information arising from the later completion of the transaction is excluded from the original model inputs to avoid hindsight bias.

The paper first reviews relevant acquisition and valuation literature, then explains three valuation methods and applies them to Activision Blizzard. It concludes with recommendations for both buyer and seller, followed by the study's conclusions, limitations and directions for further research.

## 2. Literature review

### 2.1. Acquisition motives

Common motives for acquisitions include achieving synergies, expanding market presence and obtaining resources that are difficult to develop internally. A useful starting point is to distinguish the economic benefits of combining businesses from the reasons managers pursue a transaction. Existing research challenges explanations based exclusively on efficiency and highlights the roles of private information, managerial expansion, and organizational decision-making processes [5]. This distinction prevents a stated strategic ambition from being treated as evidence that the proposed price will create value. Cost synergies may arise when firms remove duplicated expenditure, whereas revenue synergies depend on additional sales, improved distribution, or complementary resources. A broader market presence may improve access to customers, but its value depends on incremental margins rather than size alone. Synergies require comparison with what the firms could achieve independently; purchasing an existing revenue stream does not itself create an incremental benefit. The process used to identify these gains also matters. Some studies show how established valuation routines can direct attention towards functional savings while giving less attention to business-model and strategic opportunities [6]. Their evidence concerns the formation of synergy estimates, rather than the probability that a particular acquisition will succeed. For valuation, the implication is to describe each proposed benefit through an observable mechanism, specify when it might emerge, and identify the investment needed to obtain it. Motives then become assumptions that can be examined in a cash-flow model, while managerial incentives provide alternative explanations when a strategic narrative is stronger than the supporting financial evidence.

### 2.2. Acquisition structures

Acquisition structure determines how businesses are combined and how payment, ownership, and completion risks are distributed between the parties. Business relationships provide one dimension:

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horizontal acquisitions combine competing or related activities, vertical acquisitions connect different stages of production or distribution, and diversifying acquisitions extend the buyer's operating scope. These categories identify possible sources of value, but a transaction can contain several relationships and therefore several mechanisms requiring separate evaluation. Payment provides another dimension. A fixed cash offer specifies the nominal amount payable per share if the transaction closes on the agreed terms, while stock consideration leaves the seller exposed to the value of the shares received. Neither arrangement removes the uncertainty between agreement and completion. Payment choices can also respond to accounting incentives. Existing research finds that attention to earnings per share affects deal structure, acquisition premiums, and target selection, demonstrating that the chosen form of consideration cannot automatically be interpreted as evidence of operating efficiency [2]. Organizational integration adds a further distinction: acquiring ownership does not determine how extensively functions, systems, or teams should be combined. Research linking integration to the type of operating synergy illustrates why this decision needs its own analysis [7]. At the same time, these dimensions require the analyst to separate the assets being acquired, the consideration offered, and the operating changes proposed. That separation helps connect contractual arrangements to cash-flow assumptions without treating the transaction's legal completion as the achievement of its economic objectives.

### 2.3. Evaluation criteria

Acquisition performance should be assessed through economic value, with the expectations supporting an offer distinguished from the outcomes observed after completion. For the buyer, the relevant question is whether additional benefits from control improvements and combination cover the amount paid above standalone value and the costs of completing and integrating the transaction. Improvements already included in the standalone forecast must not be counted again as acquisition benefits. This comparison also distinguishes value creation from its distribution: a productive combination can still leave the buyer with an inadequate return if the seller receives most of the gains through the price. Accounting indicators address a narrower question. Research on EPS sensitivity associate earnings-focused decisions with changes in financial and investment policies, so earnings accretion alone cannot establish a positive acquisition net present value [2]. Subsequent assessment should examine operating outcomes against the assumptions that justified the offer. Some researchers relate integration and synergy emphasis to performance measured through changes in EBITDA margins and revenue growth [7]. Their manufacturing, wholesale, and retail sample also limits direct application to businesses whose value depends heavily on intangible resources. Consequently, an observed increase in revenue should be examined alongside investment requirements, integration expenditure, and a reasonable estimate of performance without the acquisition. These comparisons allow forecast delivery, operating improvement, and returns on the price paid to be evaluated separately, keeping an attractive announcement, successful completion, and satisfactory investment performance from becoming interchangeable definitions of success.

### 2.4. Valuation discretion and disclosure

Valuation disclosures are most useful when they reveal how judgment enters the model, allowing the reader to examine both the information in an estimate and the incentives behind it. In comparable company analysis, peer selection is consequential because the chosen businesses determine the market multiples applied to the target. Existing research finds that advisers tend to select relatively large, fast-growing, high-multiple peer companies and that the selected multiples are associated with

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takeover premiums, suggesting that peer selection may influence price negotiations [3]. However, a high multiple does not establish that a peer is overpriced. Evidence suggests that selected peer companies may have stronger fundamentals and that their identification provides information about subsequent corporate outcomes that investors initially overlook [8]. These findings support investigating comparability rather than accepting or dismissing the adviser group as a whole. Discounted cash flow (DCF) requires similar scrutiny of its inputs. Empirical evidence indicates that investment banks' cost-of-equity estimates are associated with risk characteristics, including beta and firm size, although standard measures leave substantial variation unexplained [4]. Their findings illuminate estimation practice; they do not provide a transaction-specific weighted average cost of capital (WACC) or establish that unexplained variation is necessarily manipulation. A defensible comparison therefore preserves disclosed forecasts, peer observations, selected multiple ranges, and discount-rate assumptions as distinct inputs. Sensitivity analysis can then identify whether differences between DCF and market-based estimates arise principally from growth expectations, risk assessments, or peer selection, making the valuation range easier to interpret and reproduce.

## 3. Valuation methods

### 3.1. Discounted cash flow

Discounted cash flow estimates operating enterprise value by discounting free cash flow to the firm (FCFF) at the weighted average cost of capital, or WACC. Forecast-based valuations have been found to be broadly consistent with transaction values in a historical sample of highly leveraged transactions, although such evidence does not validate the forecasts used for this gaming acquisition [9]. Disclosed unlevered free cash flow (UFCF) for 2022–2026 incorporates operating taxes, working capital, capital expenditure, software development and restructuring [10]. Interest and principal repayments are excluded. Cash flows are assumed to occur at year-end, with a perpetuity-growth terminal value after 2026:

$$\mathrm{EV}_0 = \sum_{t=1}^{5} \frac{\mathrm{FCFF_t}}{(1+\mathrm{WACC})^t} + \frac{\mathrm{TV_5}}{(1+\mathrm{WACC})^5}, \tag{1}$$

$$\mathrm{TV_5} = \frac{\mathrm{FCFF_5} \times (1+g)}{\mathrm{WACC\text{-}g}}, \tag{2}$$

$$\mathrm{WACC} = \frac{E}{E+D} \times \mathrm{k_e} + \frac{D}{E+D} \times \mathrm{k_d} \times (1-T), \tag{3}$$

where $t$ runs from 1 for 2022 to 5 for 2026, and g is perpetual growth. $E$ and $D$ are market values of equity and debt; $k_e$ and $\mathrm{k_d}$ are their respective capital costs, and $T$ is the interest-tax-shield rate. The model adopts disclosed WACC and growth ranges of 6.50–8.00% and 2.25–2.75%, with midpoint assumptions of 7.25% and 2.50% [10, 11]. These are not independently estimated CAPM parameters. WACC must exceed $g$, and final-year cash flow must represent sustainable operations.

DOI: 10.54254/2754-1169/2026.AB39480

### 3.2. Comparable company analysis

Comparable company analysis (CCA) applies peer multiples to the target's corresponding forecast metric. This case uses valuation-date EV divided by calendar-year forecast adjusted EBITDA for Electronic Arts, Take-Two and Ubisoft [10, 11]. Some researchers find strong performance for forward earnings multiples, chiefly based on EPS; this does not establish the superiority of EV/EBITDA [12]. Metric choice therefore needs justification. EV and EBITDA both describe operations before financing, but adjusted EBITDA excludes stock compensation while the case UFCF charges it as a cost. Observed multiples, sample medians and adviser-selected ranges are reported separately, with forecast years and non-GAAP definitions held consistent.

### 3.3. Precedent transaction analysis

Precedent transaction analysis uses acquisition EV divided by EBITDA for the latest twelve months at announcement. Acquisition prices may incorporate control, buyer-specific synergies and negotiated terms, so their interpretation differs from listed-company pricing. The case follows the disclosed pre-announcement transaction sample and selected multiple range [10, 11]. An additional uniform control premium would risk double counting.

### 3.4. Enterprise and equity value

EV must be adjusted for excess cash, non-operating assets, debt and other prior claims before calculating equity value. Options and restricted awards require consistent treatment in the equity bridge and share count. Annual weighted-average diluted shares used for EPS cannot replace valuation-date dilution. Independent results therefore stop at EV; the adviser's published per-share ranges are compared separately with $95.

## 4. Case analysis

Microsoft announced the acquisition on 18 January 2022. The $95 offer represented a 45.3% premium over the last unaffected closing price [1, 11]. Activision Blizzard reported 2021 GAAP revenue of $8.803bn and operating income of $3.259bn [13]. The announced $68.7bn transaction value incorporates net cash and is not common-equity consideration [1]. Completion occurred on 13 October 2023; the later accounting purchase price was $75.4bn, while UK clearance involved transferring certain cloud-gaming rights to Ubisoft [14, 15]. These later amounts and arrangements are distinct from the 2022 valuation inputs.

### 4.1. Acquirer motives

Microsoft sought additional Game Pass content and greater mobile exposure through King [1]. The economic benefit would depend on subscription retention, player spending and distribution costs. Additional subscription revenue could partly replace individual game sales, while development and integration spending would reduce net gains. Because these channels require separate incremental cash-flow estimates, the base DCF values Activision Blizzard independently; it does not assign an unsupported amount to Microsoft-specific synergies.

DOI: 10.54254/2754-1169/2026.AB39480

### 4.2. Target motives

Target shareholders could realize cash while giving up potential gains from continued independence. The board considered the offer's attractiveness alongside execution risk in achieving forecasts and industry competition [11]. These disclosures support a risk–return interpretation of the sale, rather than an inference of distress from the premium alone. Shareholders needed to consider both forecast delivery and closing uncertainty.

### 4.3. Model construction

Table 1 presents January 2022 management forecasts. Forecast revenue excludes certain GAAP deferrals, so it is not directly comparable with historical GAAP revenue [10]. UFCF already treats stock compensation as an economic cost and accounts separately for software development and amortization; these adjustments must not be repeated.

Table 1. Management forecasts

| USD million | 2022E | 2023E | 2024E | 2025E | 2026E |
|---|---|---|---|---|---|
| Revenue | 8,625 | 10,605 | 11,125 | 12,237 | 12,604 |
| Adjusted EBITDA | 3,552 | 4,403 | 4,973 | 5,266 | 5,546 |
| NOPAT | 2,321 | 3,076 | 3,518 | 3,761 | 3,974 |
| UFCF | 1,768 | 3,387 | 3,396 | 3,773 | 3,886 |

Revenue rises 22.96% in 2023, whereas UFCF rises 91.57% before growing only 0.27% in 2024. The $1.619bn UFCF increase comprises $755m higher after-tax operating profit (NOPAT), $225m less incremental working-capital investment, $107m lower software capitalization and $532m more software-amortization add-back.

At 7.25% WACC and 2.50% growth, forecast-period cash flows contribute $12.936bn and discounted terminal value contributes $59.094bn, giving EV of $72.030bn. Terminal value supplies 82.04% of EV. Table 2 shows that raising WACC to 8.00% at unchanged growth reduces EV by 14.00%. Separately, reducing every forecast cash flow and the terminal base by 10% gives EV of $64.827bn. These are conditional sensitivities, not probability estimates.

Table 2. DCF enterprise value sensitivity

| WACC / g | 2.25% | 2.50% | 2.75% |
|---|---|---|---|
| 6.50% | 81.47 | 85.91 | 90.94 |
| 7.25% | 68.94 | 72.03 | 75.47 |
| 8.00% | 59.69 | 61.94 | 64.42 |

### 4.4. Comparing values with the offer

Table 3 reports peer medians of 13.0× for 2022E and 12.0× for 2023E. Applying these to the target's same-year EBITDA yields EVs of $46.176bn and $52.836bn. The adviser-selected ranges imply midpoint EVs 21.15% and 14.58% higher, respectively. Selection therefore materially affects the result, although this difference alone does not establish overvaluation.

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Table 3. Trading EV to adjusted EBITDA multiples

| Company or benchmark | CY2022E | CY2023E |
|---|---|---|
| Take-Two Interactive Software | 19.1× | 15.6× |
| Electronic Arts | 13.0× | 12.0× |
| Ubisoft Entertainment | 8.4× | 7.3× |
| Sample median | 13.0× | 12.0× |
| Adviser-selected range | 13.5–18.0× | 12.5–15.0× |

Disclosed precedent multiples include 19.4× for Take-Two/Zynga, 27.4× for EA/Glu Mobile and 29.9× for EA/Codemasters, drawn from an 11-deal sample [10]. These three examples do not determine the chosen range. Applying the adviser's 14.0–20.0× range to target 2021E adjusted EBITDA of $3.615bn produces EV of $50.610–72.300bn.

Table 4 compares independently calculated EVs with the adviser's disclosed per-share ranges; the per-share figures are not conversions of this study's EVs [11]. The $95 offer is within the DCF and precedent ranges but exceeds the 2022E and 2023E CCA upper endpoints by 6.68% and 3.63%. Trading comparable provides weaker support, although differences in growth, accounting adjustments and control also affect the comparison. The gap cannot be labelled synergy value. Nor does inclusion within a disclosed range establish positive acquisition NPV for Microsoft, especially when terminal assumptions dominate the DCF.

Table 4. Valuation results and the offer

| Method | Calculated EV (billion) | Disclosed adviser range (billion) |
|---|---|---|
| DCF parameter grid | 59.69–90.94 | 84.73–123.87 |
| CCA 2022E selected multiples | 47.95–63.94 | 69.08–89.05 |
| CCA 2023E selected multiples | 55.04–66.05 | 77.93–91.67 |
| Precedent transactions | 50.61–72.30 | 72.40–99.49 |

## 5. Recommendations

### 5.1. Recommendations for the acquirer

An acquirer should set its maximum price from standalone value plus conservatively estimated net synergies, retaining a margin for execution uncertainty. The investment committee should challenge the sustainability of 2026 cash flow before approving a model in which terminal value contributes 82.04%. It should require the 8.00% WACC stress case, which lowers EV by 14.00% at unchanged growth, and a bridge explaining the 2023 UFCF jump, particularly software amortization and working capital [10, 11]. Game Pass and mobile benefits should be assessed separately, net of displaced game sales, development spending, and integration costs [1]. Each benefit needs an accountable manager, an implementation budget, and measurable milestones. After closing, actual cash generation should be compared with these commitments; transaction completion or earnings accretion alone should not establish success [2].

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### 5.2. Recommendations for the target

Target directors should assess the cash offer against credible independent operating outcomes, rather than relying on the premium over the unaffected share price. They should request an explanation of why the adviser's selected multiples exceed the observed peer medians and document the business differences supporting that judgment [3, 10, 11]. Forecast discussions should distinguish operating improvement from changes in software amortization and working capital. Directors should also compare the offer under different closing dates and failure scenarios, including the costs of retaining key employees during the waiting period [11]. This would make the recommendation more transparent by showing both the value surrendered through selling and the uncertainty shareholders avoid.

## 6. Conclusion

The case supports a qualified judgment regarding the fairness of the transaction price. Microsoft's $95-per-share offer falls within the financial adviser's discounted cash flow and precedent transaction valuation ranges but exceeds the ranges derived from comparable listed companies. This contrast demonstrates that conclusions about pricing depend heavily on the selected valuation method and its underlying assumptions. The independent calculations also reveal considerable sensitivity to terminal growth, the sustainability of management's forecasts, discounting assumptions, and the selection of valuation multiples. Consequently, the offer's inclusion within one published valuation range does not necessarily establish that Microsoft paid a reasonable price or retained positive incremental value. A price may be financially acceptable to Activision Blizzard's shareholders while still transferring a substantial proportion of the expected synergies to the seller.

Several limitations restrict the conclusions that can be drawn. The reconstruction relies on management forecasts disclosed after the transaction was signed, although the forecasts themselves were prepared during the negotiation process. It does not independently estimate the weighted average cost of capital or fully reproduce the adviser's bridge from enterprise value to equity value. In addition, the disclosed comparable-company sample contains only three listed peers, limiting the reliability and representativeness of the resulting multiples. The EBITDA measure used in the comparable-company analysis excludes stock-based compensation, whereas the DCF forecasts treat this item differently, reducing comparability across methods. Most importantly, the analysis does not independently value net synergies or integration costs. It therefore cannot determine Microsoft's acquisition net present value or establish whether the transaction created value for its shareholders.

Future research should compare projected and realized cash generation using consistent accounting definitions while distinguishing Activision Blizzard's standalone operating performance from post-acquisition integration effects. A broader sample of acquisitions could also examine whether adviser-selected peers systematically predict pricing differences or takeover premiums. Where sufficiently detailed operating information is available, future analysis could estimate net synergies explicitly by modelling subscription retention, player engagement, displaced game sales, development expenditure, platform distribution savings, integration costs, and changes in licensing arrangements. Such evidence would provide a stronger basis for assessing how the transaction's strategic benefits were divided between Microsoft and Activision Blizzard shareholders.

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